U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

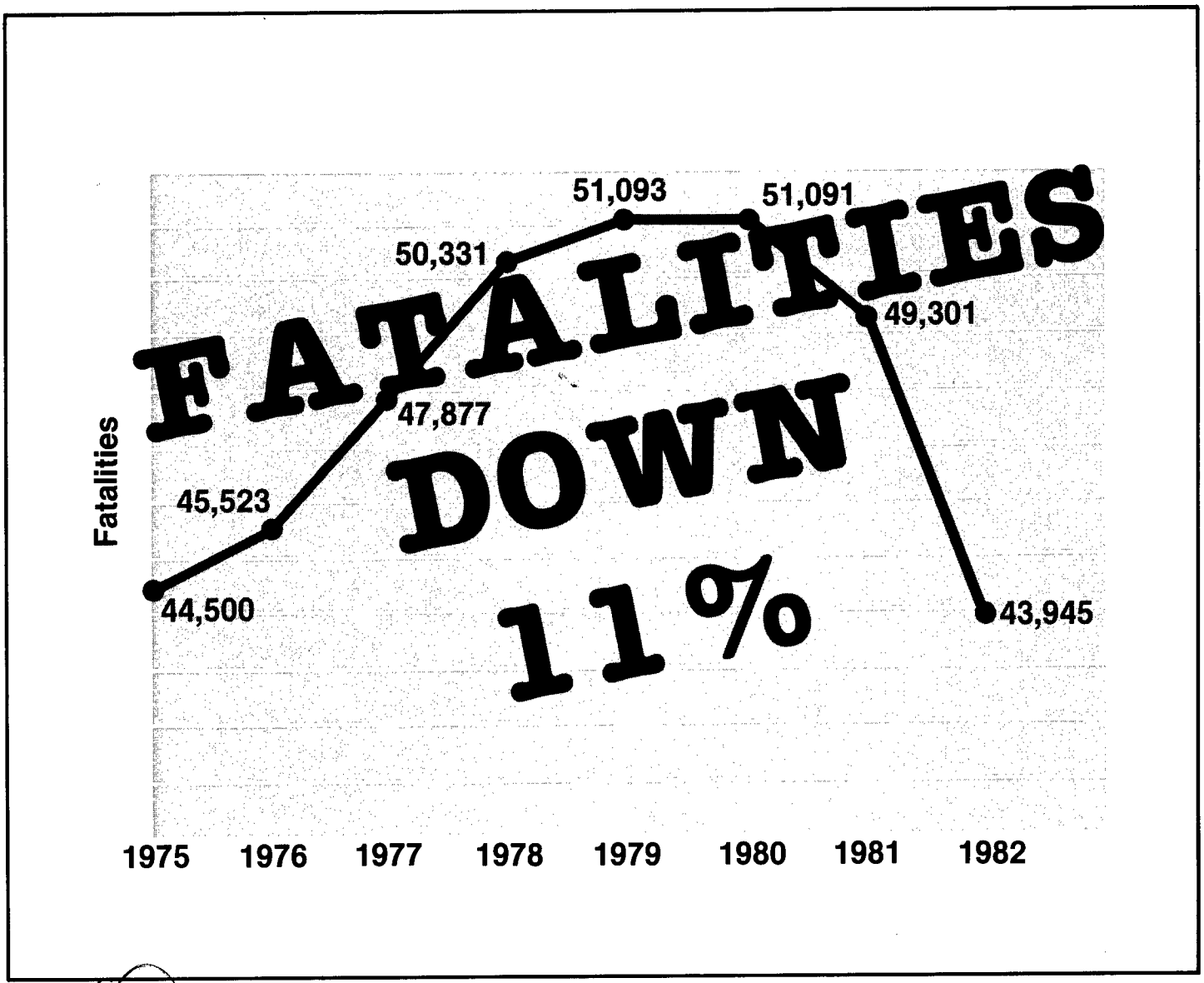
National Center for
Statistics and Analysis

Washington, D.C.
20590

FATAL ACCIDENT REPORTING SYSTEM 1982

PB98-158421

An Overview of U.S.
Traffic Fatal Accident
and Fatality Data
Collected in FARS for the
Year 1982



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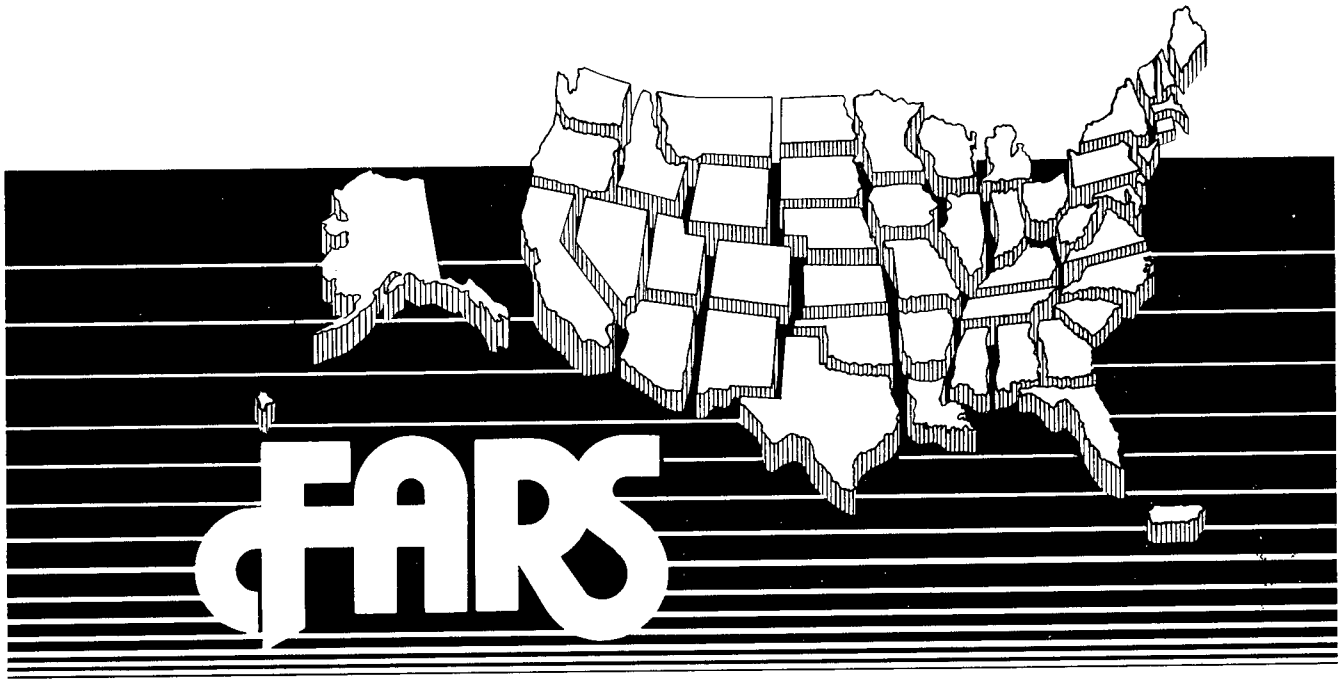

Highlights 1982

During 1982, 43,721 men, women, and children died in motor vehicle traffic accidents. That's almost 120 people per day. This is an 11 percent decline from the 1981 death toll of 49,301, and a 14 percent decline from the 1980 death toll of 51,091. Someone died on the Nation's highways every 12.5 minutes on average throughout 1982. More than 47 percent of all accidental deaths in the U.S. during 1982 occurred on the Nation's highways.*

Following is a summary of some significant statistics on fatal accidents in the U.S. in 1982.

Alcohol

- Almost three out of every five fatally injured drivers (59 percent) had been drinking, and close to half (48 percent) were legally intoxicated according to the laws of most States.

- The incidence of alcohol involvement was greatest during late night and early morning accidents when 80-90 percent of all fatally injured drivers had been drinking.

- Drivers who had been drinking were virtually never wearing safety belts (only 1.7 percent used them).

Safety Belts

- Only 3.3 percent of fatally injured occupants were wearing safety belts.

- Infants were protected by restraint systems far more often than were older occupants.

Fatality Reductions 1981-1982

- The fatality rate in 1982 was 2.75 fatalities per 100 million vehicle miles of travel, the lowest ever recorded.

- The fatality reduction was greater for younger drivers than for older drivers, with male drivers showing a larger reduction than females in all age groups.

- Single vehicle accident fatalities dropped by 10.5 percent. Multivehicle accidents declined by 13.2 percent.

- Among days of the week, Fridays, Saturdays and Sundays accounted for more than half of all deaths. However, Saturday had the highest reduction (13.7 percent), Friday the lowest (6.7 percent), and the remaining days were close to the average.

- During late nighttime hours fatalities dropped 13.4 percent. They dropped 11.3 percent during evening commuting hours but only 6.9 percent during the middle of the day.

- Passenger car, motorcycle, and truck occupant fatalities all dropped about 12.1 percent.

- Compact and smaller passenger car occupant fatalities dropped only 6.9 percent as compared to the 20.1 percent reduction for intermediate or larger cars.

- In accidents involving large trucks (26,000 pounds or greater) the reduction in truck occupant and pedestrian fatalities was close to average. There was an insignificant reduction in the number of passenger car occupants killed in accidents with large trucks.

- Pedestrian and pedalcyclist fatalities dropped less than vehicle occupant fatalities.

- The reduction in fatalities between 1981 and 1982 followed a well defined geographical pattern. The north-central part of the country showed the highest reduction, followed by the adjacent states and the east and west coastal areas. The gulf and southwestern states showed the smallest reduction.

*Accident Facts, 1982, National Safety Council.

Other Characteristics

- Table 1 presents a ready reference for important FARS 1982 data and other national statistics.
- Head-on and angle crashes accounted for almost 80 percent of fatalities in multi-vehicle crashes.
- As in previous years, more fatalities occurred in rural areas than in urban areas.
- Accidents on arterial roadways accounted for almost half of all fatalities. For every traffic fatality on the Interstate System, five people died on arterials.
- Most deaths resulted from accidents that occurred during normal weather conditions, with only 14.1 percent of them associated with inclement weather.
- The first harmful event in more than half of all fatal passenger car accidents was a collision with another motor vehicle. In nearly one-third, it was a collision with a fixed object (Table 2).
- Passenger cars, light trucks, and motorcycles, in that order, were the vehicle types most frequently involved in 1982 fatal accidents and were associated with the largest proportions of occupant fatalities. These fatalities in 1982 were distributed among vehicle types as shown in Table 3.
- In 1982 about 81 percent (35,512) of all motor vehicle traffic fatalities were vehicle occupants. More than two-thirds of these were drivers. Those proportions represent virtually no change from 1981 levels (Table 4).

TABLE 1
1982 NATIONAL STATISTICS AND RATES

National Statistics*

Population (thousands)	231,534
Registered Vehicles (thousands)	165,253
Licensed Drivers (thousands)	150,309
Vehicle Miles Traveled (VMT)(100 Million)	15,925

Fatal Accident Statistics

Fatal Accidents	38,899
Single Vehicle	24,576
Multiple Vehicle	14,323
Vehicles in Fatal Accidents	56,190
Passenger Cars	33,955
Light Trucks	10,057
Medium Trucks	626
Heavy Trucks	3,915
Motorcycles	4,243
Fatalities	43,721
Occupants	35,512
Nonoccupants	8,209
Occupants of Vehicles	92,357
Involved Drivers	55,769

Rates

Registered Vehicles Per Person	0.71
VMT Per Registered Vehicle	9,637
Fatal Accidents Per 100 Million VMT	2.44
Licensed Drivers Per Person	0.65
Fatalities Per 100 Million VMT	2.75
Vehicles Per Fatal Accident	1.44
Fatalities Per Fatal Accident	1.12
Fatalities Per 1,000 Population	0.19
Occupants Per Fatal Accident	2.37

*Source: U.S. Bureau of Census, July 1982 estimates and Federal Highway Administration.

TABLE 2
PASSENGER CAR FATALITIES BY FIRST HARMFUL EVENT

FIRST HARMFUL EVENT	Number	Percent
Noncollision	2,034	8.8
Nonoccupant	20	.1
Fixed Object	7,270	31.5
Object - not fixed	835	3.6
Collision with Motor Vehicle	12,939	56.0
Rear end	1,159	5.0
Head on	5,283	22.9
Rear to rear	23	.1
Angle	4,916	21.3
Side swipe	498	2.2
Other	1,060	4.6
Total	**23,098**	**100.0**

TABLE 3
OCCUPANT FATALITIES AND VEHICLES INVOLVED BY VEHICLE TYPE

	1977		1978		1979		1980		1981		1982	
	Vehicle	Fatalities	Vehicle	Fatalities	Vehicle	Fatalities	Vehicle	Fatalities	Vehicle	Fatalities	Vehicle	Fatalities
Passenger Cars	39,038	26,782	40,544	28,153	39,999	27,808	39,059	27,449	38,725	26,545	33,955	23,098
Percent	64.5	68.4	63.2	67.8	61.8	66.3	61.5	65.5	61.8	65.7	60.4	65.0
Motorcycles	4,068	4,008	4,512	4,451	4,730	4,713	5,009	4,961	4,774	4,716	4,243	4,202
Percent	6.7	10.2	7.0	10.7	7.3	11.2	7.9	11.8	7.6	11.7	7.6	11.8
Other Motorized Cycles	95	95	131	126	186	181	185	183	157	158	177	181
Percent	.2	.2	.2	.3	.3	.4	.3	.4	.3	.4	.3	.5
Light Trucks	9,234	5,266	10,707	6,048	11,490	6,455	11,477	6,566	10,884	6,129	10,057	5,553
Percent	15.3	13.5	16.7	14.6	17.7	15.4	18.1	15.7	17.4	15.2	17.9	15.6
Medium Trucks	1,055	297	1,142	351	1,203	344	1,092	285	888	235	626	146
Percent	1.7	.8	1.8	.8	1.9	.8	1.7	.7	1.4	.6	1.1	.4
Heavy Trucks	4,104	988	4,610	1,042	4,877	1,087	4,284	976	4,317	896	3,915	779
Percent	6.8	2.5	7.2	2.5	7.5	2.6	6.7	2.3	6.9	2.2	7.0	2.2
Buses	321	42	372	41	347	39	330	46	341	56	286	35
Percent	.5	.1	.6	.1	.5	.1	.5	.1	.5	.1	.5	.1
Other	1,675	1,043	1,762	1,069	1,599	1,057	1,631	1,178	1,856	1,213	1,461	991
Percent	2.8	2.7	2.7	2.6	2.5	2.5	2.6	2.8	3.0	3.0	2.6	2.8
Unknown	925	628	364	252	331	246	418	283	724	445	1,470	527
Percent	1.5	1.6	.6	.6	.5	.6	.7	.7	1.2	1.1	2.6	1.5
Total	**60,515**	**39,149**	**64,144**	**41,533**	**64,762**	**41,930**	**63,485**	**41,927**	**62,666**	**40,393**	**56,190**	**35,512**
	100.0	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

