Older Pedestrians at Risk

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

Tri-State Transportation Campaign

May 2010

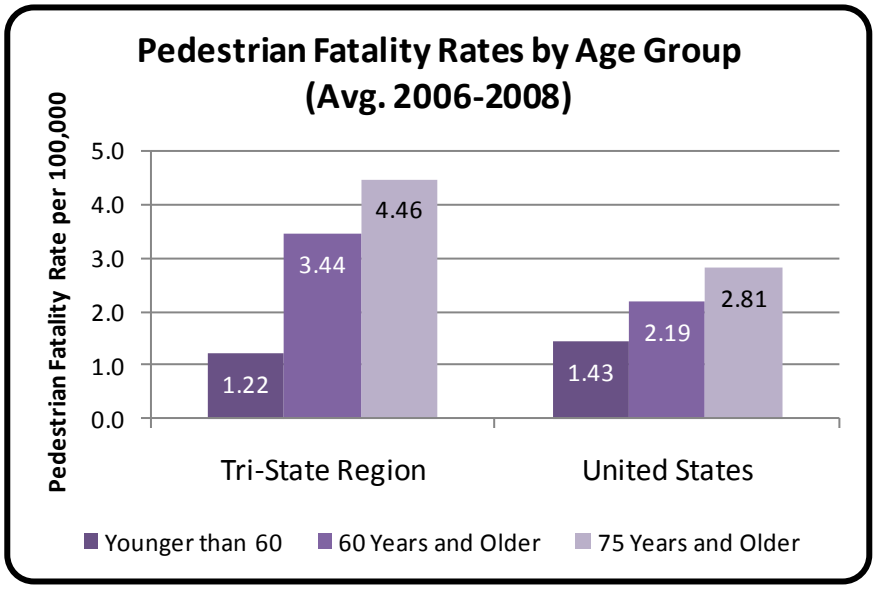
Introduction

In the recently-released report, *The Most Dangerous Roads for Walking*, the Tri-State Transportation Campaign identified the region's most dangerous roads for pedestrians, concluding that arterial roads — wide, high-speed roads designed to move as many cars as fast as possible, with little if any consideration for pedestrians — are the most dangerous for walking. More than 60 percent of regional pedestrian fatalities occur on multi-lane thoroughfares like Route 9 running through New Jersey's shore counties, the Hempstead Turnpike bisecting Nassau County, and US-1 running the length of Connecticut.

Key Findings

- More than 460 older pedestrians have been killed in collisions with cars in our region between 2006 and 2008.
- Older pedestrians (60 years and older) comprise 37 percent of regional pedestrian fatalities, though people 60 years and older make up only 17.6 percent of the region's population.
- Older pedestrians are nearly three times as likely to be killed in a crash than their younger neighbors.
- The disparities are far greater in the tri-state region than in the U.S. as a whole.
- Arterial routes are particularly dangerous for older pedestrians — nearly two-thirds of older pedestrian fatalities occurred on arterials roads.
- Protecting older pedestrians is increasingly important as the population ages (people 60 and older will make up 26 percent of the regional population by 2030).

As a follow up to that study, this report examines the available demographic characteristics of pedestrian victims in the tri-state region and finds that older pedestrians are particularly at risk of being killed in a collision with a car or truck. **Tri-state residents aged 60 years and older suffer a pedestrian fatality rate that is 2.8 times that for their younger neighbors. Those aged 75 years and older are even more vulnerable, with a fatality rate that is 3.6 times the rate for people younger than 60 years old.**



Source: TSTC Analysis of NHTSA's FARS database, 2006-2008.

Protecting older pedestrians will become increasingly important as the region's population ages. According to U.S. Census Bureau projections, people aged 60 years and older are expected to make up 26 percent of the tri-state population by 2030, a huge jump from their current 17.6 percent of the regional population.

