

Spotlight on  
Highway Safety



# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA (January - December)



# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

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## ACKNOWLEDGMENTS

Elizabeth Petraglia, Ph.D., Westat, provided data analyses for the report.

Kara Macek, Kara Macek Consulting, authored the report.

GHSA staff provided editorial direction and review.

Creative by Tony Frye Design

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# Pedestrian Traffic Fatalities by State

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## EXECUTIVE SUMMARY

Each year, the Governors Highway Safety Association (GHSA) provides a first look at national and state-level pedestrian fatality data and trends through a *Spotlight on Highway Safety* report, typically published in late spring or early summer.

This year's report is divided into three sections. It presents pedestrian fatality projections for all of 2022 based on preliminary data provided by the states, an in-depth analysis of recently released 2021 pedestrian fatality data from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS) and a review of strategies to reduce pedestrian crashes, injuries and deaths. As in previous reports, some preliminary data have been adjusted slightly to account for historical underreporting. A preliminary report analyzing state-reported pedestrian fatality data for the first six months of 2022 was released in February.

The first section of this report presents preliminary 2022 fatality data using information reported to GHSA by all states (except Oklahoma) and the District of Columbia (D.C.). Based on the state data, GHSA projects 7,508 pedestrians were killed in traffic crashes, a 1% increase over the 7,443 pedestrian fatalities recorded by these 49 states and D.C. in 2021. This continues the upward trend that the United States has been experiencing for decades and represents the highest number of pedestrian deaths since 1981.

**GHSA projects 7,508 pedestrians were killed in traffic crashes in 2022, the highest number of pedestrian deaths since 1981.**

The second portion of the report analyzes the federal 2021 FARS data (the most recent national motor vehicle-related fatality data available), parsing out various characteristics of pedestrian fatalities. This includes fatality rates (per state population), where and when the crashes occurred, whether speeding or alcohol was involved, the type of vehicle involved and more.

Finally, the report includes examples of state- and community-level efforts to better understand the factors that contribute to pedestrian crashes and fatalities and, more importantly, how to prevent them from happening in the future. There is a particular emphasis on the Safe System approach, which recognizes both human mistakes and human vulnerability and designs a system with many redundancies in place to protect everyone.

# Pedestrian Traffic Fatalities by State

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## INTRODUCTION

During the past 11 years, federal data show that U.S. pedestrian fatalities increased from 4,302 in 2010 to an estimated 7,624 in 2021 (Table 1). These fatalities represent nearly 18% of all traffic deaths in 2021, the highest annual proportion during this more than decade-long period.

**Table 1** Pedestrian Fatalities and Percent of All Traffic Fatalities, 2010-2021

Year	Pedestrian Fatalities	All Other Traffic Fatalities Combined	Total Traffic Fatalities	Pedestrian Deaths as a Percentage of All Traffic Fatalities
2010	4,302	28,697	32,999	13.0%
2011	4,457	28,022	32,479	13.7%
2012	4,818	28,964	33,782	14.3%
2013	4,779	28,114	32,893	14.5%
2014	4,910	27,834	32,744	15.0%
2015	5,494	29,990	35,484	15.5%
2016	6,080	31,726	37,806	16.1%
2017	6,075	31,398	37,473	16.2%
2018	6,374	30,461	36,835	17.3%
2019	6,272	30,083	36,355	17.3%
2020	6,565	32,442	39,007	16.8%
2021 <sup>1</sup>	7,624	35,729	43,353	17.6%
% Change from 2010 to 2021	+77%	+25%	+31%	

Sources: FARS

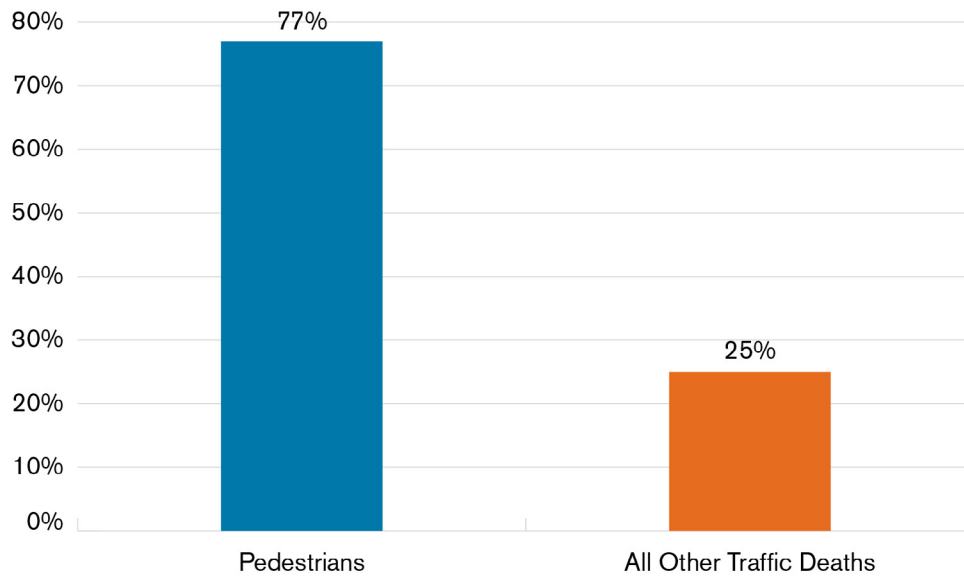
<sup>1</sup> Adjusted for this table only using a pedestrian fatality adjustment factor of 1.032 and an adjustment factor of 1.005 for all other fatalities. Factors are based on averaging historical underreporting between FARS preliminary and final data.

# Pedestrian Traffic Fatalities by State

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Between 2020 and 2021, pedestrian deaths increased 16%, while other traffic fatalities increased 10%. More alarmingly, since 2010, **pedestrian deaths have gone up a shocking 77%, compared to a 25% increase in all other traffic fatalities** (Figure 1).

**Figure 1** Percent Increase in Number of Traffic Deaths, 2010 to 2021



Source: FARS

Everyone deserves to arrive at their destination safely, regardless of their transportation choice. But people walking are facing increased and historic threats on America's roadways. Exploring the patterns and characteristics of past pedestrian fatalities is essential for uncovering what is behind this tragic trend and how the safety community must work together to end it.

# Pedestrian Traffic Fatalities by State

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## PART 1: PRELIMINARY 2022 STATE DATA

In early 2023, State Highway Safety Offices (SHSOs) reported preliminary full-year pedestrian fatality counts for 2022 to GHSA. Forty-nine states and D.C. provided data. The preliminary state data were adjusted by a factor of 1.032, based on historic differences between preliminary counts of pedestrian fatalities reported by SHSOs and final data provided by SHSOs approximately one year later.

Because of differences between SHSO-reported data and federal FARS data, this report does not make direct comparisons between the two sources. The numbers reported by SHSOs are generally higher than those reported by FARS (about 2% higher nationwide). This occurs because there are some variations between how deaths are classified under the FARS format and by certain states with slightly different data analysis and classification processes.

FARS	Some States
Counts only traffic fatalities that occur within 30 days of the crash	May include deaths that occur more than 30 days after the crash
Only includes fatal crashes that occur on public roadways	May include deaths that occur on non-public roads such as parking lots
Does not classify people on e-scooters, skateboards or other personal conveyances as pedestrians	May classify these people as pedestrians
Only includes fatalities that involve a motor vehicle	May include pedestrian deaths that did not involve a motor vehicle, such as a pedestrian struck by a bicycle

Based on state data, GHSA projects 7,508 pedestrians were killed in 2022 among the 49 states and D.C. included in this analysis. This is a projected 1% increase from the 7,443 pedestrian fatalities reported by the same states in 2021, representing 65 additional lives lost (Table 2). Not since 1981 have this many pedestrians been killed on U.S. roads. The data presented in this section builds on [GHSA's prior analysis of state data for the first six months of 2022 released in February](#).

## What is a State Highway Safety Office?

State Highway Safety Offices (SHSOs) are state-level agencies that leverage federal highway safety grants (under U.S.C. Title 23 Sections 402 and 405) – and sometimes state and/or private sector funding – to implement behavioral highway safety programs that address the choices that all road users make. Most SHSOs are also the state agencies that aggregate statewide crash data.

**The 7,508 projected pedestrian fatalities in 2022 is up 1% from the year before and is the highest number of pedestrian deaths since 1981.**

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

**Table 2**

## Pedestrian Fatalities by State, 2019-2022

Sources: State Highway Safety Offices and GHSA data analysis

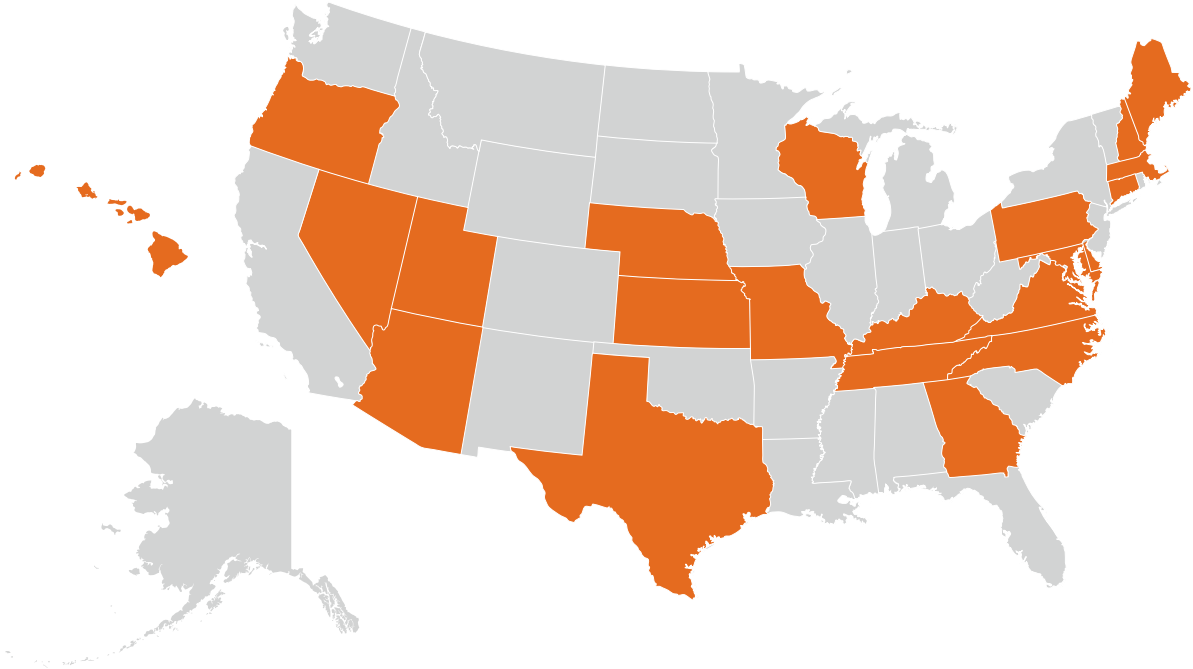
State	2019 Final	2020 Final	2021 Final	2022 Preliminary (adjusted)	Change from 2021 to 2022	
					#	%
Alabama	114	101	126	112	-14	-11.1
Alaska	6	13	16	12	-4	-25.0
Arizona	220	235	260	307	47	18.1
Arkansas	61	81	76	67	-9	-11.8
California	1,020	1,026	1,120	1,100	-20	-1.8
Colorado	76	87	88	71	-17	-19.3
Connecticut	53	61	56	62	6	10.7
Delaware	32	25	29	33	4	13.8
District of Columbia	9	10	17	16	-1	-5.9
Florida	745	716	833	824	-9	-1.1
Georgia	239	281	321	335	14	4.4
Hawaii	37	21	25	29	4	16.0
Idaho	14	14	22	19	-3	-13.6
Illinois	171	175	212	200	-12	-5.7
Indiana	75	123	125	109	-16	-12.8
Iowa	22	30	32	18	-14	-43.8
Kansas	18	46	45	47	2	4.4
Kentucky	77	96	76	99	23	30.3
Louisiana	122	149	182	166	-16	-8.8
Maine	17	9	20	21	1	5.0
Maryland	125	131	128	129	1	0.8
Massachusetts	76	55	76	100	24	31.6
Michigan	149	175	183	179	-4	-2.2
Minnesota	50	45	56	46	-10	-17.9
Mississippi	67	104	94	81	-13	-13.8
Missouri	111	128	120	129	9	7.5
Montana	17	17	24	22	-2	-8.3
Nebraska	20	19	15	24	9	60.0
Nevada	69	82	84	90	6	7.1
New Hampshire	10	15	9	16	7	77.8
New Jersey	175	179	217	190	-27	-12.4
New Mexico	83	81	103	93	-10	-9.7
New York	286	241	304	298	-6	-2.0
North Carolina	236	228	256	275	19	7.4
North Dakota	5	8	10	6	-4	-40.0
Ohio	128	151	171	166	-5	-2.9
Oregon	85	76	90	131	41	45.6
Pennsylvania	154	146	182	186	4	2.2
Rhode Island	8	17	7	7	0	0.0
South Carolina	164	187	194	174	-20	-10.3
South Dakota	8	14	14	12	-2	-14.3
Tennessee	148	172	177	205	28	15.8
Texas	661	714	826	834	8	1.0
Utah	38	36	46	53	7	15.2
Vermont	3	6	8	7	-1	-12.5
Virginia	124	114	125	169	44	35.2
Washington	101	111	144	130	-14	-9.7
West Virginia	32	18	37	26	-11	-29.7
Wisconsin	53	50	50	75	25	50.0
Wyoming	10	7	12	8	-4	-33.3
<b>TOTAL</b>	<b>6,324</b>	<b>6,626</b>	<b>7,443</b>	<b>7,508</b>	<b>65</b>	<b>1.0%</b>

Oklahoma was not able to provide data and is excluded from this chart.

