

# Traffic Safety Facts

2004 Data

## Occupant Protection

### Restraint Use

In 2004, NHTSA conducted the National Occupant Protection Use Survey (NOPUS). The overall observed shoulder belt use rate was 80 percent in 2004, compared to 79 percent observed in 2003, 75 percent in 2002, 73 percent in 2001, 71 percent in 2000, and 67 percent in 1999. In 1994, the overall observed shoulder belt use rate was 58 percent.

Table 1 shows safety belt use rates in the United States, the District of Columbia, and Puerto Rico. 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 safety belt use rates, see D. Glassbrenner, *Safety Belt Use in 2004 – Use Rates in the States and Territories*, NHTSA Technical Report, DOT HS 809 713 (March 2004).

*“In 2004, 68 percent of the passenger vehicle occupants 13 to 15 years old killed in traffic crashes were not using restraints – the highest percentage for any age group.”*

Table 1  
**Safety Belt Use Rates by State, 2003 and 2004**

State	2003	2004	State	2003	2004
Alabama	77.4%	80.0%	Montana	79.5%	80.9%
Alaska	78.9%	76.7%	Nebraska	76.1%	79.2%
Arizona	86.2%	95.3%	Nevada	78.7%	86.6%
Arkansas	62.8%	64.2%	New Hampshire	49.6% <sup>1</sup>	NA
California	91.2%	90.4%	New Jersey	81.2%	82.0%
Colorado	77.7%	79.3%	New Mexico	87.2%	89.7%
Connecticut	78.0%	82.9%	New York	84.6%	85.0%
Delaware	74.9%	82.3%	North Carolina	86.1%	86.1%
Dist. Of Columbia	84.9%	87.1%	North Dakota	63.7%	67.4%
Florida	72.6%	76.3%	Ohio	74.7%	74.1%
Georgia	84.5%	86.7%	Oklahoma	76.7%	80.3%
Hawaii	91.8%	95.1%	Oregon	90.4%	92.6%
Idaho	71.7%	74.0%	Pennsylvania	79.0%	81.8%
Illinois	80.1%	83.0%	Rhode Island	74.2%	76.2%
Indiana	82.3%	83.4%	South Carolina	72.8%	65.7%
Iowa	86.8%	86.4%	South Dakota	69.9%	69.4%
Kansas	63.6%	68.3%	Tennessee	68.5%	72.0%
Kentucky	65.5%	66.0%	Texas	84.3%	83.2%
Louisiana	73.8%	75.0%	Utah	85.2%	85.7%
Maine	NA	72.3%	Vermont	82.4%	79.9%
Maryland	87.9%	89.0%	Virginia	74.6%	79.9%
Massachusetts	61.7%	63.3%	Washington	94.8%	94.2%
Michigan	84.8%	90.5%	West Virginia	73.6%	75.8%
Minnesota	79.4%	82.1%	Wisconsin	69.8%	72.4%
Mississippi	62.2%	63.2%	Wyoming	NA	70.1%
Missouri	72.9%	75.9%	Puerto Rico	87.1%	90.1%

Source: Rates in States and Territories are from surveys conducted in accordance with Section 157, Title 23, U.S. Code.

<sup>1</sup> The 2003 rate for New Hampshire was not reported by the State. It was obtained by Preusser Research Group using methods compliant with Section 157. NA = Not Available

## Occupant Fatalities by Age and Restraint Use

In 2004, 31,693 occupants of passenger vehicles (passenger cars, light trucks, vans, and SUVs) were killed in motor vehicle traffic crashes, 74 percent of the 42,636 traffic fatalities reported for the year.

Of the 31,693 passenger vehicle occupant fatalities in 2004, restraint use was unknown for 2,183 (7%). Of the 29,510 passenger vehicle occupant fatalities for which restraint use was known, an estimated 16,364 (55%) were unrestrained. Of the 648 passenger vehicle occupant fatalities 13 to 15 years old for which restraint use was known, 438 (68%) were unrestrained — the highest percentage for any age group. Of the 3,342 passenger vehicle occupant fatalities 21 to 24 years old for which restraint use was known, 2,206 (66%) were unrestrained, which was the second highest percentage for any age group.

*“In 2004, 68 percent of the pickup truck drivers killed in traffic crashes were not using restraints.”*

In 2004, there were 417 passenger vehicle occupant fatalities among children under 4 years of age. Of the 391 fatalities in this age group for which restraint use was known, an estimated 136 (35%) were unrestrained. Of the 316 fatalities among children 4 to 7 years old for which restraint use was known, an estimated 157 (50%) were unrestrained.

