

Spotlight on
Highway Safety



Pedestrian Traffic Fatalities by State

JANUARY - JUNE 2021 PRELIMINARY DATA



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2021 PRELIMINARY DATA

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ACKNOWLEDGMENTS

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Family IDs 19-year-old pedestrian killed by
suspected DUI driver in Orange

Pedestrian killed in crash along I-80

Pedestrian dies after being struck by
vehicle in Charlestown

Hackensack pedestrian killed in hit-and-run

INTRODUCTION

These are just a few of the thousands of headlines from across the country during the first six months of 2021. Unfortunately, stories such as this are becoming more and more common in the United States (U.S.) as pedestrian fatalities continue to rise. During the past decade, pedestrian deaths jumped 46%, from 4,457 in 2011 to 6,516 deaths in 2020, accounting for 17% of all traffic fatalities.¹

Tragically, a first glimpse at preliminary data for the first six months of 2021 reveals the upward trend is continuing.

Each year, GHSA surveys the State Highway Safety Offices (SHSOs) for preliminary counts of pedestrian deaths for the previous year and uses the information provided to project changes in national pedestrian fatality numbers and rates. SHSOs, in partnership with federal, state and local safety stakeholders, are tasked with addressing behavioral safety issues that contribute to traffic crashes and regularly collect this and other traffic safety data.

The GHSA reports provide a first look at the fatality trends many months before the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS) data are available. This report presents the individual state data as well as projected pedestrian fatality rates per population and vehicle miles traveled.

A forthcoming GHSA follow-up report to this one will examine the recently released 2020 FARS data, include preliminary data for all 12 months of 2021 and take a deeper dive into pedestrian safety countermeasures and how the Safe System approach can be used to advance pedestrian safety. The report will include concrete examples of methods that show promise in various states across the country.

¹ [Stewart, T. \(2022, March\). Overview of motor vehicle crashes in 2020 \(Report No. DOT HS 813 266\). National Highway Traffic Safety Administration.](#)

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EARLY ESTIMATES OF 2021 DATA

For the first six months of 2021, GHSA projects 3,441 pedestrians were killed in collisions with vehicles in the U.S., a 17% increase from 2020 and 507 additional lives lost in preventable crashes (Table 1). This projection is made while also recognizing the chaotic impact that changing travel patterns due to the COVID-19 pandemic have had on state traffic safety statistics.

As expected given the great variation in population sizes and other characteristics, individual states differ widely in fatality numbers. For example, the projected number of pedestrian deaths for the first half of 2021 ranged from 470 in California to three in Nebraska and Vermont. Overall, far more states had increases than decreases.

Despite the increase in pedestrian deaths during the first half of 2021, there are some positive trends in the preliminary data. For example, Hawaii, Nebraska and Virginia had two consecutive years of declines in pedestrian fatalities in the first half of the year, while Connecticut and North Carolina both experienced double-digit declines.

Considering that large swaths of the country were locked down during much of the first half of 2020, potentially affecting the exposure risk and subsequent fatality numbers, 2019 data is included in Table 1 to facilitate pre-pandemic comparison. For example, looking at the counts in Massachusetts (where road travel was significantly curtailed for much of March-June 2020), the 2021 figure is a 100% increase over 2020. However, this reflects a return to 2019 pre-pandemic levels after a significant decrease in 2020. Conversely, states such as Connecticut and Kansas reported an increase in pedestrian fatalities during the height of the lockdowns, and their 2021 pedestrian fatality numbers for the first half of the year have returned to 2019 levels.

Thus, on a state level, caution should be exercised when characterizing long-term trends from the percent changes alone from 2020 through 2021.

It is important to note that the raw state-reported preliminary 2021 data have been adjusted slightly to account for historical underreporting and represent a more likely final scenario. Because 2020 was an anomalous year for many states due to COVID-19 and associated shutdowns, the adjustment factor used is based on data from 2018 and 2019. Researchers calculated a weighted average of the ratio between the final and preliminary fatality counts for 2018 and 2019 to determine individual adjustment factors for each state.

