Spotlight on Highway Safety

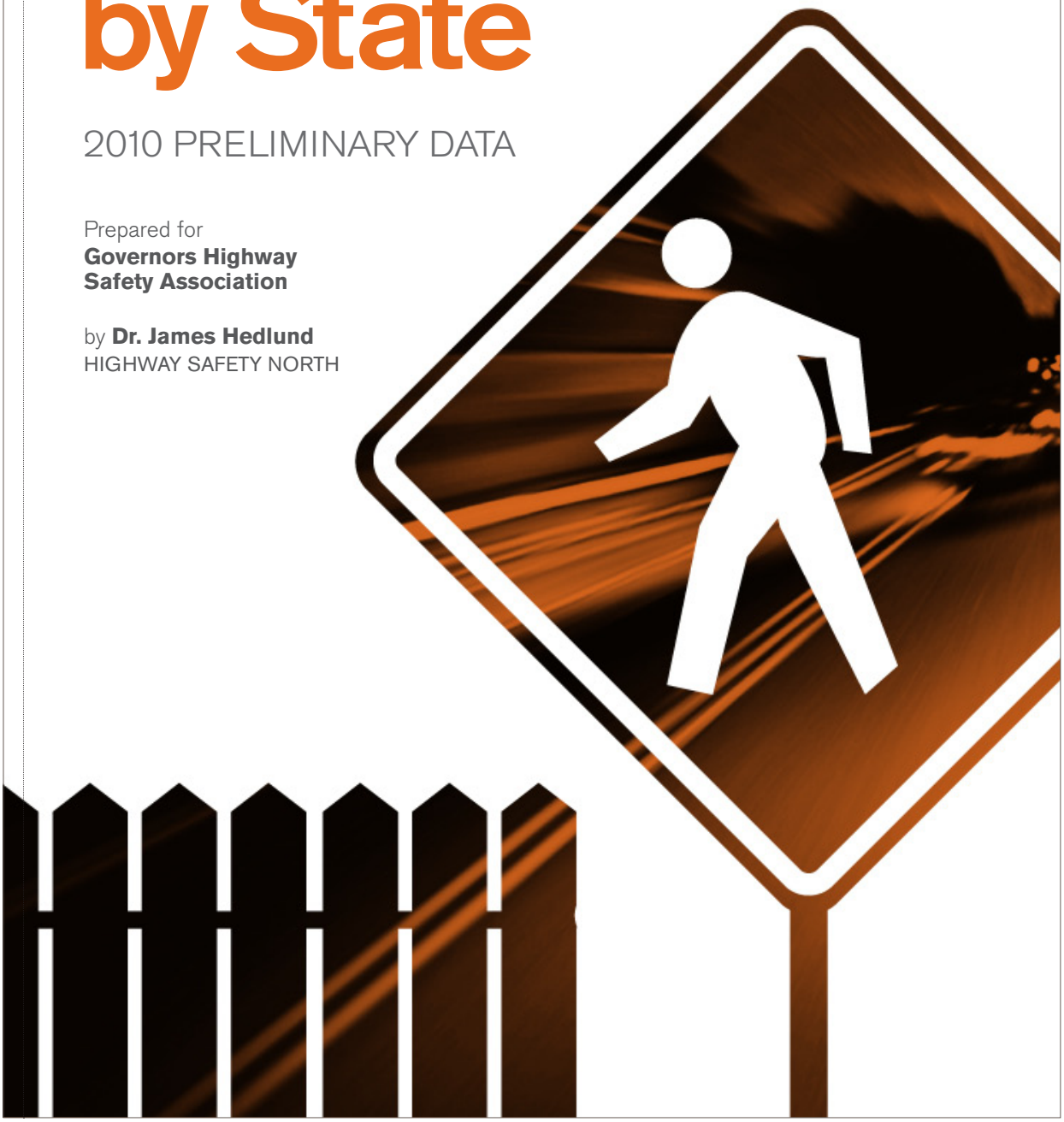
GHSA

Pedestrian Traffic Fatalities by State

2010 PRELIMINARY DATA

Prepared for
Governors Highway Safety Association

by **Dr. James Hedlund**
HIGHWAY SAFETY NORTH



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Summary

The number of pedestrian traffic fatalities in the United States for the first six months of 2010 was essentially unchanged from 2009, based on preliminary data supplied by all 50 states and the District of Columbia. Fatalities for the first six months of 2010 increased by seven deaths to 1,891 from 1,884 during the same period in 2009. This is an increase of 0.4%. In contrast, the National Highway Traffic Safety Administration's (NHTSA's) early estimates are that overall traffic fatalities dropped 8% during this period.

