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

NHTSA
www.nhtsa.gov

TRAFFIC SAFETY FACTS
2012 Data

DOT HS 811 892

March 2014
(Revised September 2014)

Occupant Protection

Seat belt use in 2012 was 86 percent, up from 84 percent in 2011. This is a huge increase from 79 percent in 2003 and 58 percent in 1994. This result is from the National Occupant Protection Use Survey (NOPUS), which is the only survey that provides nationwide probability-based observed data on seat belt use in the United States (DOT HS 811 691).

In 2012, there were 21,667 occupants of passenger vehicles (passenger cars, pickup trucks, vans, and SUVs) who died in motor vehicle traffic crashes. Of the 21,667 total occupants killed, 9,679 were restrained. Restraint use was not known for 1,653 occupants. Looking only at occupants where the restraint status was known, 52 percent were unrestrained at the time of the crashes (Table 1).

The proportion of passenger vehicle occupants killed that were unrestrained has decreased from 2003 to 2012. Among passenger vehicle occupants killed when restraint use was known, the percentage of unrestrained deaths decreased by 4 percentage points from 56 percent in 2003 to 52 percent in 2012 (Table 1).

In 2012, 63 percent of the passenger vehicle occupants 21 to 24 years old killed in traffic crashes were not using restraints — the highest percentage out of all age groups.

Table 1
Passenger Vehicle Occupant Fatalities, by Restraint Use, 2003–2012

	Restraint Use						Total		Percent "Known"	Percent "Known"
	Restrained		Unrestrained		Unknown					
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Restrained	Unrestrained
2003	12,967	40%	16,764	52%	2,540	8%	32,271	100%	44%	56%
2004	13,250	42%	16,432	52%	2,184	7%	31,866	100%	45%	55%
2005	13,064	41%	16,247	51%	2,238	7%	31,549	100%	45%	55%
2006	12,710	41%	15,635	51%	2,341	8%	30,686	100%	45%	55%
2007	12,322	42%	14,446	50%	2,304	8%	29,072	100%	46%	54%
2008	10,691	42%	12,925	51%	1,846	7%	25,462	100%	45%	55%
2009	10,190	43%	11,545	49%	1,712	7%	23,447	100%	47%	53%
2010	9,969	45%	10,590	48%	1,714	8%	22,273	100%	48%	52%
2011	9,471	44%	10,215	48%	1,630	8%	21,316	100%	48%	52%
2012	9,679	45%	10,335	48%	1,653	8%	21,667	100%	48%	52%

Age, Gender, Seating Position, and Restraint Use

Among passenger vehicle occupant fatalities where restraint use was known, the age group 21 to 24 had the highest percentage of occupants killed that were unrestrained: 2,254 fatalities where restraint use was known, of which 1,428 (63%) were unrestrained. The second highest percentage of passenger vehicle occupants killed that were unrestrained was 61 percent among the 25- to 34-year-olds (Table 2).

Table 2

Passenger Vehicle Occupants Killed, by Age, Gender, Seating Position, and Restraint Use, 2012

