# **Traffic Safety Facts**

2019 Data

July 2021

DOT HS 813 152



In this fact sheet for 2019 the information is presented as follows.

- Registration Data Changes
- Overview
- Fatal Passenger Car and Light-Truck, Two-Vehicle Crashes
- Restraint Use
- Ejection
- Rollover
- Alcohol
- State
- Appendix

# Passenger Vehicles

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 2019 there were 22,215 passenger vehicle occupants who died in motor vehicle traffic crashes and an estimated 2,448,000 passenger vehicle occupants who were injured.
- Passenger vehicles made up 92 percent of registered vehicles and accounted for 90 percent of total vehicle miles traveled (VMT) in 2019. There were 51,247 vehicles involved in fatal crashes in 2019, of which 77 percent (39,412) were passenger vehicles.
- Occupant fatality rates per 100,000 registered vehicles from 2018 to 2019 decreased by 3 percent for passenger cars and decreased by 4 percent for light trucks. Among light-truck categories, occupant fatality rates decreased by 3 percent for SUVs, 3 percent for pickups, and 4 percent for vans.
- Among the passenger vehicle occupants killed in 2019 in motor vehicle traffic crashes, 55 percent were passenger car

- occupants and 45 percent were light-truck occupants.
- When a passenger car and a light truck hit head-on in a fatal crash in 2019, an occupant was 2.9 times more frequently killed in the passenger car than in the light truck.
- Eighty-one percent of passenger vehicle occupants who were totally ejected from vehicles involved in fatal crashes in 2019 were killed.
- Among passenger vehicle occupants killed in 2019 by vehicle type, the percentage of fatalities in rollover crashes was highest for SUVs (41%), followed by pickups (38%), vans (25%), and passenger cars (20%).
- Drivers of pickups had the highest percentage of alcohol impairment in fatal crashes (21%) compared to other passenger vehicle drivers (20% for passenger cars, 18% for SUVs, and 12% for vans) in 2019.

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 National Automotive Sampling System (NASS) General Estimates System (GES) and Crash Report Sampling System (CRSS). Refer to the end of this publication for more information on FARS, NASS GES, and CRSS.

A motor vehicle traffic crash is defined as an incident that involved one or more motor vehicles in transport that originated on a public trafficway, such as a road or highway. Crashes that occurred on private property, including parking lots and driveways, are excluded. The terms "motor vehicle traffic crash" and "traffic crash" are used interchangeably.



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# **Registration Data Changes**

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.

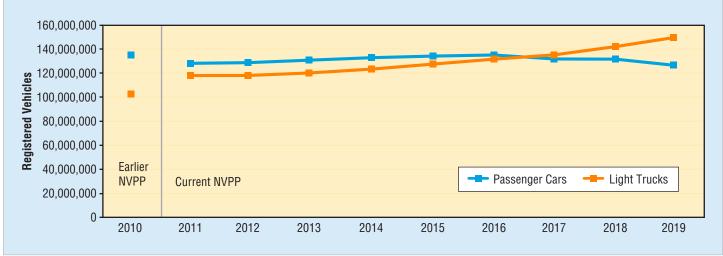
Due to enhancements in the passenger vehicle registration data from 2011 to 2019, registration counts for these years are calculated differently from the counts in 2010 (Table 1 and Appendix). Consequently, the 2011-2019 data in this fact sheet for vehicle registration and fatality rates is not comparable with the data for all prior years, which were based on Polk's earlier NVPP. To make suitable comparisons over the

10-year period, all vehicle registration and fatality rate data is presented across two sets of years, 2010 and 2011–2019.

Figure 1 highlights the passenger car and light-truck registration data changes between the earlier NVPP (2010) and the current NVPP (2011-2019). Since 2017 the number of registered light trucks was more than the number of registered passenger cars. From 2018 to 2019 passenger car registrations decreased by 2 percent and light-truck registrations increased by 4 percent. Among the light-truck categories in 2019 compared to 2018, SUV registrations increased by 7 percent, pickup registrations increased by 2 percent, and van registrations decreased by 2 percent.

Figure 1

Passenger Car and Light-Truck Registrations, 2010–2019



Source: Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions Note: Due to a change in Polk's 2011–2019 passenger vehicle registration data processes, results for these years are not comparable to prior years. Refer to the appendix for more information about these changes.

#### **Overview**

In 2019:

- There were 22,215 passenger vehicle occupants (including drivers and passengers) who died in traffic crashes and an estimated 2,448,000 passenger vehicle occupants who were injured.
- Passenger vehicles made up 92 percent of registered vehicles and accounted for 90 percent of total VMT.
- An estimated 12,145,000 vehicles were involved in policereported traffic crashes; 94 percent (11,408,000) were passenger vehicles.
- There were 51,247 vehicles involved in fatal crashes, of which 77 percent (39,412) were passenger vehicles.

Figure 2 displays the occupant fatality rates per 100,000 registered vehicles for four passenger vehicle types (passenger

cars, SUVs, pickups, and vans) from 2010 to 2019. Overall, the occupant fatality rate trend for each vehicle type generally decreased over time with a slight increase around 2014 to 2016. The data for Figure 2 is presented in Tables 1 and 2.

In 2019 passenger car occupant fatality rate continued to be the highest (9.42), followed by pickup occupant fatality rate (7.74), SUV occupant fatality rate (6.22), and van occupant fatality rate (6.08). Occupant fatality rates per 100,000 registered vehicles from 2018 to 2019 decreased by 3 percent (from 9.70 to 9.42) for passenger cars and decreased by 4 percent (from 7.05 to 6.80) for light trucks. Among light-truck categories, occupant fatality rates decreased by 3 percent (from 6.41 to 6.22) for SUVs, decreased by 3 percent (from 8.02 to 7.74) for pickups, and decreased by 4 percent (from 6.33 to 6.08) for vans.

20.00 Occupant Fatality Rate per 100,000 Registered Vehicles Passenger Cars SUVs **Pickups** Vans 15.00 10.00 5.00 Earlier **NVPP** Current NVPP 0.00 2010 2011 2013 2014 2015 2016 2017 2019 2012 2018

Figure 2
Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles, by Vehicle Type, 2010–2019

Sources: Fatalities – FARS 2010–2018 Final File, 2019 Annual Report File (ARF); Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions

Note: Due to a change in Polk's 2011–2019 passenger vehicle registration data processes, results for these years are not comparable to prior years. Refer to the appendix for more information about these changes.

