

Center for Transportation Analysis Research Brief Oak Ridge National Laboratory

Mobility and Safety of Our Aging Population

Center for Transportation Analysis (CTA) Research Areas

Aviation Safety

Air Traffic Management Analysis Data, Stalistical Analysis Geo-Spatial Information Tools Defense Transportation Energy Policy Analysis Environmental Policy Analysis Highway Safety Intelligent Transportation Systems Logistics Management Supply Chain Management Modeling and Simulation Transportation Operations Planning and Systems Analysis Transportation Security

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ur society is undergoing a major demographic transformation -*Aging of the population.* By 2050, the number of Americans 65 years and older will be more than double that in 2000.

Compared to 1995, a greater percentage of the older population in 2001 was licensed to drive. Furthermore, they drove more miles, spent more time in a vehicle, and took longer trips.



This transformation has significant transportation implications, one of which is that the highway fatality rate increases with age.



To provide a safer transportation system, it is essential to first understand the mobility patterns of the older population.

The older population continues to be more mobile than in the past.



💻 Miles driven 🛄 Minutes driving 🔶 % Drivers

The gender difference in the older population is marked. Although licensing *rates* are lower for women than for men, more older women are licensed to drive than older men.



Although the older population is becoming more mobile over time, their travel is still disproportionally less than their share of the population and of drivers. For example, older drivers in 2001 accounted for 14% of the total drivers. But their combined miles driven accounted for 9% of the total personal VMT.

On average, an older driver (more than 65 years old) drives shorter distances to places and spends 25% less time driving than a younger driver.

Based on these mobility patterns and other social-economic factors, it is projected that fatalities of older male drivers in 2025 would be almost triple that in 1995.



Projected Older Male Driver Fatalities

Limited data prevented a comprehensive analysis. However, based on available data,

ORNL estimates the contribution of different major factors toward the projected increases in fatalities. An understanding of what factor contributes to the projected increase, and by how much, could help decision makers prioritize activities and investments.

The growing size of the older population accounts for 82% of the projected fatality increase from 1995 to 2025, while the decreasing crash risk helps reduce the rate of increase by 33%.



Our research suggests that the increasing number of older population contributes significantly to the projected increase in highway fatalities involving older drivers. However, the crash risk is projected to decrease over time, helping reduce the rate of increase. The decreasing crash rate suggests that future older drivers and vehicles are "safer" in 2025 than those in 1995. This might be attributable to: (1) safer vehicles and roads, and (2) older drivers in the future would have more driving experience than today's older drivers – more research is needed!

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