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

TRAFFIC SAFETY FACTS
Research Note

NHTSA

DOT HS 812 860 Summary of Statistical Findings Updated May 2020[1]

Police-Reported Motor Vehicle Traffic Crashes in 2018

Summary

In 2018, there were an estimated 6,734,000 police-reported motor vehicle traffic crashes in the United States, resulting in 36,560 fatalities and 2,710,000 people injured. Among these crashes, less than 1 percent (33,654) were fatal crashes, 28 percent (1,894,000) were injury crashes, and 71 percent (4,807,000) were property damage only (PDO) crashes (Table 1). The estimated 6,734,000 crashes in 2018 represents a 4.4-percent increase from the 6,453,000 police-reported crashes estimated to have occurred in 2017. This was a statistically significant increase.

Introduction

The year 2018 is the third year of data released by the National Highway Traffic Safety Administration from the recently modernized Crash Report Sampling System (CRSS) – a replacement of the National Automotive Sampling System General Estimates System (NASS GES). CRSS is designed to select a more efficient and flexible sample using updated traffic and demographic information. In 2018, police crash reports were sampled and coded at 60 selected sites across the nation. Weighting procedures were applied to generate nationally representative estimates of police-reported crashes. For more information, see the technical report, *Crash Report Sampling System: Sample Design and Weighting.*

This Research Note presents an overall summary of the estimated motor vehicle traffic crashes in 2018 and compares them with the corresponding estimates from 2017. For a more detailed explanation of the sample design, estimation protocols, and guidance on how to analyze the new data, please refer to the companion technical report, *Crash Report Sampling System: Design Overview, Analytic Guidance, and FAQs.* Fatal crash data presented in this Research Note comes from the Fatality Analysis Reporting System (FARS) – a nationwide census of fatal motor vehicle traffic crashes. For more information, see *www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars.*

Injury and PDO crash estimates are derived from CRSS. As for people injured, starting with 2018 reporting, NHTSA is implementing a change in how these estimates are derived. Injury estimates will be based on people injured in fatal crashes from FARS, and estimated people injured in non-fatal injury crashes from CRSS or NASS GES. Previously, NHTSA estimated people injured solely based on information from CRSS or NASS GES. The injury estimates for 2017 and 2018 presented in this Research Note are based on the updated methodology. For more information on the injury estimation methodology, see the Major Changes in 2018 section of this Research Note.

Table 1
Motor Vehicle Traffic Crashes in 2017 and 2018, by Crash Severity

Crash Severity	2017		2018		Difference (2017–2018) (95% Lower Confidence Limit: 95% Upper Confidence Limit)
	Estimates (Unrounded Estimates/Standard Error)	Percent of Total Crashes	Estimates (Unrounded Estimates/Standard Error)	Percent of Total Crashes	
Fatal	34,560	0.5%	33,654	0.5%	-906 (NA)
Injury	1,889,000 (1,888,525/90,982)	29.3%	1,894,000 (1,893,704/88,083)	28.1%	5,179 (-77,420:87,779)
PDO	***4,530,000*** (4,529,513/279,166)	70.2%	***4,807,000*** (4,807,058/262,531)	71.4%	277,545 (67,120:487,970)
Total	***6,453,000*** (6,452,598/354,567)	100.0%	***6,734,000*** (6,734,416/333,302)	100.0%	281,818 (10,099:553,538)

Sources: FARS 2017 Final File, 2018 Annual Report File (ARF); 2017–2018 CRSS Files.
Cells that are highlighted in bold and italics indicate statistically significant year-to-year difference at the α=.05 level. CRSS estimates have been rounded to the nearest thousand. Percentages have been computed based on unrounded estimates.

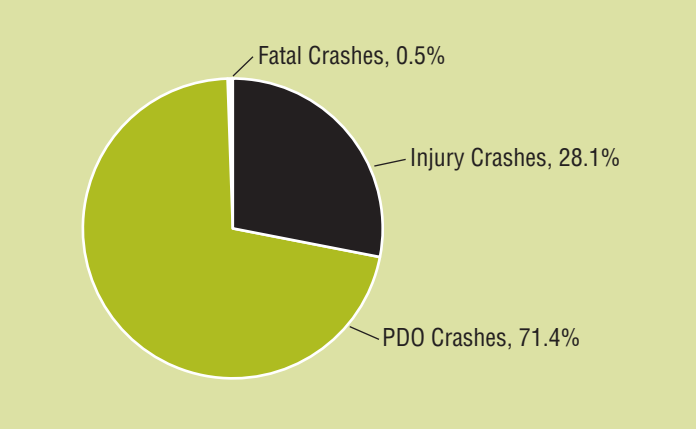
[1] This updated Research Note reflects recently released vehicle registration figures and rates derived from those that were not available when the publication was released.

