

[https://www.mass.gov/info-details/learn-about-speed-management#what-is-speed-management?-](https://www.mass.gov/info-details/learn-about-speed-management#what-is-speed-management?)

“Every mph matters: each 1 mph increase that a person drives can be attributed to a 3% increase in potential loss of life.” (Source: <https://www.mass.gov/safe-speeds>)

- If a pedestrian is hit by a person driving at:

20 MPH



18%

likelihood of
fatality or
serious injury

- Pedestrian Survives the Collision without Serious Injury
- Results in Pedestrian Fatality or Serious Injury



30 MPH



50%

likelihood of
fatality or
serious injury



40 MPH



77%

likelihood of
fatality or
serious injury

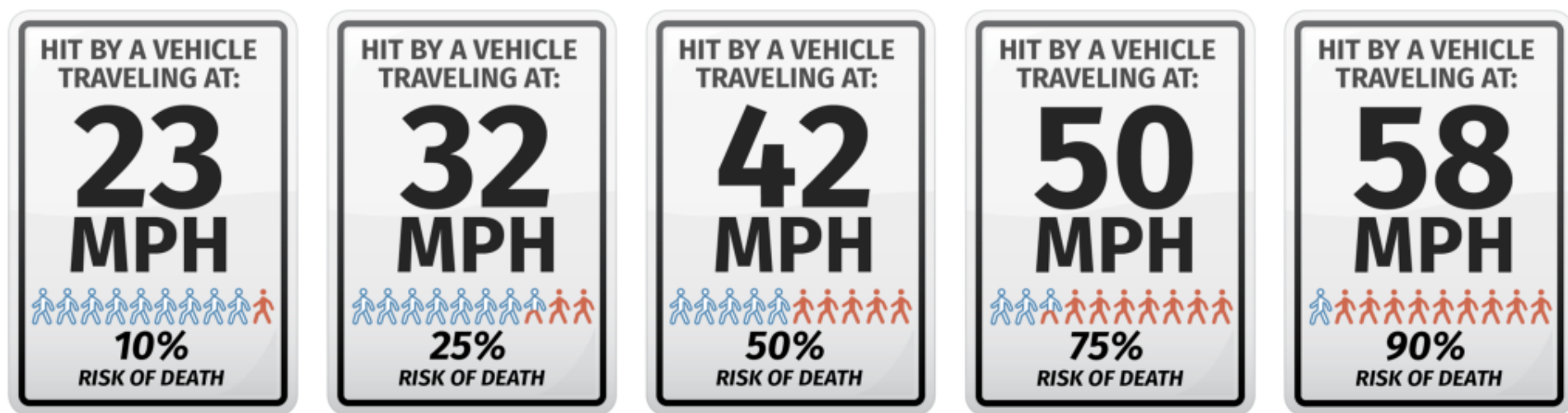


Source: Impact Speed and a Pedestrian's Risk of Severe Injury or Death,
Brian Tefft, AAA Foundation For Traffic Safety, 2011

massDOT
Massachusetts Department of Transportation

<https://www.mass.gov/info-details/learn-about-speed-management#what-is-speed-management?>





Source: U.S. Department of Transportation, <https://www.transportation.gov/NRSS/SaferSpeeds>

