

Traffic Safety Facts

2007 Data



DOT HS 810 991

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 2007 -- Use Rates in the States and Territories" (DOT HS 810 949).

The overall observed shoulder belt use rate was 82 percent in 2007, compared to 81 percent observed 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, 2006 and 2007

| State or U.S. Territory | 2006 | 2007 | Reduction in Nonuse 2006-2007 | State or U.S. Territory | 2006 | 2007 | Reduction in Nonuse 2006-2007 |
|-------------------------|-------|-------|-------------------------------|-------------------------|--------------|--------------|-------------------------------|
| Alabama | 82.9% | 82.3% | -4% | Nebraska | 76.0% | 78.7% | 11% |
| Alaska | 83.2% | 82.4% | -5% | Nevada | 91.2% | 92.2% | 11% |
| Arizona | 78.9% | 80.9% | 9% | New Hampshire | 63.5% | 63.8% | 1% |
| Arkansas | 69.3% | 69.9% | 2% | New Jersey | 90.0% | 91.4% | 14% |
| California | 93.4% | 94.6% | 18% | New Mexico | 89.6% | 91.5% | 18% |
| Colorado | 80.3% | 81.1% | 4% | New York | 83.0% | 83.5% | 3% |
| Connecticut | 83.5% | 85.8% | 14% | North Carolina | 88.5% | 88.8% | 3% |
| Delaware | 86.1% | 86.6% | 4% | North Dakota | 79.0% | 82.2% | 15% |
| Dist. Of Columbia | 85.4% | 87.1% | 12% | Ohio | 81.7% | 81.6% | -1% |
| Florida | 80.7% | 79.1% | -8% | Oklahoma | 83.7% | 83.1% | -4% |
| Georgia | 90.0% | 89.0% | -10% | Oregon | 94.1% | 95.3% | 20% |
| Hawaii | 92.5% | 97.6% | 68% | Pennsylvania | 86.3% | 86.7% | 3% |
| Idaho | 79.8% | 78.5% | -6% | Rhode Island | 74.0% | 79.1% | 20% |
| Illinois | 87.8% | 90.1% | 19% | South Carolina | 72.5% | 74.5% | 7% |
| Indiana | 84.3% | 87.9% | 23% | South Dakota | 71.3% | 73.0% | 6% |
| Iowa | 89.6% | 91.3% | 16% | Tennessee | 78.6% | 80.2% | 7% |
| Kansas | 73.5% | 75.0% | 6% | Texas | 90.4% | 91.8% | 15% |
| Kentucky | 67.2% | 71.8% | 14% | Utah | 88.6% | 86.8% | -16% |
| Louisiana | 74.8% | 75.2% | 2% | Vermont | 82.4% | 87.1% | 27% |
| Maine | 77.2% | 79.8% | 11% | Virginia | 78.7% | 79.9% | 6% |
| Maryland | 91.1% | 93.1% | 22% | Washington | 96.3% | 96.4% | 3% |
| Massachusetts | 66.9% | 68.7% | 5% | West Virginia | 88.5% | 89.6% | 10% |
| Michigan | 94.3% | 93.7% | -11% | Wisconsin | 75.4% | 75.3% | 0% |
| Minnesota | 83.3% | 87.8% | 27% | Wyoming | 63.5% | 72.2% | 24% |
| Mississippi | 73.6% | 71.8% | -7% | Nationwide | 81% | 82% | 7% |
| Missouri | 75.2% | 77.2% | 8% | Puerto Rico | 92.7% | 92.1% | -8% |
| Montana | 79.0% | 79.6% | 3% | | | | |

Note: Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded.

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

“In 2007, 65 percent of the passenger vehicle occupants ages 13 to 15 and 21 to 34 killed in traffic crashes were not using restraints — these age groups had the highest percentage out of all age groups.”

Occupant Fatalities by Age and Restraint Use

In 2007 28,933 occupants of passenger vehicles (passenger cars, light trucks, vans, and SUVs) were killed in motor vehicle traffic crashes, 70 percent of the 41,059 traffic fatalities reported for the year.

Of the 28,933 passenger vehicle occupant fatalities in 2007, restraint use was unknown for 2,291 (8%). Of the 26,642 passenger vehicle occupant fatalities for which restraint use was known, 14,390 (54%) were unrestrained.

