

# 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:

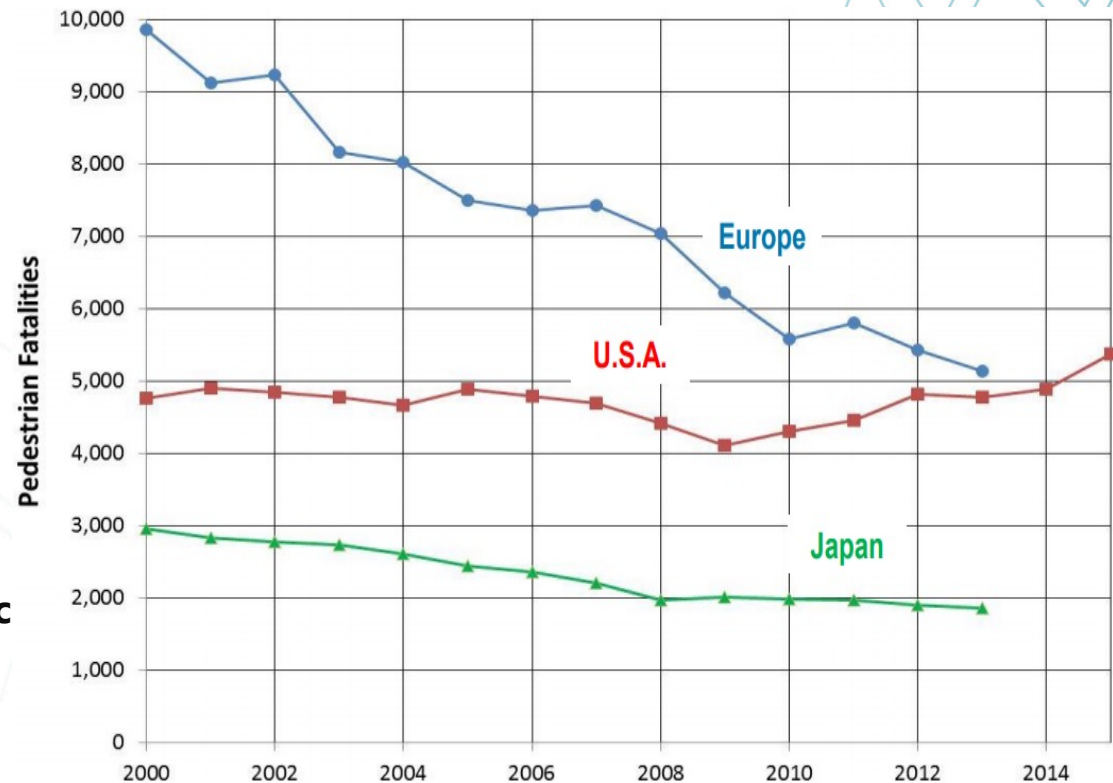
- 2,841 fatalities
- 400,000 injuries

## Drivers using hand-held devices (NOPUS, 2018)

- 1.7% in 2013
- 2.1% in 2018
- 3.9% of drivers 16-24 years old

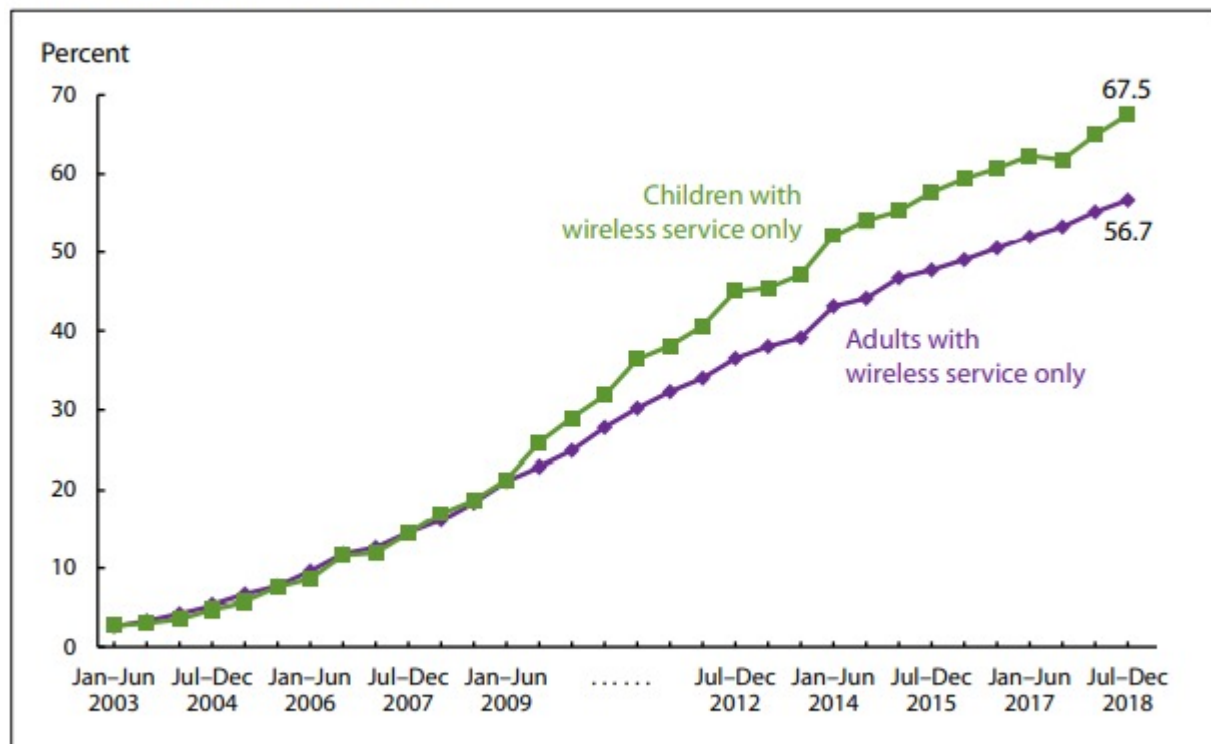
## When texting:

- Eyes off the road an average of 5 sec
- 5 seconds = 100 yards at 55 mph