Table 2

**Passenger Vehicle Occupants Killed, by Age and Restraint Use, 2004**

Age (Years)	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-3	255	61	136	33	26	6	417	100
4-7	159	48	157	47	18	5	334	100
8-12	187	45	199	48	31	7	417	100
13-15	210	30	438	63	43	6	691	100
16-20	1,824	36	2,953	58	358	7	5,135	100
21-24	1,136	32	2,206	61	253	7	3,595	100
25-34	1,703	34	2,966	59	383	8	5,052	100
35-44	1,513	36	2,455	58	286	7	4,254	100
45-54	1,615	42	1,929	50	301	8	3,845	100
55-64	1,326	49	1,207	45	155	6	2,688	100
65-74	1,199	57	774	37	143	7	2,116	100
75+	2,001	65	905	29	169	5	3,075	100
Unknown	18	24	39	53	17	23	74	100
<b>Total</b>	<b>13,146</b>	<b>41</b>	<b>16,364</b>	<b>52</b>	<b>2,183</b>	<b>7</b>	<b>31,693</b>	<b>100</b>

## Driver and Occupant Fatalities by Vehicle Type and Restraint Use

A total of 21,910 passenger vehicle drivers were killed in traffic crashes in 2004. Among the 20,446 passenger vehicle driver fatalities for which restraint use was known, 68 percent of the drivers of pickup trucks killed were unrestrained, compared to 60 percent for SUVs, 50 percent for vans, and 48 percent for passenger cars.

A total of 9,783 occupants of passenger vehicles were killed in traffic crashes in 2004. Among the 9,064 passenger vehicle fatalities for which restraint use was known, 73 percent of the passengers in pickup trucks were unrestrained, compared to 67 percent for SUVs, 60 percent for vans, and 53 percent for passenger cars.

Table 3

**Drivers and Passengers Killed, by Passenger Vehicle Type and Restraint Use, 2004**

Type of Passenger Vehicle	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Drivers Killed</b>								
Passenger Cars	6,378	48	5,904	45	927	7	13,209	100
Pickup Trucks	1,314	30	2,832	64	258	6	4,404	100
Sport Utility Vehicles	1,176	38	1,754	56	184	6	3,114	100
Vans	539	46	536	46	90	8	1,165	100
Other Light Trucks	8	44	5	28	5	28	18	100
<b>Total</b>	<b>9,415</b>	<b>43</b>	<b>11,031</b>	<b>50</b>	<b>1,464</b>	<b>7</b>	<b>21,910</b>	<b>100</b>
<b>Passengers Killed</b>								
Passenger Cars	2,558	43	2,848	48	476	8	5,882	100
Pickup Trucks	354	25	966	69	77	6	1,397	100
Sport Utility Vehicles	498	31	1,019	63	104	6	1,621	100
Vans	321	37	491	56	59	7	871	100
Other Light Trucks	0	0	9	75	3	25	12	100
<b>Total</b>	<b>3,731</b>	<b>38</b>	<b>5,333</b>	<b>55</b>	<b>719</b>	<b>7</b>	<b>9,783</b>	<b>100</b>

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

**Safety Belt Use and Benefits**

Research has found that lap/shoulder safety 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, safety 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 2004, 74 percent of passenger vehicle occupants who were totally ejected from the vehicle were killed. Safety belts are effective in preventing total ejections: only 1 percent of the occupants reported to have been using restraints were totally ejected, compared with 29 percent of the unrestrained occupants.

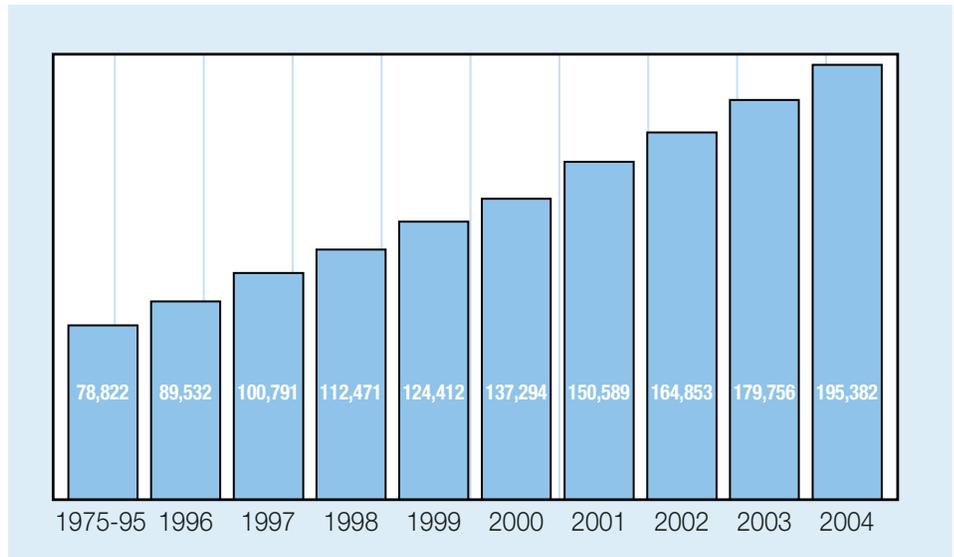
**Lives Saved by Safety Belts**

Among passenger vehicle occupants over 4 years old, safety belts saved an estimated 15,434 lives in 2004. If ALL passenger vehicle occupants over age 4 wore safety belts, 21,273 lives (that is, an additional 5,839) could have been saved in 2004.