Probability of death for a pedestrian hit by a vehicle

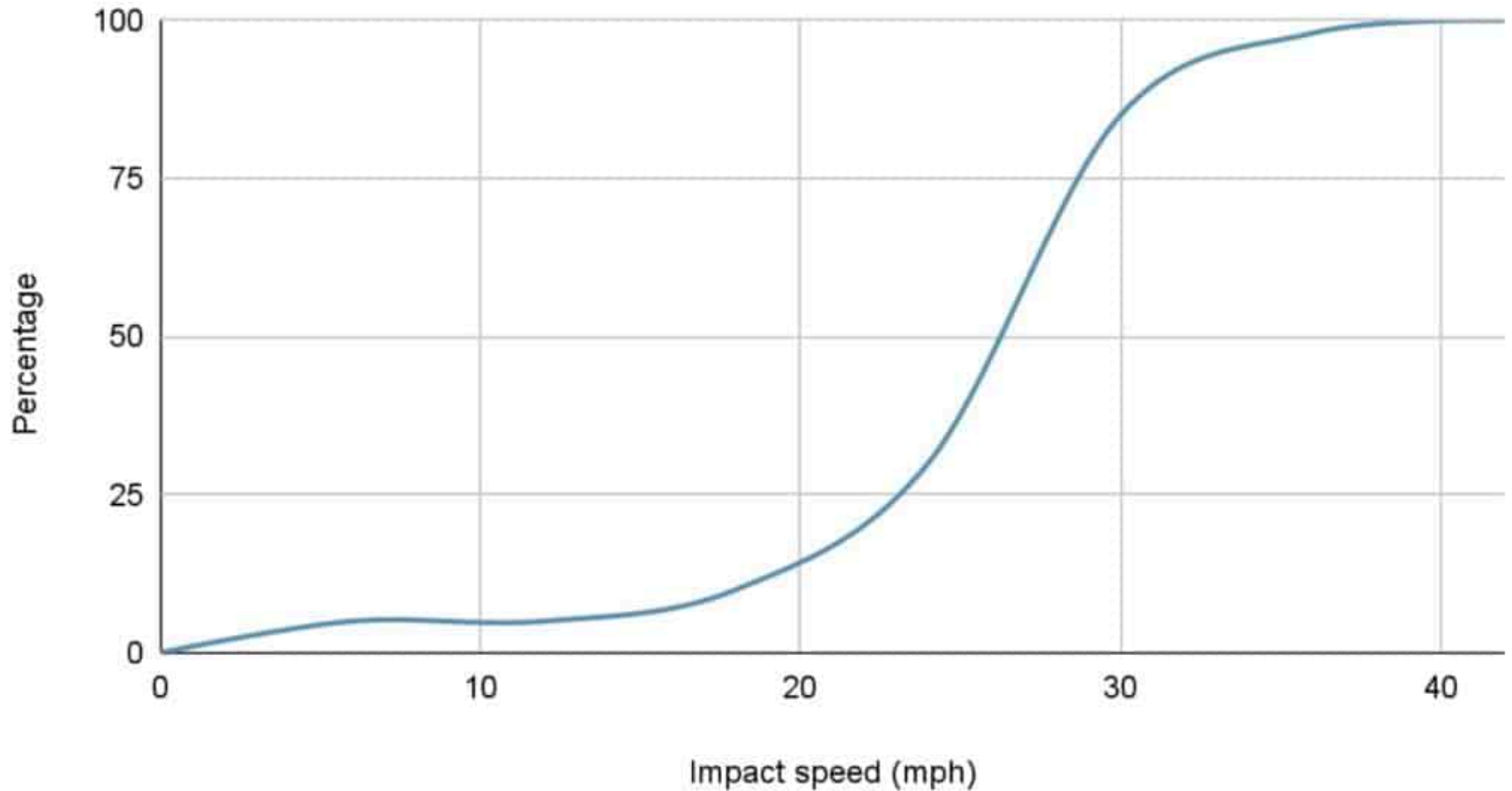
