

Older Pedestrians at Risk

**And How States Can Make it Safer and Easier
for Older Residents to Walk**



**Tri-State Transportation Campaign
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Introduction

According to U.S. Census Bureau projections, by 2030 more than one in

five tri-state region residents will be 65 years or older. The share of the population aged 75 and older will grow to 9.1 percent of the region's population by 2030.

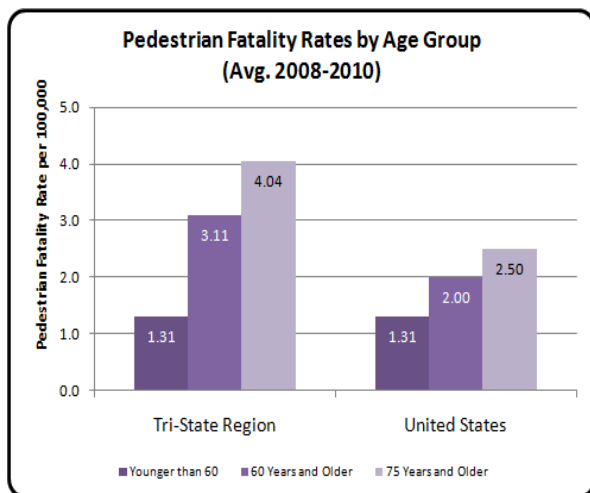
This trend makes it imperative for communities across the tri-state, as well as state and city agencies, to commit to making the region's roads safer for older pedestrians. Small changes that improve streets for older pedestrians also help other populations, such as young children and the handicapped. Creating communities that are walkable stimulates the local economy, encourages active lifestyles, reduces congestion and increases the community's desirability as a place to live and visit.

The Tri-State Transportation Campaign's annual *Older Pedestrians at Risk* report reveals that older pedestrians in the tri-state region are particularly at risk of being killed in a collision with a car or truck. From 2008 through 2010, 435 pedestrians aged 60 and over were killed in collisions with vehicles. **Tri-state residents aged 60 years and older suffer a pedestrian fatality rate that is 2.38 times the rate of those younger than 60. Those aged 75 years and older are even more vulnerable, with a fatality rate that is 3.09 times the rate for people younger than 60 years old.**

Nationally, older pedestrians suffer disproportionately in fatal accidents. Those aged 60 and older make up 17.9 percent of the total U.S. population, but comprise 24.8 percent of all the pedestrians killed from 2008 through 2011. Those aged 75 and older represent 6.1 percent

Key Findings

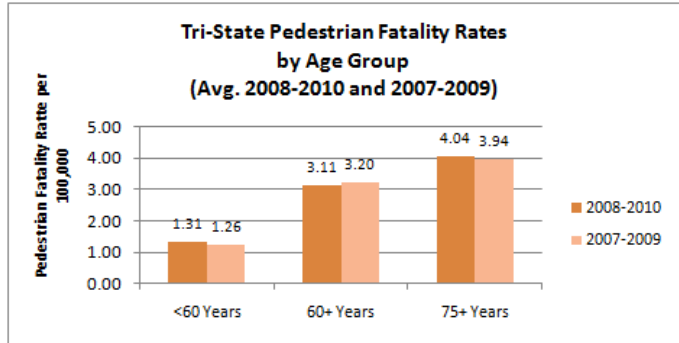
- 435 older pedestrians have been killed in collisions with cars in our region from 2008 through 2010.
- Nearly two-thirds of older pedestrian fatalities occurred on arterial roads.
- Older pedestrians in the tri-state region are almost 2.4 times as likely to be killed in a crash than those under 60.
- Older pedestrians make up a greater share of pedestrian fatalities in down-state New York, where older adults are 17.9 percent of the population, but close to 37 percent of all pedestrian fatalities.
- Older pedestrians in Litchfield County, Connecticut have the highest fatality rate in the region, representing 75 percent of all pedestrian fatalities in the County, but only 22.1 percent of the population.



Source: TSTC Analysis of NHTSA's FARS database, 2008-2010, U.S. Census Bureau Population Estimates and 2010 Census. U.S. fatality rates include tri-state.

of the of the total population but 10.6 percent of the pedestrian fatalities.

