

The Most Dangerous Crash Locations In Southeastern Massachusetts 2006-2008



As the regional planning agency serving 27 cities and towns in southeastern Massachusetts, the Southeastern Regional Planning and Economic Development District (SRPEDD) is constantly striving to increase public awareness of the dangers on our roads. As part of that effort, SRPEDD regularly compiles a list of the most dangerous roadways and intersections in our region. SRPEDD studies locations identified as safety problems on a regular basis and takes safety issues into consideration while conducting other types of studies (signal warrants, congestion, corridor studies, etc).

Over the last few years SRPEDD has conducted numerous Road Safety Audits (RSA's), which have become the formal process in evaluating hazardous locations. Road Safety Audits are safety studies that examine roads and intersections. The audit team is comprised of individuals with a variety of experience and expertise (planning, design, engineering, maintenance, construction, safety, local officials, law enforcement and first-responders). The goal of an RSA is to identify short-term, low-cost corrective measures to reduce crashes. Since 1988, SRPEDD has identified and studied high crash locations, recommended solutions, and developed a cooperative relationship with our member communities to implement corrective measures.

Crash data for 2006 through 2008, provided by the Massachusetts Department of Transportation (MassDOT), has been compiled by location and crash type to identify the most dangerous locations in our region. This report identifies the 100 most dangerous intersections, as well as locations with the highest number of pedestrian and bicycle crashes, road departure crashes, red light running crashes and fatal crashes. The purpose of this report is to inform the public of the dangers that exist on our roads and initiate actions that will generate improvements to make them safer.



Prepared by: Southeastern Regional Planning &
Economic Development District
88 Broadway, Taunton, MA 02780



Cost of Crashes

In 2008, the National Safety Council estimated the average cost of each property damage crash to be \$8,300. A nonfatal disabling injury crash was estimated at \$63,500, and a fatal crash at \$1,300,000. These estimates include lost wages, medical expenses, motor vehicle damage, etc. Based on these estimates, **the cost of all crashes that occurred in southeastern Massachusetts in 2008 totaled over \$455 million.**

Being in a crash or committing a traffic violation affects insurance premiums. Surcharge points are assessed for traffic violations ranging from a minor traffic violation to being at fault in a collision, and result in significant increases in annual premiums. The system allows drivers in Massachusetts to have greater control over their premiums through safe driving.

Fatal Crashes

Between 2006 and 2008 there were **190 fatal crashes** in southeastern Massachusetts, resulting in 198 deaths and 114 people injured. A majority of these crashes (54%) were single vehicle lane departure collisions. (See pages 6 - 7 for additional information on lane departure crashes.) The graphic below displays a breakdown of all the types of fatal crashes.

A large number of fatal crashes (53) occurred at highway interchanges in the region. These crashes can often be attributed to design flaws, congestion, high speed, and limited sight distance among other factors. The list below identifies highway interchanges where 2 or more fatalities occurred between 2006 – 2008.

Interchange Fatalities

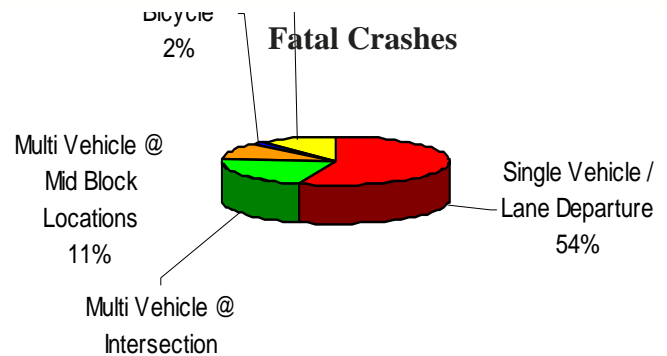
Community	Location	2006-2008 Fatal Crashes
Attleboro	I-95 / Newport Avenue	3
Attleboro	I-95 / Rte 295	3
Marion	I-195 / Front Street (Route 105)	3
Attleboro	I-95 / South Avenue	2
Dartmouth	I-195 / Faunce Corner Road	2
Fairhaven	I-195 / Rte 240	2
Fall River	I-195 @ Rte 24	2
Mansfield	I-95 / Rte 495	2
N Attleborough	I-95 / Robert F Toner Boulevard	2
Swansea	I-195 E / Rte 6	2

Statistics compiled by the National Highway Traffic Safety Administration (NHTSA), using the FARS 2006-2008 data revealed the following about fatalities in Massachusetts:

- **32%** of fatal crashes were **speed-related**
- **35%** of fatal crashes were **alcohol-related**
- **Over 50%** of the people that died in crashes **were not wearing a seat belt**

Seat belt use nationwide was 83 percent in 2008, as measured by NHTSA, but only 66.8% in Massachusetts.

The **lower** rate in Massachusetts may be attributed to the fact that the violation is considered a secondary offense. Seat belt laws are divided into two categories: *primary* (adopted by 31 states) and *secondary* (adopted by 18 states). Primary seat belt laws allow police to stop and ticket a driver for not wearing a seat belt.



Secondary seat belt laws allow police to issue a ticket for not wearing a seat belt only when there is another citable traffic violation. Primary seat belt laws are favored because they are associated with fewer traffic fatalities.

