



DOT HS 813 488 May 2024 (Revised)

Rural/Urban Comparison of Motor Vehicle Traffic Fatalities

In this fact sheet for 2021 the information is presented as follows.

- Overview
- Crash Characteristics
- Drivers
- Speeding
- Alcohol
- Restraint Use
- Rollover
- Nonoccupants
- State

For this fact sheet, urban boundaries are determined by the State highway departments and approved by the Federal Highway Administration (FHWA), and the areas outside of those boundaries are described as rural. The State highway departments use the boundaries decided by the Census Bureau. Land use (rural/urban) is the classification of the segment of the trafficway on which the crash occurred based on the FHWA-approved, adjusted Census boundaries.

Key Findings

- Of the 42,939 motor vehicle traffic fatalities in 2021, there were 17,103 (40%) that occurred in rural areas, 25,598 (60%) in urban areas, and 238 (1%) in areas that were not reported as rural or urban.
- Traffic fatalities in rural areas increased by 5 percent from 16,340 in 2020 to 17,103 in 2021, and in urban areas increased by 14 percent from 22,513 in 2020 to 25,598 in 2021.
- According to the Census Bureau's 2021 American Community Survey, an estimated 20 percent of the U.S. population lived in rural areas, and according to the FHWA 32 percent of the total vehicle miles traveled (VMT) in 2021 were in rural areas. However, rural areas accounted for 40 percent of all traffic fatalities in 2021.
- In 2021 the fatality rate per 100 million VMT was 1.5 times higher (the smallest in recent times) in rural areas than in urban areas (1.74 versus 1.19).
- In 2021, of the 17,103 rural traffic fatalities, 4,833 (28%) were killed in speeding-related crashes. Of the 25,598 urban traffic fatalities, 7,437 (29%) were killed in speeding-related crashes.
- Rural alcohol-impaired-driving fatalities increased by 8 percent from 4,826 in 2020 to 5,190 in 2021 and urban alcohol-impaired-driving fatalities increased by 19 percent from 6,838 in 2020 to 8,122 in 2021.
- The proportions of alcohol-impaired-driving fatalities in rural areas remained the same in 2021 at 30 percent, and in urban areas increased from 30 percent in 2020 to 32 percent in 2021.

¹ See the Census Bureau link to define urban and rural areas at <u>census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html</u>.

- The 2021 National Occupant Protection Use Survey (NOPUS) observed that the seat belt use rate among front-seat passenger vehicle occupants in urban areas was 90.5 percent, and rural occupants were observed to have a use rate of 90.1 percent.
- About two-thirds (66%) of fatalities in rural areas (11,247 of 17,103) were in roadway-departure crashes compared to 39 percent (9,946 of 25,598) in urban areas.
- Based on known restraint use in fatal traffic crashes, 51 percent of rural passenger vehicle occupants killed in 2021 were unrestrained as compared to 49 percent of urban passenger vehicle occupants killed.

This fact sheet contains information on fatal motor vehicle traffic crashes based on data from the Fatality Analysis Reporting System (FARS). Refer to the end of this publication for more information on FARS.

Due to a vehicle classification change, the 2020 and later-year vehicle type classifications are not comparable to 2019 and earlier-year vehicle type classifications. This change affects any analysis with a vehicle component to it. Refer to the end of this publication for more information on Product Information Catalog and Vehicle Listing (vPIC).

A motor vehicle traffic crash is defined as an incident that involved one or more motor vehicles in-transport that originated on or had a harmful event (injury or damage) on a public trafficway, such as a road or highway. Crashes that occurred on private property not regularly used by the public for transport, including some parts of parking lots and driveways, are excluded. The terms "motor vehicle traffic crash" and "traffic crash" are used interchangeably in this document.

Overview

In 2021:

- There were 15,322 (39%) fatal traffic crashes in rural areas resulting in 17,103 (40%) traffic fatalities.
- There were 23,959 (61%) fatal traffic crashes in urban areas resulting in 25,598 (60%) traffic fatalities.
- The remaining 227 (1%) fatal traffic crashes resulting in 238 (1%) traffic fatalities occurred in areas where information was not enough to determine if the crashes were inside the rural or urban boundaries.
- Fatalities in rural areas increased by 5 percent from 16,340 in 2020 to 17,103 in 2021, and in urban areas increased by 14 percent from 22,513 in 2020 to 25,598 in 2021.
- According to the 2021 American Community Survey from the Census Bureau, an estimated 20 percent of the U.S. population lived in rural areas, and according to FHWA 32 percent of the total VMT in 2021 were in rural areas. However, rural areas accounted for 40 percent of all traffic fatalities in 2021.

Figure 1 presents the traffic fatality trends in the most recent 10-year period by land use:

- Rural fatalities decreased by 7 percent from 18,367 in 2012 to 17,103 in 2021.
- Urban fatalities increased by 67 percent from 15,371 in 2012 to 25,598 in 2021.