Results

Crashes: As shown in Table 1, there were an estimated 6,734,000 police-reported crashes in 2018. A large portion (71.4%) were PDO crashes (Figure 1). There was a statistically significant increase in PDO crashes from 2017 to 2018. This increase is primarily related to changes in property damage reporting criteria at some data collection sites. For more information, see the Major Changes in 2018 section of this Research Note. There were an estimated 1,894,000 crashes that resulted in people non-fatally injured. FARS reported 33,654 fatal crashes in 2018 in the United States. While NHTSA usually reports non-fatal estimates rounded to the nearest thousand, unrounded estimates and the associated standard errors are also presented in Table 1. Crash Severity is the maximum injury severity among all people involved in the crash.

People Involved: As shown in Table 2, there were an estimated 16.213 million people involved in motor vehicle traffic crashes in 2018, a 2.9-percent increase from the estimated 15.759 million people involved in 2017. Among the 16.213 million people involved in crashes in 2018, 8.752 million people (54.0%) were occupants of passenger cars; 6.411 million (39.5%) were occupants of light trucks (including pickup trucks, vans and SUVs); 622,000 (3.8%) were occupants of large trucks; 117,000 (0.7%) were motorcyclists; and 83,000 (0.5%) were pedestrians. Among the 16.213 million people involved in 2018 crashes, 13.465 million (83.1%) did not suffer any injury, 2.710 million (16.7%) suffered non-fatal injuries, and 36,560 (0.2%) were killed.

Figure 1
Motor Vehicle Traffic Crashes in 2018, by Crash Severity



Sources: 2018 FARS ARF and CRSS.

Table 2
People Involved in Police-Reported Crashes in 2017 and 2018, by Vehicle/Nonoccupant Type and Injury Severity

Vehicle/ Nonoccupant Type	Killed			Injured			No Injury			Total		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Passenger Car	13,477	12,775	-5.2%	1,529,000	1,511,000	-1.2%	6,913,000	7,228,000	+4.5%	8,456,000	8,752,000	+3.5%
Light Truck	10,186	9,922	-2.6%	937,000	921,000	-1.7%	5,372,000	5,479,000	+2.0%	6,139,000	6,411,000	+1.4%
Large Truck	878	885	+0.8%	40,000	39,000	-2.0%	***512,000***	***582,000***	+13.7%	***553,000***	***622,000***	+12.5%
Motorcycle	5,229	4,985	-4.7%	***89,000***	***82,000***	-7.6%	32,000	30,000	-6.6%	126,000	117,000	-7.2%
Pedestrian	6,075	6,283	+3.4%	71,000	75,000	+5.4%	2,000	2,000	-23.8%	80,000	83,000	+4.4%
Pedalcyclist	806	857	+6.3%	50,000	47,000	-6.4%	5,000	4,000	-20.2%	55,000	51,000	-7.3%
Other*	822	853	+3.8%	30,000	35,000	+17.8%	139,000	140,000	+1.0%	170,000	177,000	+4.0%
Total	37,473	36,560	-2.4%	2,745,000	2,710,000	-1.3%	12,975,000	13,465,000	+3.8%	15,759,000	16,213,000	+2.9%

*Other includes occupants of buses/other/unknown vehicles and other/unknown nonoccupants.
Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files.
CRSS estimates have been rounded to the nearest thousand. Percentages have been computed based on unrounded estimates. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding.

Table 3 shows the fatality rate and estimated injury rate of people per 100,000 resident population, per 100,000 licensed drivers, per 100,000 registered vehicles, and per 100 million vehicle miles traveled (VMT). In 2018, the fatality rate was 11.17 per 100,000 resident population, 16.07 per 100,000 licensed drivers, 12.31 per 100,000 registered vehicles, and 1.13 per 100 million VMT. The 2018 injury rates were 828 per 100,000 resident population, 1,191 per 100,000 licensed drivers, 912 per 100,000 registered vehicles, and 84 per 100 million VMT.

Table 3
Fatality and Injury Rates per Population, Licensed Drivers, Registered Vehicles, and VMT in 2017 and 2018

Injury Severity	Number	Resident Population (Thousands)	Rate per 100,000 Population	Licensed Drivers (Thousands)	Rate per 100,000 Licensed Drivers	Registered Motor Vehicles (Thousands)	Rate per 100,000 Registered Vehicles	Vehicle Miles Traveled (Billions)	Rate per 100 Million VMT
2017									
Fatalities	37,473	325,147	11.52	225,346	16.63	290,387	12.90	3,212	1.17
Injuries	2,745,000		844		1,218		945		85
2018									
Fatalities	36,560	327,167	11.17	227,549	16.07	297,043	12.31	3,240	1.13
Injuries	2,710,000		828		1,191		912		84

Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files; Vehicle Miles Traveled and Licensed Drivers – Federal Highway Administration; Registered Vehicles – R. L. Polk & Co. and Federal Highway Administration; Population – Census Bureau. Injury rate estimates have been rounded to 1, and fatality rates rounded to the hundredths. CRSS estimates have been rounded to the nearest thousand.

Table 4 shows the estimated number of people killed or injured by person type (i.e., occupants – people in motor vehicles or on motorcycles, and nonoccupants – pedestrians, pedalcyclists, etc.), and age group.