The age disparities in pedestrian fatality rates are far greater in the tri-state region than in the U.S. as a whole. Pedestrian fatality rates for tri-state residents aged 60 and over is 3.11 per 100,000 residents, compared to 2.00 per 100,000 residents nationally. The pedestrian fatality rate for tri-state pedestrians aged 75 years and older is 4.04 per 100,000 residents, compared to 2.50 per 100,000 residents nationally.¹ The pedestrian fatality rate for people aged 60 and older in downstate New York, New Jersey and Connecticut is 64 percent higher than the rest of the country (the 47 states). Those 75 and older suffer a fatality rate than is 72 percent higher.



Source: TSTC Analysis of NHTSA's FARS database, 2008-2010 and 2007-2009, U.S. Census Bureau Population Estimates and 2010 Census.

Comparing this year's report with the Campaign's previous report (which looked at pedestrian fatalities from 2007 through 2009), regional pedestrian fatality rates for pedestrians aged 60 and over fell slightly, but for seniors 75 years and older, fatality rates increased. There are various trends across the tri-state region: from 2008 through 2010, pedestrian fatality rates in New Jersey dropped overall compared with fatalities rates from 2007 through 2009. However, fatality rates increased for those aged 60 years and older in Connecticut and for those 75 and older in downstate New York. Overall, these findings underscore the continued need for pedestrian safety improvements and policies across the region.

Tri-State Pedestrian Fatalities, 2008-2010

State	Pedestrian Fatalities (2008-2010)	Older (60+ yrs) Pedestrian Fatalities (2008-2010)	Avg. Older Pedestrian Fatality Rate per 100,000* (2008-2010)
Connecticut	121	44	2.15
New Jersey	436	130	2.66
Downstate New York	711	261	3.69
Tri-State	1,268	435	3.11

Source: TSTC Analysis of NHTSA's FARS database, 2008-2010, U.S. Census Bureau Population Estimates and 2010 Census.

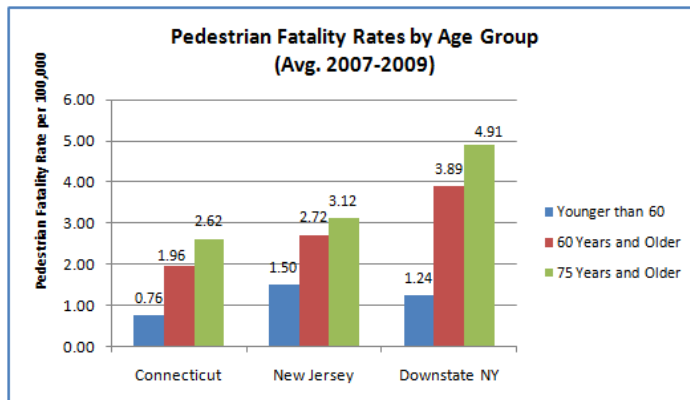
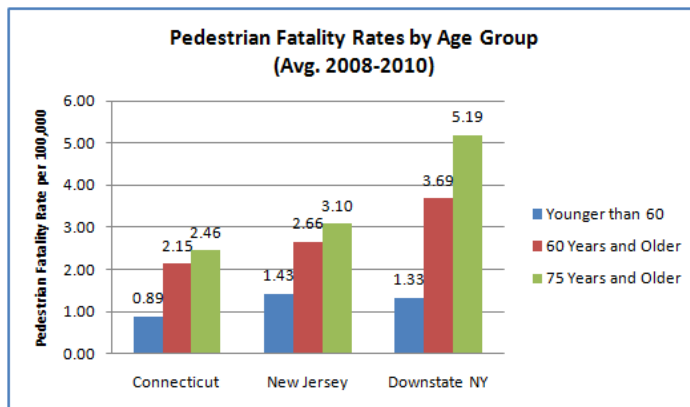
*Fatality rates are calculated according to the population of the relevant age group (i.e., population aged 60 years and older, population under 60 years).