	Restrained		Unrestrained		Unknown		Total		Percent "Known" Restrained	Percent "Known" Unrestrained
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Total*	**9,679**	**45%**	**10,335**	**48%**	**1,653**	**8%**	**21,667**	**100%**	**48%**	**52%**
Age (Years)										
<4	161	66%	71	29%	11	5%	243	100%	69%	31%
4–7	112	58%	68	35%	14	7%	194	100%	62%	38%
8–12	96	48%	80	40%	24	12%	200	100%	55%	45%
13–15	99	38%	140	54%	21	8%	260	100%	41%	59%
16–20	959	37%	1,423	55%	204	8%	2,586	100%	40%	60%
21–24	826	33%	1,428	58%	227	9%	2,481	100%	37%	63%
25–34	1,388	36%	2,159	55%	345	9%	3,892	100%	39%	61%
35–44	1,000	37%	1,518	56%	206	8%	2,724	100%	40%	60%
45–54	1,183	43%	1,352	50%	196	7%	2,731	100%	47%	53%
55–64	1,268	54%	928	40%	143	6%	2,339	100%	58%	42%
65–74	1,061	59%	612	34%	118	7%	1,791	100%	63%	37%
75+	1,525	69%	544	25%	131	6%	2,200	100%	74%	26%
Gender										
Male	5,668	40%	7,345	52%	1,125	8%	14,138	100%	44%	56%
Female	4,008	53%	2,990	40%	523	7%	7,521	100%	57%	43%
Seating Position										
Front Seat	**8,969**	**46%**	**9,008**	**46%**	**1,425**	**7%**	**19,402**	**100%**	**50%**	**50%**
Left	7,174	45%	7,461	47%	1,139	7%	15,774	100%	49%	51%
Middle	12	18%	49	73%	6	9%	67	100%	20%	80%
Right	1,783	50%	1,490	42%	279	8%	3,552	100%	54%	46%
Other/Unknown	0	0%	8	89%	1	11%	9	100%	0%	100%
Second Seat	**644**	**36%**	**1,025**	**57%**	**142**	**8%**	**1,811**	**100%**	**39%**	**61%**
Left	240	35%	389	56%	62	9%	691	100%	38%	62%
Middle	65	26%	167	67%	18	7%	250	100%	28%	72%
Right	337	41%	432	52%	55	7%	824	100%	44%	56%
Other/Unknown	2	4%	37	80%	7	15%	46	100%	5%	95%
Other	**52**	**20%**	**185**	**71%**	**24**	**9%**	**261**	**100%**	**22%**	**78%**

*Totals include unknown age, gender and seating position

Note: 'Other' front and second seat include occupants lying on the floor or across the seat. 'Other' seating position includes third and fourth rows, cargo areas, vehicle exteriors, trailing units, and sleeper cabs.

In 2012, there were a total of 243 passenger vehicle occupant fatalities among children under age 4. Among the 232 fatalities in this age group for which restraint use was known, 71 (31%) were unrestrained. In the age group of 4 to 7, there were a total of 194 fatalities. Among the 180 fatalities in this age group for which restraint use was known, 68 (38%) were unrestrained (Table 2).

Among males, there were a total of 14,138 passenger vehicle occupant fatalities. Of the 13,013 fatalities among males for which restraint use was known, 7,345 (56%) were unrestrained. Of the 7,521 fatalities among females, restraint use was known for 6,998, of which 2,990 (43%) were unrestrained (Table 2).

The proportion of passenger vehicle occupants who were unrestrained and who were seated in the front seat was 50 percent. The proportion of unrestrained passengers was higher (61%) for second row seats (Table 2).

Seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and light-truck occupants by 60 percent.

Vehicle Type and Restraint Use

A total of 15,767 passenger vehicle drivers were killed in traffic crashes in 2012. Among the 14,629 driver fatalities for which restraint use was known, 51 percent (7,458) were unrestrained. Furthermore, 64 percent (2,015) of the drivers of pickup trucks killed were unrestrained, compared to 58 percent (1,452) for SUVs, 44 percent (293) for vans, and 45 percent (3,692) for passenger cars (Table 3).