Studies conducted comparing primary and secondary seat belt laws found that fatality rates in states with secondary enforcement remained stable between 1990 and 2002, whereas fatality rates in states with primary enforcement continued to decline. An upgrade to primary enforcement has been associated with a 4.7 percent decrease in all vehicle occupant fatalities. **If Massachusetts had a primary seat belt law, between 2006 – 2008, we estimate that 57 lives could have been saved (9 in southeastern Massachusetts).**

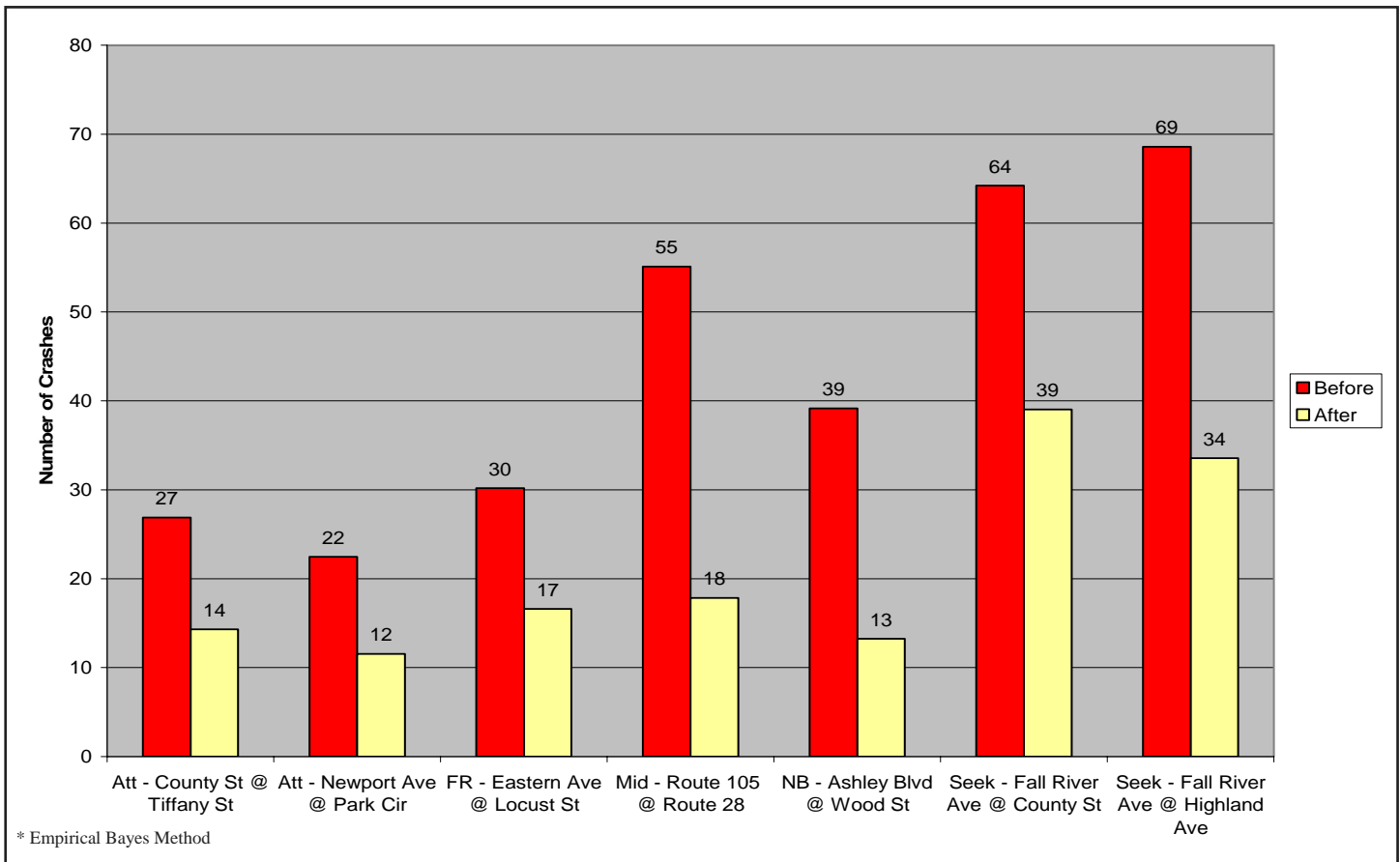
Improving Transportation Safety is a High Priority at SRPEDD!

Success

Before and after studies were conducted to determine the effectiveness of intersection improvement projects within the region. Data was collected for 7 signalized intersections where changes were made between 2000 and 2007. Improvements ranged from minor signal adjustments to full reconstruction. Summary data for the intersections are provided below. Before and after statistics **reveal a 52% reduction in crashes at locations where improvements were made!**



Before / After Improvements Analysis



The 100 Most Dangerous Intersections in Southeastern Massachusetts

The following two pages list the most dangerous intersections in the 27 SRPEDD communities. Intersections are listed based on their Equivalent Property Damage Only (EPDO) index. The EPDO is a system of ranking intersections based on the severity of the crashes. It gives greater significance to crashes where injuries and fatalities occurred. Points are applied to each crash in the following manner: one point for a crash involving property damage only; five points for a crash involving an injury; and ten points for a crash in which a fatality occurred. Each intersection's EPDO has been calculated for the 2006 through 2008 period and is expressed as an annual average. The intent of this ranking system is to determine the locations where crashes have the most severe consequences.