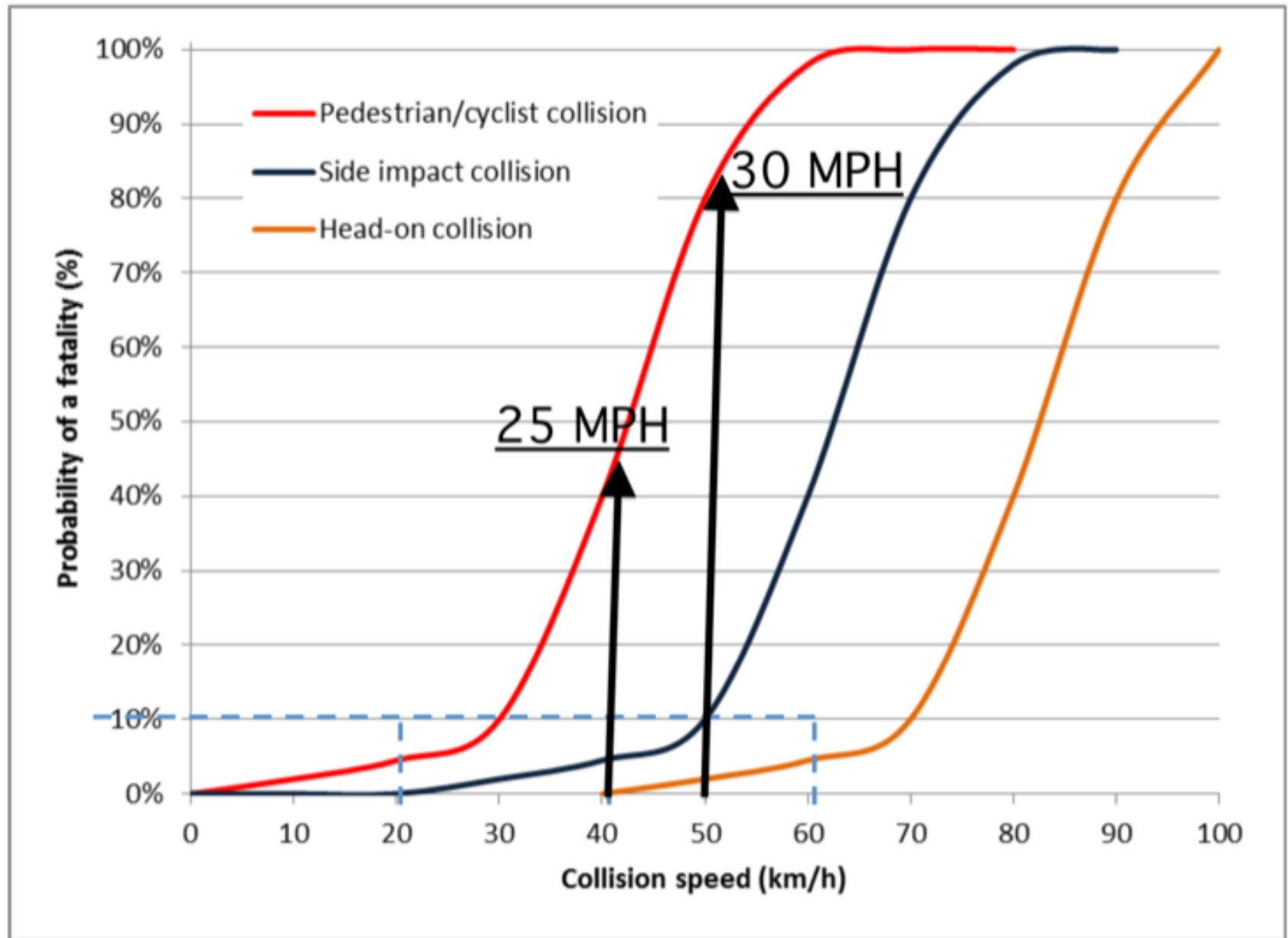
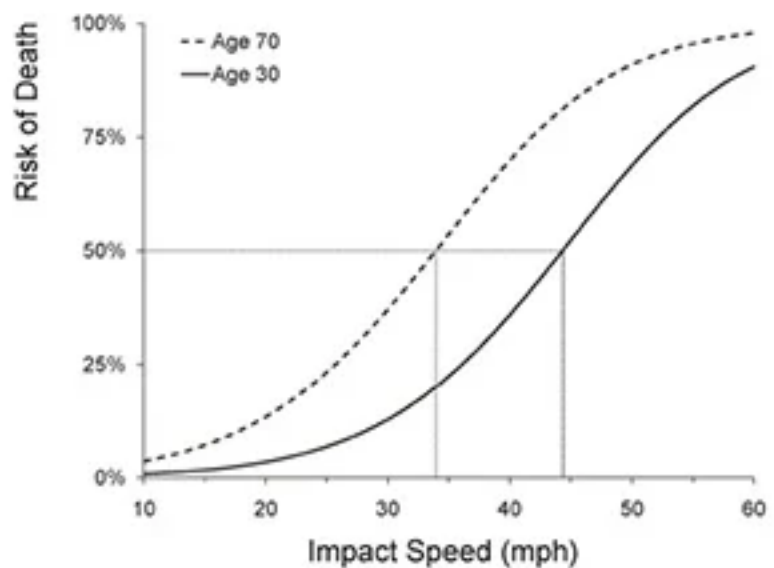
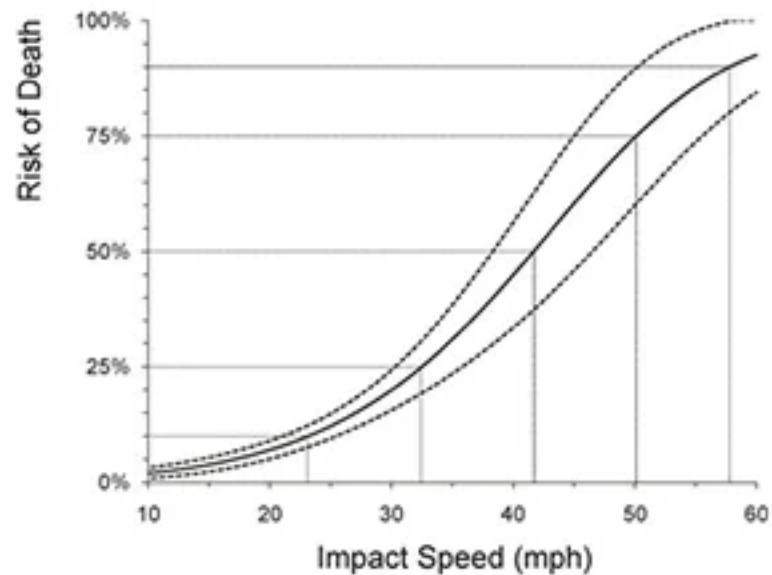


