

STATUS INSURANCE INSTITUTE FOR HIGHWAY SAFETY REPORT

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Limits up, speeds up, deaths up

Five hundred people. That's how many died in motor vehicle crashes in the last 9 months of 1996 in 12 states because of higher speed limits and faster travel speeds, a new Institute study estimates.

When Congress in 1995 repealed the national maximum speed limit, giving states a green light to set whatever limits they deem prudent, signs showing higher speed limits quickly went up along interstates and freeways. Between December 8, 1995 and April 1, 1996, 12 states raised speed limits to 70 mph or higher on rural interstates and to 60, 65, or even 70 mph on urban interstates and freeways. Some states, such as Texas, raised speed limits even on two-lane highways. Montana does not post a numeric speed limit for cars during the daytime.

Speed Limit Changes Late 1995/Early 1996 in 12 States

State	Date of Change	Rural Interstates		Urban Interstates/Freeways	
		Old Limit (mph)	New Limit (mph)	Old Limit (mph)	New Limit (mph)
Arizona	Dec. 8, 1995	65	75	55	no change
California	Jan. 7, 1996	65	70	55	65
Kansas	Mar. 7, 1996	65	70	55	70
Mississippi	Feb. 29, 1996	65	70	55	70
Missouri	Mar. 13, 1996	65	70	55	60
Montana	Dec. 8, 1995	65	none	55	none
Nevada	Dec. 8, 1995	65	75	55	65
Oklahoma	Dec. 15, 1995	65	70	55	60
	Aug. 29, 1996		75		70
S. Dakota	Apr. 1, 1996	65	75	55	65
Texas	Dec. 8, 1995	65	70	55	70
Washington	Mar. 15, 1996	65	70	55	60
Wyoming	Dec. 8, 1995	65	75	55	60

Institute researchers compared motor vehicle occupant fatalities occurring in these 12 states from April to December 1996 and during the same months in 1990 to 1995 with fatalities experienced in a group of 18 states that did not change maximum speed limits during 1996 or that

raised speed limits on fewer than 10 percent of urban interstate mileage.

There was a 12 percent increase in fatalities on interstates and freeways and a 6 percent increase on all roads associated with the raised speed limits. Data for the study came from the federal Fatality

Analysis Reporting System, a national census of fatal crashes on public roads.

The total of 500 additional fatalities on all roads represents a 9-month period only and does not include deaths in another 12 states that raised limits later in the year, explains Charles Farmer, Institute senior research analyst. "Because of this, the actual increase in the number of fatalities for the entire nation was probably greater than the study sample indicates," he says.

Travel speeds up: With higher limits came faster speeds. Texas and California were among the 12 higher speed limit states the Institute studied. These states also were included in an earlier Institute analysis of vehicle travel speeds in states that raised speed limits shortly after the national maximum speed limit was abolished. This Institute analysis of traffic speed data obtained from a sample of freeways and interstate highways measured before and after repeal of the national speed limit showed travel speeds were up in 1996 in these states.

On urban interstates and freeways, Texas raised speed limits to 70 mph, and California's limits rose to 65 mph. Before



Texas' higher speed limits took effect in December 1995, 15 percent of car drivers on three urban freeways and an urban interstate were traveling faster than 70 mph. Twelve months later, three times as many (50 percent) were traveling faster than 70 mph. Compared with Texas, California had higher baseline travel speeds measured before the new speed limits took effect in January 1996. Before the law change, 29 percent of cars were traveling faster than 70 mph on three urban freeways and one urban interstate. Nearly a year later, 41 percent of cars were traveling faster than 70 mph. Similar increases were observed in the proportion of cars exceeding 75 mph. (See *Status Report*, Vol. 32, No. 3, March 22, 1997.)

Gauging impact of higher limits: Additional states have raised speed limits. As of September, 36 states have higher speed limits. Most are 70 mph or higher.

