

Keeping Baby Boomers Mobile: Preserving the Mobility and Safety of Older Americans

February 2012



AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS



Founded in 1971, [TRIP](http://www.tripnet.org)® of Washington, DC, is a nonprofit organization that researches, evaluates and distributes economic and technical data on surface transportation issues. TRIP is sponsored by insurance companies, equipment manufacturers, distributors and suppliers; businesses involved in highway and transit engineering and construction; labor unions; and organizations concerned with efficient and safe surface transportation.

Executive Summary

With the first wave of the Baby Boom Generation turning 65 in 2011, the number of older Americans and their share of the population will begin to grow significantly in the coming years. And as this generation continues to age and grow, it will demand a level of mobility and an active lifestyle that far outpaces any of America's previous generations. This aging population will both create and face significant transportation challenges, including a transportation system that lacks many features that would accommodate the level of mobility and safety older Americans desire and expect. Transportation innovations to accommodate the Baby Boom Generation's need for improved safety and mobility will benefit users of all ages.

For older Americans, as well as the population in general, the ability to travel represents freedom, activity and choice. Older Americans prize their mobility and active lifestyles and want to maintain them as long as possible. For many older people, driving remains the safest, easiest and most convenient means of transportation.

Although overall traffic fatality rates have fallen to record lows in recent years, older drivers still make up a disproportionately high share of those involved in fatal traffic crashes. Roadway safety improvements designed to make it easier for older drivers to navigate traffic are becoming increasingly important, as the largest generation in American history grapples with the effects of aging while trying to maintain a level of mobility that matches its active lifestyle.

This report explores mobility and safety issues for older Americans and presents a set of recommendations for implementing a transportation system that can better serve the safety and mobility needs of older Americans and the population at large.

OLDER DRIVER DEMOGRAPHICS

As the Baby Boom Generation ages, older Americans form a greater portion of the overall population and a greater share of all licensed drivers.

- Americans aged 65 and older account for 13 percent of the total population. This group increased by two percent each year between 2001 and 2009.
- The number of older Americans will only increase, as Baby Boomers began to turn 65 in 2011. Over the next 15 years, the population of Americans 65 and older is projected to grow by 60 percent.
- Thirty-four million licensed drivers in the U.S. are 65 or older. Currently, 16 percent of the licensed drivers in the U.S. are 65 or older, up from 14 percent in 2000. Projections show that one in every five drivers will be 65 or older by 2025.

- Older men drive more than women of the same age, although the gap is narrowing. While 89 percent of men 65 and older continue to drive, only 73 percent of women in the same age group drive. Because they outnumber men, there are more 65 and older female drivers than men.
- Older Americans tend to “age in place”, remaining in the homes where they raised their children and held jobs. Seventy-nine percent of elderly Americans live in suburban (56 percent) or rural (23 percent) communities.
- The states with the highest percentage of drivers 65 and older are Connecticut, West Virginia, Florida, Pennsylvania, South Dakota, Arkansas, Alabama, Oklahoma, Maine and New York.

	STATE	Drivers 65+	Total Drivers	Percent 65+
1	Connecticut	600,162	2,934,576	20%
2	West Virginia	242,779	1,206,026	20%
3	Florida	2,744,378	13,949,726	20%
4	Pennsylvania	1,594,988	8,737,162	18%
5	South Dakota	109,419	602,275	18%
6	Arkansas	374,164	2,077,806	18%
7	Alabama	682,604	3,805,751	18%
8	Oklahoma	420,024	2,348,718	18%
9	Maine	181,412	1,019,738	18%
10	New York	1,995,069	11,285,830	18%
	United States	33,731,618	210,114,939	16%

- The ten states with the greatest total number of licensed drivers age 65 and older are California, Florida, Texas, New York, Pennsylvania, Ohio, Illinois, Michigan, North Carolina and New Jersey.

	STATE	Drivers 65+
1	California	3,146,256
2	Florida	2,744,378
3	Texas	2,085,466
4	New York	1,995,069
5	Pennsylvania	1,594,988
6	Ohio	1,344,285
7	Illinois	1,296,614
8	Michigan	1,180,219
9	North Carolina	1,045,281
10	New Jersey	1,005,040
	United States	33,731,618

OLDER DRIVER MOBILITY AND QUALITY OF LIFE

Older Americans are more mobile and active than ever and want to maintain that lifestyle for as long as possible. Private vehicles remain the overwhelming transportation mode of choice for older Americans.