1 National fatality rates (2.00 and 2.50) include the tri-state.

The Most Dangerous Places for Older Pedestrians

Though older pedestrians suffer disproportionately across the tri-state region, the disparities are greatest in downstate New York. Pedestrians 60 years and older comprise 17.9 percent of the population in the 12 counties of downstate New York, but account for close to 37 percent of all pedestrian fatalities. Downstate pedestrians 60 and older have a pedestrian fatality rate more than double the rate for those under 60: 3.69 versus 1.33 per 100,000 residents.

The most dangerous counties for older pedestrians are Litchfield County, Connecticut and Nassau County, New York. In Litchfield, pedestrians aged 60 years and older account for a staggering 75 percent of all pedestrian fatalities in the county, though only 22.1 percent of Litchfield's population is aged 60 years or older. These figures give Litchfield an older pedestrian fatality rate of 4.82 per 100,000 population, almost 3.42 times the county's overall pedestrian fatality rate. Litchfield's rank as the most dangerous county for older pedestrians may be due in part to the low number of overall pedestrian fatalities in the county (from 2008 to 2010, the county had 8 pedestrian fatalities, 6 of whom were pedestrians 60 or older) as well as the county's low population; Nassau County, with 91 pedestrian fatalities during this period, ranks second with an older pedestrian fatality rate of 4.72.



Source: TSTC Analysis of NHTSA's FARS database, 2008-2010 and 2007-2009, U.S. Census Bureau Population Estimates and 2010 Census.

High older pedestrian fatality rates can be found throughout the tri-state region. In New York City, Queens and Brooklyn had high fatality rates, as did Hudson County in New Jersey. The table on the opposite page ranks all counties within the tri-state region according to their older pedestrian fatality rate. (Counties with rates of zero are not included.)

Most Dangerous Counties for Older Pedestrians

Rank	County	Older (60+ yrs) Pedestrian Fatalities (2008-2010)	Avg. Older Pedes- trian Fatality Rate per 100,000* (2008-2010)	Avg. <60 yrs Pe- destrian Fatality Rate per 100,000* (2008-2010)	Rank in 2007-2009
1	Litchfield County, CT	6	4.82	0.45	13
2	Nassau County, NY	40	4.72	1.56	4
3	Queens, NY	55	4.46	1.22	10
4	Brooklyn, NY	55	4.39	1.27	1
5	Hudson County, NJ	12	4.37	1.28	7
6	Bronx, NY	27	4.35	1.27	15
7	Manhattan, NY	37	4.21	1.48	3
7	Essex County, NJ	16	4.21	1.86	7
9	Camden County, NJ	11	4.01	1.81	5
10	Passaic County, NJ	10	3.93	1.15	23
11	Putnam County, NY	2	3.71	1.22	6
12	Dutchess County, NY	5	3.11	0.56	22
13	Bergen County, NJ	17	3.03	0.80	24
14	Ocean County, NJ	14	2.99	1.44	14
15	Union County, NJ	8	2.91	2.45	9
16	Gloucester County, NJ	4	2.67	1.40	18
17	New Haven County, CT	12	2.47	1.21	16
18	Atlantic County, NJ	4	2.46	3.06	2
19	Middlesex County, NJ	10	2.44	1.37	19
20	Orange County, NY	4	2.32	1.03	27
21	Staten Island, NY	6	2.28	1.37	11
22	Hartford County, CT	12	2.27	1.04	32
23	Mercer County, NJ	4	2.08	1.21	20
24	Suffolk County, NY	17	2.00	2.13	21
25	Westchester County, NY	11	1.98	0.57	17
26	Fairfield County, CT	10	1.97	0.54	26
27	Burlington County, NJ	5	1.93	1.75	28
28	Somerset County, NJ	3	1.81	0.75	33
29	Windham County, CT	1	1.64	1.03	12
30	Monmouth County, NJ	6	1.63	1.49	25
31	Warren County, NJ	1	1.60	1.13	29
32	Morris County, NJ	4	1.42	1.09	30
33	Tolland County, CT	1	1.25	0.80	Not ranked
34	Cumberland County, CT	1	1.23	1.03	33
35	New London County, CT	2	1.21	1.08	36
36	Rockland County, NY	2	1.14	0.81	37

*Fatality rates are calculated according to the population of the relevant age group (i.e., population aged 60 years and older, population under 60 years).

