U.S. Department of Transportation National Highway Traffic Safety Administration

# SAFE SOBER

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

# Traffic Safety Facts 1994

Speed

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.





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

#### Traffic Safety Facts 1994 — Speed

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 speed-related 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

Percent Speeding 40 Males 35 30 25 Females 20 15 10 5 0 15-20 21-24 25-34 35-44 65-74 75+ 45-54 55-64 Age Group (Years)

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 [g/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 (BAC = 0.10 or higher) involved in fatal crashes were speeding, compared with only 23 percent of the **sober** drivers (BAC = 0.00) involved in fatal crashes (Figure 3).

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



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

"Between midnight and 3 am, 80 percent of speeding drivers involved in fatal crashes had been drinking."

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.





#### Traffic Safety Facts 1994 — Speed





*"Speed involvement for motorcyclists in fatal crashes was twice as high as for car and <del>light truck drivers."</del>* 

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



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, only 35 percent of **speeding** passenger vehicle drivers under 21 years old who were involved in fatal crashes were wearing safety belts at

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



*"The chances of death or serious injury double for every 10 mph over 50 mph that <u>a vehicle travels."</u>* 

*"Only 12 percent of speed-related fatalities occur on Interstate highways."* 

#### Traffic Safety Facts 1994 — Speed

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



*"Passenger vehicles use about 50 percent more fuel traveling at 75 miles an hour than they do at <u>55 miles an hour."</u>* 

#### 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.

#### "Serving the Highway Safety Community by the Numbers"

		Speed-Related Fatalities by Road Type and Speed Limit									Estimated Costs of Speed-Related			
	Total		Inter	state	Non-Interstate						Crashes by Road Type (Million 1990 Dollars)			
State	Traffic Fatalities	Total	65 mph	55 mph	55 mph	50 mph	45 mph	40 mph	35 mph	<35 mph	Total	Interstate	Non-Interstate	
AL AK	1,083 85	341 33	15 2	13 4	196 7	7 5	33 0	26 2	27 0	23 2	635 61	54 11	581 50	
AZ	903	341	46	10	95	<u>20</u>	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	
СТ	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			0	0	0	2	3	0		30			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			0	3	3	3	7	1	6		76		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	672 205	
IN					86					32	449		395	
IA	478	60	2	1	23 58	6	2	0	8	18	112	6	106	
KS KY	442 778	101 218	4 9	5 3	58 154	3 0	5 13	3 0	6 25	13 4	188 406	17 <u>22</u>	171 383	
LA	838	182	8	<u>3</u> 10	68	0 7	41	0 1	<u>25</u> 26	20	339	<u>22</u> 37	302	
ME	030 188	72	0 1	0	7	10	27	10	20 7	20	134	4	130	
MD	651	149	0	0 17	23	<u>25</u>	10	10	17	38	277	41	<u>236</u>	
MA	440	92	1		9	<u>20</u>	13			33	171		149	
M	1,419	362	17	12	173	14	27	12	45	41	674	61	612	
MN	644	152	9		96	5	6	6	0	20	283	30	253	
MS	791	114	16	2	47	20	20	3	3	3	212		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		10	69		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		18			113	875		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	<u>1,371</u>		15	20	190	10		9			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			40	972		879	
RI	63 847	22	0	3	0	2	1	1	2	12	41 741	7	34	
SC SD	847 154	398 66	26 3	6 0	179 42	11 2	76 5	26 0	45 4	28 9	741 123	63 6	678 117	
TN	1,214	342	<u>3</u> 10	<u>0</u> 18	<u>42</u> 114	<u>~</u> 13	<u>5</u> 63	43	4 32	<u>9</u> 46	637	<u>6</u> 56	581	
TX	3,186	342 1,114	91	18 77	498	33	100	43 77	32 117	106	2,072	354	1,718	
UT	3,180	1,114	16	10	25	6	100	8	6	100	199	48	151	
VT	<u>972</u> 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.		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	

#### Table 2. Speed-Related Traffic Fatalities and Costs by Road Type and Speed Limit, 1994

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.