# Increasing Cell Phone and Data Use

**Figure. Percentages of adults and children living in households with only wireless telephone service: United States, 2003–2018**



NOTE: Adults are aged 18 and over; children are under age 18.

SOURCE: NCHS, National Health Interview Survey.

**In 2018, in the U.S.:**

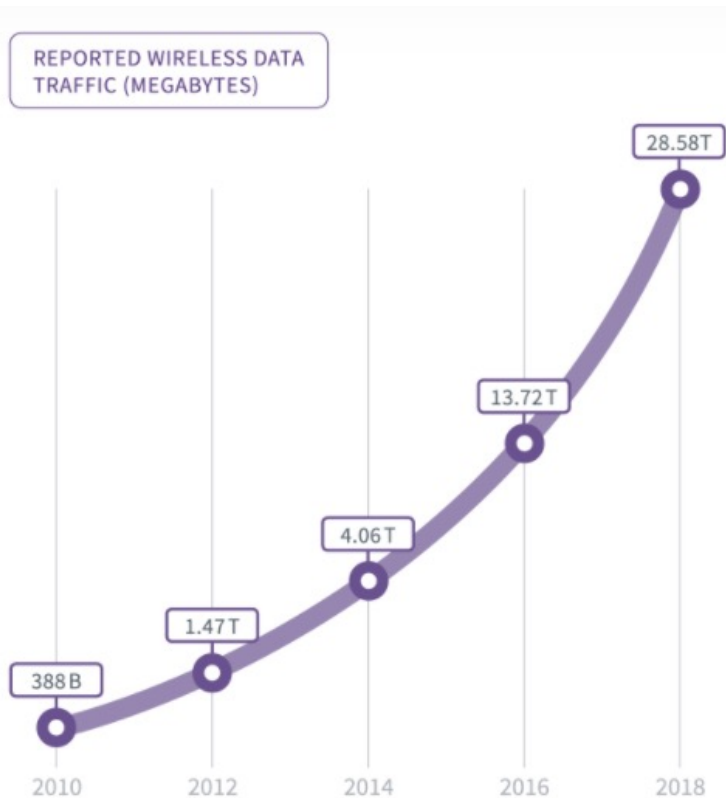
- **421.7 million mobile devices (1.3 per person)**

