Spotlight on Highway Safety

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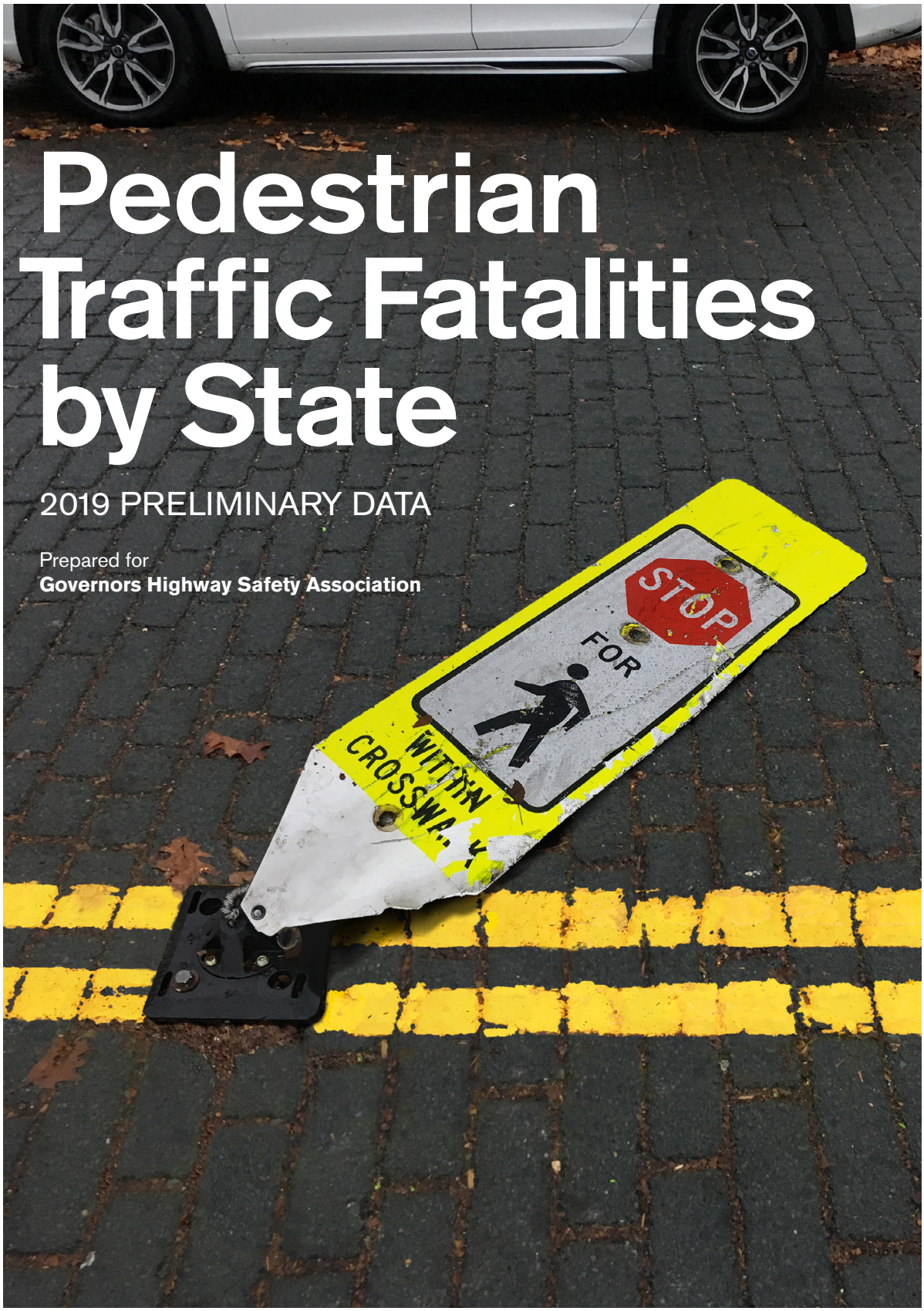
Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

Prepared for
Governors Highway Safety Association



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EXECUTIVE SUMMARY

In recent years, the number of pedestrian fatalities in the United States has grown sharply. During the 10-year period from 2009 to 2018, the number of pedestrian fatalities increased by 53% (from 4,109 deaths in 2009 to 6,283 deaths in 2018); by comparison, the combined number of all other traffic deaths increased by 2%. Along with the increase in the number of pedestrian fatalities, pedestrian deaths as a percentage of total motor vehicle crash deaths increased from 12% in 2009 to 17% in 2018. The last time pedestrians accounted for 17% of total U.S. traffic deaths was over 35 years ago, in 1982.

Earlier studies by the Governors Highway Safety Association (GHSA), based on preliminary data reported by State Highway Safety Offices (SHSOs), were the first to predict recent increases in pedestrian fatalities. The current study, based on preliminary data from all 50 states and the District of Columbia (D.C.), found that the alarming rise in pedestrian deaths observed in both 2015 and 2016 resumed in 2018 and continued in 2019. Key findings include the following:

- For the first six months of 2019, GHSA found a 3% increase in the reported number of pedestrian fatalities compared with the first six months of 2018.
- However, after adjusting for anticipated underreporting in the preliminary state data and considering the historic trends in pedestrian fatalities during the first and second halves of the year, GHSA estimates the nationwide number of pedestrians killed in motor vehicle crashes in 2019 was 6,590, an increase of approximately 300 deaths, or 5%, from 2018.
- This projection represents a continuation of an increasing trend in pedestrian deaths going back to 2009 and would be the largest annual number of pedestrian fatalities in the U.S. since 1988.
- In addition, GHSA projects a pedestrian fatality rate per 100,000 population of 2.0, which would be the largest pedestrian fatality rate in the U.S. since 1997.
- States reported a range of changes in the number of pedestrian fatalities in the first half of 2019 compared with the same period in 2018:
  - 30 states had increases in pedestrian fatalities.
  - 20 states and Washington, D.C., had decreases.
- States differ widely in fatality numbers:
  - The estimated number of pedestrian deaths for the first half of 2019 ranged from one in Vermont to 519 in California.
  - Five states (Arizona, California, Florida, Georgia and Texas) accounted for almost half — 47% — of all pedestrian deaths.
  - New Mexico had the highest rate of pedestrian deaths per resident population, while Vermont had the lowest.
- States use various combinations of engineering, enforcement and education countermeasures to address pedestrian safety, including targeted enforcement in conjunction with public outreach and education.

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Many factors outside the control of state and local traffic safety officials contribute to annual changes in the number of pedestrian fatalities, including economic conditions, population growth, demographic changes, weather conditions, fuel prices, vehicle miles traveled, the amount of time people spend walking and changing patterns of drug use, including decriminalization of marijuana.

The increasing shift in U.S. vehicle sales away from passenger cars to light trucks (with light trucks generally causing more severe pedestrian impacts than cars) is also a factor. Although passenger cars are the largest category of vehicles involved in fatal pedestrian crashes, the number of pedestrian fatalities involving SUVs increased at a faster rate — 81% — from 2009 to 2018 compared to passenger cars, which increased by 53%.

Increases in pedestrian fatalities are occurring largely at night. From 2009 to 2018, the number of nighttime pedestrian fatalities increased by 67%, compared to a 16% increase in daytime pedestrian fatalities.

Warmer temperatures could be a contributing factor. Warmer weather can encourage more nighttime outdoor activity (including walking) and is associated with increased alcohol consumption, which increases the risk of fatal pedestrian collisions.

Another possible factor contributing to the recent rise in the overall number of pedestrian fatalities could be the large growth in smartphone use over the past decade, which can be a significant source of both cognitive and visual distraction for all road users.

Despite the overall increase in pedestrian deaths, there is some good news in the 2019 preliminary data:

- Pedestrian fatalities during the first half of 2019 declined in 20 states and D.C. compared with the same period in 2018.
- Six states (Arizona, Georgia, Louisiana, Pennsylvania, Illinois and Mississippi) reported double-digit declines in both the number and percent change in pedestrian fatalities from the same period in 2018.
- Seven states (Alaska, Colorado, Idaho, Indiana, Kentucky, Rhode Island and Wisconsin) reported two consecutive years of declining numbers of pedestrian fatalities.

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INTRODUCTION

Walking is the most basic, inexpensive and environmentally friendly form of human transportation. Walking provides essential connections between residential, retail and commercial land uses as well as access to public transit, especially in urban and suburban areas. But unfortunately, walking has become increasingly risky in recent years, whether walking the dog, traveling to work or school, exercising or simply taking a stroll.

During the 10-year period of 2009 to 2018, the number of pedestrian fatalities in the U.S. increased by 53%, from 4,109 in 2009 to 6,283 deaths in 2018 (Table 1 and Figure 1). This translates into more than 2,100 additional pedestrian deaths in 2018 compared with 2009. While pedestrian deaths have been increasing, the number of all other traffic deaths has increased by only 2%. A statistical projection of traffic fatalities for the first half of 2019 conducted by NHTSA shows an estimated 3.4% reduction in overall traffic fatalities as compared to the first half of 2018 . The 2019 preliminary data suggests a continuation of the diverging trends in overall traffic deaths (which have either increased slightly or decreased slightly in recent years), and in pedestrian deaths (which have increased sharply since 2009).

Table 1 **Pedestrian Fatalities and Percent of Total Traffic Fatalities: 2009-2018**

Year	Pedestrian Fatalities	All Other Traffic Fatalities Combined	Total Traffic Fatalities	Pedestrian Deaths as a Percentage of Total Traffic Fatalities
2009	4,109	29,774	33,883	12%
2010	4,302	28,697	32,999	13%
2011	4,457	28,022	32,479	14%
2012	4,818	28,964	33,782	14%
2013	4,779	28,114	32,893	15%
2014	4,910	27,834	32,744	15%
2015	5,494	29,990	35,484	15%
2016	6,080	31,726	37,806	16%
2017	6,075	31,398	37,473	16%
2018	6,283	30,277	36,560	17%
% Change from 2009 to 2018	+ 53%	+ 2%	+ 8%	

Source: National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting System (FARS)

Pedestrian Traffic Fatalities by State

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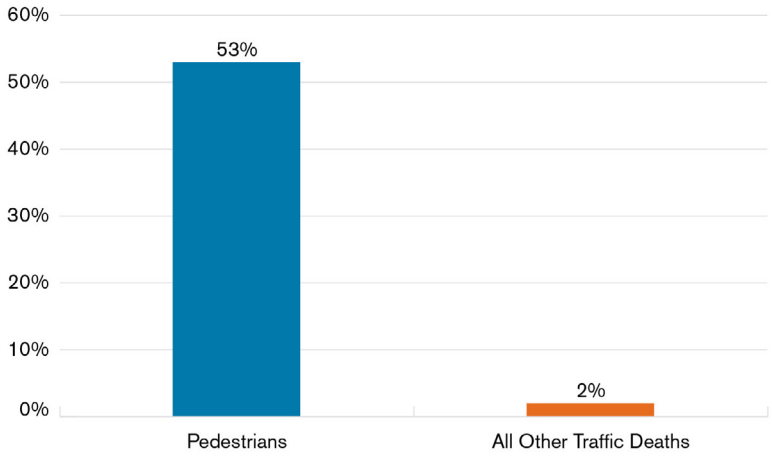
Figure 1 **Percentage Increase in Number of Traffic Deaths: 2009 to 2018**



Source: FARS

Along with the increase in the number of pedestrian fatalities, pedestrian deaths as a percentage of total motor vehicle crash deaths increased from 12% in 2009 to 17% in 2018. The last time pedestrians accounted for 17% of total U.S. traffic deaths was 1982. The increasing proportion of pedestrian fatalities is due to the simultaneous trends of increasing numbers of pedestrian deaths and general declines in the number of occupant fatalities. Declines in occupant deaths are attributed in part to steady enhancements in vehicle crashworthiness and crash avoidance technology, whereas by contrast, pedestrians remain just as susceptible to sustaining serious or fatal injuries when struck by a motor vehicle.

EARLY ESTIMATES OF 2019 PEDESTRIAN FATALITY DATA

The growing number of pedestrian fatalities prompted GHSA to carefully examine pedestrian fatality data for the first half of 2019. Using the same methods as in prior pedestrian fatality studies, SHSOs were asked to provide preliminary counts of pedestrian deaths that occurred in the first half of 2019. These numbers provide an early look at 2018 projections many months before the National Highway Traffic Safety Administration's (NHTSA's) Fatality Analysis Reporting System (FARS) data are available. (Annual FARS data are typically released near the end of the following calendar year.)

The reported state data used for this analysis are preliminary and, in some cases, incomplete. All 50 states and Washington, D.C., provided information. GHSA adjusted preliminary data for each state based on its past three years of experience comparing preliminary and final SHSO data. For prior GHSA pedestrian reports, the final data provided by states were about 4.5% higher than the preliminary fatality data (for all jurisdictions combined). These adjustments provide a more accurate year-to-year comparison, given that 2018 data provided by SHSOs are final and 2019 data are preliminary.

In addition, GHSA used historic FARS data regarding the annual numbers and proportions of pedestrian deaths that occurred during the first and second halves of the year to estimate the projected number of pedestrian fatalities for July 2019 to December 2019.

Pedestrian Traffic Fatalities by State

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Table 2

Pedestrian Fatalities by State: Jan-June 2018 & 2019

Source: State Highway Safety Offices and data analysis by GHSA

The number of pedestrian fatalities for the first six months of 2019 is projected to be about 3% higher than the same period in 2018 (Table 2). Table 3 shows the same data as Table 2 but is sorted by the percent change from 2018 to 2019. Based on the preliminary data, 30 states had increases in pedestrian fatalities, and 20 states plus Washington, D.C., had decreases.