- Because of good nutrition, improved health care, better education and higher incomes, new generations of older Americans will be more mobile, healthy and active for a longer portion of their lives than those just a few decades ago.
- Older drivers make a greater proportion of shopping trips, more family and personal errands, and more trips for social and recreational activities than younger adults.
- Travel by older drivers (those 65 and up) now accounts for eight percent of all miles traveled in the U.S.
- For those 65 and over, 90 percent of travel takes place in a private vehicle. And, for Americans 85 and older, 80 percent of travel occurs in a private vehicle.
- Travel by private vehicle is the dominant mode of transportation among older Americans, often because it is safe and convenient and they may be physically unable to use other modes such as transit, walking or cycling.
- Many older people self-regulate their driving as they age, traveling only on familiar routes during daylight hours, avoiding left turns and sticking to less complex roads with lower traffic volumes during non-peak travel times.

- Older drivers are disproportionately affected by mounting levels of congestion. Because they tend to limit their driving to non-peak hours (typically 9:00 a.m. to 1:00 p.m.), their window of opportunity for travel narrows considerably as morning and evening rush hours become longer and midday congestion continues to grow.

TRANSIT AND DRIVING ALTERNATIVES FOR OLDER AMERICANS

While the overwhelming majority of trips by older people take place in private vehicles, public transit options can be improved to allow for wider usage by older Americans.

- Although transit use by older Americans has increased in recent years, according to the National Household Travel Survey, public transit accounts for just 1.3 percent of trips by older Americans.
- Only 14 percent of older Americans living in rural areas report having transit service available within a half-mile of their homes.
- For some older people, the same health conditions and functional impairments that cause them to stop or curtail driving will also limit their ability to use other forms of transportation including walking, cycling and public transportation.
- Transit systems can be improved to better accommodate older Americans as well as the population at large. These improvements include expanded bus routes; transit vehicles, stops or facilities that better accommodate older or physically challenged passengers; and additional non-traditional and private sector approaches to transit, including formal and informal ridesharing and taxi services.

ASSESSMENTS AND GUIDELINES FOR OLDER DRIVERS

Although many older motorists tend to self-regulate and monitor their own driving and abilities, many states require more stringent testing and license renewal policies for older drivers. A variety of organizations offer classes and independent evaluations for older drivers to sharpen their skills and determine the range of their driving abilities.

- Older motorists can sharpen their skills behind the wheel and monitor their driving abilities as they age through a variety of classes and independent evaluations. [AAA](#) and [AARP](#) are just two organizations that offer courses in driver safety and self-assessments geared toward helping older motorists determine the range of their driving abilities.
- Research shows that people whose driving has been limited by age-related issues experience a significant decline in quality of life and their restricted mobility

adversely impacts the individual, their family, the community and the society in which they live.

- Several organizations promote the need for older drivers to update their skills and offer evaluations and refresher courses for older drivers who want to determine whether they should limit or stop driving. The following sites offer assessment and safety tips for older drivers and their loved ones: [Ten Signs it's Time to Limit Your Driving \(AARP\)](#), [Senior Driving Safety Tips](#) and the [Silver Century Road Skills Report](#).
- Before they ultimately give up driving, many older motorists gradually ramp down their personal travel. So, while they still may be licensed, the oldest drivers tend to make much less frequent trips in their vehicles.
- Many states require [more stringent and frequent testing and license renewal policies](#) for older drivers. These can include shortened periods between renewals, in-person renewal after a certain age and vision and road tests that are not routinely required of younger drivers. Additional licensing requirements for older drivers exist in 28 states and the District of Columbia.
- Some research suggests that age-based mandatory assessment programs may not effectively identify and manage the small portion of older motorists whose driving should be limited or stopped. And they may prematurely curtail the mobility of drivers who were already self-regulating and managing their driving.

ROADWAY HAZARDS FOR OLDER DRIVERS

Certain situations and driving environments can be especially challenging or hazardous for older motorists.

- The effects of injuries sustained in traffic crashes tend to be more severe in older drivers because of physical frailty and existing medical issues.
- As people age, their eyesight, reaction time, cognitive ability and muscle dexterity may deteriorate, often making the tasks associated with driving more difficult.
- According to the National Highway Traffic Safety Administration (NHTSA), in 2010, 37 percent of all fatal crashes where at least one driver was aged 65 or older occurred at an intersection or were related to an intersection. For fatal crashes where no driver was aged 65 or older, 20 percent were at an intersection or intersection related.
- Left hand turns are more problematic for older drivers, as they must make speed, distance and gap judgments simultaneously to enter or cross the through roadway.

- According to a [2002 study by University of Kentucky](#) researchers, each advancing year of age after 65 increases by eight percent the odds of getting into a crash that involves turning left.
- Deteriorated vision among older drivers may make small or complex road signage difficult to process. Signs may be misunderstood or not seen quickly enough to caution older drivers about upcoming exits, obstacles or changes in traffic patterns.