"It is clear from this study that the current round of speed limit increases — like the increase on rural interstates in the 1980s — is costing hundreds of lives per year," says Adrian Lund, Institute senior vice president. "And the cost could in-

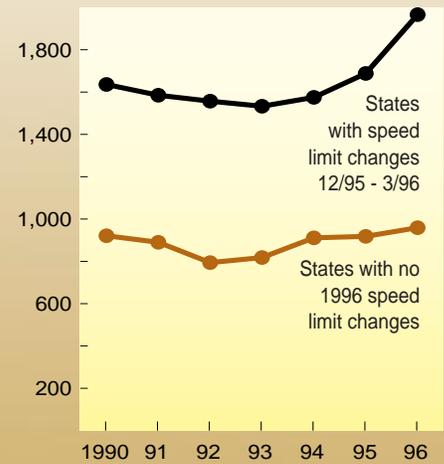
crease in future years because past research shows that actual speeds continue to increase in the years following a change in speed limit."

History repeats itself: There's nothing new about this increase in highway fatalities following speed limit increases. Ten years ago, Congress enacted legislation allowing states to raise speed limits on rural interstates to 65 mph. Advocates of higher speed limits claimed if limits were set higher than 55 mph, crash deaths and injuries would not increase because drivers already were traveling at speeds they considered comfortable.

Speed proponents were wrong. By year's end, 38 states had adopted the higher speed limits on rural interstates and, in so doing, experienced an immediate jump in both travel speeds and crash deaths. (See *Status Report*, Vol. 22, No. 14, Dec. 26, 1987.)

Speeding is one of the most prevalent reported factors associated with crashes, notes Lund. "It reduces the time drivers have to avoid crashes and increases the likelihood of crashing and the severity of crashes that do occur. We know that when

Motor Vehicle Occupant Fatalities, Interstates/Freeways April-December, 1990-96



speed limits are raised, people who exceeded the old speed limits will exceed the higher limits, too, because people take note of the limits and then travel faster, at speeds at which they believe they won't get a ticket."

For a copy of "Effect of 1996 Speed Limit Changes on Motor Vehicle Occupant Fatalities" by Charles M. Farmer et al., write: Publications, 1005 N. Glebe Rd., Suite 800, Arlington, VA 22201.





1996 FATALITIES

Motor vehicle deaths among males continue to decline, but female deaths are on the increase



More men than women die each year in motor vehicle crashes, but deaths of female drivers have risen during the past 20 years as male driver deaths have fallen.

Since 1975, female deaths in motor vehicle crashes have increased 18 percent compared with a 14 percent decline in male motor vehicle crash deaths. The increase in female deaths is largely because of a 79 percent increase in deaths of female passenger vehicle drivers. Deaths of male drivers decreased 4 percent during the same period. Among passengers, male deaths declined 12 percent, while female deaths increased 3 percent.

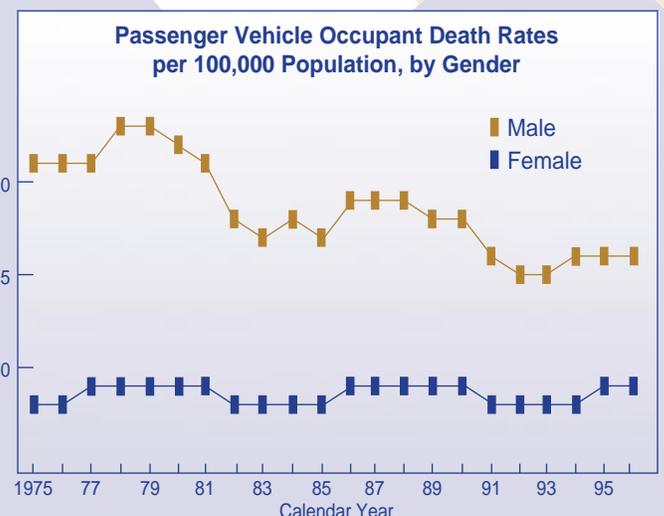
For pedestrians, deaths among both sexes have declined 28 percent since 1975, although male deaths still outnumber female deaths by more than 2 to 1.

This information, from the Institute's new fact sheet on gender in motor vehicle crashes, is included in the 1997 edition of *Fatality Facts*. These are an annual series of 13 fact sheets summarizing data from the federal Fatality Analysis Reporting System. Included are dozens of tables showing trends in motor vehicle deaths and death rates since 1975 and analyses of 1996 deaths.

"The trend of rising motor vehicle crash deaths among females can be attributed to the fact that more women now are licensed than in the past," says Susan A. Ferguson, Institute vice president. "They drive more miles and are more likely to be driving at higher risk times such as weekend nights."