The age groups of 13 to 15, 21 to 24, and 25 to 34 held the highest percentage of unrestrained occupants at 65 percent. Of the 488 passenger vehicle occupant fatalities among 13- to 15-year-olds for which restraint use was known, 316 (65%) were unrestrained; of the 3,193 passenger vehicle occupant fatalities among 21- to 24-year-olds for which restraint use was known, 2,090 (65%) were unrestrained; and of the 4,350 passenger vehicle occupant fatalities among 25- to 34-year-olds for which restraint use was known, 2,810 (65%) were unrestrained. Of the 4,117 passenger vehicle occupant fatalities among 16- to 20-year-olds for which restraint use was known, 2,502 (61%) were unrestrained, which was the second highest percentage for any age group.

In 2007, there were a total of 317 passenger vehicle occupant fatalities among children under age 4. Of the 317 fatalities in this age group for which restraint use was known, 84 (28%) were unrestrained. Of the 265 fatalities among children ages 4 to 7 for which restraint use was known, 109 (44%) were unrestrained.

Table 2

Passenger Vehicle Occupants Killed, by Age and Restraint Use, 2007

| Age (Years) | Restraint Used | | Restraint Not Used | | Restraint Use Unknown | | Total | |
|--------------|----------------|-----------|--------------------|-----------|-----------------------|----------|---------------|------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| <4 | 217 | 68 | 84 | 27 | 16 | 5 | 317 | 100 |
| 4-7 | 138 | 52 | 109 | 41 | 18 | 7 | 265 | 100 |
| 8-12 | 152 | 48 | 141 | 44 | 24 | 8 | 317 | 100 |
| 13-15 | 172 | 32 | 316 | 59 | 47 | 9 | 535 | 100 |
| 16-20 | 1,615 | 36 | 2,502 | 55 | 423 | 9 | 4,540 | 100 |
| 21-24 | 1,103 | 32 | 2,090 | 60 | 300 | 9 | 3,493 | 100 |
| 25-34 | 1,540 | 32 | 2,810 | 59 | 434 | 9 | 4,784 | 100 |
| 35-44 | 1,406 | 37 | 2,092 | 55 | 275 | 7 | 3,773 | 100 |
| 45-54 | 1,614 | 45 | 1,732 | 48 | 277 | 8 | 3,623 | 100 |
| 55-64 | 1,399 | 53 | 1,057 | 40 | 193 | 7 | 2,649 | 100 |
| 65-74 | 1,107 | 58 | 671 | 35 | 117 | 6 | 1,895 | 100 |
| 75+ | 1,775 | 66 | 748 | 28 | 149 | 6 | 2,672 | 100 |
| Unknown | 14 | 20 | 38 | 54 | 18 | 26 | 70 | 100 |
| Total | 12,252 | 42 | 14,390 | 50 | 2,291 | 8 | 28,933 | 100 |

“In 2007, 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 20,413 passenger vehicle drivers were killed in traffic crashes in 2007. Among the 18,886 passenger vehicle driver fatalities for which restraint use was known, 67 percent (2,800) of the drivers of pickup trucks killed were unrestrained, compared to 61 percent (1,788) for SUVs, 49 percent (477) for vans, and 46 percent (4,954) for passenger cars.

A total of 8,520 occupants of passenger vehicles were killed in traffic crashes in 2007. Among the 7,756 passenger vehicle occupant fatalities for which restraint use was known, 71 percent (880) of the passengers in pickup trucks were unrestrained, compared to 65 percent (966) for SUVs, 57 percent (369) for vans, and 49 percent (2,151) for passenger cars.

