U.S. Department of Transportation
National Highway Traffic Safety Administration
NHTSA

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Passenger Vehicles

In this fact sheet for 2022 the information is presented as follows.

Passenger vehicles are defined as motor vehicles with gross vehicle weight ratings of 10,000 pounds or less and include passenger cars and light trucks (SUVs, pickups, vans, and other light trucks).

Key Findings

- In 2022 there were 25,420 passenger vehicle occupants who died in motor vehicle traffic crashes, a 4-percent decrease from 26,465 in 2021. An estimated 1,900,539 passenger vehicle occupants were injured, a 9-percent decrease from 2,092,743 in 2021.
- Passenger vehicles made up 92 percent of registered vehicles and accounted for 88 percent of total vehicle miles traveled (VMT) in 2022. There were 60,501 vehicles involved in fatal traffic crashes in 2022, of which 76 percent (45,856) were passenger vehicles.
- In 2022 the traffic fatality rate per 100,000 registered vehicles continued to be the highest for passenger car occupants (12.13), followed by pickup occupants (8.19), SUV occupants (6.91), and van occupants (6.85).
- Among the passenger vehicle occupants killed in 2022 in motor vehicle traffic crashes, 50 percent were passenger car occupants and 50 percent were light-truck occupants.
- When a passenger car and a light truck hit head-on in a fatal traffic crash in 2022, an occupant was nearly three times more frequently killed in the passenger car than in the light truck.
- Eighty-three percent of passenger vehicle occupants who were totally ejected from vehicles involved in fatal traffic crashes in 2022 were killed.
- Among passenger vehicle occupants killed in 2022 by vehicle type, the percentages of fatalities in vehicles that rolled over in traffic crashes was highest for pickups (39%), followed by SUVs (36%), vans (23%), and passenger cars (21%).
- Drivers of passenger cars and pickups had the highest percentages of alcohol impairment in fatal traffic crashes (25%) compared to other passenger vehicle drivers (20% for SUVs and 13% for vans) in 2022.
- Drivers of passenger cars had the highest percentage of drivers who were speeding in fatal traffic crashes (22%) compared to other passenger vehicle drivers (16% for pickups, 15% for SUVs, and 10% for vans) in 2022.

This fact sheet contains information on fatal motor vehicle traffic crashes based on data from the Fatality Analysis Reporting System (FARS) and non-fatal motor vehicle traffic crashes from the Crash Report Sampling System (CRSS). Results from FARS, such as fatal crashes and fatalities, are actual counts, while results from CRSS, such as non-fatal crashes and people injured, are estimates. Refer to the end of this publication for more information on FARS and CRSS.

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).

This fact sheet has data only from 2020 to 2022 using vPIC. For earlier-year data, refer to the 2020 Passenger Vehicles TSF at crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813323**. The data in this previous publication used the earlier vehicle type classification based on NCSA body type.**

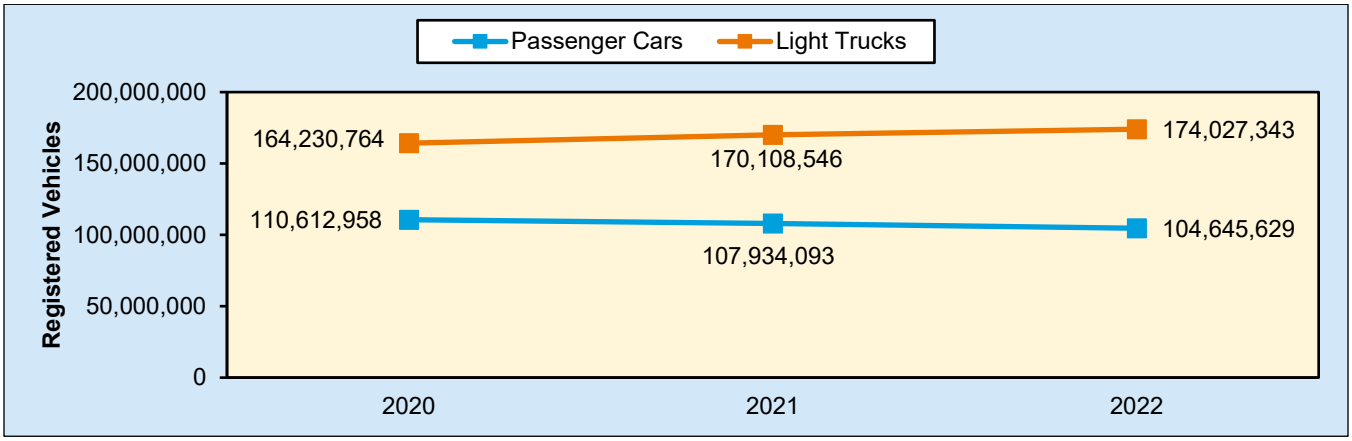
A motor vehicle traffic crash is defined as an incident that involved one or more motor vehicles in-transport that originated on or had a harmful event (injury or damage) on a public trafficway, such as a road or highway. Crashes that occurred on private property not regularly used by the public for 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.

Registration Data

The passenger vehicle registration data contained in this fact sheet was obtained from R. L. Polk’s National Vehicle Population Profile (NVPP), a compilation of all passenger vehicles registered in compliance with State requirements.

Figure 1 highlights the passenger car and light-truck registration data from 2020 to 2022. From 2021 to 2022 passenger car registrations decreased by 3 percent, and light-truck registrations increased by 2 percent. Among the light-truck categories in 2022 compared to 2021, SUV registrations increased by 4 percent, pickup registrations increased by 1 percent, and van registrations decreased by 2 percent.

Figure 1. Passenger Car and Light-Truck Registrations, 2020–2022



Source: Registered Vehicles – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.

Overview

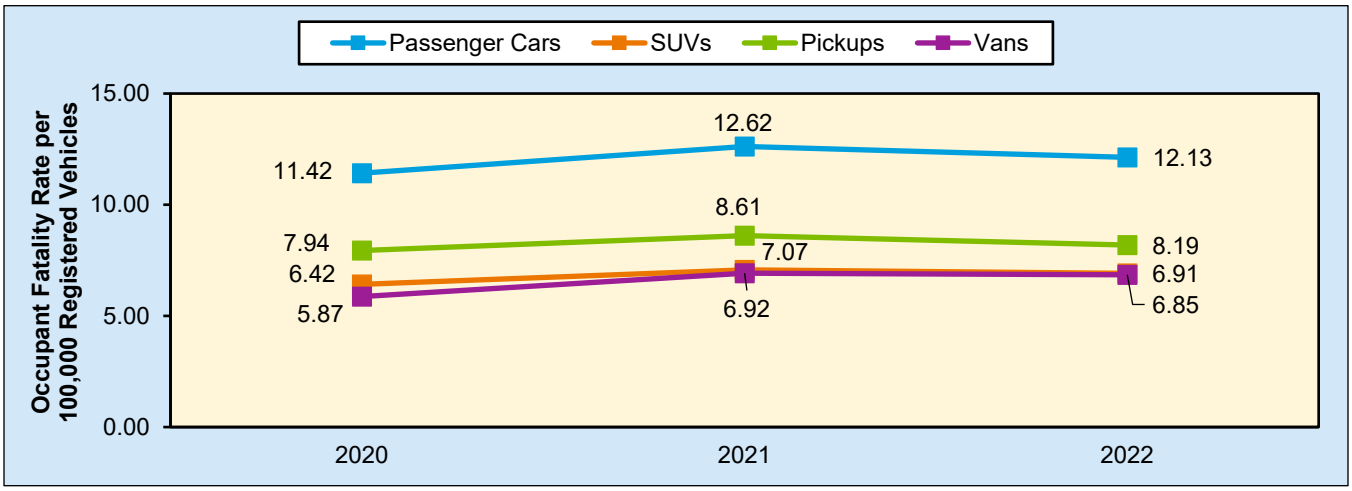
In 2022:

- There were 25,420 passenger vehicle occupants who died in motor vehicle traffic crashes, a 4-percent decrease from 26,465 in 2021, and an estimated 1,900,539 passenger vehicle occupants who were injured, a 9-percent decrease from 2,092,743 in 2021.
- Passenger vehicles made up 92 percent of registered vehicles and accounted for 88 percent of total VMT.
- An estimated 10,528,849 vehicles were involved in police-reported traffic crashes; 81 percent (8,564,675) were passenger vehicles.
- There were 60,501 vehicles involved in fatal traffic crashes, of which 76 percent (45,856) were passenger vehicles.

Figure 2 displays the occupant fatality rates per 100,000 registered vehicles in traffic crashes for four types of passenger vehicles (passenger cars, SUVs, pickups, and vans) from 2020 to 2022. Overall, the occupant fatality rate trend for each vehicle type decreased from 2021 to 2022. The data for Figure 2 is presented in Tables 1 and 2.

In 2022 the fatality rate continued to be highest for passenger car occupants (12.13), followed by pickup occupants (8.19), SUV occupants (6.91), and van occupants (6.85). Occupant fatality rates per 100,000 registered vehicles from 2021 to 2022 decreased by 4 percent (12.62 to 12.13) for passenger cars and decreased by 3 percent (7.55 to 7.31) for light trucks. Among light-truck categories, occupant fatality rates decreased by 2 percent (7.07 to 6.91) for SUVs, decreased by 5 percent (8.61 to 8.19) for pickups, and decreased by 1 percent (6.92 to 6.85) for vans.

Figure 2. Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles in Traffic Crashes, by Vehicle Type, 2020–2022



Sources: FARS 2020-2021 Final File, 2022 Annual Report File (ARF); Registered Vehicles – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.

Table 1 presents the number of occupant fatalities, estimated number of occupants injured, number of registered vehicles, and occupant fatality/injury rates per 100,000 registered vehicles in traffic crashes for total passenger vehicles as well as separately for passenger cars and light trucks from 2020 to 2022.

- Passenger car occupant fatalities, as a proportion of passenger vehicle occupant traffic fatalities, decreased from 51 percent in 2021 (13,618 of 26,465) to 50 percent in 2022 (12,691 of 25,420).
- Light-truck occupant fatalities, as a proportion of passenger vehicle occupant traffic fatalities, increased from 49 percent in 2021 (12,847 of 26,465) to 50 percent in 2022 (12,729 of 25,420).

- From 2021 to 2022 in traffic crashes:
  - The total passenger vehicle occupant fatality rate decreased from 9.52 to 9.12.
  - The passenger car occupant fatality rate decreased from 12.62 to 12.13.
  - The light-truck occupant fatality rate decreased from 7.55 to 7.31.
  - The passenger vehicle occupant injury rate decreased from 753 to 682.
  - The passenger car occupant injury rate decreased from 1,027 to 927.
  - The light-truck occupant injury rate decreased from 578 to 535.

Table 1. Passenger Vehicle Occupants Killed and Injured in Traffic Crashes, Registered Vehicles, and Occupant Fatality/Injury Rates per 100,000 Registered Vehicles, by Vehicle Type, 2020–2022

Year	Passenger Vehicle Type						Total*		
	Passenger Cars			Light Trucks*					
	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate
2020	12,628	110,612,958	11.42	11,286	164,230,764	6.87	23,914	274,843,722	8.70
2021	13,618	107,934,093	12.62	12,847	170,108,546	7.55	26,465	278,042,639	9.52
2022	12,691	104,645,629	12.13	12,729	174,027,343	7.31	25,420	278,672,972	9.12
Year	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate
2020	1,022,587	110,612,958	924	884,424	164,230,764	539	1,907,011	274,843,722	694
2021	1,108,839	107,934,093	1,027	983,904	170,108,546	578	2,092,743	278,042,639	753
2022	969,791	104,645,629	927	930,748	174,027,343	535	1,900,539	278,672,972	682

Sources: FARS 2020-2021 Final File, 2022 ARF; CRSS 2020-2022; Registered Vehicles – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.
*Includes other/unknown light-truck vehicle types.

Table 2 presents the same information as in Table 1 for three light-truck categories (SUVs, pickups, and vans) from 2020 to 2022 in traffic crashes.

- From 2021 to 2022 in traffic crashes:
  - The SUV occupant fatality rate decreased from 7.07 to 6.91.
  - The pickup occupant fatality rate decreased from 8.61 to 8.19.
  - The van occupant fatality rate decreased from 6.92 to 6.85.
  - The SUV occupant injury rate decreased from 667 to 607.
  - The pickup occupant injury rate decreased from 412 to 392.
  - The van occupant injury rate decreased from 613 to 571.

Table 2. Light-Truck Occupants Killed and Injured in Traffic Crashes, Registered Vehicles, and Occupant Fatality/Injury Rates per 100,000 Registered Vehicles, by Vehicle Type, 2020–2022

Year	Light-Truck Vehicle Type*								
	SUVs			Pickups			Vans		
	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate
2020	6,015	93,697,770	6.42	4,321	54,407,870	7.94	938	15,977,754	5.87
2021	6,990	98,928,860	7.07	4,770	55,373,720	8.61	1,084	15,660,603	6.92
2022	7,103	102,758,301	6.91	4,572	55,840,036	8.19	1,047	15,287,627	6.85
Year	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate
2020	580,609	93,697,770	620	218,537	54,407,870	402	84,318	15,977,754	528
2021	659,903	98,928,860	667	228,002	55,373,720	412	95,997	15,660,603	613
2022	624,227	102,758,301	607	218,974	55,840,036	392	87,351	15,287,627	571

Sources: FARS 2020-2021 Final File, 2022 ARF; CRSS 2020-2022; Registered Vehicles – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.
*Excludes other/unknown light-truck vehicle types.

The Federal Highway Administration (FHWA) releases annual estimates of the number of miles traveled by vehicle type (passenger cars, light trucks, motorcycles, buses, and large trucks). Table 3 contains the VMT estimates for passenger cars and light trucks along with occupant fatality and injury rates per 100 million VMT from 2020 to 2022 in traffic crashes.