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Table 1

Pedestrian Fatalities by State, Jan-June 2019-2021

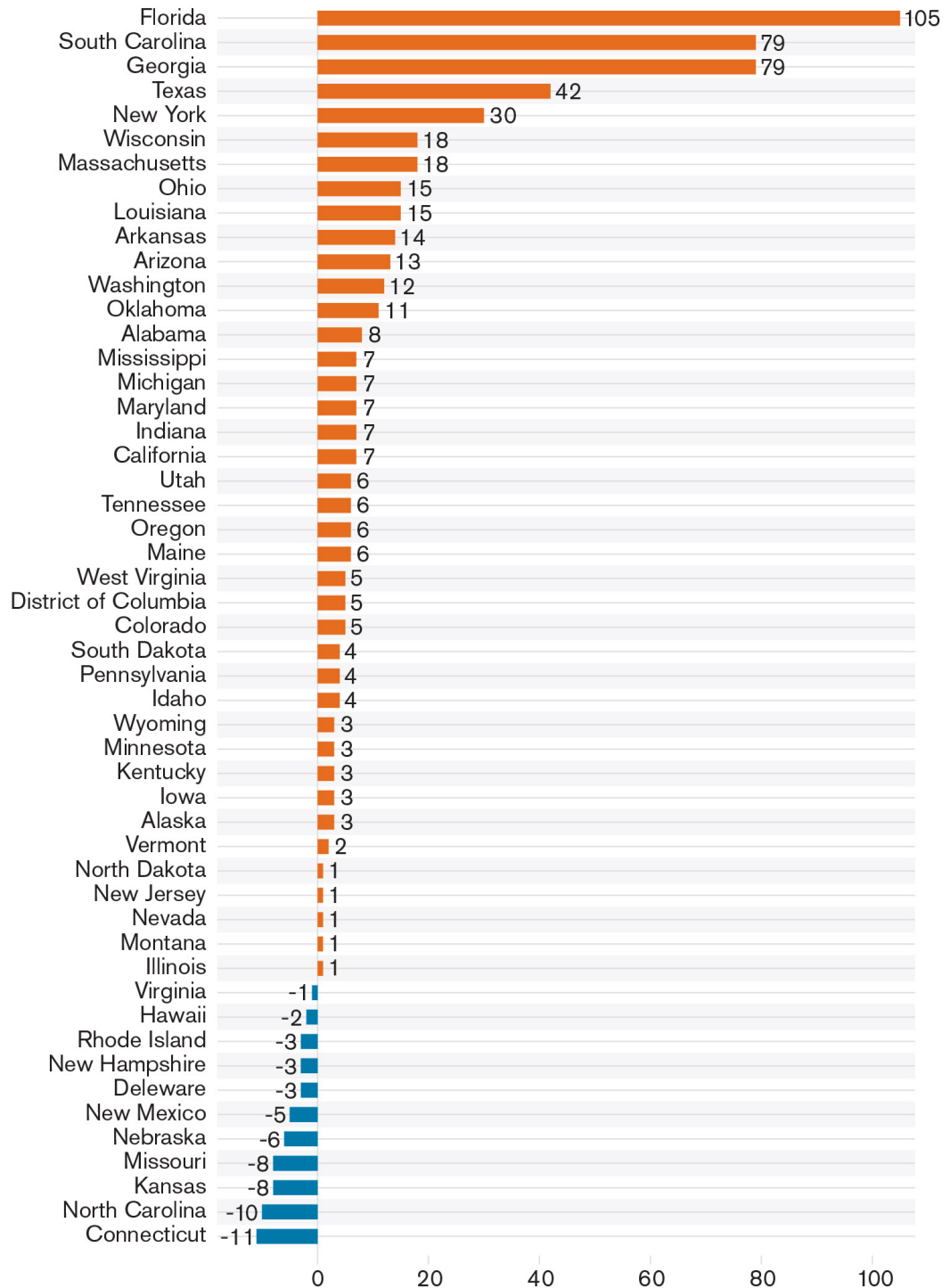
Sources: State Highway Safety Offices and GHSA data analysis