The 100 Most Dangerous Intersections in Southeastern Massachusetts 2006-2008

Rank	City/Town	Intersection		Total Crashes (2006 - 2008)	EPDO (2006 - 2008)	Status / Issues / Needs
1	Fall River	Plymouth Ave.	Rodman St.	125	77.7	In design - improvements planned in 2012
2	Swansea	GAR Highway (Rte 6)	J.Reynolds Rd./Market St. (Rte 136)	114	71.3	Turning conflicts & driveway issues
3	New Bedford	Kempton St. (Rte 6)	Route 140/Brownell Ave.	85	71.0	Improvements planned in 2012
4	Raynham	New State Hwy (Rte 44)	Orchard St.	87	69.0	In design w/ Rte 44
5	Plainville	Taunton St. (Rte 152)	Messenger St. (Rte 106)	92	68.0	Improvements made in 2005
6	Plainville	Washington St. (Rte 1)	Taunton St. (Rte 152)	79	65.0	Improvements made in 2006
7	Middleborough	Route 44	Plympton St. (Rte 105)	75	55.7	Improvements made in 2009
8	Swansea	GAR Highway (Rte 6)	Swansea Mall Dr. (Rte 118)	85	49.7	Congestion & turning conflicts
9	Taunton	Broadway (Rte 138)	Washington St.	61	49.7	Signal modified in 2009
10	Taunton	Dean St. (Rte 44)	Longmeadow Rd./G.Owen Pkwy	50	47.3	Needs improved pavement markings
11	N.Attleborough	S.& E. Washington St. (Rte 1/1A)	Hoppin Hill Rd. (Rte 120)	76	46.7	Improvements planned in 2014
12	Somerset	GAR Highway (Rte 6)	Lees River Ave.	48	46.7	Red light running along Rte 6
13	Mansfield	Route 140	School St.	71	46.3	Reconstructed in 2008
14	Fall River	Broadway	S.Main St./Globe St.	69	45.7	Recommended signal upgrade
15	Seekonk	Fall River Ave. (Rte 114A)	Taunton Ave. (Rte 44)	59	43.7	Conflicting turning movements
16	Taunton	County St. (Rte 140)	Hart St.	59	42.3	In design, unprotected left turns
17	New Bedford	JFK Highway (Rte 18)	Union St./MacArthur Dr.	47	41.3	Improvements planned
18	Taunton	Broadway (Rte 138)	East Britannia St.	42	40.7	Signal modified in 2009
19	Taunton	Williams St.	Gordon Owen Riverway	44	40.0	Needs signal or roundabout
20	N.Attleborough	E.Washington St. (Rte 1)	Chestnut St.	51	39.7	Needs protected left turns on Rte 1
21	Fall River	Davol St.	Central St.	42	39.3	Future ramp project should address
22	Raynham	Broadway (Rte 138)	Carver St.	49	39.0	Needs protected left turns on Rte 138
23	Dartmouth	State Rd. (Rte 6)	Slocum Rd.	39	37.0	Driveway conflicts
24	New Bedford	Church St.	Park Ave.	41	36.3	Needs improved signage & pavement markings
25	Fall River	President Ave. (Rte 6)	Davol St. NB	58	35.3	New BSBridge expected to reduce crashes
26	Middleborough	East/West Grove St. (Rte 28)	South Main St. (Rte 105)	55	34.3	Improvements made in 2007 has shown improvement
27	Attleboro	Washington St. (Rte 1)	Highland Ave. (Rte 123)	59	33.0	Driveway issues
28	Seekonk	Newman Ave. (Rte 152)	Central Ave./Pine St. (Bakers Corner)	59	33.0	Improvements planned in 2010
29	Attleboro	Newport Ave. (Rte 1A)	Carleton St./Pitas St.	25	32.7	Speed & turning conflicts
30	Mansfield	Chauncy St. (Rte 106)	N. Main St.	45	32.3	Congestion & turning conflicts
31	New Bedford	Ashley Blvd/JFK Hwy SB (Rte 18)	Coggeshall St.	41	32.3	Improvements planned
32	Fall River	President Ave. (Rte 6)	Elsbree St.	48	32.0	Congestion & turning conflicts
33	Fall River	President Ave. (Rte 6)	N. Main St.	49	31.0	Improvements expected with commuter rail station
34	Seekonk	Fall River Ave. (Rte 6)	Mink St. (Rte 114A)	48	30.7	Improvements made in 2005
35	Fairhaven	Bridge St.	Alden Rd.	37	28.3	Improvements planned 2010
36	Fairhaven	Huttleston Ave. (Rte 6)	Main St.	47	27.7	Improvements planned 2012
37	Fall River	President Ave. (Rte 6)	Highland Ave.	43	27.7	Changes made in 2003
38	Middleborough	Route 44	Plymouth St.	34	27.3	Improvements completed in 2009
39	Mansfield	Chauncy St. (Rte 106)	Route 140	45	27.0	Congestion
40	Fall River	Pleasant St.	Quarry St./County St.	41	27.0	Conflicting turning movements
41	Dartmouth	State Rd. (Rte 6)	Hathaway Rd.	37	27.0	Needs signalization / Tucker Rd. relocation
42	Seekonk	Fall River Ave. (Rte 114A)	Arcade Ave./Mill Rd. (Grist Mill)	43	26.3	Improvements under consideration
43	Fall River	Bedford St.	Troy St./High St.	33	25.7	Red light running along Bedford St.
44	Attleboro	Washington St. (Rte 1)	May St.	48	25.3	Reconstructed in 2007 & 08 numbers show reduction!
45	Fall River	Broadway	Bradford Ave.	36	25.3	Conflicting turning movements
46	Middleborough	Route 44	Old Center St.	31	25.3	Improvements completed in 2009
47	New Bedford	Kings Hwy.	Mount Pleasant St.	28	25.3	Signal installed in 2008
48	Attleboro	Washington St. (Rte 1)	Como Dr.	39	25.0	Turning conflicts
49	New Bedford	County St.	Mill St.	27	25.0	Improvements planned in 2011
50	Plainville	Washington St. (Rte 1)	George St.	26	25.0	Curb cut issues