If the second six months of 2010 also show no change, this will mark an end to four years of decreases. Pedestrian traffic fatalities dropped from 4,892 in 2005 to 4,092 in 2009, an average decrease of 200 each year.

Eight states reported that their pedestrian traffic fatalities increased by 10 or more in the first six months of 2010 compared to 2009, while five states reported decreases of 10 or more.

The number of pedestrian fatalities varies enormously from state to state. In 2009, four high-population states with large urban centers – California, Florida, Texas and New York – together accounted for 41% of the nation's pedestrian fatalities. On the other hand, the 25 states with the fewest pedestrian fatalities, plus the District of Columbia, together accounted for only 12%.

Pedestrians and drivers share responsibility for many pedestrian fatalities, as pedestrians and vehicles attempt to use the same space at the same time. No single pedestrian fatality cause stands out and no single countermeasure can make a substantial impact. States with more than a handful of pedestrian fatalities use a mix of environmental, educational and enforcement measures to improve pedestrian safety.

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Introduction

As states began examining their preliminary traffic fatality data for 2010, some states noted that pedestrian fatalities had increased after several years of decreases. To investigate further, in October 2010 the Governors Highway Safety Association (GHSA) asked each state and the District of Columbia to provide their preliminary pedestrian fatality counts for the first six months of 2010.

All 50 states and the District of Columbia submitted data. Some states provided additional information on some fatal crashes. Some states also volunteered their views on why their pedestrian fatalities increased or decreased and examples of their notable pedestrian safety programs.

This report summarizes the information received. It should be read with three important considerations in mind.

1) All data are preliminary.
2) All data are reported by the states from their traffic record systems. Their pedestrian fatality counts may differ slightly from the counts recorded in NHTSA's Fatality Analysis Reporting System (FARS).
3) There are no scientific analyses of the reasons why pedestrian fatalities decreased from 2005 to 2009 or why the decrease appears to have ended in the first six months of 2010.

NHTSA defines a pedestrian traffic fatality as the death of a person not in or on a motor vehicle or bicycle who is struck by motor vehicle in transport in a trafficway or after the vehicle has run off the trafficway (NHTSA, 2009a). This includes a pedestrian on a sidewalk or a motorist changing a tire by the side of the road who is struck by a car leaving the road. Some states use slightly different definitions.

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Pedestrian fatalities in 2009 and 2010

Pedestrian traffic fatalities in the United States for the first six months of 2010 were essentially unchanged from 2009, based on preliminary data supplied by all 50 states and the District of Columbia. Table 1 summarizes the results. Table 2 provides the state-by-state data.

Table 1 Pedestrian traffic fatalities, January – June, 2009 and 2010

	January – June
2009	1,884
2010	1,891
change from 2009	+ 7
percent change	+ 0.4 %
States with decrease	28
States with increase	18
States unchanged	5
States with decrease of 10 or more	5
States with increase of 10 or more	8

Preliminary data from 50 states and the District of Columbia

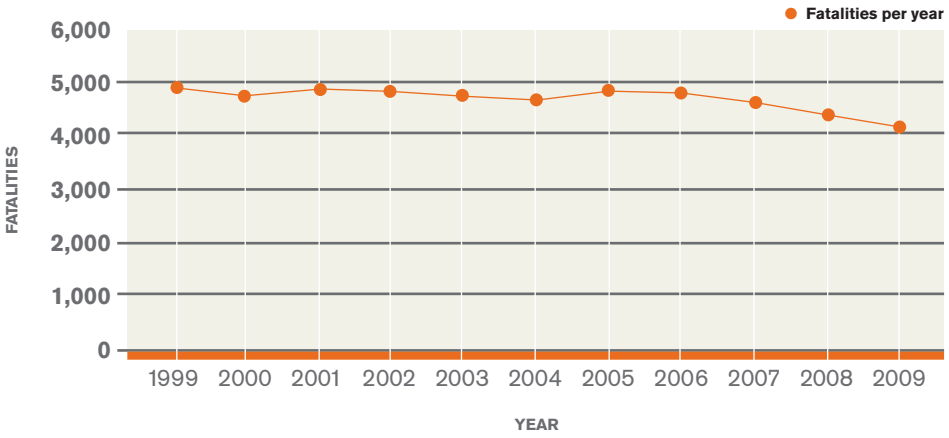
In contrast, the National Highway Traffic Safety Administration's (NHTSA's) early estimates are that overall traffic fatalities dropped 8% during this period (NHTSA, 2010a).

