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

TRAFFIC SAFETY FACTS
Research Note

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Distracted Driving 2011

Distracted driving is a behavior dangerous to drivers, passengers, and nonoccupants alike. Distraction is a specific type of inattention that occurs when drivers divert their attention from the driving task to focus on some other activity. A distraction-affected crash is any crash in which a driver was identified as distracted at the time of the crash.

- Ten percent of fatal crashes in 2011 were reported as distraction-affected crashes.
- Seventeen percent of injury crashes in 2011 were reported as distraction-affected crashes.
- In 2011, 3,331 people were killed in crashes involving distracted drivers and an estimated additional 387,000 were injured in motor vehicle crashes involving distracted drivers.
- Of those people killed in distraction-affected crashes, 385 died in crashes in which at least one of the drivers was using a cell phone (12% of fatalities in distraction-affected crashes) at the time of the crash. Use of a cell phone includes talking/listening to a cell phone, dialing/texting a cell phone, or other cell-phone-related activities.
- Of those injured in distraction-affected crashes, an estimated 21,000 were injured in crashes that involved the use of cell phones at the time of the crashes (5% of injured people in distraction-affected crashes).
- Eleven percent of all drivers 15-19 years old involved in fatal crashes were reported as distracted at the time of the crashes. This age group has the largest proportion of drivers who were distracted.
- For drivers 15-19 years old involved in fatal crashes, 21 percent of the distracted drivers were distracted by the use of cell phones.
- In 2011, 495 nonoccupants were killed in distraction-affected crashes.

Distraction in Fatal Crashes: New Measure in 2010

In a continuing effort towards data improvement, NHTSA changed the coding for distracted driving in the Fatality Analysis Reporting System (FARS) beginning with the 2010 FARS data. For this reason, this document will only include distraction-affected fatal crash data for 2010 and 2011. With only two years of fatal crash information for distraction under the new coding, the reader should take caution in making conclusions of trends in these data.

The coding for distraction in the National Automotive Sampling System (NASS) General Estimates System (GES) was not revised and therefore GES data is available for years prior to 2010.

Appendix A contains further detail on the change in coding for FARS beginning in 2010. The Research Note containing distracted-driving data for 2010 is available through the NHTSA Web site (Distracted Driving 2010, DOT HS 811 650).

Methodology

The data sources include NHTSA's FARS and NASS GES systems. FARS annually collects fatal crash data from all 50 States, the District of Columbia, and Puerto Rico, and is a census of all fatal crashes that occur on the Nation's roadways. NASS GES contains data from a nationally representative sample of police-reported crashes of all severities, including those that result in death, injury, or property damage. The national estimates produced from GES data are based on a probability sample of crashes and are subject to sampling errors.

As defined in the *Overview of the National Highway Traffic Safety Administration's Driver Distraction Program* (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 instead. It is worth noting that *distraction* is a subset of *inattention* (which also includes fatigue, physical, and emotional conditions of the driver) as referenced in the *Overview*.

Appendix B contains a table to describe the coding for distraction-affected crashes for FARS and GES.

There are inherent limitations in the data for distraction-affected crashes and the resulting injuries and fatalities. These limitations are being addressed through efforts within and outside of NHTSA as detailed in the *Overview*. Appendix C describes limitations in the distracted driving data.

Data

Fatalities in Distraction-Affected Crashes

In 2011, there were a total of 29,757 fatal crashes in the United States involving 43,668 drivers. In those crashes, 32,367 people were killed. In 2011, 3,020 fatal crashes occurred that involved distraction (10% of all fatal crashes). These crashes involved 3,085 distracted drivers, as some crashes involved more than one distracted driver. Distraction was reported for 7 percent (3,085) of the drivers involved in fatal crashes. In these distraction-affected crashes, 3,331 fatalities (10% of overall fatalities) occurred. Table 1 provides information on crashes, drivers, and fatalities involved in distraction-affected crashes.

