

TRAFFIC SAFETY FACTS Research Note

DOT HS 813 111

Summary of Statistical Findings

April 2021

Distracted Driving 2019

The National Highway Traffic Safety Administration works to reduce the occurrence of distracted driving and raise awareness of its dangers. This risky behavior poses a danger to vehicle occupants as well as pedestrians and pedalcyclists. Driver distraction is a specific type of driver inattention. Distraction occurs when drivers divert their attention from the driving task to focus on some other activity. Often discussions regarding distracted driving center around cell phone use and texting, but distracted driving also includes other activities such as eating, talking to other passengers, or adjusting the radio or climate controls. A distractionaffected crash is any crash in which a driver was identified as distracted at the time of the crash.

- Nine percent of fatal crashes, 15 percent of injury crashes, and 15 percent of all police-reported motor vehicle traffic crashes in 2019 were reported as distraction-affected crashes.
- In 2019 there were 3,142 people killed and an estimated additional 424,000 people injured in motor vehicle crashes involving distracted drivers.
- Six percent of all drivers involved in fatal crashes in 2019 were reported as distracted at the time of the crashes. Nine percent of drivers 15 to 20 years old involved in fatal crashes were reported as distracted. This age group has the largest proportion of drivers who were distracted at the time of the fatal crashes.
- In 2019 there were 566 nonoccupants (pedestrians, pedalcyclists, and others) killed in distractionaffected crashes.

Methodology

This research note 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.

Take caution that NASS GES estimates and CRSS estimates are not comparable due to different sample designs. The national estimates produced from NASS GES and CRSS data are subject to sampling errors. The NASS GES Analytic User's Manual 1988–2015 (Report No. DOT HS 812 320) and the CRSS Analytic User's Manual 2016–2019 (Report No. DOT HS 813 022) contain information on sampling errors. In addition, the *CRSS: Generalized Variance Functions* (Report No. DOT HS 813 041) technical report provides generalized standard errors for 2016–2019 CRSS estimates. Also refer to Appendix C of the *Traffic Safety Facts 2015* annual report (Report No. DOT HS 812 384) for generalized standard errors for 2015 NASS GES estimates.

As defined in the Overview of the National Highway Traffic Safety Administration's Driver Distraction Program (Report No. DOT HS 811 299), distraction is a specific type of inattention that occurs when drivers divert their attention from the driving task to focus on some other activity. The document describes distraction as a subset of inattention (which also includes fatigue, and physical and emotional conditions of the driver). However, while NHTSA may define the terms in this manner, inattention and distraction are often used interchangeably or simultaneously in other material, including police crash reports (PCRs). It is important that NHTSA and NHTSA's data users be aware of these differences in definitions. It is also important to acknowledge the inherent limitations in the data collection for distractionaffected crashes and the resulting injuries and fatalities. The appendix of this document contains a table that describes the coding for distraction-affected crashes for FARS, NASS GES, and CRSS, and a discussion regarding limitations in the distracted driving data.

Data

Fatalities in Distraction-Affected Crashes

In 2019 there were 2,895 fatal crashes that involved distraction (9% of 33,244 fatal crashes) nationwide. These crashes involved 3,008 distracted drivers, since some crashes involved multiple distracted drivers. Six percent (3,008 of 50,930) of the drivers involved in fatal crashes were distracted. In distraction-affected crashes, 3,142 fatalities (9% of 36,096 fatalities) occurred. Table 1 provides information on fatal crashes, drivers involved in fatal crashes, and fatalities in distraction-affected crashes in 2019. Much attention across the country has been focused on the dangers of using cell phones and other electronic devices while driving. In 2019 there were 387 fatal crashes reported as having cell phone use as a distraction (13% of all distraction-affected fatal crashes). For these distraction-affected crashes, the PCR stated that at least one of the involved drivers was talking on, listening to, or engaged in some other cell phone activity at the time of the crash. A total of 422 people died in fatal crashes involving cell-phone-related activities as distractions.

