"Making a Difference" Giving Back to Our Community





Teen Driver Safety

the Transportation Engineering Perspective



Credentials

- Who are we?
 - Lincoln-Omaha-Council Bluffs Association of Transportation Engineers (LOCATE)
- What do we do?
 - Design roads and improve traffic flow
 - Safety improvements



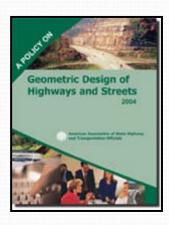


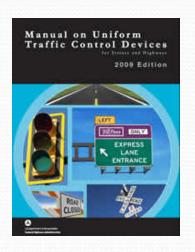


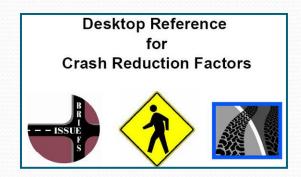


Credentials, cont.

- Why are we here?
 - Encourage safer habits & choices / raise awareness
 - Reduce crashes
 - The highway system won't work if drivers don't do their part



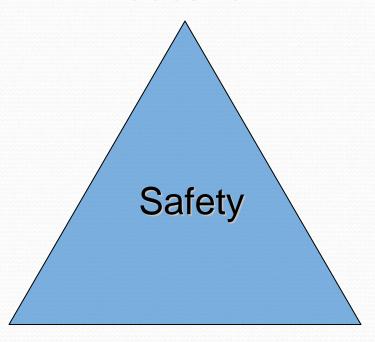






3 E's of Traffic Safety

Education



Engineering

Enforcement



Don't become a statistic

• approx. 40,000 crash deaths each year





Not Anonymous Deaths

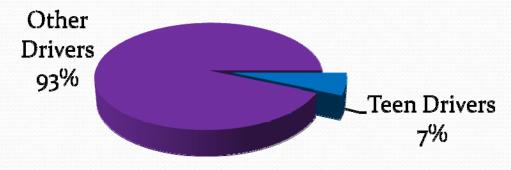
- Some of your classmates will die in a crash in 10 years
- Crashes are the leading cause of death for ages 15-24
 - Firearms is 2nd
 - Crashes also leading cause for ages 25-44 (cancer 2nd)

Source: CDC, National Vital Statistics Report

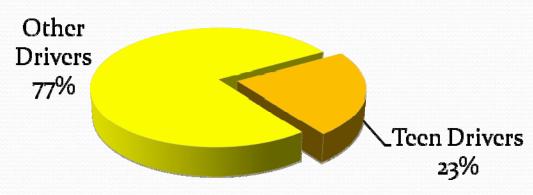


Teen Drivers are More At-Risk

Licensed Drivers in Nebraska



Crash Involvement

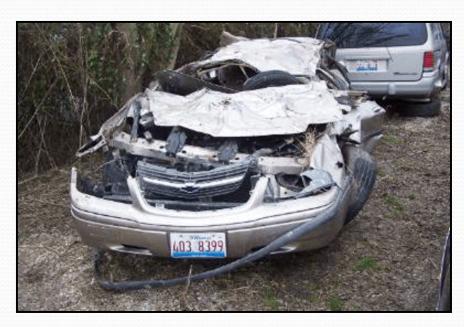


Source: Nebraska Office of Highway Safety, 2009



Why do people still die?

• Crash deaths **CAN** be prevented with easy choices







Three Easy Choices

- Seat Belts
- Distracted Driving
- Impaired Driving





Who wears their seatbelt?

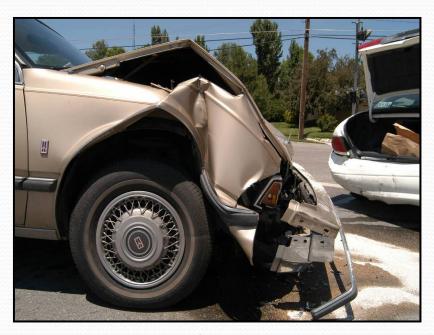
• In Nebraska in 2009, 68% of fatal crash victims were **NOT** using their seat belts



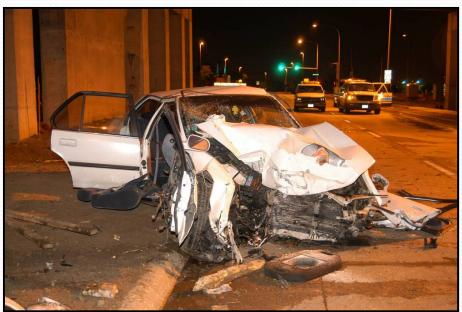
Source: Nebraska Office of Highway Safety -- DMV



Which crash was fatal?