Table 3

Drivers and Passengers Killed, by Passenger Vehicle Type and Restraint Use, 2007

| 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 | 5,810 | 50 | 4,954 | 42 | 912 | 8 | 11,676 | 100 |
| Pickup Trucks | 1,391 | 31 | 2,800 | 62 | 304 | 7 | 4,495 | 100 |
| Sport Utility Vehicles | 1,167 | 37 | 1,788 | 56 | 226 | 7 | 3,181 | 100 |
| Vans | 487 | 46 | 477 | 45 | 85 | 8 | 1,049 | 100 |
| Other Light Trucks | 7 | 58 | 5 | 42 | 0 | 0 | 12 | 100 |
| Total | 8,862 | 43 | 10,024 | 49 | 1,527 | 7 | 20,413 | 100 |
| Passengers Killed | | | | | | | | |
| Passenger Cars | 2,222 | 46 | 2,151 | 44 | 471 | 10 | 4,844 | 100 |
| Pickup Trucks | 359 | 27 | 880 | 66 | 96 | 7 | 1,335 | 100 |
| Sport Utility Vehicles | 530 | 33 | 966 | 59 | 132 | 8 | 1,628 | 100 |
| Vans | 279 | 39 | 369 | 52 | 63 | 9 | 711 | 100 |
| Other Light Trucks | 0 | 0 | 0 | 0 | 2 | 100 | 2 | 100 |
| Total | 3,390 | 40 | 4,366 | 51 | 764 | 9 | 8,520 | 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

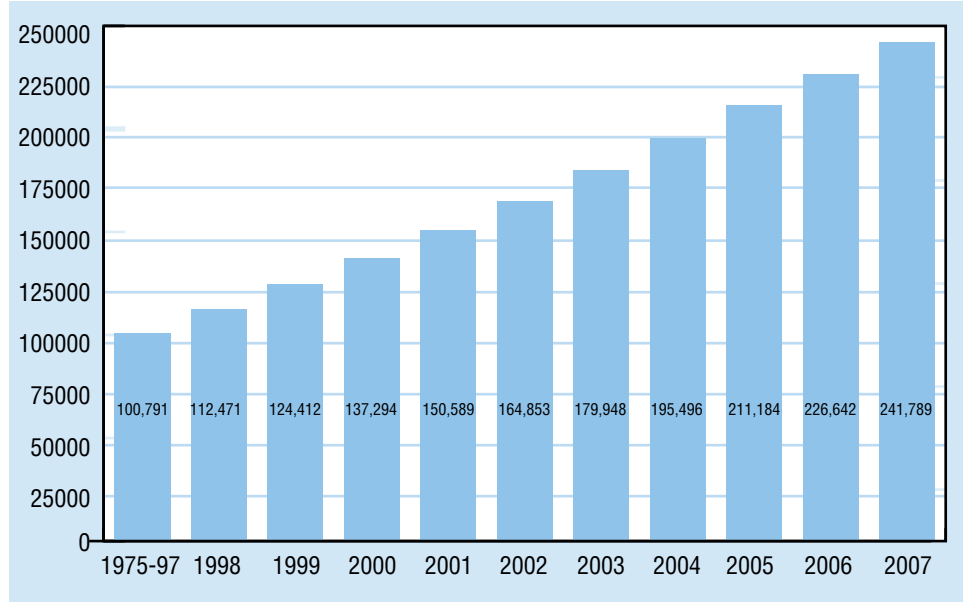
Research has found that lap/shoulder seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical 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 2007, 76 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 31 percent of the unrestrained occupants.

Lives Saved by Seat Belts

Among passenger vehicle occupants over age 4, seat belts saved an estimated 15,147 lives in 2007. If all passenger vehicle occupants over age 4 had worn seat belts, 20,171 lives (that is, an additional 5,024) could have been saved in 2007.