The 100 Most Dangerous Intersections in Southeastern Massachusetts 2006-2008

Rank	City/Town	Intersection		Total Crashes (2006 - 2008)	EPDO (2006 - 2008)	Status / Issues / Needs
51	Attleboro	County St. (Rte 123)	Thacher St.	38	24.7	Improved in 2003
52	New Bedford	JFK Highway (Rte 18)	Potomska St.	26	24.7	Improvements planned
53	Fall River	Pleasant St.	Quequechan St.	33	24.3	Sight distance
54	Fall River	Eastern Ave. (Rte 6)	Bedford St.	29	24.3	Turning conflicts
55	Fall River	Broadway	Middle St.	27	24.0	Congestion & turning conflicts
56	Dartmouth	State Rd. (Rte 6)	Reed Rd.	30	23.3	Congestion & turning conflicts
57	Fall River	Broadway Extension	Rte 79	22	23.3	Improvements planned / turning conflicts
58	Westport	State Rd. (Rte 6)	Sanford Rd.	33	23.0	Improvements made in 2008
59	Seekonk	Fall River Ave. (Rte 6)	Commerce Way/Seekonk Sq.	51	22.3	Congestion & turning conflicts
60	New Bedford	Acushnet Ave./JFK Hwy NB (Rte 18)	Coggeshall St.	35	22.3	Improvements planned
61	Attleboro	Newport Ave. (Rte 1A)	Highland Ave. (Rte 123)	31	22.3	Congestion
62	Dartmouth	Faunce Corner Rd.	Cross Rd.	31	22.3	Improvements in design
63	Somerset	GAR Highway (Rte 6)	Brayton Ave.	34	22.0	BSB will lower volumes
64	Attleboro	South Ave. (Rte 123)	Tiffany St.	29	21.7	Turning conflicts & congestion
65	Attleboro	South Ave. (Rte 123)	Lathrop Dr.	29	21.7	Conflicting turning movements
66	Somerset	GAR Highway (Rte 6)	Brayton Point Rd.	32	21.3	Red light running along Rte 6
67	Fall River	N.Main St.	Rte 79 S	26	20.7	Turning Conflicts
68	Freetown	Chase Rd.	County Rd./Mason Rd.	34	20.7	Roundabout Planned in 2010
69	Taunton	Summer St. (Rte 140)	Spring St./Church Green	30	20.7	Needs signal actuation
70	Fairhaven	Bridge St.	Route 240	28	20.0	Signal modifications planned
71	New Bedford	Church St.	Tarklin Hill Rd.	28	20.0	Signal modifications planned
72	Dartmouth	Allen St.	Slocum Rd.	24	20.0	Turning conflicts
73	Dartmouth	State Rd. (Rte 6)	Tucker Rd./Champion Terrace	24	20.0	Improvements planned / congestion
74	Raynham	New State Hwy. (Rte 44)	South St. West	31	19.7	Driveway & turning conflicts
75	New Bedford	Rockdale Ave.	Dartmouth St.	27	19.7	Improvements underway
76	Mansfield	Route 140	West St.	27	19.7	Turning conflicts
77	Somerset	County St./Riverside Ave. (Rte 138)	Read St./Riverside Ave.	14	19.7	Turning conflicts
78	Middleborough	Route 44	Everett St.	22	19.3	Improvements completed in 2009
79	Fall River	Plymouth Ave.	Globe St.	22	19.3	Under Design
80	Rehoboth	Winthrop St. (Rte 44)	Anawan St./Bay State Rd. (Rte 118)	29	19.0	Needs protected left turns on Rte 44
81	Swansea	GAR Highway (Rte 6)	Maple Ave.	25	19.0	Red light running along Rte 6
82	Taunton	Washington St.	East Britannia St.	21	19.0	Sight distance issue
83	Fall River	Hanover St.	New Boston Rd.	20	19.0	Sight distance problems and speed
84	New Bedford	Ashley Blvd.	Nash Rd.	13	19.0	Turning conflicts
85	Mansfield	Chauncy St. (Rte 106)	Copeland Dr.	28	18.7	Congestion
86	Fall River	N.Main St.	Brightman St./Stewart St.	24	18.7	Turning conflicts
87	Somerset	GAR Highway (Rte 6)	Riverside Ave. (Rte 138)/BSBridge	35	18.3	Turning conflicts will be eliminated by new Bridge
88	Taunton	Bay St.	E. & W. Britannia St.	27	18.3	Poor Geometry
89	Lakeville	Bedford St. (Rte 18)	Main St./Precinct St. (Rte 105)	27	18.3	Turning conflicts
90	N.Attleborough	E.Washington St. (Rte 1)	Elm St.	27	18.3	Improvements made in 2006
91	Attleboro	N. & S. Main St.	County St./ Park St.	27	18.3	Congestion & turning conflicts
92	New Bedford	Union St.	Pleasant St.	23	18.3	Turning conflicts
93	Wareham	Cranberry Hwy. EB (Rte 6 & 28)	Depot St.	34	18.0	Congestion
94	Attleboro	Pleasant St. (Rte 123)	Starkey Ave.	30	18.0	Congestion & turning conflicts
95	Fall River	Bedford St.	Rock St./Third St.	26	18.0	Red light running
96	N.Attleborough	S.Washington St. (Rte 1)	Draper Ave.	26	18.0	Possibly conflicting turning movements
97	Attleboro	Washington St. (Rte 1)	Carleton St.	22	18.0	Turning conflicts
98	Fall River	Bedford St.	Robeson St./Thirteenth St.	29	17.7	Congestion & driveway issues
99	Taunton	Washington St.	Purchase St.	25	17.7	Turning conflicts & sight distance
100	New Bedford	JFK Highway (Rte 18)	Cove St./Rodney French Blvd.	25	17.7	Turning conflicts

Lane Departure Crashes

A lane departure crash is defined as a non-intersection crash which occurs after a vehicle leaves the designated travel lane. The vehicle often collides with a fixed object (tree, utility pole, guardrail, etc.) or another vehicle. Lane Departure Crashes are frequently severe and account for the majority of highway fatalities. During the study period (2006 through 2008) 54% of all fatal crashes were lane departure crashes. Responding to the state's Strategic Highway Safety Plan (SHSP), which targets lane departure crashes, MassDOT and regional planning agencies across the state acted to identify and seek corrective actions to reduce these all-too-often tragic collisions. Since 2007 MassDOT and SRPEDD have conducted 17 Lane Departure RSA's in the SRPEDD region.

Limited Access Highways — Below is a listing of the limited access highways in the SRPEDD region with a significant number of injury and fatal lane departure crashes. In all cases, lane departure crashes account for one third or more of all crashes along each roadway.