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 for total passenger vehicles as well as separately for passenger cars and light trucks from 2010 to 2019.

- The percentage of passenger car occupant fatalities decreased from 56 percent in 2010 (12,491 of 22,273) to 55 percent in 2019 (12,239 of 22,215).
- The percentage of light-truck occupant fatalities increased from 44 percent in 2010 (9,782 of 22,273) to 45 percent in 2019 (9,976 of 22,215).
- The bullets below focus on current NVPP data only for 2011 to 2019. (Note: CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.)
  - The total passenger vehicle occupant fatality rate ranged from a high of 8.91 in 2016 to a low of 8.03 in 2019.

- The passenger car occupant fatality rate ranged from a high of 10.14 in 2017 to a low of 9.11 in 2014.
- The light-truck occupant fatality rate ranged from a high of 7.93 in 2012 to a low of 6.80 in 2019.
- The total passenger vehicle occupant injury rate for 2011 to 2015 ranged from a high of 853 in 2012 to a low of 805 in 2011. The passenger vehicle occupant injury rate for CRSS dropped from 1,021 in 2016 to 885 in 2019.
- The passenger car occupant injury rate for 2011 to 2015 ranged from a high of 1,047 in 2012 to a low of 980 in 2011. The passenger car occupant injury rate for CRSS dropped from 1,254 in 2016 to 1,137 in 2018 and then increased to 1,152 in 2019.
- The light-truck occupant injury rate for 2011 to 2015 ranged from a high of 646 in 2012 to a low of 617 in 2011. The light-truck occupant injury rate for CRSS dropped from 784 in 2016 to 648 in 2019.

Table 1
Passenger Vehicle Occupants Killed and Injured, Registered Vehicles, and Occupant Fatality/Injury Rates per 100,000
Registered Vehicles, by Vehicle Type, 2010–2019

		Passenger Cars			Light Trucks*		Total	Passenger Vehi	cles*
Year	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate
2010	12,491	135,310,480	9.23	9,782	102,376,147	9.55	22,273	237,686,627	9.37
2011	12,014	126,966,714	9.46	9,302	118,702,389	7.84	21,316	245,669,103	8.68
2012	12,361	127,077,676	9.73	9,418	118,690,690	7.93	21,779	245,768,366	8.86
2013	12,037	128,936,225	9.34	9,186	120,491,485	7.62	21,223	249,427,710	8.51
2014	11,947	131,138,925	9.11	9,103	123,470,278	7.37	21,050	254,609,203	8.27
2015	12,763	133,218,366	9.58	9,878	127,401,053	7.75	22,641	260,619,419	8.69
2016	13,508	134,827,696	10.02	10,279	132,052,102	7.78	23,787	266,879,798	8.91
2017	13,477	132,864,363	10.14	10,186	135,594,973	7.51	23,663	268,459,336	8.81
2018	12,888	132,837,515	9.70	9,957	141,312,896	7.05	22,845	274,150,411	8.33
2019	12,239	129,990,647	9.42	9,976	146,599,477	6.80	22,215	276,590,124	8.03
Year	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate
2010	1,256,000	135,310,480	928	737,000	102,376,147	720	1,993,000	237,686,627	839
2011	1,244,000	126,966,714	980	733,000	118,702,389	617	1,976,000	245,669,103	805
2012	1,330,000	127,077,676	1,047	766,000	118,690,690	646	2,097,000	245,768,366	853
2013	1,299,000	128,936,225	1,007	753,000	120,491,485	625	2,051,000	249,427,710	822
2014	1,294,000	131,138,925	987	784,000	123,470,278	635	2,078,000	254,609,203	816
2015	1,382,000	133,218,366	1,038	809,000	127,401,053	635	2,191,000	260,619,419	841
2016 <sup>†</sup>	1,690,000	134,827,696	1,254	1,035,000	132,052,102	784	2,725,000	266,879,798	1,021
2017†	1,529,000	132,864,363	1,151	937,000	135,594,973	691	2,466,000	268,459,336	919
2018 <sup>†</sup>	1,511,000	132,837,515	1,137	921,000	141,312,896	652	2,432,000	274,150,411	887
2019 <sup>†</sup>	1,498,000	129,990,647	1,152	950,000	146,599,477	648	2,448,000	276,590,124	885

Sources: Fatalities – FARS 2010–2018 Final File, 2019 ARF; Injured – NASS GES 2010–2015, CRSS 2016–2019; Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions

Note: Due to a change in Polk's 2011–2019 passenger vehicle registration data processes, results for these years are not comparable to prior years. Refer to the appendix for more information about these changes.

Table 2 presents the same information as in Table 1 for three light-truck categories (SUVs, pickups, and vans) from 2010 to 2019. The bullets focus on current NVPP data only for the years 2011-2019. (Note: CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.)

- The SUV occupant fatality rate ranged from a high of 7.74 in 2011 to a low of 6.22 in 2019.
- The pickup occupant fatality rate ranged from a high of 8.96 in 2012 and 2015, respectively, to a low of 7.74 in 2019.
- The van occupant fatality rate ranged from a high of 7.01 in 2016 to a low of 5.66 in 2014.

- The SUV occupant injury rate for 2011 to 2015 ranged from a high of 756 in 2012 to a low of 708 in 2011. The SUV occupant injury rate for CRSS dropped from 921 in 2016 to 734 in 2019.
- The pickup occupant injury rate for 2011 to 2015 ranged from a high of 500 in 2012 to a low of 464 in 2013. The pickup occupant injury rate for CRSS dropped from 574 in 2016 to 492 in 2019.
- The van occupant injury rate for 2011 to 2015 ranged from a high of 764 in 2013 to a low of 691 in 2015. The van occupant injury rate for CRSS dropped from 845 in 2016 to 714 in 2018 and then increased to 735 in 2019.

<sup>\*</sup>Includes other/unknown light-truck vehicle types.

<sup>\*</sup>CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.

