

Traffic Safety Facts

2008 Data

DOT HS 811 160

Occupant Protection

Restraint Use

Seat belt use rates in the States, the District of Columbia, and Puerto Rico are shown in Table 1. The results were obtained by observing traffic on roads at selected observation sites. Where rates are missing from the table, States did not submit rates to NHTSA. For more information on State seat belt use rates, see the National Occupant Protection Use Survey (NOPUS) Crash*Stat titled "Seat Belt Use in 2008 -- Use Rates in the States and Territories" (DOT HS 811 106).

The overall observed shoulder belt use rate was 83 percent in 2008, compared to 82 percent in 2007, 81 percent in 2006, 82 percent in 2005, 80 percent in 2004, 79 percent in 2003, 75 percent in 2002, and 73 percent in 2001. In 1994, the overall observed shoulder belt use rate was 58 percent.

Table 1
Seat Belt Use Rates by State, 2007 and 2008

State or U.S. Territory	2007	2008	State or U.S. Territory	2007	2008
Alabama	82.3%	86.1%	New Hampshire	63.8%	69.2%
Alaska	82.4%	84.9%	New Jersey	91.4%	91.8%
Arizona	80.9%	79.9%	New Mexico	91.5%	91.1%
Arkansas	69.9%	70.4%	New York	83.5%	89.1%
California	94.6%	95.7%	North Carolina	88.8%	89.8%
Colorado	81.1%	81.7%	North Dakota	82.2%	81.6%
Connecticut	85.8%	88.0%	Ohio	81.6%	82.7%
Delaware	86.6%	91.3%	Oklahoma	83.1%	84.3%
Dist. Of Columbia	87.1%	90.0%	Oregon	95.3%	96.3%
Florida	79.1%	81.7%	Pennsylvania	86.7%	85.1%
Georgia	89.0%	89.6%	Rhode Island	79.1%	72.0%
Hawaii	97.6%	97.0%	South Carolina	74.5%	79.0%
Idaho	78.5%	76.9%	South Dakota	73.0%	71.8%
Illinois	90.1%	90.5%	Tennessee	80.2%	81.5%
Indiana	87.9%	91.2%	Texas	91.8%	91.2%
Iowa	91.3%	92.9%	Utah	86.8%	86.0%
Kansas	75.0%	77.4%	Vermont	87.1%	87.3%
Kentucky	71.8%	73.3%	Virginia	79.9%	80.6%
Louisiana	75.2%	75.5%	Washington	96.4%	96.5%
Maine	79.8%	83.0%	West Virginia	89.6%	89.5%
Maryland	93.1%	93.3%	Wisconsin	75.3%	74.2%
Massachusetts	68.7%	66.8%	Wyoming	72.2%	68.6%
Michigan	93.7%	97.2%	Nationwide	82%	83%
Minnesota	87.8%	86.7%	Puerto Rico	92.1%	92.8%
Mississippi	71.8%	71.3%	American Samoa	NA	55.7%
Missouri	77.2%	75.8%	Guam	81%	85.0%
Montana	79.6%	79.3%	Northern Mariana Islands	80%	89.8%
Nebraska	78.7%	82.6%	U.S. Virgin Islands	NA	82.3%
Nevada	92.2%	90.9%			

Note 1: Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded for the 50 States and District of Columbia. The four U.S. Territories in the last four rows of the table all had primary belt use laws in effect for the survey year of 2008; however, since we have no data about which year their primary laws began to take effect, the shading scheme is NOT applicable to the four territories.

Note 2: Arkansas passed the primary seat belt law in March 2009 and the law will take effect on June 30, 2009.

NA: No rate reported.

“In 2008, 70 percent of the passenger vehicle occupants ages 13 to 15 killed in traffic crashes were not using restraints — the highest percentage out of all age groups.”

Occupant Fatalities by Age and Restraint Use

In 2008 25,351 occupants of passenger vehicles (passenger cars, pickup trucks, vans, and SUVs) were killed in motor vehicle traffic crashes, 68 percent of the 37,261 traffic fatalities reported for the year.

Of the 25,351 passenger vehicle occupant fatalities in 2008, restraint use was unknown for 1,844 (7%). Of the 23,507 passenger vehicle occupant fatalities for which restraint use was known, 12,865 (55%) were unrestrained.

Among passenger vehicle occupants where restraint use was known, the age group 13 to 15 had the highest percentage of unrestrained occupants; 342 fatalities where restraint use was known, of which 238 (70%) were unrestrained. Of the 4,076 passenger vehicle occupant fatalities among 25- to 34-year-olds for which restraint use was known, 2,674 (66%) were unrestrained, the second highest percentage for any age group.