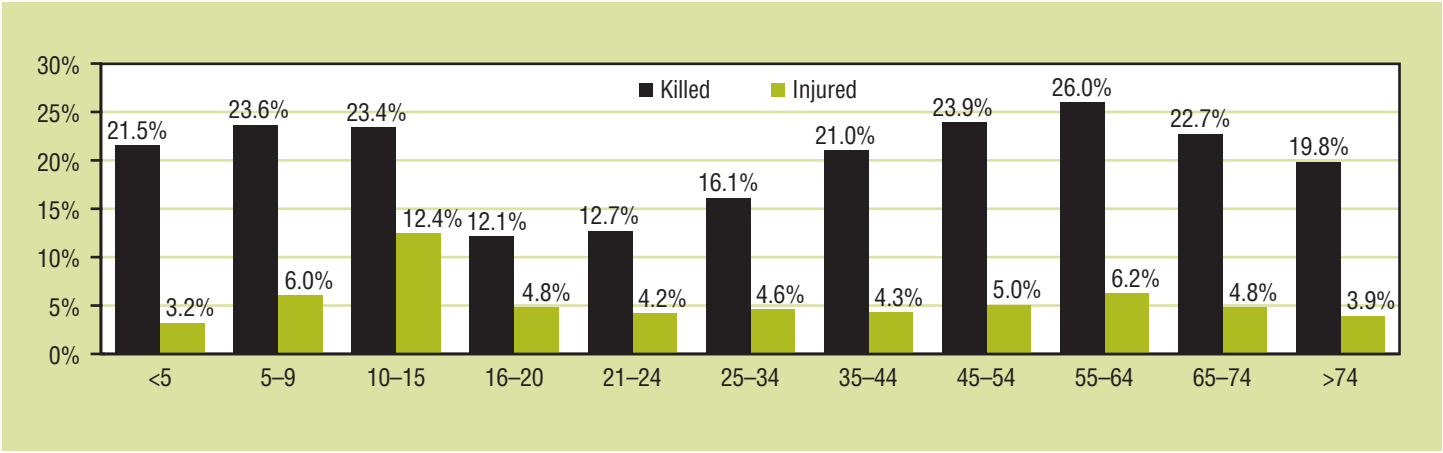
Table 4
People Killed or Injured in 2017 and 2018, by Person Type and Age Group

Injury Severity	Person Type	Age Group											
		<5	5–9	10–15	16–20	21–24	25–34	35–44	45–54	55–64	65–74	>74	Total*
2017													
Killed	Occupant	308	249	444	2,772	2,991	5,795	4,143	4,113	4,024	2,565	2,911	30,356
	Nonoccupant	96	72	178	357	354	1,027	953	1,257	1,362	730	649	7,117
Injured	Occupant	52,000	62,000	83,000	***317,000***	262,000	528,000	387,000	357,000	295,000	171,000	99,000	2,612,000
	Nonoccupant	2,000	4,000	13,000	16,000	12,000	24,000	18,000	17,000	***17,000***	7,000	4,000	133,000
2018													
Killed	Occupant	270	253	399	2,533	2,798	5,652	3,941	3,907	3,980	2,714	2,723	29,206
	Nonoccupant	74	78	122	350	406	1,081	1,048	1,229	1,400	799	671	7,354
Injured	Occupant	48,000	60,000	85,000	***282,000***	259,000	529,000	392,000	354,000	299,000	170,000	93,000	2,573,000
	Nonoccupant	2,000	4,000	12,000	14,000	11,000	25,000	18,000	19,000	***20,000***	9,000	4,000	137,000

*Total includes those with unknown age.
Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files.
CRSS estimates have been rounded to the nearest thousand. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding and unknown ages not displayed.

Figure 2 depicts the estimated percentage of people killed or injured in crashes who were nonoccupants, by their age groups. In each age group, the percentage of people killed who were nonoccupants was higher than the percentage of injured people who were nonoccupants. Among all age groups, 55- to 64-year-olds had the highest percentage of people who were nonoccupants killed (26.0%), and 10- to 15-year-olds had the highest percentage of people injured who were nonoccupants (12.4%).

Figure 2
Percentage of People Killed or Injured in Crashes Who Were Nonoccupants in 2018, by Age Group



Sources: 2018 FARS ARF and CRSS.

Vehicles Involved: As shown in Table 5, in 2018 an estimated 12.049 million vehicles were involved in police-reported motor vehicle traffic crashes of which 6.658 million (55.3%) were passenger cars, 4.670 million (38.8%) were light trucks, 531,000 (4.4%) were large trucks, 109,000 (0.9%) were motorcycles, and 65,000 (0.5%) were buses. An estimated 8.509 million vehicles were involved in a crash that resulted in no injury (PDO crashes), 3.488 million were involved in non-fatal injury crashes, and 51,872 were involved in fatal crashes. NHTSA's National Center for Statistics and Analysis (NCSA) identified issues with the classification of light pickup truck body types in CRSS. Light pickup truck body types are those vehicles that have gross vehicle weight ratings (GVWRs) of 10,000 lbs. or less. However, several of these vehicles had VIN-derived GVWRs over 10,000 lbs., which places them in a respective large truck body type with most in the medium/heavy pickup body type. The 2018 CRSS file reflects the corrective actions implemented based on the issues. Any issues existing in 2016 and 2017 year files were not addressed due to operational constraints.