Urban -Rural 30,000 25,598 25,000 22,513 20,661 19,976 19,946 19,357 18,367 17,739 17,715 20,000 16,791 Fatalities 15,000 17,405 18,321 17,103 17,573 16,288 16,340 16,070 15,917 15,371 15,119 10,000 5,000 0 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

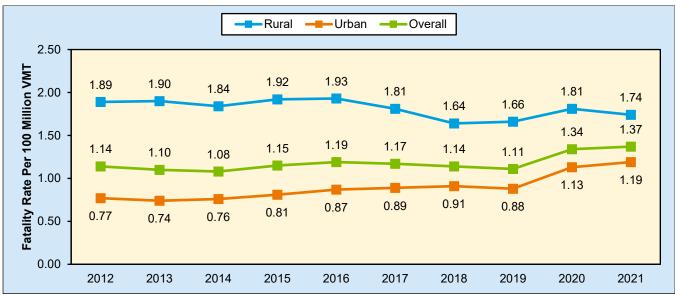
Figure 1. Fatalities in Traffic Crashes, by Land Use (Rural/Urban), 2012-2021

Source: FARS 2012–2020 Final File, 2021 Annual Report File (ARF) Note: Excludes fatalities in areas that were not reported as rural or urban.

Figure 2 presents the fatality rates per 100 million VMT by land use (rural, urban, and overall) in the 10-year period from 2012 to 2021.

- The fatality rate in rural areas decreased by 8 percent from 1.89 in 2012 to 1.74 in 2021.
- The fatality rate in urban areas increased by 55 percent from 0.77 in 2012 to 1.19 in 2021.
- In 2021 the fatality rate was 1.5 times higher in rural areas than in urban areas (1.74 versus 1.19). This is the closest the rates have been in the 10-year period from 2012 to 2021.

Figure 2. Fatality Rates per 100 Million VMT in Traffic Crashes, by Land Use (Rural/Urban), 2012–2021



Sources: FARS 2012-2020 Final File, 2021 ARF; VMT - FHWA

Crash Characteristics

Time of Day

More rural traffic fatalities occurred during the day (6 a.m. to 5:59 p.m.) and more urban traffic fatalities occurred during the night (6 p.m. to 5:59 a.m.).

- Of the 17,103 rural traffic fatalities in 2021, there were 9,286 (54%) that occurred during the day, 7,604 (44%) occurred at night, and 213 (1%) occurred at unknown times.
- Of the 25,598 urban traffic fatalities in 2021, there were 10,147 (40%) that occurred during the day, 15,349 (60%) occurred at night, and 102 (less than 0.5%) occurred at unknown times.

Light Condition

Table 1 shows fatalities in 2021 by light condition and land use.

- Of the 17,103 fatalities in rural areas, 9,377 (55%) occurred during daylight and 6,769 (40%) occurred when the light conditions were dark; the remaining 957 (6%) fatalities occurred during dawn, dusk, or other/unknown light conditions.
- Of the 25,598 urban fatalities, 14,416 (56%) occurred when the light conditions were dark, 10,074 (39%) occurred during daylight conditions, and 1,108 (4%) occurred during dawn, dusk, or other/unknown light conditions.

Table 1. Fatalities in Traffic Crashes, by Light Condition and Land Use (Rural/Urban), 2021

		Land Use							
	Ru	ral	Urk	oan	Unkr	nown	Total		
Light Condition	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Daylight	9,377	55%	10,074	39%	113	47%	19,564	46%	
Dark	6,769	40%	14,416	56%	75	32%	21,260	50%	
Dark – Not Lighted	6,107	36%	5,497	21%	41	17%	11,645	27%	
Dark – Lighted	531	3%	8,597	34%	23	10%	9,151	21%	
Dark – Unknown Lighting	131	1%	322	1%	11	5%	464	1%	
Dawn	351	2%	401	2%	1	0%	753	2%	
Dusk	427	2%	583	2%	7	3%	1,017	2%	
Other/Unknown	179	1%	124	0%	42	18%	345	1%	
Total	17,103	100%	25,598	100%	238	100%	42,939	100%	

Source: FARS 2021 ARF

Weather Condition

In 2021 in rural areas, 84 percent of the fatalities were in traffic crashes when the weather condition was clear, 7 percent when it was raining, 2 percent when there was snow or sleet, and 8 percent during other weather conditions. By comparison, in urban areas 88 percent of fatalities were in traffic crashes when the weather condition was clear, 7 percent when it was raining, 1 percent when there was snow or sleet, and 5 percent during other weather conditions.

Roadway Departure and Intersection

In 2021 there were 21,326 fatalities in roadway departure crashes, 50 percent of total fatalities. Of these roadway departure fatalities, 53 percent occurred in rural areas and 47 percent in urban areas. As defined by FHWA, roadway departure occurs when a vehicle in the crash crosses an edge line, a centerline, or leaves the traveled way. About two-thirds (66%) of fatalities in rural areas (11,247 of 17,103) were in roadway-departure crashes compared to 39 percent (9,946 of 25,598) in urban areas.