FATALITY AND CRASH RATES AMONG OLDER DRIVERS

In 2010, there were 5,750 fatalities in crashes involving at least one driver age 65 or over. Although overall fatality rates have decreased in recent years, the number of older drivers killed or involved in fatal crashes remains disproportionately high.

- Although drivers 65 and older account for eight percent of all miles driven in the nation, 17 percent of all traffic fatalities occurred in crashes where at least one driver was age 65 or older.
- Florida leads the nation in the number of traffic fatalities involving a driver age 65 or older in 2010. The other states in the top ten for fatalities and fatal crashes involving a driver 65 or older are Texas, California, Pennsylvania, North Carolina, Georgia, New York, Ohio, Michigan and Tennessee. Information for all 50 states can be found in the [Appendix](#).

2010 Rank	STATE	Fatalities where crash involved at least one 65+ diver
1	Florida	503
2	Texas	397
3	California	390
4	Pennsylvania	265
5	North Carolina	232
6	Georgia	228
7	New York	217
8	Ohio	211
9	Michigan	187
10	Tennessee	184

- Florida also leads the nation in the number of drivers age 65 or older killed in a traffic crash (2010). Other states in the top ten for the number of drivers 65 or older killed in traffic crashes are Texas, California, North Carolina, Georgia, Pennsylvania, Ohio, Tennessee, New York and Michigan. Information for all 50 states can be found in the [Appendix](#).

2010 Rank	State	Drivers 65+ killed
1	Florida	271
2	Texas	224
3	California	219
4	North Carolina	153
5	Georgia	152
6	Pennsylvania	150
7	Ohio	132
8	Tennessee	119
9	New York	118
10	Michigan	108

- Vermont leads the nation in the share of traffic fatalities in crashes involving a driver 65 or older. The next nine states with the highest share of overall traffic fatalities occurring in crashes involving a driver 65 or older are Nevada, Kansas, Maine, West Virginia, New Jersey, Wisconsin, Montana, Oregon and Nebraska. Information for all 50 states can be found in the [Appendix](#).

Rank	STATE	Fatalities Involving Driver 65+	Total Fatalities	Share of Fatalities Involving 65+
1	Vermont	23	71	32%
2	Nevada	62	257	24%
3	Kansas	99	431	23%
4	Maine	36	161	22%
5	West Virginia	69	315	22%
6	New Jersey	119	556	21%
7	Wisconsin	122	572	21%
8	Montana	40	189	21%
9	Oregon	67	317	21%
10	Nebraska	40	190	21%

EFFORTS TO ACCOMMODATE OLDER AMERICANS

State transportation departments are becoming increasingly active in addressing the need to maintain the mobility of older Americans through a combination of improvements to driving and pedestrian facilities, enhanced public education, and an emphasis on partnering with other organizations on a broader approach to maintaining and improving the mobility of older people.

- Several states, including Florida, Tennessee and Pennsylvania, have formed task forces that include numerous state organizations with an interest in the quality of life of older people. These coalitions work together to create and provide

oversight to programs aimed at bringing a holistic approach to maintaining mobility and safety for older people.

- Since the early 1990s, the Florida Department of Transportation has emphasized the need to enhance its surface transportation system to better accommodate older people. These improvements have included the widening of roadway striping from four to six inches, the use of advanced street name and guide signs with larger lettering, larger stop and yield signs, and the use of countdown pedestrian signs.
- States are implementing the recommendations of Federal Highway Administration's "[Highway Design Handbook for Older Drivers and Pedestrians](#)," which includes a number of recommendations to improve the mobility and safety of older drivers and pedestrians.

RECOMMENDATIONS FOR IMPROVING MOBILITY AND SAFETY FOR OLDER AMERICANS

The following set of recommendations can improve the mobility and safety of older Americans. These improvements will also improve mobility and safety for all motorists.

SAFER ROADS:

- Clearer, brighter and simpler signage with larger lettering, including overhead indicators for turning lanes and overhead street signs. This should include minimum levels of retroreflectivity.
- Brighter street lighting, particularly at intersections, and bright, retroreflective pavement markings. Studies also show that increasing the width of pavement markings from 4 inches to 6 inches helps with decreasing lane departure and crashes, especially with older drivers.
- Where appropriate, widening or adding left-turn lanes and increasing the length of merge or exit lanes.
- Where appropriate, widening lanes and shoulders to reduce the consequence of driving mistakes.
- Adding rumble strips to warn motorists when they are leaving the roadway.
- Making roadway curves more gradual and easier to navigate.
- Where appropriate, design and operate roads to accommodate all users of the roadway.
- Adding countdown pedestrian signals.
- Adding refuge islands for pedestrians at intersections.
- States should also utilize the Federal Highway Administration's "[Highway Design Handbook for Older Drivers and Pedestrians](#)" for examples of cost-effective safety infrastructure upgrades.