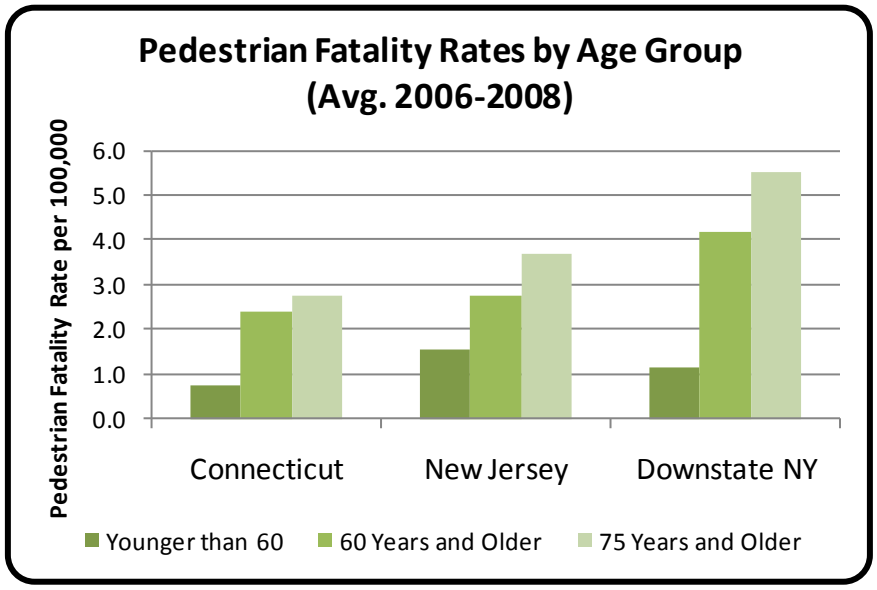
Region-wide Recommendations

Detailed recommendations specific to New Jersey, New York, and Connecticut are listed at the end of this report. But several recommendations apply to all three states:

- Make pedestrian safety a policy and investment priority;
- Protect the most vulnerable pedestrians through increased spending on Safe Routes for Seniors, Safe Routes to School, and Safe Routes to Transit programs;
- Designate a fair share of federal funding to improving bicycling and walking; and,
- Enact meaningful complete streets laws so that new or retrofitted roads safely accommodate bicyclists, pedestrians, transit riders, and motorists, of all ages and abilities.

The Most Dangerous Places for Older Pedestrians

Though older pedestrians suffer disproportionately across the tri-state region, the disparities are far greater in downstate New York. Pedestrians 60 years and older comprise 17.3 percent of the population in the 12 counties making up downstate New York, but account for more than 42 percent of all pedestrian fatalities, with a pedestrian fatality rate of 4.19 per 100,000 residents, compared to 1.13 for residents under 60 years of age.



Source: TSTC Analysis of NHTSA's FARS database, 2006-2008.

On a county basis, the New York City boroughs of Manhattan and Brooklyn are the most dangerous for older pedestrians. In Manhattan, pedestrians aged 60 years and older account for a staggering 46.7 percent of all pedestrian fatalities in the borough, though only 17.3 percent of Manhattan's population is 60 years or older. These figures give Manhattan an older pedestrian fatality rate of 6.67 per 100,000 population, more than 2.7 times the borough's overall pedestrian fatality rate. Brooklyn's older pedestrians suffered a similarly high fatality rate.

But the high older pedestrian fatality rate was not limited to New York City. Nassau County on Long Island had 39 older pedestrian fatalities from 2006 through 2008, giving the county an older pedestrian fatality rate of 4.69 per 100,000 persons. And two of New Jersey's shore counties — Atlantic and Ocean, ranked just behind, with older pedestrian fatality rates of 4.67 and 4.64, respectively (though the Atlantic County number could be inflated by tourist fatalities). The table below ranks all counties within the tri-state region according to their older pedestrian fatality rate.

Table 1. Most Dangerous Counties for Older Pedestrians

Rank	County	Older (60+ yrs) Pedestrian Fatalities	Avg. Older Pedestrian Fatality Rate per	Avg. <60 yrs Pedestrian Fatality Rate per
1	Manhattan, NY	56	6.67	1.46
2	Brooklyn, NY	69	5.46	1.18
3	Nassau County, NY	39	4.69	1.33
4	Atlantic County, NJ	7	4.67	2.88
5	Ocean County, NJ	20	4.64	1.43
6	Staten Island, NY	11	4.47	0.92
7	Gloucester County, NJ	6	4.33	1.40
8	Camden County, NJ	11	4.12	1.87
9	Passaic County, NJ	10	4.10	1.88
10	Orange County, NY	6	3.77	0.93
11	the Bronx, NY	22	3.69	0.96
12	Union County, NJ	10	3.65	1.85
13	New London County, CT	5	3.57	1.68
14	Queens, NY	42	3.40	0.86
15	Middlesex County, NJ	13	3.35	1.84
16	Windham County, CT	2	3.35	0.34
17	Suffolk County, NY	25	3.05	1.73
18	Hudson County, NJ	8	2.98	0.93
19	New Haven County, CT	13	2.74	0.87
20	Salem County, NJ	1	2.68	1.25
21	Essex County, NJ	10	2.64	1.96
22	Westchester County, NY	14	2.53	0.52
23	Dutchess County, NY	4	2.51	0.28
24	Hartford County, CT	11	2.43	0.76
25	Fairfield County, CT	10	2.40	0.50
26	Bergen County, NJ	12	2.21	1.18
27	Putnam County, NY	1	2.00	0.00
28	Somerset County, NJ	3	1.85	1.12
29	Litchfield County, CT	2	1.71	0.45
30	Monmouth County, NJ	6	1.69	1.27
31	Sussex County, NJ	1	1.39	0.00
32	Cape May County, NJ	1	1.30	0.46
33	Burlington County, NJ	3	1.24	2.28
34	Cumberland County, NJ	1	1.23	1.30
35	Morris County, NJ	3	1.12	1.34
36	Mercer County, NJ	2	1.09	1.21
37	Rockland County, NY	1	0.62	1.80

*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).