She adds, "In 1973, female drivers accounted for 17 percent of drivers on the road during weekend nights. By 1986, that percentage had grown to 26 percent, and by 1996, 32 percent of weekend nighttime drivers were women."

One-third of the 41,907 people who died in motor vehicle crashes in 1996 were fe-



males. This group accounted for 30 percent of driver deaths, 49 percent of passenger deaths, 31 percent of pedestrian deaths, 14 percent of bicyclist deaths, and 9 percent of motorcyclist deaths. Total motor vehicle crash deaths were up slightly in 1996 compared with 1995 when 41,798 people died, marking the fourth straight year vehicle deaths have increased.

Passenger vehicles: Passenger vehicle occupant deaths represented 77 percent of motor vehicle deaths in 1996. Drivers accounted for about 2 out of every 3 of the 32,236 passenger vehicle occupant deaths in 1996. Passenger vehicle occupant deaths in 1996 were up 1 percent from the previous year and were 5 percent more than in 1975.

Seventy-two percent of passenger vehicle occupant deaths in 1996 were car occupants. However, the proportion of deaths involving people in pickups and utility vehicles has grown as the popularity of these vehicles has increased. In 1975, deaths in pickups and utility vehicles represented 14 percent

of passenger vehicle occupant deaths. By 1996, deaths in these vehicles were a quarter of all passenger vehicle fatalities.

In single-vehicle crashes in 1996, pickups had the highest number of deaths per registered vehicle (107 per million). Cars had the highest number of deaths per registered vehicle (97 per million) in multiple-vehicle crashes.

Small utility vehicles are disproportionately involved in fatal rollover crashes. The single-vehicle rollover death rate in these vehicles in 1996 was more than 9 times as high as the rate in the largest cars (164 deaths per million registered vehicles compared with 18).

Teenagers: Motor vehicle crash deaths among teenagers were up again in 1996 for the fourth year in a row — 5,805 teenagers died compared with 5,675 in 1995. Teenagers accounted for 10 percent of the U.S. population in 1996 and 15 percent of motor vehicle deaths. They represented 15 percent of passenger vehicle occupant deaths in 1996, 7 percent of pedestrian deaths, 9 percent of motorcycle deaths, and 18 percent of bicycle deaths.

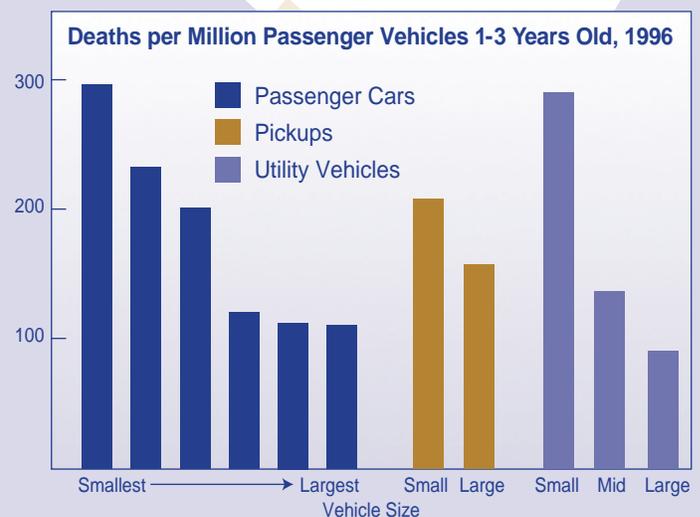
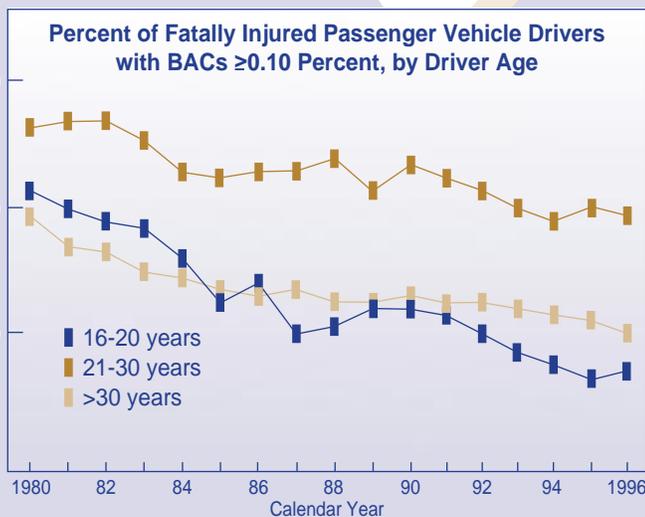
Two out of every three teenagers killed in motor vehicle crashes in 1996 were males. Deaths among male teens increased 4 percent in 1996, while deaths among female teens remained about the same as in 1995.

