Spotlight on Highway Safety

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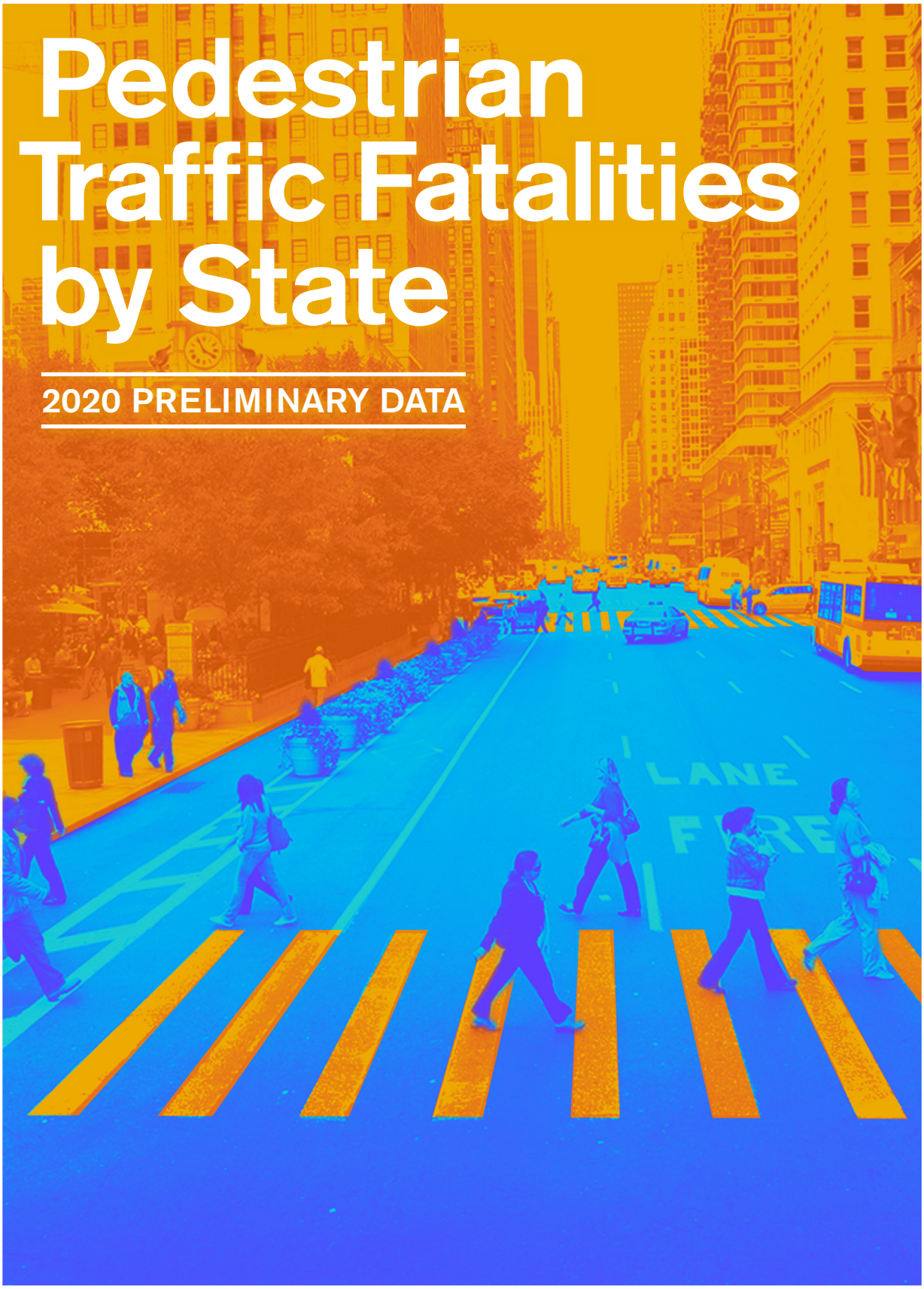
Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA



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EXECUTIVE SUMMARY

In 2019, the number of U.S. pedestrian deaths declined about 1% compared to 2018. This small but welcome decline followed an unprecedented 55% increase in pedestrian deaths from 2009 to 2018. Despite this small recent decrease, pedestrian fatalities recorded in 2018 and 2019 have not been this high since 1990.

For the first six months of 2020, preliminary data from all 50 states and the District of Columbia (D.C.) indicate 2020 deaths are largely on pace with the high levels of 2019, despite large reductions in motor vehicle travel associated with the COVID-19 pandemic. Key findings from analysis of this preliminary data found that:

- For the first six months of 2020, GHSA projects 2,957 pedestrian fatalities, which closely mirrors the number of pedestrian fatalities reported for the first six months of 2019 (2,951).
- In addition, GHSA projects a pedestrian fatality rate of 1.9 per 100,000 population for January through December 2020, which would be a slight reduction from the 2019 pedestrian fatality rate of 2.0 per 100,000 population.
- On a mileage driven basis, however, GHSA projects a 20% increase in the pedestrian fatality rate per one billion vehicle miles traveled (VMT) for the first half of 2020 compared with the first half of 2019.
- States reported a range of changes in the number of pedestrian fatalities in the first half of 2020 compared with the same period in 2019:
  - 27 states had increases in pedestrian fatalities
  - 20 states and D.C. had decreases
  - 3 states had no change
- States differ widely in fatality numbers:
  - The projected number of pedestrian deaths for the first half of 2020 ranged from one in Vermont to 485 in California.
  - Seven states – Arizona, California, Florida, Georgia, New York, North Carolina and Texas — accounted for more than half (54%) 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 focused enforcement in conjunction with public outreach and education.

Many factors outside the control of state and local traffic safety officials contribute to annual changes in the number of pedestrian fatalities, including the economy, population growth, demographic changes, weather, fuel prices, vehicle miles traveled (VMT), the amount of time people spend walking and the overall resources available to support highway safety programs.

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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 more likely to be involved in fatal pedestrian crashes, from 2010 to 2019 the number of pedestrian fatalities involving SUVs increased at a faster rate compared to passenger cars – 69% versus 46%.

Increases in pedestrian fatalities are occurring largely at night. During the 10-year period 2010 to 2019, the number of nighttime pedestrian fatalities increased by 54%, compared to a 16% increase in daytime pedestrian fatalities.

Warmer temperatures could be a contributing factor as well. 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.

A comparison of pedestrian fatalities by race and population data for 2015-2019 found that Black, Indigenous and People of Color (BIPOC) accounted for a larger proportion of pedestrian fatalities than expected based on their respective share of the population.

Despite the lack of reduction in pedestrian deaths, there is some good news in the 2020 preliminary data:

- Pedestrian fatalities during the first half of 2020 declined in 20 states and D.C. compared with the same period in 2019.
- Nine states – Alabama, Florida, Hawaii, Kentucky, Massachusetts, New York, Oklahoma, Pennsylvania and South Carolina – are projected to have double-digit percentage and numeric declines in pedestrian fatalities compared to the same six-month period in 2019.
- Based on analysis of data for January through June 2017-2020, Arizona is projected to have two consecutive years of declining pedestrian fatalities, while Delaware and Kentucky are projected to have three consecutive years of declining pedestrian deaths.

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INTRODUCTION

Walking is the most basic, inexpensive and environmentally friendly form of transportation. Walking provides essential connections between residential, retail and commercial land use as well as access to public transit, especially in urban and suburban areas. 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 2010-2019, the number of U.S. pedestrian fatalities increased by 46%, from 4,302 in 2010 to an estimated 6,301 deaths in 2019 (Table 1 and Figure 1). This translates to approximately 2,000 additional pedestrian deaths in 2019 compared to 2010. This increase in pedestrian deaths is even more concerning considering that all other traffic deaths increased by just 5% during this same period.

Table 1 **Pedestrian Fatalities and Percent of Total Traffic Fatalities, 2010-2019**

Year	Pedestrian Fatalities	All Other Traffic Fatalities Combined	Total Traffic Fatalities	Pedestrian Deaths as a Percentage of Total Traffic Fatalities
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	6,374	30,461	36,835	17%
2019	6,301*	30,107*	36,408*	17%
% Change from 2010 to 2019	+ 46%	+ 5%	+ 10%	

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

** Note: The number of pedestrian fatalities reported by NHTSA's first FARS data release (6,205) was increased by 1.7%, to 6,301, to account for historical underreporting in the first release. All Other Traffic Fatalities were adjusted by 0.9% based on the same analysis of historical underreporting in the FARS first data release.*

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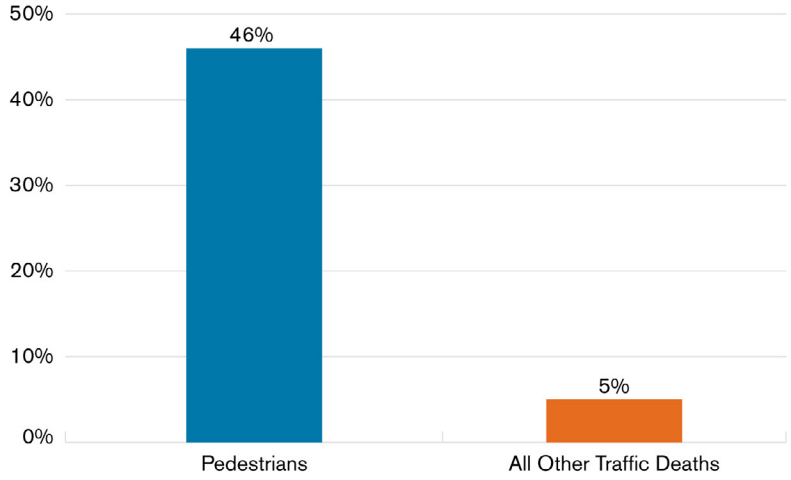
Figure 1 **Percent Increase in Number of Traffic Deaths, 2010 to 2019**



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 13% in 2010 to 17% in both 2018 and 2019. The last time pedestrians accounted for 17% of total U.S. traffic deaths was in 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 vehicle occupant deaths are attributed in part to steady enhancements in vehicle crashworthiness and crash avoidance technology. By contrast, pedestrians remain just as susceptible to sustaining serious or fatal injuries when struck by a motor vehicle.

EARLY ESTIMATES OF 2020 PEDESTRIAN FATALITY DATA

The disturbing number of pedestrian fatalities in recent years prompted GHSA to carefully examine pedestrian fatality data for the first half of 2020. Using the same methods as in prior pedestrian fatality studies, State Highway Safety Offices (SHSOs), which are tasked with addressing behavioral safety issues that contribute to traffic crashes, were asked to provide preliminary counts of pedestrian deaths that occurred in the first half of 2020. These numbers provide an early look at 2020 projections many months before the National Highway Traffic Safety Administration's (NHTSA) 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 D.C. provided information.

