



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



Traffic Safety Facts

2021 Data



DOT HS 813 449

May 2023

Occupant Protection in Passenger Vehicles

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

- [Overview](#)
- [Occupant Characteristics](#)
 - [Passenger Vehicle Types](#)
 - [Age and Sex](#)
 - [Seating Position](#)
- [Restraint Use and Benefits](#)
 - [Seat Belts](#)
 - [Frontal Air Bags](#)
 - [Child Restraints](#)
- [State](#)
- [Restraint Use Laws](#)
- [Important Safety Reminders](#)

Occupant protection discussed in this fact sheet includes seat belts, car seats for children under 5 years old, and frontal air bags in passenger vehicles. Passenger vehicles consist of passenger cars and light trucks (pickups, SUVs, and vans) with gross vehicle weight ratings (GVWRs) of 10,000 pounds or less. Vehicle occupants include drivers and passengers.

Key Findings

- Fifty percent of passenger vehicle occupants killed in traffic crashes in 2021 were unrestrained (based on known restraint use).
- In traffic crashes in 2021, considering known driver restraint use by passenger vehicle type, 60 percent of pickup drivers who were killed were unrestrained, compared to 49 percent of SUV drivers, 47 percent of passenger car drivers, and 44 percent of van drivers.
- Sixty-one percent (based on known restraint use) of passenger vehicle occupant fatalities in the 25-to-34 age group in traffic crashes in 2021 were unrestrained — the highest percentage of all age groups in this report.
- In traffic crashes in 2021, among male fatalities with known restraint use, 54 percent were unrestrained; among female fatalities with known restraint use, 42 percent were unrestrained.
- In 2021 among passenger vehicle occupant traffic fatalities with known restraint use, 49 percent seated in the front row and 57 percent of those in the second row were unrestrained.
- Among passenger vehicle occupant fatalities in traffic crashes in 2021 with known restraint use, 43 percent were unrestrained during the day compared to 57 percent at night.

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

According to the 2021 NHTSA’s National Occupant Protection Use Survey (NOPUS, Report No. DOT HS 813 241), the estimated seat belt use rate over the decade 2012 to 2021 increased from 86.1 percent in 2012 to 90.4 percent in 2021. NOPUS provides the only nationwide probability-based estimate of observed seat belt use in the United States. It is based on the observation of front seat occupant (driver and passenger) seat belt use during daylight hours (7 a.m. to 6 p.m.) and does not necessarily represent restraint use among occupants involved in crashes.

Restraint use for passenger vehicle occupants killed in traffic crashes from 2012 to 2021 is shown in Table 1. There were 42,939 traffic fatalities in the United States in 2021, of which 26,325 (61%) were occupants of passenger vehicles. Of the 26,325 passenger vehicle occupants killed in 2021, there were 11,820 (45%) who were restrained and 11,813 (45%) who were unrestrained at the time of the crashes. Restraint use was not known for the remaining 2,692 (10%) passenger vehicle occupants killed. Considering only passenger vehicle occupant fatalities whose restraint use was known, 50 percent were restrained and 50 percent were unrestrained. The number of unrestrained passenger vehicle occupants killed in 2021 is the highest it has been in that 10-year period.

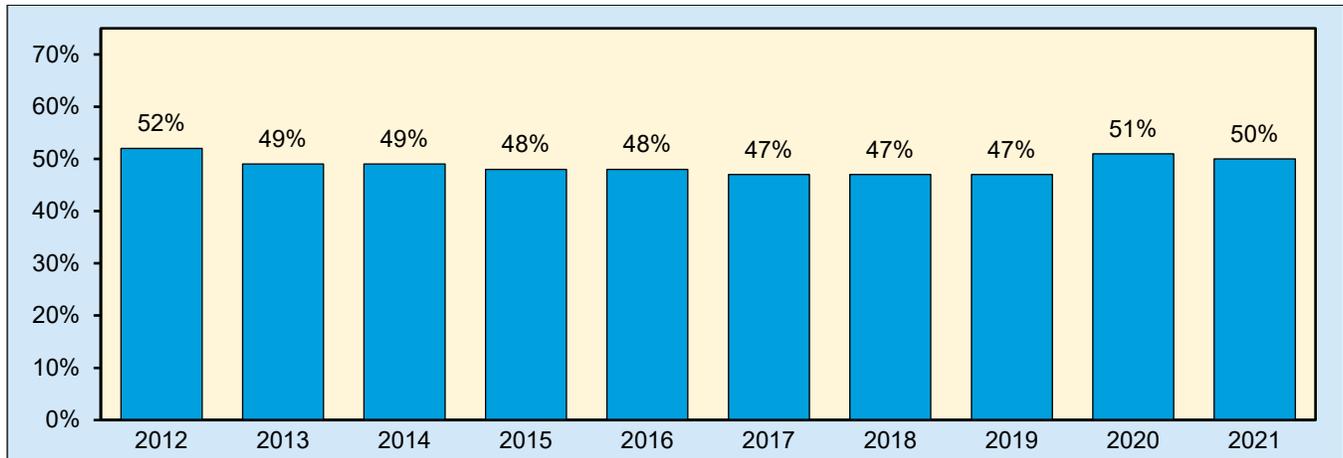
Table 1. Passenger Vehicle Occupants Killed in Traffic Crashes, by Restraint Use, 2012–2021

Year	Restraint Use						Total		Percent Based on Known Restraint Use	
	Restrained		Unrestrained		Unknown					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
2012	9,746	45%	10,370	48%	1,663	8%	21,779	100%	48%	52%
2013	9,840	46%	9,622	45%	1,761	8%	21,223	100%	51%	49%
2014	9,961	47%	9,410	45%	1,679	8%	21,050	100%	51%	49%
2015	10,763	48%	9,975	44%	1,903	8%	22,641	100%	52%	48%
2016	11,343	48%	10,463	44%	1,981	8%	23,787	100%	52%	48%
2017	11,488	49%	10,116	43%	2,059	9%	23,663	100%	53%	47%
2018	11,055	48%	9,845	43%	1,945	9%	22,845	100%	53%	47%
2019	10,891	49%	9,523	43%	1,958	9%	22,372	100%	53%	47%
2020	10,532	44%	10,925	46%	2,457	10%	23,914	100%	49%	51%
2021	11,820	45%	11,813	45%	2,692	10%	26,325	100%	50%	50%

Source: FARS 2012–2020 Final File, 2021 Annual Report File (ARF)

Note: Percentages may not add up to 100 percent due to individual rounding.