*In 2002, NHTSA refined its method of estimating lives saved by safety belts and air bags. The new method, including an explanation of the changes made, will be published in an upcoming NHTSA Technical Report.*

*“From 1975 through 2004, an estimated 195,382 lives were saved by safety belts.”*

Figure 1  
**Cumulative Estimated Number of Lives Saved by Safety Belt Use, 1975-2004**

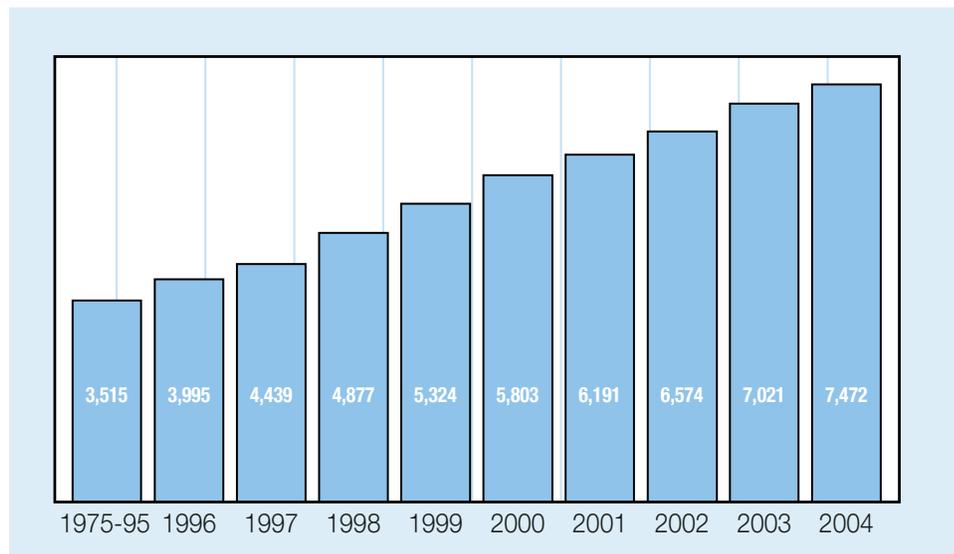


### Child Restraint Use and Benefits

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 (1-4 years old) in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 percent and 59 percent, respectively.

*“From 1975 through 2004, an estimated 7,472 lives were saved by child restraints.”*

Figure 2  
**Cumulative Estimated Number of Lives Saved by Child Restraints, 1975-2004**



## Lives Saved by Child Safety Seats

Among children under 5 years old, an estimated 451 lives were saved in 2004 by child restraint use. Of these 451 lives saved, 413 were associated with the use of child safety seats and 38 with the use of adult safety belts.

At 100 percent child safety seat use for children under 5, an estimated 566 lives (that is, an additional 114) could have been saved in 2004.

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

From 1975 through 2004, an estimated 7,472 lives were saved by child restraints (child safety seats or adult safety belts).

## Air Bag Use and Benefits

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

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

It is estimated that, as of 2004, more than 157 million air-bag-equipped passenger vehicles were on the road, including 139 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 a vehicle with an air bag.**

*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.*

*“Between 1987 and 2004, 16,905 lives were saved by air bags.”*

## Lives Saved by Air Bags

In 2004, an estimated 2,647 lives were saved by air bags. From 1987 to 2004, a total of 16,905 lives were saved.

Table 4

### Estimated Number of Lives Saved by Restraint Systems, 1975-2004

Restraint Type	1975-95	1996	1997	1998	1999	2000	2001	2002	2003	2004
Safety Belts	78,882	10,710	11,259	11,680	11,941	12,882	13,295	14,264	15,095	15,434
Child Restraints	3,515	480	444	438	447	479	388	383	402	413
Air Bags	1,266	783	973	1,208	1,491	1,716	1,978	2,324	2,519	2,647

In 2002, NHTSA revised its method for calculating lives saved by air bags. The estimates in Table 4 reflect this revision.

## 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 safety 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. As of December 2004, 49 States and the District of Columbia had adult belt use laws in effect. The laws differ from State to State, according to the type and age of the vehicle, occupant seating position, etc.

In 28 of the States with belt use laws in 2004, the law specified secondary enforcement. That is, police officers are permitted to write a citation only after a vehicle is stopped for some other traffic infraction. Twenty-one States and the District of Columbia had laws that allowed primary enforcement, enabling officers to stop vehicles and write citations whenever they observe violations of the belt law.

A 1995 NHTSA study, *Safety Belt Use Laws: An Evaluation of Primary Enforcement and Other Provisions*, indicates that States with primary enforcement safety 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 speeding involvement in traffic fatalities is available from the National Center for Statistics and Analysis, NPO-121, 400 Seventh Street, SW., Washington, DC 20590. NCSA information can also be obtained by telephone or by fax-on-demand at 800-934-8517. Fax messages should be sent to 202-366-7078. General information on highway traffic safety can be accessed by Internet users at [www.nhtsa.dot.gov/people/nca](http://www.nhtsa.dot.gov/people/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, Older Population, Speeding, Children, Young Drivers, Pedestrians, Pedalcyclists, Motorcycles, Large Trucks, School Transportation-Related Crashes, State Traffic Data*, and *State Alcohol Estimates*. 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*.