Some highlights from 2021 to 2022:

- The occupant fatality rate per 100 million VMT for passenger vehicles decreased from 0.96 to 0.90.
- The occupant fatality rate for passenger cars decreased from 1.27 to 1.20.
- The occupant fatality rate for light trucks decreased from 0.76 to 0.72.
- The occupant injury rate for passenger vehicles decreased from 76 to 67.
- The occupant injury rate for passenger cars decreased from 103 to 91.
- The occupant injury rates for light trucks decreased from 58 to 53.

Table 3. Passenger Vehicle Occupants Killed and Injured in Traffic Crashes, Vehicle Miles Traveled, and Occupant Fatality/Injury Rates per 100 Million VMT, by Vehicle Type, 2020–2022

Year	Passenger Vehicle Type						Total*		
	Passenger Cars			Light Trucks*					
	Occupant Fatalities	VMT (millions)	Occupant Fatality Rate	Occupant Fatalities	VMT (millions)	Occupant Fatality Rate	Occupant Fatalities	VMT (millions)	Occupant Fatality Rate
2020	12,628	1,035,519	1.22	11,286	1,537,469	0.73	23,914	2,572,988	0.93
2021	13,618	1,074,905	1.27	12,847	1,694,094	0.76	26,465	2,768,999	0.96
2022	12,691	1,059,950	1.20	12,729	1,762,714	0.72	25,420	2,822,664	0.90
Year	Occupants Injured	VMT (millions)	Occupant Injury Rate	Occupants Injured	VMT (millions)	Occupant Injury Rate	Occupants Injured	VMT (millions)	Occupant Injury Rate
2020	1,022,587	1,035,519	99	884,424	1,537,469	58	1,907,011	2,572,988	74
2021	1,108,839	1,074,905	103	983,904	1,694,094	58	2,092,743	2,768,999	76
2022	969,791	1,059,950	91	930,748	1,762,714	53	1,900,539	2,822,664	67

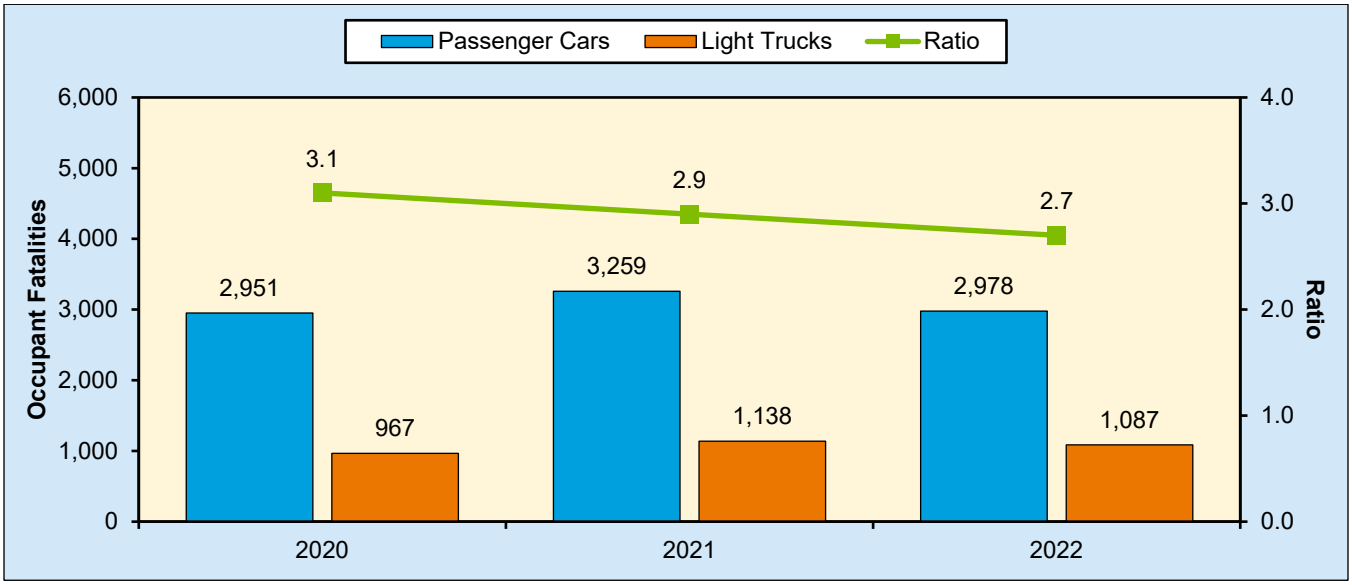
Sources: FARS 2020-2021 Final File, 2022 ARF; CRSS 2020-2022; VMT – FHWA
*Includes other/unknown light-truck vehicle types.

Fatal Passenger Car and Light-Truck, Two-Vehicle Traffic Crashes

In 2022 there were 3,743 fatal two-vehicle traffic crashes each involving a passenger car and a light truck, which accounted for 26 percent of all fatal two-vehicle traffic crashes (14,132) and 10 percent of all fatal traffic crashes (39,221). Figure 3 displays the number of occupant fatalities in two-vehicle traffic crashes involving one passenger car and one light truck from 2020 to 2022 as well as the ratio of passenger car occupant fatalities and light-truck occupant fatalities in these crashes. In these crashes, there was a range of 2.7 to 3.1 times as many passenger car occupant fatalities as light-truck occupant fatalities, and in 2022 the ratio was 2.7. In more detail from 2020 to 2022:

- When a passenger car and a light truck hit head-on, an occupant was 2.9 to 3.2 times more frequently killed in the passenger car than in the light truck. In 2022 the ratio was 2.9.
- When a passenger car front hit the side of a light truck, an occupant was 1.5 to 1.8 times more frequently killed in the light truck than in the passenger car. In 2022 the ratio was 1.8.
- However, when a light truck front hit the side of a passenger car, an occupant was 12.4 to 13.5 times more frequently killed in the passenger car than in the light truck. In 2022 the ratio was 13.4.

Figure 3. Occupant Fatalities and Ratios in Two-Vehicle Traffic Crashes Involving a Passenger Car and a Light Truck, 2020–2022



Source: FARS 2020-2021 Final File, 2022 ARF

Table 4 presents the number of occupant fatalities in two-vehicle traffic crashes between a passenger car and a light truck from 2021 to 2022:

- The number of passenger car occupant fatalities decreased by 8.6 percent, from 3,259 in 2021 to 2,978 in 2022.
- The number of light-truck occupant fatalities decreased by 4.5 percent, from 1,138 in 2021 to 1,087 in 2022.