The percentages of unrestrained passenger vehicle occupants killed in motor vehicle traffic crashes are shown in Figure 1. Among passenger vehicle occupants killed, when restraint use was known, the percentage of unrestrained deaths decreased by 1 percentage point, from 51 percent in 2020 to 50 percent in 2021.

Figure 1. Percentages of Unrestrained* Passenger Vehicle Occupants Killed in Traffic Crashes, 2012–2021

Source: FARS 2012–2020 Final File, 2021 ARF

*Based on known restraint use.

Occupant Characteristics

Passenger Vehicle Types

Table 2 shows fatalities separately for drivers and passengers for each passenger vehicle type. Seventy-six percent of the passenger vehicle occupants killed in 2021 were drivers, and 24 percent were passengers.

In 2021 there were 20,068 passenger vehicle drivers killed in traffic crashes, the majority (51%) in passenger cars. Among the 18,096 passenger vehicle driver fatalities for whom restraint use was known, 50 percent were unrestrained. However, the percentage of drivers killed who were unrestrained differed by vehicle type: 60 percent of pickup drivers, 49 percent of SUV drivers, 47 percent of passenger car drivers, and 44 percent of van drivers.

Table 2. Drivers and Passengers Killed in Traffic Crashes, by Passenger Vehicle Type and Restraint Use, 2021

Passenger Vehicle Type		Restraint Use						Total		Percent Based on Known Restraint Use	
		Restrained		Unrestrained		Unknown					
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
Drivers Killed	Passenger Car	4,861	48%	4,315	42%	1,043	10%	10,219	100%	53%	47%
	Light Truck	4,158	42%	4,762	48%	929	9%	9,849	100%	47%	53%
	–Pickup	1,430	36%	2,181	55%	352	9%	3,963	100%	40%	60%
	–SUV	2,344	46%	2,283	45%	494	10%	5,121	100%	51%	49%
	–Van	384	50%	298	39%	83	11%	765	100%	56%	44%
	Total	9,019	45%	9,077	45%	1,972	10%	20,068	100%	50%	50%
Passengers Killed	Passenger Car	1,518	46%	1,393	42%	399	12%	3,310	100%	52%	48%
	Light Truck	1,283	44%	1,343	46%	321	11%	2,947	100%	49%	51%
	–Pickup	254	32%	444	56%	96	12%	794	100%	36%	64%
	–SUV	855	46%	786	43%	199	11%	1,840	100%	52%	48%
	–Van	174	56%	113	36%	26	8%	313	100%	61%	39%
	Total	2,801	45%	2,736	44%	720	12%	6,257	100%	51%	49%

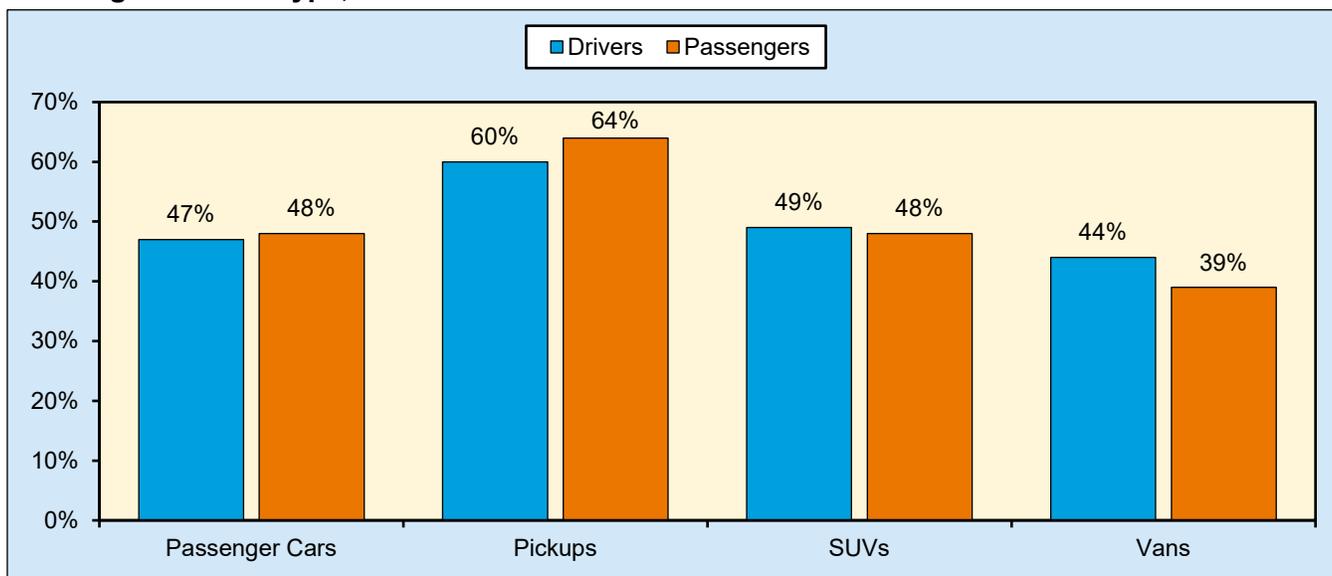
Source: FARS 2021 ARF

Note: Percentages may not add up to 100 percent due to individual rounding.

There were 6,257 passengers killed in passenger vehicles in 2021, and 53 percent were riding in passenger cars. Among the 5,537 passengers killed in passenger vehicles for whom restraint use was known, 49 percent were unrestrained, but use varied by vehicle type: 64 percent of passengers killed in pickups were unrestrained,

compared to 48 percent in SUVs, 48 percent in passenger cars, and 39 percent in vans. Figure 2 compares the percentage of known unrestrained drivers killed versus passengers killed for each passenger vehicle type.

