

## *Identifying Behaviors and Situations Associated with Increased Crash Risk for Older Drivers*

Stutts, J., Martell, C., & Staplin, L. (2009). *Identifying Behaviors and Situations Associated with Increased Crash Risk for Older Drivers*. Report No: DOT HS 811 093  
<http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/811093.pdf>

This report from the National Highway Traffic Safety Administration analyzed the most recent Fatality Analysis Reporting System, National Automotive Sampling System/General Estimates System data to identify specific driving behaviors that are performance errors as well as characteristics associated with crash involvement of older adults.

### **Some of the Results:**

- Drivers ages 60-69 have crash rates very similar to middle age drivers, except for daylight crashes are increased; probably due to the self restriction.
- The characteristics of merging, changing lanes, interstate highways, bad weather does **not** increase older driver risk; probably due to self-regulation.
- Higher older driver crash involvement is associated with high speed two lanes and multi-lane roads with speed limits for 40-45 (roads associated with small towns and suburban areas).
- Drivers ages 60-69 have **slight** elevation with
  1. Navigating intersections with flashing lights and
  2. Turning left at intersections with traffic signals.
- Drivers 70-79 have **increased** risk with
  1. navigating higher speed,
  2. multiple lane roadways (suburban) especially at junctions.
- Drivers 80 years and up are at **higher risk**:
  1. under a variety of conditions,
  2. for higher “at-fault” collisions, and
  3. when driving alone or with 1 other person.
- Who is **at fault** in a collision?
  - 60-69 years: Crash involvement ratio is 0.75, lower than average.
  - 70-79 years: Crash involvement ratio is 1.75, higher than average
  - 80 and above: Crash involvement ration is 4.0, very high
    - Out of 27 fatal crashes, 26 were errors at intersections with flashing signals or yield sign controlled intersection for 80 and up years (see Figure 9)
  - With older adults, they are most often in the vehicle struck by the other vehicle (crossing in a left hand turn).

### **Physicians: What can you do?**

- Recommend selecting routes that minimize or eliminate requirements for certain high demand maneuvers may be an effective behavioral countermeasure for older drivers.
- Encourage self regulation for exposure to risky situations
- Discuss driving with clients 70 years and up with the goal of retirement after 80 years.
- Recommend a driving evaluation after 80 years.

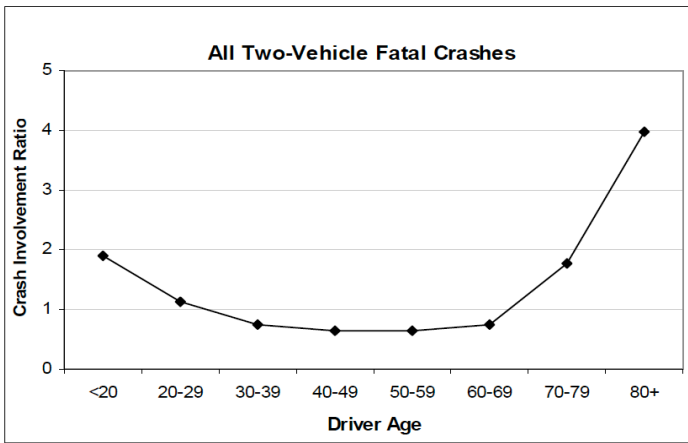


Figure 1. Overall two-vehicle fatal CIRs by driver age group.

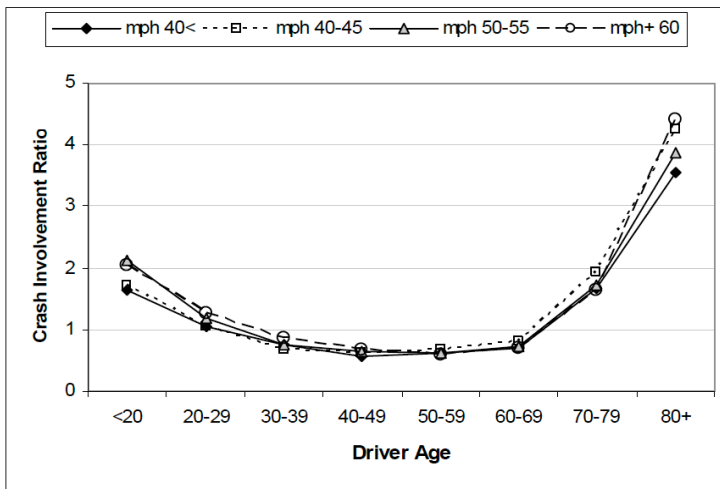


Figure 5. Two-vehicle fatal CIRs by roadway speed limit.

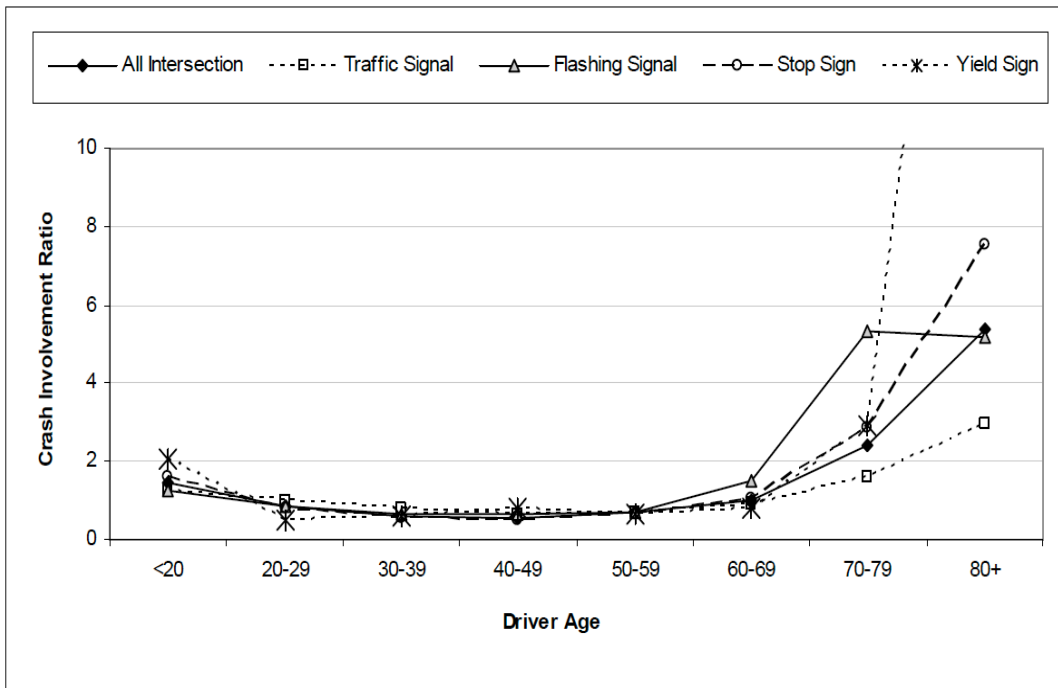


Figure 9. Two-vehicle fatal CIRs by intersection traffic control.