# Pedestrian Traffic Fatalities by State

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**Figure 2** States with an Increase in Pedestrian Traffic Fatalities in 2022



Interestingly, the 1% increase in total projected pedestrian fatalities nationwide in 2022 can be attributed to a few states with large increases (Arizona, Virginia, Oregon). In 2022, pedestrian fatalities are projected to have increased in 22 states, remained unchanged in one (Rhode Island) and decreased in 26 states and D.C. The fact that more states saw decreases in pedestrian fatalities could be an encouraging sign that the deadly trend is slowing and may even be reversing. However, other troubling data, like the increase in speeding and impaired driving, points to continued elevated risks for people walking.

Figures 3 and 4 illustrate the year-to-year difference in both the raw number of fatalities and the percentage change.

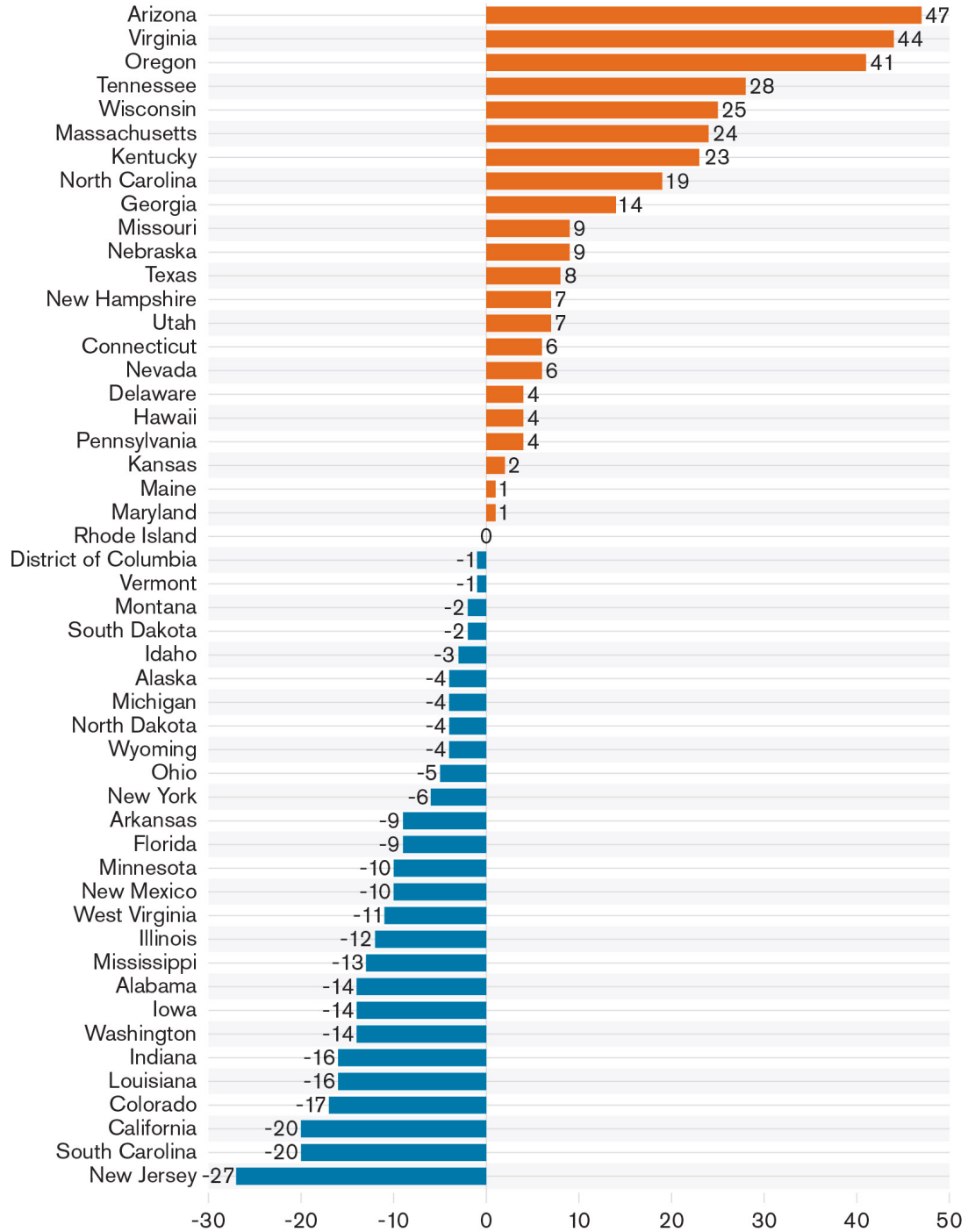
As usual, states with smaller populations had larger swings in percentages and smaller changes in the raw number of fatalities. In contrast, more populous states tended to have greater raw number changes but smaller percentage shifts. For example, New Hampshire's seven additional deaths in 2022 represent a 78% increase over 2021, whereas 20 fewer fatalities in California translated to just a 2% decrease.



# Pedestrian Traffic Fatalities by State

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**Figure 3** Difference in Pedestrian Fatalities, 2021-2022



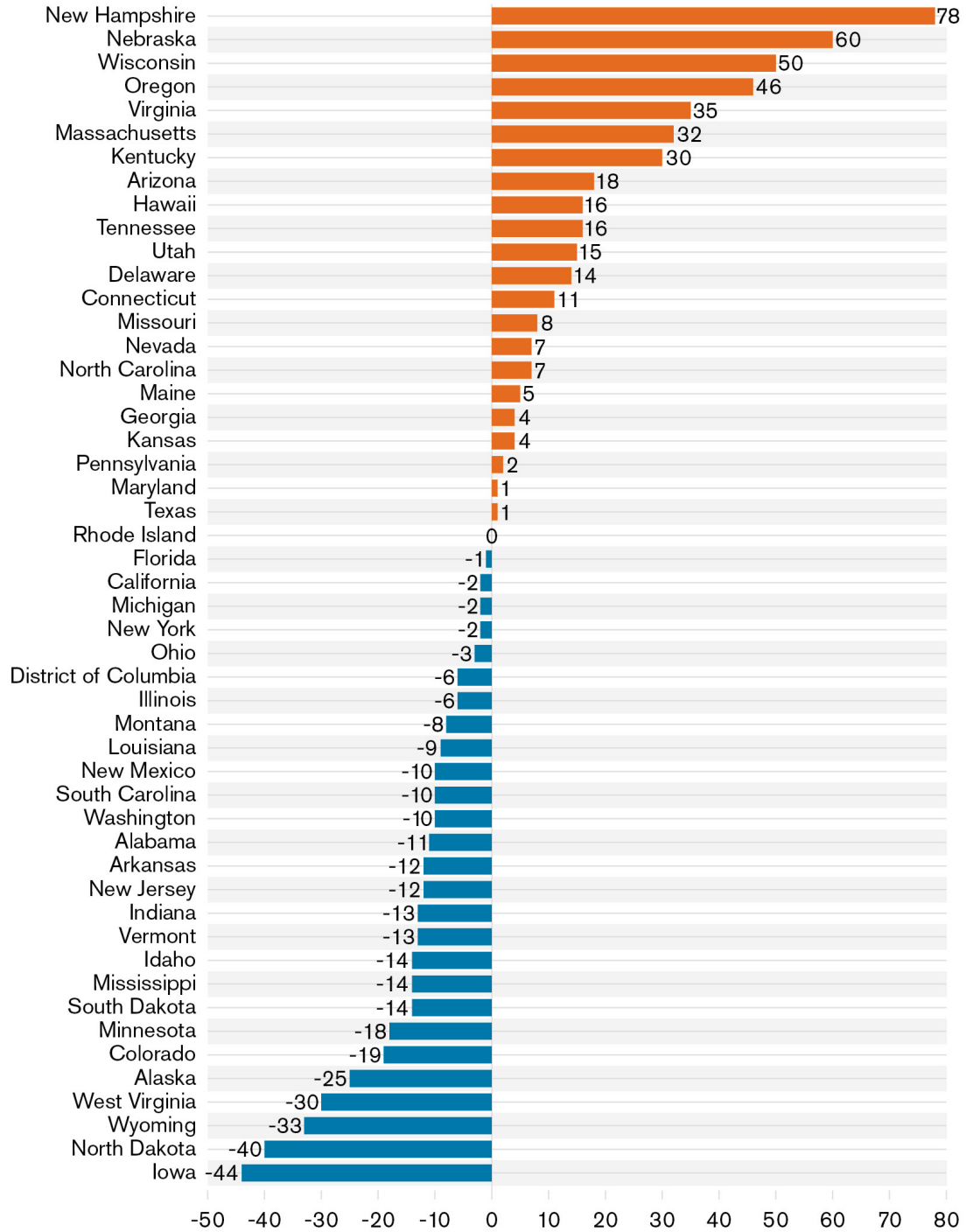
Oklahoma was not able to provide data and is excluded from this chart.

Sources: State Highway Safety Offices and GHSA data analysis

# Pedestrian Traffic Fatalities by State

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**Figure 4** Percentage Difference in Pedestrian Fatalities, 2021-2022



Oklahoma was not able to provide data and is excluded from this chart.

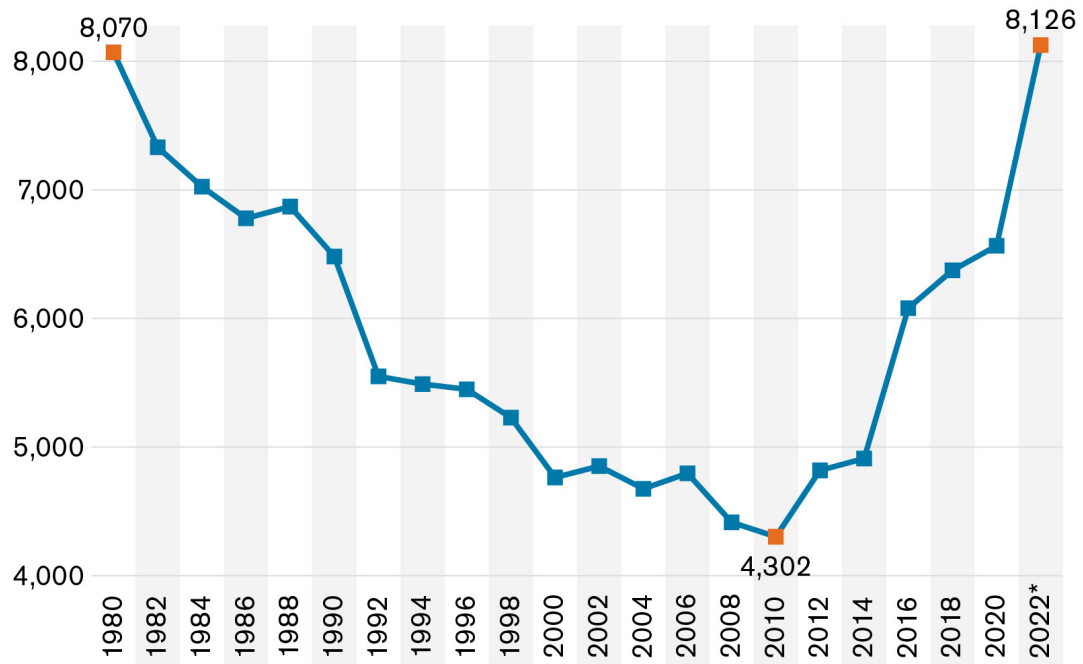
Source: State Highway Safety Offices and GHSA data analysis

# Pedestrian Traffic Fatalities by State

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As noted, direct comparisons between SHSO data and FARS data are not made due to differences in these two sources. However, if the projected 1% increase in the number of SHSO-reported pedestrian fatalities is applied to 2021 FARS (Release 1) data, **the number of pedestrian fatalities in FARS for 2022 could be greater than 8,000 for the first time since 1980** (Figure 5).