Figure 2. Percentages of Unrestrained* Drivers and Passengers Killed in Traffic Crashes, by Passenger Vehicle Type, 2021



Source: FARS 2021 ARF

*Based on known restraint use.

Age and Sex

Table 3 shows information on restraint use by age group for passenger vehicle occupants killed in 2021. Among those where restraint use was known, the 25-to-34 age group had the highest percentage (61%) of unrestrained occupants, followed by the 13-to-14 and the 35-to-44 age groups (59% and 58%, respectively). Figure 3 shows these percentages.

Table 3. Passenger Vehicle Occupants Killed in Traffic Crashes, by Age Group and Restraint Use, 2021

Age Group	Restraint Use						Total		Percent Based on Known Restraint Use	
	Restrained		Unrestrained		Unknown					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
<4	145	65%	61	27%	17	8%	223	100%	70%	30%
4-7	127	52%	89	36%	30	12%	246	100%	59%	41%
8-12	133	55%	76	31%	33	14%	242	100%	64%	36%
13-14	56	37%	82	54%	14	9%	152	100%	41%	59%
15-20	1,081	38%	1,377	49%	350	12%	2,808	100%	44%	56%
21-24	925	38%	1,247	51%	288	12%	2,460	100%	43%	57%
25-34	1,806	34%	2,854	54%	611	12%	5,271	100%	39%	61%
35-44	1,407	37%	1,960	52%	417	11%	3,784	100%	42%	58%
45-54	1,345	44%	1,396	46%	312	10%	3,053	100%	49%	51%
55-64	1,525	50%	1,232	41%	267	9%	3,024	100%	55%	45%
65-74	1,417	60%	762	33%	165	7%	2,344	100%	65%	35%
75+	1,828	69%	651	25%	158	6%	2,637	100%	74%	26%
Total*	11,820	45%	11,813	45%	2,692	10%	26,325	100%	50%	50%

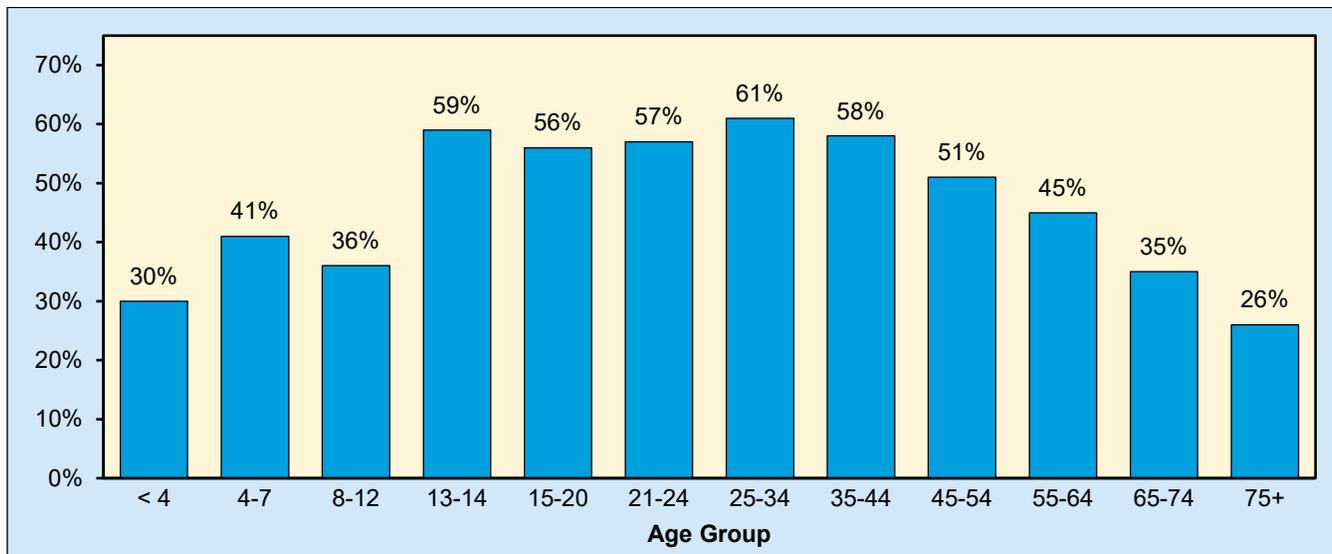
Source: FARS 2021 ARF

Note: Percentages may not add up to 100 percent due to individual rounding.

*Includes passenger vehicle occupants of unknown age.

In 2021 there were 223 passenger vehicle occupant fatalities among children under 4 years old, and 30 percent were unrestrained (based on known restraint use). In the 4-to-7 age group, there were 246 fatalities; 41 percent were unrestrained (based on known restraint use).

Figure 3. Percentages of Unrestrained* Passenger Vehicle Occupants Killed in Traffic Crashes, by Age Group, 2021



Source: FARS 2021 ARF

*Based on known restraint use.

Nearly twice as many male occupants (17,303) as female occupants (8,979) in passenger vehicles were killed in 2021, as shown in Table 4. When restraint use was known, 54 percent of the males killed and 42 percent of the females killed were unrestrained (Figure 4) in passenger vehicles. Restraint use was unknown for 11 percent of male passenger vehicle occupant fatalities and 9 percent of the female passenger vehicle occupant fatalities.

Table 4. Passenger Vehicle Occupants Killed in Traffic Crashes, by Sex and Restraint Use, 2021