In 2021 there were 11,799 fatalities in intersection crashes. Of these, 25 percent occurred in rural areas and 74 percent in urban areas. Intersection crashes, as defined by FHWA, include crashes at intersection, intersection-related, driveway access, and driveway-access-related.

Table 2. Roadway Departure and Intersection Fatalities in Traffic Crashes, by Land Use (Rural/Urban), 2021

	Rural		Urban		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Roadway Departure*	11,247	53%	9,946	47%	133	1%	21,326	100%
Intersection**	2,977	25%	8,787	74%	35	0%	11,799	100%

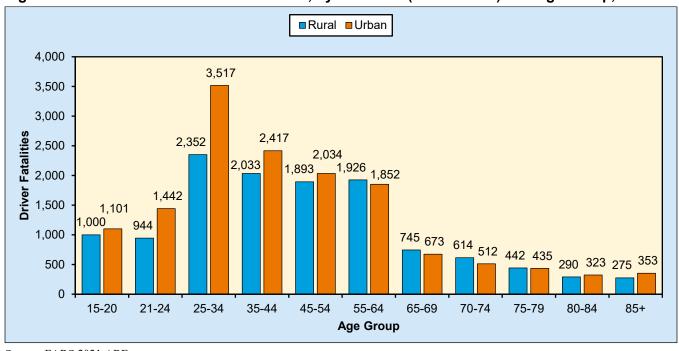
Source: FARS 2021 ARF

Drivers

Figure 3 shows drivers killed in traffic crashes in 2021 by land use and age group. Driver fatalities in 2021 were higher in urban areas when compared to rural areas for almost all age groups except the 55-to-64, 65-to-69, 70-to-74, and 75-to-79 age groups. Drivers involved in fatal traffic crashes in 2021 in rural areas were found to have a higher percentage of valid driver licenses than urban drivers (84% to 78%).

There were 27,422 drivers killed in traffic crashes in 2021. Sixty-nine percent of drivers killed in rural areas died at the scenes of the crashes, compared to 52 percent of drivers killed in urban areas. Data also shows that 39 percent of all drivers killed were transported to hospitals, and 2 percent of those drivers died en route. Of the drivers who were transported to hospitals and died en route, 56 percent were in rural areas and 44 percent were in urban areas.

Figure 3. Driver Fatalities in Traffic Crashes, by Land Use (Rural/Urban) and Age Group, 2021



Source: FARS 2021 ARF

Note: Excludes driver fatalities in areas that were not reported as rural or urban and drivers under 15 years old.

^{*}Roadway departure as defined by FHWA: A crash in which a vehicle crosses an edge line, a centerline, or leaves the traveled way.

^{**}Intersection as defined by FHWA: Intersection or intersection-related; driveway access or driveway-access-related.

Speeding

NHTSA considers a traffic crash to be speeding-related if the driver was charged with a speeding-related offense or if an officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash.

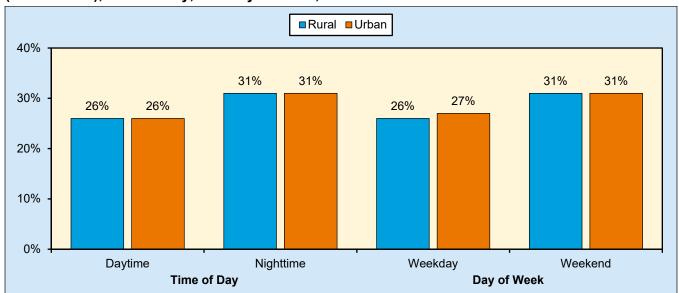
In 2021:

- Of the 42,939 traffic fatalities, 12,330 (29%) were killed in speeding-related crashes.
- Of the 17,103 rural traffic fatalities, 4,833 (28%) were killed in speeding-related crashes.
- Of the 25,598 urban traffic fatalities, 7,437 (29%) were killed in speeding-related crashes.

Figure 4 shows the rural and urban percentages of speeding-related fatalities in traffic crashes in 2021 by time of day and day of week (weekday – Monday 6 a.m. to Friday 5:59 p.m.; weekend – Friday 6 p.m. to Monday 5:59 a.m.):

- Of the fatalities in crashes at nighttime, both in rural and urban areas, 31 percent were speeding-related.
- Of the fatalities in crashes during weekends, 31 percent were speeding-related in rural areas as well as in urban areas.

Figure 4. Percentages of Speeding-Related Fatalities in Traffic Crashes, by Land Use (Rural/Urban), Time of Day, and Day of Week, 2021



Source: FARS 2021 ARF

Note: Daytime -6 a.m. to 5:59 p.m. Nighttime -6 p.m. to 5:59 a.m.