Table 2
Light-Truck Occupants Killed and Injured, Registered Vehicles, and Occupant Fatality/Injury Rates per 100,000
Registered Vehicles, by Vehicle Type, 2010–2019

				Light	-Truck Vehicle 1	Гуре*			
		SUVs			Pickups			Vans	
Year	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate	Occupant Fatalities	Registered Vehicles	Occupant Fatality Rate
2010	3,942	42,378,757	9.30	4,486	41,596,353	10.78	1,346	17,732,967	7.59
2011	3,884	50,161,565	7.74	4,270	48,912,291	8.73	1,128	19,592,314	5.76
2012	3,885	51,305,806	7.57	4,343	48,465,436	8.96	1,167	18,886,646	6.18
2013	3,831	53,477,838	7.16	4,175	48,644,891	8.58	1,142	18,339,481	6.23
2014	3,800	56,277,894	6.75	4,249	49,134,966	8.65	1,021	18,030,322	5.66
2015	4,213	59,662,508	7.06	4,471	49,911,616	8.96	1,128	17,801,045	6.34
2016	4,462	63,137,745	7.07	4,470	51,212,656	8.73	1,240	17,677,143	7.01
2017	4,610	66,483,111	6.93	4,335	51,853,163	8.36	1,175	17,235,329	6.82
2018	4,554	71,048,354	6.41	4,267	53,177,694	8.02	1,081	17,064,295	6.33
2019	4,709	75,685,070	6.22	4,194	54,174,715	7.74	1,017	16,718,278	6.08
Year	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate	Occupants Injured	Registered Vehicles	Occupant Injury Rate
2010	361,000	42,378,757	853	221,000	41,596,353	530	135,000	17,732,967	763
2011	355,000	50,161,565	708	238,000	48,912,291	486	139,000	19,592,314	710
2012	388,000	51,305,806	756	242,000	48,465,436	500	135,000	18,886,646	717
2013	384,000	53,477,838	719	225,000	48,644,891	464	140,000	18,339,481	764
2014	411,000	56,277,894	730	242,000	49,134,966	492	130,000	18,030,322	721
2015	439,000	59,662,508	735	243,000	49,911,616	488	123,000	17,801,045	691
2016 <sup>†</sup>	581,000	63,137,745	921	294,000	51,212,656	574	149,000	17,677,143	845
2017 <sup>†</sup>	536,000	66,483,111	807	259,000	51,853,163	500	137,000	17,235,329	797
2018 <sup>†</sup>	530,000	71,048,354	747	265,000	53,177,694	499	122,000	17,064,295	714
2019†	556,000	75,685,070	734	267,000	54,174,715	492	123,000	16,718,278	735

Sources: Fatalities – FARS 2010–2018 Final File, 2019 ARF; Injured – NASS GES 2010–2015, CRSS 2016–2019; Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions

Note: Due to a change in Polk's 2011–2019 passenger vehicle registration data processes, results for these years are not comparable to prior years. Refer to the appendix for more information about these changes.

Every year the Federal Highway Administration releases 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 2010 to 2019. Some highlights:

■ The occupant fatality rate per 100 million VMT for passenger cars ranged from a high of 0.95 in 2017 to a low of 0.83 in 2010.

- The occupant fatality rate for light trucks ranged from a high of 0.86 in 2010 to a low of 0.64 in 2019.
- The 2019 occupant injury rate for passenger cars was 109.
- The 2019 occupant injury rate for light trucks was 61.

<sup>\*</sup>Excludes other/unknown light-truck vehicle types.

<sup>\*</sup>CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.

Table 3

Passenger Vehicle Occupants Killed and Injured, Vehicles Miles Traveled, and Occupant Fatality/Injury Rates per 100
Million VMT, by Vehicle Type, 2010–2019

			Passenger V						
		Passenger Cars			Light Trucks*		To	tal Passenger Vehicl	les*
Year	Occupant Fatalities	VMT (millions)	Occupant Fatality Rate	Occupant Fatalities	VMT (millions)	Occupant Fatality Rate	Occupant Fatalities	VMT (millions)	Occupant Fatality Rate
2010	12,491	1,507,716	0.83	9,782	1,140,740	0.86	22,273	2,648,456	0.84
2011	12,014	1,369,810	0.88	9,302	1,280,648	0.73	21,316	2,650,458	0.80
2012	12,361	1,377,486	0.90	9,418	1,286,574	0.73	21,779	2,664,060	0.82
2013	12,037	1,384,194	0.87	9,186	1,293,536	0.71	21,223	2,677,730	0.79
2014	11,947	1,396,098	0.86	9,103	1,314,458	0.69	21,050	2,710,556	0.78
2015	12,763	1,420,869	0.90	9,878	1,358,824	0.73	22,641	2,779,693	0.81
2016	13,508	1,439,678	0.94	10,279	1,410,040	0.73	23,787	2,849,718	0.83
2017	13,477	1,424,056	0.95	10,186	1,453,322	0.70	23,663	2,877,378	0.82
2018	12,888	1,403,760	0.92	9,957	1,493,323	0.67	22,845	2,897,083	0.79
2019	12,239	1,374,234	0.89	9,976	1,549,819	0.64	22,215	2,924,053	0.76
Year	Occupants Injured	VMT (millions)	Occupant Injury Rate	Occupants Injured	VMT (millions)	Occupant Injury Rate	Occupants Injured	VMT (millions)	Occupant Injury Rate
2010	1,256,000	1,507,716	83	737,000	1,140,740	65	1,993,000	2,648,456	75
2011	1,244,000	1,369,810	91	733,000	1,280,648	57	1,976,000	2,650,458	75
2012	1,330,000	1,377,486	97	766,000	1,286,574	60	2,097,000	2,664,060	79
2013	1,299,000	1,384,194	94	753,000	1,293,536	58	2,051,000	2,677,730	77
2014	1,294,000	1,396,098	93	784,000	1,314,458	60	2,078,000	2,710,556	77
2015	1,382,000	1,420,869	97	809,000	1,358,824	60	2,191,000	2,779,693	79
2016 <sup>†</sup>	1,690,000	1,439,678	117	1,035,000	1,410,040	73	2,725,000	2,849,718	96
2017 <sup>†</sup>	1,529,000	1,424,056	107	937,000	1,453,322	64	2,466,000	2,877,378	86
2018 <sup>†</sup>	1,511,000	1,403,760	108	921,000	1,493,323	62	2,432,000	2,897,083	84
2019 <sup>†</sup>	1,498,000	1,374,234	109	950,000	1,549,819	61	2,448,000	2,924,053	84

