



U.S. Department  
of Transportation

National Highway  
Traffic Safety  
Administration



# Research Note

June 2000

## MOTOR VEHICLE TRAFFIC CRASHES AS A LEADING CAUSE OF DEATH IN THE U.S.

*Summary of the 1997 mortality experience and traffic crash fatality trend from 1992 to 1997*

NHTSA's National Center for Statistics and Analysis (NCSA) recently completed a study of data on the causes of death for all persons, by age and sex, which occurred in the U.S. in 1997. The purpose of this study is to examine the status of motor vehicle traffic crashes as a leading cause of death. The data on the causes of death for 1997, the latest year for which such data are available, were obtained from the National Center for Health Statistics (NCHS). NCHS obtains these data from a census of death certificates furnished to the NCHS by the 50 states and the District of Columbia. The NCHS data for 1997 were studied to determine where deaths related to traffic crashes ranked as a cause of death for all ages, for males and females, and for various ethnic groups. The following statistics are based upon the NCHS data on causes of death for calendar year 1997. The number of deaths associated with motor vehicle crashes reported by NCHS are slightly greater than that reported by NHTSA's Fatality Analysis Reporting System (FARS), due to differences in reporting criteria.

Traffic crashes were the cause of 27,913 male and 14,427 female deaths in 1997. They were ranked 8<sup>th</sup> for males and 10<sup>th</sup> for females as a leading cause of death, accounting for 1 out of every 41 male deaths and 1 out of every 80 female deaths that occurred in 1997. Motor vehicle traffic crashes were the leading cause of death in 1997 for persons of every one of the following ages:

- all persons, ages 6-33
- males, ages 7-11, 13-31 and 33
- females, ages 4-28.

Half of all persons killed in traffic crashes were under the age of 36. Half of all males and females killed in traffic crashes were under the ages of 35 and 39, respectively. Traffic crashes caused almost one-half of all accidental deaths that occurred, about 45% of such deaths for males and 42% for females. When comparing unintentional deaths for all persons, the likelihood of dying from a traffic crash was 4 times as great as dying from falling, 4.2 times as accidental poisoning, 9.3 times from suffocation and 12.2 times as great as dying from a fire. The age-adjusted death rates due to traffic crashes were 15.5 deaths per 100,000 resident population, 21.1 for males and 10.0 for females. For all persons, ages 18-21 had the highest single-age incidence of traffic deaths, accounting for 4,663 victims while for males, it was 18-21 and 16-19 for females.

### Trends

Table 1 depicts the trend of motor vehicle traffic crashes as a leading cause of death by sex from 1992 to 1997.

**Table 1: Age-Adjusted Death Rates and Ranking of Motor Vehicle Traffic Crashes as a Cause of Death in the U.S., 1992-1997**

Year	Both Sexes	Male	Female
1992	15.4, 8 <sup>th</sup>	21.6, 8 <sup>th</sup>	9.3, 9 <sup>th</sup>
1993	15.6, 8 <sup>th</sup>	21.9, 8 <sup>th</sup>	9.4, 10 <sup>th</sup>
1994	15.7, 9 <sup>th</sup>	21.8, 8 <sup>th</sup>	9.8, 9 <sup>th</sup>
1995	15.9, 9 <sup>th</sup>	22.0, 8 <sup>th</sup>	9.9, 9 <sup>th</sup>
1996	15.8, 8 <sup>th</sup>	21.7, 7 <sup>th</sup>	10.0, 10 <sup>th</sup>
1997	15.5, 8 <sup>th</sup>	21.1, 8 <sup>th</sup>	10.0, 10 <sup>th</sup>

There was little variation in the rankings or the age-adjusted death rates for fatalities due to traffic crashes from 1992 to 1997. Age-adjusted death rates ranged from 15.4 per 100,000 resident population in 1992 to 15.9 in 1995 for both sexes, from 21.1 in 1997 to 22.0 in 1995 for males and from 9.3 in 1992 to 10.0 in 1996 and 1997 for females.

Table 2 illustrates the trend of specific ages in which traffic crashes were the 1<sup>st</sup> ranked cause of death by sex. The values in the parentheses indicate the number of specific ages for which traffic crashes were the No. 1 cause of death.