Table 1

Fatal Crashes, Drivers Involved in Fatal Crashes, and Fatalities in Distraction-Affected Crashes, and Cell Phone Use by Distracted Drivers, 2019

		Distraction-Affected (D-A)		Cell Phone in Use	
	Total	Number	Percentage of Total	Number	Percentage of D-A
Crashes	33,244	2,895	9%	387	13%
Drivers Involved	50,930	3,008	6%	390	13%
Fatalities	36,096	3,142	9%	422	13%

Source: FARS 2019 Annual Report File (ARF)

Table 2 presents data on drivers involved in fatal crashes in 2019 by age group. Nine percent (344 of 3,968) of drivers 15 to 20 years old involved in fatal crashes were distracted at the time of the crashes. This age group has the largest proportion of drivers within each respective age group who were distracted (column titled "All Distracted Drivers: Percentage of Total Drivers in This Age Group").

Table 2

Drivers Involved in Fatal Crashes, by Age Group, Distraction, and Cell Phone Use, 2019

	Total Drivers		All Distracted Drivers			Drivers Using Cell Phones		
Age Group	Number	Percentage of Total Drivers	Number	Percentage of Total Drivers in This Age Group	Percentage of All Distracted Drivers	Number	Percentage of All Distracted Drivers In This Age Group	Percentage of Drivers Using Cell Phones
15–20	3,968	8%	344	9%	11%	66	19%	17%
21–24	4,590	9%	297	6%	10%	61	21%	16%
25–34	10,507	21%	686	7%	23%	90	13%	23%
35–44	8,301	16%	531	6%	18%	79	15%	20%
45–54	7,532	15%	392	5%	13%	48	12%	12%
55–64	7,166	14%	315	4%	10%	32	10%	8%
65–74	4,404	9%	208	5%	7%	10	5%	3%
75+	3,229	6%	184	6%	6%	3	2%	1%
Total	50,930	100%	3,008	6%	100%	390	13%	100%

Source: FARS 2019 ARF

Notes: The total includes 61 drivers 14 and younger, 4 of whom were noted as distracted. Additionally, the total includes 1,172 of unknown age, 47 of whom were noted as distracted.

Comparing the percentage of drivers of each age group involved in fatal crashes to the percentage involved in distraction-affected fatal crashes points to overrepresentation of distraction in drivers under 45. This is seen by comparing the columns titled "Total Drivers: Percentage of Total Drivers" and "All Distracted Drivers: Percentage of All Distracted Drivers." For all fatal crashes, 8 percent of the drivers involved were 15 to 20 years old (3,968 of the 50,930 drivers involved in fatal crashes). However, 11 percent of the distracted drivers were 15 to 20 years old (344 of the 3,008 distracted drivers in fatal crashes). Seventeen percent of all the distracted drivers using cell phones were 15 to 20 years old (66 of the 390 drivers distracted by cell phones involved in fatal crashes). Using the same comparisons as for the 15–20 age group:

- Drivers in the 21–24 age group made up 9 percent of drivers in fatal crashes, but were 10 percent of all distracted drivers and 16 percent of drivers distracted by cell phones in fatal crashes.
- Drivers in the 25–34 age group made up 21 percent of drivers in fatal crashes, but were 23 percent of all distracted drivers and 23 percent of drivers distracted by cell phones in fatal crashes.
- Drivers in the 35–44 age group made up 16 percent of drivers in fatal crashes, but were 18 percent of all distracted drivers and 20 percent of drivers distracted by cell phones in fatal crashes.

The distributions of drivers by age group for total drivers involved in fatal crashes and percentage of distracted drivers involved in fatal crashes, and distracted drivers involved in fatal crashes and percentage of distracted drivers using cell phones during fatal crashes, are shown in Figures 1a and 1b.

Figure 1a Drivers Involved and Percentage of Drivers Involved in Fatal Crashes Who Were Distracted, by Age Group, 2019



Source: FARS 2019 ARF

NHTSA's National Center for Statistics and Analysis

Figure 1b

Distracted Drivers and Percentage of Distracted Drivers Involved in Fatal Crashes Who Were Using Cell Phones, by Age Group, 2019



Source: FARS 2019 ARF

Table 3 shows the role of the people killed in distractionaffected crashes in 2019. The large majority of fatalities in distraction-affected crashes (and in all fatal crashes) were motor vehicle occupants (including motorcyclists): 80 percent for all fatal crashes and 82 percent for distraction-affected fatal crashes. The other victims were nonoccupants—pedestrians, pedalcyclists, and others. Distracted drivers were involved in the deaths of 566 nonoccupants in 2019. In general, looking at occupant type, the percentage of fatalities in distraction-affected fatal crashes is very similar to that in all fatal crashes.