State	2019 Final	2020 Final	2021 Preliminary (Adjusted)	Change from 2020 to 2021	
				#	%
Alabama	52	43	51	8	18.60
Alaska	3	4	7	3	75.00
Arizona	110	103	116	13	12.62
Arkansas	30	29	43	14	48.28
California	460	463	470	7	1.51
Colorado	31	38	43	5	13.16
Connecticut	21	28	17	-11	-39.29
Delaware	14	11	8	-3	-27.27
District of Columbia	6	6	11	5	83.33
Florida	385	339	444	105	30.97
Georgia	109	103	182	79	76.70
Hawaii	25	12	10	-2	-16.67
Idaho	4	5	9	4	80.00
Illinois	70	77	78	1	1.30
Indiana	35	45	52	7	15.56
Iowa	10	12	15	3	25.00
Kansas	7	25	17	-8	-32.00
Kentucky	34	30	33	3	10.00
Louisiana	59	73	88	15	20.55
Maine	7	3	9	6	200.00
Maryland	49	56	63	7	12.50
Massachusetts	32	18	36	18	100.00
Michigan	65	70	77	7	10.00
Minnesota	19	20	23	3	15.00
Mississippi	31	38	45	7	18.42
Missouri	48	50	42	-8	-16.00
Montana	8	6	7	1	16.67
Nebraska	7	9	3	-6	-66.67
Nevada	39	42	43	1	2.38
New Hampshire	4	8	5	-3	-37.50
New Jersey	79	80	81	1	1.25
New Mexico	42	42	37	-5	-11.90
New York	121	101	131	30	29.70
North Carolina	109	124	114	-10	-8.06
North Dakota	5	3	4	1	33.33
Ohio	60	64	79	15	23.44
Oklahoma	36	30	41	11	36.67
Oregon	39	31	37	6	19.35
Pennsylvania	77	64	68	4	6.25
Rhode Island	3	10	7	-3	-30.00
South Carolina	83	74	153	79	106.76
South Dakota	3	5	9	4	80.00
Tennessee	65	69	75	6	8.70
Texas	309	333	375	42	12.61
Utah	12	12	18	6	50.00
Vermont	1	1	3	2	200.00
Virginia	58	54	53	-1	-1.85
Washington	44	39	51	12	30.77
West Virginia	12	9	14	5	55.56
Wisconsin	13	21	39	18	85.71
Wyoming	6	2	5	3	150.00
Total	2,951	2,934	3,441	+507	+17%

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Figure 1 Difference in Pedestrian Fatalities, Jan-June, 2020-2021