Table 3

Drivers and Passengers Killed, by Passenger Vehicle Type and Restraint Use, 2012

Type of Passenger Vehicle	Restrained		Unrestrained		Unknown		Total		Percent "Known" Restrained	Percent "Known" Unrestrained
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Drivers Killed										
Passenger Cars	4,575	51%	3,692	42%	624	7%	8,891	100%	55%	45%
Pickup Trucks	1,142	34%	2,015	59%	239	7%	3,396	100%	36%	64%
Sport Utility Vehicles	1,068	39%	1,452	54%	193	7%	2,713	100%	42%	58%
Vans	378	50%	293	39%	80	11%	751	100%	56%	44%
Other Light Trucks	8	50%	6	38%	2	13%	16	100%	57%	43%
Total	**7,171**	**45%**	**7,458**	**47%**	**1,138**	**7%**	**15,767**	**100%**	**49%**	**51%**
Passengers Killed										
Passenger Cars	1,629	48%	1,434	42%	317	9%	3,380	100%	53%	47%
Pickup Trucks	273	29%	591	63%	72	8%	936	100%	32%	68%
Sport Utility Vehicles	398	34%	692	60%	72	6%	1,162	100%	37%	63%
Vans	206	50%	156	38%	54	13%	416	100%	57%	43%
Other Light Trucks	2	33%	4	67%	0	0%	6	100%	33%	67%
Total	**2,508**	**43%**	**2,877**	**49%**	**515**	**9%**	**5,900**	**100%**	**47%**	**53%**

A total of 5,900 passengers were killed in passenger vehicles in 2012. Among the 5,385 passenger fatalities for which restraint use was known, 53 percent (2,877) were unrestrained. Furthermore, among the passenger fatalities, 68 percent of the passengers in pickup trucks were unrestrained, compared to 63 percent for SUVs, 43 percent for vans, and 47 percent for passenger cars (Table 3).

In 2012, seat belts saved an estimated 12,174 lives among passenger vehicle occupants 5 and older.

Seat Belt Use and Benefits

Research has found that lap/shoulder seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate- to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate- to-critical injury by 65 percent.

Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. In fatal crashes in 2012, 79 percent of passenger vehicle occupants who were totally ejected from the vehicles were killed. Seat belts are effective in preventing total ejections; only 1 percent of the occupants reported to have been using restraints were totally ejected, compared with 30 percent of the unrestrained occupants.

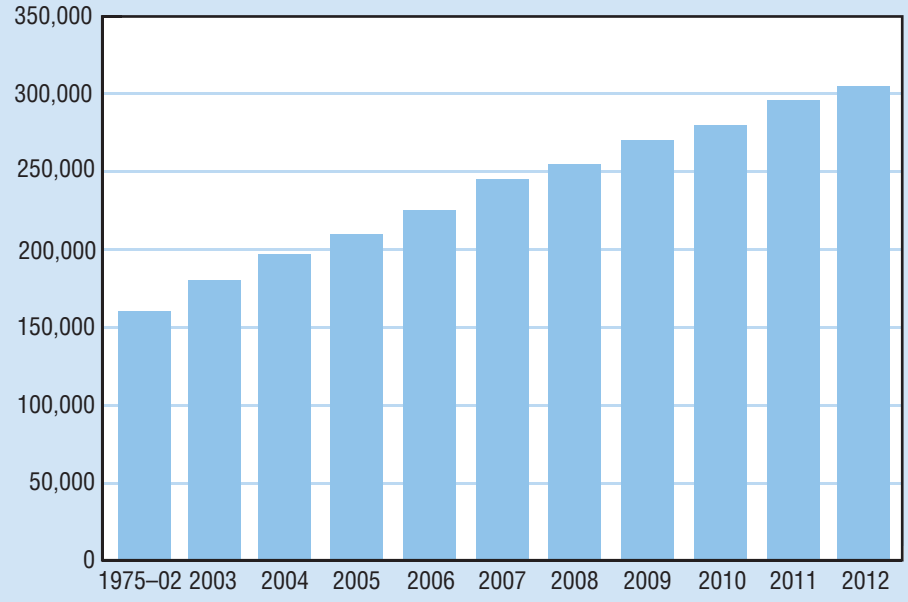
Lives Saved by Seat Belts

Among passenger vehicle occupants 5 and older, seat belts saved an estimated 12,174 lives in 2012. If all passenger vehicle occupants 5 and older had worn seat belts, 15,205 lives (that is, an additional 3,031) could have been saved in 2012. The cumulative estimated number of lives saved by seat belts from 1975 to 2012 is shown in Figure 1.