U.S. 1 in Fairfield County: Dangerous for Older Pedestrians



U.S. 1 in Westport, Connecticut. Image from Google Maps.

The Campaign's first *Most Dangerous Roads for Walking* report in 2008 identified U.S. 1 as Connecticut's most fatal road for pedestrians. Since then, the Campaign has consistently found Connecticut's U.S. 1 and U.S. 5 to be the state's two most dangerous roads for pedestrians. From 2005 through 2010, older pedestrians made up 75 percent (6 out of 8) of pedestrian fatalities along U.S. 1 in Fairfield County.

Keeping the Older Population Mobile

Many older pedestrians face physical challenges such as “declining vision,” “decreased physical fitness and flexibility,” “decreased ability to focus attention” and “increased reaction time.”² These limitations make it imperative to provide safer walking environments for older pedestrians, allowing them to “age in place.” The higher fatality rates suffered by older pedestrians can probably be attributed to four factors:

- Older pedestrians are less likely to survive a collision with a car or truck;
- Existing pedestrian infrastructure, such as the duration of crosswalk signals, ignores the needs of older walkers;
- A higher proportion of older residents may have “retired” their car keys and are walking instead; and,
- Older pedestrians are less able to quickly get out of the way of on-coming vehicles.

Dangerous Road Design

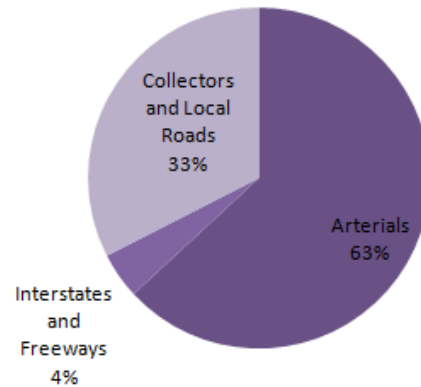
Tri-State's analysis of the types of roads where senior pedestrians were fatally hit by a vehicle shows that arterials — roads that typically have two or more lanes in each direction, are designed to move vehicles at 40 mph or greater and are often built with little infrastructure for pedestrians — are the most dangerous roadways for older adults.

² Lynott, Jana, Jessica Haase, Kristin Nelson, Amanda Taylor, Jared Ulmer, Barbara McCann and Edward Stollot. “Planning Complete Streets for an Aging America.” AARP Public Policy Institute. May 2009. (14-15.)

Throughout the region, arterial roadways often lack pedestrian infrastructure, such as highly visible crosswalks, pedestrian count-down clocks, and sidewalks, even though these roads are lined with stores and offices that people access daily.

Sixty-three percent of older pedestrian fatalities occurred on arterial routes, despite arterials comprising just 15 percent of regional roadway miles. This is almost twice the percentage of fatalities that occurred on local and collector roads (roads that connect local streets to arterial roads), though local and collector roads comprise more than 80 percent of the region's total roadway mileage.

Regional Older Pedestrian Fatalities by Roadway Type



Source: TSTC Analysis of NHTSA's FARS database, 2008-2010. Percentages based on known roadway types.

These findings are consistent with findings in other states. An April 2012 study from the Texas Transportation Institute shows that arterial roads are the most dangerous kinds of roads for older pedestrians and drivers alike. The report authors note, "each mile of arterial thoroughfare is associated with a 10 percent increase in crashes involving older drivers, and a 28 percent increase in crashes and injuries involving older pedestrians, nearly all of which involve a serious injury or death."³

While arterial roads are the most dangerous roads for senior pedestrians, all kinds of roads can be improved and made more pedestrian friendly. The New York City Department of Transportation's Safe Streets for Seniors program makes roads safer and easier to navigate for older pedestrians by adding infrastructure targeted to their needs. In 2012, the New York State Department of Transportation committed to improving Hempstead Turnpike, and the New Jersey Department of Transportation installed over 5,000 feet of sidewalks on Black Horse Pike. The Campaign's annual report, *Most Dangerous Roads for Walking*, has found both Hempstead Turnpike and Black Horse Pike to be two of the region's most deadly roads for pedestrians of all ages. Also in 2012, the New York City Department of Transportation expanded its pilot Neighborhood Slow Zone program which limits vehicles speeds to 20