TABLE 4
DISTRIBUTION OF FATALITIES BY PERSON ROLE

	Total	Driver	Passenger	Pedestrian	Pedalcyclist	Unknown Occupant	Other or Unknown Non-Occupant
1977	47,877	26,169	12,873	7,732	922	107	74
Percent	100.0	54.7	26.9	16.1	1.9	.2	.2
1978	50,331	28,283	13,108	7,795	892	142	111
Percent	100.0	56.2	26.0	15.5	1.8	.3	.2
1979	51,093	28,863	12,964	8,096	932	103	135
Percent	100.0	56.5	25.4	15.8	1.8	.2	.3
1980	51,091	28,816	12,972	8,070	965	139	129
Percent	100.0	56.4	25.4	15.8	1.9	.3	.3
1981	49,301	28,200	12,055	7,837	936	169	104
Percent	100.0	57.2	24.5	15.9	1.9	.3	.2
1982	43,721	24,617	10,806	7,274	851	89	84
Percent	100.0	56.3	24.7	16.6	1.9	.2	.2

Foreword

The Fatal Accident Reporting System (FARS) gathers data on the most severe traffic accidents that occur each year--those that result in loss of human life. It supplies the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) with information that is invaluable to its efforts to reduce the number of traffic accidents and the losses that result from them. These data are essential to NHTSA's need to effect these reductions: evaluate existing and proposed highway and motor vehicle safety standards, identify traffic safety problems, and to establish better ways of dealing with those problems.

FARS is operated and maintained by NHTSA's National Center for Statistics and Analysis (NCSA). FARS data are gathered on motor vehicle accidents that meet the following criteria:

- o Occurred on a roadway customarily open to the public;
- o Resulted in the death of a person within 30 days of the accident;*
- o Were not "an act of God," such as an earthquake, flood or torrential rain.

Other definitions used in FARS are contained in the Glossary.

Unless otherwise noted, all data in this report are taken from the 1976 to 1982 FARS file as of October, 1983. As of that date, the 1982 file was 99 percent complete (See NOTE on page 1).

FARS data are collected by each State under contractual agreements with NHTSA. The contracts are managed by Regional Contract Technical Managers in 10 NHTSA regions.

State employees gather, translate and transmit the data to NHTSA. The number of analysts in each State depends on the number of fatal accidents that are expected to occur in the State based on previous years' records. Sources of data may include:

- o Police Accident Reports
- o State Vehicle Registration Files
- o State Driver Licensing Files
- o State Highway Department Files
- o Vital Statistics Documents
- o Death Certificates
- o Coroner/Medical Examiner Reports
- o Hospital Medical Reports
- o Emergency Medical Services Reports

Each analyst enters data directly into NHTSA's computerized central data file. The data are automatically checked on-line for range and consistency as part of FARS quality control.

Range checks ensure that the codes submitted are valid. For example, a code of "4" for the element "Sex" would be rejected by the system since the only valid codes are "1" for "Male," "2" for "Female," and "9" for "Unknown."

Consistency checks ensure that no inconsistent data are entered. For example, if an analyst codes 11:00 a.m. as the time of the accident and "dusk" as the light condition, both values would be rejected because they are inconsistent.

Errors are displayed on the analyst's terminal as data are entered, enabling the analyst to make corrections immediately.

FARS quality control also checks for timeliness, completeness, and accuracy.

Timeliness is monitored by FARS headquarter's staff and by the 10 Regional Contract Technical Managers. The data submitted by each State is updated and reviewed weekly. Similarly, several programs continually monitor and improve the completeness and accuracy of the data.

The system contains descriptions, in a standard format, of each fatal accident reported. The format allows coding of approximately 90 different data elements to characterize each accident and the vehicles and persons involved in it. Some data elements are modified slightly each year to reflect changing user needs, vehicle designs, and areas of highway safety emphasis. Data are reported on three forms:

*FARS data include only those accidents which result in a death within 30 days. DOT adopted the 30-day requirement to expedite its data gathering and because studies show that more than 98 percent of all motor vehicle related fatalities occur within 30 days of the accident. Most other countries also use the 30-day reporting period.

The Accident Level Form includes information on the time and location of the accident, the first harmful event, whether it was a "hit and run" accident, whether a school bus was involved, the number of vehicles and persons involved, and weather conditions.

The Vehicle/Driver Level Form includes data on vehicle type and its role in the accident, initial and principal impact points, the most harmful event, and the driving record and license status of each driver.

The Person Level Form provides details that include age and sex; whether the person was a driver, passenger, pedestrian, pedalcyclist or other nonoccupant; alcohol involvement; injury severity, etc.

The forms used for reporting 1982 accidents are in Appendix A.

NHTSA's National Center for Statistics and Analysis (NCSA) each year responds to more than 3,000 requests for FARS information and distributes almost 60 computer tapes of data. Requests for information come from the Congress, federal agencies, State and local governments, research organizations, insurance companies, automobile manufacturers, private citizens and the media.

The data are available for each year since 1975 when FARS began operation. The data are available in three ways:

- o Computer tapes can be purchased and processed on the user's own computer system. The cost is $150. A sample order blank is in appendix B.

- o Specific data may be requested from NCSA at no charge. Response usually requires about 2 weeks, depending on the nature and complexity of the data requested.

- o An account can be established with NCSA's computer contractor. Costs include computer time charges.

FARS fully conforms with provisions of the Privacy Act by omitting all personal identifying information such as names, addresses, or social security numbers.

While this report presents a wide spectrum of information in many different combinations, it contains only a small fraction of the potential uses of the data and only suggests the scope of analyses that can be performed using them. The report is not intended to be an analytical presentation. **Statements about the significance of data are based solely on the data and not on statistical analyses.**

Four further caveats should be kept in mind while reading this report. First, percentages shown, for the most part, have been rounded to the nearest 1/10 of 1 percent. As a result, they may not total exactly 100 percent. In figures and tables that show percentages, the base number upon which these percentages are computed is either explained on the figure or indicated by "100 percent" adjacent to the base number in the tables.

Second, most tables and figures include a number in parentheses in the upper right-hand corner. This number is the population of the primary subject of the figure or table. The primary subject will usually be total fatalities, total fatal accidents, or some subset of either of these two. Subset populations, when used for the first time, are defined in the accompanying text.

Third, the State records, from which FARS data are collected, vary in content and level of detail from State to State. Also, availability of certain FARS data elements vary among jurisdictions. Because of this, it is not always possible for a State analyst to uniquely identify an attribute of a data element. In this event, the analyst uses the code "Unknown" for the particular data element. "Unknown" data are included in this report to provide complete and unbiased information.

Finally, a most important point: this report contains little exposure or normalized data. Exposure data reflect the number of opportunities that existed for an event to take place. For example, as interesting as it may be to know the number of fatalities in motor vehicle accidents, it is more informative to know the rate at which fatalities occurred relative to the number of vehicle miles driven by all vehicles.

Normalized data are similar in that they are also usually expressed as a rate. However, normalization typically is applied to several numbers drawn from the same population. These numbers are normalized by dividing each by a common denominator, such as the total population. For example, it is meaningless to compare directly the number of passenger cars involved in fatal accidents to the number of light trucks involved in fatal accidents, but if both numbers are divided by the total number of vehicles involved in fatal accidents, the two rates can be compared usefully. Exposure rates can then be calculated for each by dividing the passenger car number by the total of registered passenger cars and the light truck number by the total of registered light trucks. In this way, both normalized data and exposure rates can be obtained. Unless these data transformation techniques are applied, the significance of large or small numbers and large or small differences cannot always be determined.

These data concern **only** fatal accidents. The National Accident Sampling System (NASS) is the complementary data base that reports on **all** police reported accidents, including those which resulted in nonfatal injury and/or property damage. These nonfatal accidents comprise an important element in accident analysis programs.

To conform with other national data gathering systems, fatal accidents that occurred in Puerto Rico are not included in U.S. totals. Chapter IX of this report presents the data from Puerto Rico separately.

For additional information concerning this 1982 FARS report, contact the National Center for Statistics and Analysis, National Highway Traffic Safety Administration, NRD-33, 400 Seventh Street, S.W., Washington, D.C. 20590, or telephone (202) 472-7040 or 426-4844.

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I. Fatality Reduction 1980-1982

Traffic fatalities in the United States dropped dramatically from 49,301 in 1981 to 43,721 in 1982--an 11 percent decline.* This is the lowest number of traffic fatalities since 1963. The 1982 decrease in traffic fatalities is a continuation of a trend that began the year before when fatalities dropped 3.5 percent from the 1980 total of 51,091. During these two years traffic fatalities dropped an impressive 14 percent.

The decrease in fatalities occurred despite increases in vehicle travel. The estimated 1982 fatality rate of 2.75 fatalities per 100 million vehicle miles of travel is the lowest ever recorded, and is 12 percent lower than the 3.17 rate observed in 1981.

The year 1980, when the downward trend began, is used for comparison rather than 1981 because 1981 was a transition year from the 1979-1980 level of 51,000 annual fatalities to less than 44,000 in 1982.

This chapter is based upon and supercedes an earlier publication by NCSA entitled, "The 1982 Traffic Fatalities--Early Assessment," April 1983. Most of the early findings have been confirmed and retained in this final report of the 1982 FARS.

FATALITY TRENDS

The number of fatalities per year rose steadily from 1961 to 1966, and increased less through 1973. In 1974, with the fuel crisis and imposition of the national 55 mph speed limit, fatalities were dramatically lower, and remained almost constant during 1975 and 1976. They increased again over the next two years, and remained constant during 1979 and 1980. The latest decline, which began early in 1981, brought the estimate for 1982 to the lowest annual total in the last 20 years. The 14 percent decrease from 1980 to 1982 occurred despite increases in the number of drivers, vehicles, and miles of travel (Figure 1).

The fatality rate per vehicle miles of travel increased slightly from 1960 to 1966, declined significantly during the next decade, leveled off between 1976 and 1980, and declined sharply during the last two years. The rate for 1982 was the lowest ever recorded (Figure 2).

*NOTE: The final toll of traffic fatalities on U.S. public roads in 1982 is 43,945. This is 224 more than the figure of 43,721 used in this report. The data for this report were taken from the FARS file in October 1983 when the figures and tables were generated.

Correcting for the previously unreported fatalities would increase the number in Florida by 117 to 2,653, and in Pennsylvania by 86 to 1,819. Other corrections to State totals can be made by adding 1 to Colorado and Idaho, 2 to New York and Virginia, 4 to Massachusetts and West Virginia, 5 to Kansas, and 7 to Indiana. One should be subtracted from Illinois and Maine, and 3 from California. Most of the national figures are approximately 0.5 percent lower than the totals would be today, but the percentages in this report would not be changed significantly by using the corrected totals.

FIGURE 1
U.S. TRAFFIC FATALITIES BY YEAR
1960 TO 1982

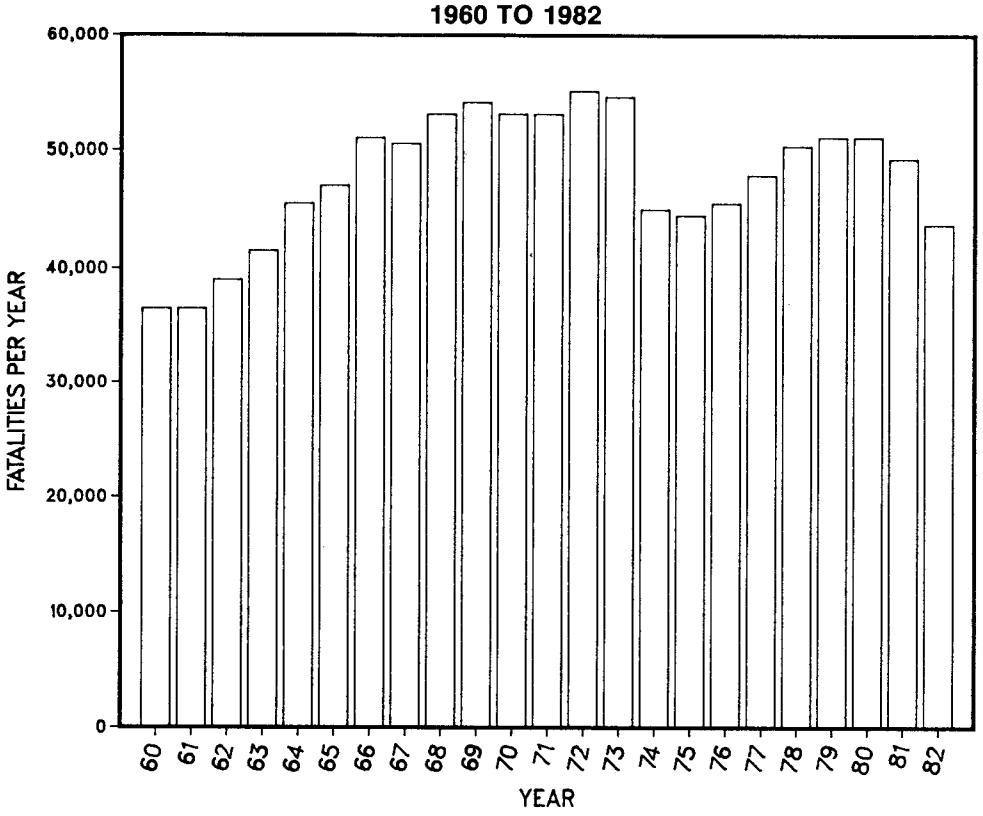


FIGURE 2
U.S. TRAFFIC FATALITY RATE BY YEAR
1960-1982

Single vehicle accidents dropped more than all other accidents, non-occupant accidents dropped less and multi-vehicle accidents showed the smallest decline (Table 5).