For all 50 states and D.C. combined, the number of pedestrian fatalities for the first six months of 2020 is projected to be essentially unchanged from the same period in 2019 (Table 2). Table 3 shows the same data as Table 2 but is sorted by the percent change from 2019 to 2020. Based on the preliminary data, 27 states had increases in pedestrian fatalities, 20 states, and DC had decreases, and 3 states had no change. These data are then sorted by number of fatalities (from highest to lowest) on Table 4.

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Table 2

Pedestrian Fatalities by State, Jan-June 2019 & 2020

Sources: State Highway Safety Offices and GHSA data analysis

Sorted by State

State	Jan-June 2019	Jan-June 2020 (Preliminary Adjusted)	Change from 2019 to 2020	
			#	%
Alabama	52	42	-10	-19%
Alaska	3	4	1	33%
Arizona	110	106	-4	-4%
Arkansas	30	35	5	17%
California	460	485	25	5%
Colorado	31	39	8	26%
Connecticut	21	31	10	48%
Delaware	6	5	-1	-17%
DC	14	13	-1	-7%
Florida	385	332	-53	-14%
Georgia	109	113	4	4%
Hawaii	25	12	-13	-52%
Idaho	4	4	0	0%
Illinois	70	75	5	7%
Indiana	35	45	10	29%
Iowa	10	11	1	10%
Kansas	7	27	20	286%
Kentucky	34	24	-10	-29%
Louisiana	59	64	5	8%
Maine	7	3	-4	-57%
Maryland	49	60	11	22%
Massachusetts	32	17	-15	-47%
Michigan	65	68	3	5%
Minnesota	19	20	1	5%
Mississippi	31	38	7	23%
Missouri	48	48	0	0%
Montana	8	7	-1	-13%
Nebraska	7	6	-1	-14%
Nevada	39	42	3	8%
New Hampshire	4	8	4	100%
New Jersey	79	80	1	1%
New Mexico	42	45	3	7%
New York	121	101	-20	-17%
North Carolina	109	121	12	11%
North Dakota	5	3	-2	-40%
Ohio	60	67	7	12%
Oklahoma	36	23	-13	-36%
Oregon	39	33	-6	-15%
Pennsylvania	77	63	-14	-18%
Rhode Island	3	10	7	233%
South Carolina	83	72	-11	-13%
South Dakota	3	5	2	67%
Tennessee	65	67	2	3%
Texas	309	335	26	8%
Utah	12	11	-1	-8%
Vermont	1	1	0	0%
Virginia	58	55	-3	-5%
Washington	44	47	3	7%
West Virginia	12	11	-1	-8%
Wisconsin	13	22	9	69%
Wyoming	6	2	-4	-67%
Total	2,951	2,957	6	0.2%

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Table 3

Pedestrian Fatalities by State, Jan-June 2019 & 2020

Sources: State Highway Safety Offices and GHSA data analysis

Sorted by Percentage Change

State	Jan-June 2019	Jan-June 2020 (Preliminary Adjusted)	Change from 2019 to 2020	
			#	%
Kansas	7	27	20	286%
Rhode Island	3	10	7	233%
New Hampshire	4	8	4	100%
Wisconsin	13	22	9	69%
South Dakota	3	5	2	67%
Connecticut	21	31	10	48%
Alaska	3	4	1	33%
Indiana	35	45	10	29%
Colorado	31	39	8	26%
Mississippi	31	38	7	23%
Maryland	49	60	11	22%
Arkansas	30	35	5	17%
Ohio	60	67	7	12%
North Carolina	109	121	12	11%
Iowa	10	11	1	10%
Louisiana	59	64	5	8%
Texas	309	335	26	8%
Nevada	39	42	3	8%
Illinois	70	75	5	7%
New Mexico	42	45	3	7%
Washington	44	47	3	7%
California	460	485	25	5%
Minnesota	19	20	1	5%
Michigan	65	68	3	5%
Georgia	109	113	4	4%
Tennessee	65	67	2	3%
New Jersey	79	80	1	1%
Idaho	4	4	0	0%
Missouri	48	48	0	0%
Vermont	1	1	0	0%
Arizona	110	106	-4	-4%
Virginia	58	55	-3	-5%
DC	14	13	-1	-7%
Utah	12	11	-1	-8%
West Virginia	12	11	-1	-8%
Montana	8	7	-1	-13%
South Carolina	83	72	-11	-13%
Florida	385	332	-53	-14%
Nebraska	7	6	-1	-14%
Oregon	39	33	-6	-15%
New York	121	101	-20	-17%
Delaware	6	5	-1	-17%
Pennsylvania	77	63	-14	-18%
Alabama	52	42	-10	-19%
Kentucky	34	24	-10	-29%
Oklahoma	36	23	-13	-36%
North Dakota	5	3	-2	-40%
Massachusetts	32	17	-15	-47%
Hawaii	25	12	-13	-52%
Maine	7	3	-4	-57%
Wyoming	6	2	-4	-67%
Total	2,951	2,957	6	0.2%

Percentage Change Up

Percentage Change Down

Pedestrian Traffic Fatalities by State

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Table 4

Pedestrian Fatalities by State, Jan-June 2020

Source: State Highway Safety Offices and GHSA data analysis

Sorted by Number of Fatalities

State	Pedestrian Fatalities (Preliminary Adjusted)
California	485
Texas	335
Florida	332
North Carolina	121
Georgia	113
Arizona	106
New York	101
New Jersey	80
Illinois	75
South Carolina	72
Michigan	68
Tennessee	67
Ohio	67
Louisiana	64
Pennsylvania	63
Maryland	60
Virginia	55
Missouri	48
Washington	47
Indiana	45
New Mexico	45
Alabama	42
Nevada	42
Colorado	39
Mississippi	38
Arkansas	35
Oregon	33
Connecticut	31
Kansas	27
Kentucky	24
Oklahoma	23
Wisconsin	22
Minnesota	20
Massachusetts	17
District of Columbia	13
Hawaii	12
West Virginia	11
Iowa	11
Utah	11
Rhode Island	10
New Hampshire	8
Montana	7
Nebraska	6
South Dakota	5
Delaware	5
Idaho	4
Alaska	4
Maine	3
North Dakota	3
Wyoming	2
Vermont	1
Total	2,957

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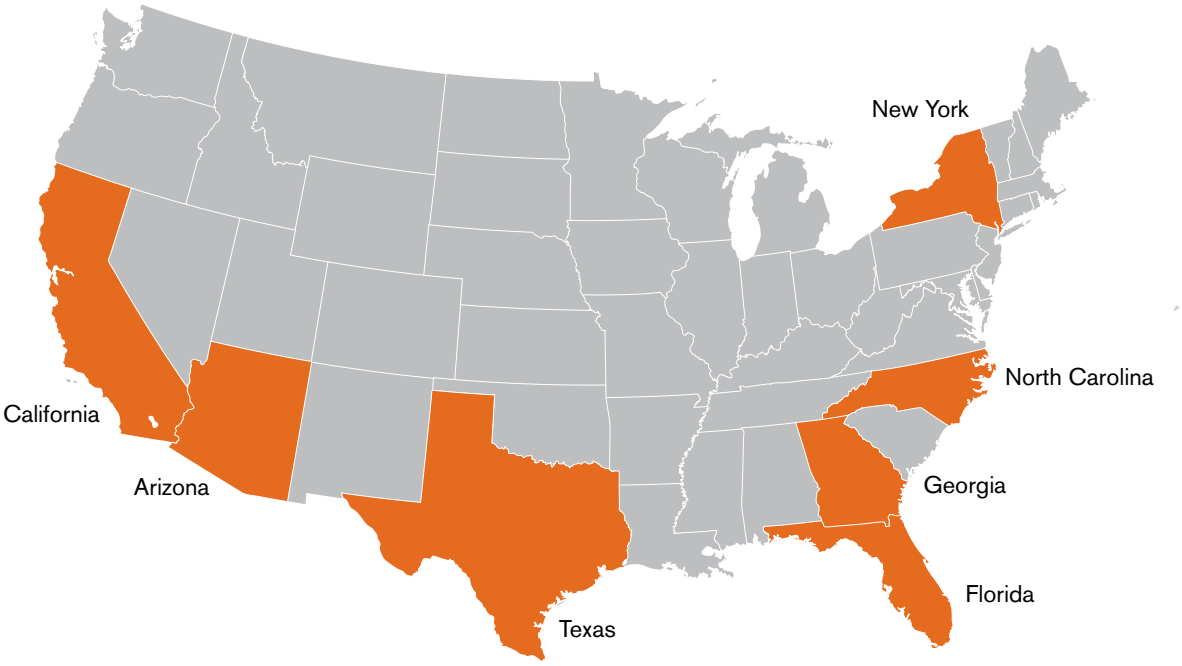
As illustrated in Figure 2, seven states – Arizona, California, Florida, Georgia, New York, North Carolina and Texas – accounted for more than half (54%) of all pedestrian deaths during the first six months of 2020. By comparison, these seven states represented approximately 42% of the U.S. population, according to the 2020 U.S. Census.

Figure 2 ■ **7 States Account for 54% of Pedestrian Deaths, Jan.-June 2020**



Source: State Highway Safety Offices

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Table 5

Pedestrian Fatalities by State Per 100,000 Population, Jan-June 2020

Sources: 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 2020.

- The pedestrian fatality per 100,000 population for all 50 states and D.C. combined for January through June 2020 was 0.90, which was unchanged from 2019.
- New Mexico had the highest pedestrian fatality rate (2.12), while Vermont had the lowest (0.18).
- Thirteen states had pedestrian fatality rates of 1.0 or higher per 100,000 population, compared to 15 states in 2019.