Figure 1. Wramborg's model for fatality probability vs. vehicle collision speeds



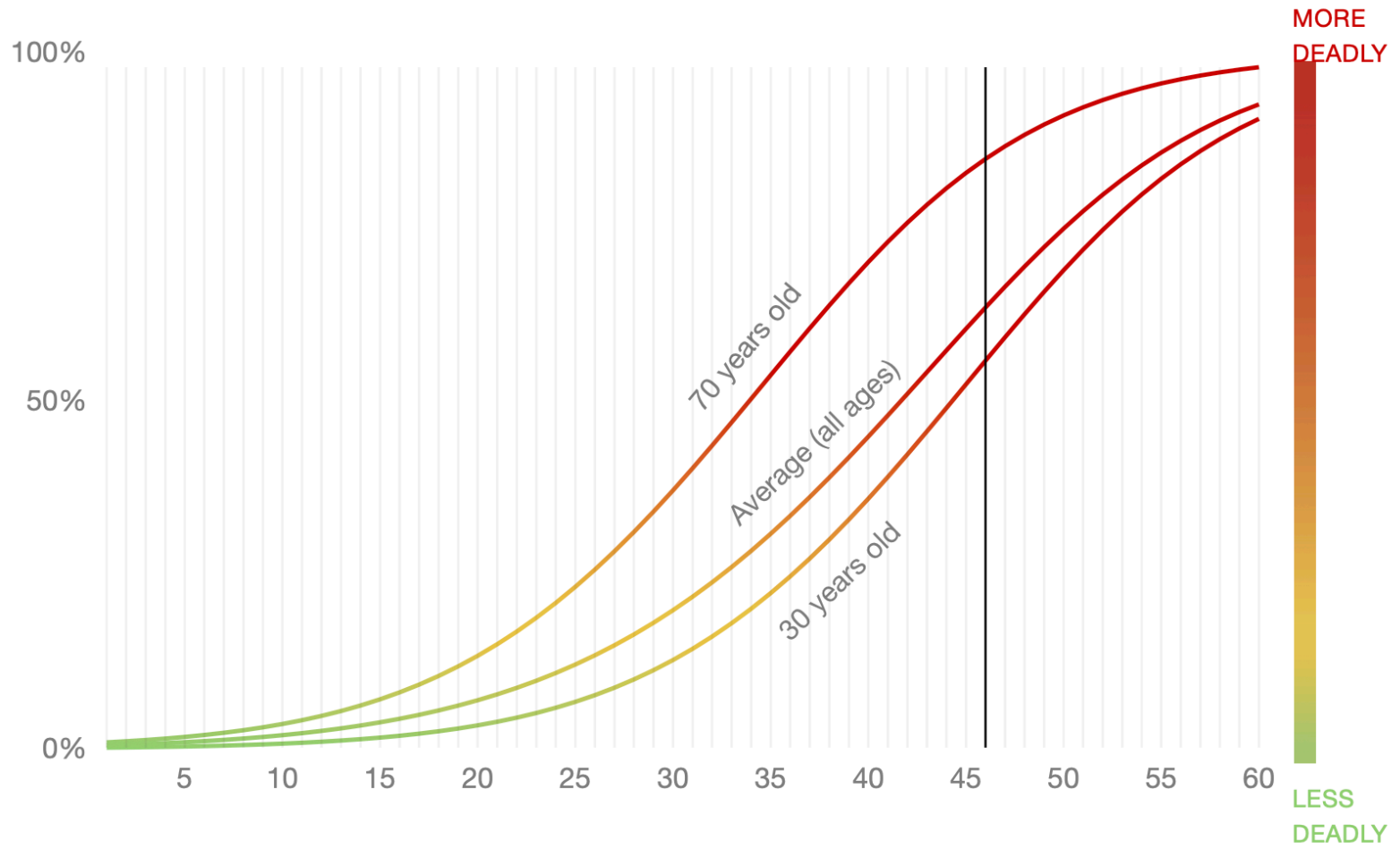
Source: based on Wramborg (2005).