Table 5
Vehicles Involved in Crashes in 2017 and 2018, by Crash Severity and Vehicle Type

Crash Severity	Passenger Car	Light Truck	Large Truck	Motorcycle	Bus	Other/Unknown Vehicle	Total
2017							
Fatal (FARS)	21,273	20,015	4,804	5,385	234	1,417	53,128
Injury	1,956,000	1,334,000	107,000	***85,000***	15,000	6,000	3,502,000
PDO	***4,354,000***	***3,188,000***	***363,000***	26,000	52,000	9,000	***7,992,000***
Total (% of Total)	6,332,000 (54.8%)	4,542,000 (39.3%)	***475,000*** (4.1%)	116,000 (1.0%)	67,000 (0.6%)	16,000 (0.1%)	***11,548,000*** (100%)
2018							
Fatal (FARS)	20,333	19,775	4,862	5,115	234	1,553	51,872
Injury	1,960,000	1,315,000	112,000	***79,000***	15,000	7,000	3,488,000
PDO	***4,677,000***	***3,335,000***	***414,000***	25,000	50,000	8,000	***8,509,000***
Total (% of Total)	6,658,000 (55.3%)	4,670,000 (38.8%)	***531,000*** (4.4%)	109,000 (0.9%)	65,000 (0.5%)	16,000 (0.1%)	***12,049,000*** (100%)

Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files.
CRSS estimates have been rounded to the nearest thousand. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding. Percentages have been computed based on unrounded estimates.

Table 6 shows the vehicle involvement rates per 100 million VMT and 100,000 registered vehicles in fatal, injury, and PDO crashes by vehicle type. In 2018 the estimated vehicle involvement rate for passenger cars in injury crashes was 1,475 per 100,000 registered vehicles. The corresponding rate in PDO crashes for passenger cars was 3,519 per 100,000 registered vehicles.

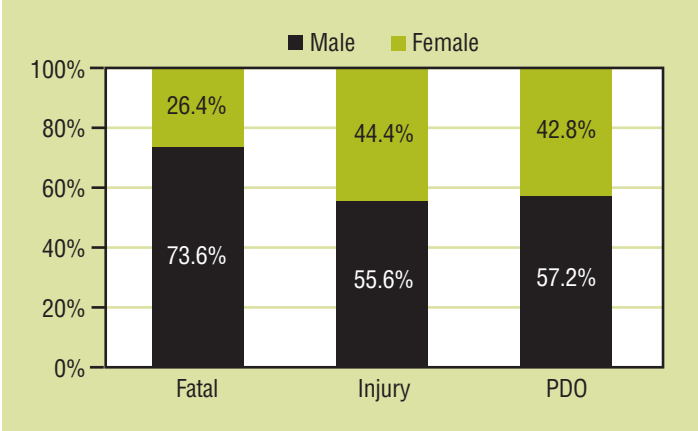
Table 6
Vehicle Involvement Rates per VMT or Registered Vehicles in 2017 and 2018, by Crash Severity and Vehicle Type

Crash Severity	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles
2017									
	Passenger Cars			**Light Trucks**			**Large Trucks**		
Fatal	21,273	1.49	16.01	20,015	1.38	14.76	4,804	1.61	39.28
Injury	1,956,000	137	1,472	1,334,000	92	984	107,000	36	873
PDO	4,354,000	306	3,277	3,188,000	219	2,351	363,000	122	2,971
	Motorcycles			**Buses**			**Other/Unknown Vehicles**		
Fatal	5,385	26.73	61.79	234	1.36	23.80	1,417	–	–
Injury	85,000	423	977	15,000	85	1,483	6,000	–	–
PDO	26,000	128	296	52,000	302	5,288	9,000	–	–
2018									
	Passenger Cars			**Light Trucks**			**Large Trucks**		
Fatal	20,333	1.45	15.30	19,775	1.32	14.00	4,862	1.59	36.74
Injury	1,960,000	140	1,475	1,315,000	88	931	112,000	37	848
PDO	4,677,000	333	3,519	3,335,000	223	2,361	414,000	136	3,127
	Motorcycles			**Buses**			**Other/Unknown Vehicles**		
Fatal	5,115	25.48	59.02	234	1.28	23.59	1,553	–	–
Injury	79,000	393	911	15,000	82	1,506	7,000	–	–
PDO	25,000	124	288	50,000	274	5,051	8,000	–	–

Sources: 2017 FARS Final File, 2018 ARF; 2017-2018 CRSS Files; VMT – Federal Highway Administration; Registered Vehicles – R.L. Polk & Co. and Federal Highway Administration, CRSS estimates have been rounded to nearest thousand. Vehicle involvement rates in fatal crashes have been rounded to the hundredths, and involvement rates in injury and PDO-crashes have been rounded to 1.