Weekday – Monday 6 a.m. to Friday 5:59 p.m. (4.5 days) Weekend – Friday 6 p.m. to Monday 5:59 a.m. (2.5 days)

Sixty-five percent of drivers involved in urban fatal traffic crashes in 2021 were on roadways where the posted speed limits were 50 mph or less. In rural fatal traffic crashes, 74 percent of drivers involved were on roadways where the posted speed limit was 55 mph or higher. On roadways where the posted speed limit was 50 mph or

less, 26 percent of the drivers involved in fatal traffic crashes in rural areas were speeding compared to 20 percent of drivers in urban areas. On roadways where the posted speed limit was 55 mph or higher, 17 percent of the drivers in fatal traffic crashes in rural areas were speeding compared to 16 percent of drivers in urban areas.

Alcohol

Drivers are considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher. Thus, any fatality that occurred in a traffic crash involving a driver with a BAC of .08 g/dL or higher is considered to be an alcohol-impaired-driving fatality. Table 3 presents the number of traffic fatalities and alcohol-impaired-driving fatalities by land use.

- Alcohol-impaired-driving fatalities increased by 14 percent from 11,718 in 2020 to 13,384 in 2021. In rural areas, alcohol-impaired-driving fatalities increased by 8 percent from 4,826 in 2020 to 5,190 in 2021 and in urban areas increased by 19 percent from 6,838 in 2020 to 8,122 in 2021.
- In 2021 the proportion of alcohol-impaired-driving fatalities in rural areas was 30 percent and in urban areas was 32 percent; in rural areas in 2021 decreased from 31 percent in 2012, and in urban areas increased from 30 percent in 2012 to 32 percent in 2021. However, when compared to 2020, the proportions of alcohol-impaired-driving fatalities in rural areas remained the same at 30 percent and in urban areas increased from 30 percent in 2020 to 32 percent in 2021.
- Of the 13,384 alcohol-impaired-driving fatalities in 2021, there were 5,190 (39%) that occurred in rural areas, 8,122 (61%) that occurred in urban areas, and 72 (1%) occurred in areas that were not reported as rural or urban.
- Alcohol-impaired-driving fatalities increased by 29 percent from 10,336 in 2012 to 13,384 in 2021.
 - Rural alcohol-impaired-driving fatalities decreased by 10 percent from 5,737 in 2012 to 5,190 in 2021.
 - O Urban alcohol-impaired-driving fatalities increased by 77 percent from 4,589 in 2012 to 8,122 in 2021

Table 3. Total Fatalities and Alcohol-Impaired-Driving Fatalities in Traffic Crashes, by Land Use (Rural/Urban), 2012 and 2021

		2012		2021				
			aired-Driving AC=.08+ g/dL)		Alcohol-Impaired-Driving Fatalities (BAC=.08+ g/dL)			
Land Use	Total Fatalities	Number	Percent	Total Fatalities	Number	Percent		
Rural	18,367	5,737	31%	17,103	5,190	30%		
Urban	15,371	4,589	30%	25,598	8,122	32%		
Total*	33,782	10,336	31%	42,939	13,384	31%		

Source: FARS 2012 Final File, 2021 ARF

Note: NHTSA estimates BACs when alcohol test results are unknown. *Includes fatalities in areas that were not reported as rural or urban.

Figure 5 shows alcohol-impaired-driving fatality rates per 100 million VMT from 2012 to 2021. In rural areas, the alcohol-impaired driving fatality rate in 2021 decreased from 0.59 in 2012 to 0.53 in 2021, but in urban areas the alcohol-impaired-driving fatality rate increased from 0.23 in 2012 to 0.38 in 2021. From 2020 to 2021 there was a big increase in alcohol-impaired driving fatality rate in urban areas. The alcohol-impaired-driving fatality rate in rural areas in 2021 remained the same as in 2020 at 0.53, and in urban areas increased from 0.34 in 2020 to 0.38 in 2021.

-Rural Urban 1.00 0.59 0.58 0.56 0.55 0.54 0.53 0.52 0.53 0.47 0.46 0.38 0.34 0.27 0.26 0.26 0.25 0.24 0.23 0.23 0.23 2012 2013 2014 2015 2017 2019 2020 2016 2018 2021

Figure 5. Alcohol-Impaired-Driving Fatality Rate per 100 Million VMT in Traffic Crashes, by Land Use (Rural/Urban), 2012–2021

Sources: FARS 2012-2020 Final File, 2021 ARF; VMT – FHWA Note: NHTSA estimates BACs when alcohol test results are unknown.

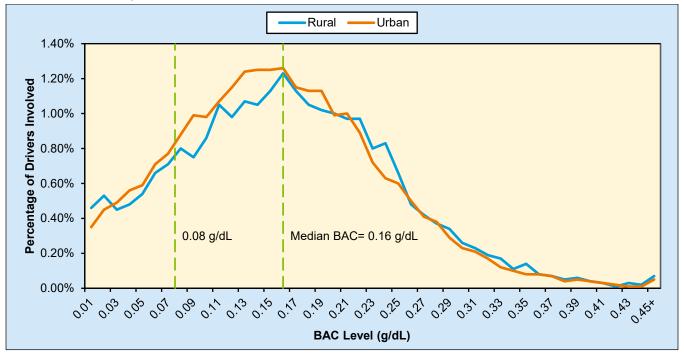
Of the 60,904 drivers involved in fatal traffic crashes in 2021, there were 12,762 (21%) who were alcoholimpaired. Of these alcohol-impaired drivers, 4,756 (37%) were driving in rural areas at the time of the crash, 7,936 (62%) were driving in urban areas and 70 (1%) were driving in areas that were not reported as rural or urban.