Sorted by State

State	Pedestrian Fatalities Per 100K Population
Alabama	0.86
Alaska	0.51
Arizona	1.43
Arkansas	1.15
California	1.23
Colorado	0.68
Connecticut	0.87
Delaware	0.49
District of Columbia	1.89
Florida	1.53
Georgia	1.06
Hawaii	0.85
Idaho	0.24
Illinois	0.59
Indiana	0.66
Iowa	0.34
Kansas	0.92
Kentucky	0.53
Louisiana	1.38
Maine	0.22
Maryland	0.99
Massachusetts	0.25
Michigan	0.68
Minnesota	0.36
Mississippi	1.29
Missouri	0.77
Montana	0.65
Nebraska	0.31
Nevada	1.34
New Hampshire	0.59
New Jersey	0.90
New Mexico	2.12
New York	0.52
North Carolina	1.14
North Dakota	0.39
Ohio	0.57
Oklahoma	0.58
Oregon	0.77
Pennsylvania	0.49
Rhode Island	0.98
South Carolina	1.38
South Dakota	0.56
Tennessee	0.98
Texas	1.14
Utah	0.33
Vermont	0.18
Virginia	0.63
Washington	0.61
West Virginia	0.60
Wisconsin	0.37
Wyoming	0.39
Total	0.90

Sorted by Fatality Rate

State	Pedestrian Fatalities Per 100K Population
New Mexico	2.12
District of Columbia	1.89
Florida	1.53
Arizona	1.43
South Carolina	1.38
Louisiana	1.38
Nevada	1.34
Mississippi	1.29
California	1.23
Arkansas	1.15
North Carolina	1.14
Texas	1.14
Georgia	1.06
Maryland	0.99
Rhode Island	0.98
Tennessee	0.98
Kansas	0.92
New Jersey	0.90
Connecticut	0.87
Alabama	0.86
Hawaii	0.85
Missouri	0.77
Oregon	0.77
Colorado	0.68
Michigan	0.68
Indiana	0.66
Montana	0.65
Virginia	0.63
Washington	0.61
West Virginia	0.60
Illinois	0.59
New Hampshire	0.59
Oklahoma	0.58
Ohio	0.57
South Dakota	0.56
Kentucky	0.53
New York	0.52
Alaska	0.51
Pennsylvania	0.49
Delaware	0.49
North Dakota	0.39
Wyoming	0.39
Wisconsin	0.37
Minnesota	0.36
Iowa	0.34
Utah	0.33
Nebraska	0.31
Massachusetts	0.25
Idaho	0.24
Maine	0.22
Vermont	0.18
Total	0.90

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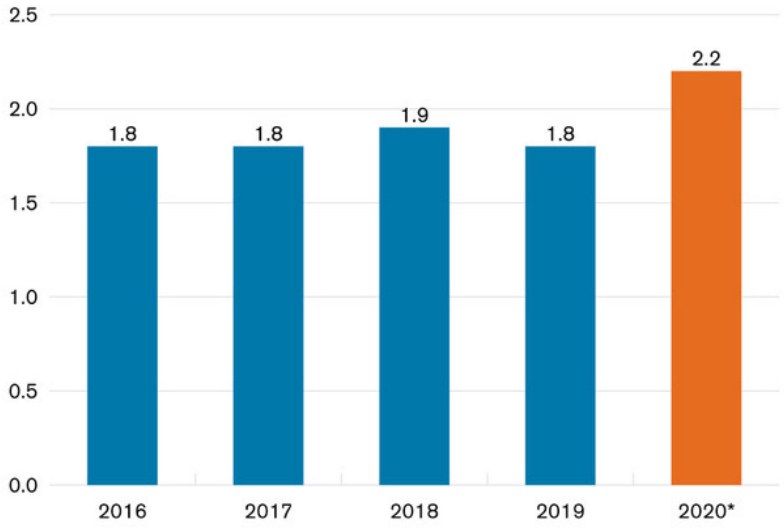
Figure 3 shows the projected pedestrian fatality rate per one billion vehicle miles traveled (VMT) for the first six months 2020 compared with the four previous years. The pedestrian fatality rate of 2.2 per one billion VMT in 2020 represents a 20% increase over the rate of 1.8 in 2019. This increase is the result of a reported 16.5% reduction in VMT for the first six months of 2020 compared with 2019 with no corresponding reduction in pedestrian deaths.

Figure 3 Pedestrian Fatalities per 1 Billion Vehicle Miles Traveled (VMT), Jan-June 2016-2020



Sources: SHSOs, GHSA data analysis and Federal Highway Administration
** Projected*

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2019 PEDESTRIAN FATALITY DATA

In addition to analyzing preliminary pedestrian fatality data for the first six months of 2020, GHSA also examined pedestrian fatality data for the most recent complete calendar year (2019), as published by NHTSA through FARS. The following crash factors were examined:

- Population
- Race
- Light Condition
- Roadway Location
- Alcohol Impairment
- Vehicle Type

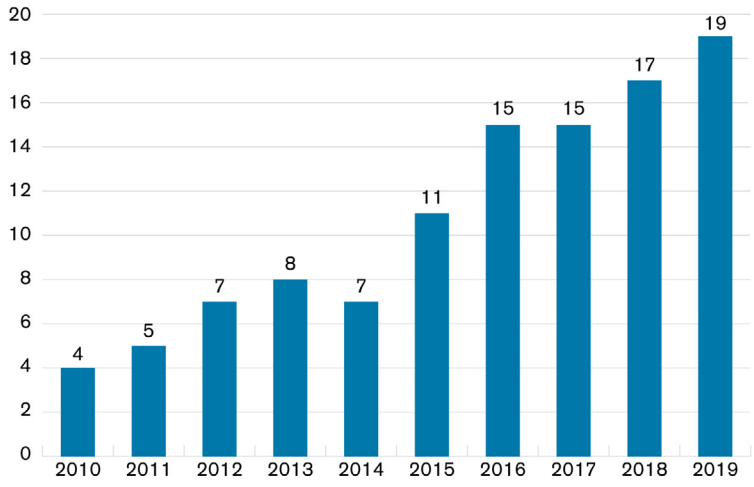
Table 6 and Figures 4 through 20 provide analyses of the most recent pedestrian fatality data available from FARS.

Population

Table 6 shows the rate of pedestrian fatalities per 100,000 population by state for 2019 based on the number of pedestrian fatalities reported by FARS and U.S. Census population data:

- New Mexico had the highest pedestrian fatality rate at 4.0, while Vermont and Kansas had the lowest at 0.5.
- Nineteen states had pedestrian fatality rates per 100,000 population greater than or equal to 2.0 in 2019 (Figure 4). By comparison:
  - 17 states had fatality rates this high in 2018.
  - 15 states had fatality rates this high in 2016 and 2017.
  - 11 states had fatality rates this high in 2015.
  - Eight or fewer states had fatality rates this high from 2010 through 2014.

Figure 4 **Number of States with Fatality Rates ≥ 2.0 Per 100,000 Population 2010-2019**



Sources: State Highway Safety Offices & U.S. Census Bureau

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Table 6

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

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

Sorted by State

State	Pedestrian Fatalities Per 100K Population - 2019
Alabama	2.4
Alaska	0.8
Arizona	2.9
Arkansas	2.0
California	2.5
Colorado	1.3
Connecticut	1.5
Delaware	3.3
District of Columbia	1.3
Florida	3.3
Georgia	2.2
Hawaii	2.5
Idaho	0.7
Illinois	1.4
Indiana	1.1
Iowa	0.7
Kansas	0.5
Kentucky	1.6
Louisiana	2.5
Maine	1.2
Maryland	2.0
Massachusetts	1.1
Michigan	1.4
Minnesota	0.8
Mississippi	2.2
Missouri	1.8
Montana	1.6
Nebraska	1.0
Nevada	2.0
New Hampshire	0.7
New Jersey	2.0
New Mexico	4.0
New York	1.4
North Carolina	2.0
North Dakota	0.7
Ohio	1.1
Oklahoma	2.1
Oregon	1.9
Pennsylvania	1.1
Rhode Island	0.8
South Carolina	3.1
South Dakota	0.8
Tennessee	2.2
Texas	2.2
Utah	1.2
Vermont	0.5
Virginia	1.4
Washington	1.3
West Virginia	1.7
Wisconsin	1.0
Wyoming	1.9
Total	1.9

Sorted by Fatality Rate

State	Pedestrian Fatalities Per 100K Population - 2019
New Mexico	4.0
Florida	3.3
Delaware	3.3
South Carolina	3.1
Arizona	2.9
Hawaii	2.5
Louisiana	2.5
California	2.5
Alabama	2.4
Texas	2.2
Georgia	2.2
Mississippi	2.2
Tennessee	2.2
Oklahoma	2.1
Maryland	2.0
Arkansas	2.0
Nevada	2.0
North Carolina	2.0
New Jersey	2.0
Oregon	1.9
Wyoming	1.9
Missouri	1.8
West Virginia	1.7
Kentucky	1.6
Montana	1.6
Connecticut	1.5
Virginia	1.4
Michigan	1.4
New York	1.4
Illinois	1.4
Washington	1.3
District of Columbia	1.3
Colorado	1.3
Maine	1.2
Utah	1.2
Pennsylvania	1.1
Massachusetts	1.1
Indiana	1.1
Ohio	1.1
Nebraska	1.0
Wisconsin	1.0
Minnesota	0.8
Alaska	0.8
South Dakota	0.8
Rhode Island	0.8
New Hampshire	0.7
Idaho	0.7
Iowa	0.7
North Dakota	0.7
Kansas	0.5
Vermont	0.5
Total	1.9

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Race

Figure 5 shows the percent of total pedestrian fatalities for the five-year period 2015-2019 by race and total population by race. Persons classified as other or unknown were excluded from Figure 5.

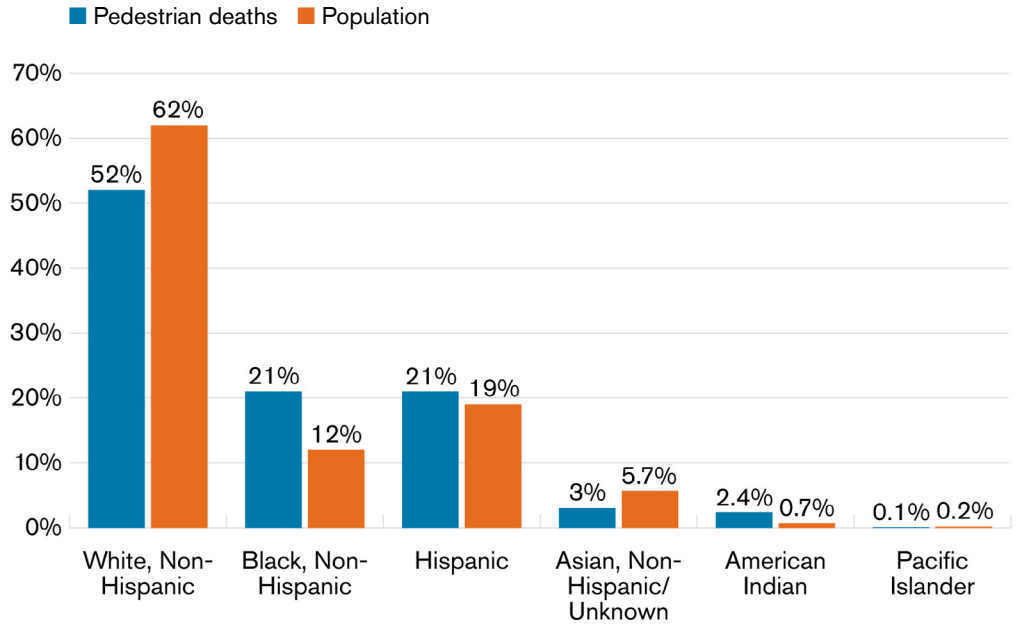
It is important to note that FARS reports race and Hispanic origin for fatal crash victims based on information obtained from death certificates. The following race categories are included in FARS using Office of Management and Budget (OMB) guidelines:

- American Indian, Non-Hispanic/Unknown
- Asian, Non-Hispanic/Unknown
- Black, Non-Hispanic
- Hispanic
- Pacific Islander, Non-Hispanic/Unknown
- White, Non-Hispanic
- All Other Non-Hispanic or Race
- Multiple Races, Non-Hispanic/Unknown

In addition, persons of Hispanic origin may be of any race; all other racial/ethnic groups are considered non-Hispanic.