- Low speed
- Middle-aged man
- Not buckled up



- ♦ High speed
- ♦ 4 teens
- ◆ Buckled up



Drive Cam Video





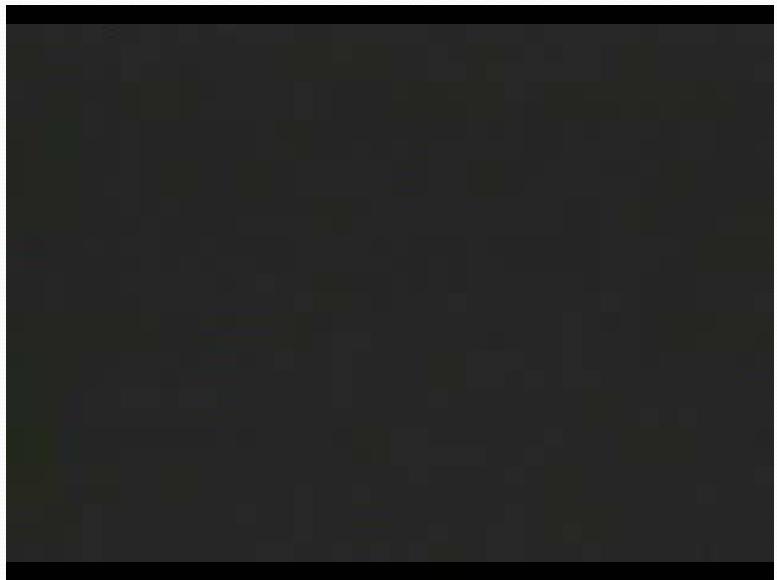
Why wear seat belts?

- Unexpected events
- Protect yourself
- Protect others





No Seatbelt – No Excuse





Causes of Fatalities

- Lack of Using Seat Belts
- Distracted Driving
- Impaired Driving



Distracted Driving





A distraction is anything that...

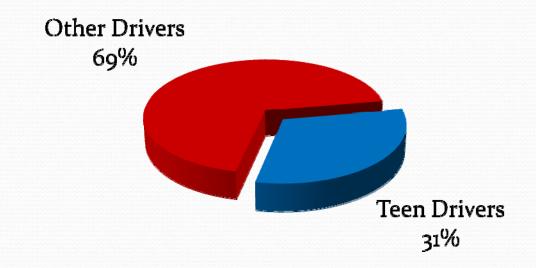
- takes your <u>hands</u> of the wheel
- takes your eyes of the road
- takes your mind off the task at hand



What's the Problem?

- Who drives?
- Who has a cell phone?