DEMOGRAPHIC FACTORS

Subsequent figures show younger driver fatalities dropping more than older driver fatalities. This is due, in part, to a 3 percent annual drop in the population of 15-19 year olds. Nighttime fatalities went down more than daytime fatalities. Since single vehicle accidents are more prevalent during nighttime hours and are more likely to involve a younger driver, it is possible that the reduction in this type of accident is primarily a reflection of the reduction in nighttime accidents and in the number of younger drivers involved.

Vehicle occupant fatalities dropped slightly more than non-occupant fatalities (Table 6).

Nonoccupant fatality reductions differ considerably by age, with most of the total 955 fatality reduction concentrated in people younger than 20 or over 54. The pattern is somewhat different for drivers, where the largest reductions are for those younger than 20 and between 45 and 54. The reductions in passenger fatalities were fairly constant, dropping more for those aged 15-19 and less for those over 54 (Table 7).

TABLE 5
FATAL TRAFFIC ACCIDENTS BY TYPE
1980-1982

Accident Type	1980	1982	% Change
Nonoccupant	9,100	8,031	-11.7
Other Single Vehicle	19,591	16,163	-17.5
Multi-Vehicle	16,593	14,705	-11.4
Total	45,284	38,899	-14.1

TABLE 6
TRAFFIC FATALITIES BY PERSON ROLE
1980-1982

Person Role	1980	1982	% Change
Vehicle Occupant	41,927	35,512	-15.3
Nonoccupant	9,164	8,209	-10.4
Total	51,091	43,721	-14.4

TABLE 7
TRAFFIC FATALITIES BY AGE AND PERSON ROLE
1980-1982

		Age									
		Under 15	15-19	20-24	25-34	35-44	45-54	55-64	Over 64	Unknown	Total
Non Occupants	1980	1,852	940	927	1,187	723	772	804	1,778	181	9,164
	1982	1,513	810	893	1,194	833	676	664	1,489	137	8,209
	% Change	-18.3	-13.8	-0.4	+0.1	+15.2	-12.4	-17.4	-16.3		-10.4
Drivers	1980	170	4,490	6,232	7,367	3,482	2,609	2,104	2,323	39	28,816
	1982	136	3,410	5,216	6,352	3,265	2,079	1,846	2,283	30	24,617
	% Change	-20.0	-24.1	-16.3	-13.8	-6.2	-20.3	-12.3	-1.7		-14.6
Other Occupants	1980	1,725	3,395	2,472	1922	867	692	688	1,241	109	13,111
	1982	1,506	2,467	2,057	1678	727	569	622	1,195	74	10,895
	% Change	-12.7	-27.3	-16.8	-12.7	-16.1	-17.8	-9.6	-3.8		-16.9
Total	1980	3,747	8,825	9,631	10,476	5,072	4,073	3,596	5,342	329	51,091
	1982	3,155	6,687	8,166	9,224	4,825	3,324	3,132	4,967	241	43,721
	% Change	-15.8	-24.2	-15.2	-12.0	-4.9	-18.4	-12.9	-7.0		-14.4
Adjusted %		-15.9	-18.1	-16.7	-17.0	-13.6	-16.8	-14.5	-11.4		-16.3

FIGURE 3
TRAFFIC FATALITY CHANGES BY AGE
1980 TO 1982

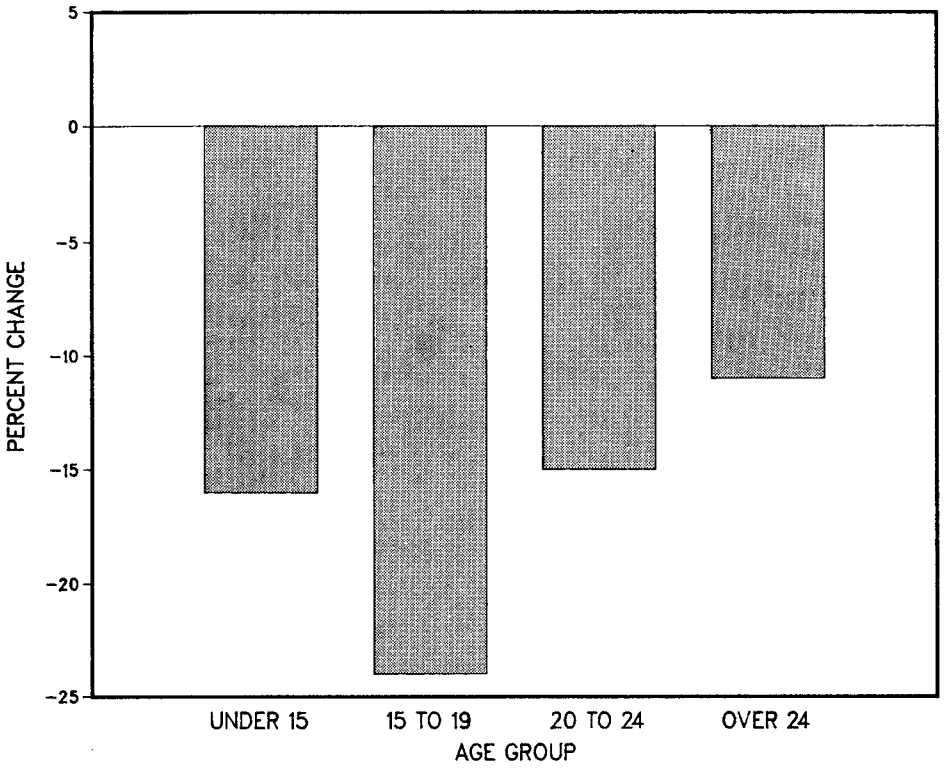
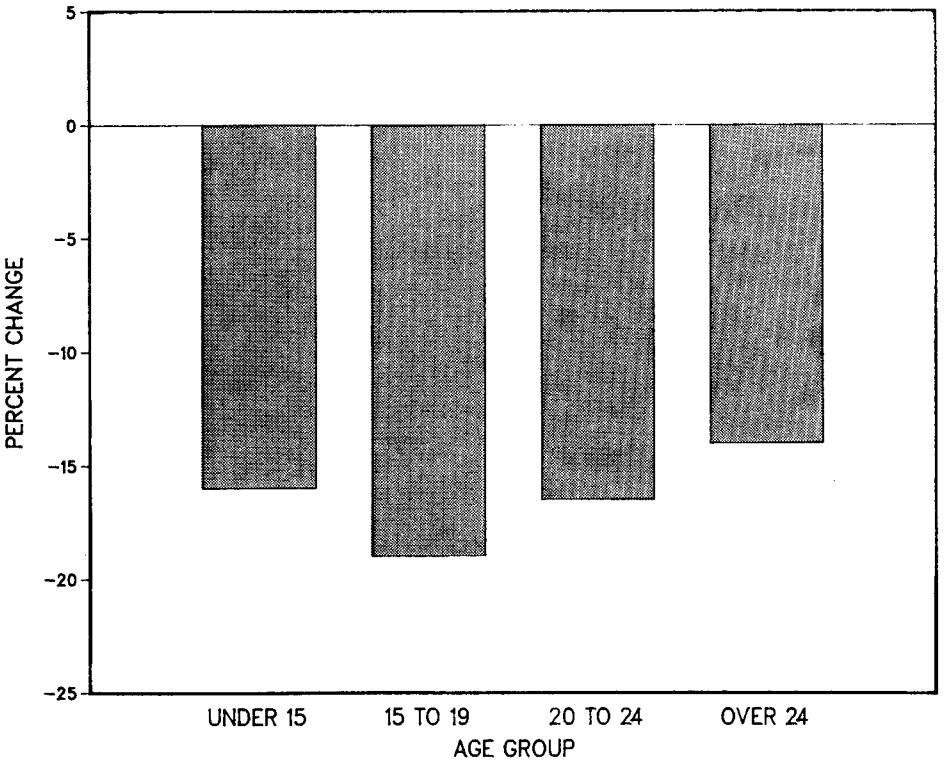


FIGURE 4
CHANGES IN FATALITIES PER 100 MILLION POPULATION BY AGE
1980-1982



Some of the fatality changes by age can be attributed to population changes. While the total United States population increased by almost 2 percent from 1980 to 1982, population shifts among age groups varied widely. The number of teenagers (aged 15-19) dropped 6.1 percent, while people aged 35-44 increased by almost 9 percent (Table 8). If nothing else changed the number of fatalities would change by the same percent. Thus, for teenagers approximately 6.1 percent of their observed 24.2 percent fatality drop was due to population changes, and the remaining 18.1 percent is the actual decrease, standardized to a steady population. Similarly, since those aged 35-44 increased by 8.7 percent, their fatalities would increase by the same amount if nothing else changed. The adjusted 13.6 percent drop is obtained by subtracting the 8.7 percent population growth from the observed 4.9 percent fatality drop. The adjusted figures show much less variation than the unadjusted figures, though teenagers still have the greatest decrease and those over 64 the smallest(Table 7).

SEX

Male fatalities dropped 15.1 percent, while female fatalities decreased only by 12.3 percent (Table 9). The decrease in male fatalities ranged from a 23.8 percent drop for the 15-19 age group to only a 4.9 percent drop in the 34-44 age group. The greatest drop for females occurred in the 15-19 age group (down 23.5 percent), while women 65 years and older experienced only a 2.1 percent decline in fatalities.

TABLE 8
ESTIMATES OF POPULATION BY AGE AND SEX
1980-1982

		Age								
Sex		Under 15	15-19	20-24	25-34	35-44	45-54	55-64	Over 64	Total
Male	1980	26,208	10,758	10,900	18,721	12,726	10,984	10,174	10,363	110,834
	1982	26,249	10,107	11,104	19,687	13,851	10,822	10,328	10,776	112,924
	% Change	+0.2	-6.1	+1.9	+5.2	+8.8	-1.5	+1.5	+4.0	+1.9
Female	1980	25,063	10,365	10,705	18,866	13,152	11,750	11,759	15,354	116,824
	1982	25,079	9,722	10,816	19,789	14,286	11,555	11,768	16,057	119,073
	% Change		-6.2	+1.0	+4.9	+8.6	-1.7	+1.6	+4.6	+1.9
Total	1980	51,270	21,123	21,605	37,587	25,878	22,734	21,753	25,708	227,658
	1982	51,329	19,829	21,920	39,477	28,137	22,377	22,096	26,833	231,997
	% Change	+0.1	-6.1	+1.5	+5.0	+8.7	-1.6	+1.6	+4.4	+1.9

TABLE 9
FATALITIES BY AGE AND SEX
1980-1982

		Age									
		Under 15	15-19	20-24	25-34	35-44	45-54	55-64	Over 64	Unknown	Total
Male	1980	2,331	6,465	7,671	8,283	3,781	2,921	2,449	3,267	224	37,392
	1982	1,916	4,929	6,457	7,203	3,597	2,406	2,111	2,936	165	31,720
	% Change	-17.8	-23.8	-15.9	-13.0	-4.9	-17.6	-13.7	-10.1		-15.1
Female	1980	1,415	2,359	1,957	2,193	1,291	1,152	1,147	2,075	100	13,689
	1982	1,238	1,758	1,709	2,021	1,228	918	1,021	2,031	69	11,993
	% Change	-12.5	-25.5	-12.7	-7.8	-4.9	-20.3	-11.0	-2.1		-12.3
Unknown	1980	1	1	3						5	10
	1982	1								7	8
Total	1980	3,747	8,825	9,631	10,476	5,072	4,073	3,596	5,342	329	51,091
	1982	3,155	6,687	8,166	9,224	4,825	3,324	3,132	4,967	241	43,721
	% Change	-15.9	-24.2	-15.2	-12.0	-4.9	-18.4	-12.9	-7.0		-14.4

TABLE 10
INVOLVED DRIVERS BY AGE AND SEX
1980-1982

		Age									
		Under 15	15-19	20-24	25-34	35-44	45-54	55-64	Over 64	Unknown	Total
Male	1980	213	8,208	11,387	13,734	6,740	4,706	3,419	2,938	118	51,463
	1982	158	6,116	9,423	12,085	6,384	3,972	3,023	2,843	161	44,165
	% Change	-25.8	-25.5	-17.2	-12.0	-5.3	-15.5	-11.6	-3.2		-14.2
Female	1980	27	1,876	2,149	2,773	1,625	1,206	920	875	15	11,466
	1982	32	1,535	1,931	2,632	1,562	989	903	1,028	16	10,628
	% Change	+18.5	-18.2	-10.2	-5.1	-3.9	-18.0	-1.8	+17.5		-7.3
Unknown	1980		1	1		1				25	28
	1982		1	3	1	1	2			968	976
Total	1980	240	10,085	13,537	16,507	8,366	5,912	4,339	3,813	158	62,957
	1982	190	7,652	11,357	14,718	7,947	4,963	3,926	3,871	1,145*	55,769
	% Change	-20.8	-24.1	-16.1	-10.8	-5.0	-16.1	-9.5	+1.5		-11.4

*The 1,145 drivers whose age and sex were unknown includes drivers of hit and run accidents. Prior to 1982 hit and run drivers were coded as "unknown if there was a driver" and no driver related variables were coded.

VEHICLE OCCUPANT FATALITIES

During 1982, vehicle registrations rose slightly. However, there were no major shifts in the types of vehicles that were registered (Table 11). It is evident that the reduction in fatalities is not attributable to changes in vehicle registration.

The most striking reduction occurred in passenger car fatalities. Deaths in small subcompact cars increased more than 11 percent and large car occupant fatalities decreased more than 35 percent (Table 12 and Table 13). Vehicle registration changes in passenger cars by size may account for a small portion of this difference. Motorcycles had average fatality reductions.