Pedestrian fatalities trends and patterns

If the second six months of 2010 also show no change in pedestrian fatalities, this will mark an end to four years of decreases. Figure 1 shows that, after little change in the years 1999 to 2005, pedestrian traffic fatalities dropped from 4,892 in 2005 to 4,092 in 2009, an average decrease of 200 each year and an overall drop of 16% in four years.

Figure 1 Pedestrian traffic fatalities, 1999-2009

Source: FARS final files for 1999-2008, FARS early estimates file for 2009



As Figure 2 shows, from 1999 to 2009, pedestrian fatalities decreased steadily and substantially for children under the age of 20 (down 42%), adults aged 30-45 (down 31%), and seniors 65 and older (down 29%). Fatalities rose for boomers aged 45-64 (up 16%) and were relatively unchanged for young adults in their 20s.

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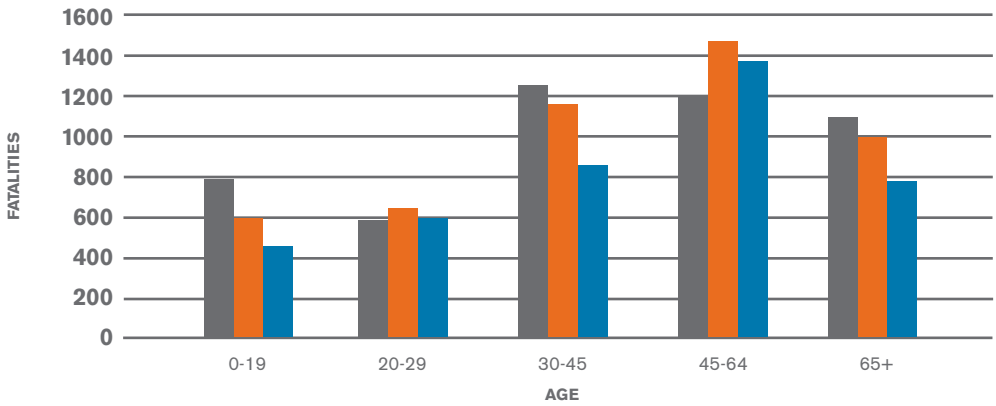
Figure 2 Pedestrian fatalities by age | 1999 | 2005 | 2009

Source: FARS final files for 1999 and 2005, FARS early estimates file for 2009



The number of pedestrian fatalities varies enormously from state to state, as illustrated in Figure 3. In 2009, 41% of the nation's pedestrian fatalities occurred in the four states with 300 or more: California, Florida, Texas and New York. All are large states with several large urban centers; they are the four states with the largest populations (U.S. Census, 2010). The other nine states with more than 100 pedestrian fatalities in 2009 all rank in the top half of states by population.

In contrast, 17 states and the District of Columbia had 22 or fewer pedestrian fatalities, and eight had 10 or fewer: Wyoming, North Dakota, South Dakota, Vermont, New Hampshire, Nebraska, Alaska and Idaho. These eight states have small populations – all fall into the bottom quarter of the states by population – and, except for the District of Columbia, lack major urban centers.