- **284.7 million smartphones**

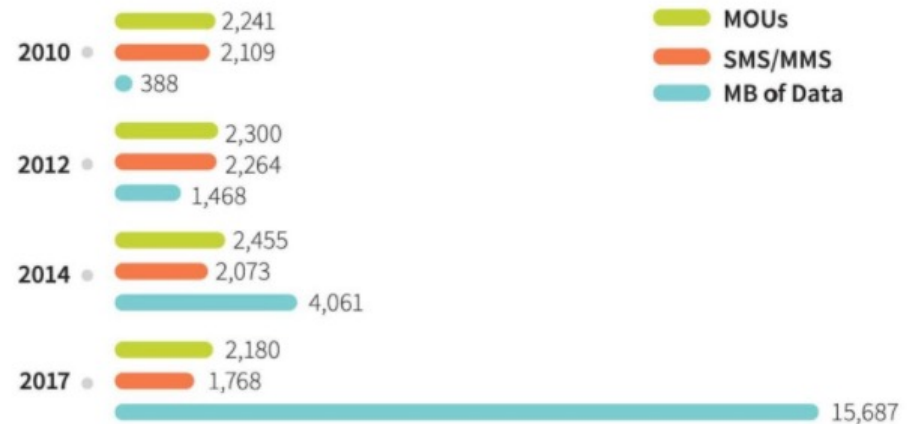
- **5.48 billion messages per day**

**(CTIA, 2019)**

# Increasing Cell Phone and Data Use

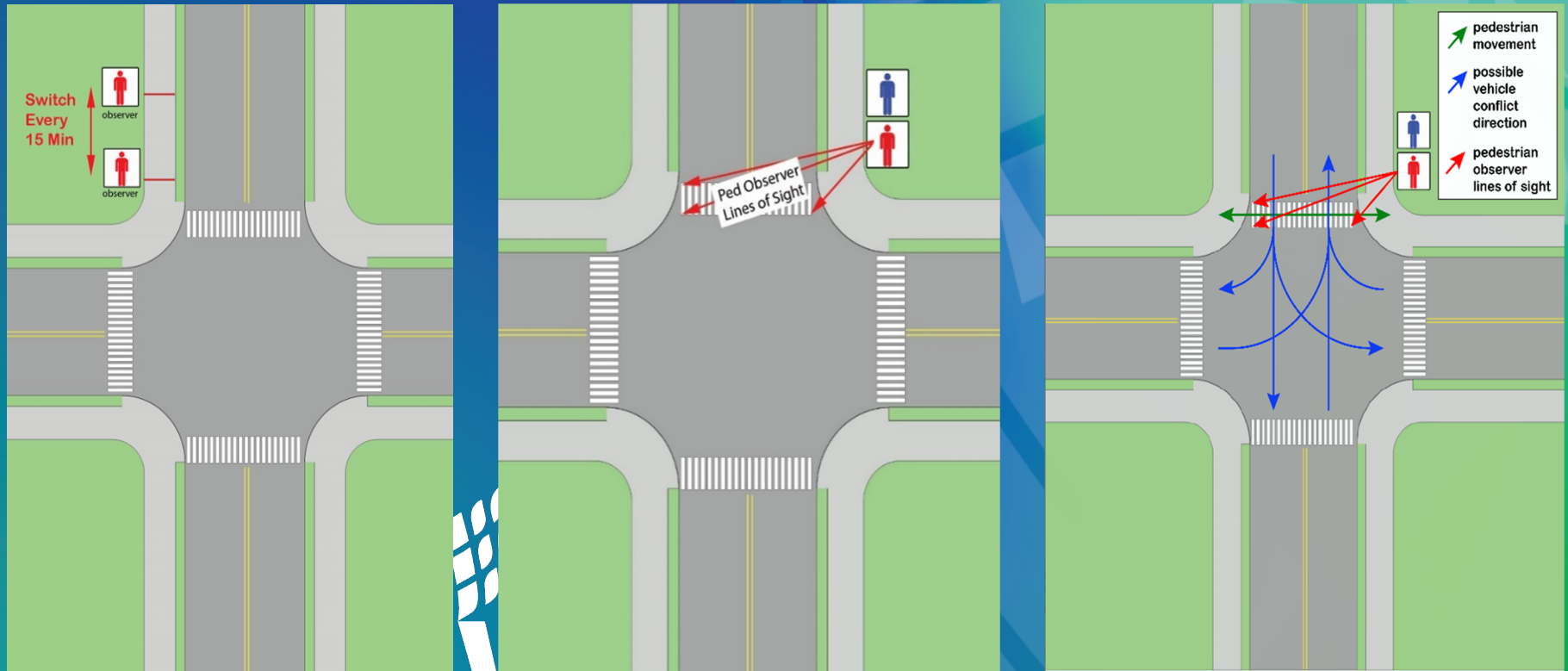


Annual minutes, messages and megabytes of wireless traffic (Billions of MOUs/Messages/MB)



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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