



# Fatalities of Vehicle Nonoccupants in Wheelchairs Struck by Motor Vehicles

## Summary

In 2013, there were 32,719 people killed in motor vehicle crashes in the United States. Of those people killed, 28 were reported as seated in wheelchairs (0.09% of the total fatalities) when struck by motor vehicles. These people were not occupants of motor vehicles involved in the crashes and thus are considered nonoccupants. Only 13 States reported fatalities to nonoccupants seated in wheelchairs in 2013. From 2007 to 2013, on average 28 people died every year (0.08% of the total fatalities) when seated in wheelchairs and struck during motor vehicle crashes.

## Data and Limitations

The information on fatal traffic crashes is collected through the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS). FARS is a census of fatal traffic crashes in the 50 States, the District of Columbia, and Puerto Rico (although Puerto Rico is not included in the U.S. totals). To be included in FARS, a crash must involve a motor vehicle traveling on a traffic-way customarily open to the public, and must result in the death of an occupant of a vehicle or a nonoccupant within 30 days of the crash.

To retrieve the wheelchair data from the FARS file, the search criteria include **Person-Related Factors** *Restricted to Wheelchair* and *Motorized Wheelchair Rider*; and **Non-Motorist Condition at the Time of the Crash** *Paraplegic or Restricted to Wheelchair*. These codes were searched among all nonoccupants killed in crashes from 2007 to 2013. For more details on data retrieval, see the Appendix.

Data collection and police reporting with respect to information included in these FARS variables differ widely across police jurisdictions. Some jurisdictions have specific collection for wheelchairs while other jurisdictions do not capture that information directly, rather relying on the information in the narrative summaries of the crashes. Due to the variability in police crash reports across

jurisdictions, there is potential for inconsistencies in the reporting in FARS. It is for this reason that the figures cited in this document are "reported" as nonoccupants in wheelchairs. The figures in this report may undercount wheelchair nonoccupants if police crash reports did not capture the presence of wheelchairs, and thus FARS would not contain that data either. For more information on the FARS data collection see the Appendix.

## Results

The Nation lost 32,719 lives in 2013 from motor vehicle traffic crashes. Victims of those crashes include occupants of the vehicles involved in the crashes as well as people outside the vehicles struck during the crashes. In general, NHTSA data refer to people outside of the vehicles as nonoccupants, most often pedestrians and pedalcyclists. However, there are nonoccupants killed in motor vehicle crashes that are neither on foot nor on pedaled cycles, including people in wheelchairs. An individual seated in a wheelchair and struck during a motor vehicle traffic crash is counted in the "other nonoccupant" category, which is often grouped for purposes of presentation with nonoccupants of unknown status (unknown whether the victim was on foot, cycle, wheelchair, skateboard, etc.)

In 2013, there were 5,668 nonoccupants killed in motor vehicle crashes. There were 190 of these nonoccupants grouped into the other/unknown category. Of these, 28 were reported as in wheelchairs at the time of the crashes.

For categories of fatalities with relatively smaller annual numbers, NHTSA presents the data as a yearly average, so as to avoid mistaking normal fluctuation for large shifts or trends. From 2007 to 2013, there were 194 people reported to have died as nonoccupants in wheelchairs. On average, therefore, 28 people died every year (0.08% of the total fatalities) in wheelchairs when struck during motor vehicle traffic crashes. Table 1 provides the annual counts of fatalities of nonoccupants in wheelchairs.

Table 1  
**Total Killed and Nonoccupants in Wheelchairs Killed, by Year, 2007-2013**

Year	Total Killed	Nonoccupants in Wheelchairs Killed	
		Number	Percentage of Total
2007	41,259	12	0.03%
2008	37,423	32	0.09%
2009	33,883	21	0.06%
2010	32,999	42	0.13%
2011	32,479	30	0.09%
2012	33,782	29	0.09%
2013	32,719	28	0.09%
<b>2007-2013</b>	<b>244,544</b>	<b>194</b>	<b>0.08%</b>

Source: Fatality Analysis Reporting System (FARS) 2007–2012 Final File and 2013 Annual Report File (ARF)

In 2013, only 13 States reported fatalities of nonoccupants in wheelchairs. The State with the largest number in 2013 was California with 7 fatalities, followed by Tennessee with 5 fatalities. Eight States had one fatality each in 2013.