The highest percentages of alcohol-impaired drivers involved in fatal traffic crashes by age group in 2021 were in the 21-to-24 and 25-to-34 age groups (27% each) followed by the 35-to-44 age group (23%). In rural areas the highest percentages of alcohol-impaired drivers were in the 21-to-24 age group (27%), followed by the 25-to-34 age group (26%) and the 35-to-44 age group (24%). Among urban alcohol-impaired drivers the highest percentages were in the 21-to-24 and 25-to-34 age groups (27% each) followed by the 35-to-44 age group (23%).

Among drivers involved in fatal traffic crashes in 2021 who had one or more previous convictions for driving while intoxicated, 49 percent of rural drivers were alcohol-impaired and 45 percent of urban drivers were alcohol-impaired. Note that FARS records drivers' previous DWI records that occurred within 5 years from the crash date.

As shown in Figure 6, the most frequently recorded BAC among drinking drivers involved in fatal traffic crashes in both rural and urban areas was .16 g/dL. The median BAC for drivers with BACs of .01 or higher in rural areas was .16g/dL and in urban areas was .15 g/dL.

Figure 6. Distribution of BACs for Drivers With BACs of .01 g/dL or Higher Involved in Fatal Traffic Crashes, by Land Use (Rural/Urban), 2021



Source: FARS 2021 ARF

Note: NHTSA estimates BACs when alcohol test results are unknown.

Of all drivers involved in fatal crashes in 2021, in rural areas the proportion of alcohol-impaired drivers (BAC=.08+ g/dL) was highest for motorcycle operators (27%), followed by drivers of pickups and passenger cars (24% each), SUVs (20%), vans (14%), and large trucks (3%). In urban areas, the proportion of alcohol-impaired drivers (BAC=.08+ g/dL) was highest among motorcycle operators (29%), followed by drivers of passenger cars (24%), pickups (20%), SUVs (18%), vans (12%), and large trucks (3%).

Table 4. Total Drivers and Alcohol-Impaired Drivers Involved in Fatal Traffic Crashes, by Vehicle Type and Land Use (Rural/Urban), 2021

		Rural			Urban		Total*			
	Alcohol-Impaired (BAC = .08+ g/dL)		Alcohol-Impaired (BAC =.08+ g/dL)			Total	Alcohol-Impaired (BAC =.08+ g/dL)			
Vehicle Type	Drivers	Number	Percent	Drivers	Number	Percent	Drivers	Number	Percent	
Passenger Car	6,587	1,568	24%	14,312	3,474	24%	20,959	5,057	24%	
Light Truck	10,552	2,264	21%	14,871	2,707	18%	25,525	4,992	20%	
– Pickup	4,876	1,170	24%	4,844	953	20%	9,762	2,133	22%	
- SUV	4,836	980	20%	8,718	1,599	18%	13,609	2,589	19%	
– Van	840	114	14%	1,309	156	12%	2,154	270	13%	
Large Truck	3,133	82	3%	2,490	69	3%	5,634	150	3%	
Motorcycle	1,958	535	27%	4,102	1,187	29%	6,080	1,727	28%	
Total**	23,144	4,756	21%	37,507	7,936	21%	60,904	12,762	21%	

Source: FARS 2021 ARF

Note: NHTSA estimates BACs when alcohol test results are unknown.

^{*}Includes drivers involved in areas that were not reported as rural or urban.

^{**}Includes buses and other/unknown vehicle types.

Restraint Use

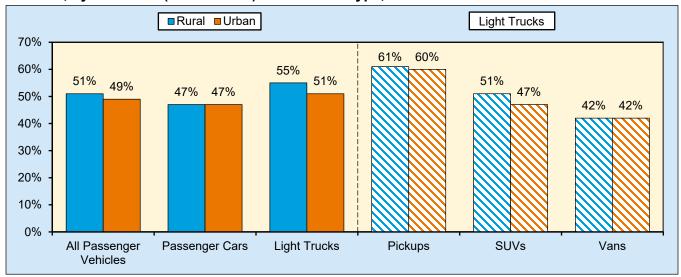
The 2021 NOPUS observed that the seat belt use rate among front-seat passenger vehicle (defined as passenger cars and light trucks) occupants in urban areas was 90.5 percent, and rural occupants were observed to have a use rate of 90.1 percent (see the NHTSA Research Note, Seat Belt Use in 2021 – Overall Results, Report No. DOT HS 813 241, at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813241).