Figure 1
Cumulative Estimated Number of Lives Saved by Seat Belt Use, 1975-2007

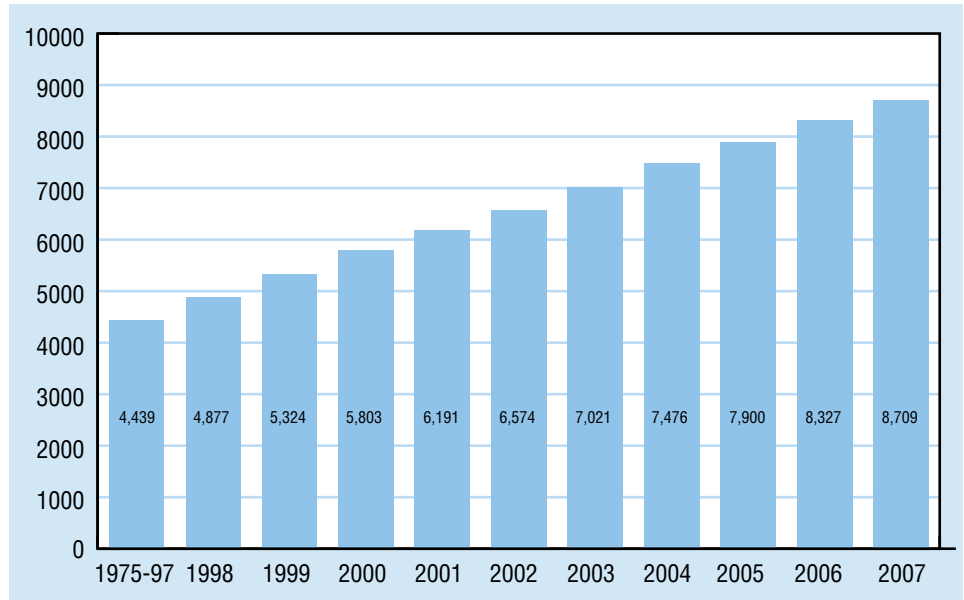


“From 1975 through 2007, an estimated 8,709 lives were saved by child restraints.”

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, 1975-2007



Lives Saved by Child Safety Seats

Among children under age 5, an estimated 382 lives were saved in 2007 by child restraint use. Of these 382 lives saved, 358 were associated with the use of child safety seats and 24 with the use of adult seat belts.

At 100 percent child safety seat use for children under age 5, an estimated 453 lives (that is, an additional 71) could have been saved in 2007.

From 1975 through 2007, an estimated 8,709 lives were saved by child restraints (child safety seats or adult seat belts).

Air Bag Use and Benefits

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

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

It is estimated that, as of 2007, 176 million air-bag-equipped passenger vehicles were on the road, including 164 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 Air Bags

In 2007, an estimated 2,788 lives were saved by air bags. From 1987 to 2007, a total of 25,282 lives were saved.

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

“Between 1987 and 2007, 25,282 lives were saved by air bags.”

Table 4

Estimated Number of Lives Saved by Restraint Systems, 1975-2007

| Restraint Type | 1975-97 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seat Belts | 100,791 | 11,680 | 11,941 | 12,882 | 13,295 | 14,264 | 15,095 | 15,548 | 15,688 | 15,458 | 15,147 |
| Child Restraints | 4,439 | 438 | 447 | 479 | 388 | 383 | 447 | 455 | 424 | 427 | 382 |
| Air Bags | 3,022 | 1,208 | 1,491 | 1,716 | 1,978 | 2,324 | 2,519 | 2,660 | 2,752 | 2,824 | 2,788 |