Sorted by State

State	Jan-June 2018	Jan-June 2019 (Preliminary Adjusted)	% Change from 2018 to 2019	
			#	%
Alabama	41	51	10	25%
Alaska	6	5	-1	-17%
Arizona	123	111	-12	-10%
Arkansas	23	29	6	25%
California	464	519	55	12%
Colorado	35	31	-4	-10%
Connecticut	23	27	4	19%
Delaware	10	11	1	6%
District of Columbia	7	6	-1	-18%
Florida	359	368	9	3%
Georgia	137	116	-21	-16%
Hawaii	21	25	4	19%
Idaho	6	3	-3	-42%
Illinois	75	61	-14	-18%
Indiana	44	36	-8	-19%
Iowa	9	10	1	8%
Kansas	14	8	-6	-46%
Kentucky	37	34	-3	-9%
Louisiana	76	64	-12	-16%
Maine	3	7	4	133%
Maryland	57	56	-1	-2%
Massachusetts	38	32	-6	-16%
Michigan	59	62	3	5%
Minnesota	14	19	5	38%
Mississippi	42	30	-12	-29%
Missouri	45	47	2	5%
Montana	6	8	2	33%
Nebraska	12	7	-5	-42%
Nevada	32	42	10	31%
New Hampshire	1	4	3	300%
New Jersey	72	79	7	9%
New Mexico	43	47	4	9%
New York	112	120	8	7%
North Carolina	100	112	12	12%
North Dakota	3	5	2	67%
Ohio	67	60	-7	-10%
Oklahoma	25	33	8	34%
Oregon	33	40	7	22%
Pennsylvania	89	74	-15	-17%
Rhode Island	4	3	-1	-22%
South Carolina	74	83	9	12%
South Dakota	5	3	-2	-40%
Tennessee	53	64	11	21%
Texas	297	313	16	5%
Utah	13	14	1	8%
Vermont	2	1	-1	-44%
Virginia	52	57	5	10%
Washington	42	47	5	11%
West Virginia	6	12	6	95%
Wisconsin	20	13	-7	-36%
Wyoming	3	7	4	144%
U.S. Total	2,934	3,015	81	3%

Pedestrian Traffic Fatalities by State

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Table 3

Pedestrian Fatalities by State: Jan-June 2018 & 2019

Source: State Highway Safety Offices

Sorted by Percentage Change

State	Jan-June 2018	Jan-June 2019 (Preliminary Adjusted)	Change from 2018 to 2019	
			#	%
New Hampshire	1	4	3	300%
Wyoming	3	7	4	144%
Maine	3	7	4	133%
West Virginia	6	12	6	95%
North Dakota	3	5	2	67%
Minnesota	14	19	5	38%
Oklahoma	25	33	8	34%
Montana	6	8	2	33%
Nevada	32	42	10	31%
Arkansas	23	29	6	25%
Alabama	41	51	10	25%
Oregon	33	40	7	22%
Tennessee	53	64	11	21%
Connecticut	23	27	4	19%
Hawaii	21	25	4	19%
South Carolina	74	83	9	12%
California	464	519	55	12%
North Carolina	100	112	12	12%
Washington	42	47	5	11%
Virginia	52	57	5	10%
New Jersey	72	79	7	9%
New Mexico	43	47	4	9%
Iowa	9	10	1	8%
Utah	13	14	1	8%
New York	112	120	8	7%
Delaware	10	11	1	6%
Missouri	45	47	2	5%
Texas	297	313	16	5%
Michigan	59	62	3	5%
Florida	359	368	9	3%
Maryland	57	56	-1	-2%
Kentucky	37	34	-3	-9%
Arizona	123	111	-12	-10%
Ohio	67	60	-7	-10%
Colorado	35	31	-4	-10%
Georgia	137	116	-21	-16%
Louisiana	76	64	-12	-16%
Massachusetts	38	32	-6	-16%
Alaska	6	5	-1	-17%
Pennsylvania	89	74	-15	-17%
District of Columbia	7	6	-1	-18%
Illinois	75	61	-14	-18%
Indiana	44	36	-8	-19%
Rhode Island	4	3	-1	-22%
Mississippi	42	30	-12	-29%
Wisconsin	20	13	-7	-36%
South Dakota	5	3	-2	-40%
Nebraska	12	7	-5	-42%
Idaho	6	3	-3	-42%
Vermont	2	1	-1	-44%
U.S. Total	2,934	3,015	81	3%

Percentage Change Up

Percentage Change Down

Pedestrian Traffic Fatalities by State

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Sorted by Number of Fatalities

Table 4

Pedestrian Fatalities by State: Jan-June 2019

Source: State Highway Safety Offices

State	Pedestrian Fatalities (Preliminary Adjusted)
California	519
Florida	368
Texas	313
New York	120
Georgia	116
North Carolina	112
Arizona	111
South Carolina	83
New Jersey	79
Pennsylvania	74
Tennessee	64
Louisiana	64
Michigan	62
Illinois	61
Ohio	60
Virginia	57
Maryland	56
Alabama	51
Missouri	47
New Mexico	47
Washington	47
Nevada	42
Oregon	40
Indiana	36
Kentucky	34
Oklahoma	33
Massachusetts	32
Colorado	31
Mississippi	30
Arkansas	29
Connecticut	27
Hawaii	25
Minnesota	19
Utah	14
Wisconsin	13
West Virginia	12
Delaware	11
Iowa	10
Montana	8
Kansas	8
Wyoming	7
Maine	7
Nebraska	7
District of Columbia	6
Alaska	5
North Dakota	5
New Hampshire	4
Idaho	3
Rhode Island	3
South Dakota	3
Vermont	1
Total States	3,015

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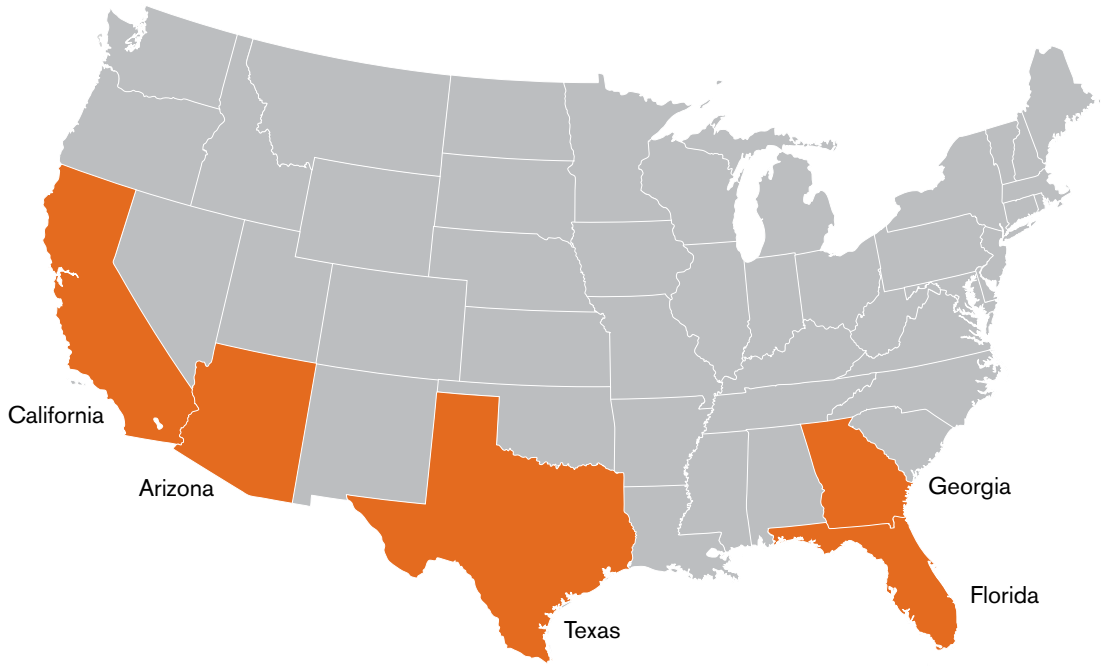
As illustrated in Figure 2, five states (Arizona, California, Florida, Georgia and Texas) accounted for almost half (47%) of all pedestrian deaths during the first six months of 2019. By comparison, these five states represented approximately 33% of the U.S. population, according to the 2019 U.S. Census.

Figure 2 **5 States Comprising 47% of Pedestrian Deaths: Jan-June 2019 vs. 33% of U.S. Population**



Source: SHSOs

Pedestrian Traffic Fatalities by State

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Table 5

Pedestrian Fatalities by State Per 100,000 Population: Jan-June 2019

Source: State Highway Safety Offices and U.S. Census Bureau

Table 5 shows the rate of pedestrian fatalities per 100,000 population by state for the first six months of 2019. New Mexico had the highest rate (2.24), while Vermont had the lowest (0.18). Fifteen states had pedestrian fatality rates of 1.0 or higher per 100,000 population, compared with 12 states in 2018.

Sorted by State

State	Pedestrian Fatalities Per 100K Population
Alabama	1.04
Alaska	0.68
Arizona	1.53
Arkansas	0.96
California	1.31
Colorado	0.55
Connecticut	0.77
Delaware	1.09
District of Columbia	0.82
Florida	1.72
Georgia	1.09
Hawaii	1.77
Idaho	0.19
Illinois	0.48
Indiana	0.53
Iowa	0.31
Kansas	0.26
Kentucky	0.76
Louisiana	1.38
Maine	0.52
Maryland	0.92
Massachusetts	0.46
Michigan	0.62
Minnesota	0.34
Mississippi	1.00
Missouri	0.77
Montana	0.75
Nebraska	0.36
Nevada	1.36
New Hampshire	0.29
New Jersey	0.89
New Mexico	2.24
New York	0.62
North Carolina	1.06
North Dakota	0.66
Ohio	0.52
Oklahoma	0.85
Oregon	0.95
Pennsylvania	0.58
Rhode Island	0.30
South Carolina	1.61
South Dakota	0.34
Tennessee	0.94
Texas	1.08
Utah	0.44
Vermont	0.18
Virginia	0.67
Washington	0.61
West Virginia	0.65
Wisconsin	0.22
Wyoming	1.27
Total	0.92

Sorted by Fatality Rate

State	Pedestrian Fatalities Per 100K Population
New Mexico	2.24
Hawaii	1.77
Florida	1.72
South Carolina	1.61
Arizona	1.53
Louisiana	1.38
Nevada	1.36
California	1.31
Wyoming	1.27
Delaware	1.09
Georgia	1.09
Texas	1.08
North Carolina	1.06
Alabama	1.04
Mississippi	1.00
Arkansas	0.96
Oregon	0.95
Tennessee	0.94
Maryland	0.92
New Jersey	0.89
Oklahoma	0.85
District of Columbia	0.82
Missouri	0.77
Connecticut	0.77
Kentucky	0.76
Montana	0.75
Alaska	0.68
Virginia	0.67
North Dakota	0.66
West Virginia	0.65
Michigan	0.62
New York	0.62
Washington	0.61
Pennsylvania	0.58
Colorado	0.55
Indiana	0.53
Maine	0.52
Ohio	0.52
Illinois	0.48
Massachusetts	0.46
Utah	0.44
Nebraska	0.36
Minnesota	0.34
South Dakota	0.34
Iowa	0.31
Rhode Island	0.30
New Hampshire	0.29
Kansas	0.26
Wisconsin	0.22
Idaho	0.19
Vermont	0.18
Total	0.92

Pedestrian Traffic Fatalities by State

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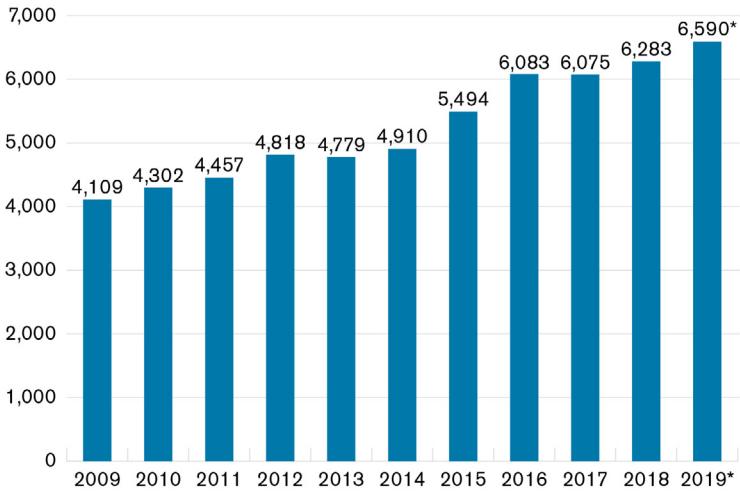
Based on the preliminary number of pedestrian fatalities during the first six months of 2019, along with historic data regarding the annual numbers and proportions of pedestrian deaths that occurred during the first and second halves of the year, GHSA projects **there were an estimated 6,590 pedestrian fatalities in 2019, which would represent a 5% increase from 2018, or approximately 300 additional pedestrian fatalities**.

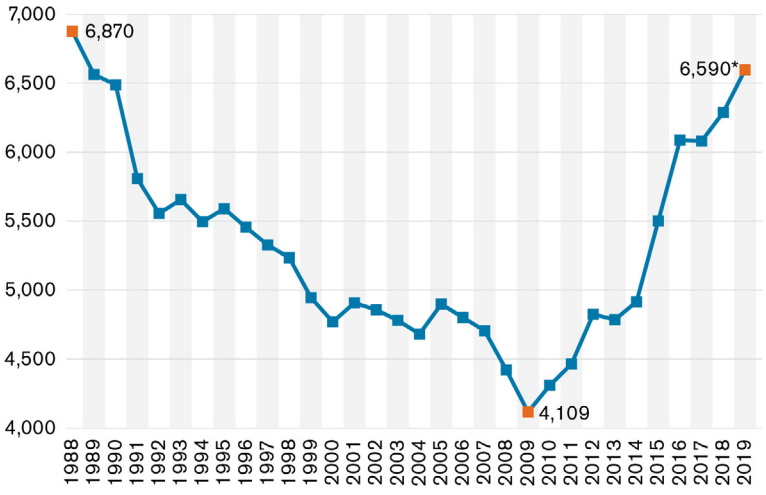
As shown in Figures 3 and 4, the projected number of 6,590 pedestrian fatalities in 2019 represents a continuation of an increasing trend in pedestrian deaths going back to 2009 and would be the **largest annual number of pedestrian fatalities in the U.S. since 1988**.

Figure 3 **U.S. Pedestrian Fatalities: 2009-2019**



* 2019 estimate based on preliminary data and historical trends
Source: SHSOs and FARS

Figure 4 **U.S. Pedestrian Fatalities: 1988-2019**



* 2019 estimate based on preliminary data and historical trends
Source: SHSOs and FARS

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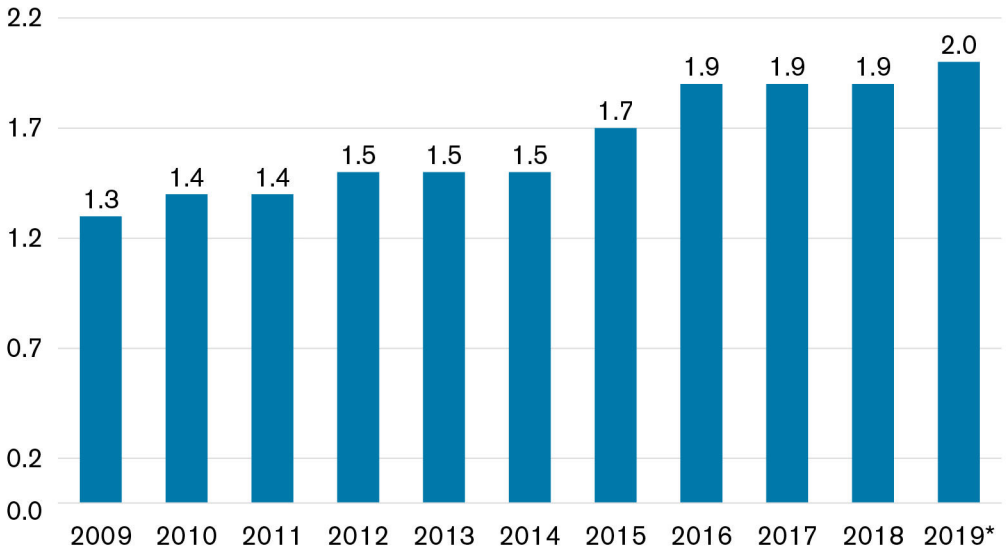
Based on the projected number of pedestrian fatalities in 2019, GHSA projects a pedestrian fatality rate per 100,000 population of 2.0, which would be the largest pedestrian fatality rate in the U.S. since 1997.