**Figure 5** Number of Annual U.S. Pedestrian Fatalities, 1980-2022



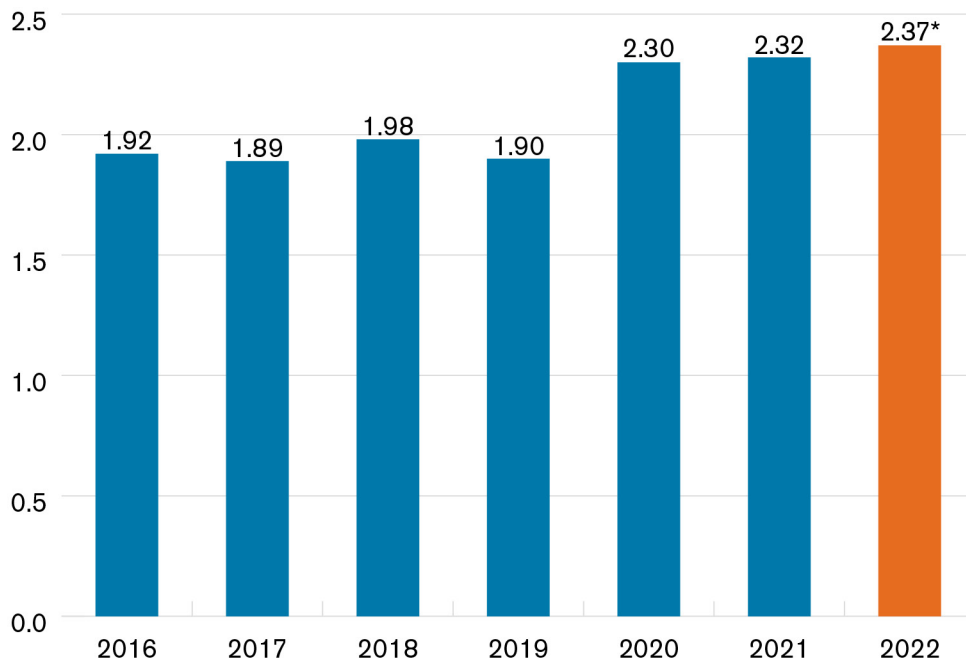
\*Projected  
Sources: FARS and GHSA analysis of SHSO data

# Pedestrian Traffic Fatalities by State

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The Federal Highway Administration (FHWA) estimates 3,169.4 billion vehicle miles traveled (VMT) in 2022, a 1.8% decrease from 2021. Factoring in the 7,508 predicted pedestrian fatalities for 2022 results in a projected pedestrian fatality rate of 2.37 per one billion VMT, a slight increase for the second year in a row. The VMT data include Oklahoma but the pedestrian fatality data do not, so the actual national fatality rate is slightly higher. Figure 6 below presents the rate for the past seven years.

**Figure 6** U.S. Pedestrian Fatality Rate Per One Billion VMT



\*Projected  
Sources: FARS and GHSA analysis of SHSO data

Table 3 presents the rate of pedestrian fatalities per 100,000 residents for all 49 reporting states and D.C. From 2021 to 2022, the overall rate stayed nearly constant, rising slightly from 2.27 to 2.28. Twenty-two states had a fatality rate above 1.0 (down from 23 states in 2021).

# Pedestrian Traffic Fatalities by State

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**Table 3**

## Pedestrian Fatality Rate by State Per 100,000 Population, 2021-2022

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

State	2021	2022
Alabama	2.50	2.21
Alaska	2.18	1.64
Arizona	3.57	4.17
Arkansas	2.51	2.20
California	2.85	2.82
Colorado	1.51	1.22
Connecticut	1.55	1.71
Delaware	2.89	3.24
District of Columbia	2.54	2.38
Florida	3.82	3.70
Georgia	2.97	3.07
Hawaii	1.73	2.01
Idaho	1.16	0.98
Illinois	1.67	1.59
Indiana	1.84	1.60
Iowa	1.00	0.56
Kansas	1.53	1.60
Kentucky	1.69	2.19
Louisiana	3.94	3.62
Maine	1.46	1.52
Maryland	2.08	2.09
Massachusetts	1.09	1.43
Michigan	1.82	1.78
Minnesota	0.98	0.80
Mississippi	3.19	2.76
Missouri	1.95	2.09
Montana	2.17	1.96
Nebraska	0.76	1.22
Nevada	2.67	2.83
New Hampshire	0.65	1.15
New Jersey	2.34	2.05
New Mexico	4.87	4.40
New York	1.53	1.51
North Carolina	2.43	2.57
North Dakota	1.29	0.77
Ohio	1.45	1.41
Oregon	2.12	3.09
Pennsylvania	1.40	1.43
Rhode Island	0.64	0.64
South Carolina	3.74	3.29
South Dakota	1.56	1.32
Tennessee	2.54	2.91
Texas	2.80	2.78
Utah	1.38	1.57
Vermont	1.24	1.08
Virginia	1.45	1.95
Washington	1.86	1.67
West Virginia	2.08	1.46
Wisconsin	0.85	1.27
Wyoming	2.07	1.38
<b>National Rate</b>	<b>2.27</b>	<b>2.28</b>

Oklahoma was not able to provide data and is excluded from this chart.

# Pedestrian Traffic Fatalities by State

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## PART 2: 2021 NATIONAL DATA

In addition to analyzing the preliminary state pedestrian fatality data for all of 2022, which provides raw numbers only, GHSA also examined the recently released national pedestrian fatality data for 2021 from FARS. This data includes specific crash factors such as speeding, alcohol involvement, light condition and roadway factors.

Note that the following analyses were based on the raw (unadjusted) total number of 2021 pedestrian fatalities reported in the recent FARS release, which was 7,388.

### National and State Fatality Rates

Researchers calculated 2021 state by state fatality rates by multiplying the number of each state's fatalities by 100,000 and dividing that by the state population. The result is the number of pedestrian deaths per 100,000 people who reside in the state. The national U.S. fatality rate per 100,000 population in 2021 was 2.3, an increase from the 1.98 observed in 2020.

At the state level, 2021 saw pedestrian fatality rate increases across the board, consistent with the increase in national pedestrian fatalities. Table 4 lists the pedestrian fatality rate for all states and D.C. from 2018 through 2021.

Key findings include:

- Twenty-three states had fatality rates greater than 2.0 in 2021. Only 19 states had rates of 2.0 or higher in both 2019 and 2020.
- New Mexico continued to have the highest rate, at 5.1. (It had rates of 4.0 and 3.7 in 2019 and 2020, respectively.)
- Louisiana (4.2) and Florida (4.0) had the next highest rates.
- New Hampshire and Rhode Island, at 0.6 each, had the lowest rates.

# Pedestrian Traffic Fatalities by State

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**Table 4**

## Pedestrian Fatality Rate by State Per 100,000 Population, 2018-2021

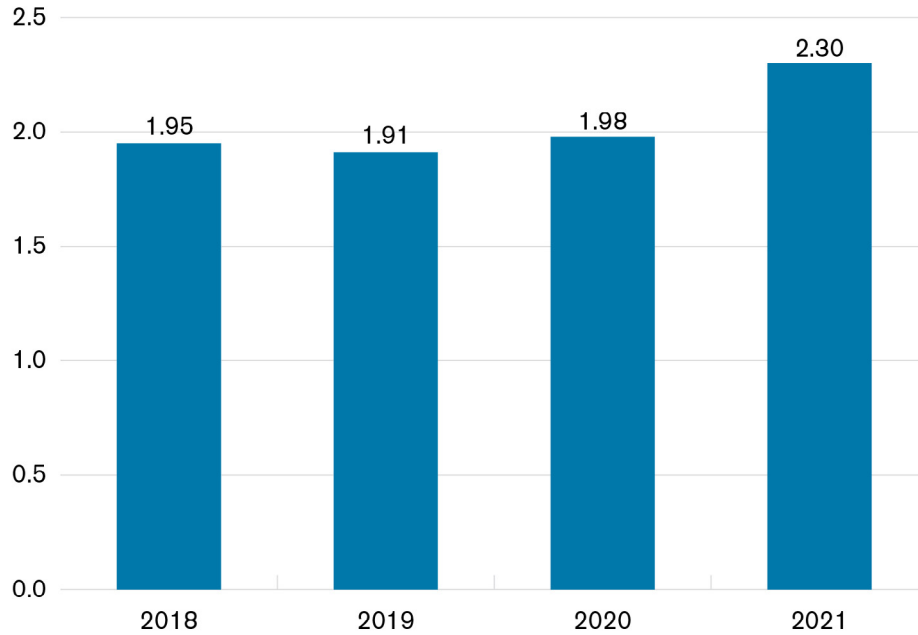
Source: FARS

State	2018	2019	2020	2021
Alabama	2.19	2.43	2.01	2.62
Alaska	1.90	0.82	1.77	2.32
Arizona	3.30	2.89	3.09	3.52
Arkansas	2.06	2.05	2.72	2.71
California	2.48	2.56	2.56	2.91
Colorado	1.56	1.27	1.50	1.63
Connecticut	1.65	1.51	1.64	1.53
Delaware	2.38	3.29	2.52	2.99
District of Columbia	1.57	1.28	1.45	2.84
Florida	3.32	3.32	3.22	3.87
Georgia	2.49	2.22	2.60	2.93
Hawaii	2.96	2.54	1.45	1.80
Idaho	0.97	0.67	0.76	1.16
Illinois	1.30	1.37	1.37	1.70
Indiana	1.70	1.08	1.37	1.69
Iowa	0.70	0.67	0.91	0.97
Kansas	0.96	0.55	1.57	1.50
Kentucky	1.64	1.63	2.02	1.71
Louisiana	3.52	2.54	3.10	4.11
Maine	0.45	1.19	0.66	1.46
Maryland	2.17	2.05	2.17	2.16
Massachusetts	1.12	1.12	0.74	1.09
Michigan	1.42	1.41	1.71	1.79
Minnesota	0.75	0.83	0.79	0.91
Mississippi	2.99	2.18	3.55	3.29
Missouri	1.55	1.78	2.08	1.96
Montana	1.41	1.50	1.57	1.72
Nebraska	1.25	1.03	0.92	0.76
Nevada	2.61	2.01	2.60	2.64
New Hampshire	0.66	0.74	1.16	0.58
New Jersey	1.95	1.96	1.88	2.36
New Mexico	3.97	3.96	3.73	4.96
New York	1.37	1.41	1.14	1.52
North Carolina	2.16	2.11	2.20	2.43
North Dakota	0.79	0.66	1.03	1.29
Ohio	1.09	1.06	1.35	1.47
Oklahoma	1.52	2.15	2.17	2.73
Oregon	1.84	1.94	1.67	2.12
Pennsylvania	1.54	1.15	1.10	1.40
Rhode Island	0.66	0.76	1.55	0.64
South Carolina	3.25	3.17	3.66	3.78
South Dakota	1.14	0.79	1.58	1.56
Tennessee	2.01	2.17	2.49	2.62
Texas	2.15	2.24	2.35	2.85
Utah	1.14	1.19	1.01	1.32
Vermont	0.96	0.48	1.25	1.24
Virginia	1.39	1.44	1.29	1.47
Washington	1.32	1.34	1.36	1.90
West Virginia	1.22	1.73	1.01	2.08
Wisconsin	0.96	1.01	0.85	0.85
Wyoming	1.04	1.90	1.04	1.90
<b>National Rate</b>	<b>1.95</b>	<b>1.91</b>	<b>1.98</b>	<b>2.30</b>

# Pedestrian Traffic Fatalities by State

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**Figure 7** National Pedestrian Fatality Rate Per 100,000 Population, 2018-2021



Sources: FARS and GHSA analysis of SHSO data

## Speeding

The faster a vehicle is traveling, the higher the risk of it killing someone it strikes. This risk grows from just 10% at 23 miles per hour (mph) to 90% at 58 mph.<sup>2</sup> Additionally, a driver has less time to react to a pedestrian in the roadway when they are traveling at greater speeds.