Lane Departure Crashes on Limited Access Highway Segments

City/Town Name	Roadway	2006-2008 Fatal & Injury Crashes
Attleboro *	I-95	33
Berkley	Route 24	22
Dartmouth *	I-195	26
Fairhaven *	I-195	13
Fall River	Route 24	54
Fall River	I-195	36
Fall River	Route 79	34
Freetown	Route 24	26
Freetown *	Route 140	12
Marion	I-195	18
Mattapoisett	I-195	13
Middleborough *	I-495	47

City/Town Name	Roadway	2006-2008 Fatal & Injury Crashes
N Attleborough *	I-95	15
New Bedford	I-195	20
New Bedford *	Route 140	46
Raynham	Route 24	16
Seekonk	I-195	24
Somerset	I-195	12
Swansea	I-195	30
Taunton	Route 24	16
Wareham	Route 25	18
Wareham	I-195	17
Wareham	I-495	13
Westport	I-195	22

* Roadways selected for installation of median cable barrier based on cross-over crash exposure

Seven locations along major highways were studied by MassDOT and SRPEDD due to cross median crashes. As a result, segments of highway locations were selected for the installation of cable barrier. Cable barrier consists of heavy-duty cables strung along a row of posts that act like a net to safely catch out-of-control vehicles. They are very effective in preventing head-on collisions, and in limiting the severity of injuries.



Source: <http://www.wsdot.wa.gov>



Cable Barrier along the center median

Local Roads — In 2007 a road safety audit was conducted along Main Street in Acushnet to examine the circumstances of 28 lane departure crashes. Based on that audit, the Acushnet Highway department installed edge markings to enhance roadside visibility at night and during inclement weather, and the Acushnet Police increased speed enforcement along the corridor. The result has shown a 20% reduction in lane departure crashes since these measures were implemented.

In the last two years SRPEDD has completed 8 road safety audits at the following locations: High Street in Carver; Reed Road, Tucker Road & Hixville Road in Dartmouth; New Boston Road & Sconticut Neck Road in Fairhaven; Braley Hill Road in Rochester; and Hortonville Road in Swansea. Common issues found along these roads included faded or missing pavement markings, poor visibility of roadside obstructions, inadequate delineation of curves, lack of speed / warning signs, drainage issues, and pavement edge drop-off.

The following recommendations were offered to the communities: warning signs on approaches to curves, installation of reflectors on trees and poles, removal or relocation of roadside obstructions, enhanced center and edge line markings, and more frequent police speed enforcement. Overall the communities have or are implementing many of these recommendations.

Three of the roadways audited are located in close proximity to high schools. Along these roads, data revealed a high percent of crashes involving young drivers between the ages of 16 and 21. (This issue is discussed in detail on page 10.) SRPEDD has recommended driver education programs at these schools. Our staff has begun working with Dartmouth High School on a safe driving program to alert students and their parents to the problems along Tucker Road and other roads in town. We hope to expand this effort to other school districts within the region.



Tucker Road, Dartmouth MA



Sconticut Neck Road, Fairhaven MA

Lane Departure Crashes on Local Roads		
City/Town Name	Roadway	2006-2008 Fatal & Injury Crashes
Acushnet *	Main Street	15
Attleboro	Oak Hill Avenue	10
Carver	Main Street	10
Carver	Tremont Street	10
Dartmouth *	Hixville Road	9
Dartmouth	Old Fall River Road	8
Dartmouth *	Reed Road	9
Dartmouth	Russells Mills Road	21
Dartmouth *	Tucker Road	10
Fairhaven	Huttleston Avenue	9
Fairhaven *	Sconticut Neck Road	9
Freetown	Chace Road	11
Lakeville	Bedford Street	11
Middleborough	Wareham Street	11
Norton	East Main Street	13
Raynham	Broadway	8
Taunton	Hart Street	12
Taunton	Somerset Avenue	8
Taunton	Tremont Street	18
* Safety Audit completed along roadway		

Pedestrians

Between 2006 and 2008, there were 614 crashes involving pedestrians in southeastern Massachusetts. Of these crashes 21 were fatal and 422 resulted in injury. A total of 293 (48%) crashes occurred at intersections (90 at signalized intersections and 203 at unsignalized intersections), while 321 (52%) occurred at mid-block locations.

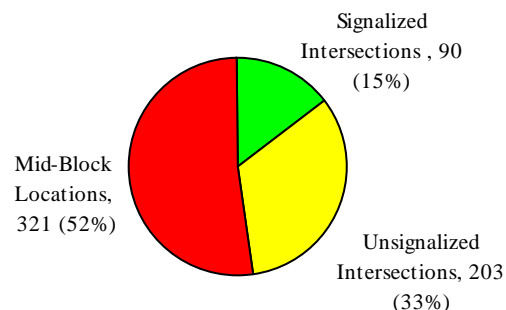
The lower number of crashes at signalized intersections may be attributed to pedestrian crossing phases in the signal timing and formal painted crosswalks. Crossing at signalized intersections is safer simply due to the fact that motorists are forced to stop. Unsignalized intersections however, pose a higher danger for pedestrians. Although Massachusetts law requires motorists to yield to pedestrians in crosswalks, many do not.



North Attleborough and Fall River have taken an active role in improving safety for pedestrians at crosswalks. Recently, both communities conducted “crosswalk stings” in which an officer, posing as a decoy, attempted to cross a street to see if motorists would stop.

In North Attleborough 40 cars were stopped. In Fall River three crosswalk stings yielded over 100 citations. Other communities are placing flexible signs in the road alerting motorists of the need to yield.

Pedestrian Crashes



Motor vehicle crashes with pedestrians at mid-block locations primarily occur in urbanized areas, along corridors with on street parking where jaywalking is prominent. The table below lists corridors where pedestrian crashes exceed 10 per mile.