Figure 5 **U.S. Pedestrian Fatalities Per 100,000 Population: 2009-2019**



* Projected
Source: FARS and US Census Bureau

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2018 PEDESTRIAN FATALITY DATA

In addition to analyzing preliminary pedestrian fatality data for the first six months of 2019, GHSA also examined pedestrian fatality data for the most recent complete calendar year (2018), as published by NHTSA through FARS. The following crash factors were examined:

- Population
- Light Condition
- Location
- Alcohol and Other Drugs
- Vehicle Type

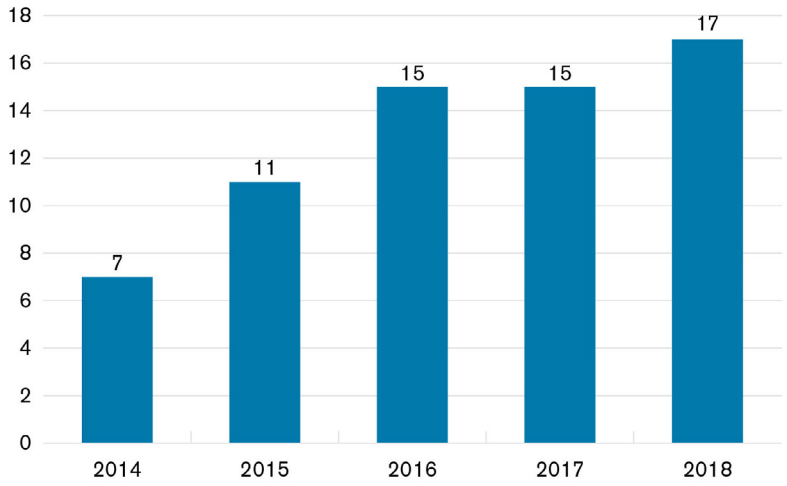
Population

Table 6 and Figures 6 through 17 provide analysis of the most recent pedestrian fatality data available from FARS.

Table 6 shows the rate of pedestrian fatalities per 100,000 population by state for 2018 based on the number of pedestrian fatalities reported by FARS and U.S. Census population data:

- New Mexico had the highest pedestrian fatality rate (4.0), while Maine had the lowest (0.5).
- Three New England states (Maine, New Hampshire and Rhode Island) had the lowest pedestrian fatality rates.
- 17 states had pedestrian fatality rates per 100,000 population greater than or equal to 2.0 in 2018. By comparison, 15 states had fatality rates this high in 2016 and 2017, 11 states had fatality rates this high in 2015, and seven states had fatality rates this high in 2014 (Figure 5).

Figure 6 **Number of States with Fatality Rates ≥ 2.0 Per 100,000 Population**



Source: SHSOs and U.S. Census Bureau

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Table 6

Pedestrian Fatalities by State Per 100,000 Population: Jan-Dec 2018

Source: State Highway Safety Offices and U.S. Census Bureau

Sorted by State

State	Pedestrian Fatalities Per 100K Population - 2018
Alabama	2.2
Alaska	1.9
Arizona	3.3
Arkansas	2.1
California	2.3
Colorado	1.6
Connecticut	1.7
Delaware	2.4
District of Columbia	1.6
Florida	3.3
Georgia	2.5
Hawaii	3.0
Idaho	1.0
Illinois	1.3
Indiana	1.7
Iowa	0.7
Kansas	1.0
Kentucky	1.6
Louisiana	3.5
Maine	0.5
Maryland	2.1
Massachusetts	1.1
Michigan	1.4
Minnesota	0.7
Mississippi	2.9
Missouri	1.6
Montana	1.4
Nebraska	1.2
Nevada	2.6
New Hampshire	0.7
New Jersey	1.9
New Mexico	4.0
New York	1.3
North Carolina	2.2
North Dakota	0.8
Ohio	1.1
Oklahoma	1.5
Oregon	1.9
Pennsylvania	1.5
Rhode Island	0.7
South Carolina	3.2
South Dakota	1.1
Tennessee	2.0
Texas	2.1
Utah	1.1
Vermont	1.0
Virginia	1.4
Washington	1.4
West Virginia	1.2
Wisconsin	1.0
Wyoming	1.0
U.S. Average	1.9

Sorted by Fatality Rate

State	Pedestrian Fatalities Per 100K Population - 2018
New Mexico	4.0
Louisiana	3.5
Florida	3.3
Arizona	3.3
South Carolina	3.2
Hawaii	3.0
Mississippi	2.9
Nevada	2.6
Georgia	2.5
Delaware	2.4
California	2.3
Alabama	2.2
North Carolina	2.2
Texas	2.1
Maryland	2.1
Arkansas	2.1
Tennessee	2.0
New Jersey	1.9
Oregon	1.9
Alaska	1.9
Indiana	1.7
Connecticut	1.7
Kentucky	1.6
District of Columbia	1.6
Colorado	1.6
Missouri	1.6
Pennsylvania	1.5
Oklahoma	1.5
Michigan	1.4
Montana	1.4
Virginia	1.4
Washington	1.4
New York	1.3
Illinois	1.3
Nebraska	1.2
West Virginia	1.2
Utah	1.1
South Dakota	1.1
Massachusetts	1.1
Ohio	1.1
Wyoming	1.0
Kansas	1.0
Idaho	1.0
Wisconsin	1.0
Vermont	1.0
North Dakota	0.8
Minnesota	0.7
Iowa	0.7
New Hampshire	0.7
Rhode Island	0.7
Maine	0.5
U.S. Average	1.9

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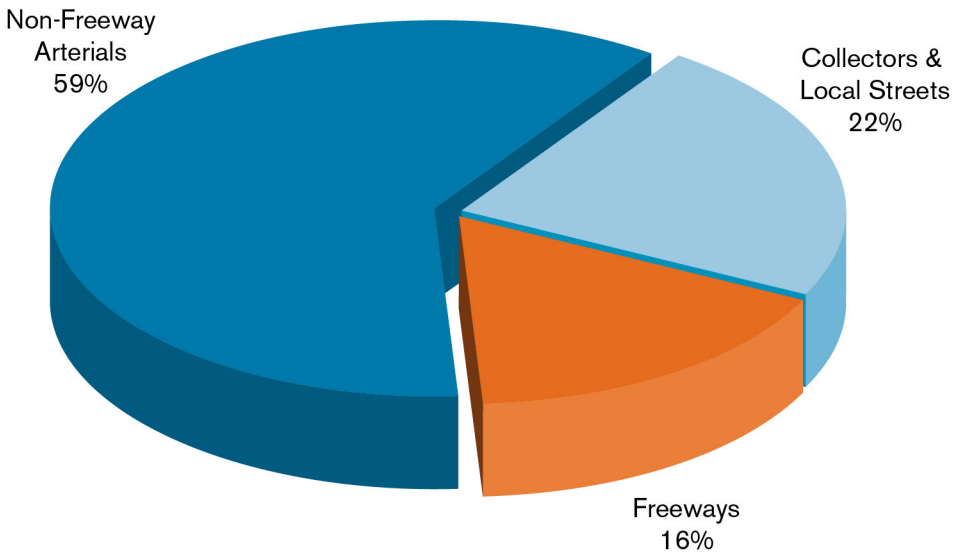
As illustrated in Figure 7, more than half of all pedestrian fatalities in 2018 (59%) occurred on Non-Freeway Arterials, which are the main roads that carry local and regional traffic through communities. The second largest category was Collectors and Local Streets (22%), which typically serve residential areas and downtown traffic. A surprisingly large number of pedestrian fatalities — 16% — occurred on freeways, which include interstates. Note that some of the pedestrian fatalities on freeways involved motorists who were struck while standing outside of their cars due to mechanical issues or minor crashes.

Figure 7 **Pedestrian Fatalities by Roadway Function Class: 2018**



Source: FARS

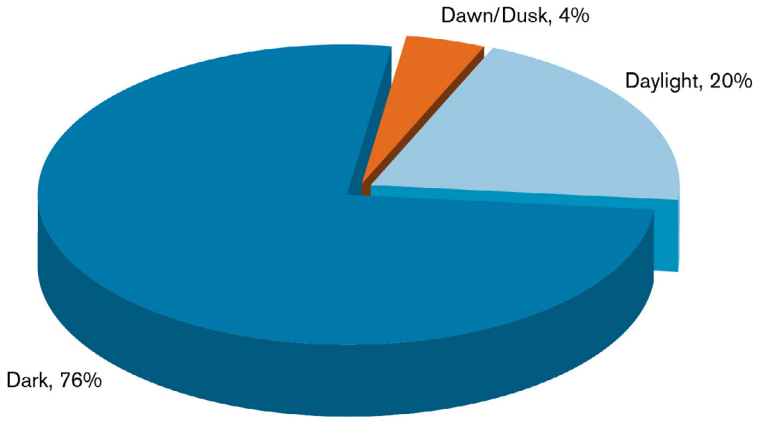
Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

Light Condition

Darkness poses especially high risk for those traveling by foot. On a national basis, 76% of pedestrian fatalities in 2018 occurred after dark (Figure 8).

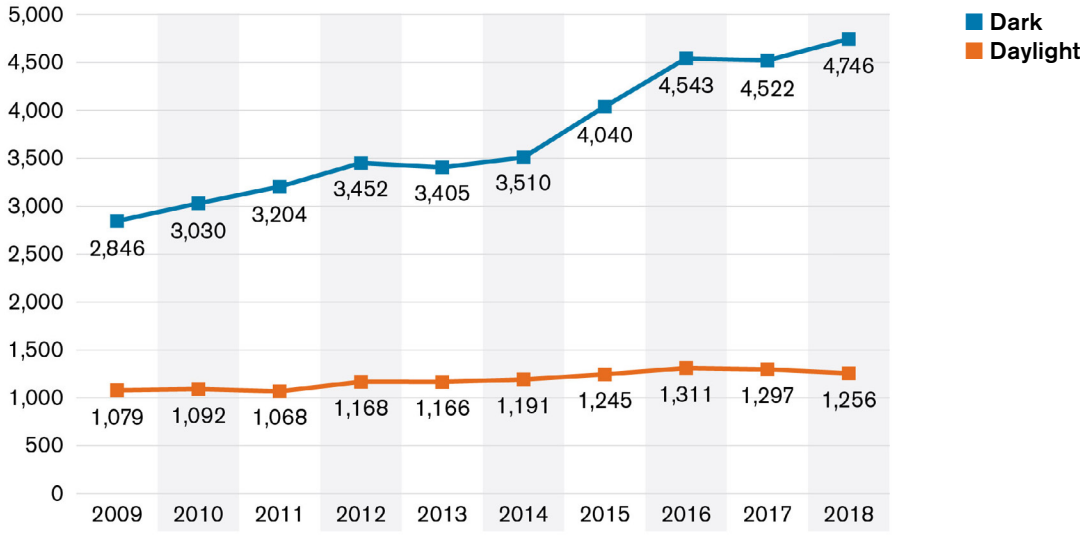
Figure 8 **Pedestrian Fatalities by Light Condition: 2018**



Source: FARS

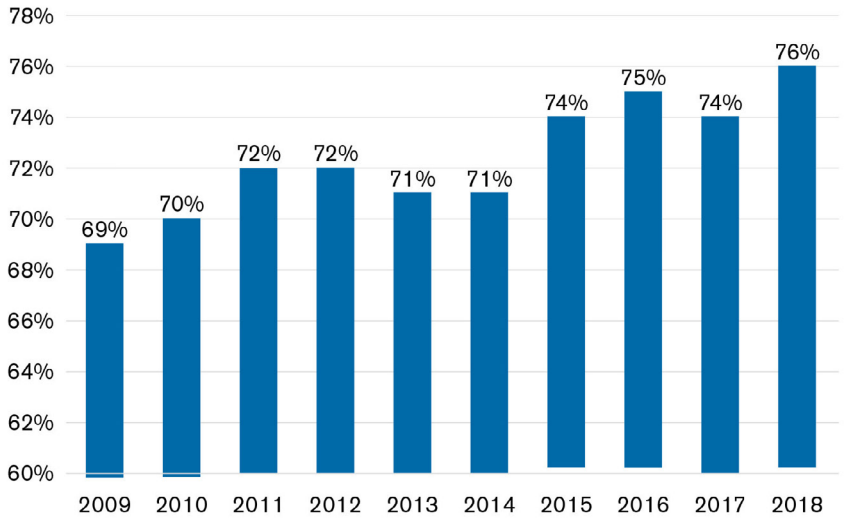
Figures 9 and 10 show trends in the numbers of daytime and nighttime pedestrian fatalities. From 2009 to 2018, the number of nighttime pedestrian fatalities increased by 67%, compared to an increase of only 16% in daytime pedestrian fatalities.

Figure 9 **Pedestrian Fatalities by Light Condition: 2009-2018**



Source: FARS

Figure 10 **Percentage of Pedestrian Fatalities That Occurred in the Dark: 2009-2018**

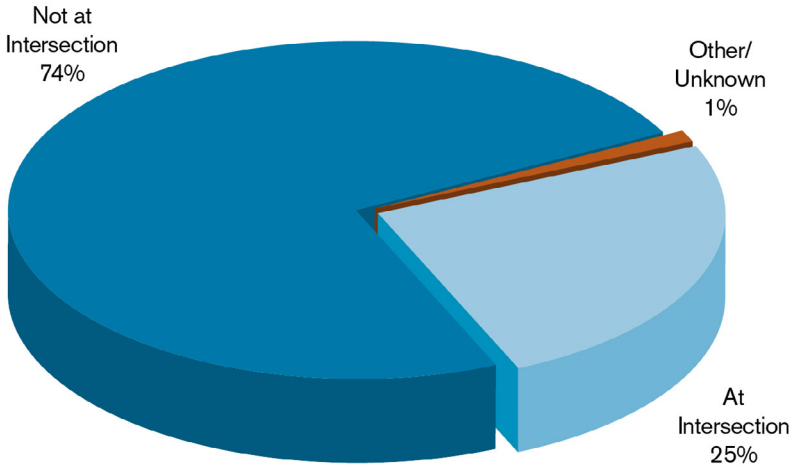


Source: FARS

Location

On a national basis, about 25% of pedestrian fatalities in 2018 occurred at intersections or were intersection-related (Figure 11). Most pedestrian fatalities occurred at non-intersection locations.