Weekends and nights are dangerous times for teenage drivers. Fifty-three percent of teenage motor vehicle deaths in 1996 occurred on Friday, Saturday, and Sunday. Forty-three percent of teenage motor vehicle deaths in 1996 occurred between 9 p.m. and 6 a.m.

However, fewer teenage drivers who die in passenger vehicle crashes have blood alcohol concentrations (BACs) at or above 0.10 percent compared with older drivers. Among drivers not legally permitted to buy alcohol (16-20 year-olds), 24 percent of drivers killed in 1996 had BACs at or above 0.10 percent — down from 53 percent in 1980. This decline is greater than declines among older drivers.

Alcohol: Among fatally injured motor vehicle drivers in 1996, 33 percent had BACs at or above 0.10 percent compared with 34 percent in 1995. The percentage of fatally injured drivers with BACs 0.10 percent or higher was 52 percent in 1980 and has steadily declined.

The proportion of driver deaths involving BACs 0.10 percent or higher in 1996 was 33 percent for passenger vehicle drivers, 31 per-



cent for motorcyclists, and 38 percent for pedestrians 16 and older. Tractor-trailer drivers had the lowest proportion — 3 percent — of deaths involving BACs this high.

Among fatally injured passenger vehicle drivers in 1996, 39 percent of the

males and 19 percent of the females had BACs at or above 0.10 percent. Alcohol involvement in crashes is highest among men ages 21-30.

Alcohol involvement is highest in nighttime (9 p.m. to 6 a.m.) single-vehicle

crashes, in which 66 percent of fatally injured passenger vehicle drivers in 1996 had BACs at or above 0.10 percent. Only 24 percent of the fatally injured passenger vehicle drivers involved in single-vehicle crashes at night had no blood alcohol.

Elderly: People 65 years and older represented 13 percent of the population in 1996 and 17 percent of vehicle deaths. By 2030, elderly people are expected to represent 20 percent of the population.

Among people 65 years and older, 7,078 died in motor vehicle crashes. This is 1 percent more than in 1995 and 32 percent more than in 1975. Eighty percent of elderly deaths in 1996 motor vehicle crashes were passenger vehicle occupants, and 17 percent were pedestrians. Adult pedestrians 75 and older have the highest death rates per 100,000 people.

Per mile driven, drivers 75 years and older have higher rates of fatal motor

vehicle crashes than drivers in other age groups except teenagers. About half of fatal crashes involving drivers 80 years and older occur at intersections and involve more than one vehicle. This compares with 23 percent among drivers to age 50.

Children: Last year, 2,172 children were killed in motor vehicle crashes. This is 1 percent fewer than in 1995 and 40 percent fewer than in 1975.