Of those drivers distracted during fatal crashes, cell phones are often a leading distraction (of those identified). In 2011, 350 fatal crashes were reported to have involved the use of cell phones as a distraction (12% of all fatal distraction-affected crashes). For these distraction-affected crashes, the police accident report stated the driver used a cell phone to talk, listen, dial, or text (or other cell phone activity) at the time of the crash. Cell phones were reported as a distraction for 12 percent of the distracted drivers in fatal crashes. A total of 385 people died in fatal crashes that involved the use of cell phones as distractions.

Table 2 describes 2011 fatal crash data for distraction-affected crashes by driver age. Eleven percent of all drivers 15-19 years old involved in fatal crashes were distracted at the time of the crashes. This age group is the group with the largest proportion of drivers who were distracted. An additional way to look at the age groups is how large a percentage of the total number of drivers involved was in each age group. For all fatal crashes, only 7 percent of the drivers in the fatal crashes were 15-19 years old. However, for distraction, 11 percent of the drivers in fatal distraction-affected crashes were 15-19 years old. Likewise, drivers in their 20s were overrepresented in distraction-affected crashes relative to their proportion in total drivers — 23 percent of all drivers in fatal crashes were in their 20s, but 26 percent of distracted drivers were in their 20s. Both methods of looking at age illustrate the increased prevalence of distracted younger drivers in fatal crashes.

For drivers 15-19 years old, 21 percent of the distracted drivers were distracted by the use of cell phones at the time of the crash. This was the age group that had the highest portion of distracted drivers identified as using cell phones. Among all distracted drivers in fatal crashes using cell phones, those drivers ages 20 to 29 represent 32 percent, which is an overrepresentation of this age group when compared to drivers overall.

Table 1
Fatal Crashes, Drivers in Fatal Crashes, and Fatalities, 2011

	Crashes	Drivers	Fatalities
Total	**29,757**	**43,668**	**32,367**
Distraction-Affected (D-A)	3,020 (10% of total crashes)	3,085 (7% of total drivers)	3,331 (10% of total fatalities)
Cell Phone in Use	350 (12% of D-A crashes)	368 (12% of distracted drivers)	385 (12% of fatalities in D-A crashes)

Source: National Center for Statistics and Analysis (NCSA), FARS 2011 (ARF)

Table 2
Drivers Involved in Fatal Crashes by Age, 2011

	Total Drivers		Distracted Drivers			Drivers Using Cell Phone		
Age Group	#	% of total	#	% total drivers	% distracted drivers	#	% of distracted drivers	% of cell phone drivers
Total	**43,668**	**100**	**3,085**	**7**	**100**	**368**	**12**	**100**
15-19	3,212	7	344	11	11	72	21	20
20-29	10,160	23	790	8	26	117	15	32
30-39	7,401	17	505	7	16	79	16	21
40-49	7,376	17	464	6	15	49	11	13
50-59	6,783	16	434	6	14	34	8	9
60-69	4,144	9	251	6	8	12	5	3
70+	3,815	9	270	9	9	5	2	1

Source: NCSA, FARS 2011 (ARF); Note: Total includes 60 drivers aged 14 and under, 4 of whom were noted as distracted.

With respect to the vehicles driven by distracted drivers, the distribution of vehicles among distracted drivers is similar to the distribution of vehicles among all drivers (Table 3). For example, 43 percent of distracted drivers were operating a passenger car at the time of the fatal crash, which is similar to 40 percent of all drivers in fatal crashes were driving a passenger car.

In 2011, 85 percent of the fatalities in distraction-affected crashes involved motor vehicle occupants or motorcyclists. This compares to 84 percent of all motor vehicle crash fatalities involving occupants. Thus, the victims of distraction-affected crashes vary little from the victims of crashes overall. Table 4 describes the role of the people killed in distraction-affected crashes in 2011. Distracted drivers were involved in the deaths of 495 nonoccupants during 2011.

Estimates of People Injured in Distraction-Affected Crashes

In 2011, an estimated 2,217,000 people were injured in motor vehicle traffic crashes (Table 5). The number of people injured in a distraction-affected crash in 2011 was estimated at 387,000 (17% of all the injured people). An estimated 21,000 people were injured in distraction-affected crashes in 2011 involving cell phones. These injured people comprised 5 percent of all people injured in distraction-affected crashes.