Figure 11 **Pedestrian Fatality Locations: 2018**



Source: FARS

Pedestrian Traffic Fatalities by State

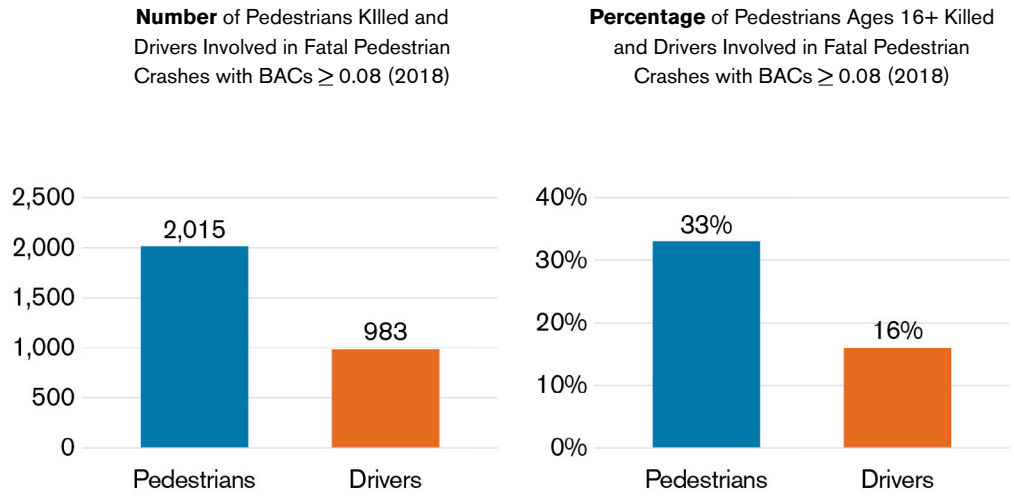
2019 PRELIMINARY DATA

Alcohol

Alcohol impairment — for the driver and/or pedestrian — was reported in about half of traffic crashes that resulted in pedestrian fatalities in 2018. One-third of fatally injured pedestrians ages 16 and older with known test results had a blood alcohol concentration (BAC) of 0.08 grams per deciliter (g/dL) or higher. A total of 2,015 pedestrians killed in traffic crashes in 2018 had BACs of 0.08 or higher. An estimated 16% of drivers involved in fatal pedestrian crashes with known test results had a BAC of 0.08 or higher (Figure 12).

Even in cases where the pedestrian's or driver's alcohol consumption may not be identified by police as a contributing factor to the crash, a pedestrian or driver with a BAC of 0.08 or higher has diminished faculties that could impact judgment, decision-making and reaction time.

Figure 12 **Drivers and Pedestrians Involved in Fatal Pedestrian Crashes with BACs ≥ 0.08: 2018**



Source: FARS

Pedestrian Traffic Fatalities by State

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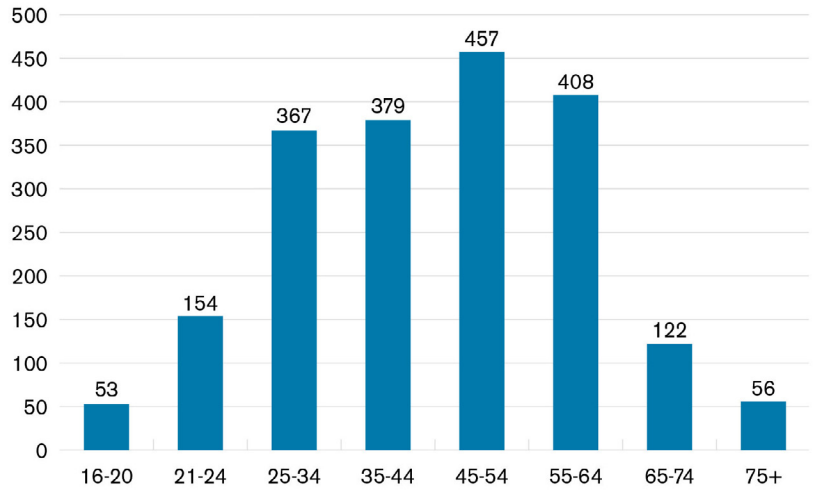
Figure 13 shows the number of pedestrians killed in traffic crashes with a BAC of 0.08 or higher in 2018, by age group. The number of fatally injured pedestrians with BACs greater than or equal to 0.08 was highest for those within the 45-54 age group, followed by the 55-64 age group.

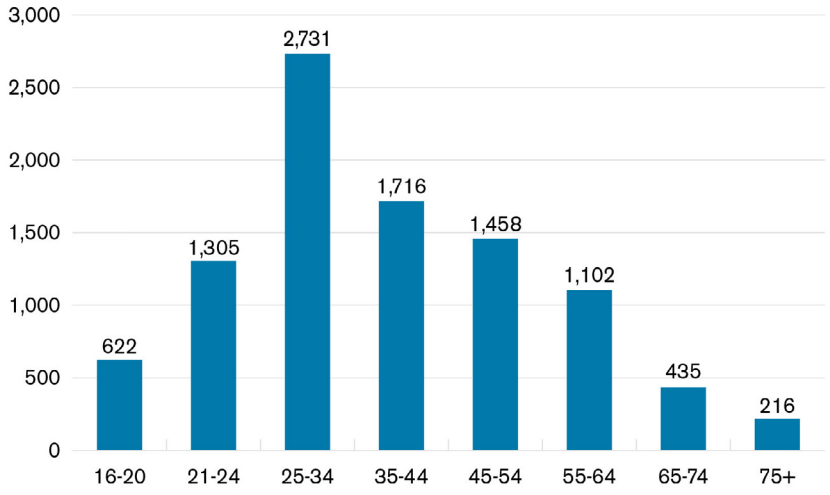
Figure 13 **Number of Pedestrian Fatalities with BAC ≥ 0.08 by Pedestrian Age: 2018**



Source: FARS

For comparison, Figure 14 shows the number of drivers involved in all types of fatal traffic crashes with BACs of 0.08 or higher, by age group. The number of drivers with BACs greater than or equal to 0.08 is highest for those in the 25-34 age group and declines for each successive age group.

Figure 14 **Number of Drivers Involved in Fatal Crashes with BAC ≥ 0.08 by Driver Age: 2018**



Source: FARS

Pedestrian Traffic Fatalities by State

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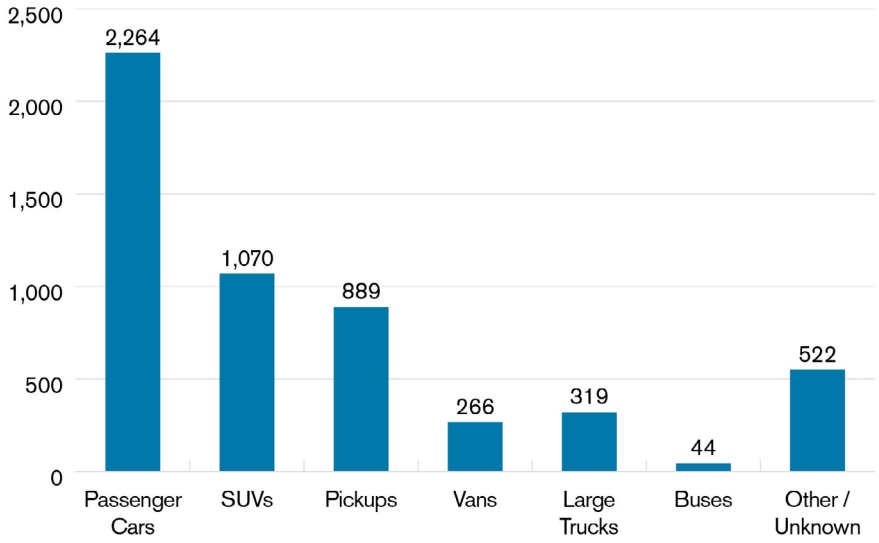
Vehicle Type

Figure 15 shows the number of pedestrians killed in single-vehicle crashes by vehicle type in 2018. The largest category of striking vehicles (42% of the total) was passenger cars.

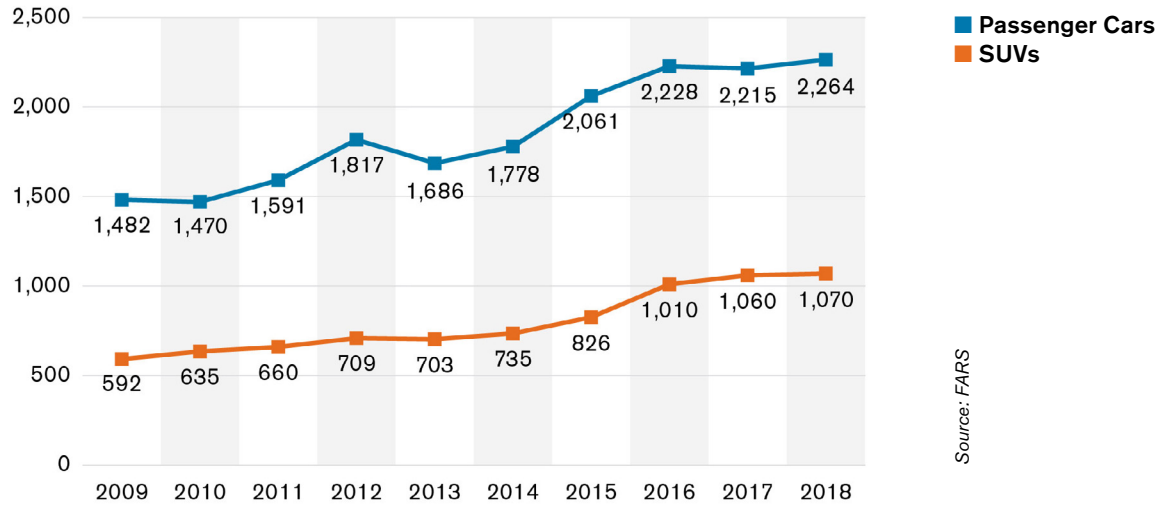
Figure 15 **Number of Pedestrians Killed in Single-Vehicle Crashes by Vehicle Type: 2018**



Source: FARS

Figure 16 shows trends in the numbers of pedestrians killed in single-vehicle crashes involving passenger cars and SUVs from 2009 to 2018. Although passenger cars account for a larger number of pedestrian deaths, the number of pedestrian fatalities involving SUVs increased at a greater rate — 81% — during this 10-year period compared to fatalities involving passenger cars, which increased by 53%.

Figure 16 **Number of Pedestrians Killed in Single-Vehicle Crashes Involving Passenger Cars and SUVs: 2009-2018**



Source: FARS

Pedestrian Traffic Fatalities by State

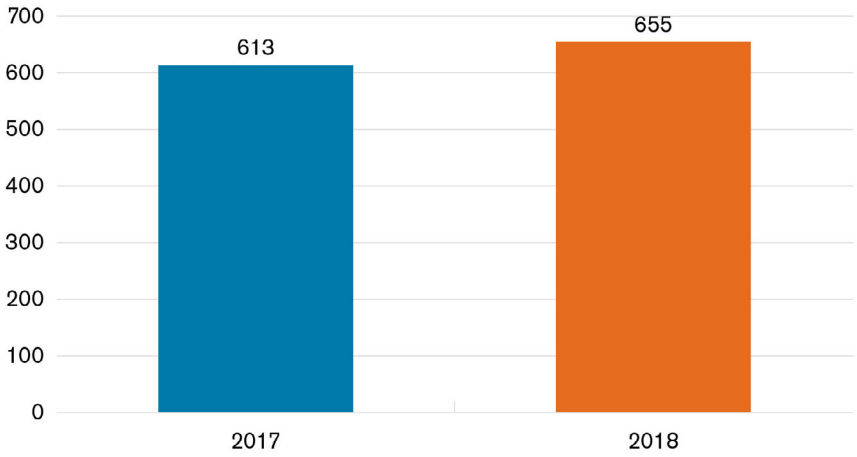
2019 PRELIMINARY DATA

WHAT ABOUT CITIES?

Because most pedestrian fatalities occur in urban areas, GHSA also examined changes in the number of pedestrian fatalities for the 10 most populous U.S. cities.

The total number of pedestrian fatalities for the 10 largest cities increased by about 7% from 2017 to 2018 (Figure 17).

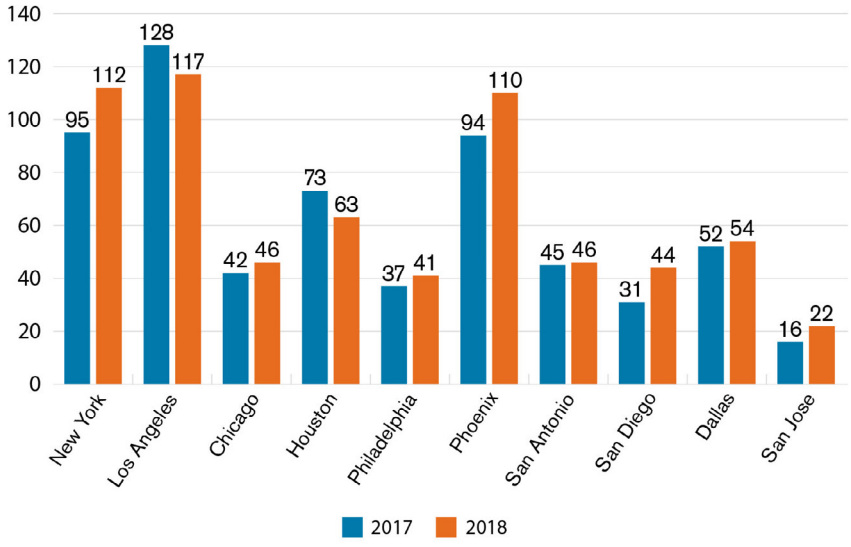
Figure 17 **Total Pedestrian Deaths in 10 Largest U.S. Cities: 2017 vs. 2018**



Source: FARS

Figure 18 shows the number of pedestrian fatalities for each of the 10 largest U.S. cities in 2017 and 2018. Eight of the 10 cities had increases in pedestrian fatalities in 2018.

Figure 18 **Pedestrian Deaths in 10 Largest U.S Cities: 2017-2018**



Source: FARS

EFFORTS TO REDUCE PEDESTRIAN FATALITIES AND INJURIES

Achieving robust and sustained progress toward reducing — and someday eliminating — pedestrian fatalities and injuries requires a comprehensive approach to pedestrian safety that includes the following targeted programs:

- Enforcement
- Engineering
- Education
- Emergency medical response

Enforcement, engineering, education and emergency medical response programs should incorporate the latest advances in technology and best practices, and these programs must be tailored to the needs of state and local communities.

