Early Assessment of 1998 Crashes, Injuries, and Fatalities

This summary presents preliminary estimates of selected general motor vehicle traffic crash characteristics and resulting injuries and fatalities from the National Automotive Sampling System (NASS) General Estimates System (GES)[1] and the Fatality Analysis Reporting System (FARS)[2]. The GES and FARS are sponsored and managed by the National Center for Statistics and Analysis (NCSA), an office of the National Highway Traffic Safety Administration (NHTSA).

The crash estimates for 1998 are based on all cases reported to the GES for the first nine months of 1998 and cases reported for October, November, and December of 1997. The national weights for the 1997 cases have been modified accordingly to insure a more realistic comparison between 1997 and 1998.

Since GES estimates are derived from a sample, they are subject to sampling errors. Sampling errors are the differences that can arise between results derived from a sample and those computed from observing all units in the population being studied. Care should be taken when analyzing GES estimates, especially when making year-to-year comparisons. What appears to be meaningful change from one year to the next may be due to the particular GES sample of crashes selected in those years and may not be an actual increase or decrease. For example, if the estimated number of persons injured was 90,000 (using the 1997 GES Estimates and Standard Errors table) the 95 percent confidence interval for this estimate would be approximately 90,000+ or -1.96 * (7,700) or 75,000 to 105,000.

The fatality estimates for 1998 are based on all cases reported to the FARS as of February 1999, and on the preliminary reporting of the total number of traffic fatalities in 1998 by each state. The estimates of fatalities for 1998 represent an extrapolation of the data presently available in the FARS file. Extrapolation factors have been established for each of the twelve months using expected final monthly fatality counts and corresponding counts in the FARS file. For those states that had no data recorded for several months, additional adjustments had to be made.

Preliminary Findings

Crashes: An estimated 6,498,000 police-reported crashes occurred in 1998. This total represents a 3.9 percent decrease since 1997. Based on the Federal Highway Administration's (FHWA's) preliminary estimate of 1998 vehicle miles traveled (VMT), the total (2,618,459 million) VMT was up by 3.1 percent. Also, the crash rate of 248 crashes per 100 million VMT represents a decline of 6 percent from last year (1997).

Injuries: There were an estimated 3,251,000 injured persons in 1998, a decline of 4.4 percent from the 3,399,000 in 1997. The estimated injury rate per 100 million VMT in 1998 was 124, compared to 133 in 1997 (this has ranged between 133 and 143 since 1991).

Fatalities: An estimated 41,480 people lost their lives in traffic crashes during 1998, a decrease of 1.3 percent from the *final* total of 42,013 fatalities that occurred in 1997 (this is the one and only revision for 1997 from the 41,967 reported in our annual report, "Traffic Safety Facts, 1997" and fact sheets).

Based on the FHWA's preliminary estimates of vehicle miles traveled (VMT), the fatality rate per 100 million VMT remained at 1.6, where it stood for the first time in 1997.

In 1998, there were an estimated 15,936 fatalities associated with the presence of alcohol, a decline of 1.6 percent from the 16,189 fatalities in 1997. The estimated rate of alcohol involvement among fatalities was 38 percent, slightly lower than the 39 percent recorded in 1997, the lowest rate since record keeping began in 1975.

Thirty-eight percent of those killed in 1998 were wearing seat belts, slightly greater than 1997.

Traffic deaths of children four and under dropped by one percent. In 1998, the estimated number of passengers between the ages 0-4 decreased by 6 percent; nonoccupants increased 15 percent.

The estimated numbers of male and female driver fatalities each decreased by one percent in 1998.

From 1997 to 1998, the number of fatalities on roads with posted speed limits of 55 miles per hour (mph) or greater increased by an estimated 4 percent (22,404 vs. 23,272). The number of fatalities on roads with posted speed limits less than 55 mph decreased by an estimated 2 percent (18,513 vs. 18,208). The experience for injured persons was a decrease of 4 percent on both road systems in 1998.

Fatalities resulting from multiple-vehicle crashes involving light vehicles (passenger cars, light trucks, vans, and sport utility vehicles) increased by three percent in 1998.

In 1998, an estimated 422,000 large trucks (gross vehicle weight rating greater than 10,000 pounds) were involved in traffic crashes in the United States. An estimated total of 5,302 people died (13 percent of all traffic fatalities reported in 1998) and an additional 141,000 were injured in those crashes. The total number of fatalities resulting from crashes involving large trucks decreased by 2 percent in 1998.