Most Dangerous Places to Walk for Older Connecticut Residents

In Connecticut, county –level data did not reveal much , but our analysis of city-level data points to the following areas as needing attention:

Rank	Place	Total Pedestrian Fatalities (2006-2008)	Older (60+ yrs) Pedestrian Fatalities (2006-2008)	Percent of Fatalities 60 Years and Older
1	Waterbury	6	5	83.3%
2	Bristol	4	3	75.0%
3	New Britain	3	2	66.7%
3	North Haven	3	2	66.7%
3	Norwalk	3	2	66.7%
6	Bridgeport	6	3	50.0%
	Connecticut	107	43	40.2%

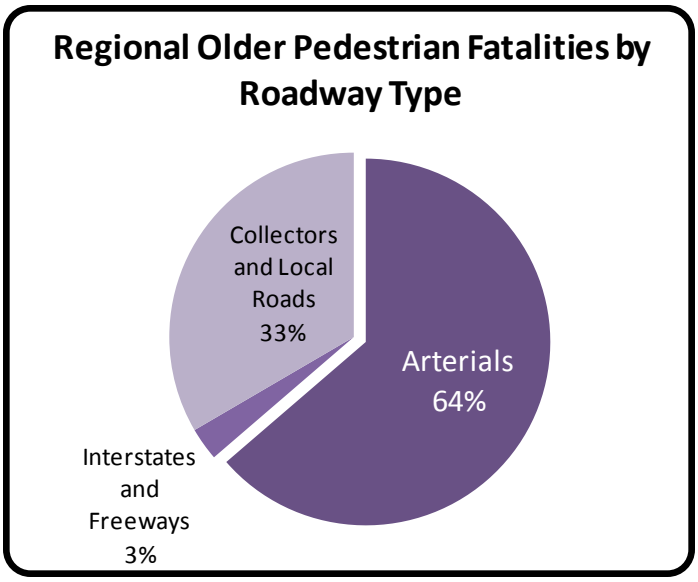
Keeping the Older Population Mobile

The higher fatality rates suffered by older pedestrians in the tri-state region can probably be attributed to four factors: 1) older pedestrians are less likely to survive a collision with a car or truck; 2) a higher proportion of older residents may have "retired" their car keys and are walking instead; 3) older pedestrians are less able to get out of the way of oncoming vehicles; and, 4) existing pedestrian infrastructure, such as the duration of crosswalk signals, ignores the needs of older walkers.

Unlike much of the rest of the country, older tri-state region residents often live in fairly compact communities, with restaurants, stores, doctors offices, and other amenities within walking distance of home. The relative walkability of the tri-state region helps preserve the mobility of the region's older residents, even after they've stopped driving.

But all too often pedestrians must cross wide, high-speed thoroughfares in order to reach destinations. Known by traffic engineers as arterials, these roads typically have at least two lanes in each direction and accommodate prevailing travel speeds of 40 mph or greater. Such high travel speeds give drivers little time to react, particularly when they are distracted by cell phones or other devices. And pedestrians struck by a vehicle traveling at this speed have a dismal 15 percent chance of survival (likely even lower for older pedestrians).

Another common characteristic of arterials, at least outside of New York City, is that they have little pedestrian infrastructure – sidewalks are often lacking, crosswalks and crossing signals are scarce, and medians, if they exist, offer little protection from speeding traffic. But even where infrastructure exists, it may not meet the needs of older walkers. On especially wide arterials, even the most able walkers may not be able to cross the entire roadway during the allotted crossing time.



Source: TSTC Analysis of NHTSA's FARS database, 2006-2008.

Our analysis found that arterials are particularly deadly for older pedestrians. Sixty-four percent of older pedes-

trian fatalities occurred on arterial routes. This is nearly twice the share of fatalities that occurred on local and collector roads (33 percent), though local and collector roads comprise more than 80 percent of the region's total roadway mileage (arterials comprise 15 percent of regional roadway mileage).

Unfortunately, the vulnerability of older pedestrians to collisions with cars and trucks threatens to limit the older population's mobility and access to family, friends, grocery stores, restaurants, doctors, and other goods and services. Even as some in this group find they can no longer safely drive, they face additional risks as pedestrians.

As the tri-state region's populations ages, making it safer and easier for older residents to walk will become increasingly important. According to U.S. Census Bureau projections, by 2030 more than one in four tri-state region residents will be 60 years or older, a growth in that cohort's share of the population of nearly 50 percent from today. The share of the population aged 75 and older — those most vulnerable to pedestrian fatalities — will grow even faster, to 9.8 percent of the region's population by 2030.