Sources: Fatalities - FARS 2010-2018 Final File, 2019 ARF; Injured - NASS GES 2010-2015, CRSS 2016-2019; VMT - Federal Highway Administration (FHWA)

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

In 2019 there were 3,258 fatal two-vehicle crashes each involving a passenger car and a light truck, which accounted for 27 percent of all fatal two-vehicle crashes (11,879) and 10 percent of all fatal crashes (33,244). Figure 3 displays the number of occupant fatalities in two-vehicle crashes involving one passenger car and one light truck from 2010 to 2019. In these crashes, there was a range of 3.1 to 3.9 times as many passenger car occupant fatalities as light-truck occupant fatalities. Ratios between passenger car occupant fatalities and light-truck occupant fatalities were calculated by NHTSA. The lowest and highest of these calculated ratios are reported for this section. In more detail from 2010 to 2019:

- When a passenger car and a light truck hit head-on, an occupant was 2.9 to 3.7 times more frequently killed in the passenger car than in the light truck. In 2019 the ratio was 2.9.
- When the front of a passenger car hit the side of a light truck, an occupant was 1.3 to 1.7 times more frequently killed in the light truck than in the passenger car. In 2019 the ratio was 1.6.
- However, when the front of a light truck hit the side of a passenger car, an occupant was 13.3 to 22.7 times more frequently killed in the passenger car than in the light truck. In 2019 the ratio was 19.8.

CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.

<sup>\*</sup>Includes other/unknown light-truck vehicle types.

6,000 5.0 Ratio Passenger Cars Light Trucks 3.9 5,000 4.0 3.7 3.7 3.6 3.4 3.4 3.4 3.2 3.1 Occupant Fatalities 3.1 4,000 3.0 2,962 2,872 2,831 2,873 3,000 2,752 2,738 2.560 2,607 2,567 2,454 2.0 2,000 1.0 887 929 871 878 845 750 1,000 719 661 712 696 0 0.0 2011 2012 2013 2014 2015 2016 2017 2010 2018 2019

Figure 3
Occupant Fatalities and Ratios in Two-Vehicle Crashes Involving a Passenger Car and a Light Truck, 2010–2019

Source: FARS 2010-2018 Final File, 2019 ARF

Table 4 presents the number of occupant fatalities in twovehicle crashes between one passenger car and one light truck from 2018 to 2019:

- The number of passenger car occupant fatalities decreased by 7.6 percent from 2,962 in 2018 to 2,738 in 2019.
- The number of light-truck occupant fatalities decreased by 0.8 percent from 878 in 2018 to 871 in 2019.

Table 4
Occupant Fatalities in Two-Vehicle Crashes Involving a
Passenger Car and a Light Truck, 2018 and 2019

		-	
	Ye	Percent	
Occupants	2018	2019	Change
Killed in Passenger Cars	2,962	2,738	-7.6%
Killed in Light Trucks	878	871	-0.8%

Source: FARS 2018 Final File, 2019 ARF

#### **Restraint Use**

The 2019 National Occupant Protection Use Survey (NOPUS) observed that the seat belt use rate among adult front-seat occupants was 90.7 percent for passenger vehicles, 91.2 percent for passenger cars, 92.5 percent for vans and SUVs, and 85.6 percent for pickups.<sup>1</sup>

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 moderateto-critical injury by 65 percent.<sup>2</sup> Seat belts saved an estimated 14,955 lives of passenger vehicle occupants 5 and older in 2017 (latest data available).<sup>3</sup>

In fatal crashes in 2019 there were 22,215 passenger vehicle occupants who were killed. Rural areas accounted for 54 percent of these occupant fatalities. For these passenger vehicle occupant fatalities occurring in rural areas, 48 percent were unrestrained (based on known restraint use) compared to 45 percent in urban areas (based on known restraint use). Sixty 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.

<sup>&</sup>lt;sup>1</sup> National Center for Statistics and Analysis. (2019, December). Seat belt use in 2019 – Overall results (Traffic Safety Facts Research Note. Report No. DOT HS 812 875). National Highway Traffic Safety Administration. Available at <a href="https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812875">https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812875</a>

<sup>&</sup>lt;sup>2</sup> 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. Available at <a href="https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812069">https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812069</a>

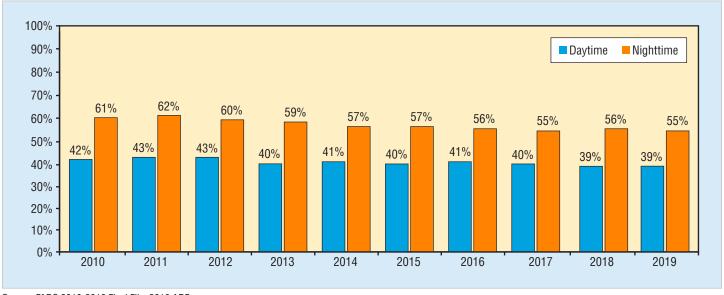
<sup>&</sup>lt;sup>3</sup> National Center for Statistics and Analysis. (2019, March). Lives saved in 2017 by restraint use and minimum drinking-age-laws (Traffic Safety Facts Crash•Stats. Report No. DOT HS 812 683). National Highway Traffic Safety Administration. Available at <a href="https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812683">https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812683</a>

Figure 4 displays the gradual decline of the percentage of passenger vehicle occupants killed who were unrestrained (based on known restraint use) by time of day:

- Daytime (6 a.m. to 5:59 p.m.) declined from 42 percent in 2010 to 39 percent in 2019.
- Nighttime (6 p.m. to 5:59 a.m.) declined from 61 percent in 2010 to 55 percent in 2019.

Figure 4

Percentage of Unrestrained\* Passenger Vehicle Occupant Fatalities, by Time of Day, 2010–2019



Source: FARS 2010-2018 Final File, 2019 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, by vehicle type and time of day, from 2010 to 2019. Passenger car fatalities had the lowest daytime percentage (35%) and van

occupant fatalities had the lowest nighttime percentage (50%) of unrestrained occupant fatalities in 2019 (based on known restraint use), while pickup occupant fatalities had the highest percentage (51% daytime and 65% nighttime).