Over the past five years, the estimated number of people injured in distraction-affected crashes has fallen from 448,000 to 387,000, a 14-percent decline (compared to an 11% decline in the number of people injured overall during this time period). However, the percentage of injured people in distraction-affected crashes as a portion of all injured people has remained relatively constant (a high of 20% in 2008 and 2009 to a low of 17% in 2011).

Table 3
Drivers Involved in Fatal Crashes by Vehicle Type, 2011

	Total Drivers		Distracted Drivers			Drivers Using Cell Phone		
Vehicle Type	#	% of total	#	% total drivers	% distracted drivers	#	% of distracted drivers	% of cell phone drivers
Total	**43,668**	**100**	**3,085**	**7**	**100**	**368**	**12**	**100**
Passenger Car	17,335	40	1,316	8	43	178	14	48
Light Truck	16,643	38	1,235	7	40	164	13	45
Motorcycle	4,741	11	265	6	9	3	1	2
Large Truck	3,568	8	202	6	7	22	11	6
Bus	243	1	20	8	1	0	0	0

Source: NCSA, FARS 2011 (ARF)

Table 4
People Killed in Distraction-Affected Crashes, by Person Type, 2011

Occupant			Nonoccupant			
Driver	Passenger	Total	Pedestrian	Pedalcyclist	Other	Total
2,024 (61%)	812 (24%)	2,836 (85%)	408 (12%)	58 (2%)	29 (1%)	495 (15%)

Source: NCSA, FARS 2011 (ARF)

Table 5
Estimated Number of People Injured in Crashes and People Injured in Distraction-Affected Crashes

		Distraction	
Year	Overall	Estimate (% of Total Injured)	Cell Phone Use (% of People Injured in Distraction-Affected Crashes)
2007	2,491,000	448,000 (18%)	24,000 (5%)
2008	2,346,000	466,000 (20%)	29,000 (6%)
2009	2,217,000	448,000 (20%)	24,000 (5%)
2010	2,239,000	416,000 (19%)	24,000 (6%)
2011	2,217,000	387,000 (17%)	21,000 (5%)

Source: NCSA, GES 2007-2011

Table 6
Estimates of Distraction-Affected Injury Crashes, Drivers, and Injured People, 2011

Distraction-Affected Injury Crashes	Distracted Drivers in Distraction-Affected Injury Crashes	People Injured in Distraction-Affected Injury Crashes
260,000 (17% of all injury crashes)	266,000 (10% of all drivers in injury crashes)	387,000 (17% of all injured people)

Source: NCSA, GES 2011

Crashes of All Severity

Table 7 provides information for all police-reported crashes from 2007 through 2011 including injury crashes, and property-damage-only (PDO) crashes for the year. During this time period, the percentage of injury crashes that were distraction-affected fluctuated slightly, but remained relatively constant. The percentage of PDO crashes that were distraction-affected remained at 16 percent for from 2007 through 2010 and dropped to 15 percent in 2011 years. The percentage of total crashes that were distraction-affected crashes also fell to 15 percent after remaining at 17 percent from 2007 through 2010.

Table 7
Motor Vehicle Traffic Crashes and Distraction-Affected Crashes by Year

Crash by Crash Severity		Overall Crashes	Distraction-Affected Crashes	D-A Crashes Involving Cell Phone Use
2007	**Non-Fatal Crashes**			
	Injury Crash	1,711,000	309,000 (18%)	17,000 (6%)
	PDO Crash	4,275,000	689,000 (16%)	31,000 (4%)
	Total	**6,024,000**	**1,003,000 (17%)**	**49,000 (5%)**
2008	**Non-Fatal Crashes**			
	Injury Crash	1,630,000	314,000 (19%)	19,000 (6%)
	PDO Crash	4,146,000	650,000 (16%)	30,000 (5%)
	Total	**5,811,000**	**969,000 (17%)**	**49,000 (5%)**
2009	**Non-Fatal Crashes**			
	Injury Crash	1,517,000	307,000 (20%)	16,000 (5%)
	PDO Crash	3,957,000	647,000 (16%)	29,000 (5%)
	Total	**5,505,000**	**959,000 (17%)**	**46,000 (5%)**
2010	**Non-Fatal Crashes**			
	Injury Crash	1,542,000	279,000 (18%)	16,000 (6%)
	PDO Crash	3,847,000	618,000 (16%)	30,000 (5%)
	Total	**5,419,000**	**900,000 (17%)**	**47,000 (5%)**
2011	**Non-Fatal Crashes**			
	Injury Crash	1,530,000	260,000 (17%)	15,000 (6%)
	PDO Crash	3,778,000	563,000 (15%)	35,000 (6%)
	Total	**5,338,000**	**826,000 (15%)**	**50,000 (6%)**