From 2007 to 2013, there were 13 States that had no fatalities of nonoccupants in wheelchairs. Table 2 provides State breakdowns of data from 2007 to 2013.

## Appendix

### Data Retrieval

Data was retrieved beginning in 2007 because of the introduction of a separate attribute (within the Person Type variable) for Persons on Personal Conveyance in the available attributes for nonoccupants. This attribute identified people in wheelchairs separately, instead of including them in a broader category of “other” nonoccupants. Thus the data was retrieved from 2007 to the most recent year of available data. All fatalities of nonoccupants in wheelchairs from 2007 to 2013 appeared within the category Persons on Personal Conveyance.

Of additional note is a change of coding to specifically identify people in wheelchairs. FARS captures nonoccupants in wheelchairs in two elements, as discussed in the body of this Crash•Stat.

- Person-Related Factors
  - ◆ Restricted to Wheelchair (Code 12), from 1982–2009. After 2009, refer to Condition (Impairment) at the Time of the Crash
  - ◆ Motorized Wheelchair Rider (Code 13), since 1998
- Condition (Impairment) at the Time of Crash—since 2010
  - ◆ Paraplegic or Restricted to Wheelchair (Code 4)

### Data Collection

NHTSA has cooperative agreements with agencies in States to provide information on all qualifying fatal crashes in the States. These agreements are managed by NHTSA’s FARS program staff. The State employees who gather, translate, and transmit the data are called FARS analysts. The number of analysts in each State varies according to the State. NHTSA provides each FARS analyst with formal training.

FARS data are obtained solely from these State documents.

- Police Accident Reports
- State Vehicle Registration Files
- State Driver Licensing Files
- State Highway Department Data
- Vital Records Department Data
- Death Certificates
- Coroner/Medical Examiner Reports
- Emergency Medical Service Reports
- Other State Records

From these documents, the analysts code more than 100 FARS data elements. The specific data elements may be modified slightly each year to conform to changing user needs, vehicle characteristics, and highway safety emphasis areas.

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U.S. Department  
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**National Highway  
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Administration**

This research note and other general information on highway traffic safety may be found at: [www-nrd.nhtsa.dot.gov/CATS/index.aspx](http://www-nrd.nhtsa.dot.gov/CATS/index.aspx)