Hylan Blvd on Staten Island is an especially dangerous road for older pedestrians. On June 29, Doris Tutolo, 81, and Frances Gredder, 85, both of New Dorp, were standing in front of the 7-Eleven shown in the upper left corner of the picture when a van jumped the curb and struck them. Mrs. Tutolo died of her injuries on July 1 and Mrs. Gredder died July 7. Marie McCann, 85, of New Dorp, died July 22, days after being struck by an SUV at the same intersection.
NYC DOT has since installed a variety of improvements aimed at increasing pedestrian safety along Hylan, but the design of the road itself encourages the speeding and dangerous driving behavior that took the lives of Doris Tutolo and Frances Gredder.

Conclusion and Recommendations

There are several steps that states and municipalities can take to make it safer and easier for their older residents to walk. And many of these recommendations are already being implemented through existing programs such as New York State Department of Transportation's SafeSeniors initiative, and the New York City DOT's cutting-edge Safe Streets for Seniors program (see below). Below are specific recommendations the states can adopt to cut these tragic and preventable deaths.

New Jersey

- Implement the recently signed statewide complete streets policy that requires engineers to design roads to accommodate the needs of all users, including older pedestrians, any time a new road is built or an existing road is retrofitted.
- Designate 10% of federal Highway Safety Improvement Program (HSIP) funding for pedestrian safety programs.
- Ensure adequate funding for pedestrian safety in the upcoming capital program, including Safe Routes for Seniors, Safe Routes to School, and Safe Routes to Transit programs aimed at reducing traffic injuries and fatalities for older residents, schoolchildren, and transit riders.

New York City's Safe Streets for Seniors Program

The New York City Department of Transportation, under the progressive leadership of Commissioner Janette Sadik-Khan, has emerged as a national leader on pedestrian safety. Recognizing that older New Yorkers are among the most vulnerable pedestrians and account for a disproportionately high share of pedestrian fatalities, NYC DOT launched the Safe Streets for Seniors program in 2008.

As a first step, NYC DOT designated 25 senior pedestrian focus areas based on statistical analysis and mapping, and then initiated a pilot program in each borough: Brighton Beach, Brooklyn; Flushing, Queens;, the Lower East Side of Manhattan; Fordham/University Heights in the Bronx; and New Dorp/Hylan Blvd on Staten Island.

Typical improvement measures include lengthening the duration of crossing signals, increasing the visibility of street markings, repairing broken curbs and missing curb ramps, installing pedestrian refuges (see photo, right), and narrowing roadways with traffic calming techniques.

Photo from NYC DOT. Brighton Beach, Brooklyn pedestrian refuge.

New York

- Pass the currently pending complete streets legislation (legislation (S.5711-Dilan/A.8587-Gantt) that would require engineers design roads to accommodate the needs of all users any time a new road is built or an existing road is retrofitted.
- Increase funding for SafeSeniors and Safe Routes to School programs aimed at reducing traffic injuries and fatalities for older residents and schoolchildren.
- Pass a statewide vulnerable users law that would stiffen penalties for drivers who kill or injure pedestrians, bicyclists, highway workers, or state troopers.
- Designate 10% of federal Highway Safety Improvement Program (HSIP) and 10% of federal Congestion Mitigation and Air Quality funding for pedestrian safety programs.
- Create a statewide Safe Routes to Transit program.

Connecticut

- Create and fund Safe Routes for Seniors and Safe Routes to Transit programs.
- Pass a statewide vulnerable users law that would stiffen penalties for drivers who kill or injure pedestrians, bicyclists, highway workers, or state troopers.
- Designate at least 10% of federal Highway Safety Improvement Program (HSIP) money and 10% of federal Congestion Mitigation and Air Quality (CMAQ) funding for programs that prevent traffic injuries and fatalities.
- Implement and expand the Complete Streets legislation passed in 2009.

Federal Funding for Pedestrian Safety—TE, CMAQ and HSIP

Significant federal funding is available for pedestrian safety programs and projects. While nearly all federal "highway" funding can be used for bicycle and pedestrian projects, three federal funding programs specifically list improving the walking and bicycling environment as eligible activities — Transportation Enhancements (TE), Congestion Mitigation and Air Quality Improvement Program (CMAQ), and the Highway Safety Improvement Program (HSIP).

Unfortunately, few states have taken full advantage of these federal programs for bicycling and walking projects, instead spending much of the funding on traditional transportation projects.

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Tri-State Transportation Campaign gratefully acknowledges the foundations that made this report possible: the One Region Funders' Group and its foundation partners, including Fairfield County Community Foundation, Long Island Community Foundation, New York Community Trust, Rauch Foundation, Surdna Foundation, Emily Hall Tremaine Foundation, and Westchester Community Foundation.