In 2008, there were a total of 240 passenger vehicle occupant fatalities among children under age 4. Among the 227 fatalities in this age group for which restraint use was known, 74 (33%) were unrestrained. In the age group of 4 to 7, there were a total of 214 passenger vehicle occupant fatalities. Among the 197 fatalities in this age group for which restraint use was known, 78 (40%) were unrestrained.

Table 2

Passenger Vehicle Occupants Killed, by Age and Restraint Use, 2008

Age (Years)	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<4	153	64	74	31	13	5	240	100
4-7	119	56	78	36	17	8	214	100
8-12	110	45	115	48	17	7	242	100
13-15	104	28	238	64	32	9	374	100
16-20	1,360	37	2,014	55	304	8	3,678	100
21-24	946	32	1,727	59	247	8	2,920	100
25-34	1,402	32	2,674	61	330	7	4,406	100
35-44	1,157	35	1,898	57	250	8	3,305	100
45-54	1,349	42	1,703	53	190	6	3,242	100
55-64	1,285	52	1,023	42	151	6	2,459	100
65-74	1,057	60	606	34	100	6	1,763	100
75+	1,592	65	700	28	176	7	2,468	100
Unknown	8	20	15	38	17	43	40	100
Total	10,642	42	12,865	51	1,844	7	25,351	100

“In 2008, 67 percent of the pickup truck drivers killed in traffic crashes were not using restraints.”

Driver and Occupant Fatalities by Vehicle Type and Restraint Use

A total of 18,145 passenger vehicle drivers were killed in traffic crashes in 2008. Among the 16,849 driver fatalities for which restraint use was known, 54 percent (9,115) were unrestrained. Furthermore, 67 percent (2,486) of the drivers of pickup trucks killed were unrestrained, compared to 61 percent (1,639) for SUVs, 48 percent (390) for vans, and 48 percent (4,593) for passenger cars.

A total of 7,206 passengers were killed in passenger vehicles in 2008. Among the 6,658 passenger fatalities for which restraint use was known, 56 percent (3,750) were unrestrained. Furthermore, among the passenger fatalities for which restraint use was known, 70 percent of the passengers in pickup trucks were unrestrained, compared to 63 percent for SUVs, 57 percent for vans, and 50 percent for passenger cars.

Table 3

Drivers and Passengers Killed, by Passenger Vehicle Type and Restraint Use, 2008

Type of Passenger Vehicle	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Drivers Killed								
Passenger Cars	5,051	49	4,593	44	764	7		100
Pickup Trucks	1,215	31	2,486	63	274	7	3,975	100
Sport Utility Vehicles	1,048	37	1,639	57	183	6	2,870	100
Vans	417	47	390	44	73	8	880	100
Other Light Trucks	3	25	7	58	2	17	12	100
Total	7,734	43	9,115	50	1,296	7	18,145	100
Passengers Killed								
Passenger Cars	1,899	45	1,931	46	349	8	4,179	100
Pickup Trucks	315	29	718	65	65	6	1,098	100
Sport Utility Vehicles	456	35	778	59	82	6	1,316	100
Vans	238	39	321	53	52	9	611	100
Other Light Trucks	0	0	2	100	0	0	2	100
Total	2,908	40	3,750	52	548	8	7,206	100

“Seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent.”

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.

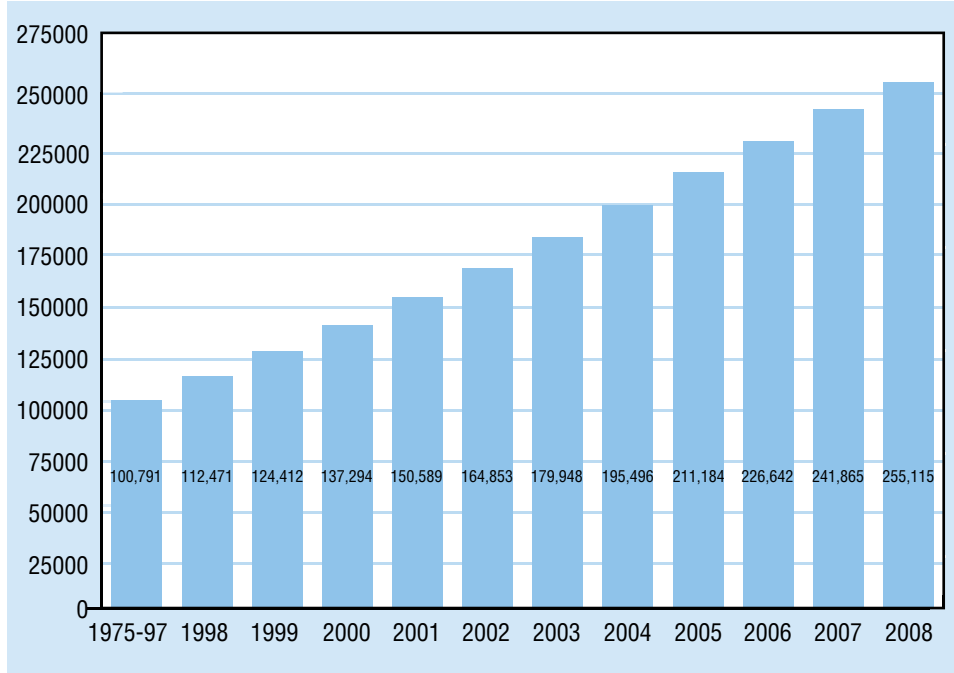
Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. In fatal crashes in 2008, 77 percent of passenger vehicle occupants who were totally ejected from the vehicle were killed. Seat belts are effective in preventing total ejections: only 1 percent of the 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 over age 4, seat belts saved an estimated 13,250 lives in 2008. If all passenger vehicle occupants over age 4 had worn seat belts, 17,402 lives (that is an additional 4,152) could have been saved in 2008.