SAFER ROAD USERS

- Promotion of education and training programs for older drivers.
- Evaluation and monitoring of “at-risk” older motorists through appropriate licensing requirements.

SAFER VEHICLES:

- Improving crashworthiness of vehicles to better protect occupants and withstand impacts.
- Raising awareness among older drivers of appropriate safety precautions and seat belt use.
- Development of Intelligent Transportation System (ITS) technologies, including crash avoidance technologies.

IMPROVED TRANSPORTATION OPTIONS

- Ensuring public transit vehicles, facilities and stops are easily accessible and accommodating to elderly or disabled passengers.
- Expanding bus and transit routes.
- Implementing non-traditional and public sector approaches that are tailored to the needs of older adults, including ride sharing, volunteer driving programs, door-to-door community transportation services, taxi services and vehicle donation.

All data used in this report is the most current available. Sources of information for this report include: The Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA), the National Household Travel Survey, The Brookings Institution, Monash University, The U.S. Department of Health and Human Services, AARP Public Policy Institute; the Insurance Institute for Highway Safety and the U.S. Census Bureau.

Introduction

As the first of the Baby Boom Generation begin to turn 65, the number of older Americans and their share of the population will begin to grow significantly in the coming years. And as this generation continues to age and grow, it will demand a level of mobility and an active lifestyle that far outpaces any of America's previous generations. According to the Federal Highway Administration, nearly 33 million of America's licensed drivers are 65 or older.¹ This aging population will both create and face significant mobility challenges, including a transportation system that lacks many features that would help accommodate the level of mobility and safety older Americans desire and expect.

For older Americans, and for the population in general, the ability to travel represents freedom, activity and choice. Older Americans prize their mobility and active lifestyles and want to maintain them as long as possible. For many older people, driving remains the safest, [easiest and most convenient means of transportation](#).

Although overall traffic fatality rates have fallen to record lows in recent years, older drivers still make up a disproportionately high share of those involved in fatal traffic crashes. Roadway safety improvements designed to make it easier for older drivers to navigate traffic are becoming increasingly important, as the largest generation in American history grapples with the effects of aging while trying to maintain a level of mobility that matches its active lifestyle.

A Snapshot of Older Drivers

As the Baby Boom Generation ages, older Americans form a greater portion of the overall population. According to the U.S. Census Bureau, Americans aged 65 and older account for 13 percent of the total population. This group increased by two percent each year between 2001 and 2009.²

And estimates show that the number of older Americans will only increase, with the first wave of Baby Boomers turning 65 in 2011. Over the next 15 years, America's population aged 65 and older is projected to grow by another 60 percent.³ Currently, 16 percent of the nation's drivers are 65 or older, up from 14 percent in 2000.⁴ Projections show that one in every five drivers will be 65 or older by 2025.⁵

The ten states with the highest percentage of licensed drivers 65 and older are Connecticut, West Virginia, Florida, Pennsylvania, South Dakota, Arkansas, Alabama, Oklahoma, Maine and New York. Information for all 50 states can be found in the [Appendix](#).

Chart 1. States with the highest percentage of licensed drivers 65 and older (2010).

	STATE	Drivers 65+	Total Drivers	Percent 65+
1	Connecticut	600,162	2,934,576	20%
2	West Virginia	242,779	1,206,026	20%
3	Florida	2,744,378	13,949,726	20%
4	Pennsylvania	1,594,988	8,737,162	18%
5	South Dakota	109,419	602,275	18%
6	Arkansas	374,164	2,077,806	18%
7	Alabama	682,604	3,805,751	18%
8	Oklahoma	420,024	2,348,718	18%
9	Maine	181,412	1,019,738	18%
10	New York	1,995,069	11,285,830	18%
	United States	33,731,618	210,114,939	16%

Source: Federal Highway Administration Highway Statistics 2010. Chart DL-22.

The ten states with the greatest number of licensed drivers age 65 and older are California, Florida, Texas, New York, Pennsylvania, Ohio, Illinois, Michigan, North Carolina and New Jersey. Information for all 50 states can be found in the [Appendix](#).

Chart 2. States with the highest number of licensed drivers 65 and older (2010).

	STATE	Drivers 65+
1	California	3,146,256
2	Florida	2,744,378
3	Texas	2,085,466
4	New York	1,995,069
5	Pennsylvania	1,594,988
6	Ohio	1,344,285
7	Illinois	1,296,614
8	Michigan	1,180,219
9	North Carolina	1,045,281
10	New Jersey	1,005,040
	United States	33,731,618

Source: Federal Highway Administration Highway Statistics 2010. Chart DL-22.