Federal Safety Programs and Resources

Federal government resources available to help states reduce pedestrian fatalities and serious injuries include the following:

- **Section 402**. The State and Community Highway Safety Grant Program is the cornerstone of state behavioral highway safety programs. It provides the greatest flexibility for states to target resources to meet their most pressing needs. Eighteen states responding to GHSA's questionnaire for this report indicated they currently use Section 402 funds to support pedestrian safety programs.
- **Pedestrian and Bicycle Safety Focus States and Cities**. Since 2004, the Federal Highway Administration (FHWA) Office of Safety has been working aggressively to reduce pedestrian deaths by focusing extra resources on the cities and states with the highest pedestrian fatalities and/or fatality rates. Part of this effort has included "How to Develop a Pedestrian Safety Action Plan," **which provides state and local officials with an overview and framework** to address pedestrian safety issues.
- **Section 403**. Under this program, NHTSA has conducted a series of education and enforcement efforts in several cities, including demonstration projects in New York City, Philadelphia, and Louisville, Ky. In addition, NHTSA awarded funds to the Safe States Alliance for a project on injury prevention for pedestrians.
- **Section 405**. The Fixing America's Surface Transportation (FAST) Act, enacted on December 15, 2015, created a new National Priority Safety Program, Section 405(h) Non-motorized Safety, to provide approximately $70 million annually through Federal Fiscal Year (FFY) 2020 for eligible states to decrease pedestrian and bicyclist crash fatalities. Under the non-motorized safety grant program, NHTSA awarded approximately $14 million to 22 states for FFY 2017 and to 23 states for FFY 2018 and FFY 2019. NHTSA determined 28 states to be eligible for grants for FFY 2020.

- A state is eligible if its bicyclist and pedestrian fatalities exceed 15% of its total annual crash fatalities based on the most recent year of FARS data available. Funds may be used to train law enforcement officials on bicyclist/pedestrian traffic laws, for bicyclist/pedestrian safety enforcement of these laws and for education campaigns promoting bicyclist/pedestrian traffic laws. **States have encountered constraints on how these funds can be used, as bicycle and pedestrian safety means more than what is codified in state law**.
- Congress could empower states to better address the increasing number of pedestrian crashes as well as broader changes in personal mobility by reforming Section 405(h). First, Congress could expand the program beyond bicyclists and pedestrians to cover all non-motorized road user travel, including scooters, personal conveyances, and motorized, low-speed vehicles like electric bicycles, scooters, personal mobility assistance devices and all-terrain vehicles. Further, Congress could authorize states to use Section 405(h) funds for an open-ended expanse of safety purposes. States could offer broader training to law enforcement on non-motorized road user safety and could expand enforcement mobilizations and campaigns to better protect all road users. States could also implement public education and awareness efforts not only on state laws, but also all non-motorized road user safety practices. States could promote the safety benefits of protective helmet use on applicable vehicles. States could also use Section 405(h) funds for traffic records systems and projects related to non-motorized road user safety. Finally, states could purchase and directly distribute bicycle helmets among communities in need.
- **Highway Safety Improvement Program (HSIP)**. The goal of this program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety focusing on the application of proven engineering countermeasures to significantly reduce fatal and serious-injury crashes. Although prior federal transportation legislation allowed HSIP funds to be spent on public education and law enforcement efforts — and several states leveraged this opportunity — this flexibility was eliminated in the current federal authorizing legislation.

What States Are Doing

Many factors that contribute to pedestrian crashes are outside of the control of SHSOs, which focus primarily on behavioral safety countermeasures. For example, traffic engineering considerations such as roadway design, traffic signal design, sidewalk construction and street lighting fall under the purview of the engineering divisions of state and local Departments of Transportation (DOTs).

SHSOs are committed to improving the safety of all road users by focusing on behavioral issues that lead to traffic crashes, such as impaired, distracted and aggressive driving; seat belt use; child passenger safety; pedestrian, bicyclist and motorcyclist safety; and teen and older driver issues. SHSOs are typically tasked with addressing behavioral safety issues via education and enforcement initiatives. SHSOs administer federal highway safety grants (including Sections 402 and 405, as outlined previously) and produce annual state Highway Safety Plans (HSPs) as required by the U.S. Department of Transportation. In some states, SHSOs are responsible for traffic records coordination and Safe Routes to School (SRTS) programs. SHSOs work with their state DOT counterparts to align behavioral solutions with engineering efforts. SHSOs provided the following examples of strategies they and their partners employ to reduce pedestrian fatalities and serious injuries:

- Targeted law enforcement efforts
  - For example, Florida initiated a High Visibility Enforcement (HVE) campaign that supports both education and enforcement in areas with the highest representation of traffic crashes resulting in serious and fatal injuries to pedestrians and bicyclists. Approximately 70 law enforcement agencies participate in this effort annually.
- Public information campaigns
  - For example, Connecticut, Tennessee and Vermont introduced the "Watch for Me" or "Look for Me" campaigns to help promote driver awareness of pedestrian safety.
- Educational outreach in high-risk areas
  - For example, the Georgia Office of Highway Safety has grantees in cities with significant increases in pedestrian fatalities that are working on educational programs. These programs have been focused on areas where there are significant numbers of people who walk as a primary form of transportation.
- Safe Routes to School programs
  - For example, Wisconsin funds SRTS programs in La Crosse County, Northeast Wisconsin, Madison and Milwaukee.
- Focusing on high-risk zones
  - For example, the Delaware Office of Highway Safety partners with law enforcement agencies in high-crash locations to educate pedestrians and give citations when necessary.
- Pedestrian safety assessments/road safety audits
  - For example, Delaware DOT conducts pedestrian safety audits along high-crash corridors to recommend possible engineering changes. These changes can include lighting changes, signal timings, crosswalk management or any other associated improvements.
- Support for engineering countermeasures, including some that target high-risk pedestrian crossing intersections and corridors
  - For example, Florida allocated $100 million to lighting improvements in 2,500 priority locations across the state to increase the visibility of pedestrians using the roadway at night.
- Adoption of Complete Streets policies, which direct transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability or mode of transportation
- Inclusion of pedestrian safety action items in Strategic Highway Safety Plans (SHSPs).

Every state is addressing pedestrian safety using a combination of engineering, education and enforcement. Specific SHSO-reported activities are provided in the Appendix. This list does not represent the full spectrum of activities happening across the country.

Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

DISCUSSION

In recent years, pedestrian fatalities in the U.S. have risen at an alarming and unprecedented rate:

- During the 10-year period 2009-2018 the number of pedestrian fatalities increased by 53%, while the number of all other traffic deaths increased by 2%.
- GHSA projects that 6,590 pedestrians were killed in traffic crashes in 2019, representing a 5% increase from 2018 and **the largest annual number of pedestrian fatalities in the U.S. in over 30 years (since 1988)**.
- Pedestrian deaths as a percentage of total motor vehicle crash deaths increased from 12% in 2009 to 17% in 2018. Pedestrians now account for the largest proportion of traffic fatalities in 36 years (since 1982).
- The number of **pedestrian deaths per 100,000 population increased steadily from a rate of 1.3 in 2009 to an estimated rate of 2.0 in 2019 – a 54% increase**.
- **Increases in pedestrian fatalities are occurring largely at night**. From 2009 to 2018, the number of nighttime pedestrian fatalities increased by 67%, compared to a 16% increase in daytime pedestrian fatalities.

Many factors outside the control of traffic safety officials contribute to the observed year-to-year changes in the number of pedestrian fatalities, including economic conditions, population growth, demographic change, weather, fuel prices, the amount of motor vehicle travel and the amount of time people spend walking. Travel monitoring data published by FHWA indicate that motor vehicle travel on all roads and streets increased by 0.8% for the first six months of 2019 as compared with the same period in 2018.[1]

Although comparable exposure data for nationwide pedestrian activity is not available, the U.S. Census Bureau collects information regarding walking and public transit use (which is linked to walking) through the American Community Survey.[2] The Census Bureau reported a 2.6% decrease in the number of workers age 16 years and older who walked to work in 2018 compared with 2017, and a 0.8% decrease in the number of workers age 16 years and older who took public transportation to work in 2018 compared with 2017.

Other factors contributing to the recent rise in the overall number of pedestrian fatalities could include the increasing shift in U.S. vehicle sales away from passenger cars to light trucks (with light trucks generally causing more severe pedestrian impacts than cars), warmer weather and the large growth in smartphone use (which can be a significant source of distraction for all road users).

Figure 19 shows U.S. retail sales (in thousands) of passenger cars and light trucks from 2009 to 2018, indicating a sharp increase in sales of light trucks (which includes SUVs) accompanied by a general decline in sales of passenger cars. Figure 20 shows a correspondingly steady increase in light trucks as a percentage of total light vehicle sales.

1 https://www.fhwa.dot.gov/policyinformation/travel_monitoring/19juntvt/19juntvt.pdf

2 https://data.census.gov/cedsci/table?q=s0801&g=&hidePreview=true&table=S0801&tid=ACSST1Y2018.S0801&vintage=2018&lastDisplayedRow=22

Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

Figure 19 Retail Sales (in Thousands) of Passenger Cars and Light Trucks: 2009-2018 [3]

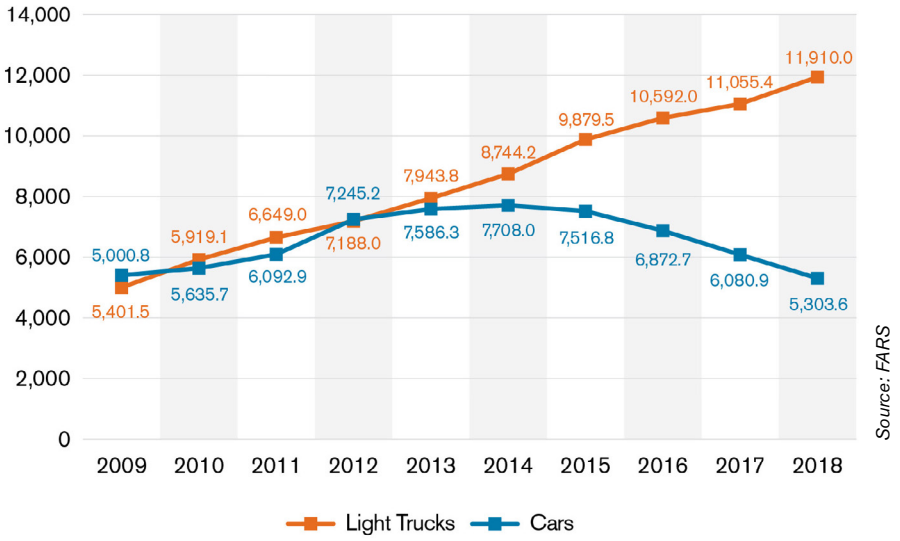
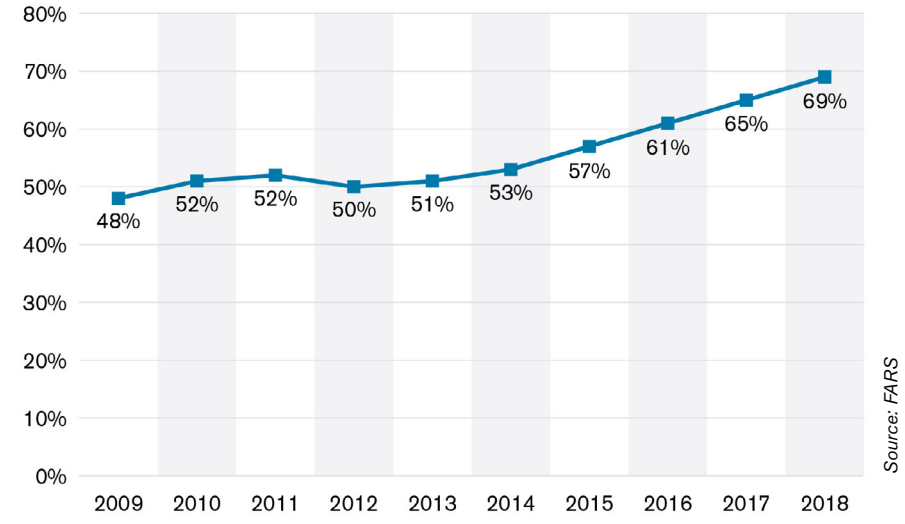


Figure 20 Light Trucks as Percentage of Total U.S. Light Vehicle Sales: 2009-2018 [4]



Light trucks — as well as passenger cars — can be made safer by installing automatic emergency braking systems that can detect and brake for pedestrians. This technology uses information from forward-looking sensors to automatically apply or supplement the brakes when the system determines a pedestrian is in imminent danger of being struck. A recent study found that automatic emergency-braking technology installed by one vehicle manufacturer was associated with a 35% reduction in the rate of likely pedestrian-related insurance claims.[5]

3 https://www.bea.gov/national/xls/gap_hist.xlsx

4 https://www.bea.gov/national/xls/gap_hist.xlsx

5 Insurance Institute for Highway Safety. 2018. Subaru crash avoidance system cuts pedestrian crashes, Status Report, Vol. 53, No. 3 | May 8, 2018

Warmer temperatures could contribute to the recent rise in pedestrian fatalities by encouraging more nighttime outdoor activity (including walking). These higher temperatures are also associated with increased alcohol consumption, which increases the risk of fatal pedestrian collisions.

Regarding cellphone use, which can be a significant source of distraction for all road users, the reported number of smartphones in active use in the U.S. increased by 4% from 2017 to 2018, and by more than 400% from 2009 to 2018[6] (Figure 21). The amount of wireless data usage in the U.S. increased by 82% from 2017 to 2018, and by more than 7,000% from 2009 to 2018[7] (Figure 22).

Analysis of data from the National Electronic Injury Surveillance database shows the number of cellphone-related emergency department visits is increasing in parallel with the prevalence of cellphone use in the U.S.[8,9] Many of these injuries are sustained while the user is engaged in text messaging rather than conventional telephone conversation, and this trend appears to have contributed to a sharper increase in the number of incidents in recent years.

Although the surge in smartphone use coincides with a sharp rise in pedestrian fatalities during the same period, there is a lack of evidence to establish a definitive link. This may be due in part to the inability of police crash investigators to accurately capture momentary distraction caused by smartphones, many of which are mounted on vehicle dashboards, on windshields and in cupholders, or to determine if pedestrians were glancing at phone screens. In addition, 1 in 5 pedestrian fatalities occur in hit-and-run crashes, in which the role of driver distraction is unknown.