“From 1975 through 2008, an estimated 8,959 lives were saved by child restraints.”

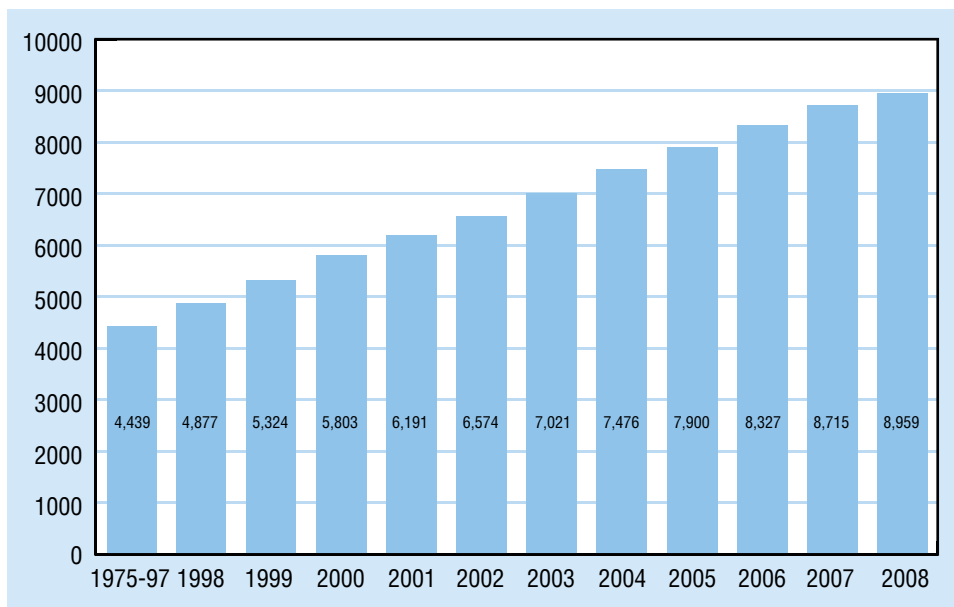
Figure 1
Cumulative Estimated Number of Lives Saved by Seat Belt Use, 1975-2008



Child Restraint Use and Benefits

Research on the effectiveness of child safety seats has found them to reduce 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.

Figure 2
Cumulative Estimated Number of Lives Saved by Child Restraints, 1975-2008



Lives Saved by Child Safety Seats

Among children under age 5, an estimated 244 lives were saved in 2008 by restraint use. Of these 244 lives saved, 219 were associated with the use of child safety seats and 25 with the use of adult seat belts.

At 100 percent child safety seat use for children under age 5, an estimated 323 lives (that is, an additional 79) could have been saved in 2008.

From 1975 through 2008, an estimated 8,959 lives were saved by child restraints (child safety seats or adult seat belts).

Air Bag Use and Benefits

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

Recent NHTSA analyses indicated a fatality-reducing effectiveness for frontal air bags of 14 percent when no seat belt was used and 11 percent when a seat belt was used in conjunction with frontal air bags.

It is estimated that, as of 2008, 180 million air-bag-equipped passenger vehicles were on the road, including 170 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. For this and other reasons, 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 seat 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 injury to the child.

Lives Saved by Frontal Air Bags

In 2008, an estimated 2,546 lives were saved by frontal air bags. From 1987 to 2008, a total of 27,840 lives were saved.