Table 5
Passenger Vehicle Occupants Killed by State and Restraint Use, 2007

| State | Restraint Use | | | | | | | |
|-------------------|----------------|-----------|-------------------|-----------|-----------------------|----------|------------------------|------------|
| | Restraint Used | | No Restraint Used | | Restraint Use Unknown | | Total Occupants Killed | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Alabama | 335 | 37 | 538 | 59 | 33 | 4 | 906 | 100 |
| Alaska | 26 | 46 | 30 | 54 | 0 | 0 | 56 | 100 |
| Arizona | 233 | 34 | 374 | 54 | 80 | 12 | 687 | 100 |
| Arkansas | 159 | 33 | 275 | 57 | 48 | 10 | 482 | 100 |
| California | 1,495 | 58 | 857 | 33 | 243 | 9 | 2,595 | 100 |
| Colorado | 161 | 44 | 193 | 53 | 13 | 4 | 367 | 100 |
| Connecticut | 88 | 46 | 82 | 42 | 23 | 12 | 193 | 100 |
| Delaware | 43 | 52 | 35 | 42 | 5 | 6 | 83 | 100 |
| Dist of Columbia | 8 | 38 | 7 | 33 | 6 | 29 | 21 | 100 |
| Florida | 735 | 39 | 1,077 | 57 | 66 | 4 | 1,878 | 100 |
| Georgia | 488 | 39 | 637 | 51 | 119 | 10 | 1,244 | 100 |
| Hawaii | 40 | 55 | 27 | 37 | 6 | 8 | 73 | 100 |
| Idaho | 71 | 37 | 113 | 59 | 8 | 4 | 192 | 100 |
| Illinois | 364 | 42 | 395 | 46 | 103 | 12 | 862 | 100 |
| Indiana | 293 | 44 | 291 | 44 | 83 | 12 | 667 | 100 |
| Iowa | 151 | 45 | 153 | 46 | 29 | 9 | 333 | 100 |
| Kansas | 131 | 40 | 178 | 54 | 21 | 6 | 330 | 100 |
| Kentucky | 265 | 41 | 382 | 59 | 0 | 0 | 647 | 100 |
| Louisiana | 238 | 32 | 435 | 59 | 60 | 8 | 733 | 100 |
| Maine | 57 | 40 | 76 | 54 | 8 | 6 | 141 | 100 |
| Maryland | 205 | 54 | 148 | 39 | 28 | 7 | 381 | 100 |
| Massachusetts | 76 | 27 | 142 | 51 | 59 | 21 | 277 | 100 |
| Michigan | 426 | 54 | 255 | 33 | 101 | 13 | 782 | 100 |
| Minnesota | 166 | 43 | 186 | 48 | 33 | 9 | 385 | 100 |
| Mississippi | 226 | 31 | 511 | 69 | 0 | 0 | 737 | 100 |
| Missouri | 244 | 32 | 461 | 61 | 53 | 7 | 758 | 100 |
| Montana | 58 | 28 | 145 | 71 | 2 | 1 | 205 | 100 |
| Nebraska | 67 | 31 | 122 | 56 | 30 | 14 | 219 | 100 |
| Nevada | 114 | 45 | 124 | 49 | 16 | 6 | 254 | 100 |
| New Hampshire | 26 | 30 | 60 | 70 | 0 | 0 | 86 | 100 |
| New Jersey | 228 | 50 | 213 | 47 | 16 | 4 | 457 | 100 |
| New Mexico | 107 | 39 | 163 | 59 | 7 | 3 | 277 | 100 |
| New York | 413 | 52 | 280 | 36 | 95 | 12 | 788 | 100 |
| North Carolina | 584 | 47 | 540 | 44 | 113 | 9 | 1,237 | 100 |
| North Dakota | 27 | 29 | 58 | 63 | 7 | 8 | 92 | 100 |
| Ohio | 364 | 40 | 525 | 58 | 20 | 2 | 909 | 100 |
| Oklahoma | 224 | 39 | 317 | 55 | 35 | 6 | 576 | 100 |
| Oregon | 166 | 52 | 106 | 33 | 46 | 14 | 318 | 100 |
| Pennsylvania | 333 | 32 | 547 | 53 | 154 | 15 | 1,034 | 100 |
| Rhode Island | 14 | 34 | 19 | 46 | 8 | 20 | 41 | 100 |
| South Carolina | 243 | 31 | 487 | 61 | 63 | 8 | 793 | 100 |
| South Dakota | 24 | 23 | 73 | 69 | 9 | 8 | 106 | 100 |
| Tennessee | 337 | 36 | 534 | 58 | 56 | 6 | 927 | 100 |
| Texas | 1,234 | 51 | 986 | 41 | 178 | 7 | 2,398 | 100 |
| Utah | 103 | 47 | 78 | 36 | 36 | 17 | 217 | 100 |
| Vermont | 24 | 51 | 22 | 47 | 1 | 2 | 47 | 100 |
| Virginia | 272 | 35 | 463 | 60 | 35 | 5 | 770 | 100 |
| Washington | 211 | 53 | 149 | 37 | 38 | 10 | 398 | 100 |
| West Virginia | 113 | 35 | 158 | 49 | 52 | 16 | 323 | 100 |
| Wisconsin | 196 | 36 | 298 | 55 | 45 | 8 | 539 | 100 |
| Wyoming | 46 | 41 | 65 | 58 | 1 | 1 | 112 | 100 |
| U.S. Total | 12,252 | 42 | 14,390 | 50 | 2,291 | 8 | 28,933 | 100 |
| Puerto Rico | 85 | 42 | 119 | 58 | 0 | 0 | 204 | 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 202-366-7078. 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.