There is, however, clear and growing evidence linking visual distraction with elevated crash risk for overall crashes. For example, researchers who investigated the relationship between cellphone use and crash risk using data from the Second Strategic Highway Research Program Naturalistic Driving Study (NDS) found that visual-manual tasks overall, and texting in particular, were associated with significantly elevated incidence of crash involvement relative to driving without performing any observable secondary tasks.[10]

Analysis of data from the same NDS found that more than 50% of the time some type of distraction prevents drivers from engaging in the primary task of driving. The analysis concluded that driving while distracted is detrimental to safety[11].

6 https://www.ctia.org/news/2019-annual-survey-highlights

7 https://www.ctia.org/news/2019-annual-survey-highlights

8 Saltos, A.; Smith, D.; Schreiber, K.; Lichtenstein, S.; and Lichtenstein, R. 2015. Cell-Phone Related Injuries in the United States from 2000-2012, Journal of Safety Studies ISSN 2377-3219 2015, Vol. 1, No. 1.

9 Saltos, A.; Smith, D.; Schreiber, K.; Lichtenstein, S.; and Lichtenstein, R. 2015. Cell-Phone Related Injuries in the United States from 2000-2012, Journal of Safety Studies ISSN 2377-3219 2015, Vol. 1, No. 1.

10 Owens, J.M.; Dingus, T.A.; Guo, F.; Youjia, F.; Perez, M.; and McClafferty, J. 2018. Crash Risk of Cell Phone Use While Driving: A Case-Crossover Analysis of Naturalistic Driving Data. AAA Foundation for Traffic Safety.

11 Dingus, T.A.; Guo, F.; Lee, S.; Antin, J.F.; Perez, M.; Buchanan-King, M.; and Hankey, J. 2016. Driver crash risk factors and prevalence evaluation using naturalistic driving data. Proceedings of the National Academies of Sciences Vol. 113/No. 10.

Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

Figure 21 Number of Smartphones in Active Use (Millions)

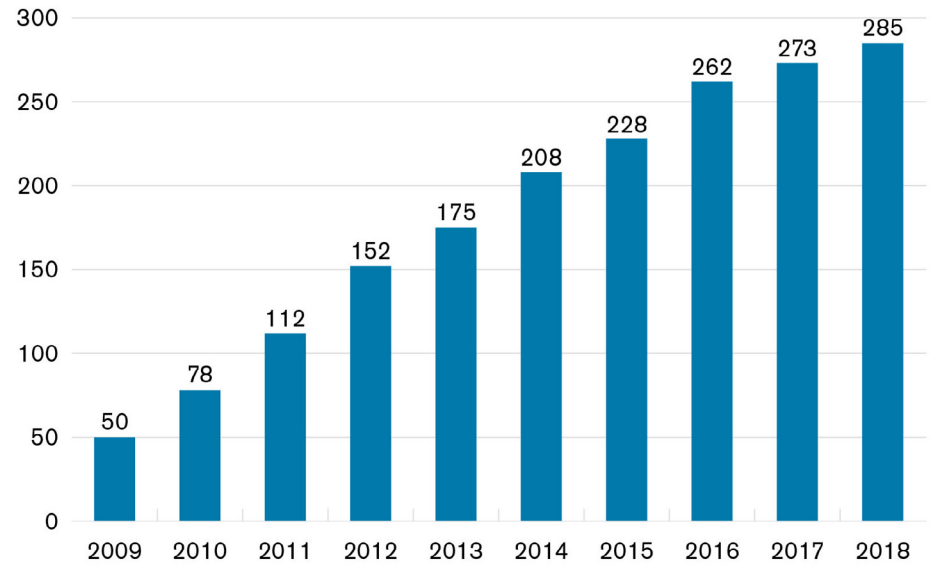
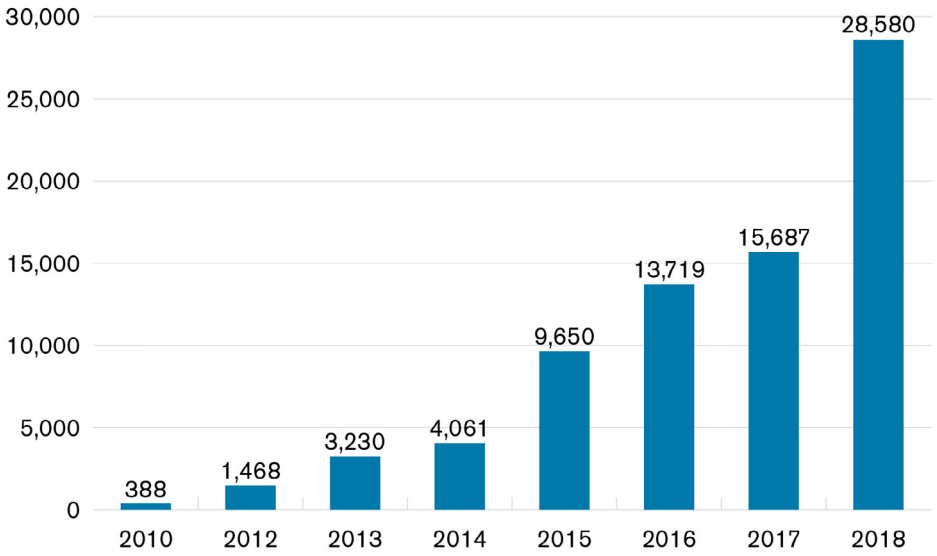


Figure 22 Annual Wireless Data Traffic (Billions of MB)



Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

The fact that pedestrian deaths as a percentage of total motor vehicle crash deaths have increased steadily in recent years (from 12% to 16%) could reflect, in part, the fact that passenger vehicles have become increasingly safer for vehicle occupants through design changes and supplemental safety equipment, thereby decreasing the chance of fatal injuries. Pedestrians, on the other hand, do not benefit from occupant-oriented vehicle crashworthiness improvements, and thus could account for an increasingly larger share of total traffic fatalities. The movement toward equipping more vehicles with automatic braking and pedestrian-detection technologies could help reduce pedestrian collisions.

The finding that persons ages 45-54 account for the largest number of fatally injured pedestrians with BACs greater than or equal to 0.08% (followed by the 55-64 age group) indicates that alcohol impairment is not just a young person's problem, as some may perceive. Mature adults should, therefore, be included in any targeted messaging or safety campaigns related to the dangers of impaired walking.

This report provides insights into crash factors documented in FARS that can help inform the efforts of state and local safety officials to reduce pedestrian fatalities. These factors include time of day, types of roads, the role of alcohol impairment and changes in the passenger vehicle fleet:

- About 75% of pedestrian fatalities occur after dark, and recent increases in the number of pedestrian fatalities are occurring largely at night. From 2009 to 2018, the number of nighttime pedestrian fatalities increased by 67%, compared to a 16% increase in daytime pedestrian fatalities. The growing prevalence of nighttime pedestrian fatalities suggests a need to prioritize engineering and enforcement countermeasures that can improve safety at night (e.g., improved street lighting, nighttime enforcement patrols).
- More than half of all pedestrian fatalities in 2018 (59%) occurred on non-freeway arterials. Challenging crossing locations such as multilane urban arterials often have bus stops or land use patterns that require pedestrians to cross busy roads. Countermeasures such as rectangular rapid flashing beacons, pedestrian-hybrid beacons, curb extensions and pedestrian refuge islands have been shown to improve pedestrian safety in these environments.
- Most pedestrian fatalities occur at non-intersection locations. Although it is impossible to make all non-intersection locations safe or suitable for pedestrian activity, there are opportunities to improve pedestrian safety at midblock locations through speed enforcement and management, along with increased street lighting.
- Alcohol impairment is a major contributing factor. An estimated 33% of fatal pedestrian crashes involved a pedestrian with a BAC of 0.08% or higher, and an estimated 16% of drivers involved in these crashes had a BAC of 0.08% or higher. Pedestrian safety can be addressed by conducting high-visibility impaired driving enforcement in areas with robust nighttime pedestrian activity.
- Pedestrians struck by a large SUV are twice as likely to die as those struck by car.[12] Design changes such as softer vehicle fronts, pedestrian-detection systems and replacement of the blunt front ends of light trucks with sloping, more aerodynamic (car-like) designs can reduce the risk of pedestrian deaths in the event of a crash. In the short term, local efforts to reduce speed limits and speeding in pedestrian zones can help reduce the severity of light-truck-pedestrian crashes. Although passenger cars are the largest category of vehicles involved in fatal pedestrian crashes, the number of pedestrian fatalities involving SUVs increased at a faster rate — 81% — from 2009 to 2018 than passenger cars, which increased by 53%.

12 Lefler, D.E. and Gabler, H.C. 2004. The fatality and injury risk of light truck impacts with pedestrians in the United States. Accident Analysis & Prevention Volume 36, Issue 2, Pages 295-304.

Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

Despite the overall increase in pedestrian deaths, there is some good news in the 2019 preliminary data:

- Pedestrian fatalities during the first half of 2019 declined in 20 states and Washington, D.C., compared with the same period in 2018.
- Six states (Arizona, Georgia, Louisiana, Pennsylvania, Illinois and Mississippi) reported double-digit declines in both the number and percent change in pedestrian fatalities from the same period in 2018.
- Seven states (Alaska, Colorado, Idaho, Indiana, Kentucky, Rhode Island and Wisconsin) reported two consecutive years of declining numbers of pedestrian fatalities.

SHSOs in all 50 states and territories continue to actively engage with their partners to implement a wide range of educational, enforcement and engineering initiatives aimed at reducing the numbers of pedestrian fatalities and serious injuries. Along with critical funding support provided through federal partners, states will continue to focus their efforts on effective countermeasures to reverse the trend of increasing pedestrian fatalities. In addition, some communities have seen a localized rise in pedestrian activism and pedestrian-centered safety planning, such as Vision Zero initiatives and the preparation of Pedestrian Safety Action Plans, while other communities lack this type of coordinated advocacy or planning.

The national footprint of pedestrian safety is not uniform, and there are many reasons for differing pedestrian fatality rates among states, including land use patterns, roadway designs, vehicle speeds, population density and demographics. The physical environment in which pedestrians walk has a profound influence on safety outcomes, and roadway design practices have been evolving over time to increasingly accommodate pedestrians, including those with disabilities. There is a significant time lag, however, in achieving roadway design improvements through roadway construction and land development projects.

Socioeconomic status (SES) — in particular, poverty — is another strong risk factor for pedestrian crashes. For example, Canadian researchers analyzed the influence of SES levels on rates of death from unintentional injury among Canadian children from 1971 to 1998 and found that for each unit change in income quintile, from highest to lowest, the risk of death from pedestrian collisions increased by 13%.[13] A California study found that pedestrian crashes are four times more frequent in poor neighborhoods and that neither age of the population, education, English language fluency, nor population density explained the effect of poverty.[14]

Although this pedestrian fatality analysis has focused on statewide data, pedestrian safety problems must also be considered on the local level, in the settings where pedestrian fatalities and serious injuries occur. States, along with their local/regional partners, should engage in robust data analyses and field assessments to identify high-risk corridors, allocate resources where they are most needed and implement evidence-based pedestrian safety improvements on a systemic basis.

States should also continue to work with local law enforcement partners to address chronic driver violations that contribute to pedestrian crashes such as speeding, impaired driving and distracted driving.

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14 Chakravarthy, B.; Anderson, C.L.; Ludlow, J.; Lotfipour, S.; and Vaca, F.E. 2010. The Relationship of Pedestrian Injuries to Socioeconomic Characteristics in a Large Southern California County. Traffic Injury Prevention 11/5.

APPENDIX: WHAT STATES ARE DOING TO IMPROVE PEDESTRIAN SAFETY

Every state is addressing pedestrian safety using a combination of engineering, education and enforcement. Specific SHSO-reported activities are provided. This list does not represent the full spectrum of activities happening across the country.

Alabama

State and local agencies conduct traffic enforcement throughout Alabama, and Alabama DOT is researching relevant engineering projects.

Alaska

Alaska is conducting pedestrian safety programs at homeless shelters.

Arizona

Arizona law enforcement agencies concentrate on enforcement, education and awareness to address pedestrian safety. Pedestrians are reminded to walk on a sidewalk facing traffic, cross at intersections or within crosswalks, be visible at night by wearing light colors and avoid distractions like cellphone use. Drivers are reminded to look for pedestrians everywhere, always stop for them in crosswalks, never pass vehicles stopped at a crosswalk and slow down around crosswalks, especially in neighborhoods and in school zones.

Arkansas

Two metropolitan planning organizations (MPOs), Metroplan and the Northeast Arkansas Regional Transportation Planning Commission (NARTPC), are conducting Safe Transportation for Every Pedestrian (STEP) studies. The studies assess the benefits of potential future safety improvements such as crosswalk enhancements at locations that cross state highways. Potential improvements include pedestrian hybrid beacons (PHBs), traffic signals, signing/striping, relocation of bus stops and rectangular rapid flashing beacons (RRFBs).

California

California is conducting best practice strategies to reduce pedestrian fatalities and injuries. Strategies include classroom education, community events, presentations and workshops. These countermeasures are conducted in communities with high numbers of pedestrian-related collisions including underserved communities, older adults and school-aged children. Coordinated efforts such as Safe Routes to School initiatives, Vision Zero campaigns and work with community-based organizations to prevent fatalities and injuries among vulnerable nonmotorized road users.

Engineering improvements include using pedestrian warning signs, implementing high-visibility crosswalk markings, imposing parking restrictions to improve visibility and adjusting traffic signals at certain intersections to give pedestrians a head start before a vehicle turns. In addition, Caltrans developed a Pedestrian Safety Countermeasure Toolbox in 2019.

Pedestrian Traffic Fatalities by State

2019 PRELIMINARY DATA

Colorado

The Colorado Highway Safety Office funds the Aurora and Denver police departments to conduct pedestrian enforcement campaigns throughout the year. Engineering measures being implemented throughout Colorado include crosswalks with median refuge islands, RRFBs, PHBs (High-Intensity Activated crossWalK [HAWK] signals) and sidewalk installation/widening.

Connecticut

The Connecticut Highway Safety Office developed a pedestrian-focused campaign called "Watch for Me CT," which includes comprehensive media, education and outreach efforts on a statewide basis. Additionally, a non-motorized enforcement pilot program was launched in 2019, including seven municipalities that took part in a law enforcement training program. These municipalities were targeted due to data showing a pedestrian safety issue in their respective communities. For engineering, a statewide sign program was recently completed that updated the pedestrian signage in accordance with new standards. Connecticut DOT is working to introduce concurrent pedestrian phasing at state-owned signalized intersections.

Delaware

The Delaware Office of Highway Safety (OHS) partners with law enforcement agencies to target high pedestrian crash locations throughout the state. These mobilizations are educational in nature, but ticketed enforcement is allowed at the agency/officer discretion.