Table 3

Fatalities in All Crashes and Distraction-Affected Crashes, by Person Type, 2019

	Total Fa	atalities		ffected (D-A) lities			
Person Type	Number	Percent	Number	Percent			
Total	36,096	100%	3,142	100%			
	Occupants						
Driver	22,613	63%	1,853	59%			
Passenger	6,145	17%	723	23%			
Total Occupants	28,758	80%	2,576	82%			
Nonocccupants							
Pedestrian	6,205	17%	462	15%			
Pedalcyclist	846	2%	77	2%			
Other/Unknown	287	1%	27	1%			
Total Nonoccupants	7,338	20%	566	18%			

Source: FARS 2019 ARF

Sixty-nine percent of the distracted drivers involved in fatal crashes were males as compared to 73 percent of drivers in all fatal crashes in 2019.

Estimates of People Injured in Distraction-Affected Crashes

In 2019 an estimated 2,740,000 people were injured in police-reported traffic crashes (Table 4). The number of people injured in distraction-affected crashes in 2019 was estimated at 424,000 (15% of all people injured). An estimated 28,000 people were injured in 2019 in crashes involving cell phone use or other cell-phone-related activities (7% of all people injured in distraction-affected crashes).

Table 4

People Injured in All Crashes and Distraction-Affected Crashes, 2015–2019

		Distracted-Affected (D-A) Crashes				
				Cell Phone Use		
Year	Total	Number	Percentage of Total	Number	Percentage of D-A	
2015	2,455,000	393,000	16%	30,000	8%	
2016*	3,062,000	445,000	15%	34,000	8%	
2017*	2,745,000	435,000	16%	31,000	7%	
2018*	2,710,000	400,000	15%	33,000	8%	
2019*	2,740,000	424,000	15%	28,000	7%	

Sources: FARS 2015–2018 Final File, 2019 ARF; NASS GES 2015; CRSS 2016–2019 *CRSS estimates and NASS GES estimates are not comparable due to different sample designs. Refer to end of document for more information about CRSS.

Over the past 5 years, the *estimated number* of people injured in distraction-affected crashes has shown decreases and increases. The *percentage* of people injured in distraction-affected crashes as a portion of all injured people has remained relatively constant.

Crashes of All Severity

Table 5 provides information for all police-reported crashes from 2015 through 2019 including fatal crashes, injury crashes, and property-damage-only (PDO) crashes for the year. During this time period, the percentages of crashes of all severities that involve distractions fluctuated very little.

In 2019 there were an estimated 287,000 distractionaffected injury crashes (15 percent of all injury crashes). In these crashes, an estimated 294,000 drivers (8 percent of all drivers in injury crashes) were distracted at the time of the crashes.

Attribute Selection

As discussed in the Methodology section of this Research Note, FARS, NASS GES, and CRSS were accessed to retrieve distraction-affected crashes. Table A-1 contains every variable attribute available for coding for driver distraction along with examples to illustrate the meaning of the attribute. This is the coding scheme available for FARS, NASS GES, and CRSS. Table A-1 further indicates whether that attribute was included in the analysis for distraction-affected crashes.

In 2012 the variable attributes changed to account for different ways that PCRs from States describe general categories of distraction, inattention, and careless driving. These additional attributes provide a more accurate classification of the behavior indicated on the PCR.

Data Limitations

NHTSA recognizes that there are limitations to the collection and reporting of FARS, NASS GES, and CRSS data with regard to driver distraction. The data collections for FARS, NASS GES, and CRSS are based on PCRs and information gathered after the crashes have occurred.

One noteworthy challenge for collection of distracted driving data is the PCR itself. Police crash reports vary across jurisdictions, thus creating potential inconsistencies in reporting. Many variables on the police crash report are nearly universal, but distraction is not one of those variables. Some PCRs identify distraction as a distinct reporting field while others do not have such a field and identification of distraction is based upon the narrative portion of the report. This variation in reporting forms contributes to variation in the reported number of distraction-affected crashes. Any national or State count of distraction-affected crashes should be interpreted with this limitation in mind due to potential underreporting in some States and overreporting in others.