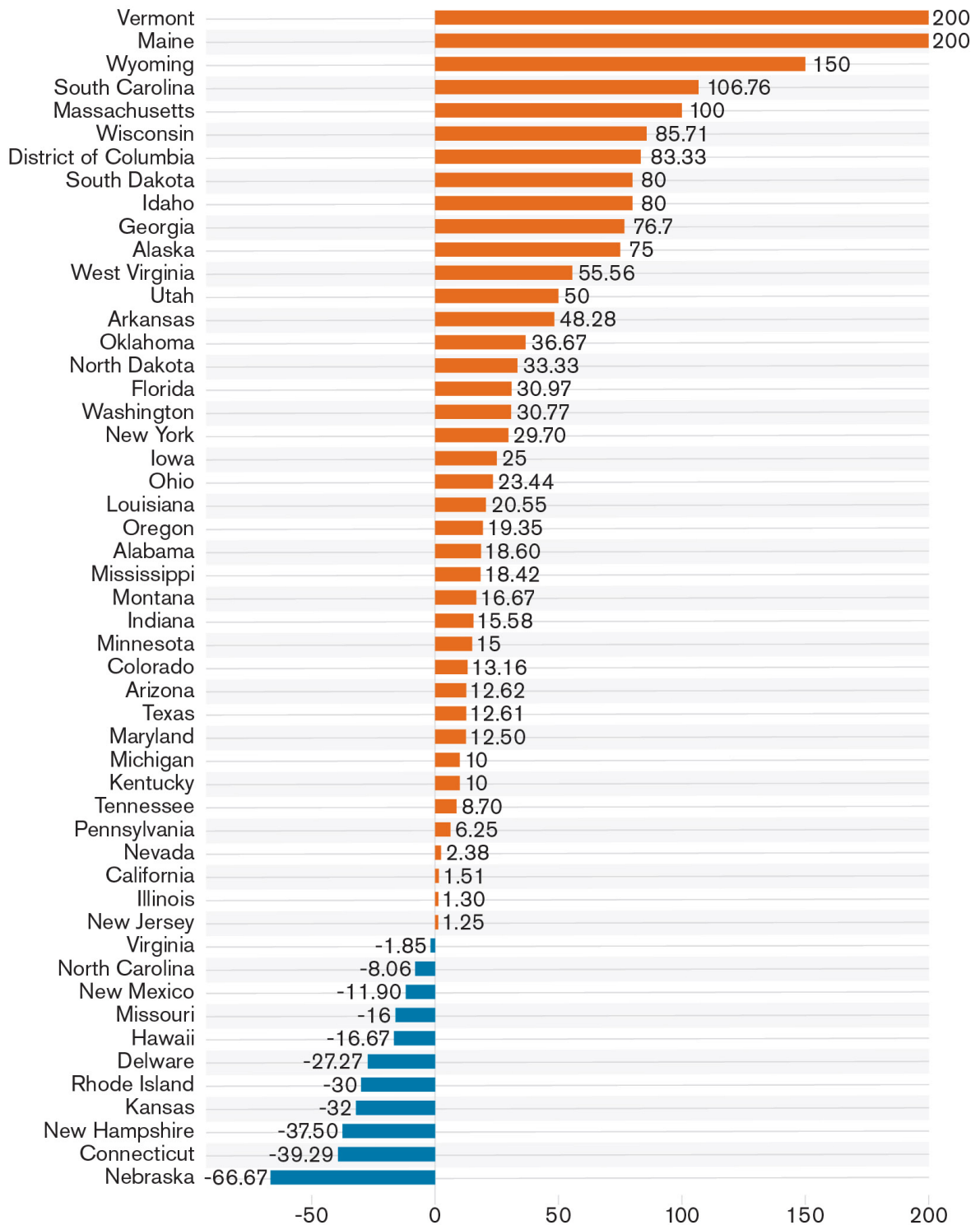


Source: State Highway Safety Offices and GHSA data analysis

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Figure 2 Percentage Difference in Pedestrian Fatalities, Jan-June, 2020-2021



Source: State Highway Safety Offices and GHSA data analysis

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A CLOSER LOOK AT THE CHANGES

Presenting the data sorted by differences in both the number of deaths and subsequent percentage change paints a clearer picture of the increase from 2020 to 2021. Figures 1 and 2 illustrate the year-to-year difference in the number of fatalities by state and the percentages.

Based on the adjusted preliminary data, nearly 80% of states saw pedestrian fatalities increase in the first half of 2021, compared with the same period in 2020. Thirty-nine states and the District of Columbia (D.C.) had increases, while only 11 states had decreases. The largest percentage drop in pedestrian fatalities in the first half of the year occurred in Nebraska (-67%), Connecticut (-39%) and New Hampshire (-38%).

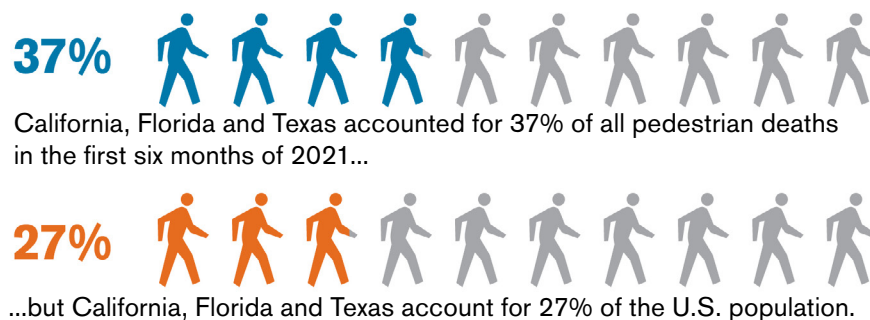
Because states vary widely in population, just a small shift in fatality numbers can represent a large change in percentages. For example, Vermont and Maine had the largest percentage increases in fatalities between the first half of 2020 and the first half of 2021, but the associated increases in counts were two and six, respectively. Conversely, Florida had the largest increase in fatality count (105), yet its year-to-year percent increase of 31% is 17th among states.

PEDESTRIAN FATALITY RATES

Examining the pedestrian fatality data against state population numbers provides additional insight.

For example, as illustrated in Figure 3, three states – California, Florida and Texas – accounted for 37% of all pedestrian deaths in the first six months of 2021. By comparison, these three states are home to approximately 27% of the U.S. population, according to the 2020 U.S. Census. Notably, these three states have warmer climates which tend to increase travel on foot. They also have many large urban areas where pedestrians and motor vehicle drivers are more likely to encounter one another.