The following tables and graphs represent at least ten years of GES and FARS data (including the 1998 preliminary estimates):

Table 1
Motor Vehicle Traffic Data, 1988-1998

Year	*Crashes*	*Injuries*	*Fatalities*
1988	6,887,000	3,416,000	47,087
1989	6,653,000	3,284,000	45,582
1990	6,471,000	3,231,000	44,599
1991	6,117,000	3,097,000	41,508
1992	6,000,000	3,070,000	39,250
1993	6,106,000	3,149,000	40,150
1994	6,496,000	3,266,000	40,716
1995	6,699,000	3,465,000	41,817
1996	6,842,000	3,511,000	42,065
1997	6,764,000	3,399,000	42,013
1998*	6,498,000	3,251,000	41,480

Table 2

Traffic Fatalities
(1975 - 1998)

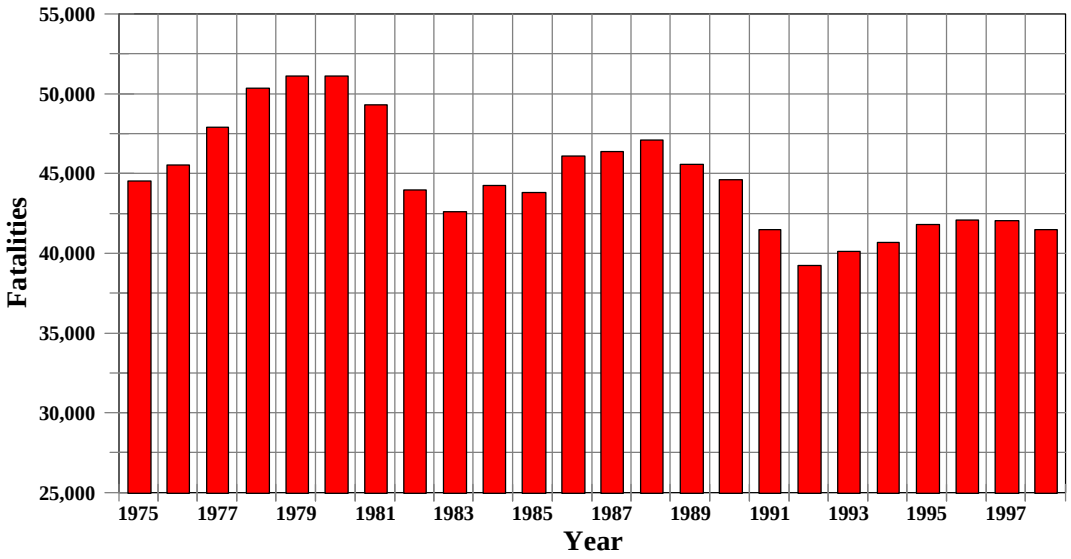

Table 3

GES Crashes and Injured Persons

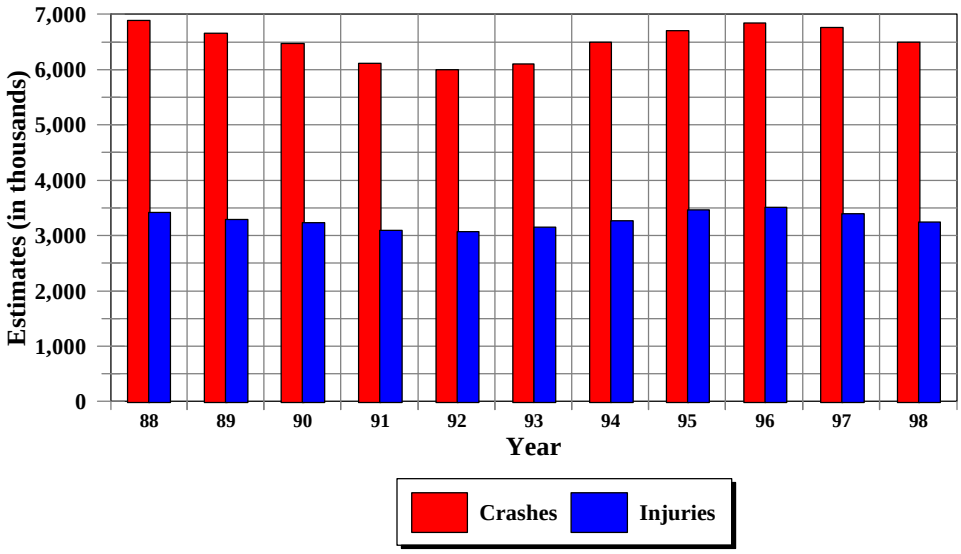

Table 4

Crashes, Injury and Fatal Crashes, Injuries, Fatalities Rate Per Vehicle Miles Traveled, 1988-1998

Year	*VMT (Millions)*	*Crashes/ VMT*	*Injury Crashes*	*Injury Crashes/ VMT*	*Injuries/ VMT*	*Fatal Crashes*	*Fatal Crashes/ VMT*	*Fatalities/ VMT*
1988	2,026	339.93	2,233,000	110.22	168.61	42,130	25.0	27.9
1989	2,096	317.41	2,153,000	102.72	156.68	40,741	26.0	29.1
1990	2,144	301.82	2,122,000	98.97	150.70	39,836	26.4	29.6
1991	2,172	281.63	2,008,000	92.45	142.59	36,937	25.9	29.1
1992	2,247	267.02	1,991,000	88.61	136.63	34,942	25.6	28.7
1993	2,297	265.82	2,022,000	88.03	137.09	35,780	26.1	29.3
1994	2,358	275.49	2,123,000	90.03	138.51	36,254	26.2	29.4
1995	2,423	276.48	2,217,000	91.50	143.00	37,241	26.0	29.2
1996	2,482	275.66	2,256,000	90.89	141.46	37,494	26.5	29.7
1997	2,560	264.22	2,185,000	85.35	132.77	37,324	28.1	31.6
1998*	2,618	248.20	2,076,000	79.30	124.18	36,978	29.8	33.4