Table 4. Occupant Fatalities in Two-Vehicle Traffic Crashes Involving a Passenger Car and a Light Truck, 2021 and 2022

Occupants	Year		Percentage Change
	2021	2022	
Killed in Passenger Cars	3,259	2,978	-8.6%
Killed in Light Trucks	1,138	1,087	-4.5%

Source: FARS 2021 Final File, 2022 ARF

Restraint Use

The 2022 National Occupant Protection Use Survey (NOPUS) observed that the seat belt use rate among adult front-seat occupants was 91.6 percent for passenger vehicles, 91.3 percent for passenger cars, 93.7 percent for vans and SUVs, and 86.7 percent for pickups.[1]

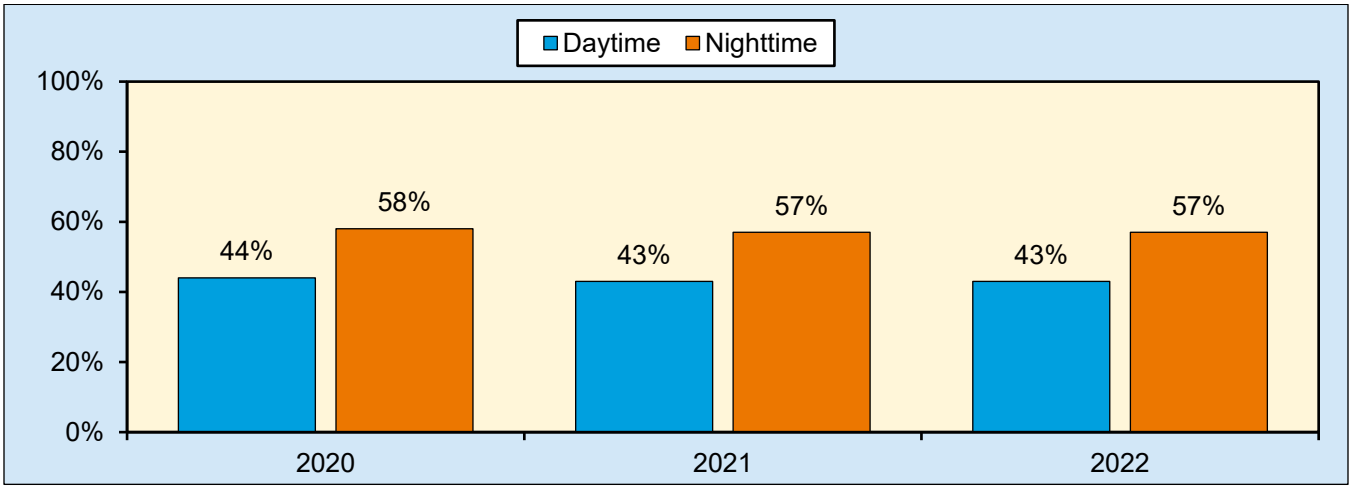
Lap/shoulder seat belts, when used, are estimated to reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts are estimated to reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.[2]

In fatal traffic crashes in 2022 there were 25,420 passenger vehicle occupants who were killed. Rural areas accounted for 49 percent of these occupant fatalities. For these passenger vehicle occupant fatalities occurring in rural areas, 51 percent were unrestrained (based on known restraint use) compared to 48 percent in urban areas (based on known restraint use). Sixty-two percent of rural pickup occupants killed were unrestrained (based on known restraint use) – the highest percentage of any passenger vehicle occupants killed among rural and urban areas.

Figure 4 displays the percentages of passenger vehicle occupants killed in traffic crashes who were unrestrained (based on known restraint use) by time of day:

- Daytime (6 a.m. to 5:59 p.m.) declined from 44 percent in 2020 to 43 percent in 2022.
- Nighttime (6 p.m. to 5:59 a.m.) declined from 58 percent in 2020 to 57 percent in 2022.

Figure 4. Percentages of Unrestrained* Passenger Vehicle Occupant Fatalities in Traffic Crashes, by Time of Day, 2020–2022



Source: FARS 2020-2021 Final File, 2022 ARF
*Based on known restraint use.
Daytime – 6 a.m. to 5:59 p.m.
Nighttime – 6 p.m. to 5:59 a.m.

Table 5 presents the percentages of unrestrained (based on known restraint use) passenger vehicle occupant fatalities in traffic crashes, by vehicle type and time of day, from 2020 to 2022. Van occupant fatalities had the lowest percentages (35% daytime and 48% nighttime) of unrestrained occupant fatalities in 2022, while pickup occupant fatalities had the highest percentages (55% daytime and 69% nighttime).

[1] Boyle, L. (2023, January). *Seat belt use in 2022 – Overall results* (Traffic Safety Facts Research Note. Report No. DOT HS 813 407). National Highway Traffic Safety Administration. crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813407

[2] Kahane, C. J. (2015, January). *Lives saved by vehicle safety technologies and associated Federal Motor Vehicle Safety Standards, 1960 to 2012 – Passenger cars and LTVs – With reviews of 26 FMVSS and the effectiveness of their associated safety technologies in reducing fatalities, injuries, and crashes* (Report No. DOT HS 812 069). National Highway Traffic Safety Administration. crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812069

Table 5. Percentages of Unrestrained* Passenger Vehicle Occupant Fatalities in Traffic Crashes, By Time of Day and Vehicle Type, 2020–2022

Time of Day and Year		Passenger Vehicle Type					
		Passenger Cars	Light Trucks				Total**
			SUVs	Pickups	Vans	Total**	
Daytime	2020	39%	44%	55%	44%	48%	44%
	2021	40%	42%	55%	36%	46%	43%
	2022	40%	41%	55%	35%	45%	43%
Nighttime	2020	54%	61%	69%	50%	63%	58%
	2021	54%	57%	68%	55%	61%	57%
	2022	54%	56%	69%	48%	60%	57%

Source: FARS 2020-2021 Final File, 2022 ARF
*Based on known restraint use.
**Includes occupants of other/unknown light-truck vehicle types.
Daytime – 6 a.m. to 5:59 p.m.
Nighttime – 6 p.m. to 5:59 a.m.

Ejection

The term "totally ejected" means that the occupant's body was entirely outside the vehicle but may have been in contact with the vehicle; "partially ejected" means that part of the occupant's body was outside the vehicle at some time during the crash sequence. Eighty-three percent of passenger vehicle occupants (4,355 of 5,246) who were totally ejected from vehicles involved in fatal traffic crashes in 2022 were killed. Ejection from a vehicle is one of the deadliest events that can happen to a person in a crash. Seat belts are shown to be effective in mitigating ejection risks.

Table 6 presents the ejection status of passenger vehicle occupants involved (killed and survived) in fatal traffic crashes in 2022. In passenger cars, 13 percent of occupants killed were totally ejected from the vehicles, while 21 percent of those killed in light trucks were totally ejected.