Of the 26,325 passenger vehicle occupants killed in 2021, 48 percent (12,534) were killed in rural areas and 52 percent (13,681) were killed in urban areas. Figure 7 presents the 2021 rural and urban percentages (based on known restraint use) of unrestrained passenger vehicle occupant fatalities by vehicle type (passenger cars and light trucks including pickups, SUVs, and vans).

In 2021 (based on known restraint use):

- Fifty-one percent of passenger vehicle occupants killed in rural areas were unrestrained as compared to 49 percent of the passenger vehicle occupants killed in urban areas.
- Sixty-one percent of pickup occupants killed in rural areas were unrestrained the highest percentage of any passenger vehicle occupants killed among both rural and urban areas.

Figure 7. Percentages of Unrestrained* Passenger Vehicle Occupant Fatalities in Traffic Crashes, by Land Use (Rural/Urban) and Vehicle Type, 2021



Source: FARS 2021 ARF *Based on known restraint use.

Rollover

Of the 12,534 passenger vehicle occupants killed in rural areas in 2021, there were 4,463 (36%) killed in vehicles that rolled over. Of the 13,681 passenger vehicle occupants killed in urban areas, 3,050 (22%) were in vehicles that rolled over. Data further show that of those killed in rollover vehicles, 69 percent passenger vehicle occupants in rural areas and 66 percent of passenger vehicle occupants in urban areas were unrestrained (based on known restraint use).

SUVs and pickups in rural fatal traffic crashes in 2021 experienced the highest rollover percentage at 30 percent each. Other rural rollover percentages were 21 percent for passenger cars, 20 percent for vans, and 16 percent for large trucks. In urban areas, vehicles experienced lower rollover percentages: 14 percent for pickups, 13 percent for SUVs, 9 percent for both passenger cars and vans and 8 percent for large trucks.

Of the vehicles involved in 2021 in single-vehicle fatal traffic crashes, 50 percent of the vehicles in rural areas and 19 percent in urban areas rolled over, whereas in multivehicle fatal traffic crashes, 11 percent of the vehicles in rural areas and 7 percent in urban areas rolled over.

Nonoccupants

Nonoccupants are defined as pedestrians, pedalcyclists, or other nonoccupants. In 2021:

- Of the 7,388 pedestrians killed in motor vehicle traffic crashes, 1,140 (15%) died in rural areas, 6,191 (84%) died in urban areas, and 57 (1%) died in areas that were not reported as rural or urban.
- Of the 966 pedalcyclists killed in motor vehicle traffic crashes, 140 (14%) died in rural areas, 821 (85%) died in urban areas, and 5 (1%) died in areas that were not reported as rural or urban.

State

Table 5 presents the number and percentage of rural and urban traffic fatalities, VMT, and fatality rates per 100 million VMT for each State and the District of Columbia in 2021. Puerto Rico is included in this table, but not included in the overall U.S. total. In 2021, fatality rates per 100 million VMT among States (excluding the District of Columbia and Puerto Rico) in rural areas ranged from 0.39 in Maryland to 2.53 in South Carolina, and in urban areas ranged from 0.31 in Vermont to 2.04 in New Mexico.

In 2021 the rural fatality rate per 100 million VMT was 1.5 times higher in rural areas compared to urban areas (1.74 and 1.19, respectively). The columns on the right side of Table 5 show fatality rates per 100 million VMT (rural, urban, and total), by State.

The ratios of rural to urban fatality rates by State are shown in Figure 8. The ratios of rural to urban fatality rates by State ranged from a high of 4.7 times in Vermont to a low of 0.4 times in Maryland. The District of Columbia does not have any rural area hence is not shown in Figure 8.

United States 1.5x 1.6x (WA) 1.4x (MT) (VT 1.5x (ND) 1.6x 2.0x (OR) 1.6x (ID) 1.5x (NH) 1.3x (MA) -1.5x (RI) 1.6x (CT) 1.3x (PA) 1.5x (IA) 1.6x (NJ) 1.2x (DE) 1.8x (UT) 0.4x (MD) 1.7x (CO) (WV) 1.2x (MO) (KY) 1.4x (TN) 1.3x (OK) 0.8x <1.4x 1.3x (MS) (AL) 1.4x - 1.6x 1.6x (TX) >1.6x

Figure 8. Ratio of Rural to Urban Fatality Rate per 100 Million VMT in Traffic Crashes, by State, 2021

Sources: FARS 2021 ARF; VMT - FHWA

Table 5. Fatalities in Traffic Crashes, VMT, and Fatality Rate per 100 Million VMT, by State and Land Use (Rural/Urban), 2021