While older men drive more than women of the same age, the gap is narrowing as older women remain more mobile. These women have attained higher economic and education levels than during previous generations, affording them similar levels of mobility to men. According to the [2009 National Household Travel Survey](#), 89 percent of men 65 and older continued to drive, compared to 73 percent of women in the same age group.⁶ However, because they outnumber men, there are more 65 and older female drivers than men. As baby boom women age, they are expected to retain their drivers' licenses in even greater numbers than the current population of older women.⁷

Older Driver Mobility and Quality of Life

Older Americans are more mobile and active than ever and want to maintain that lifestyle for as long as possible. Because of good nutrition, improved health care, better education and higher incomes, new generations of older Americans will be more mobile, healthy and active for a longer and greater percentage of their lives than any previous generations.⁸ Travel by older drivers (those 65 and up) now accounts for eight percent of all miles traveled in the U.S.⁹

The purpose of travel also changes as we age. Older drivers make a greater proportion of shopping trips, more family and personal errands, and more trips for social and recreational activities than younger adults.¹⁰

Older Americans are retaining their mobility and, like their younger counterparts, overwhelmingly use private vehicles as their transportation mode of choice. For those 65 and older, 90 percent of travel takes place in a private vehicle, and for Americans 85 and older, 80 percent of travel occurs in a private vehicle.¹¹ Private vehicles are often preferred because they are the safest and most convenient choice. Many older Americans may be physically unable to use other modes such as transit, walking or cycling.

Although they value their mobility, many older people tend to self-regulate their driving as they age in order to avoid certain situations. Many older drivers report traveling only on familiar routes during daylight hours, avoiding left turns and sticking to less complex roads with lower traffic volumes during off-peak travel times.¹²

Because they tend to limit their driving to non-peak hours (typically 9:00 a.m. to 1:00 p.m.), older drivers are disproportionately affected by growing levels of congestion.

Their window of opportunity for travel narrows considerably as morning and evening rush hours become longer and midday congestion continues to grow.¹³

Transit and Driving Alternatives for Older Americans

While the overwhelming majority of trips taken by older people take place in private vehicles, public transit options can be improved to allow for wider usage by older Americans. However, for some older people, the same health conditions and functional impairments that cause them to stop or curtail driving will also limit their ability to use other forms of transportation including walking, cycling and public transportation.

According to the [2009 National Household Travel Survey](#), public transit accounts for 1.3 percent of trips by older Americans.¹⁴ And only 14 percent of older Americans living in rural areas report having transit service available within a half-mile of their homes.¹⁵

Transit systems can be improved to better accommodate older Americans as well as the population at large. These improvements include expanded bus routes; transit vehicles, stops or facilities that better accommodate older or physically challenged passengers; and additional non-traditional and private sector approaches to transit, including formal and informal ridesharing and taxi services.¹⁶

Assessments and Guidelines for Older Drivers

Although many older motorists tend to self-regulate and monitor their own driving abilities, many states require more stringent testing and license renewal policies

for older drivers. A variety of organizations offer classes and independent evaluations for older drivers to sharpen their skills and determine the range of their driving abilities. Older drivers are often very reluctant to give up their driving privileges, and with them, their active and mobile lifestyle.

[AAA](#) and [AARP](#) are just two organizations that offer courses in driver safety and self-assessments geared toward helping older motorists gauge their driving capabilities. Assessment and safety tips for older drivers and their loved ones are readily available on the Internet, including [Ten Signs it's Time to Limit Your Driving \(AARP\)](#), [Senior Driving Safety Tips](#) and the [Silver Century Road Skills Report](#).

Additional licensing requirements for older drivers exist in 28 states and the District of Columbia.¹⁷ Criteria in states that require [more stringent and frequent testing and license renewal policies](#) for older drivers can include shortened periods between renewals, in-person renewal after a certain age and vision and road tests that are not routinely required of younger drivers.

Some research suggests that age-based mandatory assessment programs may not effectively identify and manage the small portion of older motorists whose driving should be limited or stopped. And these restrictions may prematurely curtail the mobility of drivers who were already self-regulating and managing their driving.¹⁸

[Research shows](#) that people whose driving has been limited by age-related issues experience a significant decline in quality of life and an increase in depressive symptoms.¹⁹ Their restricted mobility adversely impacts the individual, their family, the community and the society in which they live.