Figure 3 Highest Pedestrian Fatalities vs. Population



Sources: State Highway Safety Offices and [U.S. Census Bureau](https://www.census.gov)

This finding – that a small shifting group of states accounts for a significant proportion of national pedestrian deaths – has persisted for many years and is documented in previous GHSA pedestrian fatality reports.

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Table 2

**Pedestrian Fatality
Rate by State
Per 100,000 Population
Jan-June 2020-2021**

Sources: State Highway
Safety Offices and
[U.S. Census Bureau](#)

State	2020	2021
Alabama	0.86	1.01
Alaska	0.55	0.96
Arizona	1.43	1.59
Arkansas	0.96	1.42
California	1.17	1.20
Colorado	0.66	0.74
Connecticut	0.78	0.47
Delaware	1.11	0.80
District of Columbia	0.87	1.64
Florida	1.57	2.04
Georgia	0.96	1.69
Hawaii	0.83	0.69
Idaho	0.27	0.47
Illinois	0.60	0.62
Indiana	0.66	0.76
Iowa	0.38	0.47
Kansas	0.85	0.58
Kentucky	0.67	0.73
Louisiana	1.57	1.90
Maine	0.22	0.66
Maryland	0.91	1.02
Massachusetts	0.26	0.52
Michigan	0.70	0.77
Minnesota	0.35	0.40
Mississippi	1.29	1.53
Missouri	0.81	0.68
Montana	0.55	0.63
Nebraska	0.46	0.15
Nevada	1.35	1.37
New Hampshire	0.58	0.36
New Jersey	0.86	0.87
New Mexico	1.98	1.75
New York	0.50	0.66
North Carolina	1.19	1.08
North Dakota	0.39	0.52
Ohio	0.54	0.67
Oklahoma	0.76	1.03
Oregon	0.73	0.87
Pennsylvania	0.49	0.52
Rhode Island	0.91	0.64
South Carolina	1.44	2.95
South Dakota	0.56	1.01
Tennessee	1.00	1.08
Texas	1.14	1.27
Utah	0.37	0.54
Vermont	0.16	0.46
Virginia	0.63	0.61
Washington	0.51	0.66
West Virginia	0.50	0.79
Wisconsin	0.36	0.66
Wyoming	0.35	0.86
National Total	0.90	1.04

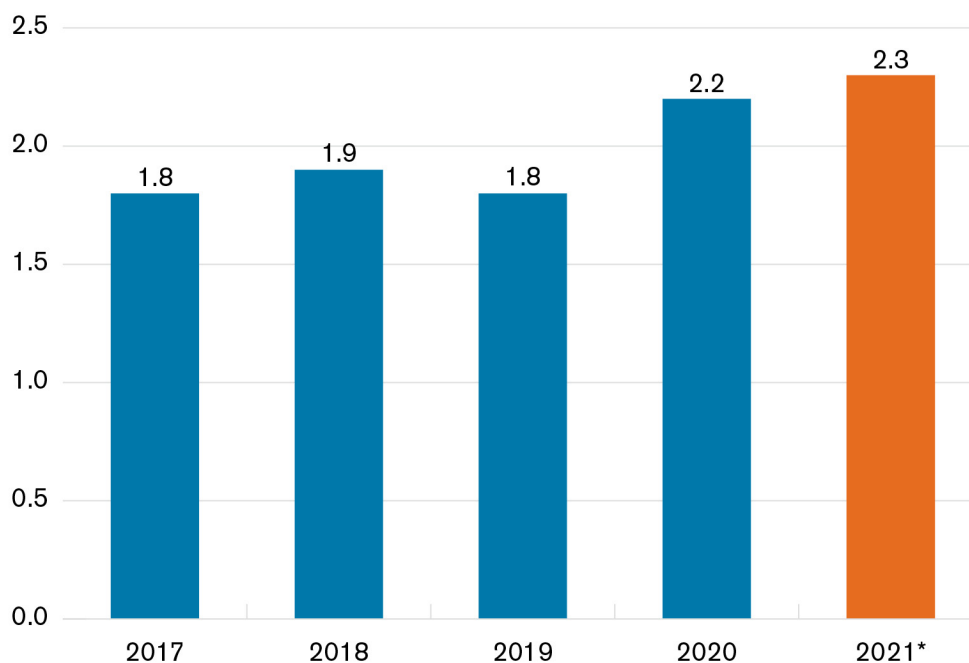
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Table 2 looks at the rate of pedestrian fatalities per 100,000 residents. The overall rate increased from 0.90 in both 2019 and 2020 to 1.04 in 2021. At the state level, 18 states now have fatality rates above 1.0 (up from 13 in 2020 and 15 in 2019). For 2021, South Carolina is projected to have the highest rate of pedestrian deaths per resident population (2.95), while Nebraska has the lowest (0.15).