Drivers Involved: Figure 3 and Table 7 show the estimated number of drivers 16 and older involved in a crash. Table 7 also includes driver involvement rate per 100,000 licensed drivers. The estimated number of drivers was higher for male drivers in crashes of all severities. The overall estimates are 6.802 million (56.8%) male drivers (16 and older) and 5.181 million (43.2%) female drivers (16 and older). The corresponding estimates of drivers in non-fatal injury crashes were 1.927 million (55.6%) and 1.542 million (44.4%) for male and female drivers, respectively. Finally, the totals in fatal crashes were 36,895 (73.6%) male drivers and 13,212 (26.4%) female drivers. Driver involvement rates in crashes were also higher for male drivers for all crash severities. The overall driver involvement rate per 100,000 licensed drivers was 6,409 for male drivers (16 and older) and 4,504 for female drivers (16 and older). The corre-sponding rates in injury crashes were 1,714 and 1,340 for male and female drivers, respectively. Finally, driver involvement rates in fatal crashes were 32.81 per 100,000 licensed male driv-ers and 11.48 per 100,000 licensed female drivers.

Figure 3
Drivers (≥16 Years of Age) Involved in Crashes in 2018, by Crash Severity and Sex



Sources: 2018 FARS ARF and CRSS

Table 7
Drivers Involved in Crashes and Involvement Rates per 100K Licensed Drivers in 2017 and 2018, by Crash Severity and Sex

Crash Severity	Male (≥16 Years Old)			Female (≥16 Years Old)			Total (≥16 Years Old)		
	Number Involved in Crashes	Licensed Drivers (Thousands)	Involvement Rate per 100,000 Licensed Drivers	Number Involved in Crashes	Licensed Drivers (Thousands)	Involvement Rate per 100,000 Licensed Drivers	Number Involved in Crashes	Licensed Drivers (Thousands)	Involvement Rate per 100,000 Licensed Drivers
2017									
Fatal	37,856	111,363	33.99	13,619	113,907	11.96	51,488	225,270	22.86
Injury	1,923,000		1,727	1,560,000		1,369	3,483,000		1,546
PDO	***4,504,000***		4,045	***3,435,000***		3,016	***7,940,000***		3,525
Total	***6,465,000***		5,805	5,009,000		4,397	***11,474,000***		5,093
2018									
Fatal	36,895	112,434	32.81	13,212	115,072	11.48	50,126	227,506	22.03
Injury	1,927,000		1,714	1,542,000		1,340	3,469,000		1,525
PDO	***4,838,000***		4,303	***3,626,000***		3,151	***8,464,000***		3,720
Total	***6,802,000***		6,409	5,181,000		4,504	***11,983,000***		5,268

Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files;
Licensed Drivers – Federal Highway Administration. CRSS estimates have been rounded to the nearest thousand. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding. Vehicle involvement rates in fatal crashes have been rounded to the hundredths, and involvement rates in injury and PDO-crashes have been rounded to 1.

Restraint Use Among Passenger Vehicle Occupants: Table 8 shows the estimated numbers of passenger vehicle occupants (people in passenger cars or light trucks) by restraint use and injury severity. In 2018, among the injured passenger vehicle occupants, 4.0 percent were not restrained as compared to 43.1 percent of occupants killed who were not restrained.

Table 8
Restraint Use Among Occupants of Passenger Vehicles in 2017 and 2018, by Injury Severity

	Restraint Used		No Restraint Used		Restraint Use Unknown		Total	
Injury Severity	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2017								
Killed	11,488	48.5%	10,116	42.8%	2,059	8.7%	23,663	100.0%
Injured	2,136,000	86.6%	***116,000***	4.7%	215,000	8.7%	2,466,000	100.0%
2018								
Killed	10,978	48.4%	9,778	43.1%	1,941	8.6%	22,697	100.0%
Injured	2,090,000	85.9%	***98,000***	4.0%	244,000	10.0%	2,432,000	100.0%

Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files.
CRSS estimates have been rounded to the nearest thousand. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding. Percentages have been computed based on unrounded estimates.

Driver's Restraint Use: Table 9 shows the restraint use among drivers of passenger vehicles, by crash severity. In 2018, among drivers involved in injury crashes, 2.4 percent of passenger vehicle drivers were not restrained as compared to 23.1 percent of passenger vehicle drivers involved in fatal crashes.