Source: NCSA, GES 2007-2011; PDO – Property Damage Only

Appendix A

In keeping with the National Highway Traffic Safety Administration's distraction plan (*Overview of the National Highway Traffic Safety Administration's Driver Distraction Program,* April 2010, DOT HS 811 299), the agency continues to refine collection of information about the role of distracted driving in police-reported crashes. This includes an improvement to the coding of distraction in the Fatality Analysis Reporting System (FARS). Prior to 2010, FARS, which contains data about fatal motor vehicle crashes, and the National Automotive Sampling System (NASS) General Estimates System (GES), which contains data about a sample of all severities of police-reported crashes, coded distraction information in different formats. FARS was more general and inclusive of generally inattentive behavior, whereas GES identified specific distracted driving behaviors. In 2010, the two systems' coding of distraction was unified. Beginning in 2010 for both systems, when looking at distraction-affected crashes, the driver in both FARS and GES is identified as "Yes-Distracted," "No-Not distracted," or "Unknown if distracted." If the driver is identified as distracted, further coding is performed to distinguish the specific activity that was distracting the driver. This was not a change for data coding for GES, but was in FARS. The data collected on the PAR did not change; rather, it is the way the data is classified in FARS to focus the fatal crash data on the set of distractions most likely to affect the crash. Prior to 2010 in FARS, distraction was not first identified in a Yes/No/Unknown manner. Rather, specific behaviors of the driver as coded on the PAR were combined and categorized as "distracted."

Because of this change in data coding in FARS, distraction-affected crash data from FARS beginning in 2010 cannot be compared to distracted-driving-related data from FARS from previous years. GES data can be compared over the years, as the data coding did not change in this system.

Of additional note is the terminology regarding distraction. For FARS and GES data, beginning with 2010 data, any crash in which a driver was identified as distracted at the time of the crash is referred to as a distraction-affected crash. Discussion of cell phones is also more specific starting with the 2010 data. Starting in 2010, FARS no longer offers "cell phone present in vehicle" as a coding option, thus this code cannot be considered a distraction within the data set. From discussion with law enforcement officers, this code in years past was used when it was believed that the driver was using

a cell phone at the time of the crash and thus contributed to the crash, but proof was not available. The use of a cell phone is more specific with the current coding and if the specific involvement cannot be determined, law enforcement has other options available to discuss the role of the cell phone and thus the coding would reflect such. Because of these changes, the current language referring to cell phones is that the crash involved the *use of a cell phone* as opposed to the generic *cell-phone-involvement* used previously.

Appendix B

As discussed in the Methodology section of this Research Note, FARS and GES were accessed to retrieve distraction-affected crashes. Table B1 contains every variable attribute

Table B1

Attributes Included in "Driver Distracted By" Element and Indication of Inclusion in Distraction-Affected Definitions, GES and FARS; Frequency of Distraction Attributes for FARS 2011