Crashes Involving Cell Phone Distraction

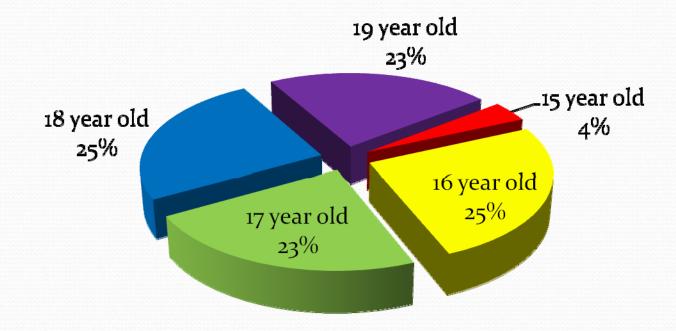


Source: Nebraska Office of Highway Safety -- DOR, 2009



Teen Cell Phone Crashes

All teen ages are equally bad drivers



Source: Nebraska Office of Highway Safety -- DOR, 2009

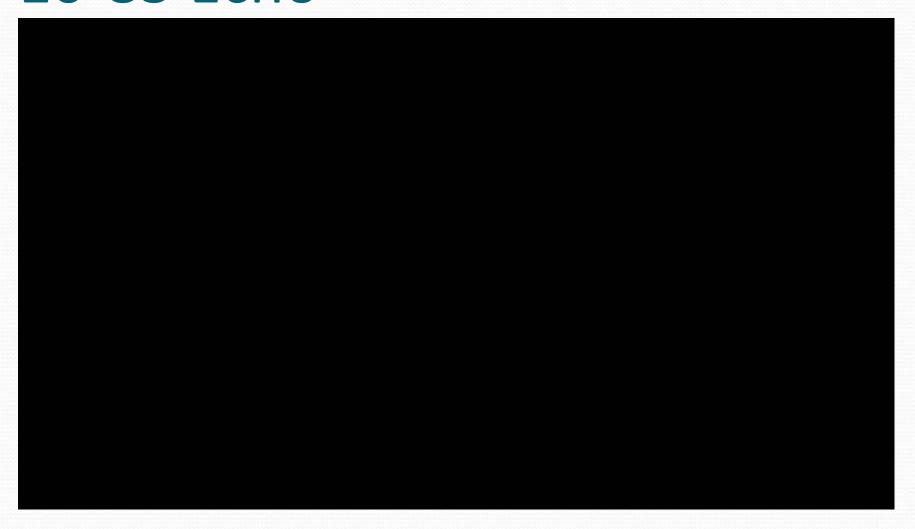


AT&T: The Last Text





10-85 Echo





Nebraska's Distracted Driving Law

- Enacted April 9, 2010
- Secondary Offense
- Fines
 - 1st Offense: \$200 plus 3 license points
 - 2nd Offense: \$300 plus 3 license points
 - 3rd and after: \$500 plus 3 license points

"Handheld wireless communication devices include, but is not limited to, mobile or cellular telephones, text messaging devices, personal digital assistants, pagers, or laptop computers."

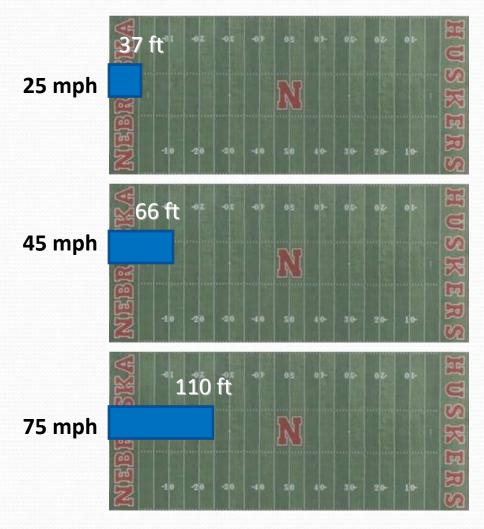


Mechanism of Destruction

More than "not paying attention"



After 1 second

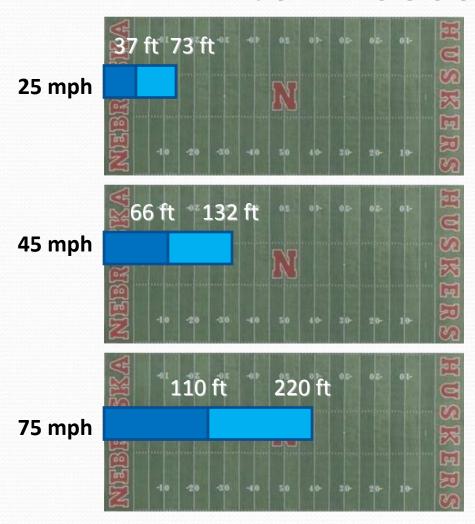


How far do you travel?