Table 5
Percentage of Unrestrained\* Passenger Vehicle Occupant Fatalities, by Time of Day and Vehicle Type, 2010–2019

			Р	assenger Vehicle Typ	е		
Time of D	av and	Passenger		Light <sup>*</sup>	Trucks		Total Passenger
Yea	•	Cars	SUVs	Pickups	Vans	Total†	Vehicles†
	2010	35%	51%	56%	44%	52%	42%
	2011	36%	51%	55%	43%	52%	43%
	2012	36%	52%	57%	37%	52%	43%
	2013	34%	47%	52%	42%	48%	40%
Daytime	2014	34%	48%	53%	33%	49%	41%
Daylille	2015	34%	46%	52%	39%	48%	40%
	2016	34%	47%	54%	36%	48%	41%
	2017	35%	43%	52%	35%	46%	40%
	2018	34%	43%	51%	39%	46%	39%
	2019	35%	39%	51%	36%	44%	39%

Table 5 (continued)

			P	assenger Vehicle Typ	e		
Time of D	av and	Passenger		Light <sup>*</sup>	Trucks		Total Passenger
Yea	-	Cars	SUVs	Pickups	Vans	Total†	Vehicles†
	2010	55%	68%	74%	59%	70%	61%
	2011	56%	66%	75%	57%	69%	62%
	2012	54%	68%	72%	54%	68%	60%
	2013	52%	66%	73%	53%	68%	59%
Nighttima	2014	51%	63%	71%	50%	66%	57%
Nighttime	2015	51%	64%	69%	49%	65%	57%
	2016	50%	63%	69%	48%	64%	56%
	2017	48%	62%	68%	51%	63%	55%
	2018	51%	61%	69%	44%	63%	56%
	2019	51%	58%	65%	50%	61%	55%

Source: FARS 2010-2018 Final File, 2019 ARF

# **Ejection**

When totally ejected, the occupant's body was entirely outside the vehicle but may be 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-one percent of passenger vehicle occupants (3,494 of 4,313) who were totally ejected from vehicles involved in fatal crashes in 2019 were killed. Ejection from the 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 crashes in 2019. In passenger cars 12 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 Crashes, by Vehicle Type, Survival Status, and Ejection Status, 2019

						Ejection	1 Status						
						Eje	cted						
Vehicle Type by		Not Ejected		Totally Ejected		Partially	Ejected	Tot	tal†	Unknown		Total	
Survival S		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Cars	Killed	10,349	85%	1,427	12%	380	3%	1,836	15%	54	**	12,239	100%
	Survived	16,292	97%	308	2%	44	**	362	2%	141	1%	16,795	100%
	Total	26,641	92%	1,735	6%	424	1%	2,198	8%	195	1%	29,034	100%
Light Trucks*	Killed	7,294	73%	2,067	21%	545	5%	2,633	26%	49	**	9,976	100%
	Survived	20,208	96%	511	2%	67	**	590	3%	199	1%	20,997	100%
	Total	27,502	89%	2,578	8%	612	2%	3,223	10%	248	1%	30,973	100%
Passenger	Killed	17,643	79%	3,494	16%	925	4%	4,469	20%	103	**	22,215	100%
Vehicles*	Survived	36,500	97%	819	2%	111	**	952	3%	340	1%	37,792	100%
	Total	54,143	90%	4,313	7%	1,036	2%	5,421	9%	443	1%	60,007	100%

Source: FARS 2019 ARF

<sup>\*</sup>Based on known restraint use. Daytime – 6 a.m. to 5:59 p.m. Nighttime – 6 p.m. to 5:59 a.m.

<sup>†</sup>Includes occupants of other/unknown light-truck vehicle types.

<sup>\*</sup>Includes SUVs, pickups, vans, and other/unknown light-truck vehicle types.

<sup>\*\*</sup>Less than 0.5 percent.

<sup>†</sup>Includes unknowns if totally or partially ejected.

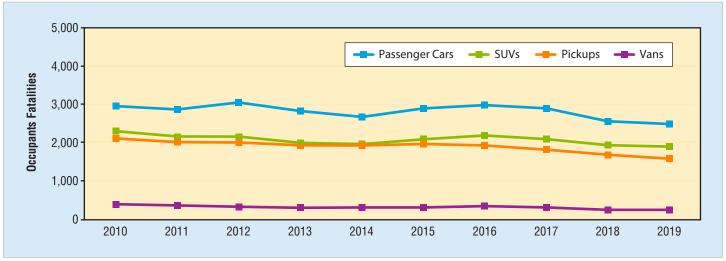
#### Rollover

A rollover crash is one of the most dangerous forms of crashes among passenger vehicles, accounting for more than a quarter (28%) of passenger vehicle occupant fatalities in 2019. Among passenger vehicle occupants killed in 2019 by vehicle type, the percentage of fatalities in rollover crashes was highest for SUVs (41%), followed by pickups (38%), vans (25%), and passenger cars (20%).

Overall, each of the four passenger vehicle categories in Figure 5 generally showed a decreasing trend in the number of occupants killed in rollover crashes from 2010 to 2019, with a slight increase from 2014 to 2016 for passenger cars and SUVs. The data used in Figure 5 is shown in Table 7.

Figure 5

Passenger Vehicle Occupant Fatalities in Rollover Crashes, by Vehicle Type, 2010–2019



Source: FARS 2010-2019 Final File, 2019 ARF

Table 7 presents the number of passenger vehicle occupants killed in rollover crashes by vehicle type from 2010 to 2019. In the 10-year period, the percentages of rollover occupant fatalities for:

- Total passenger vehicles decreased by 18 percent from 7,710 in 2010 to 6,291 in 2019;
- Passenger cars decreased by 15 percent from 2,933 in 2010 to 2,499 in 2019;
- SUVs decreased by 15 percent from 2,264 in 2010 to 1,914 in 2019;
- Pickups decreased by 24 percent from 2,098 in 2010 to 1,600 in 2019; and
- Vans decreased by 39 percent from 413 in 2010 to 253 in 2019.

Table 7

Passenger Vehicle Occupant Fatalities in Rollover Crashes, by Vehicle Type, 2010–2019

			Light '	Trucks		
Year	Passenger Cars	SUVs	Pickups	Vans	Total*	Total Passenger Vehicles*
2010	2,933	2,264	2,098	413	4,777	7,710
2011	2,849	2,172	1,993	375	4,551	7,400
2012	3,025	2,161	2,012	326	4,502	7,527
2013	2,823	1,966	1,903	326	4,207	7,030
2014	2,663	1,965	1,907	305	4,186	6,849
2015	2,878	2,073	1,942	308	4,346	7,224
2016	2,973	2,160	1,933	347	4,493	7,466
2017	2,891	2,122	1,831	326	4,304	7,195
2018	2,607	1,965	1,701	259	3,959	6,566
2019	2,499	1,914	1,600	253	3,792	6,291

Source: FARS 2010-2018 Final File, 2019 ARF

<sup>\*</sup>Includes occupants of other/unknown light-truck vehicle types.