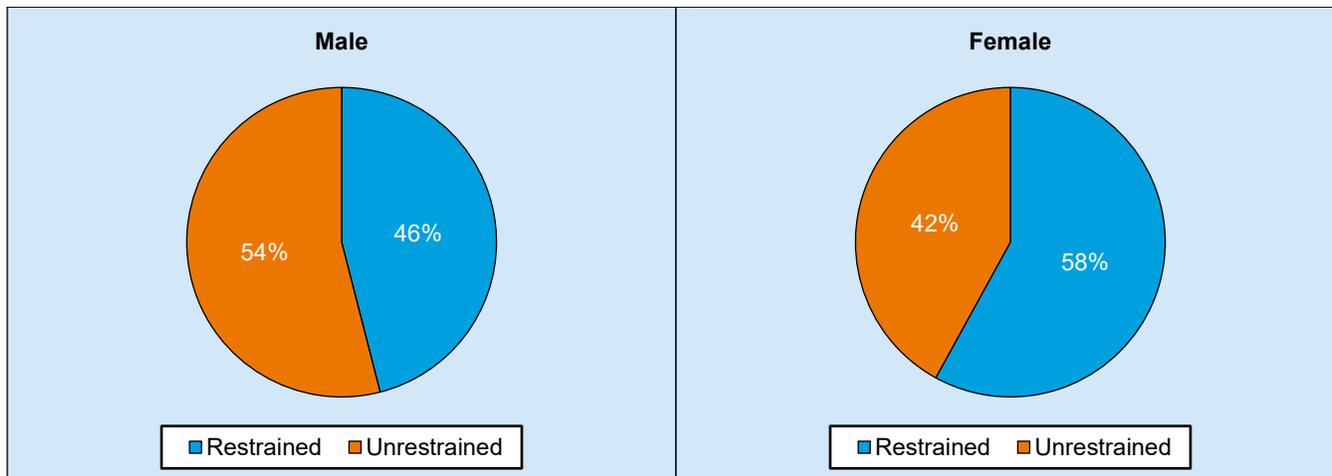
Sex	Restraint Use						Total		Percent Based on Known Restraint Use	
	Restrained		Unrestrained		Unknown					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
Male	7,068	41%	8,367	48%	1,868	11%	17,303	100%	46%	54%
Female	4,736	53%	3,428	38%	815	9%	8,979	100%	58%	42%
Total*	11,820	45%	11,813	45%	2,692	10%	26,325	100%	50%	50%

Source: FARS 2021 ARF

Note: Percentages may not add up to 100 percent due to individual rounding.

*Includes passenger vehicle occupants of unknown sex.

Figure 4. Percentages of Passenger Vehicle Occupants Killed in Traffic Crashes, by Sex and Restraint Use,* 2021



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

Seating Position

Table 5 shows restraint use for passenger vehicle occupants killed in 2021, by their seating position. Among killed passenger vehicle occupants with known restraint use, 49 percent of those in the front row and 57 percent of those in the second row were unrestrained.

Table 5. Passenger Vehicle Occupants Killed in Traffic Crashes, by Seating Position and Restraint Use, 2021

Seating Position		Restraint Use						Total		Percent Based on Known Restraint Use	
		Restrained		Unrestrained		Unknown					
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
Front Row	Total	11,076	46%	10,647	44%	2,381	10%	24,104	100%	51%	49%
	Left (Driver)	9,025	45%	9,080	45%	1,972	10%	20,077	100%	50%	50%
	Middle	5	24%	16	76%	0	0%	21	100%	24%	76%
	Right	2,045	51%	1,539	39%	406	10%	3,990	100%	57%	43%
	Other/Unknown	1	6%	12	75%	3	19%	16	100%	8%	92%
Second Row	Total	686	38%	912	51%	190	11%	1,788	100%	43%	57%
	Left	275	42%	322	49%	56	9%	653	100%	46%	54%
	Middle	84	35%	127	53%	28	12%	239	100%	40%	60%
	Right	324	39%	426	51%	90	11%	840	100%	43%	57%
	Other/Unknown	3	5%	37	66%	16	29%	56	100%	8%	93%
Other*		39	23%	114	68%	15	9%	168	100%	25%	75%
Unknown		19	7%	140	53%	106	40%	265	100%	12%	88%
Total		11,820	45%	11,813	45%	2,692	10%	26,325	100%	50%	50%

Source: FARS 2021 ARF
 Note: Percentages may not add up to 100 percent due to individual rounding.
 *Includes additional rows, cargo areas, trailing units, and vehicle exteriors.

Restraint Use and Benefits

Seat Belts

Table 6 represents passenger vehicles involved (those who were killed as well as those who survived) in fatal traffic crashes by their survival status, time of day, and restraint use. Fifty percent of passenger vehicle occupants killed were unrestrained, compared to 15 percent for those who survived. Looking at all passenger vehicle occupants involved in fatal traffic crashes in 2021 with known restraint use:

- 28 percent were unrestrained at the time of the crashes;
- 25 percent were unrestrained during the day; and
- 32 percent were unrestrained at night.

For those passenger vehicle occupants with known restraint use who survived fatal traffic crashes in 2021:

- 13 percent were unrestrained during daytime; and
- 17 percent of crash survivors were unrestrained during nighttime.

Table 6. Passenger Vehicle Occupants Involved in Fatal Traffic Crashes, by Survival Status, Time of Day, and Restraint Use, 2021

Survival Status/Time of Day		Restraint Use						Total		Percent Based on Known Restraint Use	
		Restrained		Unrestrained		Unknown					
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
Killed	Daytime	6,918	52%	5,205	39%	1,071	8%	13,194	100%	57%	43%
	Nighttime	4,840	37%	6,491	50%	1,600	12%	12,931	100%	43%	57%
	Unknown	62	31%	117	59%	21	11%	200	100%	35%	65%
	Total	11,820	45%	11,813	45%	2,692	10%	26,325	100%	50%	50%
Survived	Daytime	16,760	80%	2,538	12%	1,571	8%	20,869	100%	87%	13%
	Nighttime	16,566	73%	3,369	15%	2,868	13%	22,803	100%	83%	17%
	Unknown	38	49%	15	19%	25	32%	78	100%	72%	28%
	Total	33,364	76%	5,922	14%	4,464	10%	43,750	100%	85%	15%
Total	Daytime	23,678	70%	7,743	23%	2,642	8%	34,063	100%	75%	25%
	Nighttime	21,406	60%	9,860	28%	4,468	13%	35,734	100%	68%	32%
	Unknown	100	36%	132	47%	46	17%	278	100%	43%	57%
	Total	45,184	64%	17,735	25%	7,156	10%	70,075	100%	72%	28%