TABLE 11
OCCUPANT FATALITIES, REGISTERED VEHICLES AND ACCIDENT INVOLVED VEHICLES BY VEHICLE TYPE
1980-1982

		Passenger Cars	Motor-cycle	Trucks & Buses	Other & Unknown	Total
Occupant Fatalities	1980	27,414	5,153	8,796	564	41,927
	1982	23,098	4,383	6,513	1,518*	35,512
	% Change	-15.7	-15.0	-26.0		-15.3
Vehicle Registration (Thousands)	1980	121,724	5,725	34,166		161,615
	1982	124,821	6,021	35,622		166,464
	% Change	+2.5	+5.2	+4.3		+3.0
Involvements in Fatal Accidents	1980	39,020	5,194	18,389	882	63,485
	1982	33,955	4,420	14,884	2,931*	56,190
	% Change	-13.0	-14.9	-19.1		-11.5

*In 1982 all **vehicle** level variables were coded as **unknown** for hit and run accidents where the driver or vehicle was never apprehended. Prior to 1982, there were no vehicle level variables coded for hit and run vehicles.

[1]Source: R. L. Polk & Company, as of July 1, 1982.

TABLE 12
OCCUPANT FATALITIES BY VEHICLE TYPE
1980-1982

	1980	1982	% Change
Small Subcompact	4,470	4,994	+11.7
Subcompact	3,032	2,648	-12.6
Compact	6,277	5,853	-6.8
Intermediate	6,269	4,671	-25.4
Full Size	3,446	2,226	-35.4
Other Passenger Car	3,920	2,706	-30.9
Motorcycle	5,153	4,383	-15.0
Light Truck	7,462	5,553	-25.5
Heavy Truck	976	779	-20.2
Other Truck	312	146	-53.2
Bus	46	35	-23.9
Other & Unknown	564	1,518*	
Total	41,927	35,512	-15.3

*Includes hit and run vehicle types. Prior to 1982, hit and run vehicles were not coded.

TABLE 13
NUMBER OF VEHICLES IN FATAL ACCIDENTS BY TYPE
1980-1982

	1980	1982	% Change
Small Subcompact	5,091	5,837	+14.7
Subcompact	3,647	3,332	-8.6
Compact	8,560	8,187	-4.3
Intermediate	10,126	8,152	-19.5
Full Size	6,287	4,357	-30.6
Other Passenger Car	5,309	4,090	-23.0
Motorcycle	5,194	4,420	-14.9
Light Truck	12,607	10,057	-20.2
Heavy Truck	4,284	3,915	-8.6
Other Truck	1,168	626	-46.4
Bus	330	286	-13.3
Other & Unknown	882	2,931*	
Total	63,485	56,190	-11.4

*Includes hit and run vehicles.

From 1980 to 1982 large truck occupant fatalities dropped 20.2 percent. In single vehicle accidents the reduction was 21 percent, and in multi-vehicle accidents it was 18.4 percent. About 13.3 percent fewer nonoccupants were killed in truck accidents, but only 2.7 percent fewer other vehicle occupants. Large trucks contributed to a greater proportion of other vehicle fatalities in 1982 than in 1980 (Table 14).

TABLE 14
TRAFFIC FATALITIES IN ACCIDENTS INVOLVING LARGE TRUCKS*
1980-1982

	Large Truck Occupants				
	Single Vehicle	Multi-Vehicle	Other Vehicle Occupants	Non-Occupants	Total
1980	672	304	3,374	466	4,816
1982	531	248	3,283	404	4,466
% Change	-21.0	-18.4	-2.7	-13.3	-7.3

*Trucks of 26,000 GVW or more

The occupant fatality reduction was considerably larger for single vehicle accidents (17.3 percent) than for those involving two or more vehicles (11.3 percent). Differences also exist among the various multi-vehicle accident types: head-on and rear-end accidents show a larger reduction (15.8 percent) than the remaining types (5.7 percent) (Table 15).

Most of the reduction occurred in larger cars, for both accident types. Smaller cars showed a reduction in single vehicle accidents and an increase in multi-vehicle accidents (Table 16).

TABLE 15
OCCUPANT FATALITIES IN PASSENGER CARS BY ACCIDENT TYPE
1980-1982

	Multi-Vehicle							
	Rear End	Head On	Angle	Side Swipe	Other & Unknown	Sub-Total	Single Vehicle	Total
1980	1,348	6,355	5,308	507	466	13,984	13,430	27,414
1982	1,169	5,312	4,947	509	463	12,400	11,101	23,501
% Change	-13.3	-16.4	-6.8	.4	-.6	-11.3	-17.3	-14.3

TABLE 16
PASSENGER CAR VEHICLE OCCUPANT FATALITIES BY VEHICLE SIZE AND ACCIDENT TYPE
1980-1982

			Multi-Vehicle					
		Single Vehicle	Angle	Head-On	Rear-End	Side Swipe	Other	Total
Small Subcompact	1980	1,875	909	1,218	282	89	97	4,470
	1982	2,052	1,018	1,370	314	106	88	4,948
	% Change	9.4	12.0	12.5	11.3	19.1	-9.3	10.7
Subcompact	1980	1,450	556	762	153	61	50	3,032
	1982	1,285	485	641	119	62	75	2,667
	% Change	-11.4	-12.8	-15.9	-22.2	1.6	50.0	-12.0
Compact	1980	3,100	1,208	1,431	309	129	100	6,277
	1982	2,604	1,374	1,320	296	134	130	5,858
	% Change	-16.0	13.7	-7.8	-4.2	3.9	30.0	-6.7
Intermediate	1980	3,194	1,174	1,456	250	104	91	6,269
	1982	2,442	954	990	219	101	75	4,781
	% Change	-23.5	-18.7	-32.0	-12.4	-2.9	-17.6	-23.7
Full Size	1980	1,822	688	672	159	59	46	3,446
	1982	1,135	485	439	81	44	42	2,226
	% Change	-37.7	-27.4	-34.7	-49.1	-25.4	-8.7	-35.0
Other & Unknown	1980	1,990	772	820	194	63	81	3,920
	1982	1,582	631	552	140	62	54	3,021
	% Change	-20.5	-18.3	-32.7	-27.8	-1.6	-33.3	-22.9
Total	1980	13,431	5,307	6,359	1,347	505	465	27,414
	1982	11,101	4,947	5,312	1,169	509	463	23,501
	% Change	-17.3	-6.8	-16.5	-13.2	.8	-.4	-14.3

LOCATION

The reduction in rural areas was greater than in urban areas (15 vs. 14.3 percent, Table 17). The reduction in multi-vehicle accidents was much greater in urban areas than in rural areas (14.8 vs. 11.5 percent, Table 18). The difference between urban and rural areas was smaller for single-vehicle accidents (16.7 vs. 18.9 percent, Table 19) and nonoccupants accidents (10.6 vs. 11 percent, Table 20). The reduction was not uniform on all highways. Interstate highways which are generally the safest, experienced the smallest reduction, followed by Federal Aid Primary highways, Federal Aid Secondary highways, and non-Federal Aid highways in that order. The reduction on highways with a 55 mph posted speed was less than average. The decrease in the number of single vehicle accidents accounted for most of the reduction at this speed. All other systems with posted speeds below 55 mph showed a fairly uniform reduction with the exception of the lowest speed category, mostly urban streets, which had a 16 percent reduction (Table 22).

TABLE 17
ALL FATALITIES BY ROAD TYPE AND LAND USE
1980-1982

		Urban	Rural	Unknown	Total
Interstate	1980	2,066	2,317		4,383
	1982	1,935	2,622	14	4,011
	% Change	-6.3	-11.0		-8.5
Other Primary	1980	11,767	11,911	1	23,679
	1982	10,648	10,561	46	21,255
	% Change	-9.5	-11.3		-10.2
Other	1980	1,869	7,361		9,230
Secondary	1982	1,667	5,961	3	7,631
	% Change	-10.8	-19.0		-17.3
Non	1980	5,409	6,697	379	12,485
Federal Aid	1982	4,051	6,072	9	10,132
	% Change	-25.1	-9.3		-18.8
Unknown	1980	449	828	37	1,314
	1982	179	90	415	684
Total	1980	21,560	29,114	417	51,091
	1982	18,480	24,746	495	43,721
	% Change	-14.3	-15.0		-14.4

TABLE 18
OCCUPANT FATALITIES IN MULTI-VEHICLE ACCIDENTS
BY ROAD TYPE AND LAND USE
1980-1982

		Urban	Rural	Unknown	Total
Interstate	1980	732	829		1,561
	1982	700	722	6	1,428
	% Change	-4.4	-12.9		-8.5
Other Primary	1980	5,059	6,346	1	11,406
	1982	4,600	5,882	28	10,510
	% Change	-9.1	-7.3		-7.9
Other	1980	735	2,835		3,570
Secondary	1982	538	2,360	4	2,902
	% Change	-26.8	-16.8		-18.7
Non	1980	1,604	1,624	102	3,330
Federal Aid	1982	1,156	1,607	4	2,767
	% Change	-27.9	-1.0		-16.9
Unknown	1980	154	355	12	521
	1982	67	35	174	276
Total	1980	8,284	11,989	115	20,388
	1982	7,061	10,606	216	17,883
	% Change	-14.8	-11.5		-12.3

TABLE 19
OCCUPANT FATALITIES IN SINGLE VEHICLE ACCIDENTS BY ROAD TYPE AND LAND USE 1980-1982

		Urban	Rural	Unknown	Total
Interstate	1980	871	1,205		2,076
	1982	776	1,079	5	1,860
	% Change	-10.9	-10.5		-10.4
Other Primary	1980	3,391	4,359	1	7,751
	1982	2,973	3,503	11	6,487
	% Change	-12.3	-19.6		-16.3
Other Secondary	1980	715	3,735		4,450
	1982	623	2,996	5	3,624
	% Change	-12.9	-19.8		-18.6
Non Federal Aid	1980	2,218	4,263	180	6,661
	1982	1,701	3,708	1	5,410
	% Change	-23.3	-13.0		-18.8
Unknown	1980	182	403	17	602
	1982	72	41	135	248
Total	1980	7,377	13,965	197	21,539
	1982	6,145	11,327	157	17,629
	% Change	-16.7	-18.9		-18.2

TABLE 20
NONOCCUPANT FATALITIES BY ROAD TYPE AND LAND USE 1980-1982

		Urban	Rural	Unknown	Total
Interstate	1980	463	283		746
	1982	459	261	3	723
	% Change	-.9	-7.8		-3.1
Other Primary	1980	3,317	1,206	1	4,524
	1982	3,075	1,176	7	4,258
	% Change	-7.3	-2.5		-5.9
Other Secondary	1980	419	791		1,210
	1982	506	605	2	1,113
	% Change	+20.8	-23.5		-8.0
Non Federal Aid	1980	1,587	810	97	2,494
	1982	1,194	757	4	1,955
	% Change	-24.8	-6.5		-21.6
Unknown	1980	113	70	8	191
	1982	40	14	106	160
Total	1980	5,899	3,160	105	9,164
	1982	5,274	2,813	122	8,209
	% Change	-10.6	-11.0		-10.4

TABLE 21
FATALITIES BY PERSON'S ROLE AND HIGHWAY SYSTEM
1980-1982

		Federal Aid					Non-Federal Aid				
		Inter-state	Pri-mary	Secon-dary	Arter-ail	Collec-tor	Arter-ial	Collec-tor	Local	Unknown	Total
Non-Occupant	1980	746	2,356	904	2,167	306	207	655	1,632	191	9,164
	1982	723	2,336	606	1,922	507	199	379	1,377	160	8,209
	% Change	-3.1	-.8	-33.0	-11.3	65.7	-3.9	-42.1	-15.6		-10.4
Occupant Single Vehicle	1980	2,076	5,593	3,927	2,157	523	732	1,748	4,181	602	21,539
	1982	1,860	4,636	2,998	1,851	626	368	1,400	3,642	248	17,629
	% Change	-10.4	-17.1	-23.7	-14.2	19.7	-49.7	-19.9	-12.9		-18.2
Occupant Multi-Vehicle	1980	1,561	8,540	3,115	2,866	455	430	924	1,976	521	20,388
	1982	1,428	7,872	2,360	2,638	542	377	810	1,580	276	17,883
	% Change	-8.5	-7.8	-24.2	-8.0	19.1	-12.3	-12.3	-20.0		-12.3
Total	1980	4,383	16,489	7,946	7,190	1,284	1,369	3,327	7,789	1,314	51,091
	1982	4,011	14,844	5,964	6,411	1,675	944	2,589	6,599	684	43,721
	% Change	-8.5	-10.0	-24.9	-10.8	30.5	-31.0	-22.2	-15.3		-14.4

TABLE 22
FATAL ACCIDENTS BY TYPE AND POSTED SPEED LIMIT
1980-1982

		25	30-35	40-45	50	55	Unknown	Total
Pedestrian	1980	817	2,172	1,027	322	1,854	1,051	7,243
	1982	669	2,098	1,228	335	2,202	583	7,115
	% Change	-18.1	-3.4	+19.6	+4.0	+18.8		-1.8
Pedalcycle	1980	126	238	135	39	225	165	928
	1982	91	252	164	33	223	79	842
	% Change	-27.8	+5.9	+21.5	-15.4	-.9		-9.3
Single Vehicle	1980	1,246	3,347	2,321	1,039	9,985	2,043	19,981
	1982	1,048	2,757	2,018	759	8,606	975	16,163
	% Change	-15.8	-17.6	-13.1	-26.9	-13.8		-19.1
Angle	1980	425	1,577	1,254	388	2,619	686	6,949
	1982	351	1,337	1,272	394	2,606	365	6,325
	% Change	-17.4	-15.2	+1.4	+1.5	-.5		-9.0
Head On	1980	128	687	976	415	3,624	619	6,449
	1982	113	611	848	362	3,204	239	5,377
	% Change	-11.7	-11.1	-13.1	-12.8	-11.6		-16.6
Rear End	1980	47	252	303	143	1,202	153	2,100
	1982	44	209	248	112	1,058	82	1,753
	% Change	-6.4	-17.1	-18.2	-21.7	-12.0		-16.5
Side Swipe	1980	24	105	1982	27	431	53	722
	1982	24	87	69	34	431	19	664
	% Change		-17.1	-15.9	+25.9			-8.0
Other & Unknown	1980	52	149	158	62	412	83	916
	1982	38	93	103	47	351	28	660
	% Change	-26.9	-37.6	-34.8	-24.2	-14.8		-27.9
Total	1980	2,865	8,527	6,256	2,431	20,352	4,853	45,284
	1982	2,408	7,444	5,950	2,076	18,651	2,370	38,899
	% Change	-16.0	-12.7	-4.9	-14.6	-8.4		-14.1

DAY AND TIME

With the exception of Saturday, which had a reduction of 18.2 percent, the changes between 1980 and 1982 vary only slightly among all other days of the week. However, changes by time of day show large differences. The reduction in fatalities ranges from 6 percent during middle of the day to over 17 percent during late night hours. Evening commuting hours show an above average reduction of 15.2 percent (Table 23 and Table 24).