OHS partnered with Delaware Area Regional Transit (DART) to put street teams on buses to interact with customers on the importance of safe walking behaviors and distribute reflective items. Additionally, the Delaware Pedestrian Safety Council is partnering with homeless shelters for outreach events and providing reflective materials to those most vulnerable.

Delaware DOT conducts pedestrian safety audits of high crash corridors to recommend possible engineering changes, which can include lighting changes, signal timings, crosswalk management and other associated improvements.

District of Columbia

Washington, D.C., conducts public information campaigns and other outreach/education efforts along high-pedestrian corridors and in low-income neighborhoods. Pedestrian/vehicle enforcement teams focus on intersections and midblock locations, on high-speed routes, and around drinking establishments. Engineering changes include measures to reduce speeds along high-pedestrian routes/high-pedestrian risk areas, intersection improvements, restricting right and left turns at intersections and legislative changes to reduce speed around schools and other areas.

Florida

Florida created a geographic information system (GIS) database application of traffic crashes resulting in serious and fatal injuries to pedestrians and bicyclists. This data is used to identify areas with the highest representation of such crashes so that resources can be targeted strategically.

Enforcement: Florida initiated a High Visibility Enforcement Campaign that supports both education and enforcement in areas with the highest representation of traffic crashes resulting in serious and fatal injuries to pedestrians and bicyclists. Approximately 70 Florida law enforcement agencies

participate in this effort annually. The Highway Safety Office, in partnership with the Institute of Police Technology and Management at the University of North Florida, developed a four-hour, classroom-based training to guide officers through this effort. Training is required of each officer participating in these enforcement details to ensure consistent application across the state.

Education: Alert Today Florida is the branding of Florida's Bicycle Pedestrian Focused Initiative. Alert Today Florida provides education in several forms: in multimedia formats including a website, digital and social media; through paid and earned media; at local events; using spokespersons/ambassadors; and through a statewide Pedestrian and Bicycle Safety Resource Center. Educational materials are:

- Directed at all road users;
- Available in a variety of languages to ensure that target audiences understand the information; and
- Distributed strategically based on the context of each community that is at risk, targeting the unsafe behaviors exhibited within those specified areas with the highest representation of traffic crashes resulting in serious and fatal injuries to pedestrians and bicyclists.

Materials also provide education on new infrastructure and operational improvements as well as high-visibility enforcement efforts.

Engineering: Florida has established statewide pedestrian safety engineering policies and provides guidance to local governments. Some specific countermeasure examples include the implementation of modern roundabouts to slow traffic and reduce conflict points, a $100 million lighting initiative to add pedestrian lighting to 2,500 intersections with higher representation of traffic crashes resulting in serious or fatal injuries to pedestrians during dusk/dark, the addition of midblock crosswalks controlled by RRFBS or HAWK signals, high-emphasis crosswalks, pedestrian leading intervals (signal timing), raised pedestrian crosswalks, pedestrian refuge islands, etc.

Emergency Response: The Florida Departments of Health and Transportation partnered to develop an economic impact study of pedestrians and bicyclists involved in traffic crashes. This information includes the most common injury types sustained in these crashes. This information was used to train EMS and health care professionals to address these types of injuries early on, which supports increased emergency response and reduces fatalities.

Georgia

The Georgia Pedestrian Safety Action Plan (PSAP) provides guidance on pedestrian safety issues to Georgia DOT, Georgia Department of Public Health, Georgia Governor's Office of Highway Safety, law enforcement agencies, pedestrian safety advocates, local and regional agencies, and others. The plan prioritizes 11 strategies organized under five topic areas. Data is collected, mapped and published on pedestrian safety, the walking environment, pedestrian crashes and safety risks. Then, pedestrian safety strategies, treatments and performance measures are incorporated into state transportation plans, policies and design guides. This includes the incorporation of pedestrian safety strategies and performance measures into regional and local plans. Transportation infrastructure projects include assessing new construction and maintenance projects on state routes for opportunities to incorporate pedestrian safety elements early in the process. The use of crash data and annual road safety audits identifies roads with ongoing pedestrian issues. Collaboration within regional and local governments prioritizes the selection and implementation of safety improvements on those roads.

Georgia proactively identifies and mitigates systemic pedestrian safety hazards on Georgia roads through education, enforcement and outreach. It does so by the creation and distribution of educational material to promote safety for pedestrians. Georgia provides annual trainings on pedestrian safety to transportation and public health professionals, law enforcement officers, elected officials and community advocates. Outreach and education on pedestrian safety for state, regional and local agencies facilitate collaboration between each entity. Finally, Georgia aligns its pedestrian safety program expenditures with its data on pedestrian crash and fatality factors and proven countermeasures.

Hawaii

Engineering measures include raised crosswalks, speed humps and additional traffic signals. The Honolulu Police Department received NHTSA grant funds to conduct pedestrian safety enforcement for drivers and pedestrians. "Walkwise Hawaii" and "Drivewise Hawaii" campaigns are used to bring pedestrian safety education to the schools, senior homes and other venues such as the First Hawaii Auto Show, and City and County of Honolulu Children & Youth Day events.

Idaho

Idaho received a grant from Idaho Smart Growth, focused on bicycle and pedestrian safety, and leverages state funds to engineer safer paths for pedestrians throughout the state.

Illinois

The Illinois Highway Safety Office focuses on education and crosswalk enforcement to protect pedestrians and is currently considering several studies to establish new engineering measures.

Indiana

Behavioral outreach efforts conducted in Indiana include awareness programs and increased enforcement for pedestrian action violations.

Iowa

The Governor's Traffic Safety Bureau is starting a new safety campaign designed to reduce pedestrian crashes. The program focuses on cities in Iowa that have experienced a pedestrian fatality in the past two years by addressing behavioral, enforcement and engineering challenges. Currently Iowa deploys countdown signals and leading pedestrian intervals (LPIs) as engineering countermeasures.

Kansas

Kansas has focused on education programs.

Kentucky

Kentucky is implementing Safe Transportation for Every Pedestrian (STEP) and is developing an action plan. The Office of Highway Safety participated in a NHTSA Pedestrian Workshop and is evaluating training options for law enforcement. OHS is also looking into conducting community education events to explain to pedestrians what can be done from the pedestrian point of view to

prevent serious injuries and deaths. The new Strategic Highway Safety Plan 2020-2024 has identified vulnerable road users as an emphasis area.

Louisiana

The Louisiana Department of Transportation and Development (DOTD) participates in FHWA's STEP program for implementing systemic application of cost-effective countermeasures to reduce pedestrian fatalities. Under the STEP program, the state has implemented the Safe Routes to Public Places program as well as through a Complete Streets approach that saw the installation of 21.4 miles of sidewalk, 16.3 miles of multi-use path and 44 pedestrian pushbuttons with countdown signal heads. Louisiana funds various programs to educate pedestrians of various age groups in the two FHWA focus cities on the "rules of the road" and on safe navigation for these vulnerable road users. Additionally, Louisiana funded the creation of videos to be deployed statewide to educate both the pedestrian and the motorist on sharing the roadways.

Maine

As part of its Statewide Pedestrian Safety Project ("Heads Up!"), Maine is facilitating community-based public forums to provide municipal officials and the general public with pedestrian safety information about the causal factors of pedestrian crashes. Maine is using public input to identify the community's most problematic and challenging locations for pedestrians, and the state is collaboratively identifying strategies to improve pedestrian safety by changing driver and pedestrian behaviors through educational and enforcement strategies. For the most problematic locations, a working group composed of municipal and MaineDOT officials and bike-ped advocates meets to evaluate each location to determine the contributing causal factors as well as proposed tentative alternatives (including design changes) that could improve safety for pedestrians.

MaineDOT, the Bureau of Highway Safety and the Bicycle Coalition of Maine are working with law enforcement in each of 21 Focus Communities to raise the awareness and importance of enforcing laws that protect vulnerable users. The Pedestrian Safety Project will develop Pedestrian Safety Mitigation Plans for the 21 Focus Communities that include all the information generated for the community through the project process. MaineDOT has begun implementing systemic safety improvements throughout the state by supporting local communities in the implementation of proven pedestrian safety countermeasures that include Road Diets, installation of RRFBs, school zone signage with flashing beacons, in-road pedestrian crossing signs and increased pedestrian signage. Maine is also funding pedestrian enforcement grants in the communities represented above.

Maryland

Over 80% of pedestrian and bicycle crashes occur in Maryland's two metropolitan regional jurisdictions, Washington, D.C., and Baltimore. Two regional pedestrian-bicycle safety education and enforcement campaigns are being conducted in these areas: "Street Smart" in Washington and "Look Alive" in Baltimore. Regional media education campaigns accompany targeted enforcement actions, called enforcement activations. These are further highlighted through media news stories and earned media. In 2019, Maryland issued context-driven guidance for pedestrian and bicycle facilities, where land use and road type dictate the appropriate facilities to be employed to improve safety of the state's vulnerable road users. Maryland also adopted use of HAWK signals and RRFBs, coupled with conversion to high-visibility crosswalks, throughout the state. Additionally, safety audits of state roadways continue to be employed at locations of concern.

Massachusetts

Massachusetts funded local police departments with overtime enforcement funds that can be used to support ped/bike safety within communities and provided funds to community organizations to conduct walk audits that can be used at the local level to address engineering, enforcement and public awareness efforts. MassDOT has been working with communities throughout the commonwealth on a "Safe Streets" initiative that includes measures to improve bike and pedestrian safety as well as access to mass transit.

Michigan

Measures being implemented include law enforcement training, law enforcement mobilization, public education, Road Safety Audits (RSAs), a Work Zone Mobility Manual that includes guidance on the treatment of pedestrians in work zones and Complete Streets policies and traffic control devices. In 2019, Michigan launched a statewide media campaign on pedestrian safety that included video, radio, outdoor advertising, social media and in-person backpack canvassing that generated more than 7 million impressions from May through September. With input from partnering agencies, Michigan launched the "Everybody's Road, Everybody's Rules" campaign, which is being used statewide in nonmotorized safety messaging. The pedestrian safety campaign focuses on people who drive and people who walk to educate these users about state pedestrian safety traffic laws.

Minnesota

Minnesota provided grants to law enforcement agencies and hired a consulting firm to create a new pedestrian safety campaign for the spring of 2020. Additionally, municipalities across the state are hosting their own pedestrian safety events, which are similar to St. Paul's "Stop for Me" campaign. Statewide Health Improvement Program (SHIP) staff have been champions of the events. Law enforcement is also a key component of these events.

Minnesota partnered with the University of Minnesota's HumanFirst Lab to initiate a new study entitled "Evaluation of Sustained Enforcement, Education, and Engineering Measures on Pedestrian Crossings," the objective of which is to review the City of St. Paul's efforts to improve pedestrian safety and investigate whether a program similar to the NHTSA-supported study could be applied to changing the driving culture related to yielding to pedestrians and speed compliance on arterial and collector roads on a citywide basis. This study will: 1) analyze effectiveness of previous and newly implemented countermeasures to change two significant targets (yielding to pedestrians and speed reduction); 2) investigate whether effectiveness could be transferred to other safety areas; and 3) examine long-term maintenance of the behavior changes produced by program implementation.

Missouri

Behavioral efforts include public awareness campaigns, educational brochures and social media outreach.

Engineering efforts include conducting STEP workshops in four regions throughout the state. These workshops specifically focus on the "Spectacular Seven" strategies for pedestrian safety: RRFBs, PHBs, high-visibility crosswalks, LPIs at signals, raised crosswalks, pedestrian refuge islands and road diets. Additionally, cities throughout Missouri are implementing Complete Streets policies. Missouri is also working toward completion of the ADA transition plan to ensure that all pedestrian facilities meet ADA requirements.

A research project to identify systemic pedestrian safety improvements is currently being established.

Montana

Montana DOT's ADA Transition Plan was updated in 2016. The plan requires that, when resurfacing and rehabilitation projects involve alterations to existing infrastructure, existing pedestrian facilities be upgraded to meet ADA requirements to the extent technically feasible. New curb ramps are considered wherever curb, gutter and sidewalk are adjacent to the project. Existing and potential pedestrian use is evaluated to determine possible ramp locations.

Montana's Comprehensive Highway Safety Plan requires that Montana DOT review fatalities on high-risk roads as well as fatalities and serious injuries per capita among older drivers and pedestrians annually to assess if action is needed. The following implementation step was developed: Conduct public awareness and education about roadway conditions, operations and management strategies, such as yellow flashing signals, roundabouts, bicycle lanes, pedestrian signals, operations around EMS responders and right-of-way rules at stop-controlled and uncontrolled intersections.

Nebraska

Pedestrian safety measures include improvement for crossing light timing to allow the average pedestrian to get across the intersection as well as a social medial campaign for pedestrians to obey traffic signals and cross at designated crosswalks.

Nevada

Nevada is applying the 4-E approach. The most significant return on investment this past year is the addition of nine new off-set crosswalks and overhead flashers on Boulder Highway, a 14-mile stretch of state road across the eastern part of southern Nevada. This road was the deadliest in the state, responsible for 20%of pedestrian fatalities in Clark County in 2015. In August 2017, the first intersection was completed. Four pedestrians had been killed there in 2016, and three were killed prior to the installation in 202017. There have been zero fatalities there since. The final intersections were completed this year; pedestrian fatalities on the road year-to-date total two.

Many engineering improvements are being made in the two major population centers in the state, from pedestrian lead intervals to pedestrian specific lighting in the south to significant redesigns of the downtowns in the four largest cities in the state: Las Vegas, Henderson, North Las Vegas and Reno. The most promising of all is the City of Las Vegas using U.S. LIMITS to set lower speeds.

New Jersey

Police agencies in New Jersey that have conducted comprehensive pedestrian safety programs have seen reductions in pedestrian crashes. Many of the grant-funded law enforcement agencies will use the Pedestrian Decoy enforcement program to apprehend drivers who fail to stop for pedestrians at intersections and crosswalks. Police officers in plainclothes will pose as pedestrians in marked crosswalks, while other officers watch for violations. Drivers failing to stop will be issued a citation. Officers involved in the enforcement effort will also educate drivers about current pedestrian laws, requiring drivers to stop and remain stopped, and emphasizing to pedestrians the need to use due care and not jaywalk or step into traffic outside the required crossing points.

The New Jersey Division of Highway Traffic Safety has partnered with the North Jersey Transportation Planning Authority, NJDOT, FHWA and the Transportation Management Association in implementing the "Street Smart NJ" awareness program in communities that receive funding.

Other resources include NJDOT's Pedestrian Safety Improvement Program, which identifies high-risk locations. The program provides for the development and implementation of pedestrian safety elements at locations based on the frequency and severity of crashes. The safety improvements include engineering improvements such as crosswalks, sidewalks and HAWK beacons.