Source: FARS 2021 ARF

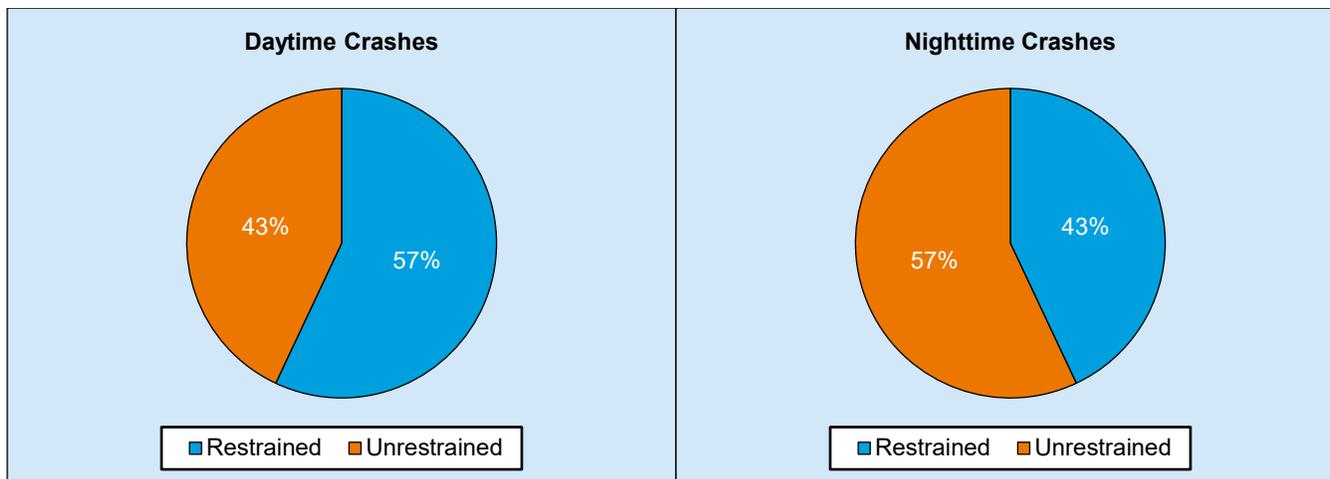
Note: Percentages may not add up to 100 percent due to individual rounding.

Daytime – 6 a.m. to 5:59 p.m.

Nighttime – 6 p.m. to 5:59 a.m.

Among passenger vehicle occupants killed in fatal traffic crashes in 2021 with known restraint use, the percentages of unrestrained fatalities during daytime was 43 percent compared to 57 percent during nighttime (Figure 5).

Figure 5. Percentages of Passenger Vehicle Occupants Killed in Traffic Crashes, by Time of Day and Restraint Use,* 2021

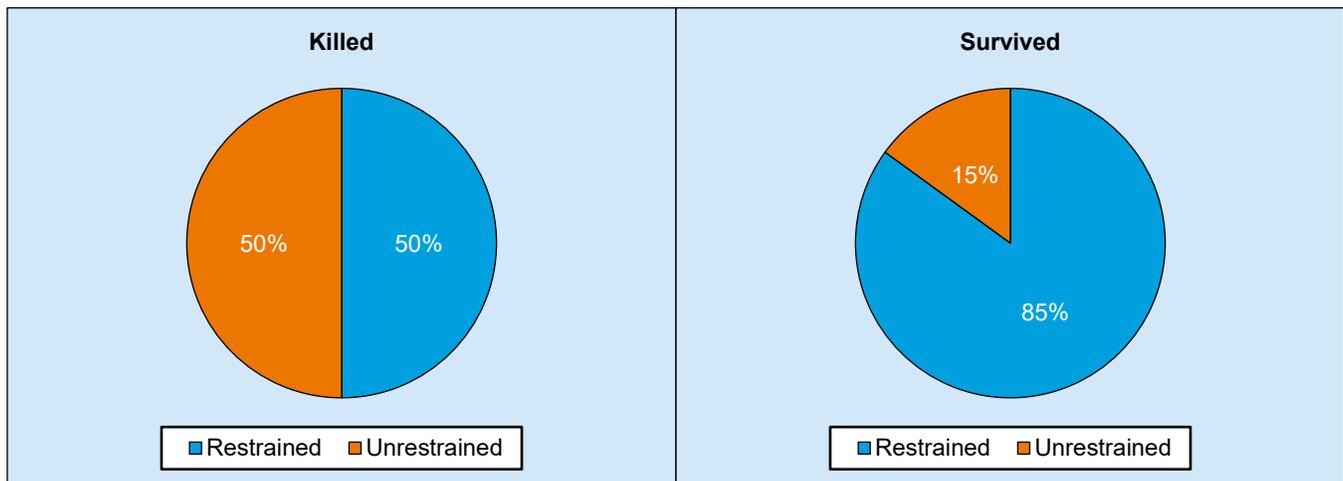


Source: FARS 2021 ARF

*Based on known restraint use.

For passenger vehicle occupants involved in fatal traffic crashes in 2021, half of those killed were unrestrained in the crashes, compared to only 15 percent of those who survived (Figure 6).

Figure 6. Percentages of Passenger Vehicle Occupants Involved in Fatal Traffic Crashes, by Survival Status and Restraint Use,* 2021



Source: FARS 2021 ARF

*Based on known restraint use.

Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. In NHTSA's FARS data, ejection refers to occupants being totally or partially thrown from the vehicles. In 2021 fatal traffic crashes based on known restraint use, 83 percent of passenger vehicle occupants who were totally ejected from vehicles were killed. Seat belts are very effective in preventing total ejections; in 2021 only 1 percent of all passenger vehicle occupants involved (those killed as well as survivors) in fatal traffic crashes reported to have been using restraints were totally ejected, compared to 26 percent of those unrestrained.

The safety benefits of seat belt use are significant and well-documented. Seat belts help keep occupants inside vehicles and prevent them from becoming projectiles inside the vehicle and hurting others. NHTSA has estimated that lap/shoulder seat belts, when used, reduce the risk of:

- fatal injury to front-seat passenger car occupants by 45 percent;
- moderate-to-critical injury to front-seat passenger car occupants by 50 percent;
- fatal injury to front-seat light-truck occupants by 60 percent; and
- moderate-to-critical injury to front-seat light-truck occupants by 65 percent (Kahane, 2015; NHTSA, 1984).

