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National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Crash • Stats

NHTSA

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Non-Traffic Surveillance: Fatality and Injury Statistics in Non-Traffic Crashes, 2012 to 2014

Summary

Based on the Non-Traffic Surveillance (NTS) system, an average of 1,898 people were killed each year in non-traffic motor vehicle crashes during the 3-year period 2012 to 2014. About a third (34%) of those people killed were nonoccupants such as pedestrians and bicyclists. Additionally, on an average, 92,000 people were injured in these crashes each year, of which a third (33%) were nonoccupants.

Introduction

Non-traffic motor vehicle crashes are a class of crashes that occur off the public traffic ways. These crashes, subsequently referred to as "non-traffic crashes," are mostly single-vehicle crashes on private roads, two-vehicle crashes in parking facilities, or collisions with pedestrians in driveways. In addition, there are non-traffic incidents such as a vehicle falling on a person underneath or an unintentional carbon monoxide poisoning inside the vehicle. Both non-traffic crashes and non-traffic incidents have the potential to cause fatalities or injuries to people. Nevertheless, the information on either of these was not available until 2007, when Congress required the National Highway Traffic Safety Administration (NHTSA) to start collecting and maintaining information pertinent to these events. Complying with the directive, NHTSA designed and implemented a virtual data collection system, Non-Traffic Surveillance (NTS), previously called Not-in-Traffic Surveillance, to provide counts and details of fatalities and injuries to people involved in non-traffic crashes and non-traffic incidents. This issue of Crash•Stats focuses only on non-traffic crashes and presents some salient statistics about occupants and nonoccupants killed and injured in such crashes from 2012 to 2014.

The statistics reported in this summary are based on the NTS data from 2012 to 2014. Since a complete record of all non-traffic crash fatalities and injuries from States and police jurisdictions is not available, adjusted weights have been used to obtain national estimates. The background and details about collection of NTS data and the adjustment of weights adopted from the General Estimates System (GES) are provided in the Appendix.

People Killed in Non-Traffic Crashes From 2012 to 2014

The NTS data show that during the 3-year period 2012 to 2014, an estimated 5,695 people were killed in non-traffic crashes (Table 1.) This amounts to an average of 1,898 people killed each year in such crashes. Nonoccupants accounted for 34 percent of these people – 42 percent of whom were struck by vehicles moving forward and 35 percent by vehicles

Table 1. Nonoccupants and Occupants Killed in Non-Traffic Crashes From 2012 to 2014

Occupant Status of People	Killed By	2012		2013		2014		Total	Average (3yr period)	
		Number	Percent	Number	Percent	Number	Percent		Number	Percent
Nonoccupants	Forward Moving Vehicles	225	35%	245	39%	336	51%	806	269	42%
	Backing Vehicles	251	40%	233	37%	193	29%	677	226	35%
	Rollaway Vehicles (unattended with no driver in control)	145	23%	128	20%	87	13%	360	120	19%
	Other (stopped, disabled, or parked vehicles)	13	2%	23	4%	48	7%	84	28	4%
	Subtotal (34%)	**634**		**629**		**664**		**1,927**	**642**	
Occupants	Single-Vehicle Crashes	1,265	95%	1,141	89%	1,123	97%	3,529	1,176	94%
	Multiple-Vehicle Crashes	60	5%	141	11%	38	3%	239	80	6%
	Subtotal (66%)	**1,325**		**1,282**		**1,161**		**3,768**	**1,256**	
Total (100%)		**1,959**		**1,911**		**1,825**		**5,695**	**1,898**	

Data source: NTS 2012–2014

backing up. Rollaway vehicles (unattended with no driver in control) killed a total of 360 nonoccupants during the 3-year period. This amounts to an average of about 19 percent of the nonoccupants killed in non-traffic crashes each year. A vast majority (94% on average) of the 3,529 occupants killed during this period were victims of single-vehicle non-traffic crashes. Additionally, on average, 6 percent of occupants were killed in multiple-vehicle non-traffic crashes each year.

People Injured in Non-Traffic Crashes From 2012 to 2014

The statistics in Table 2 show that over the 3-year period (2012–2014), an estimated 277,000 people were injured in non-traffic crashes. This amounts to an average of 92,000 people injured each year in such crashes. Of all people injured in non-traffic crashes, on average, 33 percent were nonoccupants – 49 percent of whom were injured by vehicles moving forward and 40 percent by vehicles backing up. On average, rollaway vehicles injured about 2,000 nonoccupants each year. This is an average of about 8 percent of the injured nonoccupants. The majority of occupants (63% on average) injured in non-traffic crashes were victims of single-vehicle crashes and the remaining 37 percent injured occupants suffered injuries in multiple-vehicle crashes.