Table 6. Passenger Vehicle Occupants Involved in Fatal Traffic Crashes, by Vehicle Type, Survival Status, and Ejection Status, 2022

Vehicle Type by Survival Status		Ejection Status											
		Not Ejected		Ejected						Unknown		Total	
				Totally Ejected		Partially Ejected		Total*					
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Cars	Killed	10,499	83%	1,685	13%	408	3%	2,119	17%	73	1%	12,691	100%
	Survived	15,770	97%	294	2%	54	0.3%	350	2%	210	1%	16,330	100%
	Total	26,269	91%	1,979	7%	462	2%	2,469	9%	283	1%	29,021	100%
Light Trucks**	Killed	9,309	73%	2,670	21%	622	5%	3,326	26%	94	1%	12,729	100%
	Survived	25,607	96%	597	2%	78	0.3%	683	3%	408	2%	26,698	100%
	Total	34,916	89%	3,267	8%	700	2%	4,009	10%	502	1%	39,427	100%
Passenger Vehicles**	**Killed**	**19,808**	**78%**	**4,355**	**17%**	**1,030**	**4%**	**5,445**	**21%**	**167**	**1%**	**25,420**	**100%**
	Survived	**41,377**	**96%**	**891**	**2%**	**132**	**0.3%**	**1,033**	**2%**	**618**	**1%**	**43,028**	**100%**
	Total	**61,185**	**89%**	**5,246**	**8%**	**1,162**	**2%**	**6,478**	**9%**	**785**	**1%**	**68,448**	**100%**

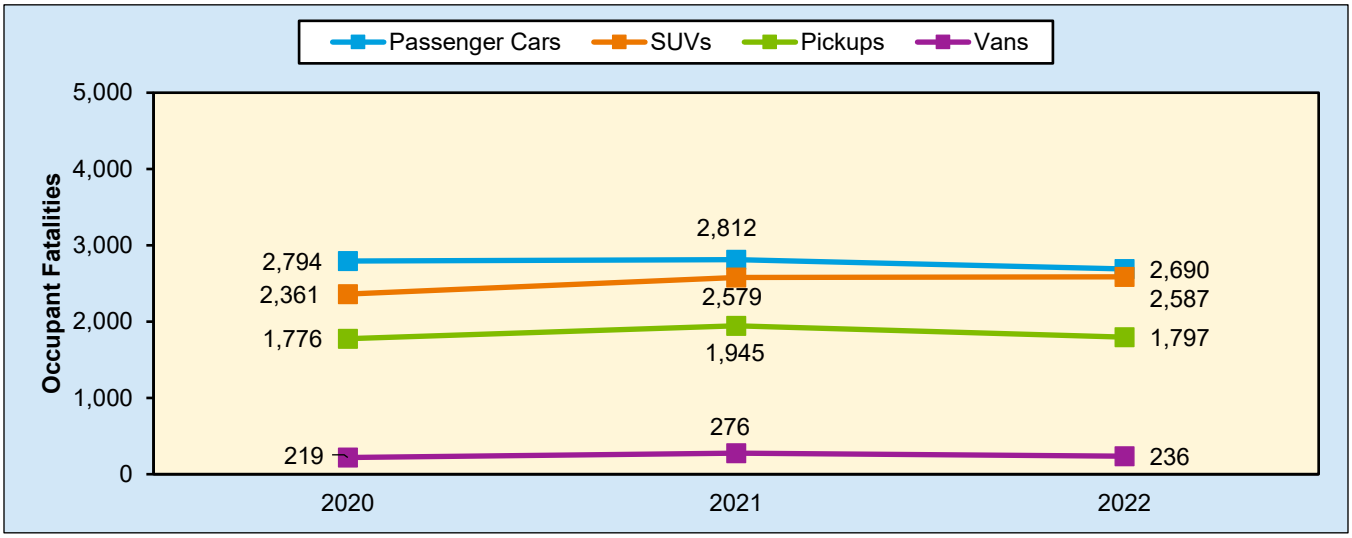
Source: FARS 2022 ARF
*Includes ejected unknowns if totally or partially ejected.
**Includes SUVs, pickups, vans, and other/unknown light-truck vehicle types.

Rollover

A rollover traffic crash is one of the most dangerous forms of crashes among passenger vehicles, accounting for 29 percent of passenger vehicle occupant fatalities in 2022. Among passenger vehicle occupants killed in 2022 by vehicle type, the percentages of fatalities in vehicles that rolled over in traffic crashes was highest for pickups (39%), followed by SUVs (36%), vans (23%), and passenger cars (21%).

Three of the four passenger vehicle categories in Figure 5 decreased from 2021 to 2022, except for SUVs. The data used in Figure 5 is shown in Table 7.

Figure 5. Passenger Vehicle Occupant Fatalities in Vehicles That Rolled Over in Traffic Crashes, by Vehicle Type, 2020–2022



Source: FARS 2020-2021 Final File, 2022 ARF

Table 7 presents the number of passenger vehicle occupants killed in vehicles that rolled over in traffic crashes by vehicle type from 2020 to 2022.

From 2021 to 2022 the rollover fatalities in traffic crashes for occupants of:

- Total passenger vehicles decreased from 7,612 to 7,312 (-4%);
- Passenger cars decreased from 2,812 to 2,690 (-4%);
- SUVs increased from 2,579 to 2,587 (0.3%);
- Pickups decreased from 1,945 to 1,797 (-8%); and
- Vans decreased from 276 to 236 (-14%).

Table 7. Passenger Vehicle Occupant Fatalities in Vehicles That Rolled Over in Traffic Crashes, by Vehicle Type, 2020–2022

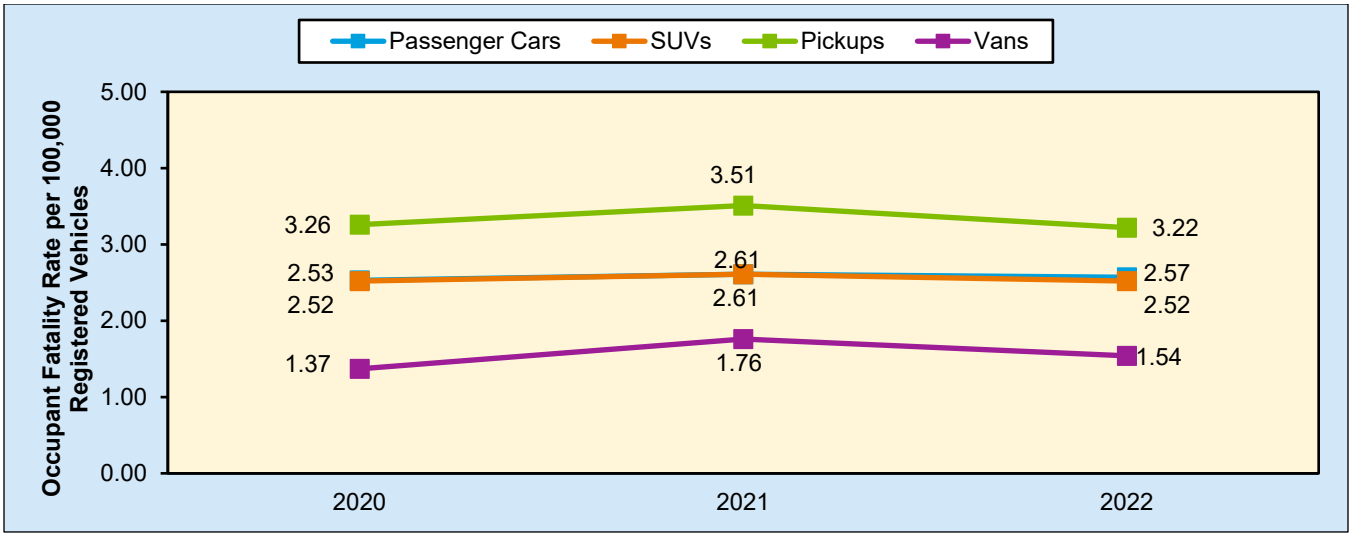
Year	Passenger Vehicle Type					Total Occupant Fatalities*
	Passenger Cars	Light Trucks				
		SUVs	Pickups	Vans	Total*	
2020	2,794	2,361	1,776	219	4,363	7,157
2021	2,812	2,579	1,945	276	4,800	7,612
2022	2,690	2,587	1,797	236	4,622	7,312

Source: FARS 2020-2021 Final File, 2022 ARF
*Includes occupants of other/unknown light-truck vehicle types.