Among passenger vehicle occupants 5 and older, seat belts saved an estimated 14,955 lives in 2017 (latest data available), as shown in Table 7. If all passenger vehicle occupants 5 and older had worn seat belts, 17,504 lives (that is, an additional 2,549) could have been saved in 2017. From 1975, when NHTSA's FARS database began, through 2017, seat belts have saved an estimated 374,276 lives. If all passengers had worn seat belts during these years, a total of 760,994 (that is, an additional 386,719 lives) could have been saved. The estimated number of lives saved by child restraints, seat belts, and frontal air bags, as well as the additional lives who could have been saved at 100-percent seat belt use, are available for each State in the *Crash*Stat Lives Saved in 2017 by Restraint Use and Minimum Drinking Age Laws* (Report No. DOT 812 683).

Table 7. Estimated Number of Lives Saved in Passenger Vehicles, by Restraint System, 1975–2017

Restraint System	1975-2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Frontal Air Bags	25,294	2,557	2,481	2,403	2,341	2,422	2,398	2,400	2,597	2,774	2,790	50,457
Child Restraints (age 4 and younger)	8,884	262	281	286	245	267	246	236	255	319	325	11,606
Seat Belts (age 5+)	241,865	13,312	12,757	12,670	12,071	12,386	12,644	12,801	14,062	14,753	14,955	374,276
Lives Savable at 100% Seat Belt Use	597,558	17,482	16,447	16,026	15,467	15,416	15,415	15,678	16,777	17,224	17,504	760,994
Additional Lives That Could Have Been Saved at 100% Seat Belt Use	355,693	4,171	3,690	3,356	3,396	3,030	2,771	2,877	2,715	2,471	2,549	386,719

Source: *Lives Saved in 2017 by Restraint Use and Minimum Drinking Age Laws* (Report No. DOT HS 812 683)

Frontal Air Bags

Frontal air bags, combined with lap/shoulder belts, offer effective safety protection for passenger vehicle occupants. NHTSA analyses indicate frontal air bags reduce fatalities by 14 percent when no seat belts were used, and 11 percent when seat belts were used in conjunction with frontal air bags (Kahane, 2015).

Air bags are supplemental protection and are designed to work in combination with seat belts. In addition, they are not designed to deploy in all crashes. Most are designed to inflate in moderate-to-severe frontal crashes. Some crashes at lower speeds may result in injuries, but generally not the serious injuries that air bags are designed to prevent. Lap/shoulder belts should always be used, even in vehicles with air bags.

In 2017 (latest data available) an estimated 2,790 lives were saved by frontal air bags. From 1987, when front air bags were first widely adopted in production vehicles, through 2017, a total of 50,457 lives were saved, as shown in Table 7.

Child Restraints

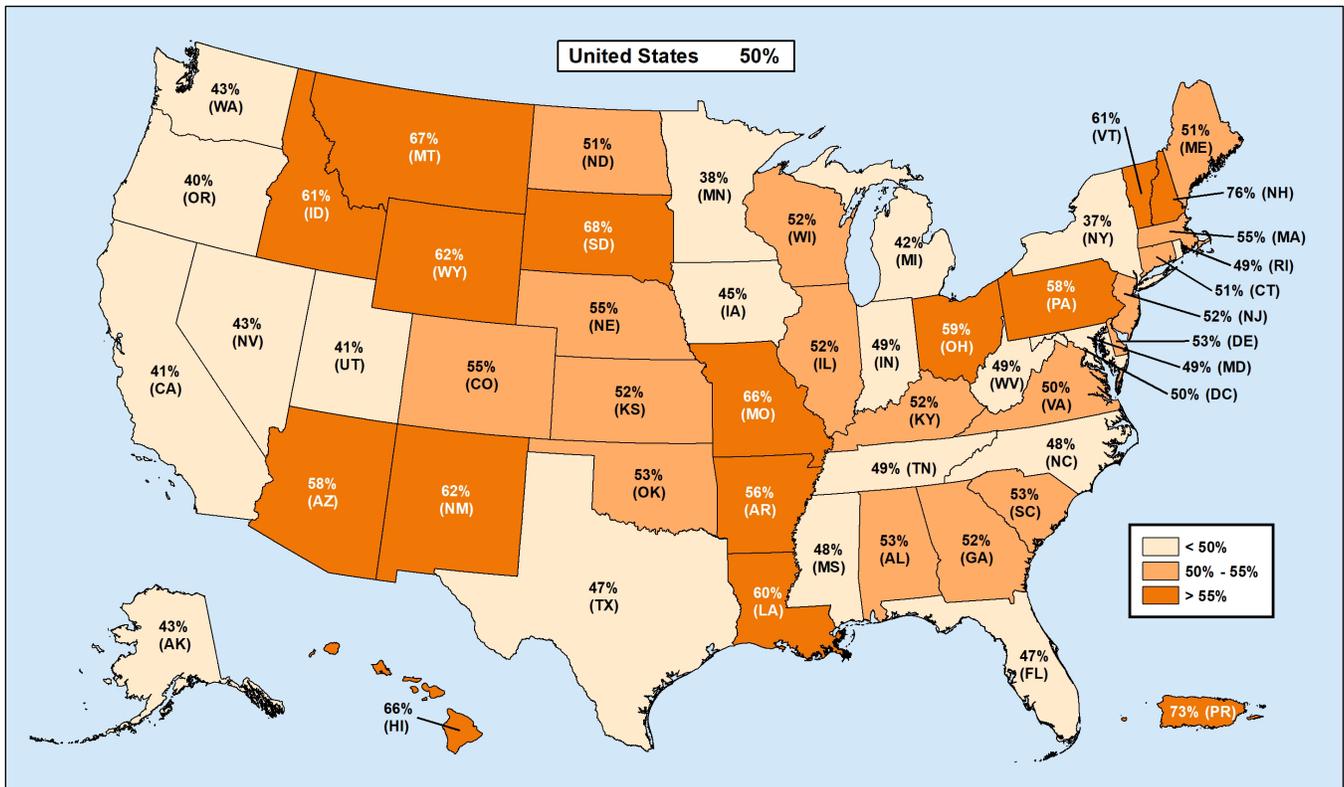
NHTSA has estimated that car seats reduce the risk of fatal injury by 71 percent for infants (younger than 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent (Kahane, 2015).