Population estimates for these same race/Hispanic origin categories were obtained from the Kaiser Family Foundation's (KFF) analysis of population and demographic data. KFF's analysis is based on the U.S. Census Bureau's American Community Survey (ACS), which is restricted to the civilian, non-institutionalized population for whom ACS collects and reports poverty information. The ACS data covers more than 97% of the total U.S. population as reported by the Census Bureau. KFF data were obtained for each year during this five-year period and averaged.

Figure 5 **Percent of Total Pedestrian Fatalities and Population by Race, 2015-2019**



Sources: FARS & Kaiser Family Foundation

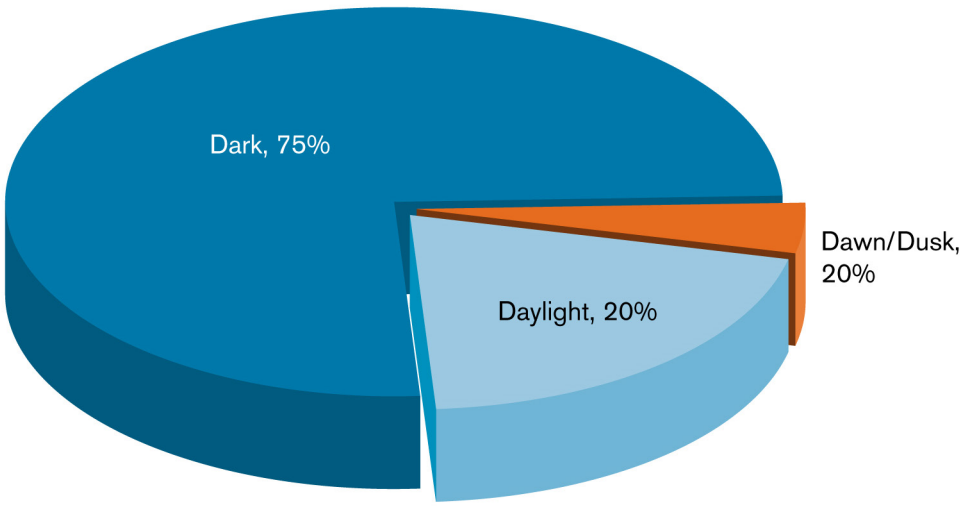
People classified as white/Non-Hispanic accounted for a considerably smaller proportion of pedestrian fatalities than expected based on their respective share of the population. Black, Indigenous, and People of Color (using OMB guidelines for race) accounted for a larger proportion of pedestrian fatalities than expected based on their respective share of the population.

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%.[1] 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 or population density explained the effect of poverty.[2]

Light Condition

Darkness poses an especially high risk for those traveling by foot. Nationwide, three out of every four (75%) pedestrian fatalities in 2019 occurred after dark (Figure 6).

Figure 6 **Pedestrian Fatalities by Light Condition, 2019**



Source: FARS

1 Birken, C.S., Parkin, P.C., To, T., & Macarthur, C. (2006). Trends in rates of death from unintentional injury among Canadian children in urban areas: Influence of socioeconomic status, 175(8).

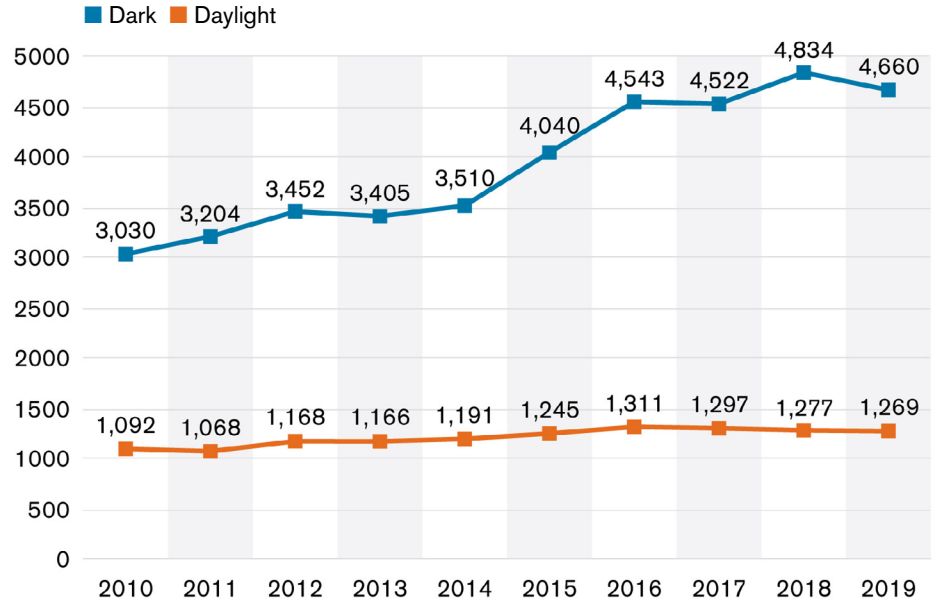
2 Chakravarthy, B., Anderson, C.L., Ludlow, J., Lotfipour, S., & Vaca, F.E. (2010). The relationship of pedestrian injuries to socioeconomic characteristics in a large southern California county. Traffic Injury Prevention, 11:5.

Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

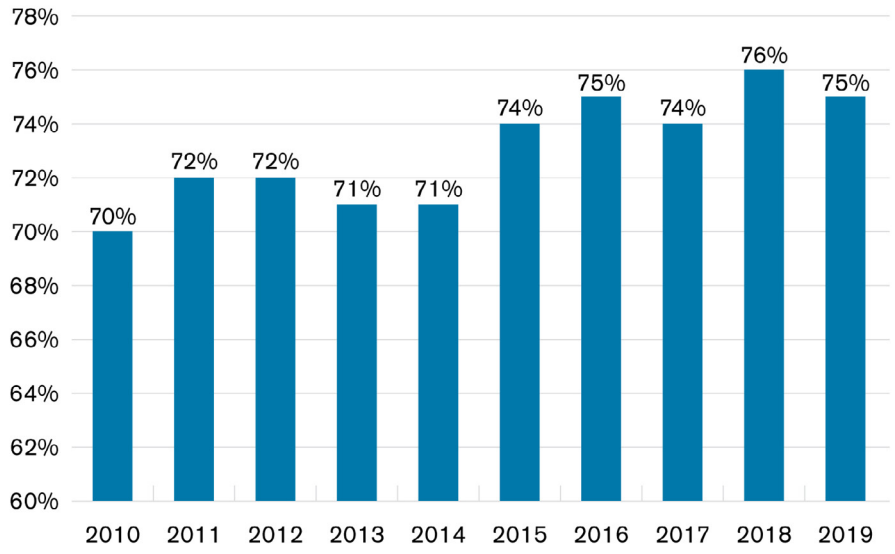
Figures 7 and 8 show trends in the numbers of pedestrian fatalities that occurred during daylight and darkness. From 2010 to 2019, the number of pedestrian fatalities that occurred in the dark increased by 54%, while the number of daylight pedestrian fatalities increased 16%.

Figure 7 **Number of Pedestrian Fatalities by Light Condition, 2010-2019**



Source: FARS

Figure 8 **Percentage of All Pedestrian Fatalities that Occurred in the Dark, 2010-2019**



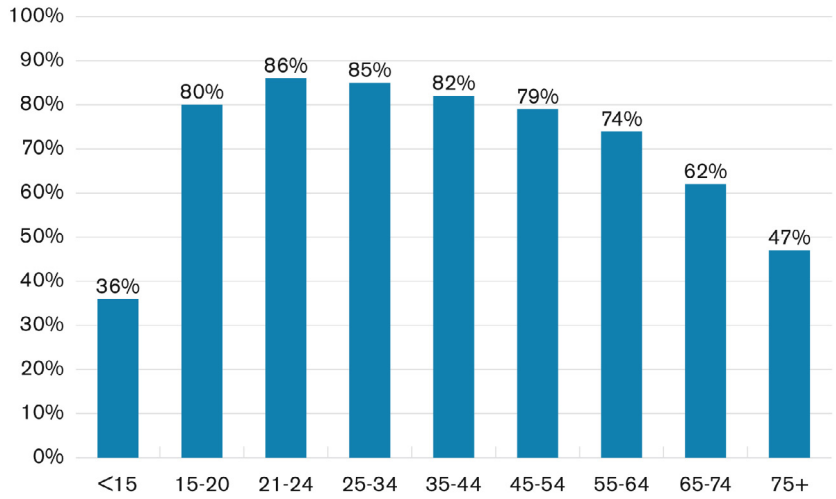
Source: FARS

Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

Figure 9 shows the percent of total pedestrian fatalities that occurred in the dark by pedestrian age. From 2010-2019, the percent of total pedestrian fatalities that occurred in the dark was highest for 21- to 24-year-olds (86%) and declined for all older age groups. Children under 15 years of age had the lowest percent of total pedestrian fatalities that occurred in the dark.

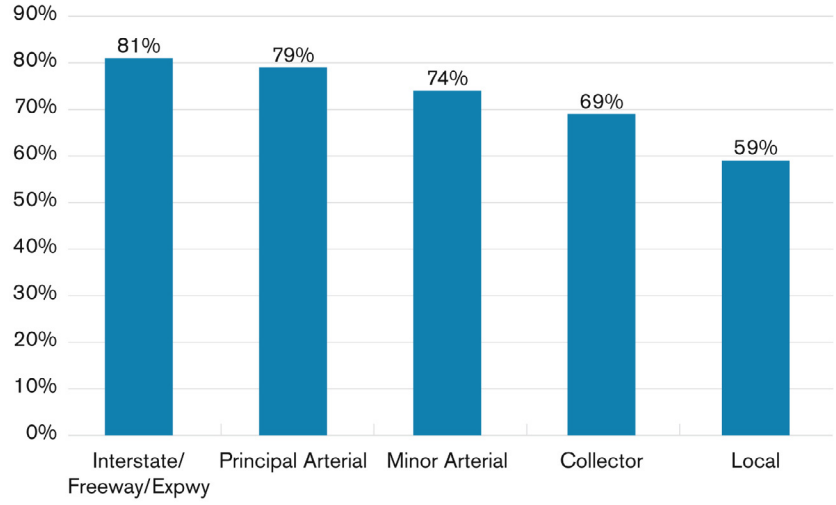
Figure 9 **Percent of Total Pedestrian Fatalities that Occurred in the Dark by Pedestrian Age, 2010-2019**



Source: FARS

Figure 10 shows the percent of pedestrian fatalities that occurred in the dark by roadway function class from 2010-2019. The percent of pedestrian fatalities that occurred in the dark was highest for the Interstate/Freeways/Expressways category (81%) and declined for all lower roadway function classes.