Among passenger vehicles involved in rural fatal traffic crashes in 2022 by vehicle type, SUVs and pickups experienced the highest rollover percentage (29%) compared to 21 percent for passenger cars and 17 percent for vans. The rollover percentages for passenger vehicles in urban areas by vehicle type were much lower: 13 percent for pickups, 13 percent for SUVs, 9 percent for passenger cars, and 9 percent for vans.

Figure 6 displays the occupant fatality rates per 100,000 registered vehicles in vehicles that rolled over in traffic crashes by vehicle type from 2020 to 2022. The data for Figure 6 is presented in Table 8.

Figure 6. Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles in Vehicles That Rolled Over in Traffic Crashes, by Vehicle Type, 2020–2022



Sources: FARS 2020-2021 Final File, 2022 ARF; Registered Vehicles – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.

Table 8 presents the passenger vehicle occupant fatality rates per 100,000 registered vehicles in vehicles that rolled over in traffic crashes by vehicle type from 2020 to 2022.

From 2021 to 2022 the occupant fatality rates per 100,000 registered vehicles, in vehicles that rolled over in traffic crashes for:

- Total passenger vehicles decreased from 2.74 to 2.62 (-4%);
- Passenger cars decreased from 2.61 to 2.57 (-2%);
- SUVs decreased from 2.61 to 2.52 (-3%);
- Pickups decreased from 3.51 to 3.22 (-8%); and
- Vans decreased from 1.76 to 1.54 (-13%).

Table 8. Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles in Vehicles That Rolled Over in Traffic Crashes, by Vehicle Type, 2020–2022

Year	Passenger Vehicle Type					
	Passenger Cars	Light Trucks				Total*
		SUVs	Pickups	Vans	Total*	
2020	2.53	2.52	3.26	1.37	2.66	2.60
2021	2.61	2.61	3.51	1.76	2.82	2.74
2022	2.57	2.52	3.22	1.54	2.66	2.62

Sources: FARS 2020-2021 Final File, 2022 ARF; Registered Vehicles – Polk data from S&P Global Mobility, Copyright © R.L. Polk & Co.
*Includes other/unknown light-truck vehicle types.

Alcohol

A driver is considered to be alcohol-impaired when the driver's blood alcohol concentration (BAC) is .08 grams per deciliter (g/dL) or higher. From 2021 to 2022 the percentages of alcohol-impaired passenger vehicle drivers involved (killed and survived) in fatal traffic crashes for each vehicle type changed slightly as shown in Table 9. Drivers of passenger cars and pickups had the highest percentages of alcohol impairment in fatal traffic crashes (25%) compared to other passenger vehicle drivers (20% for SUVs and 13% for vans) in 2022. The percentages of alcohol-impaired van drivers involved in fatal traffic crashes were substantially lower than other passenger vehicle drivers.

Table 9. Percentages of Alcohol-Impaired Passenger Vehicle Drivers Involved in Fatal Traffic Crashes, by Vehicle Type, 2020–2022

	Drivers by Passenger Vehicle Type											
			Light Trucks									
	Passenger Cars		SUVs		Pickups		Vans		Total*		Total*	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2020	4,530	24%	2,042	17%	1,894	22%	237	13%	4,178	19%	8,707	21%
2021	5,107	24%	2,609	19%	2,194	22%	277	13%	5,081	20%	10,188	22%
2022	4,911	25%	2,791	20%	2,343	25%	270	13%	5,406	21%	10,317	23%

Source: FARS 2020-2021 Final File, 2022 ARF
*Includes drivers of other/unknown light-truck vehicle types.
Note: NHTSA estimates BACs when alcohol test results are unknown.

Speeding

NHTSA considers a driver to be speeding if the driver was charged with a speeding-related offense or if a police officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash. From 2020 to 2022 the percentages of passenger vehicle drivers involved in fatal traffic crashes for each vehicle type who were speeding changed slightly as shown in Table 10. Drivers of passenger cars had the highest percentages of drivers who were speeding (22%) compared to other passenger vehicle drivers (16% for pickups, 15% for SUVs, and 10% for vans) in 2022. The percentages of van drivers involved in fatal traffic crashes who were speeding were substantially lower than other passenger vehicle drivers.

Table 10. Percentages of Passenger Vehicle Drivers Involved in Fatal Traffic Crashes Who Were Speeding, by Vehicle Type, 2020–2022

	Drivers by Passenger Vehicle Type											
			Light Trucks									
	Passenger Cars		SUVs		Pickups		Vans		Total*		Total*	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2020	4,363	23%	1,827	16%	1,448	17%	199	11%	3,478	16%	7,841	19%
2021	4,723	22%	2,047	15%	1,592	16%	227	10%	3,867	15%	8,590	18%
2022	4,411	22%	2,124	15%	1,501	16%	198	10%	3,825	15%	8,236	18%

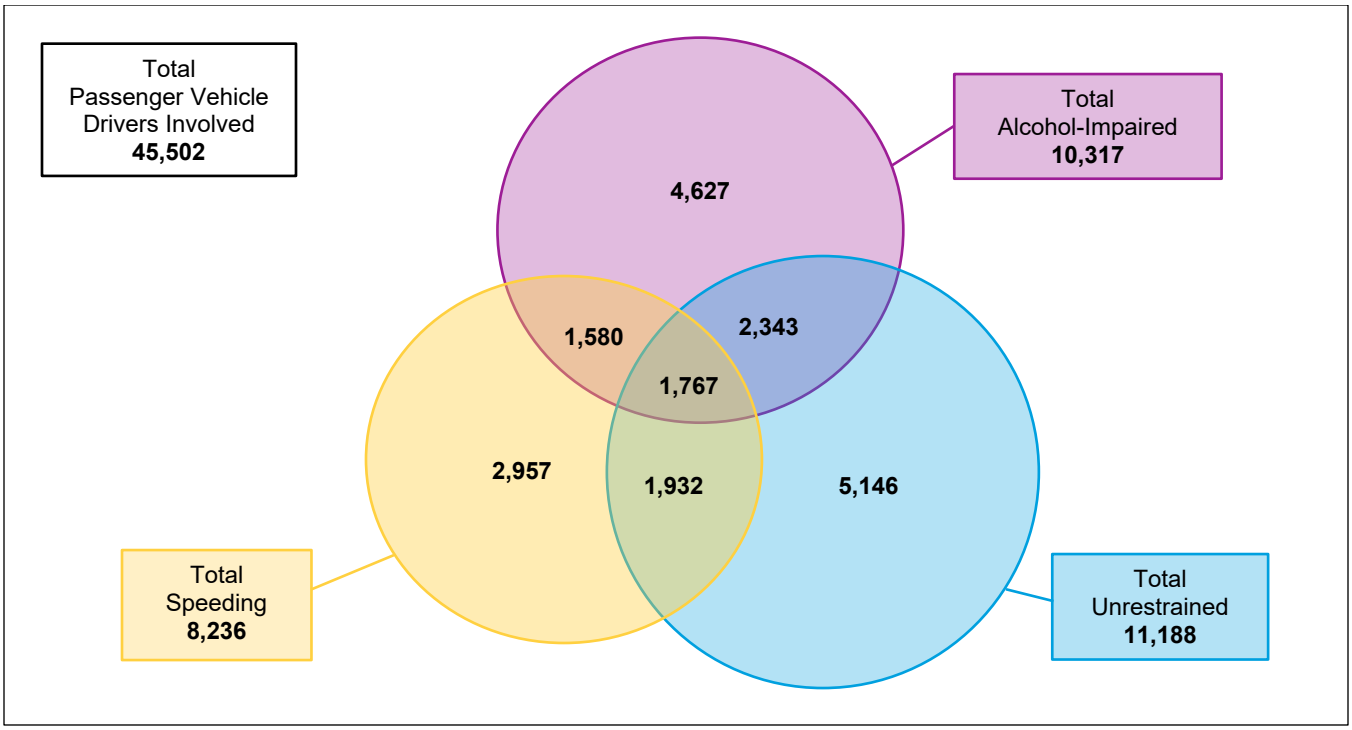
Source: FARS 2020-2021 Final File, 2022 ARF
*Includes drivers of other/unknown light-truck vehicle types.