Among children under 5, an estimated 325 lives were saved in 2017 by restraint use. Of these 325 lives saved, an estimated 312 were associated with the use of car seats and 14 with the use of adult seat belts. At 100-percent car seat use for those under 5 years old, an estimated 371 (that is, an additional 46) lives could have been saved in 2017. Since 1975 there have been 11,606 lives of children under age 5 saved because of child restraint use.

State

Figure 7 shows the percentages of unrestrained passenger vehicle occupants killed in each State for 2021, based on known restraint use. Table 8 shows seat belt use information for passenger vehicle occupants killed in traffic crashes in 2021 by State. Also in Table 8 are observed seat belt use rates in the States, the District of Columbia, and Puerto Rico. The national seat belt use rate results were obtained from NOPUS by observing occupants in traffic on roads at selected sites. Observed seat belt use rates at the State level were obtained from probability-based observational surveys conducted by each State, certified by NHTSA.

Figure 7. Percentages of Unrestrained* Passenger Vehicle Occupants Killed in Traffic Crashes, by State, 2021



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

Table 8. Passenger Vehicle Occupants Killed in Traffic Crashes, by State, Restraint Use, and Observed Seat Belt Use Rate, 2021

State	Total Occupants Killed	Restraint Use						Percent Based on Known Use		Observed Seat Belt Use Rate*
		Restrained		Unrestrained		Unknown		Restrained	Unrestrained	
		Number	Percent	Number	Percent	Number	Percent			
Alabama	721	316	44%	354	49%	51	7%	47%	53%	91.3%
Alaska	39	17	44%	13	33%	9	23%	57%	43%	91.7%
Arizona	602	212	35%	290	48%	100	17%	42%	58%	88.8%
Arkansas	448	180	40%	228	51%	40	9%	44%	56%	84.2%
California	2,344	1,245	53%	878	37%	221	9%	59%	41%	97.2%
Colorado	429	179	42%	222	52%	28	7%	45%	55%	86.6%
Connecticut	169	70	41%	74	44%	25	15%	49%	51%	91.5%
Delaware	79	36	46%	40	51%	3	4%	47%	53%	92.4%
District of Columbia	10	5	50%	5	50%	0	0%	50%	50%	95.9%
Florida	1,930	1,013	52%	884	46%	33	2%	53%	47%	90.1%
Georgia	1,182	515	44%	555	47%	112	9%	48%	52%	94.8%
Hawaii	30	10	33%	19	63%	1	3%	34%	66%	94.3%
Idaho	187	68	36%	106	57%	13	7%	39%	61%	82.9%
Illinois	844	311	37%	332	39%	201	24%	48%	52%	93.5%
Indiana	614	258	42%	245	40%	111	18%	51%	49%	92.9%
Iowa	219	106	48%	87	40%	26	12%	55%	45%	92.7%
Kansas	300	126	42%	134	45%	40	13%	48%	52%	85.9%
Kentucky	553	267	48%	286	52%	0	0%	48%	52%	89.8%
Louisiana	628	226	36%	334	53%	68	11%	40%	60%	85.7%
Maine	107	52	49%	55	51%	0	0%	49%	51%	91.8%
Maryland	334	151	45%	147	44%	36	11%	51%	49%	91.4%
Massachusetts	246	91	37%	111	45%	44	18%	45%	55%	77.5%
Michigan	691	321	46%	235	34%	135	20%	58%	42%	92.6%
Minnesota	322	164	51%	99	31%	59	18%	62%	38%	92.4%
Mississippi	583	258	44%	238	41%	87	15%	52%	48%	80.0%
Missouri	657	207	32%	402	61%	48	7%	34%	66%	88.0%
Montana	173	54	31%	109	63%	10	6%	33%	67%	92.2%
Nebraska	165	63	38%	76	46%	26	16%	45%	55%	81.2%
Nevada	191	96	50%	71	37%	24	13%	57%	43%	93.2%
New Hampshire	78	15	19%	48	62%	15	19%	24%	76%	75.5%
New Jersey	337	146	43%	160	47%	31	9%	48%	52%	93.9%
New Mexico	278	101	36%	165	59%	12	4%	38%	62%	89.6%
New York	552	314	57%	184	33%	54	10%	63%	37%	93.2%
North Carolina	1,117	558	50%	515	46%	44	4%	52%	48%	89.6%
North Dakota	68	30	44%	31	46%	7	10%	49%	51%	81.9%
Ohio	854	305	36%	440	52%	109	13%	41%	59%	84.1%
Oklahoma	531	231	44%	260	49%	40	8%	47%	53%	84.4%
Oregon	370	174	47%	116	31%	80	22%	60%	40%	94.9%
Pennsylvania	732	266	36%	367	50%	99	14%	42%	58%	89.5%
Rhode Island	41	19	46%	18	44%	4	10%	51%	49%	89.4%
South Carolina	764	342	45%	379	50%	43	6%	47%	53%	90.1%
South Dakota	105	31	30%	65	62%	9	9%	32%	68%	86.9%
Tennessee	901	416	46%	393	44%	92	10%	51%	49%	90.1%
Texas	2,818	1,330	47%	1,172	42%	316	11%	53%	47%	89.8%
Utah	217	114	53%	78	36%	25	12%	59%	41%	88.2%
Vermont	45	17	38%	27	60%	1	2%	39%	61%	89.2%
Virginia	681	339	50%	336	49%	6	1%	50%	50%	81.7%
Washington	396	198	50%	149	38%	49	12%	57%	43%	94.2%
West Virginia	184	77	42%	74	40%	33	18%	51%	49%	88.1%
Wisconsin	388	154	40%	164	42%	70	18%	48%	52%	88.1%
Wyoming	71	26	37%	43	61%	2	3%	38%	62%	80.2%
U.S. Total	26,325	11,820	45%	11,813	45%	2,692	10%	50%	50%	90.4%**
Puerto Rico	154	42	27%	112	73%	0	0%	27%	73%	88.2%

Sources: FARS 2021 ARF; NOPUS 2021

Notes: Shaded States are those with primary seat belt laws for front seat occupants in 2021. Percentages may not add up to 100 percent due to individual rounding.

