Prevalence of Pedestrian and Driver Distraction and Risk of Associated Traffic Conflicts

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2013-2017

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Distracted Driving & Pedestrian Safety

2018 Distraction-Affected Crashes:
- 2,841 fatalities
- 400,000 injuries

Drivers using hand-held devices (NOPUS, 2018)
- 1.7% in 2013
- 2.1% in 2018
- 3.9% of drivers 16-24 years old

When texting:
- Eyes off the road an average of 5 sec
- 5 seconds = 100 yards at 55 mph
In 2018, in the U.S.:

- 421.7 million mobile devices (1.3 per person)
- 284.7 million smartphones
- 5.48 billion messages per day

(CTIA, 2019)
Increasing Cell Phone and Data Use

Annual minutes, messages and megabytes of wireless traffic (Billions of MOUs/Messages/MB)

The Mix of Minutes, Messages and MBs Changes – Data Dominates
Study Design
Results
Preliminary Results

Distracted Pedestrians:
- Over 2/3* of pedestrians
- They walk slower
- Stay in the lines better
- Prevailing distractors**: Other People, Cell Phone, Media Player

Distracted Drivers:
- Almost half* of all drivers
- 66+ year olds less distracted
- Truck, van, and SUV drivers more distracted
- Prevailing distractors**: Other People, Cell Phone

* If “other people” included. Distraction drops to about half (peds) or 1/3 (drivers) if other people excluded.
** Distractors included: other people, cell phone, eating/drinking, media player, reading, tablet computer, GPS device, and “other”
Statistical Models Predicting Traffic Conflicts

**Full Model (risk increase)**
- For distracted pedestrian
- For distracted driver
- For ped ages 26-35
- For ped weaving path

**Best Model (risk increase/decrease)**
- If pedestrian & driver *both* distracted
- If crossing at the back of a group
- If vehicle is an SUV
- If the pedestrian is weaving
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