The largest reduction occurred during Friday and Saturday evenings. During these social hours about 20 percent fewer people were killed in traffic accidents (Table 25).

Further selected comparisons between 1982 and previous years are in Chapters III and X.

TABLE 23
FATAL ACCIDENTS BY DAY OF WEEK AND HOUR OF DAY
1980-1982

		Midnight to 3 AM	3 AM-6 AM	6 AM-9 AM	9 AM-Noon	Noon-3 PM	3 PM-6 PM	6 PM-9 PM	9 PM-Midnight	Unknown	TOTAL
Monday	1980	551	243	435	422	659	872	836	844	36	4,898
	1982	541	212	385	397	529	762	799	683	27	4,335
	% Change	-1.8	-12.8	-11.5	-5.9	-19.7	-12.6	-4.4	-19.1		-11.5
Tuesday	1980	669	297	445	424	583	796	843	829	29	4,915
	1982	533	204	408	411	522	703	719	679	18	4,197
	% Change	-20.3	-31.3	-8.3	-3.1	-10.5	-11.7	-14.7	-18.1		-14.6
Wednesday	1980	714	275	472	438	599	863	884	988	24	5,257
	1982	584	250	367	388	505	756	798	828	23	4,499
	% Change	-18.2	-9.1	-22.2	-11.4	-15.7	-12.4	-9.7	-16.2		-14.4
Thursday	1980	889	325	417	471	612	900	915	1,083	35	5,647
	1982	714	325	381	419	557	780	855	848	21	4,900
	% Change	-19.7		-8.6	-11.0	-9.0	-13.3	-6.6	-21.7		-13.2
Friday	1980	1,029	415	470	483	664	1,065	1,389	1,921	26	7,462
	1982	975	400	411	462	609	936	1,194	1,536	37	6,560
	% Change	-5.2	-3.6	-12.6	-4.3	-8.3	-12.1	-14.0	-20.0		-12.1
Saturday	1980	2,629	1,072	430	494	698	1,150	1,443	1,692	54	9,662
	1982	2,074	865	362	461	653	871	1,137	1,437	44	7,904
	% Change	-21.1	-19.3	-15.8	-6.7	-6.4	-24.3	-21.2	-15.1		-18.2
Sunday	1980	2,295	903	334	355	559	908	1,142	906	41	7,443
	1982	1,848	837	312	302	580	752	1,029	803	39	6,502
	% Change	-19.5	-7.3	-6.6	-14.9	3.8	-17.2	-9.9	-11.4		-12.6
Total	1980	8,776	3,530	3,003	3,087	4,374	6,554	7,452	8,263	245	45,284
	1982	7,269	3,093	2,626	2,840	3,955	5,560	6,531	6,814	211[1]	38,899
	% Change	-17.2	-12.4	-12.6	-8.0	-9.6	-15.2	-12.4	-17.5		-14.1

[1] Two Accidents with unknown day of week in 1982.

TABLE 24
FATALITIES BY DAY OF WEEK AND HOUR OF DAY
1980-1982

		Midnight to 3 AM	3 AM-6 AM	6 AM-9 AM	9 AM-Noon	Noon-3 PM	3 PM-6 PM	6 PM-9 PM	9 PM-Midnight	Unknown	TOTAL
Monday	1980	629	278	477	470	748	955	949	956	36	5,498
	1982	614	228	420	445	586	838	878	738	28	4,775
	% Change	-2.4	-18.0	-11.9	-5.3	-21.7	-12.3	-7.5	-22.8		-13.2
Tuesday	1980	747	342	483	453	648	874	921	935	29	5,432
	1982	588	229	453	450	576	773	797	759	19	4,644
	% Change	-21.3	-33.0	-6.2	-.7	-11.1	-11.6	-13.5	-18.8		-14.5
Wednesday	1980	789	308	522	481	684	953	975	1,111	25	5,848
	1982	632	278	410	443	568	847	856	929	24	4,987
	% Change	-19.9	-9.7	-21.5	-7.9	-17.0	-11.1	-12.2	-16.4		-14.7
Thursday	1980	986	355	467	521	679	996	1,024	1,237	39	6,304
	1982	792	363	419	472	613	864	930	941	23	5,417
	% Change	-19.7	2.3	-10.3	-9.4	-9.7	-13.3	-9.2	-23.9		-14.1
Friday	1980	1,132	468	521	540	748	1,232	1,559	2,187	28	8,415
	1982	1,093	435	444	540	678	1,053	1,345	1,781	42	7,411
	% Change	-3.4	-7.1	-14.8		-9.4	-14.5	-13.7	-18.6		-11.9
Saturday	1980	2,998	1,192	486	552	790	1,323	1,688	1,954	56	11,039
	1982	2,390	979	430	510	743	979	1,323	1,634	47	9,035
	% Change	-20.3	-17.9	-11.5	-7.6	-5.9	-26.0	-21.6	-16.4		-18.2
Sunday	1980	2,677	1,018	388	403	641	1,052	1,309	1,024	43	8,555
	1982	2,091	944	367	355	670	895	1,193	893	42	7,450
	% Change	-21.9	-7.3	-5.4	-11.9	4.5	-14.9	-8.9	-12.8		-12.9
Total	1980	9,958	3,961	3,344	3,420	4,938	7,385	8,425	9,404	256	51,091
	1982	8,200	3,456	2,943	3,215	4,434	6,249	7,322	7,675	227[1]	43,721
	% Change	-17.7	-12.7	-12.0	-6.0	-10.2	-15.4	-13.1	-18.4		-14.4

[1] Two deaths with unknown day of week in 1982

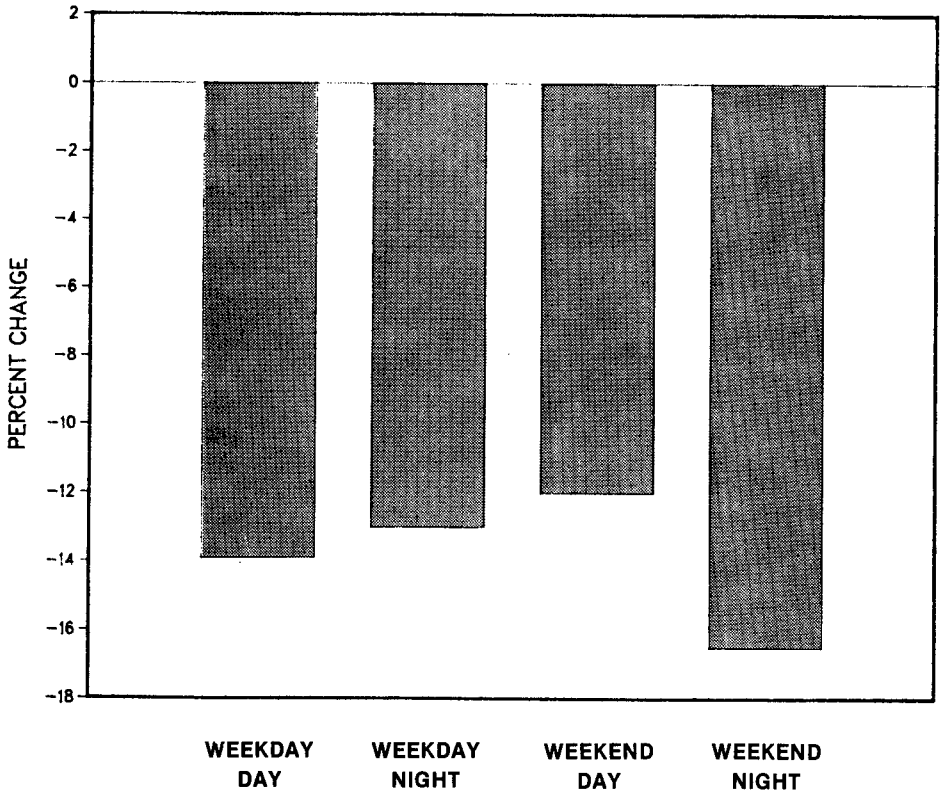
TABLE 25
FATALITIES DURING PERIODS* OF HIGH REDUCTION
1980-1982

	1980	1982	% Change
Fri. & Sat. Evenings	14,019	11,177	-20.3
All Others	37,072	32,544	-12.2
Total	51,091	43,721	-14.4

*Friday 9 p.m. to Saturday 6 a.m.

Saturday 3 p.m. to Sunday 3 a.m.

FIGURE 5
CHANGES IN FATALITIES BY TIME OF DAY AND WEEK
1980 TO 1982



II. Alcohol and Safety Belts

The use of alcohol and failure to use safety belts are two leading factors associated with deaths from motor vehicle accidents. In 1982 alcohol was involved in approximately 25,000 (57 percent) of the 43,721 reported traffic fatalities. Only about 1,420 (3.3 percent) of the vehicle occupants who died had been wearing a safety belt. Efforts to decrease drunken driving and to increase the use of safety belts and other occupant restraints have been NHTSA priorities since 1981.

TABLE 26
ALCOHOL INVOLVEMENT BY VEHICLE BODY TYPES
1982

	Autos	Motor-cycles	Light Trucks & Vans	Medium & Heavy Trucks	Other Vehicles	Pedes-trians	Pedal-cyclists	Total
Number of Accidents in which one or more vehicles/persons of this type were involved	27,292	4,302	9,503	4,355	1,663	7,183	853	38,899
Number of fatally injured persons	23,098	4,383	5,553	925	1,026	7,274	851	43,721
Under 14 years old	989	89	225	22	73	1,036	321	3,155
Over 14 years old	22,033	4,285	5,315	895	915	6,106	525	40,325
THE FOLLOWING IS BASED ON DATA FROM THE 15 STATES THAT ROUTINELY TEST FATALITIES.								
Percent of Accidents with any Alcohol Involvement[1]	55.7	57.6	57.3	34.5	50.8	57.9	29.2	56.5
Percent of tested fatally injured drivers/pedestrians[2]								
Alcohol Involved[3]	57.4	59.3	71.1	23.3	64.9	50.2	28.9	58.9
Impaired[4]	52.0	51.8	65.8	21.1	59.7	46.6	22.9	52.8
Intoxicated[5]	47.7	43.3	61.8	19.5	57.4	42.7	16.9	46.6

[1] Either a positive alcohol test result or an indication from the police of any alcohol involvement.
[2] Pedestrians and pedalcyclists fourteen and over only
[3] Blood alcohol content at least .01%
[4] Blood alcohol content at least .05%
[5] Blood alcohol content at least .10%

ALCOHOL

Drivers

During 1982 almost one-half (48 percent) of the fatally injured drivers in the 15 States with complete testing on alcohol were at legally intoxicating blood alcohol levels.* An additional 11 percent were impaired or had some alcohol in their blood system at the time of their crash which means that almost three out of every five fatally injured drivers (59 percent) had been drinking (Table 27). The intractability of the problem of drinking and driving is illustrated by the fact that while fatalities in most categories dropped substantially during 1982, the **proportion of fatally injured drivers who were intoxicated dropped only 2.1 percentage points from 1980 (Table 27).**

People who were driving certain types of vehicles were more likely to have been drinking than people who were driving other vehicle types. For instance, when fatally injured drivers of medium and heavy trucks were tested, they were found much less likely to have been drinking (23 percent) than fatally injured automobile drivers (57 percent) or motorcyclists (59 percent). More than one-quarter (29 percent) of all fatally injured bicyclists and about half (50 percent) of all fatally injured adult pedestrians had been drinking (Table 26). Fatally injured pedestrians who had been drinking had on average a much higher alcohol concentration in their blood than drivers who had been drinking (Table 30).

TABLE 27
ALCOHOL INVOLVEMENT IN DRIVER FATALITIES
(15 States)
1980-1982

Blood Alcohol Content	1980	1981	1982
None (0.00%)	38.5	40.4	40.9
Some (0.01%-0.05%)	5.9	5.5	5.7
Impaired (0.06%-0.09%)	5.5	5.4	5.4
Intoxicated (0.10% or more)	50.1	48.7	48.0

TABLE 28
DRINKING INVOLVEMENT IN FATAL NONOCCUPANT* ACCIDENTS
(15 States)

	Percent
Nonoccupant Alcohol Involvement	32.7
Driver Alcohol Involvement	11.1
Both Alcohol Involved	10.9
Neither Alcohol Involved	45.3

*For Nonoccupants over 15 only.

TABLE 29
COMPARISONS OF ALCOHOL INVOLVEMENT BY FATAL ACCIDENT TYPE
(15 States)
1980-1982

	Percent of Accidents[1] That Had Any Alcohol Involvement[2]		
	1980	1981	1982
Pedestrian	47	48	49
Pedalcyclist	27	34	29
Motorcycle	58	58	58
Medium or Heavy Truck	36	34	35
Cars, Light Trucks or Vans	60	58	56
Other Vehicles	56	54	50
All Accidents	55	57	56

[1]Not Mutually Exclusive

[2]By any driver, pedestrian or pedalcyclist in the accident. For example, 36 percent of the fatal accidents involving a medium or heavy truck in 1980 had alcohol involvement either on the part of the truck driver, or a pedestrian/pedalcyclist or another driver of another vehicle.