According to the Federal Highway Administration (FHWA), there were 1.5 trillion vehicle miles traveled (VMT) from January through June 2021, a 13% increase from the same period in 2020. This represents a rate of 2.3 pedestrian fatalities per billion VMT over the first six months of 2021, a minor increase from the historically high rate of 2.2 for the first half of 2020. In other words, in the first half of 2021, driving rebounded from a dip in 2020 and pedestrian fatalities increased proportionally. A rate of 2.3 represents a 28% increase over the steady rate of 1.8 from 2017-2019. Figure 4 shows the projected 2.3 rate in 2021 compared with the four previous years.

Figure 4 Pedestrian Fatalities per 1 Billion Vehicle Miles Traveled (VMT), Jan-June, 2017-2021



* Projected

Sources: State Highway Safety Offices, GHSA data analysis and [FHWA](#)

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WHAT CAN WE DO?

One pedestrian death is one too many. Yet a projected 3,441 people were killed while walking in the first half of 2021 alone. This begs the question, what can be done to put an end to these roadway tragedies?

GHSA and others support a multidisciplinary Safe System approach to drive down motor vehicle crashes and save pedestrian lives on America's roads. The Safe System approach envisions eliminating fatal and serious crashes for all road users by creating a transportation system that accommodates human mistakes and keeps crash impacts on the human body at survivable levels.

Each of the five elements of the Safe System approach are pertinent to advancing pedestrian safety: safe roads and roadsides, safe vehicles, safe speeds, safe users and post-crash response. We cannot simply build, educate or enforce our way out of the pedestrian safety challenge. All elements of the Safe System approach contribute in different ways to a multi-layered safety net that prevents or mitigates the outcome of crashes involving those on foot.

Other resources describe in detail how we should improve roadways, vehicles, post-crash care and other elements to better protect pedestrians. SHSOs are primarily charged with implementing programs focused on safe users and the choices that all road users make every day. In 2021, GHSA produced [*Putting the Pieces Together: Addressing the Role of Behavioral Safety in the Safe System Approach*](#), a report that explains the role of behavioral safety and road user responsibility in the Safe System framework. The framework that GHSA describes mirrors the 2022 U.S. Department of Transportation (U.S. DOT) National Roadway Safety Strategy that also adopts the Safe System approach, characterizes the pedestrian safety crisis and discusses future actions.² Both GHSA and U.S. DOT resources indicate how behavioral and other countermeasures can be leveraged to help protect pedestrians and all road users from risky driving behaviors.

A forthcoming GHSA follow-up report to this one will examine the recently released 2020 FARS data, include preliminary state data for all 12 months of 2021 and take a deeper dive into pedestrian safety countermeasures and how the Safe System approach can be used to advance pedestrian safety. The report will include concrete examples of methods that show promise in various states across the country.

CONCLUSION

Prioritizing pedestrian safety is critical to reaching zero deaths in the U.S. While not every American drives a vehicle, nearly every person – urban or rural, old or young – is exposed to motor vehicles while walking on or near roadways.

Unfortunately, pedestrian deaths continue to grow at an alarming rate, and 2021 is expected to have been another dire year. Fatalities are projected to be up 17% for the first half of the year, with 39 states and D.C. reporting increases. Nationally, pedestrian fatality rates per population and per vehicle mile traveled are both alarmingly high.

GHSA, its SHSO members and the broader traffic safety community increasingly are employing the Safe System approach to improve safety outcomes. GHSA will explore these strategies in more detail in the full Pedestrian Spotlight report scheduled for release later this year.

² <https://www.transportation.gov/nrss/usdot-national-roadway-safety-strategy>