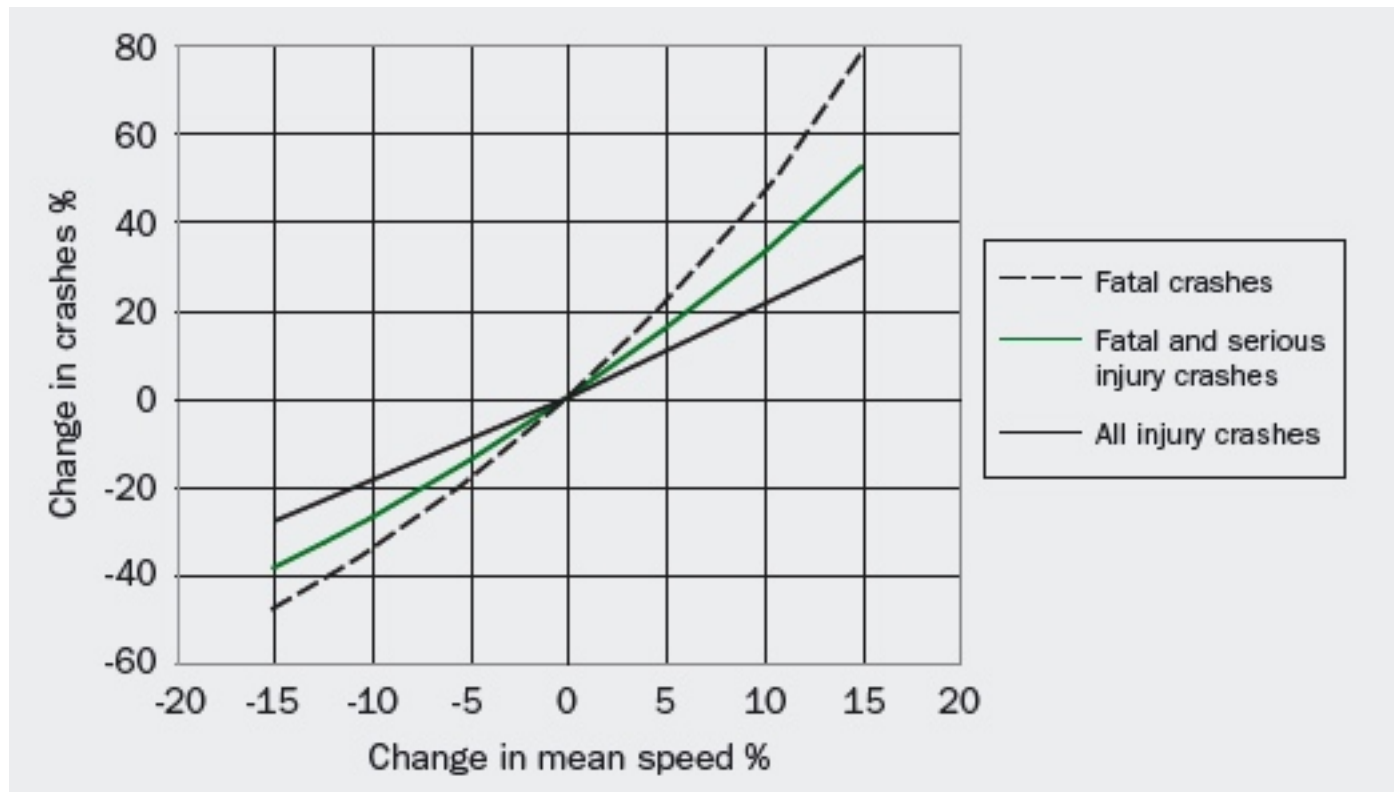
Risk of death for pedestrians struck by a car or light truck. Average risk across all ages with the dotted line representing 95% confidence intervals (left). Average risk for pedestrians ages 30 vs. 70 (right). Source: [AAA](#)