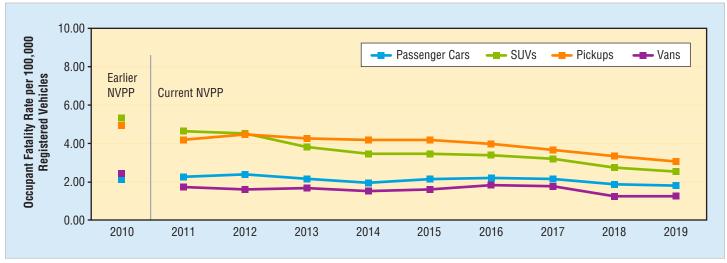
Among passenger vehicles involved in rural fatal crashes in 2019 by vehicle type, SUVs experienced the highest rollover percentage (32%) compared to 28 percent for pickups, 20 percent for vans, and 19 percent for passenger cars. The rollover percentages for passenger vehicles in urban areas by vehicle

type were much lower: 14 percent for SUVs, 12 percent for pickups, 7 percent for vans, and 8 percent for passenger cars.

Figure 6 displays the occupant fatality rates per 100,000 registered vehicles in rollover crashes by vehicle type from 2010 to 2019. The data for Figure 6 is presented in Table 8.

Figure 6

Passenger Vehicle Occupant Fatality Rates per 100,000 Registered Vehicles in Rollover Crashes, by Vehicle Type, 2010–2019



Sources: Fatalities – FARS 2010–2018 Final File, 2019 ARF; Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions

Note: Due to a change in Polk's 2011–2019 passenger vehicle registration data processes, results for these years are not comparable to prior years. Refer to the appendix for more information about these changes.

Table 8 presents the passenger vehicle occupant fatality rates per 100,000 registered vehicles in rollover crashes by vehicle type from 2010 to 2019. The occupant fatality rates in rollover crashes in current NVPP for:

- Total passenger vehicles decreased by 25 percent from 3.01 in 2011 to 2.27 in 2019,
- Passenger cars decreased by 14 percent from 2.24 in 2011 to 1.92 in 2019,
- SUVs decreased by 42 percent from 4.33 in 2011 to 2.53 in 2019,
- Pickups decreased by 28 percent from 4.07 in 2011 to 2.95 in 2019, and
- Vans decreased by 21 percent from 1.91 in 2011 to 1.51 in 2019.

Table 8

Passenger Vehicle Occupant Fatality Rates Per 100,000 Registered Vehicles in Rollover Crashes, by Vehicle Type, 2010-2019

		Р	assenger Vehicle Typ	ie							
			Light Trucks								
Year	Passenger Cars	SUVs	Pickups	Vans	Total*	Total Passenger Vehicles*					
2010	2.17	5.34	5.04	2.33	4.67	3.24					
2011	2.24	4.33	4.07	1.91	3.83	3.01					
2012	2.38	4.21	4.15	1.73	3.79	3.06					
2013	2.19	3.68	3.91	1.78	3.49	2.82					
2014	2.03	3.49	3.88	1.69	3.39	2.69					
2015	2.16	3.47	3.89	1.73	3.41	2.77					
2016	2.21	3.42	3.77	1.96	3.40	2.80					
2017	2.18	3.19	3.53	1.89	3.17	2.68					
2018	1.96	2.77	3.20	1.52	2.80	2.40					
2019	1.92	2.53	2.95	1.51	2.59	2.27					

Sources: Fatalities – FARS 2010–2018 Final File, 2019 ARF; Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions

Note: Due to a change in Polk's 2011–2019 passenger vehicle registration data processes, results for these years are not comparable to prior years. Refer to the appendix for more information about these changes.

#### 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 2010 to 2019 the percentage of alcohol-impaired passenger vehicle drivers involved (killed and survived) in fatal crashes decreased slightly among each vehicle type as shown in Table 9. Pickup drivers had the highest per-

centage of alcohol impairment in fatal crashes (21%) compared to other passenger vehicle drivers (20% for passenger cars, 18% for SUVs, and 12% for vans) in 2019. The percentage of alcohol-impaired van drivers involved in fatal crashes was substantially lower than other passenger vehicle drivers.

Table 9
Percentage of Alcohol-Impaired Passenger Vehicle Drivers Involved in Fatal Crashes, by Vehicle Type, 2010–2019

				Driver	s by Passei	nger Vehicl	е Туре					
						Light	Trucks				Α	II
	Passeng	jer Cars	SUVs		Pickups		Vans		Total*		Passenger Vehicles*	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2010	4,164	24%	1,423	21%	2,041	25%	286	12%	3,752	22%	7,916	23%
2011	4,103	24%	1,410	21%	1,877	24%	256	12%	3,551	21%	7,654	22%
2012	4,129	23%	1,482	21%	1,919	24%	253	12%	3,663	21%	7,792	22%
2013	4,072	23%	1,420	21%	1,887	24%	251	12%	3,573	21%	7,645	22%
2014	3,892	22%	1,494	21%	1,936	25%	246	12%	3,688	22%	7,579	22%
2015	4,087	21%	1,543	20%	2,058	24%	230	11%	3,866	21%	7,953	21%
2016	4,423	21%	1,641	19%	1,965	23%	279	12%	3,933	20%	8,356	20%
2017	4,286	20%	1,718	19%	1,923	22%	324	15%	3,991	20%	8,277	20%
2018	4,479	22%	1,680	19%	1,831	21%	252	12%	3,788	19%	8,267	21%
2019	3,975	20%	1,637	18%	1,828	21%	238	12%	3,731	19%	7,705	20%

Source: FARS 2010-2018 Final File, 2019 ARF

<sup>\*</sup>Includes other/unknown light-truck vehicle types.

<sup>\*</sup>Includes drivers of other/unknown light-truck vehicle types.