Three Behavioral Factors: Speeding Involvement, Alcohol-Impaired Driving, and Seat Belt Non-Use

Figure 7 is a Venn diagram of passenger vehicle drivers involved in fatal traffic crashes in 2022 by the three behavioral factors (speeding involvement, alcohol-impaired driving, and seat belt non-use). Of the 45,502 passenger vehicle drivers involved in 2022:

- 20,352 had at least one of the three behavioral factors (45%), while 25,150 (55%) did not have any of the three behavioral factors;
  - 2,343 were both alcohol-impaired and unrestrained (5.1%);
  - 1,932 were both speeding and unrestrained (4.2%);
  - 1,580 were both speeding and alcohol-impaired (3.5%);
  - 1,767 had all three behavioral factors simultaneously (3.9%).

Figure 7. Passenger Vehicle Drivers Involved in Fatal Traffic Crashes, by Speeding Involvement, Alcohol-Impaired Driving, and Seat Belt Non-Use, 2022



Source: FARS 2022 ARF
Note: NHTSA estimates BACs when alcohol test results are unknown.

State

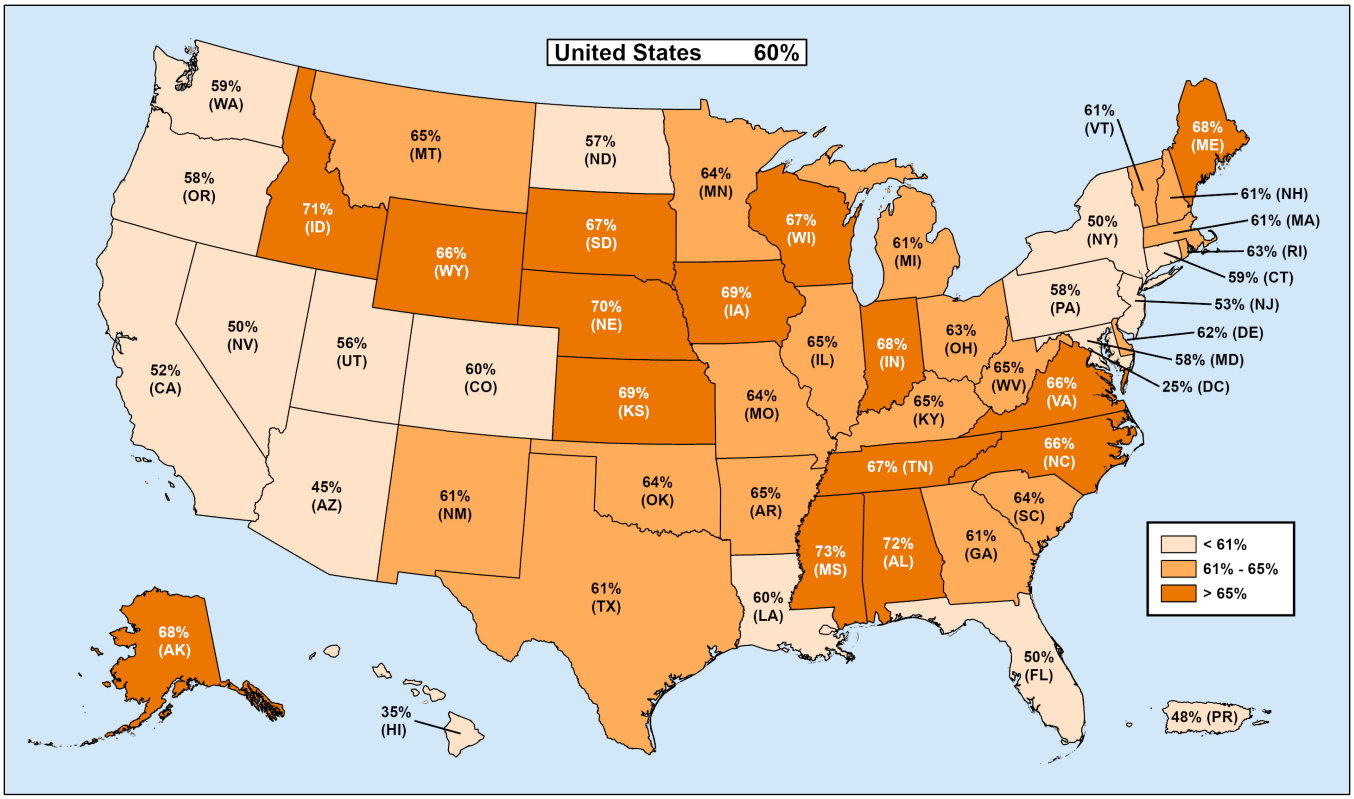
Figure 8 shows a heat map of the percentages of passenger vehicle occupant fatalities compared to total traffic fatalities within the State in 2022. In general, the States with lower percentages of passenger vehicle occupant fatalities were more likely to have nonoccupant (pedestrian, pedalcyclist, or other nonoccupant) or other traffic fatalities than the States with higher percentages. The percentages ranged from 25 percent (the District of Columbia) to 73 percent (Mississippi), compared to 60 percent for the Nation as a whole.

For each State, the District of Columbia, and Puerto Rico, Table 11 presents the number of passenger vehicle occupant fatalities in traffic crashes in 2022 by vehicle type. Puerto Rico is not included in the overall U.S. total.

