## Traffic Safety Facts 1994


"The economic cost of speed-related crashes is estimated to be more than $\$ 23$ billion each trat"

Speed-exceeding the posted speed limit or driving too fast for conditions-is one of the most prevalent factors contributing to traffic crashes. The human and economic sacrifice is unacceptable. The economic cost to society of speed-related crashes is estimated by NHTSA to be more than $\$ 23$ billion per year. In 1994, speed was a factor in 30 percent of all fatal crashes, and 12,480 lives were lost in speed-related crashes.

Figure 1. Fatal Crashes by Speed Status, 1986-1994


Motor vehicle crashes cost society an estimated $\$ 4,400$ per second. The total economic cost of crashes was estimated at $\$ 137.5$ billion in 1990. The 1994 costs of speed-related crashes were estimated to be more than $\$ 23$ billion- $\$ 44,190$ per minute or $\$ 732$ per second. The health care costs of speed-related crashes in 1994 were estimated at approximately $\$ 2$ billion.

Table 1. Estimated Annual Economic Costs of Speed-Related Crashes (1990 Dollars per Year)

| Crash Type | Cost |
| :---: | :---: |
| Fatal | $\$ 9.8$ billion |
| Injury (Non-Fatal) | $\$ 9.1$ billion |
| Property-Damage-Only | $\$ 4.3$ billion |
| Total | $\$ 23.2$ billion |

> "In 1994, nearly 40 percent of male drivers 15 to 20 years old involved in fatal crashes wherespeeding."

In $1994,500,000$ people received minor injuries in speed-related crashes. An additional 60,000 people received moderate injuries, and 23,000 received critical injuries in speed-related crashes.

Few drivers view speeding as an immediate risk to their personal safety. However, speeding reduces a driver's ability to steer safely around curves or objects in the roadway, extends the distance necessary to stop a vehicle, and increases the distance a vehicle travels while the driver reacts to a dangerous situation.

Young male drivers are the most likely to speed. The relative proportion of speedrelated crashes to all crashes decreases with increasing driver age. In 1994, nearly 40 percent of the male drivers 15 to 20 years old who were involved in fatal crashes were speeding at the time of the crash.

Figure 2. Speeding Drivers in Fatal Crashes by Age and Sex, 1994


Alcohol and speeding seem to go hand in hand. In 1994, 49 percent of the speeding drivers under 21 years old who were involved in fatal crashes were also intoxicated, with a blood alcohol concentration (BAC) of 0.10 (grams per deciliter $[\mathrm{g} / \mathrm{dl}]$ ) or greater. In contrast, only 9 percent of the nonspeeding drivers under age 21 involved in fatal crashes in 1994 were intoxicated.

For drivers between 21 and 24 years of age who were involved in fatal crashes in 1994, 65 percent of speeding drivers were intoxicated, compared with only 20 percent of nonspeeding drivers.

Alcohol and speeding are clearly a deadly combination. Alcohol involvement is prevalent for drivers involved in speed-related crashes. In 1994, 44 percent of the intoxicated drivers $(\mathrm{BAC}=0.10$ or higher) involved in fatal crashes were speeding, compared with only 23 percent of the sober drivers $(B A C=0.00)$ involved in fatal crashes (Figure 3).

Figure 3. All Drivers Involved in Fatal Crashes by BAC Level and Speed Status, 1994


For both speeding and nonspeeding drivers involved in fatal crashes, the percentage of those who had been drinking, with BAC 0.01 or greater, at the time the crash occurred was higher at night than during the day. Between midnight and 3 am, 80 percent of speeding drivers involved in fatal crashes had been drinking.

Figure 4. Drivers in Fatal Crashes by Alcohol Involvement, Speed Status, and Time of Day, 1994

> "Speed involvement for motorcyclists in fatal crashes was twice as high as for car and liaht_truck-drivers."