From 1975 through 2012, an estimated 10,157 lives were saved by child restraints.

Figure 1

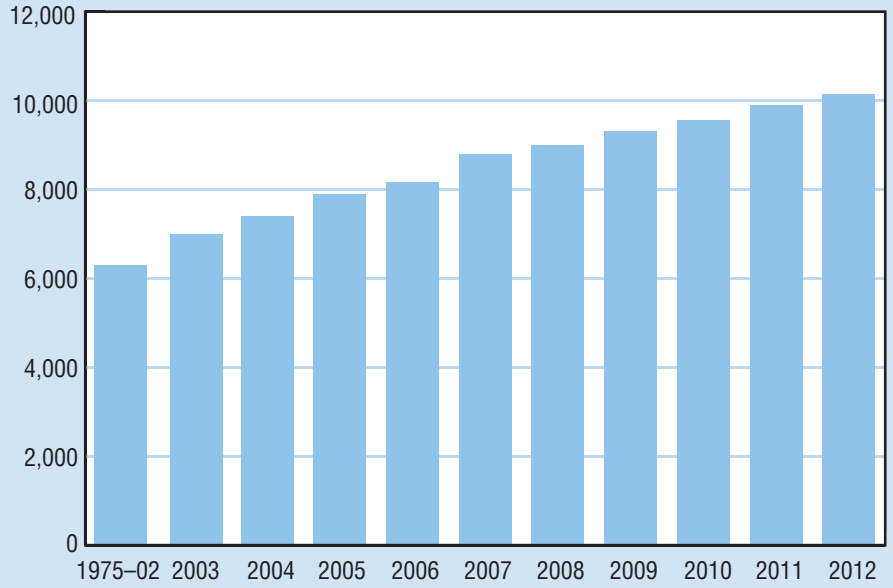
Cumulative Estimated Number of Lives Saved by Seat Belts, 1975–2012



Child Restraint Use and Benefits

Research on the effectiveness of child safety seats has found them to reduce the risk of fatal injury by 71 percent for infants (younger than 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent, respectively. The cumulative estimated number of lives saved by child restraints from 1975 to 2012 is shown in Figure 2.

Figure 2
Cumulative Estimated Number of Lives Saved by Child Restraints, 1975–2012



Frontal air bags, combined with lap/ shoulder belts, offer effective safety protection for passenger vehicle occupants.

Lives Saved by Child Safety Seats

Among children under age 5, an estimated 284 lives were saved in 2012 by restraint use. Of these 284 lives saved, 265 were associated with the use of child safety seats and 18 with the use of adult seat belts (Table 4).

At 100-percent child restraint use for children under 5, an estimated 342 (that is, an additional 59) lives could have been saved in 2012.

From 1987 to 2012, there were 36,976 lives saved by frontal air bags.

Frontal Air Bag Use and Benefits

Frontal air bags, combined with lap/shoulder belts, offer effective safety protection for passenger vehicle occupants. NHTSA analyses indicate a fatality-reducing effectiveness for frontal air bags of 14 percent when no seat belts were used and 11 percent when seat belts were used in conjunction with frontal air bags.

It is estimated that as of 2012, there were 190 million air-bag-equipped passenger vehicles on the road, including 182 million with dual air bags. Air bags are supplemental protection and are not designed to deploy in all crashes. Most are designed to inflate in a moderate-to-severe frontal crash.

Some crashes at lower speeds may result in injuries, but generally not the serious injuries that air bags are designed to prevent. Lap/shoulder belts should always be used, even in vehicles with air bags.

Children in rear-facing child safety seats should not be placed in the front seats of vehicles equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child safety seat could result in serious injury to the child.

Lives Saved by Frontal Air Bags

In 2012, an estimated 2,213 lives were saved by frontal air bags. From 1987 to 2012, a total of 36,976 lives were saved by frontal air bags (Table 4).