**Table 2: Specific Age(s) where Traffic Crashes were the No. 1 Cause of Death in the U.S., 1992-1997**

Year	Both Sexes	Male	Female
1992	5-27 (23)	6-18, 20-22 (16)	5-28 (24)
1993	6-27 (22)	6-19, 21-22 (16)	5-28 (24)
1994	6-27 (22)	6-23, 26 (19)	4-6, 8-28 (24)
1995	5-27 (23)	5-27 (23)	5-28 (24)
1996	5-29 (25)	6-8, 10-29 (23)	5-29 (25)
1997	6-33 (28)	7-11, 13-31, 33 (25)	4-28 (25)

**Traffic Crashes as a Leading Cause of Death by Race and Ethnicity**

Traffic crashes were analyzed as a leading cause of death by race and ethnic origin of the deceased. The classification included Whites, African Americans, Asian/Pacific Islander and Native Americans and Hispanics as depicted in Table 3.

**Table 3: Rank-order of Motor Vehicle Traffic Crashes as a Leading Cause of Death in the U.S. by Race and Ethnic Origin, 1992-1997**

Ethnic Group	Sex	92	93	94	95	96	97
African Americans	Male	9	9	10	10	10	11
	Female	15	16	15	16	15	14
Asian/Pacific Islanders	Male	5	6	5	5	6	6
	Female	5	5	6	6	6	6
Hispanic	Male	5	5	5	5	4	3
	Female	6	6	6	7	6	6
Native American	Male	3	3	3	3	3	3
	Female	5	5	5	5	5	5
Whites	Male	6	7	7	7	7	7
	Female	9	10	10	10	10	10
All Persons	Male	8	8	8	8	7	8
	Female	9	10	9	9	10	10

As evidenced by the mortality experience due to traffic crashes, the rank-order follows a consistent trend from 1992 to 1997 for Asian/Pacific Islanders, Native Americans and White Americans. However, traffic crashes have steadily increased their ranking as a leading cause of death for Hispanic males, ranked 5<sup>th</sup> in 1992 and as high as 3<sup>rd</sup> in 1997. Native American males and females had the highest ranking over the years, ranking as the 3<sup>rd</sup> leading cause of death for Native American males and 5<sup>th</sup> leading cause for Native American females. Traffic crashes had the lowest ranking for African-American males and females, ranking as the 9<sup>th</sup>, 10<sup>th</sup> or 11<sup>th</sup> leading cause for males over the years and the 14<sup>th</sup>, 15<sup>th</sup> or 16<sup>th</sup> leading cause for females.

**Traffic Crashes as a Leading Cause of Death by State of Residence of the Deceased**

Traffic crashes were analyzed as a leading cause of death by the State of residence of the deceased. The rankings and the State of residence with the highest ranking are illustrated in Table 4. The rank-ordering shown in Table 4 are the ranks of traffic crashes as a cause of death within each state and not as a comparative ranking among the states.

**Table 4: Traffic Crashes as the Highest and Lowest Ranked Cause of Death by the State of Residence in the U.S., 1992-1997**

Year	Sex	High Rank	Low Rank
1992	M	MS (4)	DC (16)
	F	AK (6)	DC (25)
1993	M	AL, AK, MS, NM, SC (5)	DC (15)
	F	AK (6)	DC,RI (23)
1994	M	MS (4)	DC (16)
	F	ID, MS (7)	RI (23)
1995	M	MS (4)	DC (14)
	F	AL (6)	DC, MA (25)
1996	M	AL, AK, GA, ID, MS, SC, TN, TX (5)	DC, MA (14)
	F	MS, NV, OK, TX (7)	DC, MA (25)
1997	M	NV, TX, WY (5)	DC (16)
	F	GA, MS, MT (6)	DC (28)

As seen by the mortality experience by the State of residence of the deceased, traffic crashes consistently ranked highest in Mississippi for male victims. In Mississippi, traffic crashes had the highest rank as a cause of death in five out of the six years as shown in Table 4. Alaska and Mississippi ranked high over the years for female victims, with Alaska figuring twice and Mississippi thrice as the states where traffic crashes had the highest ranking as a cause of death. The lowest ranks of traffic crashes as a leading cause of death over the years was in the District of Columbia, Massachusetts and Rhode Island.

This research note and other general information on highway traffic safety may be accessed by Internet users at <http://www.nhtsa.dot.gov/people/ncsa>.

For additional copies of this research note or for questions regarding the data reported in this research note, please call Rajesh Subramanian of the National Center for Statistics and Analysis at (202) 366-5371 or fax your request to (202) 366-3189.