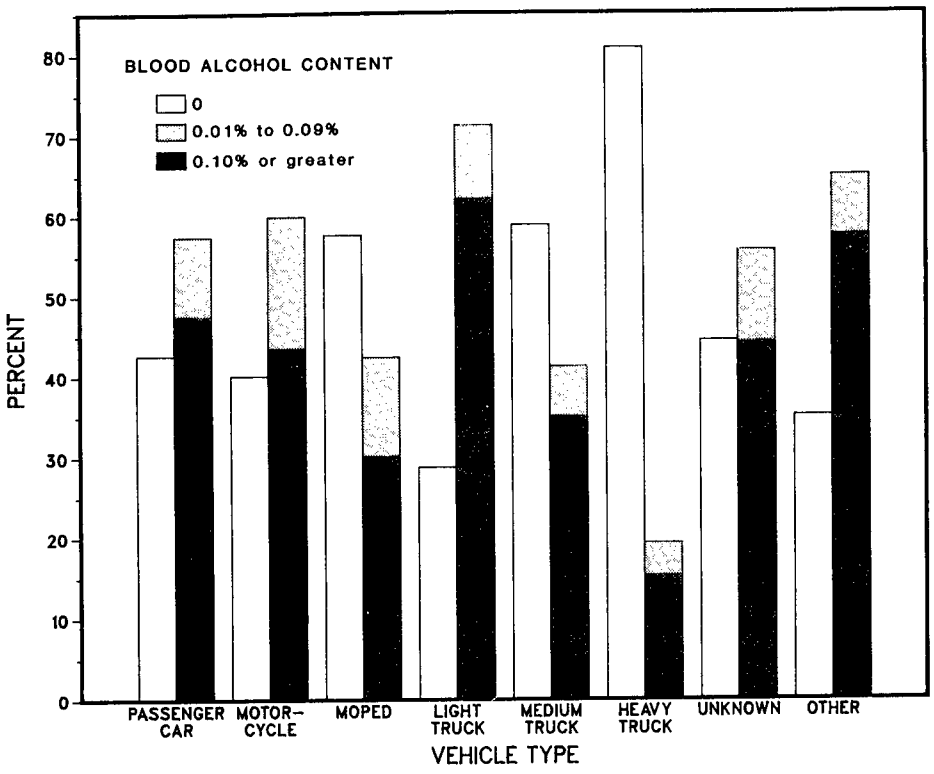
*The data in this section are based on information gathered in fifteen States (California, Colorado, Delaware, District of Columbia, Hawaii, Nevada, New Hampshire, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, Virginia, Washington and Wisconsin) that routinely test fatally injured drivers for the presence of alcohol.

Eighty to ninety percent of all fatally injured drivers in those states were tested. Generally, tests are not performed on drivers who died more than four hours after their accident, received blood transfusions or had other factors that would invalidate the results of tests to detect the presence or concentration of alcohol in their blood. The drivers tested and the states that routinely conduct those tests appear to provide an unbiased sample which can be used to make reasonably sound national estimates.

TABLE 30
AVERAGE BLOOD ALCOHOL CONTENT OF THOSE WITH POSITIVE BLOOD ALCOHOL
(All States)
1980-1982

	Average Blood Alcohol Content of those who were tested and had a blood alcohol content of at least 0.01%		
	1980	1981	1982
Drivers	.165	.164	.166
Pedestrians	.188	.195	.200

FIGURE 6
ALCOHOL TEST RESULTS OF FATALLY INJURED DRIVERS
BY VEHICLE TYPE
(15 States)



RESTRAINT USE

The presence of alcohol also was associated with a lower rate of safety belt use. Although few drivers (4.5 percent) were wearing safety belts when they were sober, drivers who had been drinking were virtually never (1.7 percent) wearing safety belts (Table 31).

DAY AND TIME

The pattern of alcohol involvement in fatal crashes was fairly consistent throughout the week. On any day of the week the lowest incidence of alcohol involvement was between dawn and noon when it began to increase until it peaked during late night and early morning hours. Relatively few accidents that occurred between dawn and noon during the week involved alcohol. This changed drastically on weekends when the incidence of alcohol involvement did not drop below 30 percent regardless of the hour. Although the greatest proportion of alcohol involvement among fatally injured drivers occurred in weekend accidents, the incidence of alcohol involvement varied less than fifteen percent in crashes that occurred during late night and early morning hours of any night of the week. During that period (Midnight to 4 a.m.)on any night of the week between 75 percent and 90 percent of all fatally injured drivers had been drinking (Figure 7).

AGE

In all age groups most of the fatally injured drivers who had been drinking would have been considered legally intoxicated in most states (Figure 8).

TABLE 31
RESTRAINT USAGE FOR ALCOHOL INVOLVED AND OTHER DRIVERS
(All States)
1980-1982

	1980	1981	1982
Percent of Alcohol Involved Drivers Restrained[2]	1.6	1.6	1.7
Percent of Other[1] Drivers Restrained[2]	3.8	3.9	4.5

[1]Includes drivers of unknown alcohol involvement

[2]Includes only drivers with known restraint usage. Unknown restraint usage varies by file, by year and by State. Unknowns were included in the **not restrained** group.

FIGURE 7
ALCOHOL TEST RESULTS OF FATALLY INJURED DRIVERS
BY TIME OF DAY
(15 States)

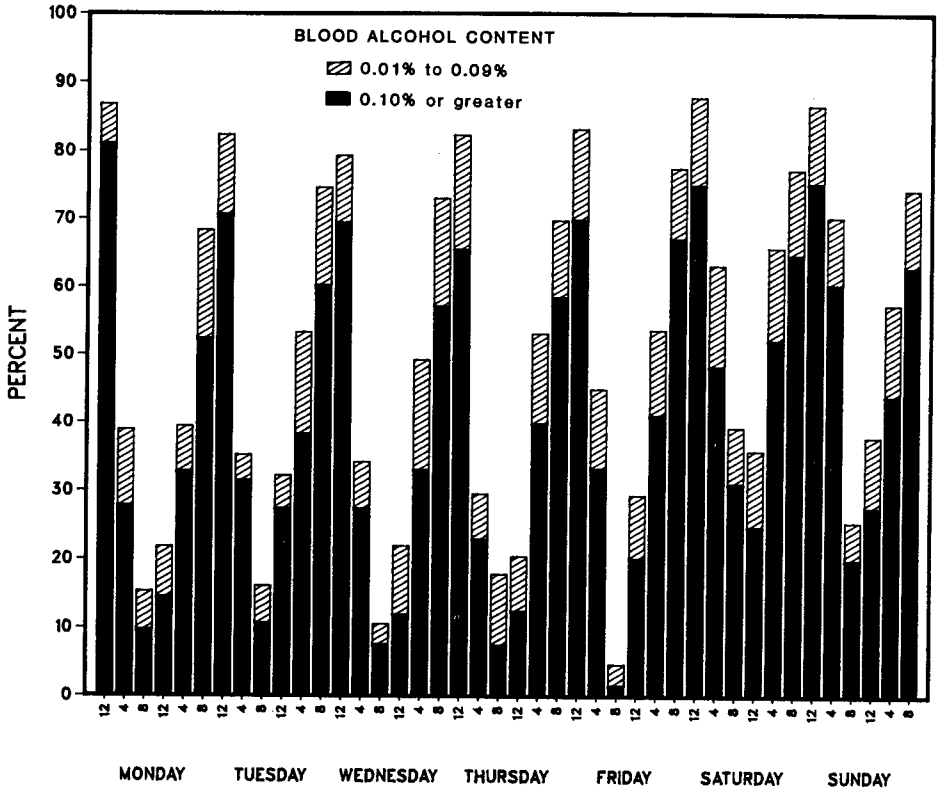


FIGURE 8
ALCOHOL TEST RESULTS OF FATALLY INJURED DRIVERS BY AGE
(15 States)

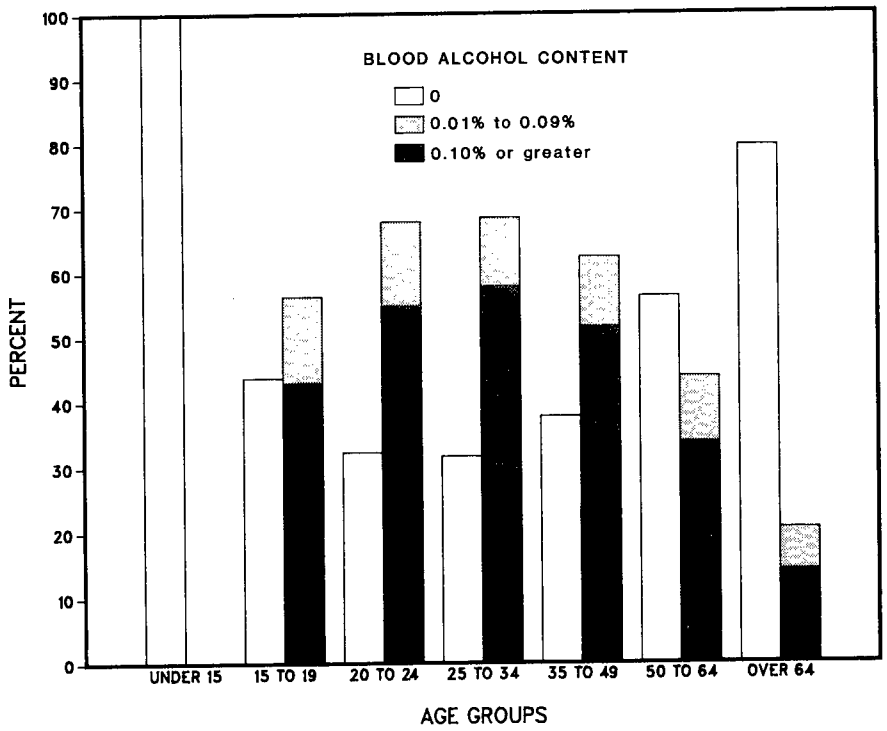
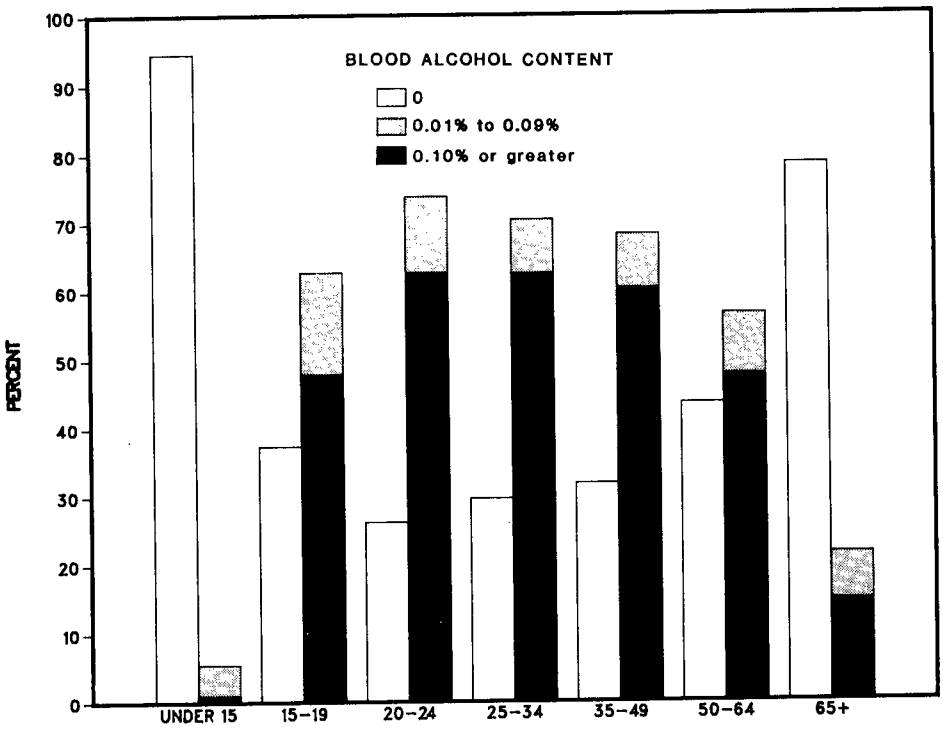


FIGURE 9
PEDESTRIAN FATALITIES WITH KNOWN ALCOHOL TEST RESULTS BY AGE
(15 States)



NOTE: 40 PEDESTRIAN FATALITIES OF UNKNOWN AGE

SAFETY BELTS

Few U.S. motorists take advantage of the lifesaving and injury reduction potential of safety belts. Only about 3.3 percent of the 58,643 automobile occupants involved in fatal accidents were known to be wearing safety belts. Although only a small number of cars are equipped with automatic belt systems, data indicate that a significant proportion of people had taken active measures to circumvent those systems (Table 32). Nonetheless, analysis of FARS data for the last eight years shows that the fatality rate in Volkswagen Rabbits with automatic belts is significantly lower than in Rabbits with manual safety belts.

Automobile drivers were more likely than passengers to have been wearing safety belts (Table 33). Front seat occupants were more likely than rear seat occupants to have been wearing safety belts (Table 33).