Figure 5. Percentages of Fatalities Related to Speed and to Alcohol, 1986-1994


In 1994, 44 percent of all motorcyclists involved in fatal crashes were speeding. The percentage of speed involvement in fatal crashes was more than twice as high for motorcyclists as for drivers of passenger cars or light trucks, and the percentage of alcohol involvement was nearly 50 percent higher for motorcyclists.

Figure 6. Speeding, Alcohol Involvement, and Failure To Use Restraints Among Drivers Involved in Fatal Crashes by Vehicle Type, 1994


In 1994, only 35 percent of speeding passenger vehicle drivers under 21 years old who were involved in fatal crashes were wearing safety belts at the time of the crash. In contrast, 54 percent of nonspeeding drivers in the same age group were restrained. For drivers 21 years and older, the percentage of speeding drivers involved in fatal crashes who were using restraints at the time of the crash was also 35 percent, but 62 percent of nonspeeding drivers in fatal crashes were restrained.

In 1994, 22 percent of speeding drivers involved in fatal crashes had an invalid license at the time of the crash, compared with 10 percent of nonspeeding drivers.

Crash severity increases with increasing vehicle speed at the time of impact. The chances of death or serious injury double for every 10 miles per hour over 50 miles per hour that a vehicle travels. For vehicles traveling 10 miles per hour above or below the average speed, crash involvement rates are almost 6 times those for vehicles traveling within 10 miles per hour of the average speed.

Speed was a factor in 30 percent of the fatal crashes that occurred on dry roads in 1994 and in 31 percent of those that occurred on wet roads. Speed was a factor in 48 percent of the fatal crashes that occurred when there was snow or slush on the road and in 46 percent of those that occurred on icy roads.

Speed was involved in one-third of the fatal crashes that occurred in construction/maintenance zones in 1994.

In 1994, 88 percent of speed-related fatalities occurred on roads that were not Interstate highways. Of all speed-related fatalities, 94 percent occurred on roads with a posted speed limit of 55 miles per hour or less.

Figure 7. Speed-Related Fatalities by Road Type, 1994


## "Passenger vehicles use about 50 percent more fuel traveling at 75 miles an hour than they do at 55-miles_an hour."

Fuel consumption increases steadily with increasing travel speed above 45 miles per hour. Passenger cars and light trucks use approximately 50 percent more fuel traveling at 75 miles per hour than they do at 55 miles per hour.

The cost of fuel for an average passenger car traveling 100 miles at 55 miles per hour is $\$ 4.36$, compared with $\$ 6.64$ for a car traveling at 75 miles per hour. For an average light truck traveling 100 miles at 55 miles per hour the fuel cost is $\$ 6.07$, compared with $\$ 9.10$ for a light truck traveling at 75 miles per hour.

Figure 8. Percentage Increases in Fuel Consumption with Increasing Speeds


## For more information:

Information on speed involvement in traffic fatalities is available from the National Center for Statistics and Analysis, NRD-31, 400 Seventh Street, S.W., Washington, D.C. 20590. Telephone inquiries should be addressed to Ms. Louann Hall at (202) 366-4198. FAX messages should be sent to (202) 366-7078. To report a safety-related problem or to inquire about motor vehicle safety information, contact the Auto Safety Hotline at 1-800-424-9393.
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Table 2. Speed-Related Traffic Fatalities and Costs by Road Type and Speed Limit, 1994