Research confirmed that speeding and other risky driving behaviors increased during the pandemic and persisted into 2021, and national FARS data bear this out. In 2020 and 2021, speeding was cited as a factor in 29% of all fatalities, a greater proportion than the prior four years.<sup>3</sup> In fact, the total number of speeding-related fatalities in 2021 increased by 7.9% from the previous year.

2 Tefft, B.C. (2011). Impact speed and a pedestrian's risk of severe injury or death [Technical Report]. AAA Foundation for Traffic Safety. <https://aaafoundation.org/impact-speed-pedestrians-risk-severe-injury-death>

3 National Safety Council. (2023, May 4). Speeding – Injury facts. <https://injuryfacts.nsc.org/motor-vehicle/motor-vehicle-safety-issues/speeding>



# Pedestrian Traffic Fatalities by State

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Speeding as a factor in pedestrian fatalities has followed a similar trend. The rates in 2020 and 2021 – 8.8% and 8.1%, respectively – were both higher than the previous four years (Table 5).

**Table 5** Pedestrian Fatalities in Which Speeding Was Indicated as a Factor, by Year

Year	Speeding Indicated	Total	% with Speeding Indicated
2016	442	6,080	7.27
2017	413	6,075	6.80
2018	412	6,374	6.46
2019	451	6,272	7.19
2020	580	6,565	8.83
2021	599	7,388	8.11

Source: FARS

Researchers also looked at what percentage of pedestrian fatalities by roadway types cited speeding as a factor. In 2021, percentages varied from about 6% of deaths on freeways and expressways to approximately 10.6% of deaths on local roads. Table 6 breaks down 2021 pedestrian fatalities by roadway type and illustrates what percentage of these fatalities included speeding as a factor.

**Table 6** 2021 Speeding-Related Pedestrian Fatalities by Roadway Type

Type of Roadway	Speeding Indicated?		Total	% with Speeding Indicated
	Yes	No		
Interstate, principal arterial	83	858	941	8.82
Freeway and expressway, principal arterial	22	348	370	5.95
Principal arterial, other	193	2,551	2,744	7.03
Minor arterial	150	1,571	1,721	8.72
Collector	76	810	886	8.58
Local	71	598	669	10.61
Unknown	4	53	57	7.02
<b>Total</b>	<b>599</b>	<b>6,789</b>	<b>7,388</b>	<b>8.11</b>

Source: FARS

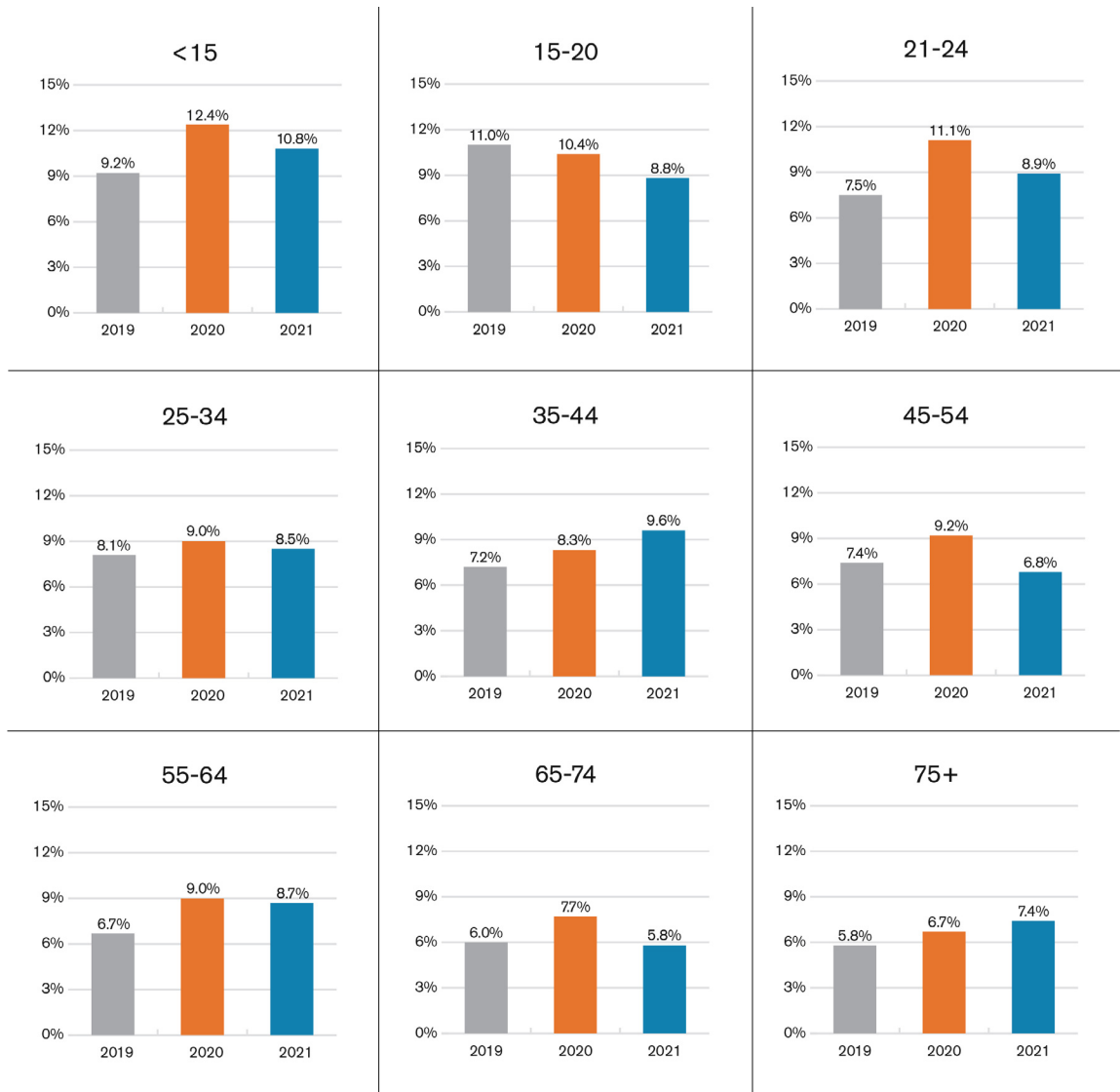
# Pedestrian Traffic Fatalities by State

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Parsing all pedestrian fatalities by age groups and exploring what proportion were speeding-related can also prove illuminating (Figure 8).

For most age groups, the percentage of pedestrian fatalities that were speeding-related decreased between 2020 and 2021. However, this proportion increased in 2021 for the 35-44 and 75+ age groups. This is particularly concerning for the 35-44 age group: The 1,324 deaths among pedestrians ages 35-44 in 2021 included 127 speeding-related deaths, which is the most in any age group.

**Figure 8** Speeding-Involved Pedestrian Fatalities by Age Group, 2019-2021



Source: FARS

# Pedestrian Traffic Fatalities by State

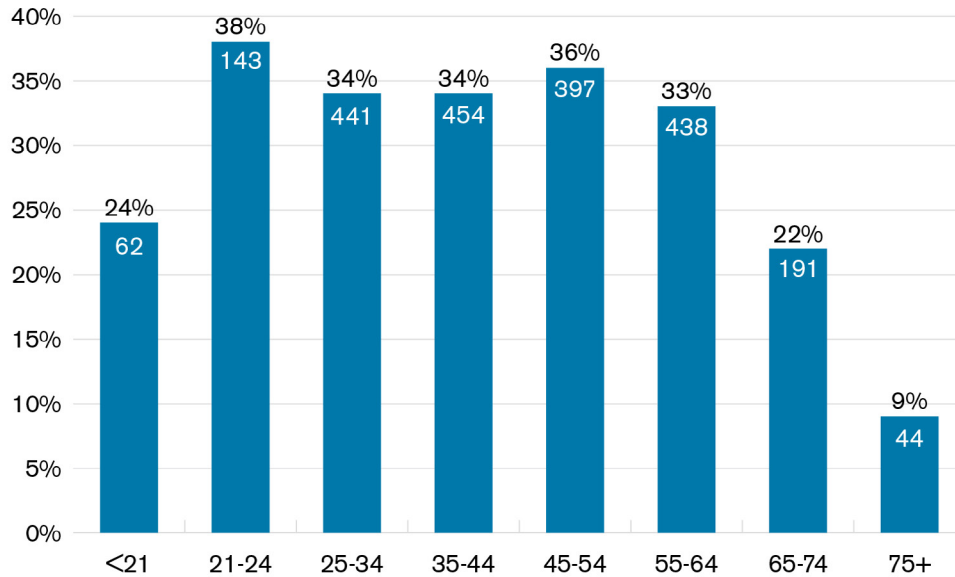
2022 PRELIMINARY DATA

## Alcohol Impairment

Alcohol consumption can lead to impairment for both drivers and pedestrians. Drunk driving remains a pervasive highway safety threat to all road users. In fact, according to FARS, police-reported alcohol-related traffic deaths increased 5% from 2020 to 2021, following a dramatic 14% spike in 2020. And the laws of physics dictate that a drunk driver presents a much greater threat to a pedestrian than a drunk pedestrian does to a vehicle driver. Regardless, many pedestrians killed in motor vehicle crashes have a blood alcohol concentration (BAC) of 0.08 or higher. Alcohol (or drug) impairment can contribute to a pedestrian's reduced motor skills and poor judgment when sharing roadway space with vehicles, particularly at night.

In 2021, 30.5% of pedestrians ages 16 or older killed in motor vehicle crashes had a BAC of 0.08 or greater. This is comparable to the 2020 rate (30.6%). This analysis is limited to pedestrians ages 16 or older because higher BACs are rare among people younger than 16. Figure 9 breaks down all pedestrian fatalities involving a pedestrian with a BAC of 0.08 or greater by age group.

**Figure 9** 2021 Pedestrian Fatalities with Pedestrian BAC  $\geq$  0.08, by Age Group



Source: FARS

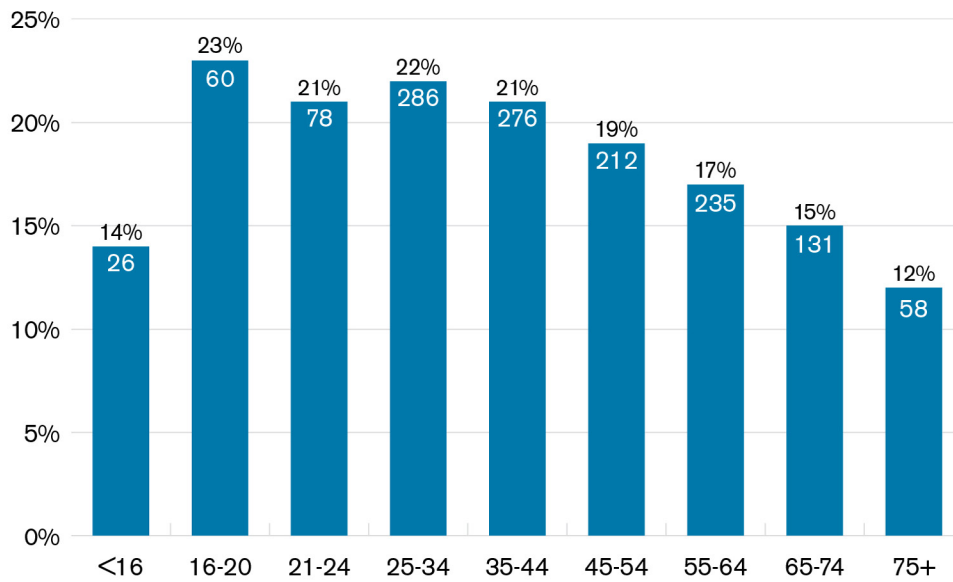
Note: Counts within each bar denote the number of pedestrian deaths involving a pedestrian with a BAC  $\geq$  0.08 within each age range.

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

In comparison, 19% of pedestrian fatalities in 2021 involved a driver with a BAC of 0.08 or higher. (This count includes fatalities of pedestrians younger than 16.) The comparable ratio for 2020 was 17%. Except for 2019, when the ratio was 13%, this figure has been constant at 16-17%. As a result, 2021 had a larger proportion of drunk drivers involved in pedestrian fatalities than usual. Figure 10 breaks down all impaired driver-involved pedestrian fatalities by the age of the impaired driver.