Table 5Traffic Crashes and Distraction-Affected Crashes, by Crash Severity, 2015–2019

			Distracted-Affected (D-A) Crashes					
						Cell Phone Use		
Year	Crash Severity	Total	Number	Percentage of Total	Number	Percentage of D-A		
0015	Fatal Crash	32,538	3,242	10%	453	14%		
	Injury Crash	1,715,000	265,000	15%	21,000	8%		
2015	PDO Crash	4,548,000	617,000	14%	48,000	8%		
	Total	6,296,000	885,000	14%	69,000	8%		
	Fatal Crash	34,748	3,197	9%	453	14%		
2016*	Injury Crash	2,116,000	295,000	14%	23,000	8%		
	PDO Crash	4,670,000	606,000	13%	42,000	7%		
	Total	6,821,000	905,000	13%	66,000	7%		
2017*	Fatal Crash	34,560	3,003	9%	418	14%		
	Injury Crash	1,889,000	285,000	15%	21,000	7%		
	PDO Crash	4,530,000	624,000	14%	50,000	8%		
	Total	6,453,000	912,000	14%	71,000	8%		
	Fatal Crash	33,919	2,645	8%	356	13%		
0010*	Injury Crash	1,894,000	276,000	15%	21,000	8%		
2018*	PDO Crash	4,807,000	659,000	14%	38,000	6%		
	Total	6,735,000	938,000	14%	60,000	6%		
2019*	Fatal Crash	33,244	2,895	9%	387	13%		
	Injury Crash	1,916,000	287,000	15%	21,000	7%		
	PDO Crash	4,806,000	696,000	14%	40,000	6%		
	Total	6,756,000	986,000	15%	61,000	6%		

Sources: FARS 2015–2018 Final File, 2019 ARF; NASS GES 2015; CRSS 2016–2019

*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 A-1

Attributes Included in "Driver Distracted by" Element and Indication of Inclusion in Distraction-Affected Definitions, FARS, NASS GES, and CRSS, 2015–2019

Attribute	Description				
Not Included					
Not Distracted	Completely attentive to driving; no indication of distraction or noted as "Not Distracted"				
Looked But Did Not See (deleted in 2018)	Used when the driver was paying attention to driving (not distracted), but did not see the relevant vehicle, object, etc.				
No Driver Present/Unknown if Driver Present	Used when no driver is in this vehicle or when it is unknown if there was a driver present in this vehicle at the time of the crash				
Not Reported	No field available on PCR; field on PCR left blank; no other information available				
Reported as Unknown if Distracted	Used when the case materials specifically indicate unknown				
Included					
By Other Occupant(s)	Used when the driver was distracted by another occupant in this driver's vehicle prior to realization of impending danger; includes conversing with or looking at another occupant				
By a Moving Object in Vehicle	Used when the driver was distracted by a moving object in this driver's vehicle prior to realization of impending danger; includes a dropped object, a moving pet, insect, or cargo				

Table A-1 Attributes Included in "Driver Distracted by" Element and Indication of Inclusion in Distraction-Affected Definitions, FARS, NASS GES, and CRSS, 2015–2019