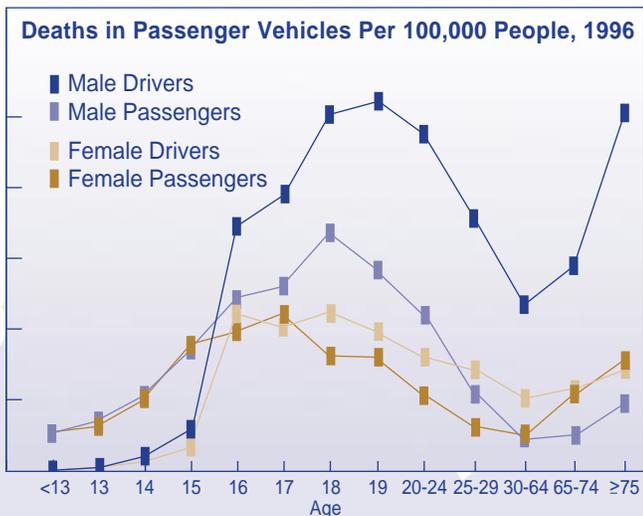
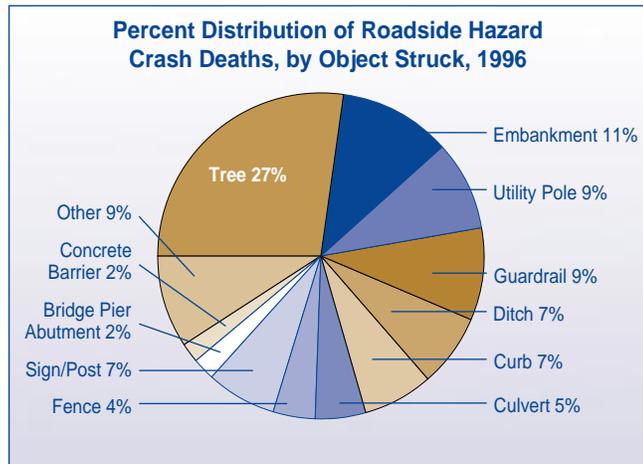
Sixty-two percent of child motor vehicle deaths in 1996 were passenger vehicle occupants. Forty-one percent of the child occupants were in the front seat, 49 percent were in the rear, and the rest were in cargo or unknown areas.

Overall, males accounted for 57 percent and females for 43 percent of child motor vehicle deaths in 1996. The difference was greater among child bicycle deaths (77 percent males, 23 percent females) than child pedestrian deaths (66 percent males, 34 percent females). There was no difference among child motor vehicle occupant deaths (50 percent males, 50 percent females).

Large Trucks: Seventy-six percent of the 5,031 people who died in large truck crashes in 1996 were people in cars and other passenger vehicles. Nine percent were either pedestrians, bicyclists, or motorcyclists. In two-vehicle fatal crashes involving a large truck and passenger vehicle, 98 percent of people killed were in the passenger vehicle.

Since 1979, deaths in truck crashes have declined 23 percent overall (58 percent among tractor-trailer occupants and 9 percent among passenger vehicle occupants). Eighty-three percent of fatal large truck crashes in 1996 involved two or more vehicles. This compares with 46 percent of fatal passenger vehicle crashes.

For more information: In addition to the 13 fact sheets analyzing motor vehicle fatalities, 4 more fact sheets summarize state laws addressing highway safety issues. For copies, visit the Institute's Web site at www.hwysafety.org. Or write: Publications, 1005 N. Glebe Rd., Suite 800, Arlington, VA 22201.



Some medicines raise elderly drivers' crash risk 45 percent during first week of their use

Prescribed for relief of insomnia and anxiety, benzodiazepines that remain in the body for longer periods increase crash risk among elderly drivers who take them, particularly in the first week of their use. This is the major finding of a new study by Quebec researchers.

Commonly prescribed long half-life benzodiazepines, defined as those that take more than a day for half the dose to be eliminated from the body, include Dalmane, Limbitrol, Klonopin, Tranxene, and Valium. Short half-life benzodiazepines in which half the dose is eliminated from the body in fewer than 24 hours include Halcion, Restoril, Ativan, Xanax, and Serax.

Researchers studied 5,579 licensed Quebec drivers ages 67-84 involved in a motor vehicle crash resulting in bodily injury during 1990-1993. The crash-involved drivers were compared with 18,490 licensed drivers in the same age group.

In the first week of using long half-life benzodiazepines, elderly patients' crash risk increased 45 percent, the study indicates. After one year of use, patients still had a 25 percent increased crash risk. In contrast, the study found that elderly people taking short half-life benzodiazepines did not have an elevated crash risk in the first week of using the medication or after prolonged periods of use.

"Doctors prescribing these medications should take into consideration the possible increased crash risk that may result from their use and discuss this with their patients," advises Elisa Braver, Institute senior research analyst.

For a copy of "Benzodiazepine Use and the Risk of Motor Vehicle Crashes in the Elderly" by B. Hemmelgarn et al., write: Samy Suissa, Division of Clinical Epidemiology, Royal Victoria Hospital, 687 Pine Ave. W, Ross 4.29, Montreal, Quebec, Canada H3A 1A1.

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Carsafety.org, the Highway Loss Data Institute's site, has a new design and updated content, too. Check here for recently released insurance claims data on injury, collision, and theft losses for hundreds of popular model passenger vehicles.

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