Land Use (Rui		**	Land	Use		Total		V	Fatality Rate Per			
	Ru	ral	Urk				Fatalities	(millions)		100 Million VMT		
State	Number	Percent	Number	Percent	Number	Percent	Number	Rural	Urban	Rural	Urban	Total
Alabama	520	53%	463	47%	0	0%	983	29,164	42,728	1.78	1.08	1.37
Alaska	36	54%	31	46%	0	0%	67	2,682	3,070	1.34	1.01	1.16
Arizona	357	30%	780	66%	43	4%	1,180	17,620	56,140	2.03	1.39	1.60
Arkansas	408	59%	285	41%	0	0%	693	19,259	19,168	2.12	1.49	1.80
California	1,291	30%	2,992	70%	2	0%	4,285	58,381	252,442	2.21	1.19	1.38
Colorado	295	43%	394	57%	2	0%	691	16,723	37,117	1.76	1.06	1.28
Connecticut	45	15%	253	85%	0	0%	298	2,858	26,130	1.57	0.97	1.03
Delaware	43	32%	93	68%	0	0%	136	2,835	7,317	1.52	1.27	1.34
Dist of Columbia	0	0%	41	100%	0	0%	41	0	3,248	0.00	1.26	1.26
Florida	778	21%	2,958	79%	2	0%	3,738	37,741	179,826	2.06	1.64	1.72
Georgia	598	33%	1,199	67%	0	0%	1,797	30,241	90,444	1.98	1.33	1.49
Hawaii	19	20%	73	78%	2	2%	94	1,736	8,236	1.09	0.89	0.94
Idaho	186	69%	84	31%	1	0%	271			1.66	1.04	1.40
	371	28%	953	71%	10	1%	1,334	11,225	8,084			
Illinois	425	46%	505	54%	2	0%		21,602 29,108	75,928	1.72	1.26	1.37
Indiana							932		49,532	1.46	1.02	1.19
lowa	247	69%	107	30%	2	1%	356	19,954	13,086	1.24	0.82	1.08
Kansas	257	61%	164	39%	3	1%	424	15,402	16,291	1.67	1.01	1.34
Kentucky	496	62%	309	38%	1	0%	806	26,389	21,722	1.88	1.42	1.68
Louisiana	406	42%	564	58%	2	0%	972	20,958	33,770	1.94	1.67	1.78
Maine	111	73%	38	25%	4	3%	153	10,057	4,503	1.10	0.84	1.05
Maryland	41	7%	509	91%	11	2%	561	10,444	46,157	0.39	1.10	0.99
Massachusetts	27	6%	389	93%	1	0%	417	2,895	56,220	0.93	0.69	0.71
Michigan	412	36%	712	63%	12	1%	1,136	30,922	65,822	1.33	1.08	1.17
Minnesota	262	54%	225	46%	1	0%	488	24,548	32,623	1.07	0.69	0.85
Mississippi	459	59%	234	30%	79	10%	772	24,284	16,568	1.89	1.41	1.89
Missouri	503	50%	511	50%	2	0%	1,016	36,464	43,327	1.38	1.18	1.27
Montana	181	76%	56	23%	2	1%	239	9,449	4,033	1.92	1.39	1.77
Nebraska	164	74%	57	26%	0	0%	221	11,869	9,341	1.38	0.61	1.04
Nevada	130	34%	255	66%	0	0%	385	5,931	21,146	2.19	1.21	1.42
New Hampshire	60	51%	57	48%	1	1%	118	5,429	7,701	1.11	0.74	0.90
New Jersey	66	9%	618	88%	15	2%	699	4,696	68,977	1.41	0.90	0.95
New Mexico	258	54%	220	46%	3	1%	481	16,054	10,770	1.61	2.04	1.79
New York	255	22%	901	78%	1	0%	1,157	23,328	83,542	1.09	1.08	1.08
North Carolina	784	47%	878	53%	1	0%	1,663	40,606	77,129	1.93	1.14	1.41
North Dakota	77	76%	24	24%	0	0%	101	6,292	2,964	1.22	0.81	1.09
Ohio	521	38%	821	61%	12	1%	1,354	34,033	78,890	1.53	1.04	1.20
Oklahoma	436	57%	325	43%	1	0%	762	22,464	22,296	1.94	1.46	1.70
Oregon	344	57%	255	43%	0	0%	599	14,871	21,971	2.31	1.16	1.63
Pennsylvania	484	39%	742	60%	4	0%	1,230	34,232	68,454	1.41	1.08	1.20
Rhode Island	12	19%	50	79%	1	2%	63	1,006	6,520	1.19	0.77	0.84
South Carolina	658	55%	540	45%	0	0%	1,198	26,016	31,476	2.53	1.72	2.08
South Dakota	121	82%	27	18%	0	0%	148	7,087	2,907	1.71	0.93	1.48
Tennessee	524	39%	803	61%	0	0%	1,327	26,889	55,707	1.95	1.44	1.61
Texas	1,744	39%	2,749	61%	5	0%	4,498	79,184	205,844	2.20	1.34	1.58
Utah	140	43%	188	57%	0	0%	328	9,833	23,805			
		92%								1.42	0.79	0.98
Vermont	68		429	8%	0	0%	74	4,702	1,923	1.45	0.31	1.12
Virginia	542	56%	428	44%	3	0%	973	30,018	50,084	1.81	0.85	1.21
Washington	267	40%	399	60%	4	1%	670	17,037	40,760	1.57	0.98	1.16
West Virginia	174	62%	105	38%	1	0%	280	8,313	7,766	2.09	1.35	1.74
Wisconsin	414	67%	204	33%	2	0%	620	33,250	31,734	1.25	0.64	0.95
Wyoming	86	78%	24	22%	0	0%	110	8,202	2,894	1.05	0.83	0.99
U.S. Total	17,103	40%	25,598	60%	238	1%	42,939		2,148,130	1.74	1.19	1.37
Puerto Rico	153	45%	184	55%	0	0%	337	1,530	12,339	10.00	1.49	2.43