Table 2. Nonoccupants and Occupants Injured in Non-Traffic Crashes From 2012 to 2014

Occupant Status of People	Injured By	2012		2013		2014		Total†	Average (3yr period)	
		Number†	Percent*	Number†	Percent*	Number†	Percent*		Number†	Percent*
Nonoccupants	Forward Moving Vehicles	16,000	52%	13,000	45%	15,000	50%	45,000	15,000	49%
	Backing Vehicles	12,000	38%	13,000	43%	12,000	40%	37,000	12,000	40%
	Rollaway Vehicles (unattended with no driver in control)	2,000	7%	3,000	9%	2,000	8%	7,000	2,000	8%
	Other (stopped, disabled, or parked vehicles)	1,000	3%	1,000	2%	1,000	3%	2,000	1,000	3%
	Subtotal (33%)	**32,000**		**29,000**		**30,000**		**91,000**	**30,000**	
Occupants	Single-Vehicle Crashes	38,000	61%	35,000	57%	44,000	71%	117,000	39,000	63%
	Multiple-Vehicle Crashes	24,000	39%	26,000	43%	18,000	29%	69,000	23,000	37%
	Subtotal (67%)	**63,000**		**61,000**		**63,000**		**186,000**	**62,000**	
Total (100%)		**94,000**		**90,000**		**93,000**		**277,000**	**92,000**	

† Estimates rounded off to the nearest thousand; the column entries may not sum to the totals shown.
*Percentages calculated prior to rounding off.
Data source: NTS 2012–2014

Appendix: NTS Background, Data Collection, and Adjustment Factors

In 2007, Congress required NHTSA to begin collecting and maintaining information about fatalities and injuries to people in non-traffic crashes, as well as in non-traffic incidents such as a vehicle falling on a person underneath or unintentional carbon monoxide poisoning. This was made mandatory under Public Law Number 109-59, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and under Public Law Number 110-189, the Cameron Gulbransen Kids Transportation Safety Act of 2007 (K.T. Safety Act). To comply with this directive, NHTSA designed and implemented the Not-in-Traffic Surveillance system, now called NTS. This is a virtual data collection system designed to provide counts and details regarding fatalities and injuries that occur to people in non-traffic crashes and non-traffic incidents.

NHTSA considers several sources to collect the information relevant to non-traffic crashes and non-traffic incidents. These sources include police accident reports, trauma registries and hospital records, insurance companies data, and newspaper stories. An assessment of the sources indicates that the most appropriate source of the data depended upon whether the event was a non-traffic crash or non-traffic incident and whether the crash outcome was a fatality or non-fatal injury. Accordingly, the NTS system was developed as a virtual system comprised of four major components. The first component consists of the database of fatalities and injuries in non-traffic crashes. This component is primarily based on the police accident reports. The second component is a database of noncrash fatalities obtained from the death certificates. The third component is a database of noncrash injuries, which is based on a nationally representative sample of emergency department records. The fourth component is a collection of detailed investigations of particular types of incidents conducted by NHTSA under its Special Crash Investigations (SCI) program. More information about the SCI is available at: www.nhtsa.dot.gov/portal/site/nhtsa.

This issue of Crash•Stats is based on the first component, i.e. the information about non-traffic crash fatalities and injuries from police reports. Each year, NHTSA receives these reports through its existing crash data collection infrastructure. Nevertheless, NTS does not contain a complete record of all

non-traffic crash fatalities from all States or from a sample of police jurisdictions. To account for this inherent incompleteness in NTS, NHTSA derives adjustment factors from the difference between the expected number of fatalities (based upon death certificates) and the number of fatalities registered in the NTS system. For non-traffic injury data, NHTSA relies on its State Data Program and uses information from all those States that collect information on both traffic and non-traffic crashes causing injuries. The adjustment factors for the non-traffic injury data are derived from the difference between the expected and observed number of injuries in non-traffic crashes.

The adjustment factors derived for fatalities and injuries are further used to obtain adjusted weights which in turn can provide national estimates related to non-traffic crashes. The information about the individual non-traffic crashes occurring in a year together with the corresponding NTS-adjusted weights is compiled into the NTS database for the years 2012–2014. This database is available in the SAS format. Additional information about the definitions and attributes of the NTS variables is available in the NTS *Analytical User's Manual 2008–2014.*

Note: In 2007, the coding for non-traffic crashes under NTS was done based upon a small set of variables. Starting in 2008, the coding began using data elements similar to those used in the National Automotive Sampling System—General Estimates System (NASS-GES). For this reason, the estimates presented in this Crash•Stats may not be compared with the similar estimates reported in 2007. Regarding backovers (backing-vehicle crashes), although the same definition was used in NTS 2012–2014 as in 2007, different attributes were used in 2012–2014 to determine backing maneuvers.

More Information

This Crash•Stats was prepared by Santokh Singh, Senior Statistician, Bowhead Logistics Solutions, LLC, working with the Mathematical Analysis Division, National Center for Statistics and Analysis, NHTSA.

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