#### State

Figure 7 shows a heat map of the percentage of passenger vehicle occupant fatalities compared to total traffic fatalities within the State. In general, the States with lower percentages of passenger vehicle occupant fatalities were more likely to have nonoccupant (pedestrian or pedalcyclist) or other traffic fatalities than the States with higher percentages. The percentages ranged from 43 percent (Hawaii and the District of Columbia) to 78 percent (Mississippi), compared to the national average of 62 percent.

For each State, the District of Columbia, and Puerto Rico, Table 10 presents the number of passenger vehicle occupant fatalities in 2019 by vehicle type. Puerto Rico is not included in the overall U.S. total. Of the total passenger vehicle fatalities

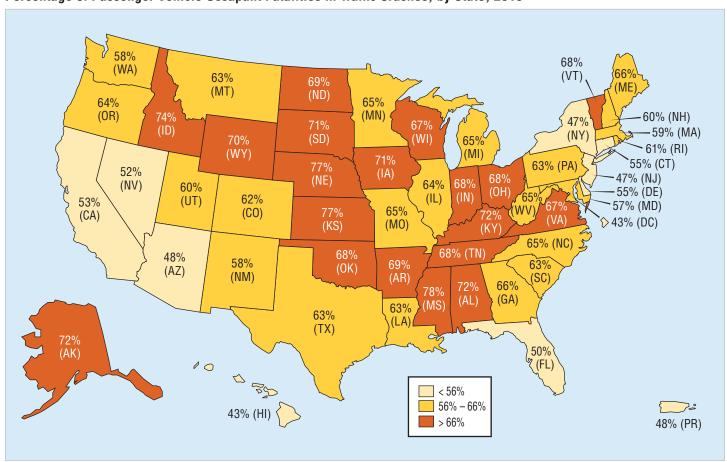
by State (excluding the District of Columbia and Puerto Rico) in 2019:

- The State with the largest percentage of passenger car fatalities was Rhode Island (74%), followed by New Jersey (73%).
- The State with the largest percentage of SUV fatalities was Alaska (38%).
- The State with the largest percentage of pickup fatalities was Hawaii (33%), followed by Montana (31%).
- The State with the largest percentages of van fatalities was South Dakota (14%), followed by Wyoming (13%) and Iowa (11%).

Additional data visualization tools for fact sheets can be found at <a href="https://cdan.dot.gov/DataVisualization/DataVisualization.htm#">https://cdan.dot.gov/DataVisualization/DataVisualization.htm#</a>

Figure 7

Percentage of Passenger Vehicle Occupant Fatalities in Traffic Crashes, by State, 2019



Source: FARS 2019 ARF

Table 10
Passenger Vehicle Occupant Fatalities, by State and Vehicle Type, 2019

				F	assenger \						
					1		Trucks				Total Passenger
	Passen			Vs		cups		ns	Tot		Vehicle* Fatalities
State	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Alabama	362	54%	126	19%	160	24%	21	3%	311	46%	673
Alaska	17	35%	18	38%	13	27%	0	0%	31	65%	48
Arizona	236	51%	121	26%	77	17%	26	6%	230	49%	466
Arkansas	165	47%	72	21%	104	30%	9	3%	185	53%	350
California	1,189	63%	355	19%	287	15%	59	3%	711	37%	1,900
Colorado	168	45%	97	26%	92	25%	12	3%	202	55%	370
Connecticut	84	61%	31	23%	15	11%	7	5%	53	39%	137
Delaware	45	63%	13	18%	8	11%	6	8%	27	38%	72
Dist of Columbia	7	70%	3	30%	0	0%	0	0%	3	30%	10
Florida	974	61% 56%	307 194	19% 20%	218	14% 19%	80 54	5% 5%	611	39% 44%	1,585 989
Georgia	549 21	46%		17%	190 15	33%	1	2%	440 25	54%	46
Hawaii Idaho	66	40%	8 45	27%	44	27%	10	6%	100	60%	166
Illinois	380	59%	145	23%	78	12%	40	6%	263	41%	643
Indiana	302	55%	102	18%	112	20%	37	7%	251	41%	553
lowa	102	43%	58	24%	51	22%	26	11%	135	57%	237
Kansas	148	47%	69	22%	80	25%	18	6%	167	53%	315
Kentucky	306	58%	94	18%	103	20%	23	4%	220	42%	526
Louisiana	238	52%	84	18%	121	26%	13	3%	220	48%	458
Maine	53	51%	28	27%	19	18%	3	3%	50	49%	103
Maryland	203	68%	57	19%	29	10%	9	3%	95	32%	298
Massachusetts	116	59%	51	26%	20	10%	10	5%	82	41%	198
Michigan	370	57%	148	23%	95	15%	31	5%	274	43%	644
Minnesota	134	56%	47	20%	43	18%	14	6%	104	44%	238
Mississippi	288	57%	83	16%	114	23%	18	4%	216	43%	504
Missouri	304	53%	124	22%	115	20%	29	5%	270	47%	574
Montana	51	44%	26	22%	36	31%	3	3%	65	56%	116
Nebraska	90	47%	48	25%	40	21%	12	6%	101	53%	191
Nevada	91	58%	40	25%	23	15%	4	3%	67	42%	158
New Hampshire	36	59%	17	28%	7	11%	1	2%	25	41%	61
New Jersey	189	73%	46	18%	12	5%	13	5%	71	27%	260
New Mexico	107	43%	65	26%	67	27%	8	3%	140	57%	247
New York	256	58%	115	26%	40	9%	27	6%	182	42%	438
North Carolina	520	58%	190	21%	142	16%	36	4%	373	42%	893
North Dakota	24	35%	19	28%	19	28%	5	7%	45	65%	69
Ohio	446	57%	173	22%	115	15%	45	6%	334	43%	780
Oklahoma	210	48%	97	22%	116	27%	12	3%	225	52%	435
Oregon	167	53%	71	23%	66	21%	11	3%	148	47%	315
Pennsylvania	384	58%	159	24%	87	13%	35	5%	281	42%	665
Rhode Island	26	74%	7	20%	2	6%	0	0%	9	26%	35
South Carolina	346	55%	127	20%	119	19%	34	5%	282	45%	628
South Dakota	28	39%	13	18%	21	29%	10	14%	44	61%	72
Tennessee	440	57%	144	19%	163	21%	29	4%	337	43%	777
Texas	1,097	48%	510	22%	598	26%	69	3%	1,182	52%	2,279
Utah	76	51%	27	18%	40	27%	4	3%	73	49%	149
Vermont	22	69%	6	19%	4	13%	0	0%	10	31%	32
Virginia	328	59%	104	19%	93	17%	34	6%	231	41%	559
Washington	171	56%	64	21%	52	17%	16	5%	132	44%	303
West Virginia	78	46%	41	24%	43	25%	7	4%	91	54%	169
Wisconsin	194	51%	91	24%	60	16%	33	9%	184	49%	378
Wyoming U.S. Total	35	34%	29	28%	26	25%	13	13%	68	66%	103
II S IIII S I	12,239	55%	4,709	21%	4,194	<b>19%</b> 11%	1,017	<b>5%</b> 1%	9,976	<b>45%</b> 29%	22,215

Source: FARS 2019 ARF

<sup>\*</sup>Includes occupants of other/unknown light-truck vehicle types.