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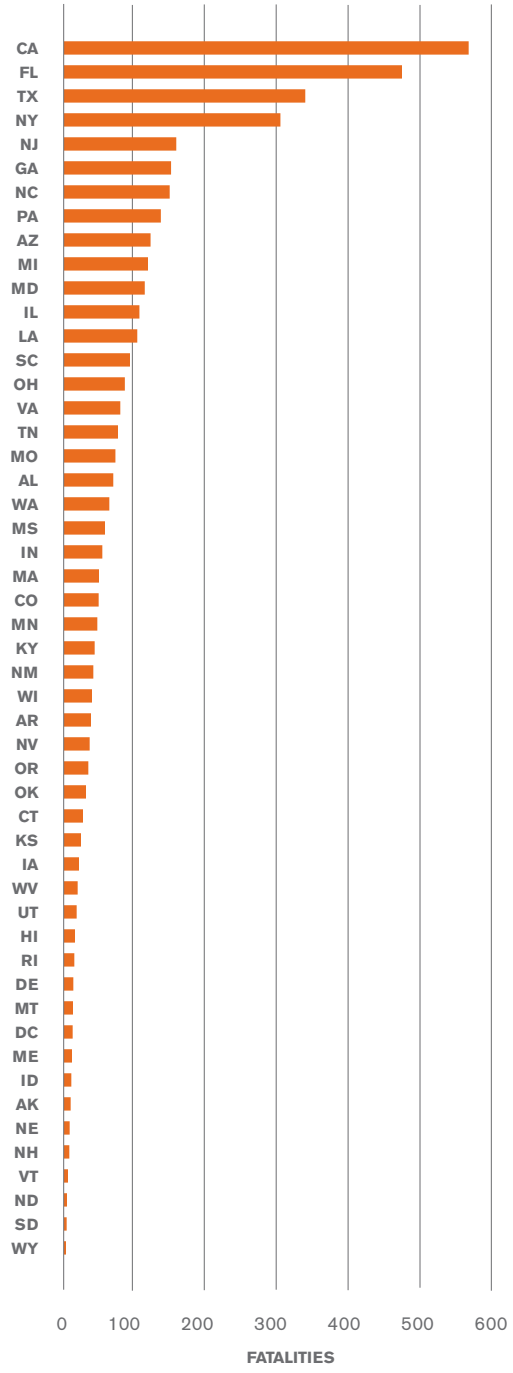
Figure 3 Pedestrian traffic fatalities by state, 2009

Source: FARS



While 12% of the nation's traffic fatalities were pedestrians, they accounted for more than 20% in the District of Columbia, Maryland, New Jersey, and New York but less than 5% in Idaho, Nebraska, North Dakota, Oklahoma, South Dakota, and Wyoming. Viewed another way, the pedestrian fatality rate was 1.35 per 100 thousand population nationwide. It was less than 0.5 in Nebraska, South Dakota, and Wyoming, and between 0.5 and 1.0 in 21 additional states. But it was over 2.0 in the District of Columbia, Florida, Louisiana, and Maryland and between 1.5 and 2.0 in 12 other states. As a result, pedestrian safety is a high priority in some states, based on the total number of pedestrian fatalities or the proportion of traffic fatalities that are pedestrians, but a lower priority in others.

The District of Columbia is completely urbanized but very small, with a 2009 population of 599,657 in only 68 square miles. In 2009 it had 34 traffic fatalities, the least of any state; Alaska was the next, at 62. So the District of Columbia has a small pedestrian fatality total, but a large proportion of its traffic fatalities are pedestrians.

Reasons for pedestrian fatality changes

Pedestrian fatality changes are difficult to observe at the state level, much less to explain, for three reasons. First, as Figure 3 shows, most states have relatively few pedestrian fatalities, so one or two crashes can turn a good year into a bad one, or vice versa. Second, as discussed in the following section, pedestrian fatalities are quite diverse, so that the number potentially affected by any single cause or countermeasure is even smaller. Finally, pedestrian fatalities are affected by the amount of walking. Walking trips and walking miles are estimated in the National Household Travel Survey only about every six to eight years (NHTS, 2010). These estimates come from surveys that are not broken out by state.

Many states, including most states with small pedestrian fatality counts, are not confident that their pedestrian fatality totals changed substantially over the past 10 years. Even at the national level, it's far too soon to draw any firm conclusions from the 2010 six-month preliminary data.

The single notable change over the past 10 years is the decrease in child pedestrian fatalities: down 42% in ages 0-19 combined and down 58% among schoolchildren ages 5-14. National Safe Routes to School (SRTS), begun in 2005, has funded programs in more than 7,622 schools in all 50 states and the District of Columbia as of June 30, 2010 (www.saferoutesinfo.org). Many states credit SRTS with decreasing pedestrian crashes and fatalities among schoolchildren, though no formal evaluation has been conducted. Of course, it's possible that walking has decreased among children, but as noted above there are no data to confirm or deny this hypothesis.

The role of alcohol in pedestrian fatalities has not changed over the past ten years. In both 1998 and 2008, 42% of fatally-injured pedestrians had a positive blood alcohol concentration (BAC) (NHTSA, 2009b, Table 4). Sixteen states believe that drunk or impaired pedestrians are not an increasing problem while only three states believe that they are.

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Several current lifestyle trends may affect pedestrian crashes and fatalities. Both drivers and pedestrians are increasingly distracted by cell phones and other portable electronic devices. Several states noted crash reports or anecdotal evidence of crashes in which distraction was a factor, such as the following from Nevada, but accurate data on the role of distraction are not available.