Figure 10 **Percent of Pedestrian Fatalities in the Dark by Roadway Function Class, 2010-2019**



Source: FARS

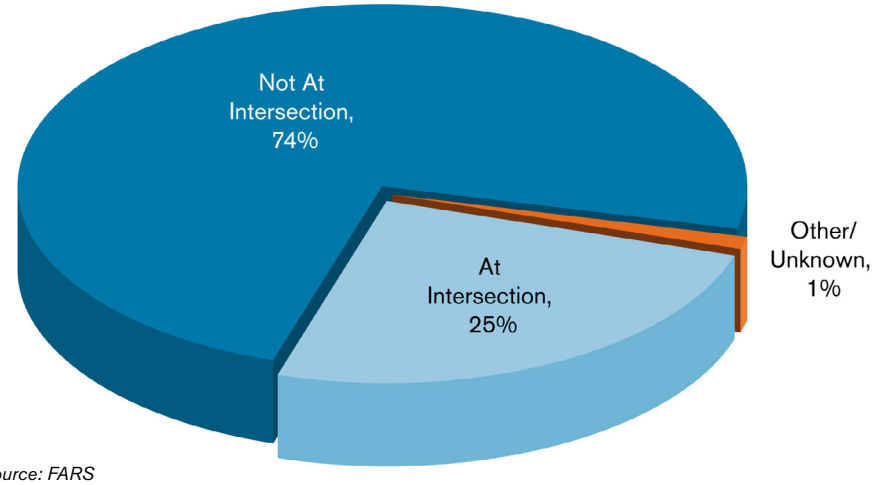
Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

Roadway Location

Most pedestrian fatalities in 2019 (74%) occurred at non-intersection locations. About 25% of pedestrian fatalities occurred at intersections or were intersection-related (Figure 11).

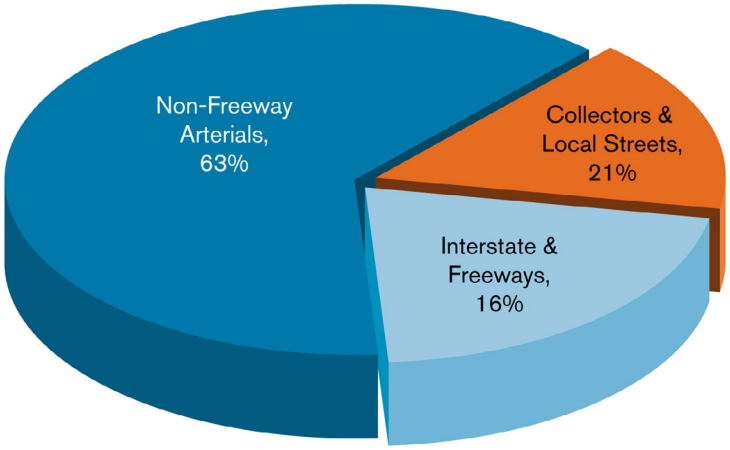
Figure 11 **Pedestrian Fatality Locations, 2019**



Source: FARS

As illustrated in Figure 12, more than half of all pedestrian fatalities in 2019 (63%) occurred on Non-Freeway Arterials, which are the main roads that carry local and regional traffic through communities. The second largest category was Collectors & Local Streets (21%), which typically serve residential areas and downtown traffic. A surprisingly large number of pedestrian fatalities — 16% — occurred on Freeways, which include Interstates. Some of the pedestrian fatalities that occur on Freeways involve motorists who were struck while standing outside of their cars due to mechanical issues or minor crashes.

Figure 12 **Pedestrian Fatalities by Roadway Function Class, 2019**



Source: FARS

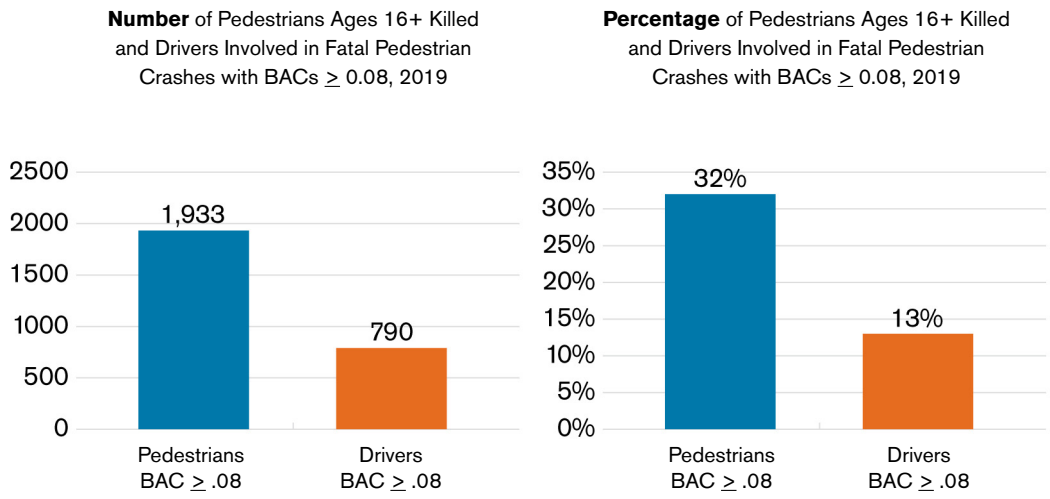
Alcohol Impairment

Alcohol impairment — for the driver and/or pedestrian — was reported in about half of traffic crashes that resulted in pedestrian fatalities in 2019. Approximately one-third (32%) 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. Almost 2,000 pedestrians killed in 2019 had BACs of 0.08 or higher.

Alcohol impairment — for the driver and/or pedestrian — was reported in about half of traffic crashes that resulted in pedestrian fatalities in 2019. An estimated 13% of drivers involved in fatal pedestrian crashes with known test results had a BAC of 0.08 or higher. Approximately one-third (32%) 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. Almost 2,000 pedestrians killed in 2019 had BACs of 0.08 or higher (Figure 13).

Even in cases where the pedestrian or driver's alcohol consumption may not be identified by police as a contributing factor to the crash, a driver or pedestrian with a BAC of 0.08 or higher has diminished capabilities that could impact judgment, decision-making and reaction time and, for the pedestrian, make their walk home particularly perilous on unsafe roadways that may be poorly lit.

Figure 13 **Drivers and Pedestrians Involved in Fatal Pedestrian Crashes with BACs ≥ 0.08, 2019**



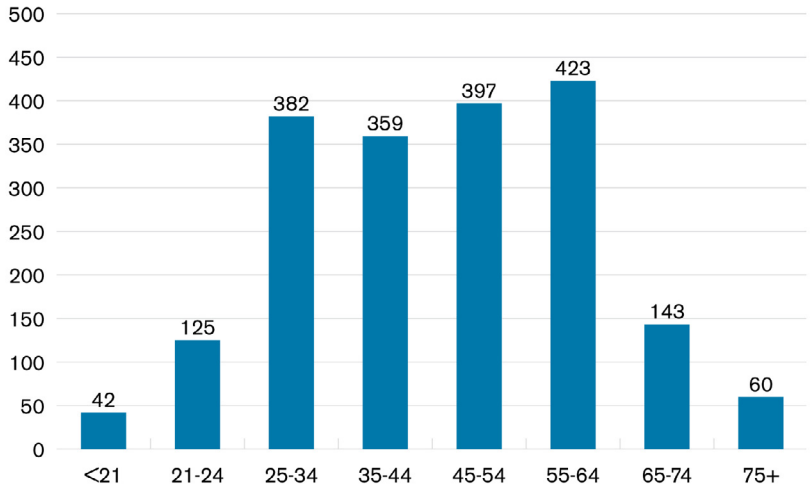
Source: FARS

Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

Figure 14 shows the number of pedestrians killed in traffic crashes by age group with a known BAC of 0.08 or higher in 2019. The number of fatally injured pedestrians with BACs greater than or equal to 0.08 was highest for those in the 55-64 age group, followed by the 45-54 age group.

Figure 14 **Number of Pedestrian Fatalities with Known BAC ≥ 0.08 by Age, 2019**

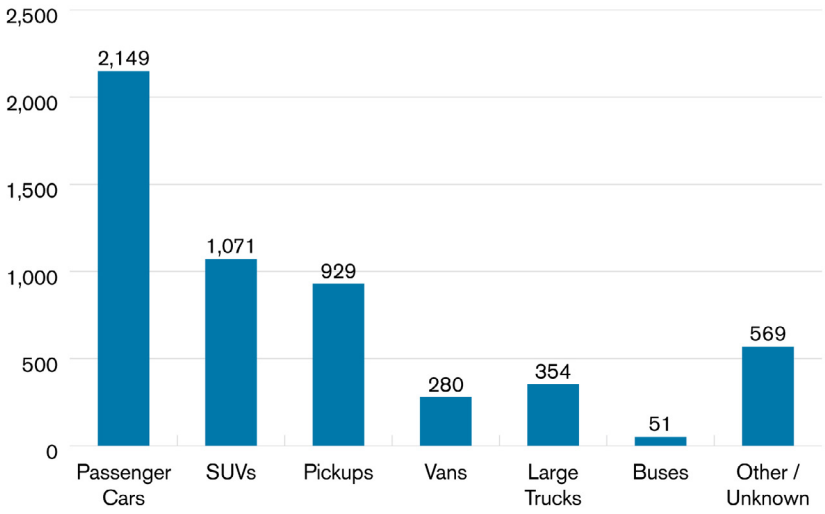


Source: FARS

Vehicle Type

Figure 15 shows the number of pedestrians killed in single-vehicle crashes by vehicle type in 2019. The largest category of striking vehicle was passenger cars, accounting for 40% of the total.