Table 4

Estimated Number of Lives Saved by Restraint Systems, 1975-2008

Restraint Type	1975-97	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Seat Belts	100,791	11,680	11,941	12,882	13,295	14,264	15,095	15,548	15,688	15,458	15,223	13,250
Child Restraints	4,439	438	447	479	388	383	447	455	424	427	388	244
Frontal Air Bags	3,022	1,208	1,491	1,716	1,978	2,324	2,519	2,660	2,752	2,824	2,800	2,546

“Frontal air bags, combined with lap/shoulder belts, offer the most effective safety protection available today for passenger vehicle occupants.”

“Between 1987 and 2008, 27,840 lives were saved by frontal air bags.”

Table 5
Passenger Vehicle Occupants Killed by State and Restraint Use, 2008

State	Restraint Use							
	Restraint Used		No Restraint Used		Restraint Use Unknown		Total Occupants Killed	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Alabama	271	36	452	60	28	4	751	100
Alaska	19	44	21	49	3	7	43	100
Arizona	196	34	320	55	67	11	583	100
Arkansas	142	32	265	60	38	9	445	100
California	1,170	58	702	35	151	7	2,023	100
Colorado	186	49	173	46	19	5	378	100
Connecticut	68	42	70	43	25	15	163	100
Delaware	40	51	29	37	9	12	78	100
Dist of Columbia	5	36	5	36	4	29	14	100
Florida	684	40	1,001	58	42	2	1,727	100
Georgia	406	37	578	53	104	10	1,088	100
Hawaii	25	44	27	47	5	9	57	100
Idaho	63	37	103	60	5	3	171	100
Illinois	323	45	339	47	60	8	722	100
Indiana	264	45	264	45	59	10	587	100
Iowa	127	41	144	46	42	13	313	100
Kansas	96	32	185	61	21	7	302	100
Kentucky	214	36	381	64	1	0	596	100
Louisiana	212	32	396	59	61	9	669	100
Maine	51	47	45	42	12	11	108	100
Maryland	202	55	142	39	21	6	365	100
Massachusetts	68	30	120	53	39	17	227	100
Michigan	344	51	241	36	84	13	669	100
Minnesota	151	48	125	40	36	12	312	100
Mississippi	220	34	432	66	0	0	652	100
Missouri	215	29	485	65	47	6	747	100
Montana	46	28	117	70	4	2	167	100
Nebraska	69	39	91	52	15	9	175	100
Nevada	96	49	91	46	9	5	196	100
New Hampshire	25	26	72	74	0	0	97	100
New Jersey	160	48	165	50	7	2	332	100
New Mexico	119	48	128	51	3	1	250	100
New York	344	51	232	34	104	15	680	100
North Carolina	497	48	478	46	58	6	1,033	100
North Dakota	17	23	54	73	3	4	74	100
Ohio	332	41	443	54	41	5	816	100
Oklahoma	197	35	338	59	34	6	569	100
Oregon	167	58	91	31	32	11	290	100
Pennsylvania	337	33	554	55	125	12	1,016	100
Rhode Island	11	25	29	66	4	9	44	100
South Carolina	215	33	411	62	32	5	658	100
South Dakota	28	30	59	64	5	5	92	100
Tennessee	262	34	457	59	57	7	776	100
Texas	1,117	50	951	42	180	8	2,248	100
Utah	96	54	70	39	13	7	179	100
Vermont	31	49	27	43	5	8	63	100
Virginia	223	36	374	61	20	3	617	100
Washington	198	56	126	36	27	8	351	100
West Virginia	98	33	157	53	40	14	295	100
Wisconsin	161	38	222	52	40	9	423	100
Wyoming	34	28	83	69	3	3	120	100
U.S. Total	10,642	42	12,865	51	1,844	7	25,351	100
Puerto Rico	83	48	89	52	0	0	172	100

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

In 23 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. Twenty-six States, Puerto Rico and the District of Columbia have laws that allow primary enforcement, enabling officers to stop vehicles and write citations whenever they observe violations of the seat belt law.

A 1995 NHTSA study, *Seat Belt Use Laws: An Evaluation of Primary Enforcement and Other Provisions*, 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 15 percent higher in States with primary enforcement laws.

The first mandatory child restraint use law was implemented in the State of 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.

For more information:

Information on traffic fatalities is available from the National Center for Statistics and Analysis, NVS-424, 1200 New Jersey Avenue SE., Washington, DC 20590. NCSA can be contacted at 800-934-8517. Fax messages should be sent to 202-366-2746. General information on highway traffic safety can be accessed by Internet users at www.nhtsa.gov/portal/site/nhtsa/nca. 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 *Overview*, *Alcohol*, *African American*, *Bicyclists and Other Cyclists* (formerly titled *Pedalcyclists*), *Children*, *Hispanic*, *Large Trucks*, *Motorcycles*, *Older Population*, *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.