> **"One high profile case from five years ago was a young boy, 13, in a crosswalk in a flashing zone, who was struck by a woman on her cell phone, who pulled out of her lane, which had stopped for the boy, into the adjacent lane, which was empty, overtook the stopped cars and struck the boy. He did not die, but five years later is still in a coma in a nursing home."**

Kansas noted:

> **"Anecdotally we see more "near" ped incidents due to ped distractions, but at this point we haven't seen it in the reports on the fatals."**

Maryland had a similar comment:

> **"Anecdotally, I hear more stories of peds with smartphones and music players/headphones. It doesn't show up in the typical crash report."**

As did Connecticut:

> **"We've had some 'distracted' pedestrians, but not enough to create a trend."**

A focus on liveable communities, or "get moving" health and fitness programs may increase walking and pedestrian-vehicle conflicts, as noted by Florida, Indiana, New Mexico, New York, Oregon and Texas. If pedestrians or motorists are distracted, the potential for crashes increases. As Delaware noted:

> **"Though there is no solid data to indicate how large the scope of the problem is, there have been isolated cases to show that distracted pedestrians are becoming an issue…particularly those who walk or run for exercise and may be using headphones while listening to music."**

Discussion

Pedestrian crashes and fatalities occur when pedestrians and motor vehicles attempt to use the same roadway space at the same time. Broad social and economic factors can increase these pedestrian-motor vehicle conflicts, as North Carolina aptly stated:

> **"Rapid urbanization, a weakened economy, and growing numbers of vulnerable populations (including older pedestrians and socio-economically disadvantaged groups) without other transportation options have challenged the State to keep up with issues specific to pedestrian safety and mobility."**

Similar broad social and economic factors also affect total traffic fatalities. It's possible that the turnaround in pedestrian fatalities – the end of four years of decreases – suggests that the same will be true for total traffic fatalities. Pedestrian fatalities began their four-year decrease in 2006 (Figure 1), the same year that total fatalities began to decrease (NHTSA, 2009a, Table 2). NHTSA's early estimates are that total traffic fatalities increased by 2.5% in the third quarter of 2010 compared to the same quarter of 2009: the first quarterly increase after 17 consecutive quarters of decreases (NHTSA, 2010a).

The specific circumstances of pedestrian fatalities are remarkably diverse, as illustrated by the Washington Post:

> **"Few common themes in spate of D.C. area pedestrian deaths: One was waiting for the light to change, two were crossing a six-lane highway, another was headed to a post office, one walked beside the interstate, another wandered into the path of a truck."**

Drivers are responsible for some pedestrian fatalities, as in this example from Oregon:

> **"Two teens were killed and a third teen is in critical condition after a vehicle struck them Thursday while they were using a northeast Salem crosswalk. … The victims, all students at Chemeketa Community College, were leaving school about 2:30 p.m. when a 1994 Chevrolet Blazer, driven by Sophia Downing, 29, of Salem, hit them in the crosswalk at Lancaster Drive NE and Winema Place NE. Witnesses told police that the SUV was traveling northbound on Lancaster Drive when it left the roadway and went over the curb. It hit an electric utility box and then crashed into the three students."**

Or this, from Nevada; the victim was:

> **a "young man, 12 years old, who was crossing at a signalized intersection; he waited for his light and as he crossed the street to pick up his younger sibling at the elementary school he was hit by a truck driver who reported to law enforcement 'yes I saw the boy, but I thought he'd stop for me.'"**

Pedestrians themselves are primarily responsible for others, such as this New York crash:

> **"A 14-year-old girl lost her life when a car struck her in Wantagh this morning. … Dawn was just starting to break over Sunrise Highway when police say Brittany decided to run across the street, against the light, dodging rush hour traffic. A 2004 Toyota Camry travelling westbound on the highway struck her."**

Or this Alaska fatality:

> **"the victim was sitting in the middle of the road [at night] when he was struck."**

But drivers and pedestrians frequently share responsibility, in the sense that actions by either the driver or the pedestrian could have prevented the fatality.

Most pedestrian crashes occur on the roadway. This is shared space, used mainly by motor vehicles but at some times and in some places also used by pedestrians. Pedestrian safety countermeasures seek to prevent pedestrians and motor vehicles from attempting to use the same roadway space at the same time, because if they do, the pedestrian will lose.