Figure 15 **Number of Pedestrians Killed in Single-Vehicle Crashes by Vehicle Type, 2019**



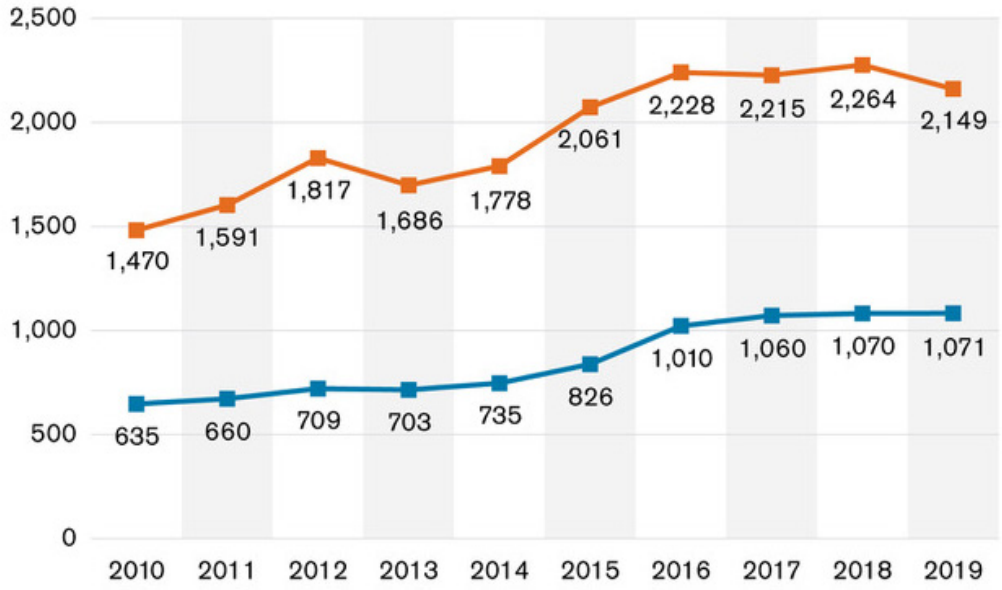
Source: FARS

Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

Figure 16 shows the trend in the numbers of pedestrians killed in single-vehicle crashes involving passenger cars and SUVs from 2010 to 2019. Although passenger cars accounted for a larger number of pedestrian deaths, the number of pedestrian fatalities involving SUVs increased at a greater rate (69%) during this 10-year period compared to fatalities involving passenger cars (46%).

Figure 16 **Number of Pedestrians Killed in Single-Vehicle Crashes Involving Passenger Cars and SUVs, 2010-2019** ■ Passenger Cars ■ SUVs



Source: FARS

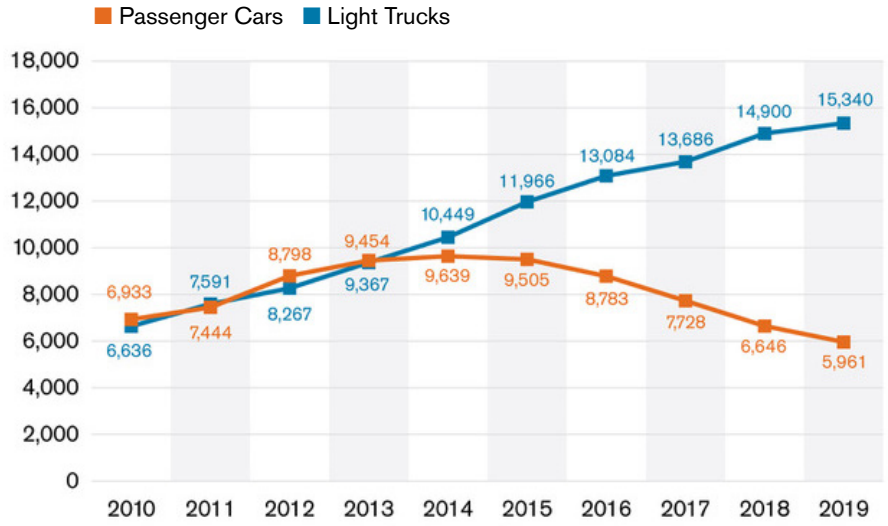
Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

Figure 17 shows U.S. retail sales (in thousands) of passenger cars and light trucks from 2010 to 2019, indicating a sharp increase in sales of light trucks (which includes SUVs) and a general decline in sales of passenger cars.

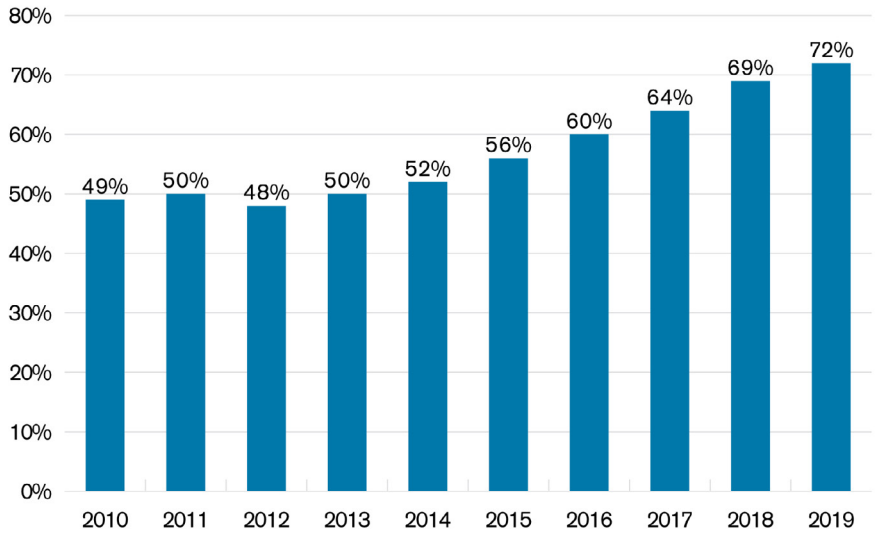
Figure 18 shows a correspondingly steady increase in light trucks as a percent of total light vehicle sales from 2010 to 2019.

Figure 17 **Light Vehicle Sales & Leases (in Thousands), 2010-2019**



Source: Bureau of Transportation Statistics

Figure 18 **Light Trucks as a Percent of Total Light Vehicle Sales, 2010-2019**



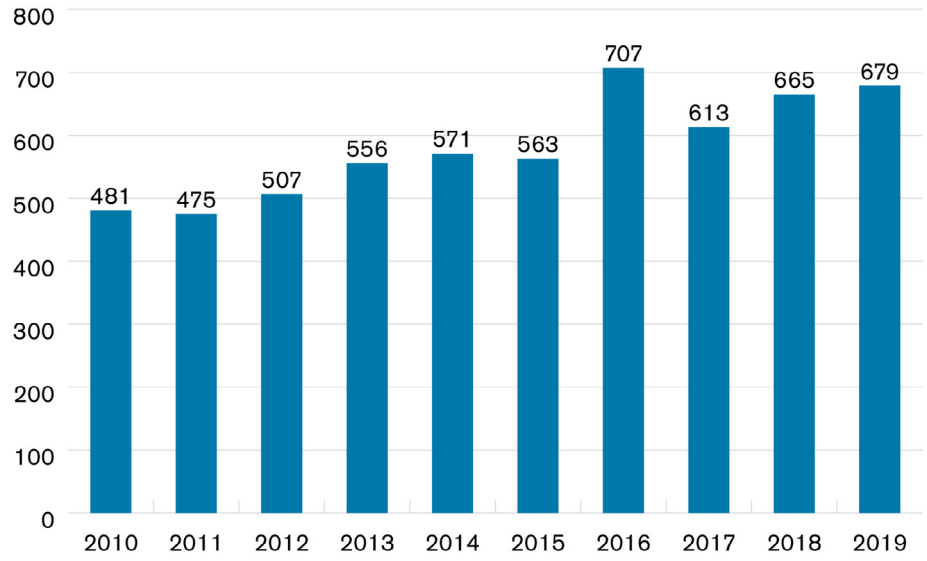
Source: Bureau of Transportation Statistics

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: Chicago, Dallas, Houston, Los Angeles, New York, Philadelphia, Phoenix, San Antonio, San Diego and San Jose.

The total number of pedestrian fatalities for these cities increased by 2% from 2018 to 2019, and by 41% from 2010 to 2019 (Figure 19).

Figure 19 **Pedestrian Deaths in the 10 Largest U.S. Cities, 2010-2019**



Source: FARS

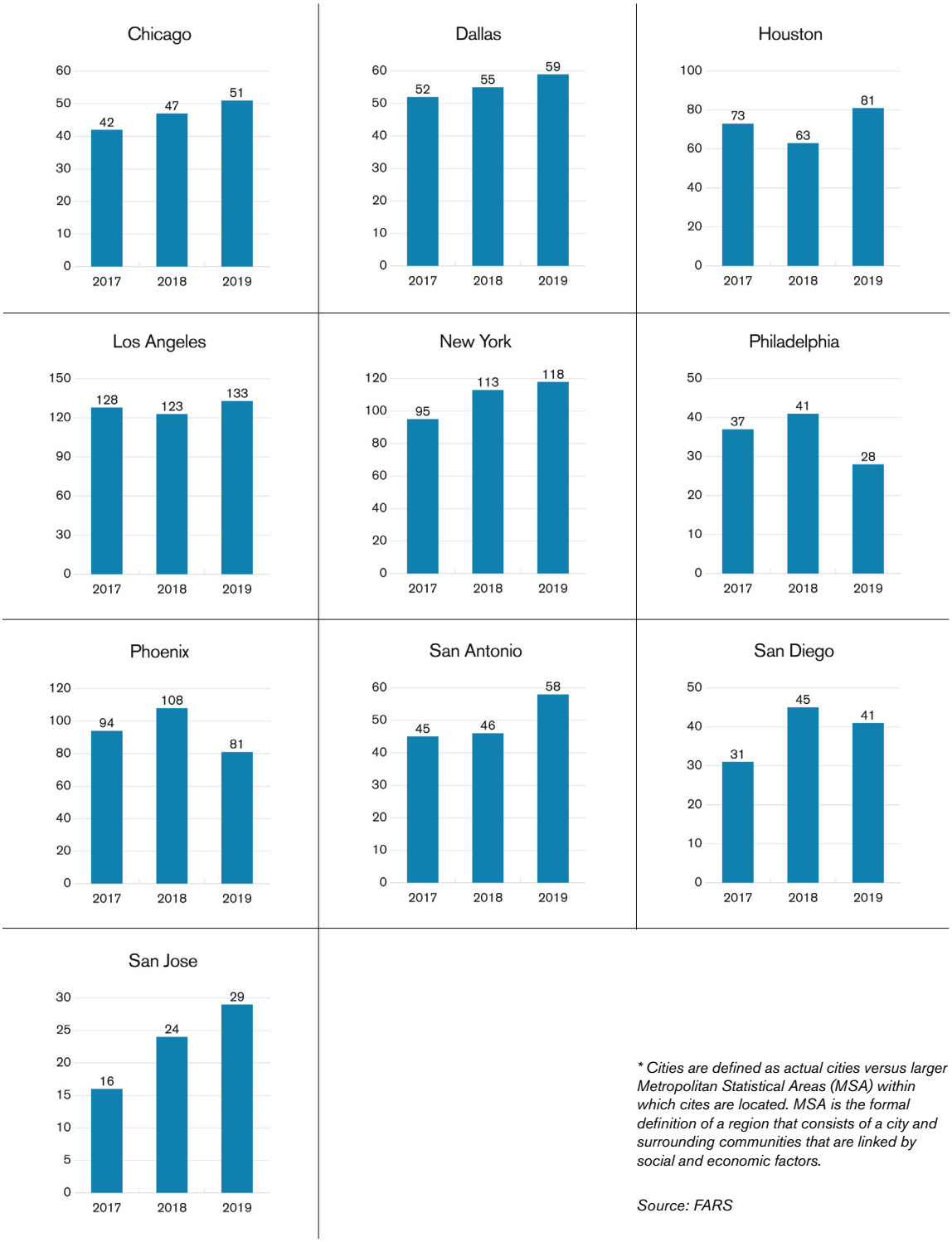
Figure 20 shows trends in the number of pedestrian fatalities for each of the 10 largest U.S. cities during the past three years of available FARS data (2017-2019). The number of pedestrian fatalities during the past three years:

- Trended up in five of the ten cities – Chicago, Dallas, New York, San Antonio and San Jose.
- Increased and then decreased in the other five cities – Houston, Los Angeles, Philadelphia, Phoenix and San Diego.

Pedestrian Traffic Fatalities by State

2020 PRELIMINARY DATA

Figure 20 **Pedestrian Deaths in 10 Largest U.S Cities, 2017-2019***



** Cities are defined as actual cities versus larger Metropolitan Statistical Areas (MSA) within which cites are located. MSA is the formal definition of a region that consists of a city and surrounding communities that are linked by social and economic factors.*

Source: FARS

HOW CAN WE REDUCE PEDESTRIAN FATALITIES AND INJURIES?

Many factors that contribute to pedestrian crashes are outside the control of SHSOs, which fund behavioral safety countermeasures. For example, traffic engineering considerations such as roadway and traffic signal design, sidewalk construction and street lighting fall under the purview of the engineering divisions of state and local Departments of Transportation (DOTs). These are significant strategies that can enhance pedestrian safety and have been supported by GHSA and others in the behavioral highway safety community for many years. Many highway safety advocates have also brought attention to the fact that much of the country still lacks, and desperate needs, more safety infrastructure to protect non-motorized travelers.

SHSOs are committed to improving the safety of all road users by focusing on behavioral issues that contribute 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 leverage federal highway safety grants (under U.S.C. Title 23 Sections 402 and 405) to address these issues through education and enforcement. In addition, in some states, SHSOs are responsible for traffic records coordination and Safe Routes to School (SRTS) programs. SHSOs are located in state DOTs in about half of the states or work with their state DOT counterparts to align behavioral solutions with engineering efforts.

Achieving robust and sustained progress toward reducing – and ideally eliminating – pedestrian fatalities and injuries requires a comprehensive approach that includes five E's: Enforcement, Engineering, Education, Emergency Medical Response and Equity. The final E, Equity, is essential and cannot be separated from the other E's. Take infrastructure programs, for example, which have prioritized the movement of motor vehicles over walking and bicycling for many years. Equitable investment must be made in engineering initiatives that ensure cities, communities and neighborhoods are safe and accessible for all modes and all people.

At the same time, states must develop and implement public education and outreach programs with community input – using appropriate language, images and media – to be delivered by trusted leaders and spokespersons that look and sound like the audience with whom they are attempting to engage. States must continually examine traffic safety laws and their enforcement to ensure they are not disproportionately burdening BIPOC communities. States should also place emphasis on addressing unsafe motorist behaviors that pose the greatest risk to people outside of vehicles. More must be done to address the gaps in emergency medical services (EMS) – particularly in rural and underserved areas – to ensure that a pedestrian seriously injured in a motor vehicle crash has the greatest chance of survival.

Evidence-based research has identified numerous engineering, enforcement, education and EMS countermeasures that are effective at reducing pedestrian crashes. Each are addressed below and as noted above, should be viewed carefully through the equity lens to ensure transportation safety for all people regardless of age, race, gender, ability, income, background and other personal characteristics.

Engineering

Speed management appears to offer the greatest potential for pedestrian injury prevention. Slower speeds give motorists more time to react and can lessen injuries when crashes do occur. In terms of crash reduction, states and communities should consider:

- Installation of modern **roundabouts** in place of conventional intersections was identified as the most effective speed control intervention.[3] European studies indicate that, on average, converting conventional intersections to roundabouts can reduce the rate of pedestrian crashes by about 75%. Single-lane roundabouts have been reported to involve substantially lower pedestrian crash rates than comparable intersections with traffic signals. Like other states, Indiana is constructing roundabouts in place of traditional intersections to improve pedestrian safety. Indiana has more than 256 roundabouts, including more than 125 in the City of Carmel. Public involvement is essential, combined with an education and communication strategy that addresses their use.
- **Traffic calming** techniques such as lane narrowing, adjustments in roadway curvature, pedestrian refuge islands and speed humps have been shown to reduce speeds and crashes. A study of "extensive" area-wide traffic calming measures, involving a before-after design without controls, reported that pedestrian-vehicle crashes decreased by 25%.[4] The City of Cambridge, Massachusetts, which is held up as a national model, provides examples of traffic calming techniques on its webpage.
- **Automated traffic enforcement** (speed and red-light cameras) included as a component of a broader traffic safety and speed management program is also effective in areas with a demonstrated need.[5] The use of speed cameras has been shown to reduce motorist speed and crashes, which is critical for reducing pedestrian deaths and injuries. A NHTSA-funded review of well-controlled studies suggested injury crash reductions relating to speed cameras are likely to be in the range of 20 to 25% at conspicuous, fixed camera sites.[6] Chicago's Children's Safety Zone Program protects children, pedestrians and other vulnerable roadway users by reminding motorists to slow down and obey speed limits – especially near schools and parks. The program's comprehensive toolbox includes enhanced signage, pavement markings, pedestrian refuge islands and speed enforcement cameras, as well as education and encouragement. Automated enforcement is also used to address speeding in school zones in New York City. The program, which began in 2014 with 140 speed cameras, was legislatively expanded to allow for the installation of 750 devices by the end of 2020.
- **Pedestrian refuge islands**, which are located in the medians of two-way streets, allow pedestrians to cross in two stages, simplifying the crossing task. This is especially helpful for pedestrians who walk at slower speeds. There are significantly lower pedestrian crash rates on multilane roads with raised medians than on those without such medians.[7]
- Increased intensity of **street lighting** can improve pedestrian visibility at night, when 75% of all fatal pedestrian crashes occur. Increased intensity of roadway lighting at pedestrian crossings has been associated with significant reductions in nighttime pedestrian crashes.[8]

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3 Retting, R.A., Ferguson, S.F., & McCartt, A. (2003). A review of evidence-based traffic engineering measures to reduce pedestrian-motor vehicle crashes. *American Journal of Public Health* 93/9: 1456-1463.

4 Brilon, W., & Blanke, H. (1993). Extensive traffic calming: Results of the accident analyses in six model towns. In: Proceedings of the 63rd Annual Meeting of the Institute of Transportation Engineers, 119-123 Washington, DC: Institute of Transportation Engineers.

5 Richard, C. M., Magee, K., Bacon-Abdelmoteleb, P., & Brown, J. L. (2018). Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, Ninth edition (DOT HS 812 478). Washington, DC: National Highway Traffic Safety Administration.

6 Decina, L. E., Thomas, L., Srinivasan, R., & Staplin L. (2007). Automated enforcement: A compendium of worldwide evaluations of results (DOT HS 810 763). Washington, DC: National Highway Traffic Safety Administration.

7 Zegeer, C. V., Stewart, J. R., Huang, H., & Lagerwey, P. (2001). Safety effects of marked versus unmarked crosswalks at uncontrolled locations,1723:56–68. Washington, DC: Transportation Research Board

8 Pegrum, B. V. (1972). The application of certain traffic management techniques and their effect on road safety. In: Proceedings of the National Road Safety Symposium, 277-286. Perth, Western Australia: Dept of Shipping and Transport.

- A comparative analysis of intersections with and without **exclusive pedestrian signal phasings** – which stops all vehicle traffic for part or all of the pedestrian crossing signal – reported that the risk of pedestrian-vehicle crashes at intersections with exclusive timing was approximately half that at intersections with standard pedestrian signals.[9]
- Adequately timed yellow and all-red **clearance traffic signals** are necessary to ensure that drivers have enough time to clear the intersection before indicating a pedestrian may proceed. One study showed that combined changes in the duration of yellow and all-red signal timing reduced the risk of pedestrian and bicycle crashes at intersections by 37% relative to control sites.[10]
- **Complete Streets policies** direct state and local 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. To date, more than 1,600 Complete Streets policies have been passed in the U.S.[11] Cleveland Heights, Ohio was recently recognized in a national competition as having the best Complete Streets policy in the country.
- 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 pedestrian-related insurance claims.[12] As of December 2020, ten automakers have voluntarily equipped nearly all their light model vehicles with this technology ahead of a 2022-23 target, while another three have exceeded the 90% threshold.[13]

Enforcement of Motorist Laws

This is an area where SHSOs play a key role, as they fund numerous enforcement activities along with education and outreach to address speeding, impaired and distracted driving, pedestrian safety and other issues. The South Carolina Office of Highway Safety and Justice Programs, for example, works with the state's 16 Law Enforcement Networks, which encompass all state, local and federal agencies in the state's 46 counties, to conduct training and promote education and enforcement efforts. In Florida, the Highway Patrol and partnering agencies developed the "Arrive Alive" data-driven traffic safety initiative, which utilizes a combination of law enforcement, education and engineering efforts in "hot spots" identified through the Data-Driven Approaches to Crime and Traffic Safety model.

Although not entirely focused on pedestrian safety, reducing the incidence of impaired driving is an important consideration given the role of alcohol in fatal pedestrian crashes and the propensity for

9 Zegeer, C.V., Opiela, K.S., & Cynecki, M.J. (1982). Effect of pedestrian signals and signal timing on pedestrian accidents. *Transportation Research Record*, 847: 62–72.