The Chance of Being Killed by a Car Going

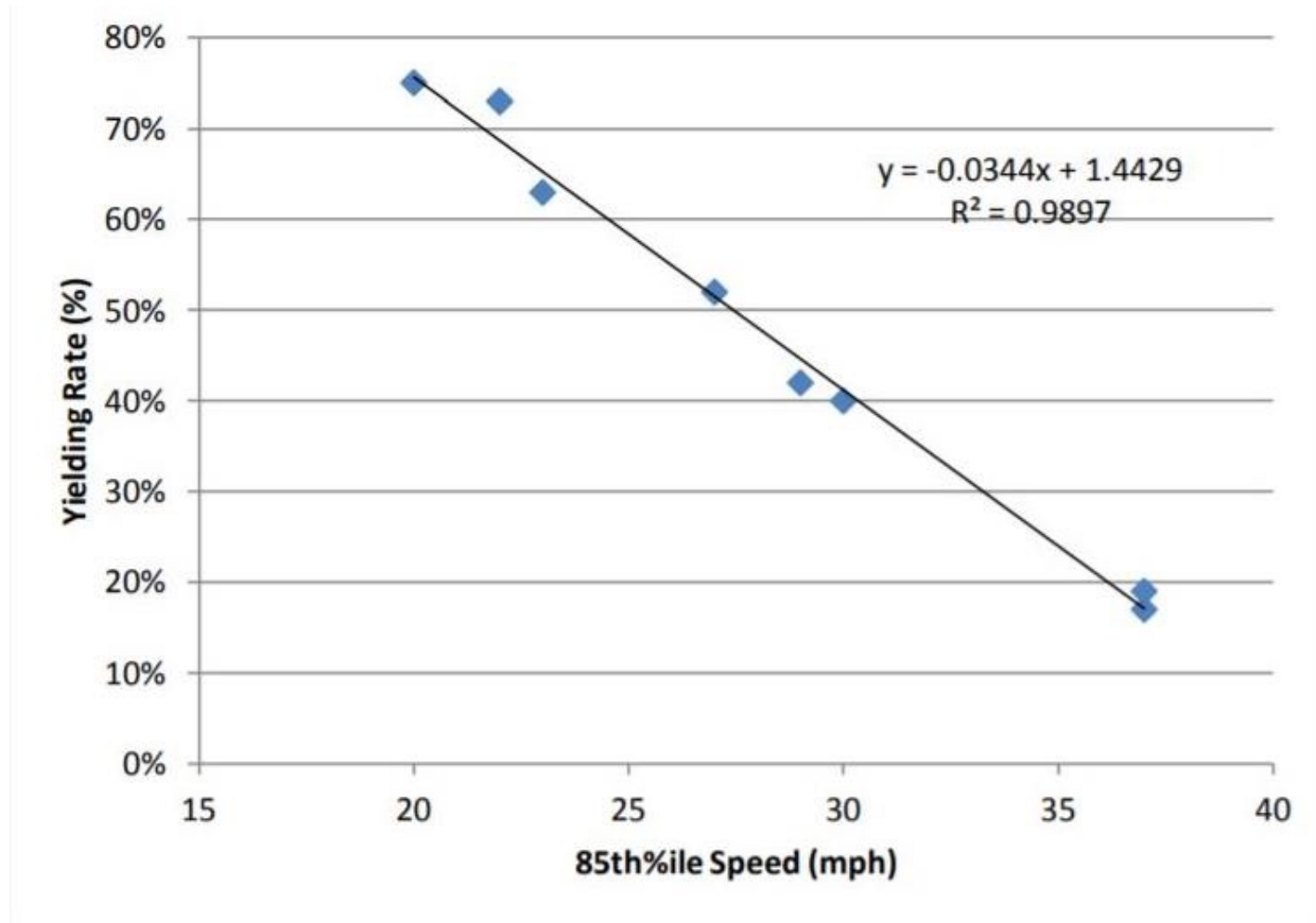
Roll over the curved lines to see the risk at any speed



<https://www.propublica.org/article/unsafe-at-many-speeds>



Nilsson, G. (2004). Traffic Safety Dimension and the Power Model to describe the Effect of Speed on Safety. Lund Institute of Technology, Sweden.



Effect of motor vehicle speeds (measured as the 85th percentile speed) on yielding to pedestrians in marked crosswalks

Bertulis, T., & Dulaski, D. M. (2014). Driver approach speed and its impact on driver yielding to pedestrian behavior at unsignalized crosswalks. *Transportation Research Record*, 2464(1), 46-51

TYPICAL STOPPING DISTANCES

AT DIFFERENT SPEEDS