Unfortunately for pedestrians, many roadways are designed for motor vehicles. As Nevada noted:

> **"Like many other places in the southwest, the road network in Clark County consists of arterials that are designed as six lanes with intersections jumping to eight lanes. In urban area that bisects freeways or beltways, intersection can be as large as 12 lanes! Streets are flat with wide lanes that are comfortable for speed and there are few places marked for pedestrians to cross the street. On major arterial streets the norm is to have nowhere for up to a mile stretch for pedestrians to safely cross the street."**

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While there are no specific pedestrian safety measures that address a substantial number of crashes and fatalities – no silver bullets – there are well-established general principles that states should follow if pedestrian safety is a priority. For details, see NHTSA's Countermeasures That Work, Chapter 8 (NHTSA, 2010b), NCHRP's Guide for Reducing Collisions Involving Pedestrians (Zegeer and Stutts, 2004), and the Pedestrian and Bicycle Information Center at www.walkinginfo.org.

- **Priority.** Make pedestrian safety a real priority and allocate appropriate resources to pedestrian countermeasures. Some states include pedestrians in the state's Strategic Highway Safety Plan or have separate pedestrian safety plans.
- **Data.** Analyze crash data to identify pedestrian problems. Some states conduct pedestrian safety audits.
- **Engineering.** Install pedestrian crosswalks or signals to reserve roadway space and time for pedestrians. Georgia has added pedestrian-activated red stop lights at high-volume pedestrian crossings. The ultimate, though expensive, engineering solution is to provide separate pedestrian walkways, as Nevada did:

  "The most profound improvement in Clark County has been the addition of the pedestrian overhead walkways on the Las Vegas Strip. On a busy weekend, the walkways on Las Vegas Boulevard can take half a million people crossing the Strip away from the traffic."

- **Laws and enforcement.** New Jersey strengthened its law by requiring vehicles to stop, rather than only yield, for pedestrians in crosswalks. Hawaii and New Jersey have used "decoy" enforcement tactics, in which police officers pose as pedestrians in marked crosswalks; motorists who fail to stop are issued warnings or tickets by uniformed officers a short distance away.

  Enforcing jaywalking and other laws affecting pedestrians rather than motorists is challenging for several reasons: violations are common, fines are low, and other law enforcement duties appear more important. As Delaware noted:

  It's difficult "to structure enforcement programs when pedestrians and not motorists are the primary offenders."

- **Education.** Continue educating children on safe pedestrian behavior through SRTS programs and other means, as all states and the District of Columbia do in some schools.

These measures all may help improve pedestrian safety. Ultimately, though, both pedestrians and motorists must continually keep in mind that they each travel on or cross the same roadways. The price of pedestrian safety is eternal vigilance.

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Table 2

Pedestrian traffic fatalities, 2009 and January - June 2010

Source: 2009 FARS; 2010 preliminary data reported by states and the District of Columbia.

State	2009 total	2009 6 months	2010 6 months	change 6 months
AK	9	3	3	0
AL	64	39	27	-12
AR	36	16	13	-3
AZ	120	54	75	21
CA	563	260	260	0
CO	47	16	12	-4
CT	26	11	16	5
DC	14	5	8	3
DE	15	4	12	8
FL	466	208	243	35
GA	150	78	77	-1
HI	16	9	12	3
IA	21	9	6	-3
ID	10	2	1	-1
IL	111	50	46	-4
IN	50	21	27	6
KS	22	12	11	-1
KY	41	18	25	7
LA	107	63	29	-34
MA	48	14	25	11
MD	113	54	50	-4
ME	11	5	4	-1
MI	118	48	58	10
MN	42	19	16	-3
MO	68	31	20	-11
MS	58	28	19	-9
MT	15	4	2	-2
NC	146	64	81	17
ND	4	3	0	-3
NE	9	6	5	-1
NH	8	4	4	0
NJ	157	81	65	-16
NM	39	14	14	0
NV	35	18	12	-6
NY	306	139	132	-7
OH	85	32	36	4
OK	31	15	31	16
OR	35	13	31	18
PA	134	76	72	-4
RI	16	6	5	-1
SC	89	41	35	-6
SD	4	1	6	5
TN	70	33	31	-2
TX	344	166	124	-42
UT	19	10	10	0
VA	73	31	41	10
VT	5	1	2	1
WA	61	23	27	4
WI	38	12	21	9
WV	21	12	8	-4
WY	2	2	1	-1
total	**4,092**	**1,884**	**1,891**	**7**