### **Appendix**

Polk improved the data quality of NVPP, which resulted in a complete rewrite of the data. They:

- Enhanced their business rules for vehicles on the road,
- Have more consistent reporting/processing across States, and
- Upgraded their basis for vehicle coding.

A comparison between Polk's earlier and current version of the NVPP registration data for 2011 shows that Polk's enhancements have resulted in over a 3-percent increase in passenger

vehicle registration counts from what was previously reported. When looking at passenger cars and light trucks separately, the passenger car count decreased by 5.6 percent and the light-truck count increased by 14.6 percent between the earlier NVPP and current NVPP for 2011 (see passenger car and light-truck counts in Table 11).

This fact sheet uses 2011-2019 data for passenger car and light-truck registrations based on Polk's current NVPP and 2010 data based on Polk's earlier NVPP.

Table 11
Registered Vehicles, by Vehicle Type, 2010–2019

			Registere	d Vehicles								
	Passenger		Light <sup>*</sup>	Trucks		Total Passenger						
Year	Cars	SUVs	Pickups	Vans	Total*	Vehicles*						
	Earlier NVPP											
2010	135,310,480	42,378,757	41,596,353	17,732,967	102,376,147	237,686,627						
2011	134,543,655	43,891,547	41,778,775	17,308,359	103,594,529	238,138,184						
	Current NVPP											
2011	126,966,714	50,161,565	48,912,291	19,592,314	118,702,389	245,669,103						
2012	127,077,676	51,305,806	48,465,436	18,886,646	118,690,690	245,768,366						
2013	128,936,225	53,447,838	48,644,891	18,339,481	120,491,485	249,427,710						
2014	131,138,925	56,277,894	49,134,966	18,030,322	123,470,278	254,609,203						
2015	133,218,366	59,662,508	49,911,616	17,801,045	127,401,053	260,619,419						
2016	134,827,696	63,137,745	51,212,656	17,677,143	132,052,102	266,879,798						
2017	132,864,363	66,483,111	51,853,163	17,235,329	135,594,973	268,459,336						
2018	132,837,515	71,048,354	53,177,694	17,064,295	141,312,896	274,150,411						
2019	129,990,647	75,685,070	54,174,715	16,718,278	146,599,477	276,590,124						

Source: Registered Vehicles – Polk data from R. L. Polk & Co., earlier NVPP (2010–2011) and current NVPP (2011–2019), a foundation of IHS Markit automotive solutions \*Includes other/unknown light-truck registrations.

### **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 public trafficway that results 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 <a href="https://www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system">www.nhtsa.gov/crash-data-systems/fatality-analysis-reporting-system</a>.

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 2019 ARF, the 2018 Final File was released to replace the 2018 ARF. The final fatality count in motor vehicle traffic crashes for 2018 was 36,835, which was updated from 36,560 in the 2018 ARF. The number of passenger vehicle occupant fatalities from the 2018 Final File was 22,845, which was updated from 22,697 from the 2018 ARF.

The 2016 and 2017 Final Files have been amended, but this amendment did not change the overall number of fatal crashes or fatalities.

#### **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. The new system, called CRSS, replaced the National Automotive Sampling System (NASS) General Estimates System (GES) in 2016. More information on CRSS can be found at <a href="https://www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss">www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss</a>.

# Methodology Change for Estimating People Injured

NCSA changed the methodology of estimating people nonfatally injured in motor vehicle traffic crashes. The new approach combines people nonfatally injured from both FARS and NASS GES/CRSS. This is done by extracting people nonfatally injured in fatal crashes from FARS with people nonfatally injured in police-reported injury crashes from NASS GES/CRSS. The old approach extracted people nonfatally injured from only NASS GES/CRSS, regardless of crash severity. This change in methodology caused some estimates of people injured to change for prior years.

The suggested APA format citation for this document is:

National Center for Statistics and Analysis. (2021, July). *Passenger vehicles: 2019 data* (Traffic Safety Facts. Report No. DOT HS 813 152). 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 <a href="MCSARequests@dot.gov">NCSA con Box 230-934-8517</a>. NCSA programs can be found at <a href="https://www.nhtsa.gov/data">www.nhtsa.gov/data</a>. Additional data tools, such as the State Traffic Safety Information (STSI), Fatality and Injury Reporting System Tool (FIRST), and more can be found at <a href="https://cdan.nhtsa.gov/">https://cdan.nhtsa.gov/</a>. To report a motor vehicle safety-related problem or to inquire about safety information, contact the Vehicle Safety Hotline at 888-327-4236 or <a href="https://www-odi.nhtsa.dot.gov/VehicleComplaint/">www-odi.nhtsa.dot.gov/VehicleComplaint/</a>.

Other fact sheets available from NCSA are Alcohol-Impaired Driving, Bicyclists and Other Cyclists, Children, Large Trucks, Motorcycles, Occupant Protection in Passenger Vehicles, Older Population, Pedestrians, Rural/Urban Comparison of Traffic Fatalities, School-Transportation-Related Crashes, Speeding, State Alcohol-Impaired-Driving Estimates, State Traffic Data, Summary of Motor Vehicle Crashes, and Young Drivers. Detailed data on motor vehicle traffic crashes are published annually in Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data. The fact sheets and Traffic Safety Facts annual report can be found at <a href="https://crashstats.nhtsa.dot.gov/">https://crashstats.nhtsa.dot.gov/</a>.

NHTSA's National Center for Statistics and Analysis



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