**Figure 10** 2021 Pedestrian Fatalities with Driver BAC  $\geq$  0.08, by Age Group



Source: FARS

Note: Counts within each bar denote the number of pedestrian deaths involving a driver with a BAC  $\geq$  0.08 within each age range.

The discussion of alcohol impairment among pedestrians is controversial. While alcohol impairment puts a pedestrian at greater risk while walking near vehicle traffic, motor vehicle drivers bear the brunt of responsibility, as the machines they operate have the kinetic potential to fatally injure pedestrians and other vulnerable road users. Nevertheless, public safety professionals should identify and implement more countermeasures to keep impaired pedestrians out of harm's way on the road. This could include identifying transportation alternatives for inebriated bar patrons or investing in safer roadways and separating pedestrian and vehicle traffic, as discussed in Part 3 of this report.

# Pedestrian Traffic Fatalities by State

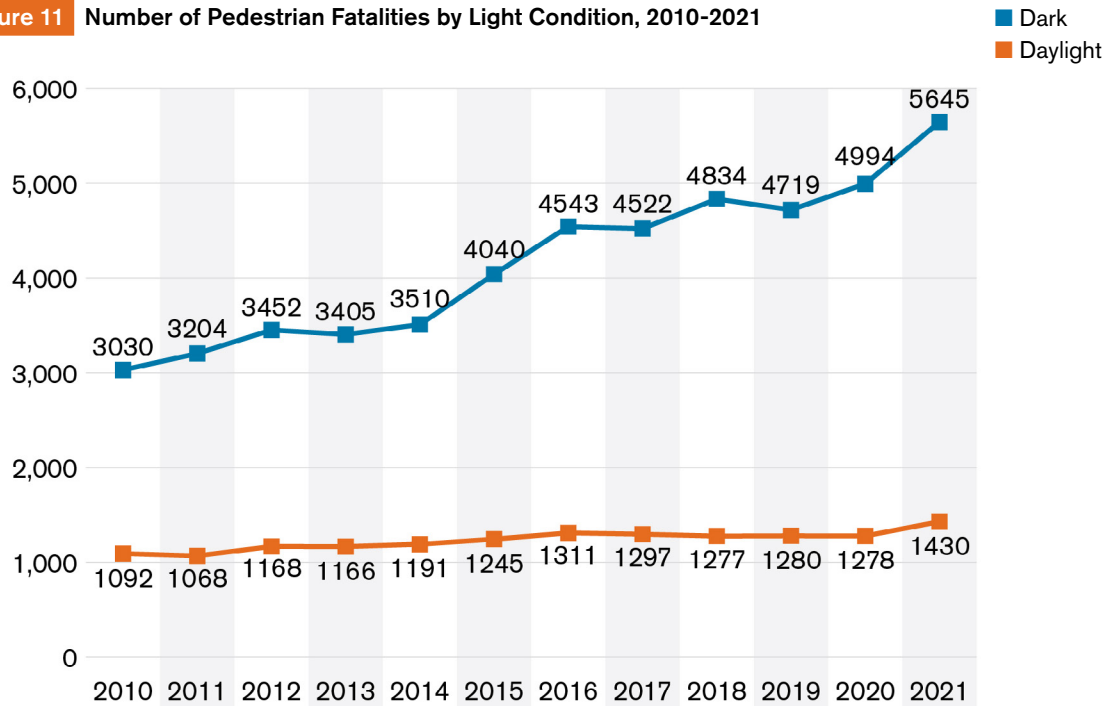
2022 PRELIMINARY DATA

## Light Condition

Consistent with prior years, most pedestrian fatalities occurred at night. In 2021, 77.1% of crashes with known light conditions occurred after dark (regardless of whether there was artificial lighting), compared to 19.5% during daylight hours and 3.3% during dawn or dusk.

Figure 11 illustrates the wide disparity between deaths during daylight hours and at night. (Dawn or dusk are excluded considering the small share of fatalities they represent.)

**Figure 11** Number of Pedestrian Fatalities by Light Condition, 2010-2021



Source: FARS

In 2021, about half (51.2%) of fatalities after dark occurred in conditions with artificial lighting, the same proportion as 2020. Good lighting is a proven countermeasure for increasing pedestrian visibility and helping to prevent crashes at night. However, the quality of the artificial lighting must be considered in areas where pedestrian crashes have occurred.

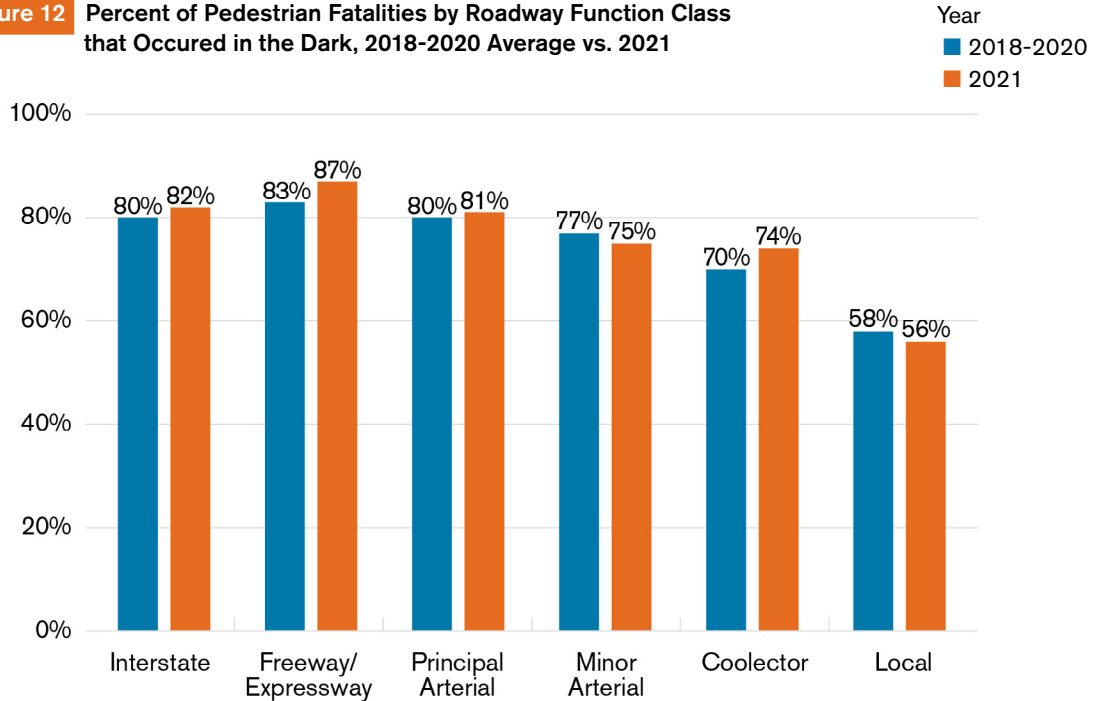
Freeways and expressways are particularly dangerous after sunset. Interstates and principal arterials also saw high percentages of pedestrian fatalities at night. Drivers tend to be traveling at higher speeds on these roads and do not expect to see pedestrians in their path. In 2021, more than 80% of all pedestrian fatalities on these roads happened at night.

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

Consistent with prior years, pedestrian fatalities on local roads were less likely to occur in the dark. Even so, more than half of these fatal crashes took place at night. Figure 12 compares 2021 data to the prior three-year average.

**Figure 12** Percent of Pedestrian Fatalities by Roadway Function Class that Occured in the Dark, 2018-2020 Average vs. 2021



Source: FARS

## Roadway Factors

Roadway factors include whether sidewalks were present, if the crash occurred at an intersection and the type of roadway where the crash occurred.

### Sidewalks

A growing proportion of pedestrian fatalities are happening where no sidewalk was noted on the crash report. In 2021, this figure was 68.7%, the fourth straight yearly increase, from 59.2% in 2017 (Table 7 on the following page).

This increase correlates with a decline in transit ridership: Nationally, public transportation ridership in 2020 and 2021 was less than half of what it was before the pandemic — about 4.7 billion and 4.9 billion trips, respectively, compared with approximately 10 billion trips in 2019.<sup>4</sup> Presumably, some of these riders transitioned their essential trips to walking, and many of these routes likely lacked sidewalks.

<sup>4</sup> Mallett, W. J. (2022, November 10). Public Transportation Ridership: Implications of Recent Trends for Federal Policy. Congressional Research Service. Retrieved May 8, 2023, from <https://crsreports.congress.gov/product/pdf/R/R47302>

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

**Table 7** Pedestrian Fatalities by Presence of a Sidewalk, 2017-2021

Year	Sidewalk Present?			Total	% None Noted
	None Noted	Yes	Unknown		
2017	3,598	2,341	136	6,075	59.2
2018	3,973	2,306	95	6,374	62.3
2019	3,976	2,247	49	6,272	63.4
2020	4,381	2,138	46	6,565	66.7
2021	5,078	2,271	39	7,388	68.7

Source: FARS

## Intersections

The majority of pedestrian fatalities in 2021 were not at an intersection (5,675 or 76.8%). This is a slight increase from the 75.8% of pedestrian fatalities not at intersections in 2020. In 2021 there were 1,686 (22.8%) pedestrian fatalities at intersections.

## Functional Class

Roads can be divided into three major functional classes:

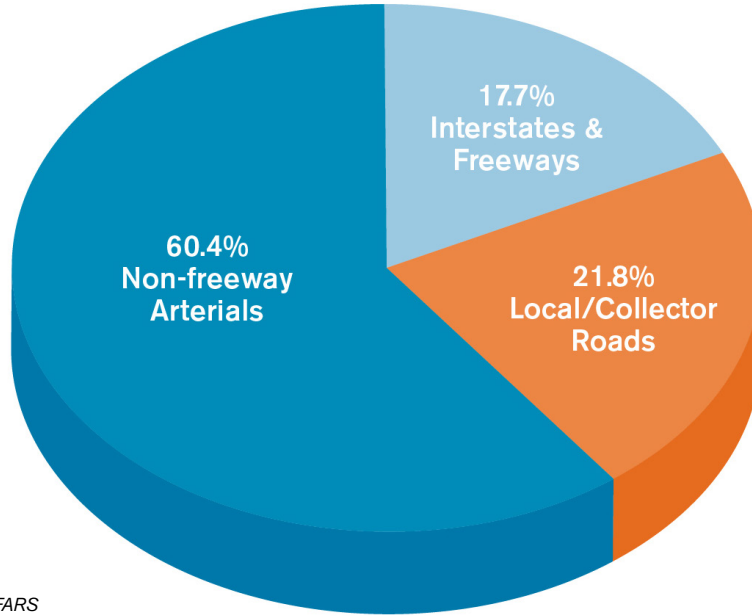
- Interstates and freeways: Controlled access highways with high volumes of traffic traveling at higher speeds.
- Collectors and local streets: Roads with slower speed limits that connect local areas to arterials or with the primary function of providing access to residential areas or businesses.
- Non-freeway arterials: High-capacity roads without controlled access but with more traffic flow and higher speeds than local roads; used primarily to connect collector roads with interstates and freeways.

Of all pedestrian fatalities in 2021, a majority (60.4% or 4,465) happened on non-freeway arterials. The remainder were split between interstates and freeways (17.7% or 1,311) and local/collector roads or roads of unknown functional class (21.8% or 1,612). See Figure 13 on the following page. These proportions are consistent with the prior five years.

# Pedestrian Traffic Fatalities by State

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**Figure 13** Percentage of Pedestrian Fatalities by Roadway Class, 2021



Source: FARS

Despite representing the smallest proportion of fatalities by roadway type, the fact that 1,311 pedestrians were killed on interstates and freeways raises the question: Why were people walking on roadways that prohibit people on foot? Stranded motorists who exit their vehicle, construction workers, first responders and tow truck drivers are all examples of “pedestrians” who have been killed on interstates and freeways. All states have Move Over laws that require drivers to slow down and change lanes, if possible, when they see a stopped vehicle. However, the volume of fatalities on interstates and freeways indicates these laws need to be strengthened, better publicized and more heavily enforced.

Further, the roadway types experiencing the greatest number of fatalities are non-freeway arterials. These are often mixed-use roadways where walkers interact with higher-speed, and thus higher-risk, traffic. States and localities should examine their data to identify problem areas, keeping in mind that non-freeway arterials are likely to be the roadways that are in greatest need of lifesaving countermeasures.