Sources: FARS 2021 ARF; VMT – FHWA

Note: Some States contain high proportions of unknown land use; many of these will be resolved when the file is finalized.

Fatality Analysis Reporting System

FARS contains data on every fatal motor vehicle traffic crash within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a traffic crash must involve a motor vehicle traveling on a trafficway customarily open to the public, and must result in the death of a vehicle occupant or a nonoccupant within 30 days of the crash. The Annual Report File (ARF) is the FARS data file associated with the most recent available year, which is subject to change when it is finalized the following year to the final version known as the Final File. The additional time between the ARF and the Final File provides the opportunity for submission of important variable data requiring outside sources, which may lead to changes in the final counts. More information on FARS can be found at www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system.

The updated final counts for the previous data year will be reflected with the release of the recent year's ARF. For example, along with the release of the 2021 ARF, the 2020 Final File was released to replace the 2020 ARF. The final fatality count in motor vehicle traffic crashes for 2020 was 39,007, which was updated from 38,824 in the 2020 ARF. The number of rural fatalities from the 2020 Final file was 16,340, which was updated from 16,665 from the 2020 ARF and the number of urban fatalities from the 2020 Final file was 22,513, which was updated from 21,650 from the 2020 ARF.

Product Information Catalog and Vehicle Listing (vPIC) Vehicle Classification

Historically, vehicle type classifications (e.g., passenger cars, light trucks, large trucks, motorcycles, buses) from FARS used for analysis and data reporting were based on analyst-coded vehicle body type. NHTSA did not have manufacturer authoritative data to assist in vehicle body type coding. NCSA has developed a Product Information Catalog and Vehicle Listing (vPIC) dataset that is being used to decode VINs (Vehicle Identification Numbers) and extract vehicle information. Details of vehicles (make, model, body class, etc.) involved in crashes are obtained from vPIC via VIN-linkage. The VIN-derived information from vPIC uses the manufacturer's classification of body class, which allows for more accurate vehicle type analysis.

The vPIC-based analysis data are available beginning with 2020 FARS data file. Starting with the release of 2021 FARS data, all vehicle-related analysis for 2020 and later years will be based on vPIC vehicle classification. As a result, the 2020 and later-year vehicle type classifications are not comparable to 2019 and earlier-year vehicle type classifications. This change affects any analysis with a vehicle component to it. More information on vPIC can be found at https://vpic.nhtsa.dot.gov/.

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For More Information:

Motor vehicle traffic crash data are available from the National Center for Statistics and Analysis (NCSA), NSA-230. NCSA can be contacted at NCSARequests@dot.gov or 800-934-8517. NCSA programs can be found at www.nhtsa.gov/data. To report a motor vehicle safety-related problem or to inquire about safety information, contact the Vehicle Safety Hotline at 888-327-4236 or https://www.nhtsa.gov/report-a-safety-problem.

The following data tools and resources can be found at https://cdan.nhtsa.gov/.

- Fatal Motor Vehicle Traffic Crash Data Visualizations
- Motor Vehicle Traffic Crash Databook
- Fatality and Injury Reporting System Tool (FIRST)
- State Traffic Safety Information (STSI)
- Traffic Safety Facts Annual Report Tables
- FARS Data Tables (FARS Encyclopedia)
- Crash Viewer
- Product Information Catalog and Vehicle Listing (vPIC)
- FARS, NASS GES, CRSS, NASS Crashworthiness Data System (CDS), and Crash Investigation Sampling System (CISS) data can be downloaded for further analysis.

Other fact sheets available from NCSA:

- Alcohol-Impaired Driving
- Bicyclists and Other Cyclists
- Children
- Large Trucks
- Motorcycles
- Occupant Protection in Passenger Vehicles
- Older Population
- Passenger Vehicles
- Pedestrians
- School-Transportation-Related Crashes
- Speeding
- State Alcohol-Impaired-Driving Estimates
- State Traffic Data
- Summary of Motor Vehicle Traffic Crashes
- Young Drivers

Detailed data on motor vehicle traffic crashes are published annually in *Traffic Safety Facts: A Compilation of Motor Vehicle Traffic Crash Data*. The fact sheets and Traffic Safety Facts annual report can be found at https://crashstats.nhtsa.dot.gov/.



U.S. Department of Transportation

National Highway Traffic Safety Administration