Attribute	Description			
While Talking or Listening to Cell Phone	Used when the driver was talking or listening on a cell phone; includes talking or listening on a "hands-free" or Bluetooth-enabled phone			
While Manipulating Cell Phone	Used when the driver was dialing or text messaging (texting) on a cell phone; any manual button/control actuation on the phone qualifies			
Other Cell Phone Related	Used when the case material indicates the driver was distracted from the driving task due to cell phone involvement, but none of the specified codes are applicable (e.g., reaching for cell phone). This attribute is also applied when specific details regarding cell phone distraction/usage are not provided.			
Adjusting Audio or Climate Controls	Used when the driver was distracted from the driving task while adjusting the air conditioner, heater, radio, cassette, using the radio, using the cassette, or CD that are mounted in the vehicle			
While Using Other Component/Controls Integral to Vehicle	Used when the driver was distracted while manipulating a control in the vehicle including adjusting headlamps or interior lights, controlling windows (power or manual), manipulating door locks (power or manual), adjusting side view mirrors (power or manual), adjusting rear view mirror, adjusting seat (power or manual), adjusting steering wheel, adjusting seat belt, on-board navigational devices, etc.			
While Using or Reaching for Device/ Object Brought Into Vehicle	Used when the driver was distracted while using or reaching for a device in the vehicle including a radar detector, CDs, razor, music portable CD player, headphones, a navigational device, laptop or tablet PC, etc.			
Distracted by Outside Person, Object, or Event	Used when the driver was distracted by an outside person, object, or event prior to realization of impending danger; includes animals on the roadside, a previous crash, or non-traffic-related sign (e.g., advertisement, electronic billboard). Do not use this attribute for a person, object, or event that the driver has recognized and for which the driver has taken some action (e.g., avoiding a pedestrian on the roadway).			
Eating or Drinking	Used when the driver was eating or drinking or involved in an activity related to these actions (e.g., picking food from carton placed on passenger seat, reaching to throw out used food wrapper)			
Smoking Related	Used when the driver was smoking or involved in an activity related to smoking, such as lighting a cigarette, putting ashes in the ash tray, etc.			
Distraction/Inattention	Used exclusively when "Distraction/Inattention" or "Inattention/Distraction" is noted in the case material as one combined attribute			
Distraction/Careless	Used exclusively when "Distraction/Careless" or "Careless/Distraction" is noted in the case material as one combined attribute			
Careless/Inattentive	Used exclusively when "Careless/Inattentive" or "Inattentive/Careless" is noted in the case material as one combined attribute			
Distraction (Distracted), Details Unknown	Used when "distraction" or "distracted" is noted in the case material, but specific distraction(s) cannot be identified			
Inattention (inattentive), Details Unknown	Used when "inattention" or "inattentive" is noted in the case material, but it cannot be identified if this refers to a distraction			
Lost in Thought/Day Dreaming	Used when the driver was not completely attentive to driving because he/she was thinking about items other than the driving task			
Other Distraction	Used when details regarding this driver's distraction are known but none of the specified codes are applicable			
Distracted Driver of a Non-Contact Vehicle (new in 2018 from Related Factors - Crash Level Element)	Used for situations where the investigating officer indicates that the driver of a non-contact vehicle ("phantom vehicle") was distracted.			

The following are potential reasons for underreporting of distraction-affected crashes.

Self-reported data elements, such as admitting to texting while driving, are always subject to bias (underreporting or false reporting). In some cases, the only source of distraction information for an investigating police officer may be the surviving driver's account of the crash and the likelihood that the driver might admit to a negative behavior such as texting while driving might be small.

- If a driver fatality occurs in the crash, law enforcement must rely on the crash investigation in order to report on whether driver distraction was involved. Law enforcement may not have information to indicate distraction. These investigations may rely on witness account and oftentimes these accounts may not be available either.
- Technologies are changing at a rapid speed and it is difficult to update PCRs to accommodate these changes. Without broad-sweeping changes to PCRs to incorporate new technologies and features of technologies, it is difficult to capture the data that involves driver interaction with these devices.

The following is a challenge in quantifying external distractions.

In the reporting of distraction-affected crashes, oftentimes an external distraction is identified as a distinct type of distraction. Some scenarios captured under external distractions might actually be related to the task of driving (e.g., looking at a street sign). However, the crash reports may not differentiate these driving-related tasks from other external distractions (looking at previous crash or billboard). Currently, the category of external distractions is included in the counts of distraction-affected crashes.

The most current information on distracted-driving laws by State is available on the Governors Highway Safety Association website at <u>https://ghsa.org/state-laws/issues/distracted%20driving</u>.

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

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 <u>www.nhtsa.gov/crash-data-systems/crash-report-sampling-system-crss</u>.



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National Highway Traffic Safety Administration FARS can be found at <u>www.nhtsa.gov/crash-data-systems/</u> <u>fatality-analysis-reporting-system</u>.

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

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.

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This research note and other general information on highway traffic safety may be found at: <u>https://</u> <u>crashstats.nhtsa.dot.gov/#/</u>