## Vehicle Type

The type of vehicle (passenger car, SUV, van, pickup, etc.) can make a significant difference in survivability for a struck pedestrian.<sup>5</sup> A general rule is the larger and heavier the vehicle, the lower the chances a person on foot will survive a crash.

<sup>5</sup> Roudsari, B. S., Mock, C. N., Kaufman, R., Grossman, D., Henary, B. Y., & Crandall, J. (2004). Pedestrian crashes: Higher injury severity and mortality rate for light truck vehicles compared with passenger vehicles. *Injury Prevention Journal of the International Society for Child and Adolescent Injury Prevention*, 10(3), 154–158. <https://doi.org/10.1136/ip.2003.003814>



# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

As seen in Table 8, in 2021, approximately 35% of pedestrian fatalities had a passenger car as the striking vehicle, while 40% involved an SUV or pickup.

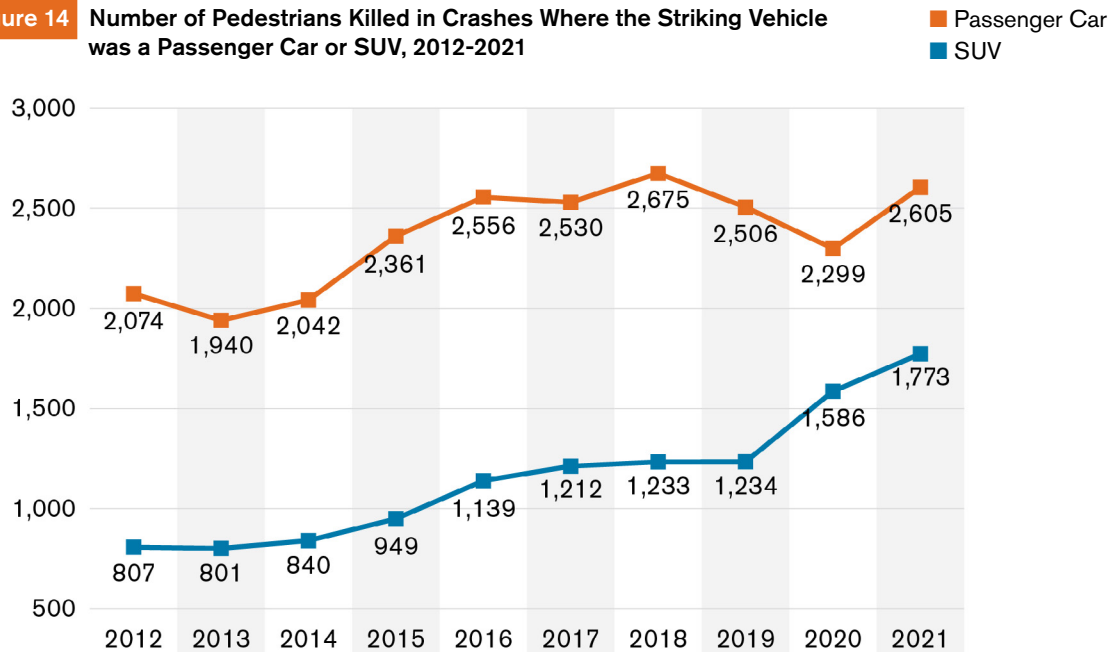
**Table 8** 2021 Pedestrian Fatalities by Striking Vehicle Type, All Crashes

Vehicle Type	Count	Percent
Passenger Cars	2,605	35.3%
SUVs	1,773	24.0%
Pickups	1,115	15.1%
Other/Unknown	330	4.5%
Large Trucks	479	6.5%
Vans	51	0.7%
Buses	44	0.6%

Source: FARS

It is telling to look at the growth over the past 10 years in the number of pedestrians struck and killed by drivers of SUVs compared with the number of pedestrians struck and killed by drivers of passenger cars. The number of deaths involving SUVs increased 120%, while deaths involving passenger cars grew 26%. Figure 14 illustrates this disparity.

**Figure 14** Number of Pedestrians Killed in Crashes Where the Striking Vehicle was a Passenger Car or SUV, 2012-2021



Source: FARS

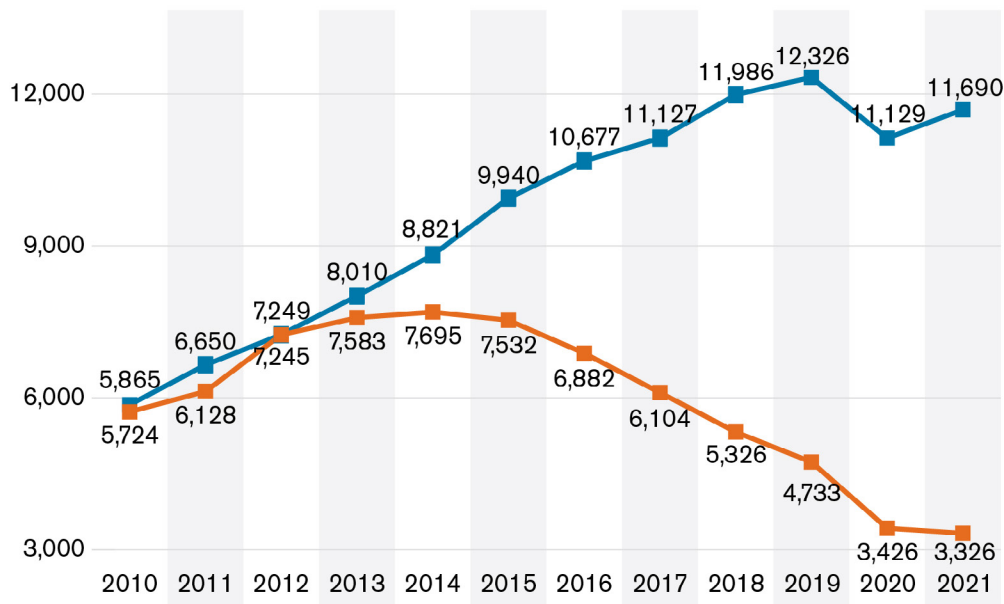
# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

Two additional vehicle factors may have put people on foot at greater risk in 2021 – the slowed integration of newer (safer) vehicles on the road, and the growing proportion of light trucks (a classification that includes SUVs).

The new vehicle market still tracks well below pre-pandemic levels (Figure 15). Economic factors may have contributed to fewer people purchasing or leasing new cars. Newer vehicles tend to be safer than older vehicles: They generally have better crash avoidance technology, and some even have pedestrian detection as a standard feature. Fewer new vehicles entering the vehicle mix means pedestrians – and all road users – were less protected than they could have been if there were more new vehicles on the road.

**Figure 15** Light Truck and Passenger Car Sales & Leases (in Thousands), 2010-2021 ■ Light Trucks, Including SUVs  
■ Passenger Cars



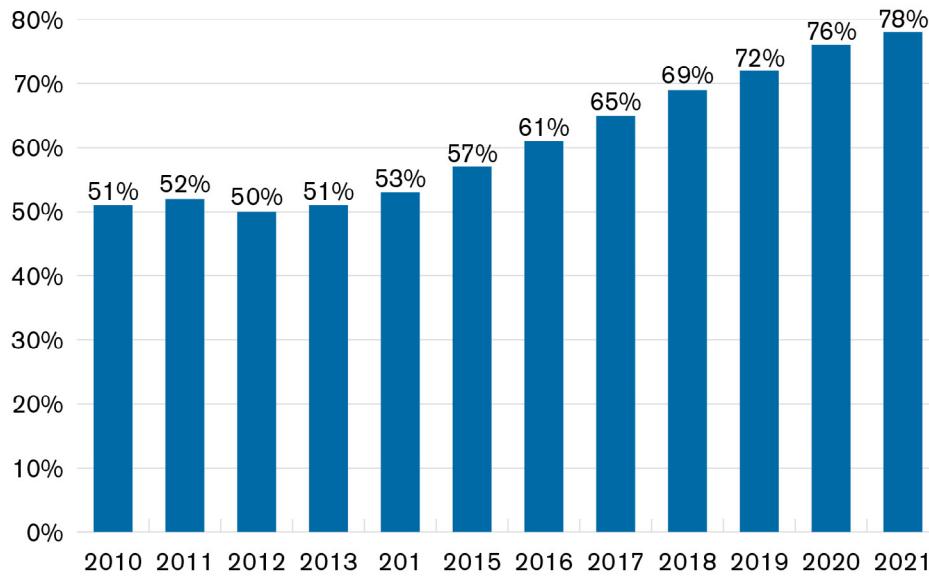
Source: Bureau of Transportation Statistics

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

While total new vehicle sales and leases have dropped, the portion of those sales/leases that are classified as light trucks – including SUVs – continues to rise (Figure 16). A growing body of research concludes that larger vehicles are inherently more dangerous to pedestrians. Because of their greater body weight and larger profile, light trucks can cause greater harm to a pedestrian than smaller, lighter cars.<sup>6</sup>

**Figure 16** Light Trucks as a Percent of Total Light Vehicle Sales, 2010-2021



Source: Bureau of Transportation Statistics

NHTSA, the federal agency tasked with vehicle safety oversight, recently [proposed](#) a pass/fail designation for pedestrian safety for all new cars. This would ostensibly incentivize auto manufacturers to make safer vehicles, but the metric would only need to be displayed on the NHTSA website, not the vehicle itself, and it would not be integrated into the agency's current five-star safety rating system, which is being overhauled as of the time of publication. NHTSA is accepting comments on its proposal through July 25, 2023.

In addition, NHTSA has [proposed](#) to require that all light vehicles (including trucks) be equipped with automatic emergency braking (AEB) technology that can detect and automatically stop for pedestrians, including at night. The proposed rule would mandate that nearly all light vehicles (gross vehicle weight of 10,000 pounds or less) will be required to have AEB technology within three years after the rule is finalized.

<sup>6</sup> Monfort, S. S., & Mueller, B. C. (2020). Pedestrian injuries from cars and SUVs: Updated crash outcomes from the vulnerable road user injury prevention alliance (VIPA). *Traffic Injury Prevention*, 21(sup1), S165–S167. <https://doi.org/10.1080/15389588.2020.1829917>

# Pedestrian Traffic Fatalities by State

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## Race and Ethnicity

Complete race and ethnicity data for 2021 pedestrian fatalities are not yet available from FARS due to delays in processing death certificates. However, it is well documented that people of color are disproportionately overrepresented in pedestrian fatalities.

A 2022 research study published in the American Journal of Preventative Medicine found non-Hispanic Black individuals experience a pedestrian death rate 118% higher than non-Hispanic white people. More alarmingly, when looking at rates for pedestrian deaths occurring at night, the rate for this same racial group spikes to 236%. Hispanic or Latino pedestrians are also much more vulnerable at night, experiencing a fatality rate 84% higher than non-Hispanic white individuals.<sup>7</sup>

Between 2018 and 2020, the proportion of pedestrians whose race and ethnicity are reported as White non-Hispanic on their death certificate has decreased, while the proportion reported as “other” without Hispanic ethnicity has increased. Table 9 illustrates the increasing disparities.