Attribute	Examples	Included in:			Frequency of Driver Distraction
		Distraction-Affected Crashes	Devices/ Controls Integral to the Vehicle	Electronic Device Use	
Not distracted	Completely attentive to driving; no indication of distraction or noted as Not Distracted				
Looked but did not see	Driver paying attention to driving but does not see relevant vehicle, object, etc.				
By other occupant	Distracted by occupant in driver's vehicle; includes conversing with or looking at other occupant	X			135
By moving object in vehicle	Distracted by moving object in driver's vehicle; includes dropped object, moving pet, insect, cargo.	X			16
While talking or listening to cellular phone	Talking or listening on cellular phone	X		X	114
While dialing cellular phone	Dialing or text messaging on cell phone or any wireless email device	X		X	39
Other cellular phone-related (2007 and later)	Used when the Police Report indicated the driver is distracted from the driving task due to cellular phone involvement, but none of the specified codes are applicable (e.g., reaching for cellular phone, etc.). This code is also applied when specific details regarding cellular phone distraction/usage are not provided.	X		X	218
Adjusting audio and/ or climate controls	While adjusting air conditioner, heater, radio, cassette, using the radio, using the cassette or CD mounted into vehicle	X	X		47
While using other devices/controls integral to vehicle	Adjusting windows, door locks, rear/side view mirrors, seat, steering wheel, seat belts, on-board navigational devices, etc.	X	X		30
While using or reaching for device/ object brought into vehicle	Radar detector, CDs, razors, portable CD player, headphones, a navigational device, cigarette lighter, etc.; if unknown if device is brought into vehicle or integral, use Object Brought Into Vehicle	X			53
Distracted by outside person, object, or event	Animals on roadside or previous crash. Do not use when driver has recognized object/event and driver has taken evasive action	X			188
Eating or drinking	Eating or drinking or actively related to these actions	X			52
Smoking related	Smoking or involved in activity related to smoking	X			15
No driver present	When no driver is in this vehicle				
Distraction/ inattention, details unknown	Distraction and/or inattention are noted on the PAR but the specifics are unknown	X			1,398
Not reported	No field available on PAR; field on PAR left blank; no other information available				
Inattentive or lost in thought	Driver is thinking about items other than the driving task (e.g., daydreaming)	X			586
Other distraction	Details regarding the driver's distraction are known but none of the specified codes are applicable	X			267
Unknown if distracted	PAR specifically states unknown				

available for coding for driver distraction along with examples to illustrate the meaning of the attribute. This is the coding scheme available for FARS and GES. Table B1 further indicates whether that attribute was included in the analysis for distraction-affected crashes.

In some NHTSA distracted driving discussions and publications, there is reference to electronic device use as well as use of devices integral to the vehicle. Table B1 includes indication of which attributes are used when referencing either electronic device use or use of devices integral to the vehicle.

If there are no indications of usage for either the distraction-affected crashes, devices/controls integral to the vehicle, or electronic device use, the attribute was not considered as a type of distraction behavior and therefore not included in the analysis.

Data users often request information regarding the frequency of each attribute with respect to distracted drivers. Table B1 provides the frequency of driver distraction reported for distracted drivers in FARS 2011. Each driver could potentially have multiple distraction behaviors noted in the PAR and thus these attributes *are not* mutually exclusive. This column *will not* sum to the number of distracted drivers in 2011.

Appendix C

NHTSA recognizes that there are limitations to the collection and reporting of FARS and GES data with regard to driver distraction. The data for FARS and GES are based on PARs and investigations conducted after the crash has occurred.

One significant challenge for collection of distracted driving data is the PAR itself. Police accident reports vary across jurisdictions, thus creating potential inconsistencies in reporting. Many variables on the police accident report are nearly universal, but distraction is not one of those variables. Some police accident reports 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. The 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 under-reporting in some States/primary sampling units and over-reporting in others.

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

- There are negative implications associated with distracted driving—especially in conjunction with a crash. Survey research shows that self-reporting of negative behavior is lower than actual occurrence of that negative behavior. There is no reason to believe that self-reporting of distracted driving to a law enforcement officer would differ. The inference is that the reported driver distraction during crashes is lower than the actual occurrence.
- 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.

Also to be taken into consideration is the speed at which technologies are changing and the difficulty in updating the PAR to accommodate these changes. Without broad-sweeping changes to the PAR to incorporate new technologies and features of technologies, it is difficult to capture the data that involve interaction with these devices.

In the reporting of distraction-affected crashes, oftentimes external distractions are identified as a distinct type of distraction. Some of the 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.

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This research note and other general information on highway traffic safety may be accessed by Internet users at: www-nrd.nhtsa.dot.gov/CATS/index.aspx