TABLE 32
RESTRAINT USED BY PASSENGER CAR OCCUPANTS
(58,643)

	Driver		Passenger		Unknown Occupant		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Shoulder Belt	53	.2	28	.1			81	.1
Lap Belt	356	1.1	224	.9			580	1.0
Lap & Shoulder Belt	714	2.1	282	1.1			996	1.7
Child Safety Seat			129	.5			129	.2
Unknown Manual Restraint	99	.3	56	.2			155	.3
Automatic Belt Used	5	.0	3	.0			8	.0
Automatic Belt Not Used	9	.0	3	.0			12	.0
Airbag Deployed	1	.0					1	.0
Airbag Not Deployed	1	.0					1	.0
Unknown	7,675	22.7	5,002	20.2	41	40.2	12,718	21.7
None used	24,851	73.6	19,072	76.9	61	59.8	43,984	75.0
Total	33,748	100.0	24,793	100.0	102	100.0	58,643	100.0

TABLE 33
INJURY SEVERITY AND RESTRAINT USE BY OCCUPANTS
(58,643)

	Restraint Used			No Restraint Used			Unknown			
	Front Seat	Other Seat	Unknown	Front Seat	Other Seat	Unknown	Front Seat	Other Seat	Unknown	Total
DRIVER										
Total	**1,222**			**24,847**		**4**	**7,673**		**2**	**33,748**
Percent	**3.6**			**73.6**		**.0**	**22.7**		**.0**	**100.0**
No Injury	367			5,212		1	2,342			7,922
Percent	4.6			65.8		.0	29.6			100.0
Possible Injury	107			1,048		1	313			1,469
Percent	7.3			71.3		.1	21.3			100.0
Non-Incapacitating Evident Injury	180			2,568			835			3,583
Percent	5.0			71.7			23.3			100.0
Incapacitating Injury	181			4,028		1	943			5,153
Percent	3.5			78.2		.0	18.3			100.0
Fatal Injury	383			11,867		1	2,971			15,222
Percent	2.5			78.0		.0	19.5			100.0
Unknown	4			124			269		2	399
Percent	1.0			31.1			67.4		.5	100.0

TABLE 33 (continued)
INJURY SEVERITY AND RESTRAINT USE BY OCCUPANTS
(58,643)

	Restraint Used			No Restraint Used			Unknown			
	Front Seat	Other Seat	Unknown	Front Seat	Other Seat	Unknown	Front Seat	Other Seat	Unknown	Total
PASSENGER										
Total	**491**	**225**	**3**	**12,051**	**6,366**	**655**	**2,877**	**1,349**	**776**	**24,793**
Percent	**2.0**	**.9**	**.0**	**48.6**	**25.7**	**2.6**	**11.6**	**5.4**	**3.1**	**100.0**
No Injury	112	54		1,607	1,000	35	564	247	220	3,839
Percent	2.9	1.4		41.9	26.0	.9	14.7	6.4	5.7	100.0
Possible Injury	37	19		698	486	34	180	133	53	1,640
Percent	2.3	1.2		42.6	29.6	2.1	11.0	8.1	3.2	100.0
Non-Incapacitating Evident Injury	83	45	2	1,901	1,276	94	508	297	147	4,353
Percent	1.9	1.0	.0	43.7	29.3	2.2	11.7	6.8	3.4	100.0
Incapacitating Injury	104	56		3,287	2,047	243	617	387	192	6,933
Percent	1.5	.8		47.4	29.5	3.5	8.9	5.6	2.8	100.0
Fatal Injury	153	47	1	4,469	1,502	230	985	271	158	7,816
Percent	2.0	.6	.0	57.2	19.2	2.9	12.6	3.5	2.0	100.0
Unknown	2	4		89	55	19	23	14	6	212
Percent	.9	1.9		42.0	25.9	9.0	10.8	6.6	2.8	100.0
UNKNOWN										
Total				**4**	**5**	**52**	**2**		**39**	**102**
Percent				**3.9**	**4.9**	**51.0**	**2.0**		**38.2**	**100.0**
No Injury				1		1				2
Percent				50.0		50.0				100.0
Possible Injury					1				1	2
Percent					50.0				50.0	100.0
Non-Incapacitating Evident Injury				1		3			3	7
Percent				14.3		42.9			42.9	100.0
Incapacitating Injury					2	17			11	30
Percent					6.7	56.7			36.7	100.0
Fatal Injury				2	2	31	2		23	60
Percent				3.3	3.3	51.7	3.3		38.3	100.0
Unknown									1	1
Percent									100.0	100.0
ALL OCCUPANTS										
Total	**1,713**	**225**	**3**	**36,902**	**6,371**	**711**	**10,552**	**1,349**	**817**	**58,643**
Percent	**2.9**	**.4**	**.0**	**62.9**	**10.9**	**1.2**	**18.0**	**2.3**	**1.4**	**100.0**
No Injury	479	54		6,820	1,000	37	2,906	247	220	11,763
Percent	4.1	.5		58.0	8.5	.3	24.7	2.1	1.9	100.0
Possible Injury	144	19		1,746	487	35	493	133	54	3,111
Percent	4.6	.6		56.1	15.7	1.1	15.8	4.3	1.7	100.0
Non Incapacitating Evident Injury	263	45	2	4,470	1,276	97	1,343	297	150	7,943
Percent	3.3	.6	.0	56.3	16.1	1.2	16.9	3.7	1.9	100.0
Incapacitating Injury	285	56		7,315	2,049	261	1,560	387	203	12,116
Percent	2.4	.5		60.4	16.9	2.2	12.9	3.2	1.7	100.0
Fatal Injury	536	47	1	16,338	1,504	262	3,958	271	181	23,098
Percent	2.3	.2	.0	70.7	6.5	1.1	17.1	1.2	.8	100.0
Unknown	6	4		213	55	19	292	14	9	612
Percent	1.0	.7		34.8	9.0	3.1	47.7	2.3	1.5	100.0

The advantages of wearing safety belts become apparent when the injuries of those involved in fatal accidents who were wearing them are compared to the injuries of those who were not. People wearing safety belts were more likely to escape injury and much less likely to receive incapacitating or fatal injuries (Figure 10 and Table 33).

Infants were more than three times more likely to be protected by restraints than other occupants, probably the result of child restraint laws recently enacted in many states. More than 10 percent of children under age five were protected by restraints, a 2 percent increase from 1981. Restraint use by older occupants was 2.1 percent for those between 5 and 14 years of age and 3.3 percent for those 15 and older, up slightly from 1981 (Table 34).

FIGURE 10
INJURY SEVERITY OF PASSENGER CAR OCCUPANTS IN FATAL ACCIDENTS

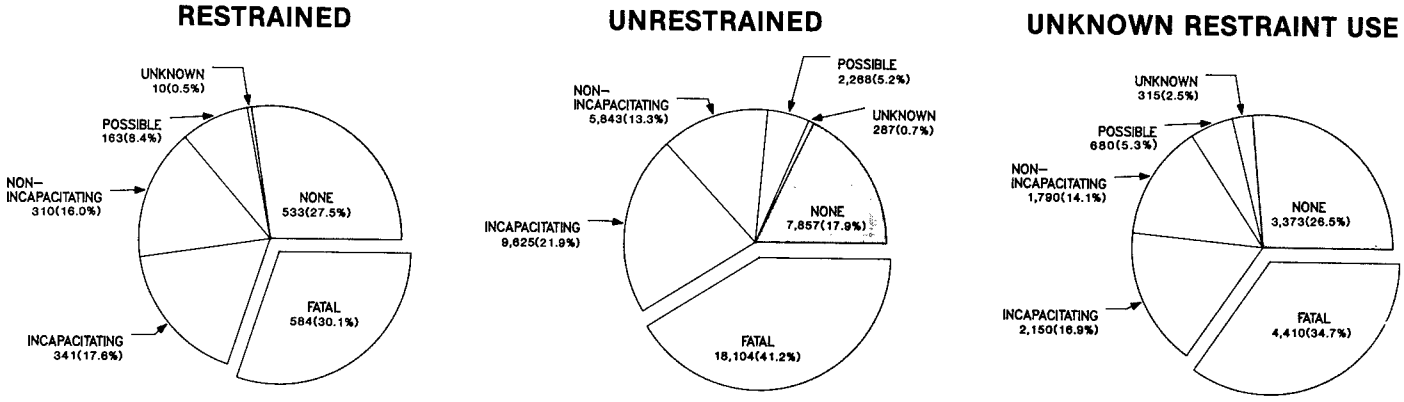


TABLE 34
PASSENGER CAR OCCUPANT RESTRAINT USE BY AGE

	4 or Less		5 - 14		15 or More		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Manual Restraint System										
Restraint Used	185	10.4	60	2.1	1,689	3.2	7	.5	1,941	3.3
No Restraint Used	1,300	73.1	2,220	76.8	39,929	75.8	535	41.3	43,984	75.0
Unknown	292	16.4	611	21.1	11,040	21.0	753	58.1	12,718	21.6
Automatic Restraint System										
Restraint in Use or Deployed	2	.1			7				9	
Restraint Not in Use or Not Deployed					13				13	
Total	1,779	100.0	2,891	100.0	52,678	100.0	1,295	100.0	58,643	100.0

People protected by restraints were much less likely to have been thrown from their vehicles than those who were not protected by restraints. Of the 7,323 people who were fully or partially ejected from their vehicles, only 41, less than one percent, had been restrained (Table 35 and Table 36).

Restraint use in light and medium trucks was lower than in passenger cars. Restraint use in heavy trucks, special vehicles and buses was higher than in passenger cars (Table 38).

TABLE 35
EJECTION, RESTRAINT, AND IMPACT POINT
(58,643)

	Total		Not Ejected		Totally Ejected		Partially Ejected		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
RESTRAINT USED										
Noncollision	86	.1	81	.2	3	.0	2	.2		
Frontal	1,094	1.9	1,074	2.1	9	.1	11	1.0		
Right Side	248	.4	240	.5	2	.0	6	.5		
Rear	140	.2	137	.3	2	.0	1	.1		
Left Side	196	.3	194	.4	1	.0	1	.1		
Top	66	.1	65	.1			1	.1		
Undercarriage	25	.0	24	.0			1	.1		
Underride	2	.0	2	.0						
Unknown	84	.1	65	.1	1				18	
Total	**1,941**	**3.3**	**1,882**	**3.8**	**18**	**.3**	**23**	**2.0**	**18**	**1.6**
RESTRAINT NOT USED										
Noncollision	2,806	4.8	1,484	3.0	1,174	19.0	115	10.2	33	2.9
Frontal	24,170	41.2	22,111	44.1	1,602	25.9	407	36.0	50	4.3
Right Side	5,361	9.1	4,571	9.1	632	10.2	140	12.4	18	1.6
Rear	1,844	3.1	1,595	3.2	212	3.4	29	2.6	8	.7
Left Side	4,771	8.1	4,129	8.2	533	8.6	94	8.3	15	1.3
Top	1,841	3.1	1,181	2.4	550	8.9	101	8.9	9	.8
Undercarraige	322	.5	270	.5	43	.7	8	.7	1	.1
Underride	142	.2	132	.3	10	.2				
Override	7	.0	7	.0						
Unknown	2,720	4.6	1,611	3.2	271	4.4	74	6.5	764	66.3
Total	**43,984**	**75.0**	**37,091**	**73.9**	**5,027**	**81.2**	**968**	**85.7**	**898**	**78.0**
UNKNOWN RESTRAINT USE										
Noncollision	521	.9	283	.6	227		4		7	
Frontal	7,611	13.0	6,979	13.9	435		77		120	
Right Side	1,557	2.7	1,346	2.7	170		21		20	
Rear	724	1.2	644	1.3	65		5		10	
Left Side	1,486	2.5	1,301	2.6	137		18		30	
Top	261	.4	204	.4	46		5		6	
Undercarriage	293	.5	222	.4	58		6		7	
Underride	41	.1	39	.1			1		1	
Override	1	.0	1	.0						
Unknown	223	.4	176	.4	10		2		35	
Total	**12,718**	**21.7**	**11,195**	**22.3**	**1,148**		**139**		**236**	
Total	**58,643**	**100.0**	**50,168**	**100.0**	**6,193**	**100.0**	**1,130**	**100.0**	**1,152**	**100.0**

TABLE 36
EJECTION AND IMPACT POINT BY RESTRAINT TYPE FOR RESTRAINED PASSENGERS

Restraint Type	Principal Impact	Not Ejected	Totally Ejected	Partially Ejected	Unknown	Total
	Frontal	54	1	1		56
	Right Side	6		1		7
	Rear	3				3
Shoulder Belt	Left Side	4		1		5
	Undercarriage	4				4
	Unknown	2				2
	Other	4				4
	Total	**77**	**1**	**3**		**81**
	Frontal	323		4		327
	Right Side	74		1		75
	Rear	39	1	1		41
Lap Belt	Left Side	66				66
	Top	27		1		28
	Undercarriage	9				9
	Unknown	5				5
	Other	26	1	2		29
	Total	**569**	**2**	**9**		**580**
	Frontal	545	4	5		554
	Right Side	114		3		117
	Rear	86	1			87
Lap & Shoulder Belt	Left Side	95	1			96
	Top	32				32
	Undercarriage	7		1		8
	Under Ride	1				1
	Unknown	55			16	71
	Other	30				30
	Total	**965**	**6**	**9**	**16**	**996**
	Frontal	65	1			26
	Right Side	23	2	1		6
	Rear	6				15
Child Safety Seat	Left Side	15				3
	Top	3				1
	Undercarriage	1				6
	Unknown	3	1		2	6
	Other	4	2			
	Total	**120**	**6**	**1**	**2**	**129**
	Frontal	87	3	1		91
	Right Side	23				23
	Rear	3				3
Manual Restraint	Left Side	14				14
Type Unspecified	Top	3				3
	Undercarriage	3				3
	Under Ride	1				1
	Other	17				17
	Total	**151**	**3**	**1**		**155**
Automatic Belt	Frontal	6				6
in Use	Other	2				2
	Total	**8**				**8**
Deployed Airbag	Frontal	1				1
	Total	**1**				**1**
Total		**1,891**	**18**	**23**	**18**	**1,950**

TABLE 37
NUMBER OF OCCUPANTS AND OCCUPANT FATALITIES BY EJECTION AND VEHICLE TYPE
(86,833)

	Not Ejected		Totally Ejected		Partially Ejected		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Cars										
Occupants	50,168	68.4	6,193	60.9	1,130	67.1	1,152	69.4	58,643	67.5
Fatalities	17,064	23.2	4,498	44.2	920	54.6	616	37.1	23,098	26.6
Light Trucks										
Occupants	13,839	18.9	2,623	25.8	383	22.7	288	17.3	17,133	19.7
Fatalities	3,371	4.6	1,758	17.3	315	18.7	109	6.6	5,553	6.4
Medium Trucks										
Occupants	815	1.1	59	.6	13	.8	9	.5	896	1.0
Fatalities	96	.1	44	.4	9	.5	6	.4	155	.2
Heavy Trucks										
Occupants	4,165	5.7	296	2.9	56	3.3	33	2.0	4,550	5.2
Fatalities	485	.7	226	2.2	50	3.0	18	1.1	779	.9
Special Vehicles										
Occupants	1,774	2.4	834	8.2	62	3.7	63	3.8	2,733	3.1
Fatalities	429	.6	500	4.9	46	2.7	26	1.6	1,001	1.2
Buses										
Occupants	915	1.2	8	.1	2	.1			925	1.1
Fatalities	28	.0	5	.0	2	.1			35	.0
Unknown										
Occupants	1,724	2.4	161	1.6	38	2.3	118	7.1	2,041	2.4
Fatalities	342	.5	104	1.0	24	1.4	52	3.1	522	.6
Total	73,317	100.0	10,171	100.0	1,684	100.0	1,661	100.0	86,833	100.0

TABLE 38
RESTRAINT USE BY VEHICLE TYPE FOR NON PASSENGER CAR OCCUPANTS AND FATALITIES
(28,278)

	Light Trucks	Medium Trucks	Heavy Trucks	Special Vehicles	Buses	Unknown
Restraint not Used						
Total	**13,254**	**653**	**3,442**	**2,080**	**605**	**1,231**
Percent	77.4	72.9	75.6	76.1	65.4	60.3
Fatalities	4,585	129	637	798	28	405
Percent	26.8	14.4	14.0	29.2	3.0	19.8
Restraint Used						
Total	**320**	**21**	**234**	**144**	**50**	**60**
Percent	1.9	2.3	5.1	5.3	5.4	2.9
Fatalities	55	3	11	45		14
Percent	.3	.3	.2	1.6		.7
Restraint Use Unknown						
Total	**3,559**	**222**	**874**	**499**	**269**	**676**
Percent	20.8	24.8	19.2	18.3	29.1	33.1
Fatalities	913	23	131	151	6	50
Percent	5.3	2.6	2.9	5.5	.6	2.4
Other						
Total				**10**	**1**	**74**
Percent				.4	.1	3.6
Fatalities				7	1	53
Percent				.3	.1	2.6
Total	**17,133**	**896**	**4,550**	**2,733**	**925**	**2,041**
Percent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

III. Fatality Profile 1982

During 1982, 43,721 men, women, and children died in motor vehicle traffic accidents. That's almost 120 people per day, 15 fewer people per day than in 1981. Although this represents an 11.3 percent decline from the 1981 death toll of 49,301, and a 14 percent drop from the 1980 death toll of 51,091 it still means that someone died on the Nation's highways an average of every 12.5 minutes throughout the year. Stated another way, more than 47 percent of all accidental deaths in the U.S. during 1982 occurred on the Nation's highways.