Top Urban Corridors with Pedestrian Crashes @ Mid Block Locations

City/Town	Corridor	Limits	2006-2008 Crashes	Segment Length	Crashes/ Mile
Fall River	Milliken Blvd	Pocasset Street to Columbia Street	4	0.24	16.7
New Bedford	Union Street	Rte 18 to County Street	7	0.46	15.2
Fall River	Plymouth Avenue	Rodman Street to Pleasant Street	6	0.4	15.0
Attleboro	South Main Street	County Street to Mechanic Street	3	0.2	15.0
Fall River	Brightman Street	Davol Street to N Main Street	4	0.32	12.5
Fall River	Pleasant Street	Troy Street to Eastern Avenue	13	1.1	11.8
Taunton	Broadway	Green Street to Washington Street	4	0.34	11.8
New Bedford	Crapo Street	Thompson Street to Cove Road	5	0.43	11.6
New Bedford	Brock Avenue	Dudley Street to Ruth Street	4	0.36	11.1
Taunton	Washington Street	Broadway to Maple Street	6	0.55	10.9
Fall River	South Main Street	RI Line to I-195	27	2.5	10.8
Fall River	Rodman Street / Columbia Street	Brayton Avenue to Broadway	18	1.7	10.6
Fall River	Rock Street	Bedford Street to Maple Street	5	0.48	10.4
New Bedford	Ashley Blvd	Coggeshall Street to Princeton Street	11	1.1	10.0

When traffic control signals are not in place or not in operation the driver of a vehicle shall yield the right of way, slowing down or stopping if need be so to yield, to a pedestrian crossing the roadway within a crosswalk marked in accordance with standards established by the department of highways if the pedestrian is on that half of the traveled part of the way on which the vehicle is traveling or if the pedestrian approaches from the opposite half of the traveled part of the way to within 10 feet of that half of the traveled part of the way on which said vehicle is traveling. Whoever violates any provision of this section shall be punished by a fine of not more than \$200.

- The General Laws of Massachusetts, Chapter 89: Section 11. Marked crosswalks; yielding right of way to pedestrians; penalty.

Bicyclists

From 2006 to 2008, there were 289 crashes involving a motor vehicle and a bicycle, resulting in 190 injuries and three deaths. Many of these crashes were concentrated along specific corridors in the region. The table below lists these corridors and the number of crashes that occurred.

Most roadways have no formal bicycle accommodations, forcing bicyclists to share lanes with traffic. Properly designed and designated bicycle lanes, such as those along Bark Street and Route 118 in Swansea, or separate bicycle paths, such as the Phoenix Trail in Fairhaven and Mattapoisett, provide much safer conditions for bicyclists.

Top Corridors with Bicycle Crashes

City/Town	Corridor	Location	2006-2008 Crashes
Attleboro	North Avenue	West Street to I-95	2
Attleboro	Pleasant Street	Forest Street to Lyndsey Street	2
Dartmouth	Route 6	New Bedford Line to Tucker Road	3
Fairhaven	Route 6	Adams Street to Holcomb Street	2
Fall River	Pleasant Street	Eastern Avenue to Plymouth Avenue	2
Mansfield	East Street	S. Main Street to Ware Street	2
Marion	Front Street	Rte 6 to I-195	2
Norton	Route 123	S. Washington Street to Oak Street	2
New Bedford	Cove Road	Rodney French Blvd to Orchard Street	2
New Bedford	Rodney French Blvd	Valentine Street to Cove Road	3
Seekonk	Route 6	Warren Avenue to RI Line	3
Swansea	Wilbur Avenue	New Gardners Neck Road to Coleman Street	2
Wareham	Swifts Beach Road	Rte 6 to Marsh Street	2
Wareham	Cranberry Hwy	Depot Street to Maple Springs Road	2



Massachusetts has taken an active role in providing bicycle accommodations at actuated signalized intersections. The MassDOT Project Development & Design Guide states:

*“Bicyclists are required by law to obey control devices at intersections. Therefore, traffic control devices need to account for bicycle activity. Traffic signals which operate using detection systems (such as loop detection, video camera, and microwave) **must be designed and field tested to be sensitive to bicycles.**”*

“The loss of 716 lives in bicycle/motor vehicle crashes in 2008, just under two people every day of the year in the U.S., is a terrible toll. These numbers represent 2 percent of the total number of people killed and injured in traffic crashes in 2008.” Source: <http://www.bicyclinginfo.org>

Young Drivers

In recent safety audits, a high number of crashes involving young drivers occurred along three corridors in close proximity to high schools. Drivers between 16 to 18 years of age accounted for 37% of lane departure crashes along Tucker Road in Dartmouth, the road that connects Route 6 to Dartmouth High School. An overwhelming 52% of these crashes involved drivers 16 to 21 years of age. Young drivers also accounted for a significant percentage of crashes along Braley Hill Road in Rochester (27%) near the Old Colony Regional Vocational Technical High School, and High Street in Carver (22%) near the Sacred Heart High School in Kingston.



Top 10 Leading Causes of Death in the United States for 2006, by Age Group¹

National Highway Traffic Safety Administration's National Center for Statistics and Analysis