Before they ultimately give up driving, many older motorists gradually ramp down their personal travel. So while they still may be licensed, the oldest drivers tend to make much less frequent trips in their vehicles.²⁰

Challenges to Older Drivers

The effects of injuries sustained in traffic crashes tend to be more severe in older drivers because of physical frailty and existing medical issues. Although older drivers are less likely to drive aggressively or too fast, as people age, their eyesight, reaction time, cognitive ability and muscle dexterity may deteriorate, making the tasks associated with driving more difficult. While many older individuals want to maintain the freedom and mobility afforded them by driving, certain situations are especially challenging or hazardous to older drivers.

The single greatest concern in accommodating older drivers is their ability to safely maneuver through intersections. According to the National Highway Traffic Safety Administration (NHTSA), in 2010, 37 percent of all fatal crashes where at least one driver was aged 65 or older occurred at an intersection or were related to an intersection. However, for fatal crashes where no driver was aged 65 or older, only 20 percent were at an intersection or intersection related.²¹

Driving situations involving complex speed-distance judgments under time constraints, the typical scenario at intersections, can be more problematic for older drivers due to their slower reaction time for complex motor-cognitive tasks.

Left hand turns are also more problematic for older drivers, as they must simultaneously make speed, distance, and gap judgments to enter or cross the through roadway. Older drivers generally have problems selecting appropriate gaps in oncoming traffic and estimating the speed of oncoming vehicles with respect to left turns off a mainline highway. According to a [2002 study by University of Kentucky researchers](#), each advancing year of age after 65 increases by eight percent the odds of getting into a crash that involves turning left.²²

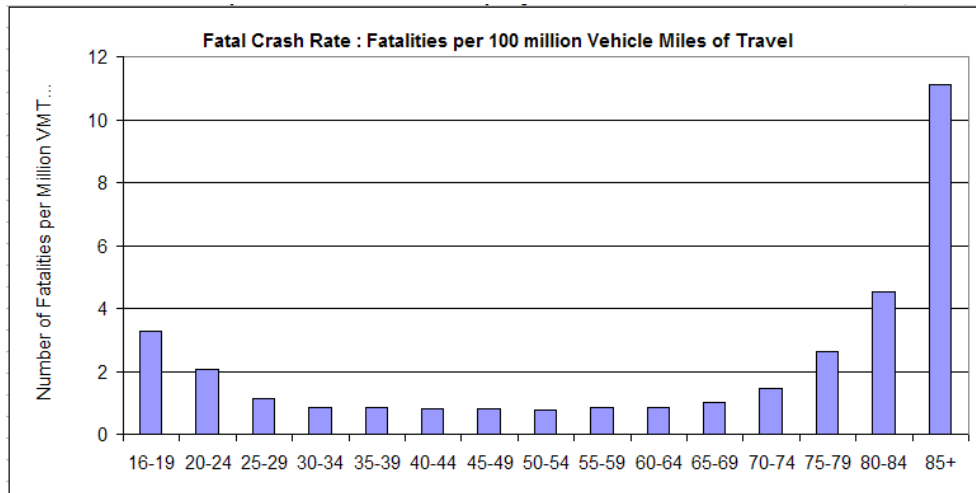
Diminished vision and the inability to clearly see road signs and traffic signals can make driving more difficult and dangerous for older drivers. Small or complex signage may be misunderstood or not seen quickly enough to caution older motorists about upcoming exits, obstacles, or changes in traffic patterns. With the advancing age of much of the population, it becomes important to design road signs and traffic signals that are easily visible and readily understood. These changes would benefit motorists of any age and increase overall traffic safety.

Fatalities and Crashes among Older Drivers

Although overall fatality rates have decreased in recent years, the number of older drivers killed or involved in fatal crashes remains disproportionately high, particularly drivers aged 65 and above. According to NHTSA, the fatality rate per miles driven begins to rise slightly at age 65, and then much more significantly at age 70, with drivers 80 and older having fatality rates more than four times higher than drivers between the age of 25 and 65.²³ And, while drivers 65 and older account for eight percent of all miles driven in

the nation, 17 percent of all fatal traffic crashes involve at least one driver age 65 or older.²⁴

Chart 3. Fatalities per 100 million vehicle miles of travel by age group.



Source: National Household Travel Survey and National Highway Traffic Safety Administration.

In 2010, there were 5,570 fatalities in crashes involving at least one driver aged 65 or over.²⁵ Florida leads the nation in the number of traffic fatalities involving a driver 65 or older in 2010. The other states in the top ten for fatalities and fatal crashes involving a driver 65 or older are Texas, California, Pennsylvania, North Carolina, Georgia, New York, Ohio, Michigan and Tennessee. Information for all 50 states can be found in the [Appendix](#).

Chart 4. States with the highest number of traffic fatalities involving at least one driver age 65 or older in 2010.