Table 4
Estimated Number of Lives Saved by Restraint Systems, 1975–2012

Restraint Type	1975–02	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Seat Belts	164,853	15,095	15,548	15,688	15,458	15,223	13,312	12,763	12,582	11,983	12,174	304,679
Child Restraints	6,574	447	455	424	427	388	286	307	303	262	284	10,157
Frontal Air Bags	11,739*	2,519	2,660	2,752	2,824	2,800	2,557	2,387	2,315	2,210	2,213	36,976

*Note: Total from 1987–2002. Frontal air bags did not exist prior to 1987.

State Belt Use

Seat belt use rates in the States, the District of Columbia, and Puerto Rico in 2012 are shown in the last column in Table 5. The results were obtained by observing traffic on roads at selected sites. For more information on seat belt use rates, see the Crash*Stats titled *Seat Belt Use in 2012—Use Rates in the States and Territories* (DOT HS 811 809).

Table 5

Passenger Vehicle Occupants Killed, by State, Restraint Use, and Observed Seat Belt Use Rate by State, 2012

State	Restraint Use						Total Occupants Killed		Observed Seat Belt Use Rate*
	Restrained		Unrestrained		Unknown				
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Alabama	255	39%	354	55%	39	6%	648	100%	89.5%
Alaska	17	44%	19	49%	3	8%	39	100%	88.1%
Arizona	165	35%	252	54%	54	11%	471	100%	82.2%
Arkansas	149	37%	226	57%	23	6%	398	100%	71.9%
California	991	63%	487	31%	98	6%	1,576	100%	95.5%
Colorado	124	43%	156	54%	7	2%	287	100%	80.7%
Connecticut	65	42%	53	35%	35	23%	153	100%	86.8%
Delaware	29	48%	25	41%	7	11%	61	100%	87.9%
Dist of Columbia	0	0%	4	100%	0	0%	4	100%	92.4%
Florida	607	48%	575	46%	73	6%	1,255	100%	87.4%
Georgia	394	48%	368	44%	67	8%	829	100%	92.0%
Hawaii	16	29%	31	56%	8	15%	55	100%	93.4%
Idaho	59	44%	72	53%	4	3%	135	100%	79.0%
Illinois	286	47%	279	46%	43	7%	608	100%	93.6%
Indiana	247	48%	214	41%	55	11%	516	100%	93.6%
Iowa	119	46%	112	44%	25	10%	256	100%	92.4%
Kansas	117	40%	163	55%	15	5%	295	100%	79.5%
Kentucky	231	43%	309	57%	1	0%	541	100%	83.7%
Louisiana	191	41%	240	52%	30	7%	461	100%	79.3%
Maine	49	40%	75	60%	0	0%	124	100%	84.4%
Maryland	173	55%	110	35%	32	10%	315	100%	91.1%
Massachusetts	66	33%	98	49%	38	19%	202	100%	72.7%
Michigan	320	51%	224	36%	78	13%	622	100%	93.6%
Minnesota	129	48%	101	37%	40	15%	270	100%	93.6%
Mississippi	167	36%	293	63%	3	1%	463	100%	83.2%
Missouri	155	26%	394	66%	51	9%	600	100%	79.4%
Montana	42	27%	113	72%	2	1%	157	100%	76.3%
Nebraska	43	27%	102	63%	16	10%	161	100%	78.6%
Nevada	75	51%	63	43%	9	6%	147	100%	90.5%
New Hampshire	20	29%	50	71%	0	0%	70	100%	68.6%
New Jersey	153	49%	150	48%	12	4%	315	100%	88.3%
New Mexico	97	44%	106	48%	16	7%	219	100%	91.4%
New York	362	58%	204	33%	57	9%	623	100%	90.4%
North Carolina	419	51%	351	42%	57	7%	827	100%	87.5%
North Dakota	40	31%	89	68%	2	2%	131	100%	80.9%
Ohio	298	38%	416	53%	76	10%	790	100%	82.0%
Oklahoma	198	39%	282	56%	28	6%	508	100%	83.8%
Oregon	116	59%	61	31%	21	11%	198	100%	96.8%
Pennsylvania	257	29%	498	57%	121	14%	876	100%	83.5%
Rhode Island	27	55%	19	39%	3	6%	49	100%	77.5%
South Carolina	218	38%	313	55%	37	7%	568	100%	90.5%
South Dakota	30	31%	60	61%	8	8%	98	100%	66.5%
Tennessee	307	40%	398	52%	55	7%	760	100%	83.7%
Texas	1,097	49%	927	42%	200	9%	2,224	100%	94.0%
Utah	55	38%	77	53%	13	9%	145	100%	81.9%
Vermont	17	33%	34	65%	1	2%	52	100%	84.2%
Virginia	248	45%	298	54%	3	1%	549	100%	78.4%
Washington	146	56%	102	39%	15	6%	263	100%	96.9%
West Virginia	75	31%	137	57%	30	12%	242	100%	84.0%
Wisconsin	177	42%	201	48%	39	9%	417	100%	79.9%
Wyoming	41	44%	50	53%	3	3%	94	100%	77.0%
U.S. Total	**9,679**	**45%**	**10,335**	**48%**	**1,653**	**8%**	**21,667**	**100%**	**86%**
Puerto Rico	60	37%	104	63%	0	0%	164	100%	90.2%