$$v = \frac{d}{t}$$



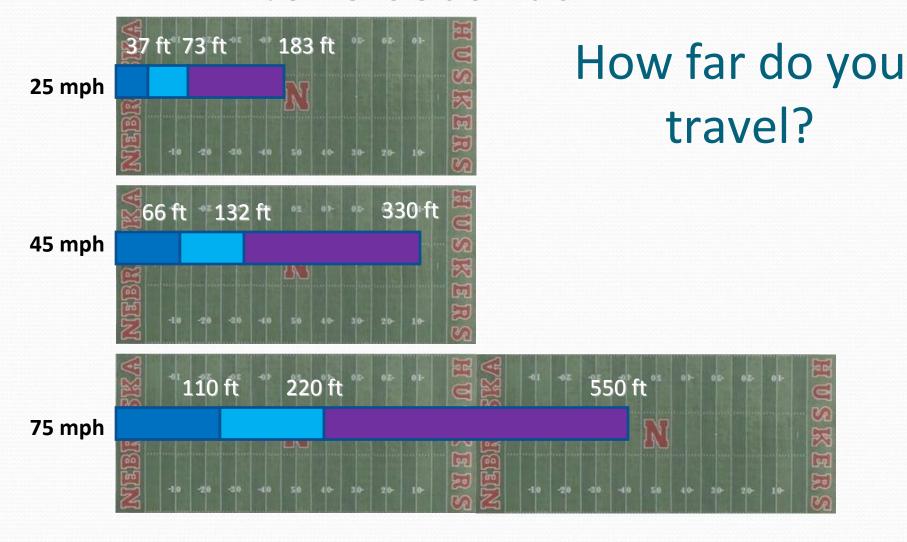
After 2 seconds



How far do you travel?



After 5 seconds





Stopping Sight Distance

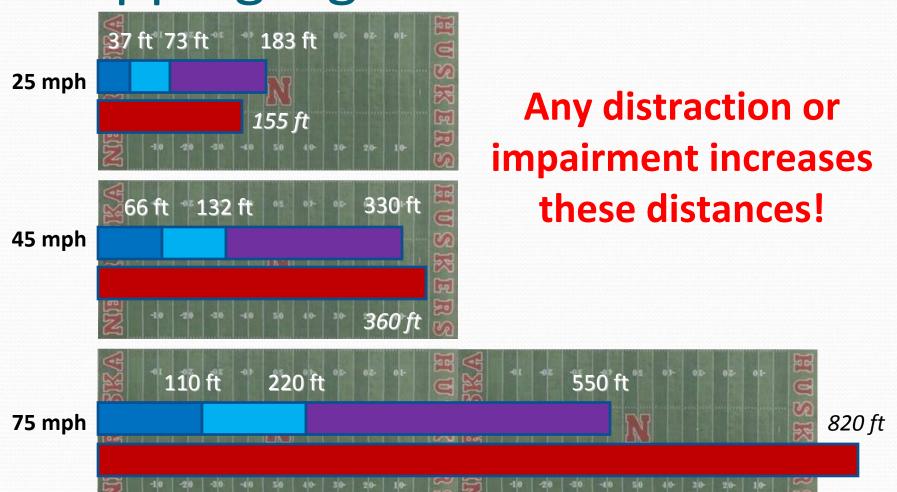
$$SSD = 1.47Vt + \frac{V^2}{30\left(\frac{a}{g} \pm G\right)}$$

Perception-Reaction Time

Braking Distance



Stopping Sight Distance





No text is that important

- Choose to avoid distractions
- Buckle up



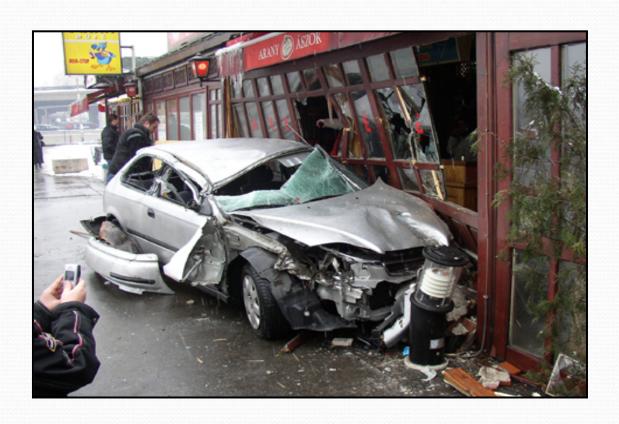
Causes of Fatalities

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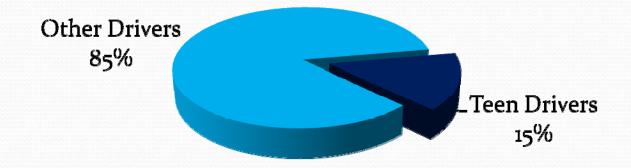
Impaired Driving