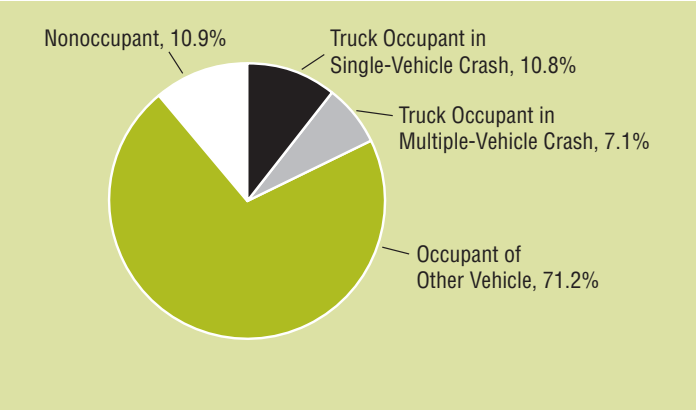
Table 9
Restraint Use Among Drivers of Passenger Vehicles in 2017 and 2018, by Crash Severity

	Restraint Used		No Restraint Used		Restraint Use Unknown		Total	
Crash Severity	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2017								
Fatal	28,040	68.4%	9,567	23.3%	3,404	8.3%	41,011	100%
Injury	2,895,000	88.1%	85,000	2.6%	306,000	9.3%	3,285,000	100%
PDO	***6,721,000***	89.3%	***66,000***	0.9%	740,000	9.8%	***7,526,000***	100%
2015								
Fatal	27,229	68.3%	9,220	23.1%	3,389	8.5%	39,838	100%
Injury	2,847,000	87.1%	79,000	2.4%	344,000	10.5%	3,270,000	100%
PDO	***7,139,000***	89.3%	***82,000***	1.0%	777,000	9.7%	***7,998,000***	100%

Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files.
CRSS estimates have been rounded to the nearest thousand. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding. Percentages have been computed based on unrounded estimates.

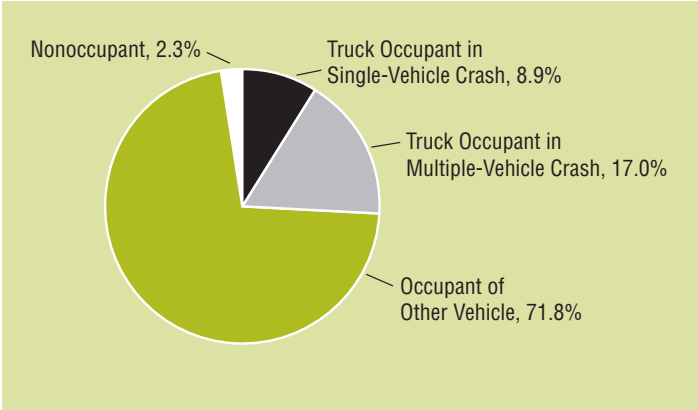
People in Large-Truck Crashes: Figures 4 and 5, as well as Table 10, show the number of people killed and the estimated number of people injured in large-truck-related crashes – crashes involving at least one large truck (gross vehicle weight rating over 10,000 pounds). In 2018, among the estimated 151,000 people injured in large-truck-related crashes, nearly three-quarters (71.8%) were occupants of other vehicles (other than the large truck) involved in the crash. Similarly, among the 4,951 people killed in large-truck-related crashes, 71.2 percent were occupants of other vehicles.

Figure 4
Fatalities in Large-Truck Crashes in 2018, By Person Type



Source: 2018 FARS ARF

Figure 5
People Injured in Large-Truck Crashes in 2018, By Person Type



Source: 2018 CRSS

Table 10
People Involved in Large-Truck Crashes in 2017 and 2018, by Injury Severity, Person Type, and Crash Type

Injury Severity	Truck Occupants by Crash Type			Other People			Total
	Single-Vehicle	Multiple-Vehicle	Total	Occupants of Other Vehicles	Nonoccupants	Total	
2017							
Killed	525	353	878	3,534	493	4,027	4,905
Injured	15,000	25,000	40,000	106,000	3,000	108,000	148,000
2018							
Killed	535	350	885	3,525	541	4,066	4,951
Injured	13,000	26,000	39,000	108,000	3,000	112,000	151,000

Sources: FARS 2017 Final File, 2018 ARF; 2017–2018 CRSS Files.
CRSS estimates have been rounded to the nearest thousand. ***Cells that are highlighted in bold and italics*** indicate statistically significant year-to-year difference at the α=.05 level. Components may not add to totals due to independent rounding.

Comparisons of CRSS With FARS and NASS GES

Comparisons of CRSS estimates with NASS GES estimates should be performed with caution. Estimates of fatal crashes from the NASS GES have been consistently and significantly lower than the totals reported from FARS. However, comparisons among NASS GES estimates are less likely confounded by this issue. For a broader discussion of this and guidance on how to analyze the new data, please refer to the companion technical report, *Crash Report Sampling System: Design Overview, Analytic Guidance, and FAQs*.

FARS[2] is a national collection of all fatal motor vehicle crashes. FARS totals do not have probability sampling errors. Fatal crash estimates from CRSS, taking into account their sampling errors, are comparable to the corresponding totals from FARS. However, NHTSA will continue to calculate fatal crash counts from FARS.