| State | Total Traffic Fatalities | Speed-Related Fatalities by Road Type and Speed Limit |  |  |  |  |  |  |  |  | Estimated Costs of Speed-Related Crashes by Road Type (Million 1990 Dollars) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Interstate |  | Non-Interstate |  |  |  |  |  |  |  |  |
|  |  | Total | 65 mph | 55 mph | 55 mph | 50 mph | 45 mph | 40 mph | 35 mph | <35 mph | Total | Interstate | Non-Interstate |
| AL | 1,083 | 341 | 15 | 13 | 196 | 7 | 33 | 26 | 27 | 23 | 635 | 54 | 581 |
| AK | 85 | 33 | 2 | 4 | 7 | 5 | 0 | 2 | 0 | 2 | 61 | 11 | 50 |
| AZ | 903 | 341. | 46 | 10 | 95 | 20 | 49 | 42 | 43 | 27 | 633 | 125 | 508 |
| AR | 610 | 204 | 14 | 3 | 108 | 4 | 26 | 9 | 11 | 13 | 380 | 34 | 346 |
| CA | 4,226 | 1,743 | 94 | 167 | 713 | 70 | 126 | 129 | 237 | 170 | 3,245 | 491 | 2,753 |
| CO | 585 | 220 | 33 | 16 | 65 | 8 | 23 | 24 | 23 | 27 | 410 | 97 | 313 |
| CT | 310 | 93 | 0 | 13 | 3 | 8 | 14 | 4 | 17 | 34 | 173 | 30 | 143 |
| DE | 112 | 29 | 0 | 2 | 10 | 15 | 0 | 1 | 0 | 1 | 54 | 4 | 50 |
| DC | 69 | 38 | 0 | 0 | 0 | 2 | 3 | 0 | 3 | 30 | 71 | 9 | 61 |
| FL | 2,687 | 549 | 25 | 18 | 136 | 17 | 129 | 46 | 77 | 93 | 1,022 | 99 | 923 |
| GA | 1,426 | 341 | 16 | 17 | 174 | 7 | 53 | 10 | 40 | 18 | 635 | 65 | 570 |
| HI | 122 | 41 | 0 | 3 | 3 | 3 | 7 | 1 | 6 | 18 | 76 | 7 | 69 |
| ID | 249 | 93 | 12 | 4 | 43 | 7 | 7 | 0 | 8 | 6 | 173 | 30 | 143 |
| IL | 1,554 | 448 | 29 | 53 | 215 | 1 | 20 | 9 | 4 | 117 | 834 | 162 | 672 |
| IN | 974 | 241 | 13 | 10 | 86 | 19 | 29 | 33 | 14 | 32 | 449 | 54 | 395 |
| IA | 478 | 60 | 2 | 1 | 23 | 6 | 2 | 0 | 8 | 18 | 112 | 6 | 106 |
| KS | 442 | 101 | 4 | 5 | 58 | 3 | 5 | 3 | 6 | 13 | 188 | 17 | 171 |
| KY | 778 | 218 | 9 | 3 | 154 | 0 | 13 | 0 | 25 | 4 | 406 | 22 | 383 |
| LA | 838 | 182 | 8 | 10 | 68 | 7 | 41 | 1 | 26 | 20 | 339 | 37 | 302 |
| ME | 188 | 72 | 1 | 0 | 7 | 10 | 27 | 10 | 7 | 8 | 134 | 4 | 130 |
| MD | 651 | 149 | 0 | 17 | 23 | 25 | 10 | 17 | 17 | 38 | 277 | 41 | 236 |
| MA | 440 | 92 | 1 | 11 | 9 | 6 | 13 | 5 | 14 | 33 | 171 | 22 | 149 |
| MI | 1,419 | 362 | 17 | 12 | 173 | 14 | 27 | 12 | 45 | 41 | 674 | 61 | 612 |
| MN | 644 | 152 | 9 | 7 | 96 | 5 | 6 | 6 | 0 | 20 | 283 | 30 | 253 |
| MS | 791 | 114 | 16 | 2 | 47 | 20 | 20 | 3 | 3 | 3 | 212 | 34 | 179 |
| MO | 1,089 | 407 | 16 | 21 | 242 | 5 | 21 | 22 | 36 | 41 | 758 | 76 | 681 |