- Alcohol
- Drugs
- Fatigue





Alcohol-Related Crashes



- Should be lower!
- Under-age drinking happens
- If you drink, **DO NOT** drive
- Call your parents beats the alternatives

Source: Nebraska Office of Highway Safety -- DOR, 2009



Blood Alcohol Content

- Age 21 and over: 0.08 BAC
- Age 20 and under: Zero Tolerance





Impaired goggles



Green Strap: BAC = 0.04 - 0.06



Blue Strap: 0.06 - 0.08 Night



Black Strap: 0.08 - 0.15



Red Strap: 0.10 – 0.17 Twilight



Make A Difference!

- Wear your seat belt
- Keep your eyes and mind on the road
- Don't drink and drive





For more information

- www.dmv.state.ne.us/highwaysafety/index.html
- www.drivingskillsforlife.com
- www.zerofatalities.com
- www.deathbycellphone.org



MAD Campaign Statistics (9-14-11)

- 56 school visits
- 8 local high schools
- 4,860 students
- 20+ volunteer presenters (LOCATE members)









MAD Results

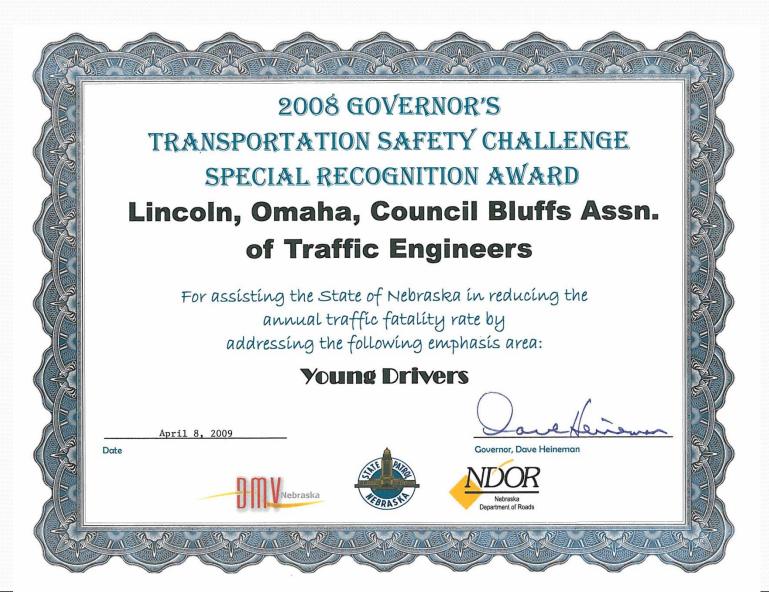
"I have been meaning to send you a note for some time now. I wanted to thank you so much for showing the driving safety video in class. Ashley said it was pretty a pretty graphic movie and I hope you didn't get a lot of grief from other parents for that. I think these kids are old enough to deal with reality. I have to say that prior to watching the video the only times our seatbelts were ever worn was maybe when we were on the interstate or Ashley was practicing driving. There were even times when she was driving that I caught her trying to text!!!

But let me tell you that since that movie she will not allow ANYONE to get in our vehicle with out buckling up and she won't even let me answer the phone while I'm driving! It has already become a habit to buckle up when we get in the car and even though she has not received her license yet, I know that when she does she will continue to buckle her seatbelt and I hope she will always remember the images of that movie and doesn't let her cell phone distract her for a second! Thank you from the bottom of my heart for showing that video, I hope you show it to every class you teach at LHS! You are saving lives and will probably never know it!"

~ Lincoln High School parent



MAD Results





Questions?

• Contact Information:

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