**Table 9 Pedestrians Killed in Fatal Crashes by Race, 2018-2020**

Race (Using Office of Management and Budget Guidelines)	Crash Year					
	2018		2019		2020	
	Count	%	Count	%	Count	%
Hispanic	1,242	19.5%	1,355	21.6%	1,367	20.8%
White, Non-Hispanic	3,020	47.4%	2,725	43.4%	2,662	40.5%
Black, Non-Hispanic	1,223	19.2%	1,178	18.8%	1,340	20.4%
American Indian, Non-Hispanic/Unknown	142	2.2%	121	1.9%	114	1.7%
Asian, Non-Hispanic/Unknown	161	2.5%	142	2.3%	132	2.0%
Pacific Islander, Non-Hispanic/Unknown	12	0.2%	1	0.0%	3	0.0%
Multiple Races, Non-Hispanic/Unknown	15	0.2%	30	0.5%	26	0.4%
All Other Non-Hispanic or Other Race	242	3.8%	324	5.2%	564	8.6%
Unknown Race and Unknown Hispanic	317	5.0%	396	6.3%	357	5.4%
<b>Total</b>	<b>6,374</b>	<b>100.0%</b>	<b>6,272</b>	<b>100.0%</b>	<b>6,565</b>	<b>100.0%</b>

Source: FARS

<sup>7</sup> Raifman, M. A., & Choma, E. F. (2022, June 7). Disparities in activity and traffic fatalities by race/ethnicity. *American Journal of Preventative Medicine*. [https://www.ajpmonline.org/article/S0749-3797\(22\)00155-6/fulltext](https://www.ajpmonline.org/article/S0749-3797(22)00155-6/fulltext)

# Pedestrian Traffic Fatalities by State

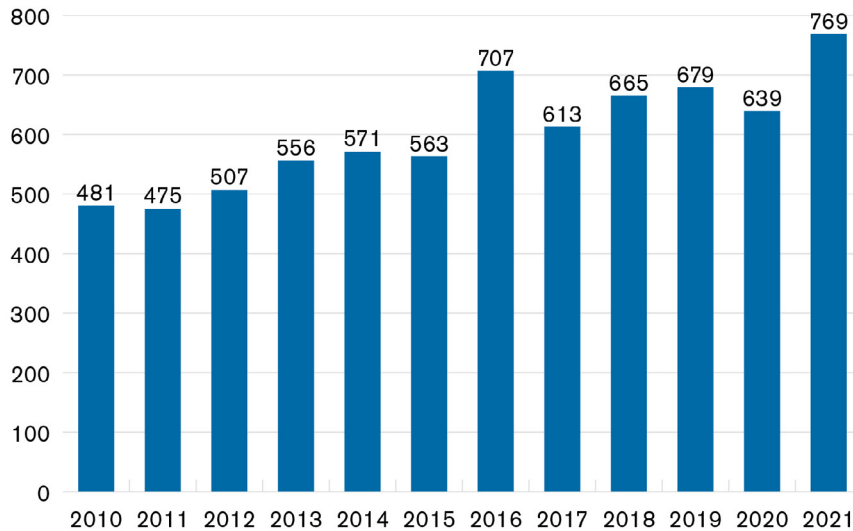
2022 PRELIMINARY DATA

## A Closer Look at Cities

Most pedestrian fatalities occur in urban areas, where people on foot and people in motor vehicles are more likely to be sharing the same roadways. Because of this, researchers homed in on data for the 10 most populous U.S. cities: Chicago, Dallas, Houston, Los Angeles, New York, Philadelphia, Phoenix, San Antonio, San Diego and San Jose. For the purposes of this report, cities are defined as the areas within the city limits, versus larger Metropolitan Statistical Areas (MSA) within which cities are located.

In 2021, these ten cities accounted for a combined 769 pedestrian fatalities. This is a 20% increase from the previous count of 639 in 2020, and a 19% increase over the 679 in 2019 (pre-pandemic). Figure 17 illustrates the total number of fatalities in these same 10 cities over the past 11 years.

**Figure 17** Pedestrian Deaths in the 10 Largest U.S. Cities, 2010-2021



Source: FARS

Figure 18 provides the 2019-2021 pedestrian fatality data for all 10 cities. Looking across each city individually, there are mixed patterns:

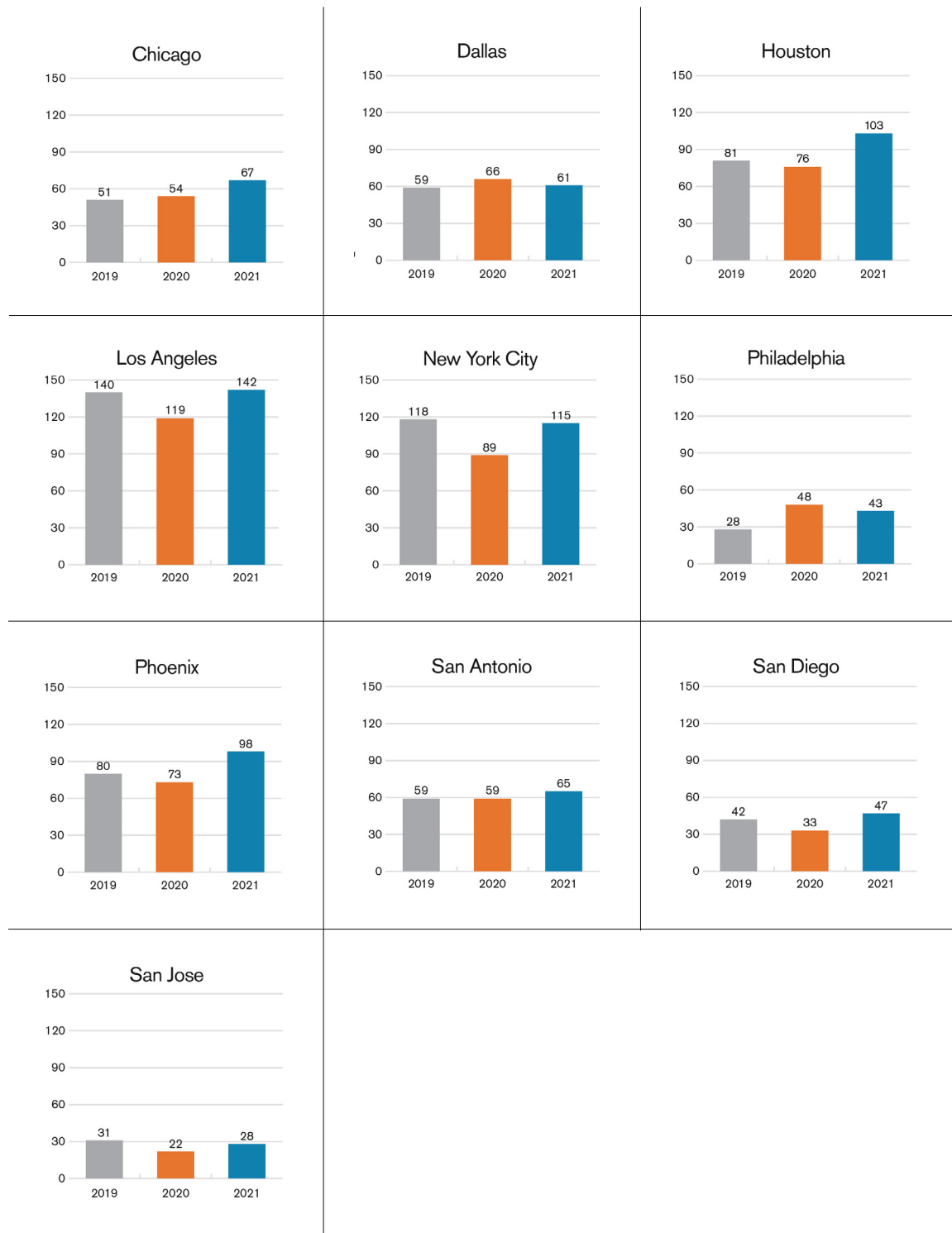
- In Chicago and San Antonio, pedestrian fatalities have trended upward since 2019.
- In Dallas and Philadelphia, pedestrian fatalities increased in 2020 but dropped in 2021.
- In Los Angeles, New York City and San Jose, fatalities decreased in 2020 but returned to near-2019 levels in 2021.
- In Houston, Phoenix and San Diego, fatalities decreased in 2020 but increased somewhat above 2019 counts in 2021.

These patterns may reflect different city- and state-level reactions to the pandemic and the length/impact of any restrictions. For example, New York City and the cities in California saw sharp drops in pedestrian fatalities in 2020, when stay-at-home orders were in place limiting pedestrian exposure. This may explain the dips in that year.

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

**Figure 18** Pedestrian Deaths in the 10 Largest U.S. Cities, 2019-2021



Source: FARS

## PART 3: HOW TO REDUCE PEDESTRIAN FATALITIES AND INJURIES

The heartbreaking trend of increasing pedestrian fatalities on U.S. roadways begs the question: What can be done? Every one of these deaths was preventable. By building a safer mobility system, with redundancies that avoid putting pedestrians in harm's way in the first place and mitigate the effects of crashes that do occur, it is possible to prevent these tragedies from happening.

This section of the report explains how states and communities are working to improve safety for people on foot and what more can be done, with a focus on following the six principles of a Safe System approach, as outlined below. The U.S. Department of Transportation (DOT) *National Roadway Safety Strategy*<sup>8</sup> is grounded in these same principals, with a goal of zero traffic fatalities.

- 1. Death and Serious Injuries are Unacceptable.** The Safe System approach focuses on eliminating crashes that result in death and serious injuries, rather than trying to prevent all crashes. Considering the vulnerability of the human body when struck by a moving vehicle, prioritizing pedestrian safety aligns naturally with this principle.
- 2. Humans Make Mistakes.** Understanding that humans will never be perfect, the Safe System approach emphasizes designing a system to avoid death and serious injuries when a crash occurs. For example, measures to slow vehicle speeds in high-pedestrian areas greatly improve survivability odds for pedestrians struck by a motor vehicle.
- 3. Humans Are Vulnerable.** People have physical limits for tolerating crash forces before death or serious injury occurs. A safe transportation system is human-centric – it is designed and built to accommodate physical human vulnerabilities. While motor vehicle safety design has improved drastically in recent decades, a pedestrian's body does not come equipped with airbags.
- 4. Responsibility is Shared.** The Safe System approach understands that all stakeholders bear the responsibility to prevent fatalities and serious injuries on our roadways.
- 5. Safety is Proactive.** Proactively identifying and addressing safety issues in the transportation system before deaths and serious injuries occur is preferable to analyzing crashes after the fact. For example, equitable enforcement of traffic laws addressing high-risk behaviors such as speeding or impaired and distracted driving can help prevent a crash from happening. Asking community members where they feel unsafe walking or where they have experienced near misses is another proactive strategy.
- 6. Redundancy is Crucial.** Transportation and safety professionals must strengthen all components of the system, so if one fails, another component provides the necessary protection. For example, adding leading pedestrian intervals (LPIs) to crosswalk signal timing gives pedestrians the opportunity to enter the crosswalk before vehicles are given a green light. If a driver's ability to see a pedestrian in the crosswalk is compromised by the vehicle's A pillar (the roof support structure on the side of the windshield), the driver will not be able to turn until the pedestrian is safely beyond that blind spot.

<sup>8</sup> U.S. Department of Transportation (2022, January). *National Roadway Safety Strategy*. <https://www.transportation.gov/sites/dot.gov/files/2022-02/USDOT-National-Roadway-Safety-Strategy.pdf>

# Pedestrian Traffic Fatalities by State

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The Safe System approach emphasizes equity across all disciplines. For example, public health and safety groups should develop educational materials with community input and deliver them within a culturally appropriate context. Police officers should enforce traffic laws equitably, with a focus on risky driving behaviors rather than unsafe walking. And planners and engineers should design and build transportation corridors with the safety of all users in mind and integrate safety features in communities of all socioeconomic levels.

When states were surveyed for their preliminary 2022 pedestrian fatality data presented in the first part of this report, they were also asked to provide information about their pedestrian safety programs as well as any state-level trends. Below are some examples of how the SHSOs and their partners are incorporating Safe System principles into their pedestrian safety work.

- **Refining Educational Materials** – **California** developed a social media toolkit to explain the core principles of the Safe System approach, focusing on the benefits of slower speeds and road design changes that improve the safety of people on foot. Grantees and other partners utilize the toolkit to help achieve public buy-in. The state also launched a new series of “We Are Human” public service announcements to emphasize the shared responsibility and critical role drivers play in keeping others safe on the road.

**Maine** is conducting demonstration projects to educate decision-makers on low-cost traffic calming measures shown to improve pedestrian safety, such as curb extensions with flexible posts and paint to separate motor vehicles from walkers.

**Minnesota** is using its social media channels to advance Safe System principles, including humanizing language (for example, “the person driving the car hit the person walking” instead of saying “the car hit the pedestrian”), eliminating blame and emphasizing shared responsibility. In addition, its Active Transportation Program’s Planning Assistance Program pairs planning consultants with 13 communities across the state that work together to develop engagement strategies that will resonate with children, older adults, people of color and people with disabilities. Communities finish the planning process with a clear set of strategies for advancing safe and active transportation.