Table 2

**Nonoccupants in Wheelchairs (NOIWC) Killed, by State and Year, 2007-2013**

State	Year														2007-2013	
	2007		2008		2009		2010		2011		2012		2013			
	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed	Total Killed	NOIWC Killed
Alabama	1,110	0	969	0	848	0	862	0	895	0	865	0	852	0	6,401	0
Alaska	82	0	62	0	64	1	56	0	72	0	59	0	51	0	446	1
Arizona	1,071	1	938	2	806	0	759	0	826	1	821	0	849	1	6,070	5
Arkansas	649	0	600	0	596	1	571	0	551	0	560	1	483	2	4,010	4
California	3,995	2	3,434	7	3,090	10	2,720	13	2,816	7	2,966	6	3,000	7	22,021	52
Colorado	554	0	548	1	465	0	450	0	447	2	474	1	481	0	3,419	4
Connecticut	296	0	302	0	224	0	320	1	221	0	264	1	276	0	1,903	2
Delaware	117	0	121	0	116	0	101	0	99	0	114	1	99	0	767	1
Dist of Columbia	44	1	34	0	29	0	24	0	27	1	15	0	20	0	193	2
Florida	3,213	0	2,980	0	2,560	1	2,444	4	2,400	0	2,431	3	2,407	0	18,435	8
Georgia	1,641	0	1,495	0	1,292	1	1,247	2	1,226	0	1,192	1	1,179	1	9,272	5
Hawaii	138	0	107	0	109	0	113	0	100	0	125	0	102	0	794	0
Idaho	252	0	232	0	226	0	209	0	167	0	184	0	214	0	1,484	0
Illinois	1,248	0	1,043	0	911	0	927	0	918	2	956	0	991	0	6,994	2
Indiana	898	0	820	2	693	0	754	0	751	2	781	2	783	1	5,480	7
Iowa	446	0	412	0	371	0	390	0	360	0	365	0	317	0	2,661	0
Kansas	416	0	384	0	386	0	431	0	386	0	405	0	350	0	2,758	0
Kentucky	864	1	825	0	791	0	760	0	720	0	746	2	638	0	5,344	3
Louisiana	993	0	916	2	824	1	721	2	680	2	723	2	703	0	5,560	9
Maine	183	0	155	0	159	0	161	0	136	0	164	0	145	0	1,103	0
Maryland	614	0	591	0	549	0	496	1	485	0	511	0	465	0	3,711	1
Massachusetts	434	0	364	0	340	0	347	0	374	1	383	0	326	1	2,568	2
Michigan	1,087	0	980	2	872	0	942	3	889	1	940	1	947	1	6,657	8
Minnesota	510	0	455	1	421	0	411	0	368	1	395	0	387	0	2,947	2
Mississippi	884	0	783	0	700	0	641	0	630	0	582	0	613	0	4,833	0
Missouri	992	0	960	0	878	0	821	2	786	0	826	0	757	0	6,020	2
Montana	277	0	229	0	221	0	189	0	209	0	205	0	229	0	1,559	0
Nebraska	256	0	208	0	223	0	190	0	181	0	212	0	211	0	1,481	0
Nevada	373	1	324	1	243	0	257	3	246	1	261	3	262	4	1,966	13
New Hampshire	129	0	138	1	110	0	128	0	90	0	108	0	135	1	838	2
New Jersey	724	0	590	1	584	0	556	0	627	0	589	2	542	2	4,212	5
New Mexico	413	0	366	0	361	0	349	0	350	0	366	0	310	0	2,515	0
New York	1,332	0	1,238	0	1,158	0	1,201	1	1,171	0	1,180	0	1,199	0	8,479	1
North Carolina	1,676	0	1,428	3	1,313	0	1,320	1	1,230	1	1,299	0	1,289	0	9,555	5
North Dakota	111	0	104	1	140	0	105	1	148	0	170	0	148	0	926	2
Ohio	1,255	0	1,191	0	1,022	0	1,080	1	1,017	1	1,121	0	989	1	7,675	3
Oklahoma	766	0	750	0	737	0	668	1	696	0	709	0	678	0	5,004	1
Oregon	455	0	416	0	377	0	317	3	331	0	337	0	313	0	2,546	3
Pennsylvania	1,491	1	1,468	2	1,256	0	1,324	0	1,286	1	1,310	1	1,208	0	9,343	5
Rhode Island	69	0	65	0	83	0	67	1	66	0	64	0	65	0	479	1
South Carolina	1,077	1	921	0	894	0	809	0	828	0	863	0	767	0	6,159	1
South Dakota	146	0	121	0	131	0	140	0	111	0	133	0	135	0	917	0
Tennessee	1,211	1	1,043	2	986	2	1,032	0	937	1	1,015	0	995	5	7,219	11
Texas	3,466	3	3,476	1	3,104	0	3,023	1	3,054	0	3,408	0	3,382	0	22,913	5
Utah	299	0	276	1	244	1	253	0	243	1	217	1	220	0	1,752	4
Vermont	66	0	73	0	74	0	71	0	55	0	77	0	69	0	485	0
Virginia	1,027	0	825	0	758	0	740	0	764	0	776	1	740	1	5,630	2
Washington	571	0	521	1	492	1	460	0	454	1	438	0	436	0	3,372	3
West Virginia	432	0	378	0	357	1	315	0	338	0	339	0	332	0	2,491	1
Wisconsin	756	0	605	1	561	1	572	1	582	3	615	0	543	0	4,234	6
Wyoming	150	0	159	0	134	0	155	0	135	0	123	0	87	0	943	0
<b>National</b>	<b>41,259</b>	<b>12</b>	<b>37,423</b>	<b>32</b>	<b>33,883</b>	<b>21</b>	<b>32,999</b>	<b>42</b>	<b>32,479</b>	<b>30</b>	<b>33,782</b>	<b>29</b>	<b>32,719</b>	<b>28</b>	<b>244,544</b>	<b>194</b>

Source: FARS 2007-2012 Final File, 2013 ARF.