Of the total passenger vehicle occupant fatalities in traffic crashes by State (excluding the District of Columbia and Puerto Rico) in 2022:

- The State with the largest percentage of passenger car fatalities was Connecticut (61%), followed by California and Maryland (60% each).
- The State with the largest percentage of SUV fatalities was Colorado (37%), followed by Michigan, Minnesota, New Hampshire, and Wyoming (36% each).
- The State with the largest percentage of pickup fatalities was North Dakota (52%), followed by Idaho (29%).
- The State with the largest percentage of van fatalities was Iowa (11%), followed by Montana, Nevada, and Wisconsin (7% each).

Figure 8. Percentages of Total Traffic Fatalities Who Were Passenger Vehicle Occupants, by State, 2022



Source: FARS 2022 ARF

Table 11. Passenger Vehicle Occupant Fatalities in Traffic Crashes, by State and Vehicle Type, 2022

State	Passenger Vehicle Type										Total Occupant Fatalities*
	Passenger Cars		Light Trucks								
			SUVs		Pickups		Vans		Total*		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Alabama	353	50%	164	23%	169	24%	24	3%	357	50%	710
Alaska	25	45%	15	27%	13	23%	3	5%	31	55%	56
Arizona	268	46%	176	30%	116	20%	28	5%	320	54%	588
Arkansas	187	45%	112	27%	98	24%	18	4%	228	55%	415
California	1,385	60%	549	24%	294	13%	77	3%	921	40%	2,306
Colorado	195	42%	171	37%	83	18%	12	3%	267	58%	462
Connecticut	129	61%	62	29%	15	7%	5	2%	82	39%	211
Delaware	50	50%	33	33%	12	12%	6	6%	51	50%	101
Dist of Columbia	6	75%	0	0%	0	0%	2	25%	2	25%	8
Florida	928	53%	488	28%	261	15%	71	4%	820	47%	1,748
Georgia	571	52%	297	27%	186	17%	38	3%	521	48%	1,092
Hawaii	14	34%	14	34%	11	27%	2	5%	27	66%	41
Idaho	64	42%	40	26%	45	29%	4	3%	89	58%	153
Illinois	446	54%	232	28%	103	13%	41	5%	378	46%	824
Indiana	341	53%	189	29%	88	14%	31	5%	308	47%	649
Iowa	96	41%	64	28%	47	20%	25	11%	136	59%	232
Kansas	128	45%	68	24%	75	27%	12	4%	155	55%	283
Kentucky	244	50%	121	25%	106	22%	13	3%	240	50%	484
Louisiana	258	48%	121	22%	149	28%	12	2%	282	52%	540
Maine	57	46%	40	32%	21	17%	6	5%	67	54%	124
Maryland	197	60%	91	28%	28	9%	12	4%	131	40%	328
Massachusetts	152	58%	74	28%	22	8%	16	6%	112	42%	264
Michigan	292	43%	246	36%	117	17%	32	5%	395	57%	687
Minnesota	136	48%	103	36%	35	12%	9	3%	147	52%	283
Mississippi	256	50%	123	24%	116	23%	16	3%	255	50%	511
Missouri	300	44%	200	29%	143	21%	37	5%	380	56%	680
Montana	47	34%	43	31%	39	28%	9	7%	91	66%	138
Nebraska	87	51%	47	27%	30	18%	7	4%	84	49%	171
Nevada	105	51%	43	21%	45	22%	14	7%	102	49%	207
New Hampshire	36	40%	32	36%	16	18%	5	6%	53	60%	89
New Jersey	203	56%	112	31%	25	7%	20	6%	157	44%	360
New Mexico	114	40%	90	32%	69	24%	9	3%	168	60%	282
New York	299	51%	185	32%	75	13%	23	4%	283	49%	582
North Carolina	593	55%	248	23%	172	16%	57	5%	477	45%	1,070
North Dakota	10	18%	14	25%	29	52%	3	5%	46	82%	56
Ohio	420	52%	242	30%	108	13%	39	5%	389	48%	809
Oklahoma	179	40%	130	29%	124	27%	20	4%	274	60%	453
Oregon	174	50%	99	29%	59	17%	14	4%	172	50%	346
Pennsylvania	355	52%	229	33%	72	10%	33	5%	334	48%	689
Rhode Island	17	52%	11	33%	5	15%	0	0%	16	48%	33
South Carolina	339	48%	201	29%	130	19%	27	4%	360	52%	699
South Dakota	38	41%	30	33%	19	21%	5	5%	54	59%	92
Tennessee	433	49%	230	26%	177	20%	37	4%	444	51%	877
Texas	1,168	43%	790	29%	662	24%	83	3%	1,535	57%	2,703
Utah	98	54%	44	24%	29	16%	9	5%	82	46%	180
Vermont	24	52%	12	26%	8	17%	2	4%	22	48%	46
Virginia	354	53%	168	25%	113	17%	30	5%	312	47%	666
Washington	222	51%	113	26%	85	20%	13	3%	211	49%	433
West Virginia	65	38%	53	31%	46	27%	7	4%	106	62%	171
Wisconsin	203	51%	112	28%	57	14%	28	7%	197	49%	400
Wyoming	30	34%	32	36%	25	28%	1	1%	58	66%	88
U.S. Total	**12,691**	**50%**	**7,103**	**28%**	**4,572**	**18%**	**1,047**	**4%**	**12,729**	**50%**	**25,420**
Puerto Rico	90	69%	26	20%	14	11%	0	0%	40	31%	130

Source: FARS 2022 ARF

*Includes occupants of other/unknown light-truck vehicle types.

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 2022 ARF, the 2021 Final File was released to replace the 2021 ARF. The final fatality count in motor vehicle traffic crashes for 2021 was 43,230, which was updated from 42,939 in the 2021 ARF. The number of passenger vehicle occupant fatalities from the 2021 Final File was 26,465, which was updated from 26,325 from the 2021 ARF.

Crash Report Sampling System

NHTSA's National Center for Statistics and Analysis (NCSA) redesigned the nationally representative sample of police-reported traffic crashes, which estimates the number of police-reported injury and property-damage-only crashes in the United States. CRSS replaced the National Automotive Sampling System (NASS) General Estimates System (GES) in 2016. More information on CRSS can be found at www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss.

Important Change for Motorized Bicycles

Prior to 2022, motorized bicycles were collected as motor vehicles and classified as motorcycles in FARS and CRSS, and their operators and passengers were captured as motorists. Beginning in 2022, FARS and CRSS are no longer collecting motorized bicycles as motor vehicles. Consequently, operators and passengers of motorized bicycles will be captured as pedalcyclists when involved in a motor vehicle traffic crash. Any traffic crash involving only motorized bicycle(s) will no longer be captured in FARS or CRSS.

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 and CRSS 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 and CRSS data files. Vehicle-related analysis for 2020 and later years are 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/.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2024, July). *Passenger vehicles: 2022 data* (Traffic Safety Facts. Report No. DOT HS 813 592). National Highway Traffic Safety Administration.

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 www.nhtsa.gov/report-a-safety-problem.

The following data tools and resources can be found at https://cdan.dot.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
- Pedestrians
- Race and Ethnicity
- Rural/Urban Traffic Fatalities
- School-Transportation-Related Traffic 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