New Mexico

Police officers are being trained in pedestrian laws, and roads are being evaluated to assess pedestrian needs.

New York

The Governor's Traffic Safety Committee (GTSC), the NYS Department of Health (NYSDOH) and the NYS Department of Transportation (NYSDOT) are continuing to play key roles in pedestrian safety, guided by the New York State PSAP. The $110 million initiative details the state's "3E" (Engineering, Enforcement and Education) approach to addressing pedestrian safety challenges across upstate New York and on Long Island. It identifies 20 focus communities, which accounted for nearly 50% of all pedestrian crashes between 2009 and 2013. The five-year plan calls NYSDOT to undertake a variety of low-cost engineering improvements, GTSC to organize enforcement strategies and NYSDOH to spearhead educational and public information initiatives.

NYSDOT completed pedestrian safety site evaluations at 2,082 unsignalized midblock crosswalks and 2,177 signalized crosswalks on state-maintained routes statewide. Crosswalk safety improvements include high-visibility crosswalk markings and related signage; extended signal crossing times; countdown timers; and LPIs to reduce ongoing conflicts between pedestrians and vehicles. Eleven construction contracts were awarded in 2017 with a total value of approximately $25 million. Some of those contracts are ongoing. Ten additional construction contracts were scheduled to be awarded in 2019, with a total value of approximately $36 million. Four contracts totaling approximately $12 million are planned for 2020. Improvements at more than 1,900 crosswalks have been completed so far. In addition, approximately $40 million in funding was distributed in 2018 to local municipalities for similar work on locally maintained crosswalks in urban areas.

In FFY 2019, in conjunction with NHTSA, GTSC planned, promoted and coordinated three 6-hour pedestrian safety training workshops for law enforcement officers. Officers learned about the state's plan to address pedestrian injuries and fatalities, relevant vehicle and traffic laws, pedestrian crash issues and data. They were also given tools and strategies for the effective implementation of pedestrian education and enforcement countermeasures. A total of 62 law enforcement officers from 38 police agencies attended the training classes. GTSC continues to develop a roster of in-state law enforcement trainers who could assist the state with future deliveries of this course. GTSC plans to offer additional courses in several PSAP-identified focus communities around the state beginning in the spring of 2020.

GTSC conducted the state's fourth annual "Operation See! Be Seen!" pedestrian safety enforcement mobilization over the period June 14-27, 2019. GTSC worked with police agencies covering 20 designated focus communities to allocate a portion of their grant to fund additional patrols during the high-visibility enforcement blitz. Grantees were encouraged to issue warning cards, as well as educational materials prepared by the NYSDOH, to pedestrians and drivers found to be violating the law during the first week of the campaign; citations were issued the second week.

PSAs entitled "Visibility" and "Midblock Crossing" aired during targeted media buys. The "Visibility" media campaign encourages pedestrians to be safe and visible, particularly while walking at dusk, dawn or after dark. Messaging posted at bus shelters and social media were included in the media buy, providing additional outreach along corridors in focus communities. The "Midblock Crossing" PSA aired June 10-27, 2019, prior to the "Operation See! Be Seen!" mobilization; DOH social media posts were also used to raise public awareness. A fifth and final PSA developed as part of the PSAP, "X-Ray Vision," focuses on obstructed views between pedestrians and motorists.

New York City has its own pedestrian safety initiative known as Vision Zero, which NYCDOT and the NYPD jointly spearhead. Age-appropriate educational and outreach programs are provided at hundreds of schools and senior centers in target communities where NYCDOT has identified high-crash, two-way arterial roadways. Multilanguage presentations are provided to parents at health centers, schools and public assistance centers. Outreach to schools included meetings with principals and school staff as well as walking tours to identify issues around the locations. NYCDOT staffs street teams to engage with community residents and business owners in high-risk corridors in all five boroughs to gather information about their traffic safety concerns, and it conducts Vision Zero outreach for the public by distributing educational materials at sporting events. NYPD also uses dedicated GTSC grant funding to conduct additional pedestrian-safety patrols focused on failure to yield and speed.

North Carolina

The NC Department of Administration is implementing a project entitled "WalkSmartNC," which aims to improve pedestrian safety in areas with high numbers of state employees who are pedestrians and/or motorists by creating a comprehensive education, training, enforcement and public awareness campaign. This initiative would create a virtual library of educational resources that may be replicated by any state agency, university or other entities where a high concentration of public, private and nonprofit employees use busy streets.

North Dakota

North Dakota recently implemented curb extensions on urban intersections to shorten the distance for pedestrian crossings, and it placed HAWK pedestrian crossing beacons at unsignalized intersections to allow a protected pedestrian crossing. In addition, pedestrian box culvert crossings are being constructed under interchange ramps, rather than having pedestrians cross at grade where the ramp and crossroad intersect.

Ohio

Ohio used the online "Your Move Ohio" campaign toolkit and launched a Pedestrian Safety Improvement Program in 2019 to help implement low-cost pedestrian safety improvements in cities that have the highest rates of pedestrian fatalities. Ohio DOT has also done a lot of pedestrian safety analysis this year and specifically has identified the top five fatal pedestrian crash types.

Oklahoma

Educational activities are conducted in some rural communities, local schools and metropolitan areas using a variety of media including law enforcement training and student education through presentations and practice, as well as print, signage and social media campaigns at local levels.

Metropolitan areas continue to use and implement multimodal engineering solutions that include improved crosswalk markings, signals/signs, sidewalks and dedicated lanes for bicyclists that also provide some additional protection for pedestrians. Multimodal use models are being incorporated into future planning, and agencies share ideas with surrounding cities. Many high-risk locations are part of plans for assessment and implementation of engineering improvements to areas of high pedestrian traffic, even in some rural locations. Conversations and discussions continue among multiple agencies regarding what can be done in both metropolitan and rural areas to improve pedestrian safety, including more focused enforcement of current laws. A few law enforcement agencies are conducting targeted enforcement efforts, and others are making plans to do so soon.

Oregon

Oregon implemented behavioral education messaging by continuing to promote the multiyear pedestrian safety campaign "Oregonian Crossing" for crosswalk safety, and it began the new campaign called "Oregonians Standout," which focuses on best practices for all road users in promoting pedestrian safety. This included paid media such as radio and TV PSAs, Facebook ads and bus advertising. Additionally, 2019 was the second year of the "Oregon Friendly Driver Program," which is an education class on pedestrian and bicycle safety developed and promoted by multiple partners in Oregon.

The state awarded 28 local law enforcement agencies to complete high-visibility enforcement crosswalk operations. Non-state-funded law enforcement agencies conducted their own PSE operations throughout the year. The state also trained law enforcement officers on best practices of pedestrian safety enforcement through in-person training and webinars.

Oregon started a marked crosswalk inventory that will help it make better informed decisions about where to focus safety resources as well as give the state a better picture of the permeability of pedestrian networks across its system. This should be completed and moved to a routine maintenance phase in 2020. Oregon is collaborating with TRB to pilot a new approach for safety analysis for pedestrian and bicycle safety based on NCHRP Research Report 893. The Oregon DOT (ODOT) "All Roads Transportation Safety" program solicited for applications to invest $7 million for bike and pedestrian projects around Oregon to during 2022-2024. ODOT is nearing completion of a comprehensive urban design initiative that includes a statewide directive and updates to highway design standards. For ADA accessibility and safety, ODOT is continuing to upgrade curb ramps across the state.

Pennsylvania

Police conduct targeted enforcement operations for motorists who fail to yield to pedestrians in crosswalks. PennDOT features several safety videos for parents and children on its website — focused on walking safely to school — and distributes packages of pedestrian safety cards at numerous events. The district press and safety officers perform a range of other activities in support of pedestrian safety. From an engineering perspective, PennDOT is being more aggressive with road diets, bulb-outs, speed tables and raised intersections.

South Carolina

The South Carolina Department of Public Safety's Communications Office, along with the South Carolina Highway Patrol Communications Resource Officers, continually pushes out pedestrian

safety information through social and traditional media. A recent example is the "Be Safe, Be Seen" pedestrian safety video.

The South Carolina Highway Patrol has a special pedestrian educational and enforcement program called "Stop, Educate and Enforce." Troopers on patrol that see pedestrians walking along the roadway, whether legally or illegally, will stop the pedestrian; educate them on the state law concerning pedestrians walking along the roadway; educate them on how to stay safe while walking, including handing them a retro-reflective slap band to use; and enforce applicable state laws when appropriate, especially in incidents that involve intoxicated pedestrians.

For the engineering aspect, South Carolina DOT (SCDOT) identified 10 locations to undergo an RSA to determine the exact nature of the issue and to identify potential engineering improvements to address non-motorized user traffic collisions. SCDOT will also begin the process of developing a Statewide PSAP in early 2020. This plan will include a thorough data analysis and will explore systemic approaches to addressing pedestrian collisions and needs.

Tennessee

Behavioral/education approaches include "Walk/Bike Nashville" (a Tennessee Highway Safety Office grant award); "Look for Me" billboards targeting high-traffic, high-speed corridors; and radio/television messaging focused on both driver and pedestrian safety education. Engineering approaches include Tennessee DOT's Bike-Ped Plan (December 2005) and pedestrian travel sites designed, constructed, operated and maintained for safe and independent travel.

Texas

TxDOT is funding a statewide pedestrian coalition and a Statewide Pedestrian Forum. Several local grants fund education and outreach programs. A portion of a state-funded public education and media campaign addresses pedestrian safety. Pedestrian safety is also an emphasis area in the state's Strategic Highway Safety Plan.

Utah

Utah seeks to reduce the pedestrian-motor vehicle crash fatality and injury rate to a moving average of 38.8 for 2015-2019, representing a 1.5% decrease. This will be accomplished by:

- Increasing awareness of safe pedestrian practices at intersections and crosswalks for both pedestrians and drivers by reaching out to the six target counties — Salt Lake, Utah, Weber, Davis, Cache and Washington — as well as any areas that have seen an increase in pedestrian crashes.
- Partnering with law enforcement to conduct crosswalk enforcement efforts in high-risk areas.
- Working with the Pedestrian Safety Task Force to further action items established in the PSAP.

Vermont

Engineering efforts include HAWK signals, signage, speed feedback signs, road diets, bump outs, speed tables and RRFBs. Behavioral approaches include a new media campaign called "Watch for Me," created by the Vermont Department of Health, and Safe Routes to School programs by Local Motion. Enforcement approaches include targeted enforcement by data, using serious injury traffic crash and fatality data.

Virginia

The Virginia DMV's Highway Safety Office collaborates with stakeholders to provide and introduce strategies and countermeasures to improve on safety. The Metropolitan Washington Council of Governments' (MWCOG) "Street Smart" program has worked to raise public awareness and added law enforcement efforts to respond to the challenges of pedestrian and bicyclist safety. In April 2019, the "Street Smart" program conducted a local media tour and public relations efforts to secure interviews with campaign spokespeople and stories on enforcement activations and outreach events.

The Pedestrian Safety Task Force met quarterly throughout 2019 and received presentations from federal, state, local and nonprofit agency representatives. A presentation from the nationally recognized AARP Livable Communities Director addressed concerns of the aging population and outlined available grant opportunities.

The Virginia DMV created a 15-second video, "Eyes Meet to Cross Streets," which was posted on social media websites to create awareness and promote the safe crossing of streets by pedestrians. The video was most successful on Facebook, with over 6,700 views and 66 shares. A media toolkit remains available for use by local jurisdictions. The posting of the toolkit on www.dmvnow.com makes the product(s) accessible to jurisdictions or agencies for use in creating awareness to reduce pedestrian crashes.

Virginia DOT (VDOT) distributes an Active Transportation newsletter. The Statewide Bicycle and Pedestrian Program email newsletter is shared with some 438 advocates to promote Virginia's Statewide Bicycling and Pedestrian Program webpage, which includes maps, laws and safety tips, information on places to travel and more.

Virginia completed its PSAP that addresses engineering needs as well as policy issues. The document provides guidance to improve on pedestrian infrastructures when completing road improvements.

Washington

Many cities are implementing design features on roadways to enhance pedestrian safety, such as curb bulb-outs, protected left turn lanes, pedestrian crossing intervals for crosswalks and various traffic-calming measures to slow down drivers.

The Washington Traffic Safety Commission supports several pilot projects on high-visibility enforcement that couple public education and outreach with enforcement targeted to locations with histories of pedestrian fatalities and serious injuries.

The Washington State Legislature created a Pedestrian Safety Advisory Council (PSAC) to study the common causes of pedestrian crashes, which often center on the driver's speed and whether the driver or pedestrian were paying attention. The PSAC submitted its 2018 report, which supports increased use of automated speed enforcement, increased data collection and analysis, and the strengthening and clarifying of the state's vulnerable user law.

Section 402 funds are used to support several pilot projects working on high-visibility enforcement, coupling public education and outreach with enforcement targeted to locations with histories of pedestrian fatalities and serious injuries.

West Virginia

The Complete Streets Board has become active, and there are some vocal advocates on the Board who are concerned with bicyclist and pedestrian safety. There have been a few high-profile pedestrian crashes/fatalities, and there have been some reactive measures taken due to these, such as lighting changes.

Wisconsin

At the Wisconsin DOT (WisDOT), pedestrian safety is an emphasis area in the department's Strategic Highway Safety Plan, and the state has a goal of zero preventable deaths on Wisconsin roadways. Specific measures include the following:

- Engineering/design guidance for pedestrian facility enhancements including shared-use paths, HAWK signals, RRFBs (or similar enhanced nonmotorized crossings), sidewalks and LPIs.
- Installing/updating curb ramps in the highway improvement program as part of the ADA Transition Plan.
- Participating in FHWA's Every Day Counts Innovations — Safe Transportation for Every Pedestrian (STEP) 2.0.
- Hosting a pair of two-day workshops on Designing for Pedestrian Safety, and hosting two all-day Law Enforcement Pedestrian trainings
- Providing High-Visibility Pedestrian Enforcement Grants to 13 different communities in 2020.
- Hosting a FHWA two-day training on Designing Pedestrian Facilities for Accessibility.
- Working with the Wisconsin Council of the Blind to better understand visual impairment issues as they relate to various facilities.
- Funding Safe Routes to School Programs in La Crosse County, Northeast Wisconsin, Madison and Milwaukee.
- Helping to develop a public Community Maps tool that identifies where pedestrian crashes occur and encourages stakeholders to use the data to guide where additional actions or improvements are warranted.
- Working with a local university to pilot a pedestrian exposure model that will include risk assessment such that department resources can be more effectively targeted.
- Providing a grant to a safety coalition in Milwaukee, MilWALKee Walks, that aims to increase yielding to pedestrians at marked and unmarked crosswalks throughout the city.

Wyoming

Engineering countermeasures include crosswalks, signals and flashing beacons in high pedestrian traffic locations.