| MT | 202 | 73 | 13 | 2 | 46 | 1 | 2 | 0 | 3 | 6 | 136 | 28 | 108 |
| NE | 271 | 66 | 3 | 0 | 23 | 21 | 1 | 4 | 7 | 6 | 123 | 6 | 117 |
| NV | 294 | 133 | 19 | 4 | 42 | 8 | 19 | 3 | 21 | 17 | 248 | 43 | 205 |
| NH | 119 | 37 | 3 | 2 | 1 | 3 | 1 | 8 | 8 | 10 | 69 | 11 | 58 |
| NJ | 761 | 55 | 0 | 2 | 8 | 19 | 4 | 8 | 3 | 11 | 102 | 7 | 95 |
| NM | 447 | 161 | 21 | 6 | 44 | 9 | 21 | 8 | 24 | 9 | 300 | 54 | 246 |
| NY | 1.658 | 470 | 0 | 25 | 201 | 28 | 18 | 27 | 22 | 113 | 875 | 67 | 808 |
| NC | 1,431 | 530 | 20 | 18 | 323 | 7 | 80 | 0 | 65 | 12 | 987 | 74 | 912 |
| ND | 88 | 35 | 1 | 0 | 17 | 2 | 1 | 1 | 1 | 6 | 65 | 2 | 63 |
| OH | 1,371 | 345 | 15 | 20 | 190 | 10 | 24 | 9 | 48 | 27 | 642 | 73 | 570 |
| OK | 687 | 321 | 27 | 22 | 182 | 13 | 18 | 15 | 20 | 19 | 598 | 97 | 501 |
| OR | 490 | 133 | 11 | 6 | 78 | 3 | 10 | 1 | 8 | 15 | 248 | 32 | 216 |
| PA | 1,441 | 522 | 0 | 50 | 163 | 9 | 105 | 51 | 104 | 40 | 972 | 93 | 879 |
| RI | 63 | 22 | 0 | 3 | 0 | 2 | 1 | 1 | 2 | 12 | 41 | 7 | 34 |
| SC | 847 | 398 | 26 | 6 | 179 | 11 | 76 | 26 | 45 | 28 | 741 | 63 | 678 |
| SD | 154 | 66 | 3 | 0 | 42 | 2 | 5 | 0 | 4 | 9 | 123 | 6 | 117 |
| TN | 1,214 | 342 | 10 | 18 | 114 | 13 | 63 | 43 | 32 | 46 | 637 | 56 | 581 |
| TX | 3,186 | 1,114 | 91 | 77 | 498 | 33 | 100 | 77 | 117 | 106 | 2,072 | 354 | 1,718 |
| UT | 342 | 107 | 16 | 10 | 25 | 6 | 12 | 8 | 6 | 17 | 199 | 48 | 151 |
| VT | 77 | 27 | 2 | 0 | 1 | 11 | 0 | 5 | 5 | 2 | 50 | 4 | 47 |
| VA | 930 | 235 | 22 | 18 | 119 | 2 | 26 | 4 | 23 | 18 | 437 | 80 | 357 |
| WA | 638 | 219 | 15 | 11 | 40 | 38 | 13 | 11 | 54 | 32 | 408 | 48 | 359 |
| WV | 356 | 101 | 6 | 0 | 56 | 2 | 11 | 7 | 9 | 10 | 188 | 11 | 177 |
| WI | 712 | 235 | 11 | 3 | 136 | 1 | 28 | 2 | 23 | 19 | 437 | 28 | 410 |
| WY | 144 | 69 | 15 | 1 | 35 | 0 | 5 | 2 | 4 | 5 | 128 | 34 | 95 |
| USA | 40,676 | 12,480 | 732 | 726 | 5,317 | 548 | 1,348 | 736 | 1,355 | 1,445 | 23,228 | 2,947 | 20,281 |
| PR | 598 | 292 | 0 | 69 | 14 | 16 | 68 | 28 | 59 | 38 | 544 | 136 | 408 |

Notes: Totals may not equal sum of components due to independent rounding. The total column for speed-related fatalities includes fatalities that occurred on roads for which the speed limit was unknown. The total column for costs of speed-related crashes includes costs for crashes that occurred on unknown road types. Costs are based on preliminary estimates.