Table 5

Vehicle Miles of Travel and Trend
(in billions) 1975 - 1998

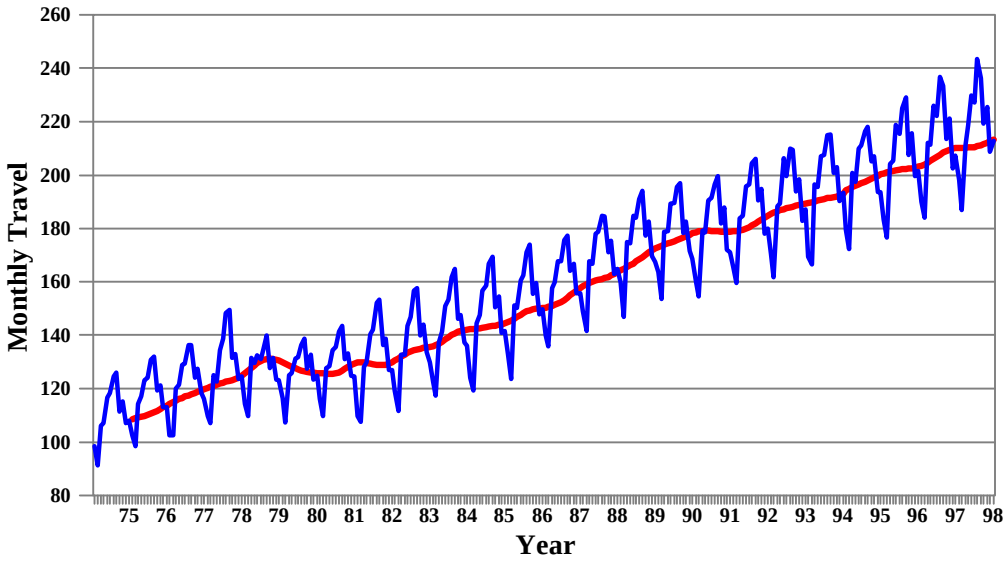

Table 6
Child Fatalities (Ages 4 and Under), 1988-1998

Year	*4 & under Passengers*	*4 & under Nonoccupants*	*Total*
1988	695	307	1,002
1989	726	285	1,012
1990	623	301	924
1991	600	275	875
1992	581	252	834
1993	617	266	884
1994	682	258	940
1995	619	219	839
1996	655	236	892
1997	604	186	790
1998*	566	213	779

Table 7
Large Truck-Related Crashes by Crash Severity, 1988-1998

Year	Total Large Truck Crashes	Fatal Crashes	Injury Crashes	PDO Crashes
1988	398,000	5,241	96,000	297,000
1989	415,000	4,984	110,000	300,000
1990	385,000	4,776	107,000	273,000
1991	330,000	4,347	78,000	248,000
1992	376,000	4,035	95,000	277,000
1993	397,000	4,328	97,000	296,000
1994	461,000	4,644	96,000	360,000
1995	377,000	4,472	84,000	289,000
1996	395,000	4,755	94,000	296,000
1997	444,000	4,871	97,000	342,000
1998*	422,000	4,492	92,000	326,000

Table 8
Large Truck-Related Fatalities and Injuries, 1988-1998

Year	Large Truck Fatalities	Large Truck Injuries	Large Truck Occupant Fatalities	Large Truck Other Fatalities	Large Truck Occupant Injuries	Large Truck Other Injuries
1988	5,679	130,000	911	4,768	37,000	93,000
1989	5,490	156,000	858	4,632	43,000	113,000
1990	5,272	150,000	705	4,567	42,000	108,000
1991	4,821	110,000	661	4,160	28,000	82,000
1992	4,462	139,000	585	3,877	34,000	105,000
1993	4,856	133,000	605	4,251	32,000	101,000
1994	5,144	133,000	670	4,474	30,000	103,000
1995	4,918	117,000	648	4,270	30,000	87,000
1996	5,142	130,000	621	4,521	33,000	97,000
1997	5,398	133,000	717	4,681	31,000	102,000
1998*	5,302	141,000	713	4,589	29,000	112,000

Endnote:

1. The GES obtains its data from a nationally representative probability sample selected from 60 geographic sites across the United States. Although the GES file contains fatal, injury, and property-damage-only (PDO) cases, for this report statistics describing injury crashes, PDO crashes, or nonfatal injuries have been derived from GES.

2. FARS contains data on a census of fatal traffic crashes within the 50 states, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public, and must result in the death of an occupant of a vehicle or a nonmotorist within 30 days of the crash.

The combination of the two sources has been used for a number of years to produce fairly accurate estimates of detailed traffic fatality statistics months before the actual reporting of all cases is completed.