- **Injecting Pedestrian Safety into Driver Education** – Historically, driver education curriculum focused largely on the safety of the driver and their passengers. More states are refining their curriculum to teach new drivers the responsibilities they have toward other road users, including pedestrians. In the **Montana** Office of Public Instruction’s Driver Education program, pedestrian and bicycle safety are covered as integral elements. During the 2021 legislative session, **Florida** passed a bill on safety issues impacting this population. The new law requires that at least 25 questions in the state driver education test bank address bicycle and pedestrian safety.
- **Engaging with People Experiencing Homelessness** – A notable trend in proactive, community-centered transportation safety is working with people experiencing homelessness. For example, **Hawaii** has started working with homeless outreach coordinators to solicit feedback related to areas of concern and traffic calming measures. This year, **Oregon** began holding listening sessions with people experiencing homelessness in the Portland metro region to inform effective outreach and engagement with these vulnerable pedestrians. **Delaware** provides reflective items to people living in homeless shelters. **Utah’s** data



# Pedestrian Traffic Fatalities by State

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reveal that many pedestrian crashes happen near homeless shelters, which could inform its outreach efforts.

These programs align with the Safe System principal of being proactive and equitable. Asking people experiencing homelessness where they feel unsafe can influence future engineering and education efforts.

- **Focusing Enforcement on Dangerous Driving Behaviors** – FHWA recommends that pedestrian enforcement operations focus on drivers rather than pedestrians.<sup>9</sup> GHSA's August 2021 report, *Equity in Highway Safety Enforcement and Engagement Programs*, also recommends that traffic enforcement efforts be directed to the most dangerous and unlawful traffic violations.<sup>10</sup> States have been taking heed.

**California** reports that enforcement efforts are focused on the most dangerous and risky driving behaviors. For example, law enforcement agencies conduct “sting” operations, where officers in plain clothes cross at a crosswalk, identify drivers who do not yield the right of way and radio to another officer stationed ahead who stops the driver. **D.C., Maine, Maryland, Massachusetts, New Jersey** and **South Carolina**, among other states, use similar pedestrian decoy tactics.

In **Hawaii**, law enforcement focuses on driving behaviors, such as speeding, failure to yield and distracted driving in and around areas with crashes or high volumes of people walking.

**Indiana** has an innovative school bus stop arm violation enforcement program. The SAVE Project utilizes high visibility enforcement during school bus loading and unloading in areas where stop arm violations have been reported. Considering that Indiana Department of Education data report nearly 2,000 stop arm violations daily, this enforcement program clearly focuses on an extremely dangerous – and prevalent – driver infraction that puts children on foot at risk. A **Minnesota** grant project combines enforcement, education and awareness efforts, so drivers obey the law and stop for buses with flashing lights and stop arms extended. Cameras installed on the buses are helping schools and law enforcement find the violators and hold them accountable.

Enforcement of speeding, impaired and distracted driving, and other laws pertaining to driver behavior – particularly in areas with high volumes of foot traffic – will improve safety for pedestrians. Unfortunately, there has been a sharp drop in traffic enforcement in recent years, which may be contributing to an increase in risky driving behavior, resulting in more pedestrian fatalities.<sup>11</sup>

9 Federal Highway Administration (2013). *Pedestrian Safety Guide and Countermeasure Selection System*. [http://www.pedbikesafe.org/pedsafe/countermeasures\\_detail.cfm?CM\\_NUM=62](http://www.pedbikesafe.org/pedsafe/countermeasures_detail.cfm?CM_NUM=62)

10 Sprattler, K., & Statz, L. (2021, August). *Equity in Highway Safety Enforcement and Engagement Programs*. Governors Highway Safety Association. <https://www.ghsa.org/sites/default/files/2021-09/Equity%20in%20Highway%20Safety%20Enforcement%20and%20Engagement%20Programs%20FINAL%20with%20Date.pdf>

11 Kaste, M. (2023, April 6). *America's roads are more dangerous, as police pull over fewer drivers*. NPR. <https://www.npr.org/2023/04/06/1167980495/americas-roads-are-more-dangerous-as-police-pull-over-fewer-drivers>

# Pedestrian Traffic Fatalities by State

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- **Designing and Building Safer Roadways** – Recognizing human bodies can only tolerate so much crash force before succumbing to serious injury or death, states are doing more to engineer transportation systems that better protect pedestrians from harm. While most SHSOs are not charged with implementing engineering solutions, they work in concert with their state DOTs and other entities, such as Metropolitan Planning Organizations, that can influence and change road design. Some SHSOs provide education on the value of safer street design that includes guidance to help road users maximize the countermeasure.

**Washington** works with colleges and universities to monitor, educate and influence planning, engineering and design training about vulnerable road users. Educating a new generation of planners and engineers will positively affect future road design projects.

The **Idaho** highway safety office provided funding to Idaho Smart Growth, which assists communities with walk audits to identify safety concerns. The results of these audits help determine the best engineering and planning remedies for problem locations.

In **Ohio**, the highway safety office partners with the state DOT to provide highway safety related training to state, county and municipal employees and consultants to educate them on current roadway safety and traffic practices. Courses focus on planning and design for pedestrian safety.

Most states reported instituting one or more of these proven infrastructure countermeasures to improve pedestrian safety:

- ◇ **Road diets** reduce vehicle speeds and the number of lanes pedestrians cross and create space to add new pedestrian facilities.
- ◇ **Pedestrian refuge islands** provide walkers a safe place to stop at the midpoint of the roadway before crossing the remaining distance. This is particularly helpful for older pedestrians or others with limited mobility.
- ◇ **Crosswalk visibility enhancements**, such as lighting and enhanced signing and markings, help drivers detect pedestrians, particularly at night.
- ◇ **Rectangular Rapid Flashing Beacons (RRFB)** are active (user-actuated) or passive (automated detection) amber light-emitting diodes (LEDs) that use an irregular flash pattern at mid-block or uncontrolled crossing locations. They significantly increase driver yielding behavior.
- ◇ **Pedestrian Hybrid Beacons (PHBs)** are a beneficial intermediate option between RRFBs and a full pedestrian signal. They allow pedestrians to activate a series of warning and stop beacons for drivers in areas without the high pedestrian traffic volumes that typically warrant full traffic signal installation.
- ◇ **Leading Pedestrian Intervals (LPIs)** at signalized intersections allow pedestrians to walk, usually three to four seconds, before vehicles get a green signal to turn left or right. The LPI increases visibility, reduces conflicts and improves motorists' propensity to yield to people crossing the road on foot.
- ◇ **Sidewalks** separate people on foot from motor vehicle traffic, yet many roadways, particularly in rural areas, still lack them.

# Pedestrian Traffic Fatalities by State

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- **Slowing Down Motor Vehicles Where Pedestrians are Present** – Several of the engineering measures listed above will achieve the goal of slowing down motor vehicles, particularly in areas with high foot traffic. In addition, some states are passing laws that will help slow traffic speeds. **Massachusetts** is considering a law that will allow municipalities to set a 25 mph speed limit in densely populated areas on state roads. A new law in **Washington** authorizes the state's DOT to establish a maximum speed limit of 20 mph on non-arterial state highways without making a determination based on an engineering and traffic investigation. The law also allows all local authorities to set 20 mph speed limits on certain roadway types. Other states have implemented, or are debating, similar measures.

## State Trends in Pedestrian Fatality Data

As expected, states reported different trends in terms of pedestrian fatalities. However, some universal themes emerged. Most states reported the bulk of their pedestrian fatalities involved males. Many states noticed more older pedestrians are being injured or killed, although the definition of "older" varied. In **Vermont**, more than half of all pedestrians killed in motor vehicle crashes were over the age of 60. Other common characteristics, consistent with past national data analyses, included urban settings and dark conditions.

Several states noted a disproportionate number of pedestrians killed in motor vehicle crashes were minorities, which mirrors national trends. Of note, **Montana** reported that Native Americans represented 36% of its pedestrian fatalities, but only 7% of the state's population, an alarming disparity. While not classified as a minority, **Hawaii** noted nearly half of its pedestrian fatalities involved people who were experiencing homelessness.

Other states pointed out that an increasing number of pedestrian fatalities involved alcohol or drug impairment on the part of the pedestrian and/or the driver of the striking vehicle.

A few states theorized that more larger vehicles on the roads or an increase in speeding and other reckless driving behavior could be contributing to the rising number of pedestrian fatalities, although none presented data to this effect.

States are using their unique pedestrian fatality data trends to focus their programming on specific locations and communities. For example, **Connecticut** runs an educational and media program geared specifically to improve the safety of older pedestrians. **California** is reaching out to minority communities to proactively identify locations of concern that will inform countermeasures to make it safer to walk in those areas. Several states are working to improve lighting conditions in areas with high pedestrian traffic.

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

## Federal Grant Programs

SHSOs have access to several federal grants to improve pedestrian safety, though federal regulations limit how this money can be spent. The State and Community Highway Safety Grant Program under 23 U.S.C. Section 402 (also known as Section 402) provides funding to all states and territories for a wide range of highway safety purposes, including pedestrian safety, though this competes with all other safety needs.

The National Priority Safety Program under 23 U.S.C. Section 405 (also known as Section 405) provides for 5% of all Section 405 funds to be annually distributed to qualifying states specifically for programs to improve non-motorized safety (Section 405 (h)). A state is eligible if its annual combined pedestrian and bicyclist fatalities exceed 15% of total annual crash fatalities using the most recently available final FARS data. For Federal Fiscal Year (FFY) 2023, 27 states, D.C. and Puerto Rico qualified for this funding. Since this grant was created by the FAST Act in 2015, states encountered significant roadblocks as the law strictly connects the use of these funds to training, education and/or awareness programs addressing state bicycle and pedestrian safety laws, but not every state has such laws in place.

Alongside safety partners, GHSA worked with Congress to amend this program to better meet highway safety needs through language in the 2021 Infrastructure Investment and Jobs Act (IIJA, also known as the Bipartisan Infrastructure Law). Beginning in FFY 2024, the program will be re-designated as Section 405(g) and expanded so states can use these funds for a wider range of nonmotorized safety purposes, including public education and awareness about speed, safety equipment and safety infrastructure, police training and enforcement, and research and data analysis.

In addition, IIJA creates a new Section 405(h) program, earmarking 1% of Section 405 funds for incentive grants to prevent roadside crashes and deaths, particularly those involving first responders, construction workers and other motorists that need to make emergency stops on roadways. Allowable uses include traditional education and enforcement efforts as well as purchasing digital alerting technology. Digital alerting enables authorized users such as first responders, tow truck operators or DOT workers to notify drivers of a disabled vehicle, roadway incident or work zone ahead through a message display on vehicle dashboards and navigation apps. The Section 405(h) program begins in FFY 2024.

In the meantime, SHSOs are overcoming funding limitations by getting creative and partnering with state DOTs and other groups to educate planners and the public about the positive impact of engineering changes to enhance pedestrian safety.

# Pedestrian Traffic Fatalities by State

2022 PRELIMINARY DATA

## CONCLUSION

Both state and national data confirm that the pedestrian safety crisis on U.S. roads is worsening. While the projected increase in pedestrian fatalities in 2022 (compared with the prior year) is not as high as recent years (just 1%), it is still on par to be the highest number since 1981. GHSA projects 7,508 pedestrians were killed in 2022 among the 49 states and D.C. included in this analysis. And this number excludes an entire state (Oklahoma), which has averaged 92 fatalities annually over the past three years, according to prior GHSA reports.

Interestingly, more states saw a decline in their overall number of fatalities (26 plus D.C.) than did not (22), with one state (Rhode Island) reporting no change. However, the overall increase can be attributed to states with large increases, such as Arizona, Virginia and Oregon.

The federal FARS data include more information on crashes and yield more insights on specific factors involved in pedestrian deaths but lag one year behind the state data. In 2021, excessive speed was reported as a factor in a growing proportion of pedestrian fatalities for the second year in a row. Alcohol impairment was reported in more fatally injured pedestrians (30.5%) than motor vehicle drivers involved in these deaths (19%). Consistent with past trends, most pedestrian fatalities occurred at night and a greater proportion are taking place in locations without sidewalks.

The good news is that states are increasingly adopting a Safe System approach to help prevent pedestrian/motor vehicle crashes. This approach has been implemented successfully in other countries for many years.<sup>12</sup> The approach stresses that it will take a holistic change to protect pedestrians. While much of the Safe System emphasis is placed on building infrastructure that ensures safe and equitable mobility for everyone on the road, SHSOs can – and do – have an important role to play. They can educate elected officials, law enforcement, the media and the public about the benefits of infrastructure improvements and how they work, as well as reinforce that we all share responsibility for keeping people on foot safe.

<sup>12</sup> Safe Systems Consortium (2021, May 11). *Recommendations of the Safe System Consortium*. Johns Hopkins Bloomberg School of Public Health. <https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-injury-research-and-policy/our-impact/documents/recommendations-of-the-safe-system-consortium.pdf>