10 Retting, R.A., Chapline J.F., & Williams A.F. (2002). Changes in crash risk following re-timing of traffic signal change intervals. *Accident Analysis and Prevention*, 34:215–220.

11 Smart Growth America: Complete Streets Policies

12 Insurance Institute for Highway Safety. (2018, May). Subaru crash avoidance system cuts pedestrian crashes. *Status Report*, 53(3).

13 Automotive World. (2020, Dec.). 10 automakers fulfill automatic emergency braking pledge ahead of schedule. https://www.automotiveworld.com/news-releases/10-automakers-fulfill-automatic-emergency-braking-pledge-ahead-of-schedule/

these deaths to occur at night. When it comes to impaired driving, GHSA has suggested SHSOs do more to ensure their programs are comprehensive and take an individualized approach to each offender to help reduce recidivism. NHTSA, meanwhile, has identified four strategies to reduce impaired driving crashes that guide the work of the SHSOs and their law enforcement partners:[14]

- **Deterrence** - Enact, publicize, enforce and adjudicate laws prohibiting impaired driving so that people choose not to drive impaired.
- **Prevention** - Reduce drinking and drug use and keep impaired drivers from driving.
- **Communications and outreach** - Inform the public of the dangers of impaired driving and establish positive social norms that make driving while impaired unacceptable.
- **Alcohol and drug treatment** - Reduce alcohol dependency or addiction among drivers.

Education

Pedestrian safety education can help change crossing behavior, but studies to assess the safety impact of pedestrian education programs have been inconclusive.[15] Therefore, pedestrian safety education campaigns should be developed and implemented in combination with enforcement, engineering and/or emergency medical response. SHSOs support high visibility enforcement coupled with public outreach and education, a proven countermeasure for creating deterrence and change unlawful motorist behavior. In addition, GHSA encourages SHSOs to partner with DOTs to educate road users about the engineering improvements addressed previously in this section.

The one caveat when it comes to pedestrian education programs are children. Because young children have limited traffic experience and may not fully appreciate the risks associated with crossing streets, they are a prime audience for pedestrian safety education. To meet this need, NHTSA developed Child Pedestrian Safety Curriculum that teaches and encourages pedestrian safety for students in Kindergarten through 5th Grade.

Other examples of pedestrian safety programs that include a strong education component along with enforcement and/or engineering include:

- North Carolina's "Watch for Me NC" program and New Jersey's "Street Smart," aim to reduce pedestrian and bicycle injuries and deaths through a comprehensive, targeted approach of public education, community engagement and high visibility law enforcement. Both programs have been evaluated and shown to be effective in changing motorist and pedestrian behavior.
- The Georgia Office of Highway Safety (GOHS) has awarded grants to implement education programs in cities with significant increases in pedestrian fatalities and where walking is the primary mode of transportation. This is one of a number of educational strategies identified in the state's five-year, multidisciplinary Pedestrian Safety Action Plan that are designed to work in consort with engineering, enforcement and EMS strategies.

14 Richard, C. M., Magee, K., Bacon-Abdelmoteleb, P., & Brown, J. L. (2018). Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, Ninth edition (DOT HS 812 478). Washington, DC: National Highway Traffic Safety Administration.

15 Duperrex, O., Bunn, F., & Roberts, I. Safety education of pedestrians for injury prevention: a systematic review of randomized controlled trials. BMJ. 2002 May 11; 324(7346): 1129.

- The Michigan Office of Highway Safety Planning's (MI OHSP) statewide campaign, "Everybody's Road, Everybody's Rules," includes education and enforcement activities. Last October during the nation's first observance of Pedestrian Safety Month, MI OHSP partnered with 12 law enforcement agencies in 12 cities to educate and engage with motorists and pedestrians. They focused on motorists making illegal turns, failing to stop at a signal or crosswalk and not yielding to pedestrians, and spoke with pedestrians about using sidewalks where provided or walking against traffic on a roadway without a sidewalk. The MI OHSP also launched "Stay in Your Car," a campaign to remind motorists involved in a roadside emergency to stay in their vehicle until help arrives. Between 2014-2018, 10% of the state's pedestrian deaths involved a roadside emergency.

Emergency Medical Response

When pedestrian crashes do occur, timely and high-quality emergency medical response is essential to increase the chance of survival. Emergency Medical Services (EMS) refers to an integrated system of trained personnel, facilities and services such as ambulances, medivac helicopters, emergency medical technicians and trauma care centers. NHTSA's Office of EMS maintains a comprehensive website with a range of EMS resources. In October 2020, the agency released a multi-language public service announcement (PSA) in conjunction with the first national observance of Pedestrian Safety Month. The PSA urges bystanders to "Stop. Call. Stay." at the scene of a pedestrian-vehicle crash until EMS arrives. Because every moment counts when it comes to emergency medical response, the website "You Are the Help Until Help Arrives", which is maintained by a conglomerate of federal agencies, provides important information for bystanders while waiting for trained medical personnel to arrive.

Delaware Making Gains in Driving Down Pedestrian Deaths

As noted earlier this report, Delaware is one of two states (along with Kentucky) projected to have achieved three consecutive years of declining numbers of pedestrian fatalities. Although definitive reasons for these declines are not known, some of the measures recently implemented or supported by the Delaware Highway Safety Office in combination with engineering and other efforts to improve pedestrian safety include:

- Summer beach pedestrian high visibility enforcement and education mobilizations that address safe walking by the many tourists visiting Delaware Beaches.
- Updated pedestrian information on the "Arrive Alive DE" website.
- Pedestrian safety outreach conducted by Delaware Rapid Transit Bus Street Teams along high crash routes.
- A new focus on visibility messaging to address the high incidence of pedestrian fatalities occurring after dark.

Multidisciplinary Approaches

Pedestrian safety zones can increase the cost-effectiveness of interventions by using education, enforcement and engineering measures aimed at specific audiences in geographic areas where a significant number of pedestrian crashes occurred.[16] USDOT developed the Zone Guide for Pedestrian Safety that describes multidisciplinary measures and systematic improvements to enhance pedestrian safety. Results of implementing four pedestrian safety zones in Miami-Dade County, Florida showed at the peak of the program effects in 2003 and 2004, pedestrian crash rates were reduced by 8.5% to 13.3%. This translated into approximately 180 fewer pedestrian crashes annually.

Florida includes pedestrian safety action items in its **Strategic Highway Safety Plan** (SHSP) that is implemented by a multidisciplinary pedestrian safety team led by the SHSO pedestrian coordinator. The five-year plan, dubbed "Alert Today Alive Tomorrow," is well on its way to being fully implemented thanks to regular conference calls and quarterly meetings that include accountability checks coupled with guidance and support.

16 National Highway Traffic Safety Administration. (2008). Zone guide for pedestrian safety (DOT HS 808 743). Washington, DC.

DISCUSSION

In recent years, pedestrian fatalities in the U.S. have risen at an alarming and unprecedented rate. Many factors outside the control of highway safety officials contribute to the observed year-to-year changes in the number of pedestrian fatalities, including the economy, population growth, demographic change, weather, fuel prices, vehicle miles traveled, the amount of time people spend walking and overall resources available to support highway safety programs.

Travel monitoring data published by the Federal Highway Administration (FHWA) estimate that motor vehicle travel on all roads and streets increased by about 1% in 2019 compared to 2018.[17] 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.[18] The Census Bureau reported:

- A 1.5% increase in the number of workers 16 years of age and older who walked to work in 2019 compared with 2018.
- A 3.6% increase in the number of workers 16 years of age and older who took public transportation to work in 2019 compared with 2018.

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) and warmer weather.

For 2020, FHWA travel monitoring data estimate that motor vehicle travel on all roads and streets decreased by 16.5% compared to the same period in 2019.[19] It is, therefore, surprising and disappointing that preliminary data from all 50 states and D.C. indicate no decline in the number of pedestrian fatalities for the first six months of 2020 despite reductions in motor vehicle travel associated with the COVID-19 pandemic. The combination of stable numbers of pedestrian fatalities and reduced motor vehicle travel resulted in a 20% increase in the pedestrian fatality rate per one billion VMT. Had the fatality rate for the first half of 2020 stayed the same as the first half of 2019, about 600 fewer lives would have been lost in pedestrian traffic crashes based on the reported amount of VMT during the first half of 2020. This estimate does not account for any potential increase in pandemic-related pedestrian activity.

SHSOs in all 50 states and territories are actively engaging with their partners to implement a wide range of educational and enforcement programs, in combination with state DOT-led engineering initiatives aimed at reducing the number of pedestrian fatalities and serious injuries. Along with critical funding support provided through federal partners, states continue to focus their efforts on effective countermeasures to reverse the trend of increasing pedestrian fatalities.

There is quite a bit of variation at the local level as some communities have seen a rise in pedestrian activism and pedestrian-centered safety planning, such as Vision Zero initiatives and the preparation of a Pedestrian Safety Action Plan (PSAP), while other communities lack this type of coordinated advocacy or planning. State and local efforts can utilize guidance contained in the recently

17 https://www.fhwa.dot.gov/policyinformation/travel_monitoring/19dectvt/page2.cfm

18 https://data.census.gov/cedsci/table?q=s0801&tid=ACSST1Y2019.S0801&hidePreview=true

19 https://www.fhwa.dot.gov/policyinformation/travel_monitoring/20juntvt/page2.cfm

released USDOT PSAP, which aims to reduce pedestrian deaths and serious injuries by taking a comprehensive approach that encompasses improvements to the roadway and surrounding environment, increased education on the shared responsibility of both pedestrians and motorists along with enforcement and adjudication of pedestrian safety laws.

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, and differing levels of investment in highway safety. 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. Data also suggest that BIPOC and those in low-income communities are at greater risk as pedestrians, and more highway safety investment is needed to address these disparities.

Although this pedestrian fatality analysis has focused on statewide data, pedestrian safety problems must also be considered on the local level, 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 and equitable basis. States should continue to work with local law enforcement partners to address chronic driver violations that contribute to pedestrian crashes such as speeding and impaired and distracted driving.

For SHSOs and their partners tasked with improving pedestrian safety, investing resources in developing and implementing data-driven, targeted programs that are rigorously evaluated offer the greatest potential for changing behavior. The programs should combine education, enforcement and engineering, and encourage community engagement and ownership. While SHSOs typically do not fund engineering countermeasures, partnering with state and county DOTs, metropolitan planning organizations and municipal public works departments to identify infrastructure improvements that support education and enforcement is recommended. Many low-cost infrastructure improvements — such as restriping crosswalks, repairing or replacing pedestrian signals, inspecting, and repairing broken sidewalks, trimming trees that impede walking or block sight lines or increasing illumination at intersections — can impact how the community reacts to stepped up enforcement and messages that call on motorists and pedestrians to adopt key safety behaviors.