*Observed Seat Belt Use Rates were obtained from probability-based observational surveys conducted by each State, certified by NHTSA.

**From NHTSA's NOPUS. Observations were made of moving traffic, not crashes (refer to NOPUS 2021 in Report No. DOT HS 813 241).

For more information on State observed seat belt use rates, see the Crash*Stat *Seat Belt Use in 2021—Use Rates in the States and Territories* (Report No. DOT HS 813 307). Note that restraint use (observed data as well as that for passenger vehicle occupants killed in traffic crashes) differs considerably by State. Additional information on State seat belts laws, such as the ages and seating positions covered, is available at the Governors Highway Safety Association (GHSA) website at www.ghsa.org/state-laws/issues/Seat-Belts.

Restraint Use Laws

The first mandatory seat belt use law was enacted in New York in 1984. Adult seat belt use laws are in effect in 49 States, the District of Columbia, and Puerto Rico. The laws differ from State to State, according to the type and age of the vehicle, occupant age, and seating position. The goal of these laws is to promote seat belt use and thereby reduce deaths and injuries in motor vehicle crashes.

In 2021 there were 34 States, the District of Columbia, and Puerto Rico that had primary seat belt laws in effect for front seat occupants, enabling law enforcement officers to stop vehicles and write citations when they observed violations of the seat belt law. In 15 States the laws specified secondary enforcement, meaning that police officers were permitted to write citations only after a vehicle was stopped for some other traffic infraction. New Hampshire is the only State without a seat belt law for adults, although it does have a primary child passenger safety law that covers all drivers and passengers under 18 years old.

The first mandatory child restraint use law was implemented in Tennessee in 1978. Since 1985 all 50 States and the District of Columbia have had child restraint use laws in effect. Child restraint use laws differ from State to State, in terms of the ages of children covered and in other important ways, including height and weight limits, seating position requirements, and various exemptions and exceptions.

The most current information on seat belt laws and child passenger safety laws is available on the GHSA website at www.ghsa.org.

- Seat belt laws—www.ghsa.org/html/stateinfo/laws/seatbelt_laws.html
- Child passenger safety laws—www.ghsa.org/html/stateinfo/laws/childsafety_laws.html

In addition, results from the annual NOPUS have found that seat belt use in primary law States is consistently higher than use in States with secondary laws or no law (91.0% versus 88.0% in 2021) (see Report No. DOT HS 813 241, Figure 3).

Important Safety Reminders

Child Restraint Systems

- As children grow, so do their restraint types (rear-facing, forward-facing, booster seat, or seat belt). Always use the one that fits your child's current age and size. Use the NHTSA Car Seat Finder located at www.nhtsa.gov/equipment/car-seats-and-booster-seats.
- Use either the lower anchors and tether, or the seat belt and tether when installing forward-facing seats.
- Every car seat or booster seat has different installation instructions, so make sure you read, understand and follow both the car seat instructions and the vehicle owner's manual.
- To get assistance with installation, find a certified child passenger safety technician at a location near you using NHTSA's Inspection Station locator: www.nhtsa.gov/equipment/car-seats-and-booster-seats#installation-help-inspection
- Remember to register your car seat or booster seat so you can be notified in the event of a safety recall.
- Plan for using car seats or booster seats when travelling and riding in taxis or ride-share vehicle.
- Find out when your child is ready to use an adult seat belt, please reference the Car Seat Recommendations for Children located at: www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/carseat-recommendations-for-children-by-age-size.pdf. Be sure to read information for Booster Seat and Seat Belt Use.
- Keep children in the back seat until at least age 13. It's the safest place to ride.

Seat Belts

- Buckling up is the single most effective thing you can do to protect yourself in a crash. Wear your seat belt for the entirety of every trip you make. Protect yourself no matter the time of day, weather, trip distance, vehicle speed, road type, or proximity to your home.
- It is important to keep yourself safe when driving and when riding in the front AND back seat of all vehicles.
- Always wear your seat belt when riding in taxis and rideshare vehicles.
- Always wear your seat belt properly. Learn how to correctly position your belt across the middle of your chest and away from your neck. NEVER put the shoulder belt behind your back or under an arm.
- If you're pregnant, always wear a seat belt to maximize your safety and the safety of your unborn child. For more information, see www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/pregnant-seat-belt-use.pdf.
- You still need to wear your seat belt even if your car or truck has air bags or advanced safety features.
- Encourage your passengers to wear their seat belts when riding in your car. Establish your own safety rules.

For information on all of these safety tips, please visit www.nhtsa.gov.

—NHTSA's Research and Program Development

References

- 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.
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812069>
- National Center for Statistics and Analysis. (2019, March). *Lives saved in 2017 by restraint use and minimum-drinking- age laws* (Traffic Safety Facts Crash•Stats. Report No. DOT HS 812 683). National Highway Traffic Safety Administration. <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812683>
- NCSA. (2021, December). *Seat belt use in 2021 – Overall results* (Traffic Safety Facts Research Note. Report No. DOT HS 813 241). National Highway Traffic Safety Administration.
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813241>
- NCSA. (2022, May). *Seat belt use in 2021—Use rates in the States and Territories* (Traffic Safety Facts Crash•Stats. Report No. DOT HS 813 307). National Highway Traffic Safety Administration.
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813307>
- National Highway Traffic Safety Administration. (1984, July). *Final regulatory impact analysis: Amendment to Federal Motor Vehicle Safety Standard 208. Passenger car front seat occupant protection* (Report No. DOT HS 806 572). <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/806572>

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 passenger vehicle occupant fatalities from the 2020 Final File was 23,914, which was updated from 23,824 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 files. Starting with the release of 2021 FARS, 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/>.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2023, May). *Occupant protection in passenger vehicles: 2021 data* (Traffic Safety Facts. Report No. DOT HS 813 449). 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.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
- Older Population
- Passenger Vehicles
- Pedestrians
- Rural/Urban Comparison of Motor Vehicle Traffic Fatalities
- 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**