RANK	Cause and Number of Deaths											Years of Life Lost ²
	Infants Under 1	Toddlers 1-3	Young Children 4-7	Children 8-15	Youth 16-20	Young Adults 21-24	Other Adults			Older Adults 65+	All Ages	
							25-34	35-44	45-64			
1	Perinatal Period 14,321	Congenital Anomalies 462	MV Traffic Crashes 449	MV Traffic Crashes 1,272	MV Traffic Crashes 5,689	MV Traffic Crashes 4,667	MV Traffic Crashes 7,162	Malignant Neoplasms 13,917	Malignant Neoplasms 151,788	Heart Disease 510,542	Heart Disease 631,636	Malignant Neoplasms 23% (8,908,211)
2	Congenital Anomalies 5,819	Accidental Drowning 395	Malignant Neoplasms 392	Malignant Neoplasms 723	Homicide 2,794	Homicide 2,749	Accidental Poisoning 5,267	Heart Disease 12,339	Heart Disease 103,572	Malignant Neoplasms 387,515	Malignant Neoplasms 559,888	Heart Disease 20% (7,685,448)
3	Heart Disease 346	MV Traffic Crashes 351	Congenital Anomalies 183	Homicide 472	Suicide 1,836	Suicide 2,162	Suicide 4,985	Accidental Poisoning 7,542	Diabetes 17,124	Stroke 117,010	Stroke 137,119	MV Traffic Crashes 5% (1,760,796)
4	Homicide 336	Homicide 317	Accidental Drowning 163	Suicide 410	Accidental Poisoning 1,086	Accidental Poisoning 1,821	Homicide 4,725	Suicide 6,591	Stroke 16,859	Chronic Lwr. Resp. Dis. 106,845	Chronic Lwr. Resp. Dis. 124,583	Stroke 4% (1,536,877)
5	Septicemia 269	Malignant Neoplasms 277	Homicide 141	Congenital Anomalies 256	Malignant Neoplasms 724	Malignant Neoplasms 812	Malignant Neoplasms 3,656	MV Traffic Crashes 6,470	Chronic Lwr. Resp. Dis. 16,299	Alzheimer's 71,660	Diabetes 72,449	Chronic Lwr. Resp. Dis. 4% (1,503,483)
6	Influenza/Pneumonia 263	Exposure to Smoke/Fire 158	Exposure to Smoke/Fire 121	Heart Disease 249	Heart Disease 425	Heart Disease 598	Heart Disease 3,307	HIV 4,010	Chronic Liver Disease 14,929	Diabetes 52,351	Alzheimer's 72,432	Suicide 3% (1,176,020)
7	Nephritis/Nephrosis 162	Heart Disease 144	Heart Disease 74	Accidental Drowning 198	Accidental Drowning 335	Accidental Drowning 239	HIV 1,182	Homicide 3,020	Suicide 12,009	Influenza/Pneumonia 49,346	Influenza/Pneumonia 56,236	Perinatal Period 3% (1,122,740)
8	Stroke 142	Influenza/Pneumonia 111	MV Nontraffic Crashes⁴ 50	Exposure to Smoke/Fire 113	Congenital Anomalies 230	Congenital Anomalies 188	Diabetes 673	Chronic Liver Disease 2,551	MV Traffic Crashes 10,713	Nephritis/Nephrosis 37,377	Nephritis/Nephrosis 45,344	Diabetes 3% (1,084,880)
9	MV Traffic Crashes 139	MV Nontraffic Crashes⁴ 107	Benign Neoplasms 41	Chronic Lwr. Resp. Dis. 104	MV Nontraffic Crashes⁴ 135	HIV 153	Stroke 527	Stroke 2,221	Accidental Poisoning 10,649	Septicemia 26,201	MV Traffic Crashes 43,664	Accidental Poisoning 3% (1,071,895)
10	Malignant Neoplasms 76	Septicemia 78	Influenza/Pneumonia 37	MV Nontraffic Crashes⁴ 100	Accidental Falls 116	Pregnancy Childbirth 124	Congenital Anomalies 437	Diabetes 2,094	Nephritis/Nephrosis 6,613	Hypertension Renal Dis. 19,852	Septicemia 34,234	Homicide 2% (878,954)
ALL ³	28,527	3,923	2,447	5,824	16,330	17,143	42,952	83,043	466,432	1,759,423	2,426,264	All Causes 100% (38,315,767)

¹When ranked by specific ages, motor vehicle crashes are the leading cause of death for each age 3 through 34.

²Number of years calculated based on remaining life expectancy (2006 data from CDC) at time of death; percent calculated as a proportion of total years of life lost due to all causes of death.

³Not a total of top 10 causes of death.

⁴A motor vehicle nontraffic crash is any vehicle crash that occurs entirely in any place other than a public highway.

Source: National Center for Health Statistics (NCHS) CDC, Mortality Data 2006.

Note: The cause of death classification is based on the National Center for Statistics and Analysis (NCSA) Revised 68 Cause of Death Listing. This listing differs from the one used by the NCHS for its reports on leading causes of death by separating out unintentional injuries into separate causes of death, i.e., motor vehicle traffic crashes, accidental falls, motor vehicle nontraffic crashes, etc. Accordingly, the rank of some causes of death will differ from those reported by the NCHS. This difference will mostly be observed for minor causes of death in smaller age groupings.

About 6,000 teens die in car wrecks each year across the country. That's like loading up a 737 jet with high school students and crashing it every week!

Source: Teens in the Driver Seat

It's no surprise that young, inexperienced drivers are involved in a large percentage of crashes. According to NHTSA the leading cause of death for young people (ages 16-20) are motor vehicle crashes.

In an effort to make our roads safer and decrease the number of fatal crashes involving young drivers, Massachusetts passed the Graduated Driver Licensing law, which took effect on March 31, 2007. The law prolongs the learning process for novice drivers and implements harsher penalties for those caught speeding or committing other violations. For example, a first time speeding violation results in a 90 day license suspension, a driver attitudinal retraining course, a \$500 reinstatement fee, and a retake of the driver exam. These harsh penalties appear to have made a difference in young driver behavior. **Since the law went into effect, the number of fatal crashes involving drivers under 18 has dropped 75%.** In addition, the number of speeding tickets and seat belt violations has decreased by 60%.