2010 Rank	STATE	Fatalities where crash involved at least one 65+ diver
1	Florida	503
2	Texas	397
3	California	390
4	Pennsylvania	265
5	North Carolina	232
6	Georgia	228
7	New York	217
8	Ohio	211
9	Michigan	187
10	Tennessee	184

Source: National Highway Traffic Safety Administration.

Florida also leads the nation in the number of drivers age 65 or older killed in a traffic crash in 2010. The other states in the top ten for the number of drivers 65 or older killed in traffic crashes are Texas, California, North Carolina, Georgia, Pennsylvania, Ohio, Tennessee, New York and Michigan. Information for all 50 states can be found in the [Appendix](#).

Chart 5. States with the highest number of drivers 65 and older killed in traffic crashes in 2010.

2010 Rank	State	Drivers 65+ killed
1	Florida	271
2	Texas	224
3	California	219
4	North Carolina	153
5	Georgia	152
6	Pennsylvania	150
7	Ohio	132
8	Tennessee	119
9	New York	118
10	Michigan	108

Source: National Highway Traffic Safety Administration.

Vermont leads the nation in the share of traffic fatalities in crashes involving a driver 65 or older. The next nine states with the highest share of overall traffic fatalities occurring in crashes involving a driver 65 or older are Nevada, Kansas, Maine, West Virginia, New Jersey, Wisconsin, Montana, Oregon and Nebraska. Information for all 50 states can be found in the [Appendix](#).

Chart 6. States with the highest share of overall traffic fatalities in crashes involving at least one driver over 65.

Rank	STATE	Fatalities Involving Driver 65+	Total Fatalities	Share of Fatalities Involving 65+
1	Vermont	23	71	32%
2	Nevada	62	257	24%
3	Kansas	99	431	23%
4	Maine	36	161	22%
5	West Virginia	69	315	22%
6	New Jersey	119	556	21%
7	Wisconsin	122	572	21%
8	Montana	40	189	21%
9	Oregon	67	317	21%
10	Nebraska	40	190	21%

Source: National Highway Traffic Safety Administration.

Efforts to Accommodate Older Americans

State transportation departments are becoming increasingly active in addressing the need to maintain the mobility of older Americans through a combination of improvements to driving and pedestrian facilities, enhanced public education, and an emphasis on partnering with other organizations on a broader approach to senior mobility.

Since the early 1990s, the Florida Department of Transportation has emphasized the need to enhance its surface transportation system to better accommodate older people.

These improvements have included the widening of roadway striping from four to six inches, the use of advanced street name and guide signs with larger lettering, larger stop and yield signs and the use of countdown pedestrian signs.²⁶

The Florida Department of Transportation also formed the Safe Mobility for Life Coalition, which includes a number of state aging and safety organizations that worked together to create a [statewide strategic safety plan](#) to address the mobility needs of older people.²⁷

Several other states, including Tennessee and Pennsylvania have also formed similar task forces intended to bring a holistic approach to maintaining mobility and safety for older people. In Pennsylvania, the Mature Drivers Task Force includes the Pennsylvania Department of Transportation, the Pennsylvania State Police, the Northeast Highway Safety Program, AAA and several public interest and private businesses with an interest in older mobility issues.²⁸

In Maine, the state's transportation department is in the process of updating 50,000 warning and guide signs that are more than five years old by the end of the summer of 2012.²⁹

States are also implementing the recommendations of the Federal Highway Administration's "[Highway Design Handbook for Older Drivers and Pedestrians](#)" which includes a number of recommendations to improve the mobility and safety of older drivers and pedestrians.

Improving Mobility and Safety for Older Americans

Mobility and traffic safety are important issues for Americans of all ages, but especially for older Americans who may face increasingly limited transportation options and require a driving environment that is safer and more forgiving. A combination of highway repairs and improvements, driver education and evaluation, vehicle enhancements and expanded transportation options can vastly improve the safety and mobility of older drivers and the population in general.

The following set of recommendations can help improve mobility and safety for older Americans as well as the population in general.

SAFER ROADS: ³⁰

- Clearer, simplified and brighter signage with larger lettering, including overhead indicators for turning lanes and overhead street signs. This should include minimum levels of retroreflectivity.
- Brighter street lighting, particularly at intersections, and bright, retroreflective pavement markings. Studies also show that increasing the width of pavement markings from 4 inches to 6 inches helps with decreasing lane departure and crashes, especially with older drivers.
- Where appropriate, widening or adding left-turn lanes and increasing the length of merge or exit lanes.
- Where appropriate, widening lanes and shoulders to reduce the consequence of driving mistakes.
- Adding rumble strips to warn motorists when they are leaving the roadway.
- Making roadway curves more gradual and easier to navigate.
- Where appropriate, design and operate roads to accommodate all users of the roadway.
- Adding countdown pedestrian signals.
- Adding refuge islands for pedestrians at intersections.
- States should also utilize the Federal Highway Administration's "[Highway Design Handbook for Older Drivers and Pedestrians](#)" for examples of cost-effective safety infrastructure upgrades.