[2] The Fatality Analysis Reporting System contains data on every fatal traffic crash in the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a public trafficway 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 in the Final version of the FARS data file.

Major Changes in 2018

Reporting Criteria Change

Motor vehicle crashes that include fatalities, injured people, or property damage in excess of a pre-determined dollar amount are considered reportable crashes. Previously, at six CRSS sampled data collection sites, police officers could report the property damage costs to vehicles involved in a crash as "Unknown." Due to updates to the State's reporting criteria for these data collection sites, "unknown" property damage cost was removed as an option. This change converted many PDO crashes with unknown property damage costs into reportable crashes in 2018. Previously, these were considered non-reportable crashes.

Injury Estimates

NHTSA uses both FARS and CRSS/NASS GES data to calculate estimates of motor vehicle traffic crashes and their characteristics in its publications. In general, crash/vehicle/person estimates are calculated by combining the counts from FARS for fatal crashes and estimates for non-fatal injury crashes from CRSS/NASS GES. However, injury estimates in the past have been solely estimated from CRSS/NASS GES for injuries suffered in fatal as well as non-fatal crashes. Starting with 2018 reporting, NHTSA is implementing a change in the way injury estimates are reported. Injury estimates will be based on people injured in fatal crashes from FARS and estimated people injured in non-fatal injury crashes from CRSS or NASS GES. This update will produce more accurate estimates of people injured from police-reported motor vehicle crashes and make the reporting consistent with how other metrics (totals of crashes, vehicles, or people) are reported. The unrounded and rounded estimates from the old and new approach are listed in Table 11.

With these changes, injury estimates are subject to change from year-to-year. This is because FARS continues to receive data following the release of the Annual Report File (ARF). The Final File of FARS is released the following year with revised counts and updated case characteristics.

Table 11

Injury Estimates, Rounded and Unrounded, From the Old And New Methods, 1988–2018

Year	Old Method		New Method	
	Unrounded	Rounded	Unrounded	Rounded
1988	3,416,400	3,416,000	3,427,486	3,427,000
1989	3,283,789	3,284,000	3,292,053	3,292,000
1990	3,230,666	3,231,000	3,246,271	3,246,000
1991	3,096,870	3,097,000	3,106,984	3,107,000
1992	3,069,603	3,070,000	3,079,446	3,079,000
1993	3,149,164	3,149,000	3,163,411	3,163,000
1994	3,265,928	3,266,000	3,274,962	3,275,000
1995	3,465,279	3,465,000	3,476,261	3,476,000
1996	3,483,319	3,483,000	3,479,974	3,480,000
1997	3,347,614	3,348,000	3,360,383	3,360,000
1998	3,192,035	3,192,000	3,199,472	3,199,000
1999	3,236,238	3,236,000	3,249,784	3,250,000
2000	3,188,750	3,189,000	3,193,759	3,194,000
2001	3,032,672	3,033,000	3,042,284	3,042,000
2002	2,925,758	2,926,000	2,939,143	2,939,000
2003	2,888,601	2,889,000	2,901,753	2,902,000
2004	2,788,378	2,788,000	2,801,646	2,802,000
2005	2,698,976	2,699,000	2,709,099	2,709,000
2006	2,574,664	2,575,000	2,583,068	2,583,000
2007	2,490,533	2,491,000	2,498,785	2,499,000
2008	2,345,737	2,346,000	2,355,972	2,356,000
2009	2,217,275	2,217,000	2,223,537	2,224,000
2010	2,239,074	2,239,000	2,247,988	2,248,000
2011	2,216,962	2,217,000	2,227,209	2,227,000
2012	2,362,175	2,362,000	2,369,083	2,369,000
2013	2,312,845	2,313,000	2,318,992	2,319,000
2014	2,337,707	2,338,000	2,342,621	2,343,000
2015	2,443,369	2,443,000	2,454,778	2,455,000
2016	3,060,678	3,061,000	3,061,885	3,062,000
2017	2,746,101	2,746,000	2,745,266	2,745,000
2018	2,707,266	2,707,000	2,709,852	2,710,000

Sources: FARS 1988–2017 Final Files, 2018 ARF; 1988–2015 GES, 2016–2018 CRSS Files.

The 2018 CRSS Sample

In 2018, the CRSS sample comprised 48,644 police crash reports, out of which 48,443 were eligible to be included in the final analytic file for estimation. These police crash reports were collected from 389 police jurisdictions in 60 responding sites across the country.

The map on page 11 shows the 60 data collection sites selected for CRSS.