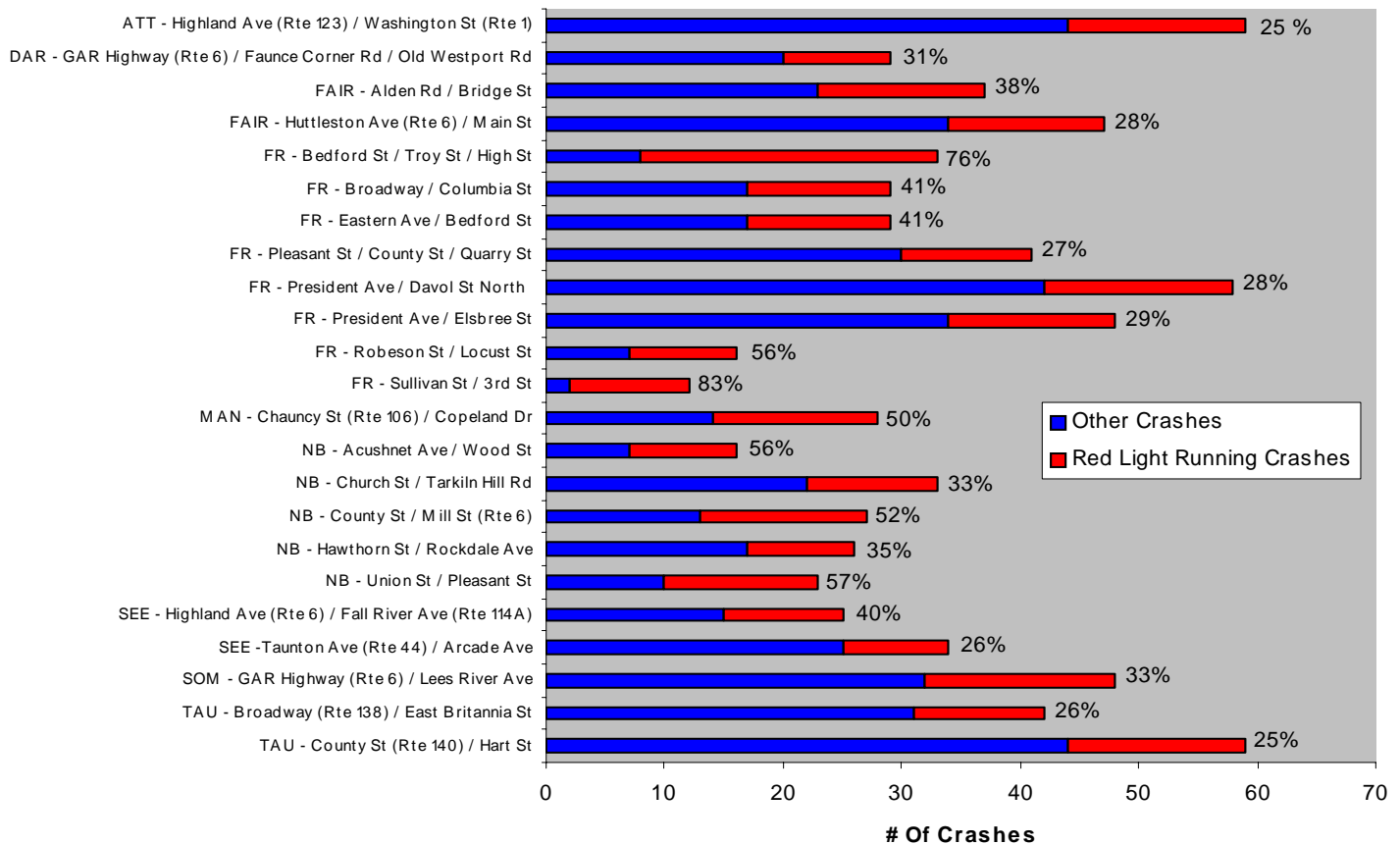
Red Light Running

Red light running occurs when a motorist proceeds into an intersection after the light turns red. Many factors can influence red-light running. Most crashes are caused in some way by driver error; however, driver error can be influenced by factors such as technology (cell phones and texting), inadequate road design or ineffective traffic controls. Red light running crashes are either intentional or unintentional. Intentional red light running is frequently due to deliberate circumstances such as motorists trying to beat the signal; driver frustration due to congestion; driving under the influence, etc. Unintentional red light running is often due to ineffective or poorly visible signal equipment; obstructed vision (due to sunlight, weather conditions or vegetation), or inappropriate signal timing.

SRPEDD's 2002-2004 crash data revealed 618 red light running crashes. During the 2006-2008 period, red light crashes more than doubled (1,287). The graph below displays 23 intersections in the region with a minimum of 25% of all total crashes attributed to red light running. Fifteen of them appear on the Top 100 most dangerous intersections in southeastern Massachusetts.

NHTSA's Fatality Analysis Reporting System (FARS) reports that in 2007 red light running crashes alone caused 883 deaths nationwide.

Highest 'Red Light Running' Crash Locations in Southeastern Massachusetts



Corrective measures range from improved signal visibility and more efficient operation to public awareness and added enforcement. Previous studies have suggested the need for Red Light Camera legislation in Massachusetts that would allow remote ticketing at intersections where there is frequent, intentional red light violations. Previous efforts to implement camera enforcement in Massachusetts has failed. Typically, the argument against passage involved invasion of privacy; presumption of innocence; and concern over misuse of ticketing as a revenue source. There are arguments for and against the issue, but ultimately, **motorists who intentionally violate a red light are breaking the law, endangering others, and driving up the cost of automobile insurance to all motorists.**

The problem of red light running has long been recognized. In 1995, the Federal Highway Administration (FHWA) created the Stop Red Light Running Program to help educate the public on the dangers of red light running and increase enforcement at a grassroots level. National Stop on Red Week takes place the first week of August each year and is dedicated to educating Americans about the dangers of red light running through education and enforcement.

Focusing on Safety

SRPEDD regularly conducts safety audits / studies at intersections and roadways that have been identified as safety problems. Each audit / study involves a detailed review of crash reports on file with police, as well as an analysis of the operational characteristics of the site. Local police departments have been extremely cooperative in providing access to their files, as well as sharing their unique knowledge of the circumstances contributing to crashes in their communities.

Federal and state transportation planning funds provided by the Federal Highway Administration and the Massachusetts Department of Transportation have enabled SRPEDD to conduct numerous safety studies over the years, which aided in the implementation of improvement projects. Additional intersections have been studied and are awaiting action on recommended improvements. Other intersections and roadways have studies underway or planned in the coming year. We continue to be a resource for safety planning to our member communities.

This report is a critical part of the Regional Transportation Plan for Southeastern Massachusetts. The Plan is an ongoing effort of the SRPEDD staff, community representatives through the Joint Transportation Planning Group (JTPG) and the Southeastern Massachusetts Metropolitan Planning Organization (SMMPO). For more information or to offer your opinions, please visit our web site at www.srpedd.org or contact Jim Hadfield (jhadfield@srpedd.org) or Lisa Estrela-Pedro (lestrela@srpedd.org) at SRPEDD (508) 824-1367, FAX (508) 823-1803.

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