SAFER ROAD USERS³¹

- Promotion of education and training programs for older drivers.
- Evaluation and monitoring of “at-risk” older motorists through appropriate licensing requirements.

SAFER VEHICLES³²

- Improving crashworthiness of vehicles to better protect occupants and withstand impacts.
- Raising awareness among older drivers of appropriate safety precautions and seat belt use.
- Development of Intelligent Transportation System (ITS) technologies, including crash avoidance technologies.

IMPROVED TRANSPORTATION OPTIONS³³

- Ensuring public transit vehicles, facilities and stops are easily accessible and accommodating to elderly or disabled passengers.
- Expanding bus and transit routes.
- Implementing non-traditional and public sector approaches that are tailored to the needs of older adults, including ride sharing, volunteer driving programs, door-to-door community transportation services, taxi services and vehicle donation.

Conclusion

As older Americans make up a larger portion of the population, and as they strive to maintain the active and fulfilling lifestyles they’ve become accustomed to, the nation’s transportation system will need to adjust to accommodate them.

Improvements in roadway design, additional highway safety features, expanded transportation options, driver education and vehicle enhancements can help older Americans maintain their mobility in a safe manner while also providing significant benefits to the larger traveling public.

###

References

-
- ¹ Federal Highway Administration Highway Statistics 2010. Chart DL-22.
- ² U.S. Census Bureau. Age Data of the United States. 2010.
- ³ U.S. Department of Health and Human Services Administration on Aging. "A Profile of Older Americans: 2010".
- ⁴ Federal Highway Administration Highway Statistics 2010. Chart DL-22.
- ⁵ Federal Highway Administration. 2009 National Household Travel Survey.
- ⁶ Ibid.
- ⁷ Ibid.
- ⁸ The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Sandra Rosenbloom. The Brookings Institution Series on Transportation Reform, July 2003.
- ⁹ Federal Highway Administration, Highway Statistics 2007. Table NHTS-12.3.1.
- ¹⁰ Ibid.
- ¹¹ The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Sandra Rosenbloom. The Brookings Institution Series on Transportation Reform, July 2003.
- ¹² How To Improve Seniors' Driving Skills. Edmunds.com. 2007.
- ¹³ The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Sandra Rosenbloom. The Brookings Institution Series on Transportation Reform, July 2003.
- ¹⁴ Federal Highway Administration. 2009 National Household Travel Survey.
- ¹⁵ The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Sandra Rosenbloom. The Brookings Institution Series on Transportation Reform, July 2003.
- ¹⁶ Ibid.
- ¹⁷ Insurance Institute for Highway Safety. Older drivers: Licensing Renewal Provisions, April 2011.
- ¹⁸ The Elderly and Mobility: A Review of the Literature. Monash University Accident Research Centre. November 2006. Whelan, Langford, Oxley, Koppel and Charlton.
- ¹⁹ Ibid.
- ²⁰ The Mobility Needs of Older Americans: Implications for Transportation Reauthorization. Sandra Rosenbloom. The Brookings Institution Series on Transportation Reform, July 2003.
- ²¹ National Highway Traffic Safety Administration. 2010 Data.
- ²² Kentucky Transportation Center. University of Kentucky College of Engineering. Development of Accident Reduction Factors.
- ²³ Federal Highway Administration, Highway Statistics 2007. Table NHTS-12.3.1.
- ²⁴ Federal Highway Administration Highway Statistics 2007. Fatalities by 100 million VMT by age.
- ²⁵ TRIP analysis of data provided by the National Highway Traffic Safety Administration.
- ²⁶ Florida Department of Transportation (2012).
http://www.dot.state.fl.us/trafficoperations/Operations/SafetyisGolden_rdwy_improvements.shtml
- ²⁷ Florida Department of Transportation (2012).
http://www.safeandmobileseniors.org/FloridaCoalition.htm#Strategic_Plan
- ²⁸ The American Association of State Highway and Transportation Officials (2012).
- ²⁹ Ibid.
- ³⁰ Federal Highway Administration. Highway Design Handbook for Older Drivers and Pedestrians. May 2001.
- ³¹ The Elderly and Mobility: A Review of the Literature. Monash University Accident Research Centre. November 2006. Whelan, Langford, Oxley, Koppel and Charlton.
- ³² Ibid.
- ³³ Ibid.