3 Dumbaugh, Eric, Yi Zhang and Wenhao Li. "Community Design and the Incidence of Crashes Involving Pedestrians and Motorists Aged 75 and Older." University Transportation Center for Mobility. Texas Transportation Institute. The Texas A&M University System. April 2012. (27.)

mph (from the citywide 30 mph) in designated areas, and the Connecticut Department of Transportation announced a “road diet” which will narrow a section of Burnside Avenue/Route 44 in East Hartford from 2 lanes in each direction to 1 lane in each direction. Three cyclists have been killed on Burnside Avenue since May 2010.

Conclusion and Recommendations

There are several steps that states and municipalities can take to make it safer and easier for older residents to walk. In fact, many of these recommendations are already being implemented through existing programs such as New York State Department of Transportation’s SafeSeniors initiative, the New York City Department of Transportation’s Safe Streets for Seniors program and the New Jersey Department of Transportation’s Complete Streets workshops that connected municipality officials with teams of experts in Complete Streets policies and designs. Below are specific recommendations each state can adopt to minimize the incidences of these tragic and preventable deaths.

New York

- Use a portion of NYSDOT capital program funds to expand SafeSeniors and Safe Routes to School programs that aim to reduce traffic injuries and fatalities for older residents and schoolchildren.
- Create a statewide Safe Routes to Transit program aimed at

SafeSeniors in Smithtown, Long Island: Improvements Made, More to be Done

New York State DOT’s (NYSDOT) SafeSeniors program makes dangerous streets safer for older pedestrians by adding improvements such as higher visibility pavement markings, longer intersection crossing times, countdown signals, and better street lighting. One of NYSDOT’s first SafeSeniors projects is in downtown Smithtown, Long Island. Starting



Smithtown, Long Island after its road diet. Image from the Courtney Sipes Memorial Foundation.

in 2011, NYSDOT installed a safety fence to prevent mid-block crossing and additional pedestrian signage. In 2012, NYSDOT went further, giving Smithtown’s Main Street a road diet by trimming 4 lanes down to 3. There is wide support from the public and elected officials for additional work to be done on Main Street, including a roundabout and raised medians to calm traffic further. TSTC and other Long Island partners will continue to advocate for these types of improvements which have been shown to create safer environments for all pedestrians, bicyclists and drivers, and will foster economic development along Main Street.

addressing pedestrian safety needs in the areas around bus stops, subway stations, railroad stations and other transit stops.

- Pass traffic enforcement measures that make streets safer for pedestrians and drivers alike such as red light enforcement cameras and speed cameras in New York City.
- Fund Long Island's Local Safe Streets and Traffic Calming program, set to be defunded at the end of the year.

New Jersey

- Continue to incentivize municipal-level adoption of Complete Streets policies that require the design of roads to accommodate the needs of all users, including older pedestrians.
- Pass a vulnerable users bill that would stiffen penalties for drivers who recklessly kill or injure pedestrians, bicyclists, highway workers, or state troopers.
- Develop a Safe Streets for Seniors program. Identify and fix some of New Jersey's most dangerous intersections for senior pedestrians.

Connecticut

- Create and fund Safe Routes for Seniors and Safe Routes to Transit programs.
- Pass a vulnerable users bill that would stiffen penalties for drivers who recklessly kill or injure pedestrians, bicyclists, highway workers, or state troopers.
- Ensure safety funds are spent on pedestrian safety projects, especially for areas around transit that attract high concentrations of pedestrians.

Challenges for Funding Safer Streets in New Federal Transportation Law

The new federal transportation law, Moving Ahead with Progress (MAP-21), will go into effect in October 2012. Under the new regulations, funding for bicycle and pedestrian projects has been cut by about one third. In addition, half of the remaining bicycle/pedestrian funding will be "optional," allowing states not to use these funds. State and local leaders must fully utilize these funds to improve safety for bicyclist and pedestrians in their communities, as well as dedicate additional flexible federal funds, and leverage additional state and local resources for these kinds of projects.

Cover image: pedestrian crossing street in Little Falls, New Jersey (image: TSTC)

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