Grey shaded: States with primary seat belt laws in 2012. *Crash*Stats (DOT HS 811 809) dated July 2013

Restraint Use Laws

The U.S. Department of Transportation's July 1984 rulemaking on automatic occupant protection began a wave of legislative action that resulted in the enactment of seat belt use laws in many States. The goal of those laws is to promote belt use and thereby reduce deaths and injuries in motor vehicle crashes.

The first mandatory belt use law was enacted in New York in 1984. Adult belt use laws are now in effect in 49 States, the District of Columbia, and Puerto Rico. The laws differ from State to State, according to the type and age of the vehicle, occupant seating position, etc.

In 17 of the States with belt use laws, the law specifies "secondary" enforcement. That is, police officers are permitted to write a citation only after a vehicle is stopped for some other traffic infraction. Thirty-two States, the District of Columbia, and Puerto Rico have laws that allow "primary" enforcement, enabling officers to stop vehicles and write citations whenever they observe violations of the seat belt law (Table 5).

The first mandatory child restraint use law was implemented in Tennessee in 1978. Since 1985, all 50 States and the District of Columbia have had child restraint use laws in effect. These laws also cover various segments of the population.

A 2008 NHTSA research note, *States With Primary Enforcement Laws Have Lower Fatality Rates (Updated)*, indicated that States with primary enforcement seat belt laws achieved significantly higher belt use than did those with secondary enforcement laws. The analysis suggests that belt use among fatally injured occupants was at least 13 percentage points higher in States with primary enforcement laws.

For more information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis (NCSA), NVS-424, 1200 New Jersey Avenue SE., Washington, DC 20590. NCSA can be contacted at 800-934-8517 or via e-mail at: ncsaweb@dot.gov. General information on highway traffic safety is available online at www.nhtsa.gov/NCSA. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Vehicle Safety Hotline at 888-327-4236.

Other fact sheets available from the National Center for Statistics and Analysis are *Alcohol-Impaired Driving, Bicyclists and Other Cyclists, Children, Large Trucks, Motorcycles, Older Population, Overview, Passenger Vehicles, Pedestrians, Race and Ethnicity, Rural/Urban Comparisons, School Transportation-Related Crashes, Speeding, State Alcohol Estimates, State Traffic Data,* and *Young Drivers.* Detailed data on motor vehicle traffic crashes are published annually in Traffic Safety Facts: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System. The fact sheets and annual Traffic Safety Facts report can be accessed online at www-nrd.nhtsa.dot.gov/CATS/index.aspx.

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

10578-091614-v5