Downloading and Analyzing 2017 and 2018 CRSS Data

The 2017 CRSS data can be downloaded here: https://www.nhtsa.gov/node/97996/121866

The 2018 CRSS data can be downloaded here: https://www.nhtsa.gov/node/97996/176921

The analytic user's manual can be found at: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812846

Crash Report Sampling System: Design Overview, Analytic Guidance, and FAQs can be found at: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812688

Crash Report Sampling System: Sample Design and Weighting can be found at: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812706

Crash Report Sampling System: Imputation can be found at: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812795

A databook providing weighted and unweighted univariate distributions of the variables in CRSS can be found at: https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812847

References

Zhang, F., Noh, E. Y., Subramanian, R., & Chen, C.-L. (2019, May). Crash Report Sampling System: Sample design and weighting (Report No. DOT HS 812 706). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812706

Zhang, F., Subramanian, R., Chen, C.-L., & Noh, E. Y. (2019, April). Crash Report Sampling System: Design overview, analytic guidance, and FAQs (Report No. DOT HS 812 688). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812688

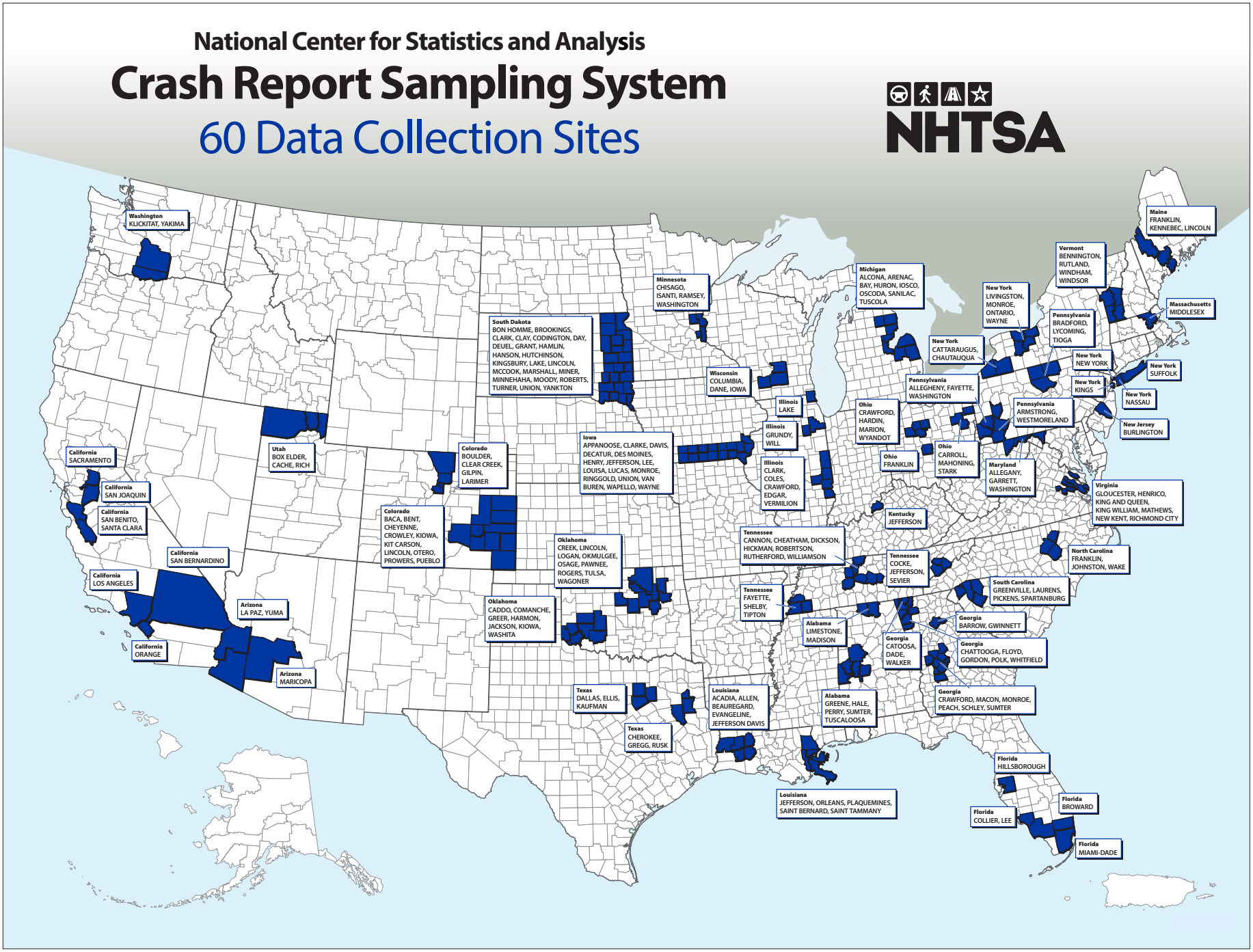
Suggested APA Format Citation for this report:

National Center for Statistics and Analysis. (2019, November; Updated 2020, May). *Police-reported motor vehicle traffic crashes in 2018* (Traffic Safety Facts Research Note. Report No. DOT HS 812 860). National Highway Traffic Safety Administration.

For questions regarding the information presented in this report, please contact NCSARequests@dot.gov. Access this Crash•Stats and other general information on traffic safety at https://crashstats.nhtsa.dot.gov/.

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

Figure 6
CRSS Data Collection Sites



14680-030209-v7