A profile of the characteristics of 1982 fatalities is shown in Figures 11 through 15:

- o As in previous years, more fatalities occurred in rural areas than in urban areas (Figure 11).
- o Accidents on arterials accounted for almost half of all fatalities (Figure 12). For every traffic fatality that occurred on the Interstate System, five people died on arterials.
- o Most deaths resulted from accidents that occurred during normal weather conditions (Figure 13), with only 14.1 percent of them associated with inclement weather.

FIGURE 11
DISTRIBUTION OF FATALITIES BY LAND USE
(43,721)

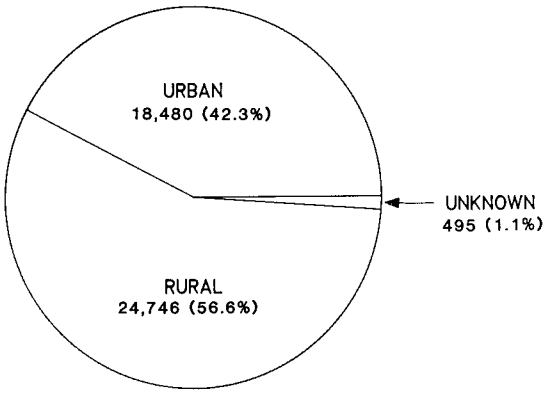
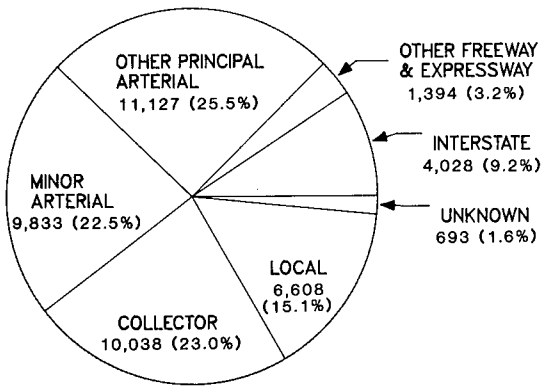


FIGURE 12
DISTRIBUTION OF FATALITIES BY ROADWAY FUNCTION CLASS
(43,721)



- Passenger car occupants, while accounting for more than half of all fatalities (Figure 14), declined 13 percent from 1981. Pedestrian fatalities accounting for the second largest share (16.6 percent), declined only 7 percent.

- Most people killed in 1982 accidents were drivers--56.3 percent, down 12.7 percent from 1981. Passengers accounted for the next largest share--almost one quarter (Figure 15), down 10.3 percent from 1981.

- Head on and angle crashes account for 78.7 percent of fatalities in multi-vehicle crashes.

FIGURE 13
DISTRIBUTION OF FATALITIES BY ATMOSPHERIC CONDITION
(43,721)

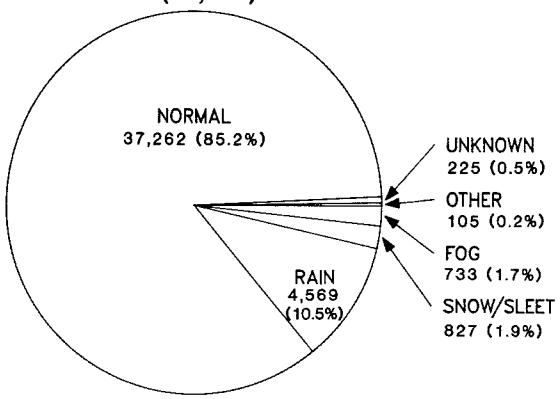


FIGURE 14
DISTRIBUTION OF FATALITIES BY VEHICLE TYPE
(43,721)

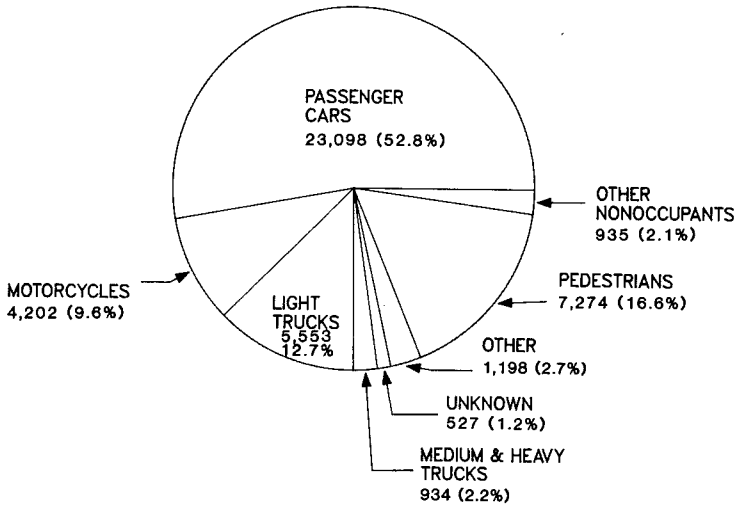


FIGURE 15
DISTRIBUTION OF FATALITIES BY PERSON TYPE
(43,721)

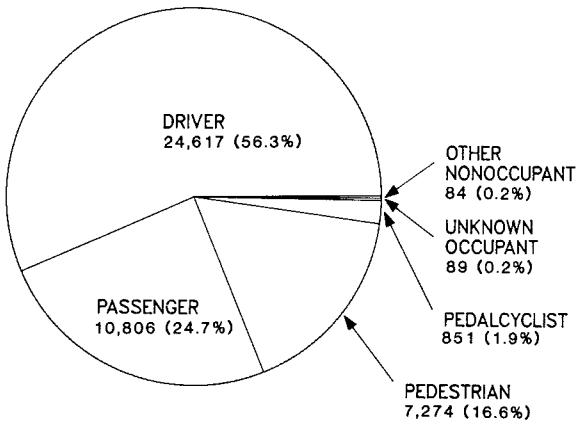


FIGURE 16
DISTRIBUTION OF FATALITIES BY FIRST HARMFUL EVENT
(25,332)

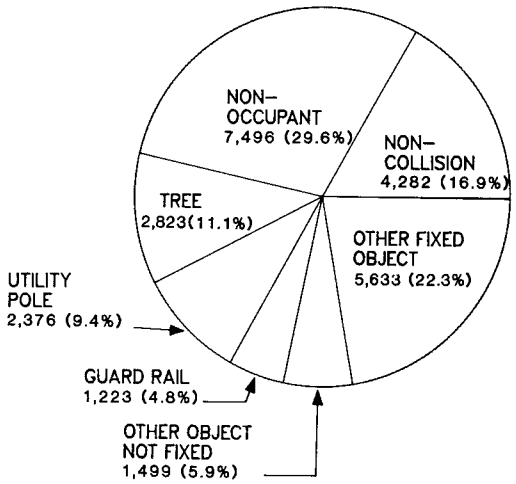
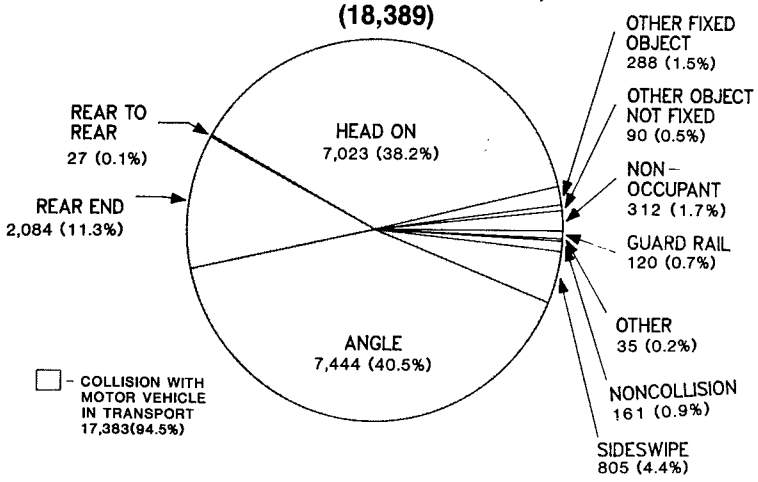


FIGURE 17
DISTRIBUTION OF FATALITIES BY FIRST HARMFUL EVENT AND MANNER OF COLLISION
(Multi-Vehicle Accidents)
(18,389)



Ninety percent of the 38,899 fatal accidents in 1982 resulted in a single death each (Figure 18). Rarely were more than three people killed in an accident. Such multiple-death accidents accounted for only 1,017 (2.6 percent) of all the occupants killed and only 12 (0.1 percent) of all the nonoccupants killed. Overall, an average of 1.12 deaths resulted from each 1982 fatal accident, the same as in 1981.

Comparisons across several years are best made using fatality rates based on exposure data such as the amount of motor vehicle travel. Vehicle miles of travel (VMT), the number of driver licenses in force, and vehicle registration data were obtained from the Federal Highway Administration (FHWA) for this purpose. In Table 39 rates are computed per 100 million VMT, per 1,000 licenses, and per 1,000 registered vehicles for each year from 1977 to 1982.

Steady annual increases in total deaths coincided with continued increases in VMT each year through 1979. However, in 1979 and 1980 fatalities remained almost constant, although VMT decreased. Thus, the rate of deaths per miles driven **increased.** In 1981 this trend reversed: vehicle miles travelled began to increase while the number of people killed began to drop. The fatality rate declined 6.5 percent from 1980 to 1981 then accelerated to a 13 percent decrease from 1981 to 1982. From 1980 to 1982, the rate decreased by 18.6 percent to a record low of 2.75 deaths per 100 million VMT.

The rate of fatalities per 1,000 licenses in force increased in 1977 and 1978 declined in general for 1979, 1980, and 1981, then dropped dramatically in 1982. This was also the case for the fatality rate per 1,000 registered vehicles.

TABLE 39
FATALITY RATES

	1977	1978	1979	1980	1981	1982
Number of Fatal Accidents	42,211	44,433	45,223	45,284	44,000	38,899
Number of Traffic Fatalities	47,878	50,331	51,093	51,091	49,301	43,721
Vehicle Miles Traveled (100 Million)	14,670	15,447	15,291	15,106	15,550	15,924
Licensed Drivers (1,000)	138,120	140,840	143,280	145,970	147,970	150,310
Registered Vehicles (1,000)	147,262	153,637	159,621	164,852	165,732	165,253
Fatalities Per 100 Million Vehicle Miles	3.26	3.26	3.34	3.38	3.17	2.75
Annual Percentage Change in Fatalities Per 100 Million Vehicle Miles Traveled	+0.3	0.0	+2.4	+1.2	-6.5	-13.0
Fatalities Per 1,000 Licensed Drivers	0.347	0.357	0.356	0.350	0.332	0.291
Annual Percentage Change in Fatalities Per 1,000 Licensed Drivers	+2.1	+2.9	-0.3	-1.7	-4.9	-12.3
Fatalities Per 1,000 Registered Vehicles	0.325	0.328	0.320	0.310	0.297	0.265
Annual Percentage Change in Fatalities Per 1,000 Registered Vehicles	+2.5	+0.9	-2.4	-3.1	-4.1	-10.8

FATAL ACCIDENT CHARACTERISTICS

During the year, 92,237 people were occupants of vehicles involved in fatal accidents. Of these occupants, 60.5 percent were drivers; 44.1 percent of these drivers were killed, a fatality rate virtually unchanged from 1981. Of all the involved passengers, 29.7 percent were killed.

More than half of these passengers were younger than 25, and 61.4 percent of all drivers killed were younger than 35 (Table 9). The percentage of young people, 15-24 years old, among all people killed in motor vehicle accidents in 1982 was nearly double that age group's representation in the national population (Figure 19). People 15-34 years old accounted for more than half of all fatalities although they constitute only slightly more than a third of the population.

Differences in the frequency of fatal accidents in different time segments are the result of a variety of factors, and the influence of these factors shift as the time interval under consideration is changed. For example, it is probable that VMT has a significant influence on seasonal distribution of fatalities. But this influence probably diminishes and the influence of driver attentiveness probably increases when considering variations among the six 4-hour periods of the day: more drivers are likely to become drowsy or to be under the influence of alcohol at night than during daylight hours. Consequently these factors may play a larger role than does VMT in the frequency of accidents during the very late and early hours of the day. It is important to consider the varying effect of such factors when viewing the remaining figures and tables of this chapter.

FIGURE 18
NUMBER OF FATALITIES PER FATAL ACCIDENT
(43,721)

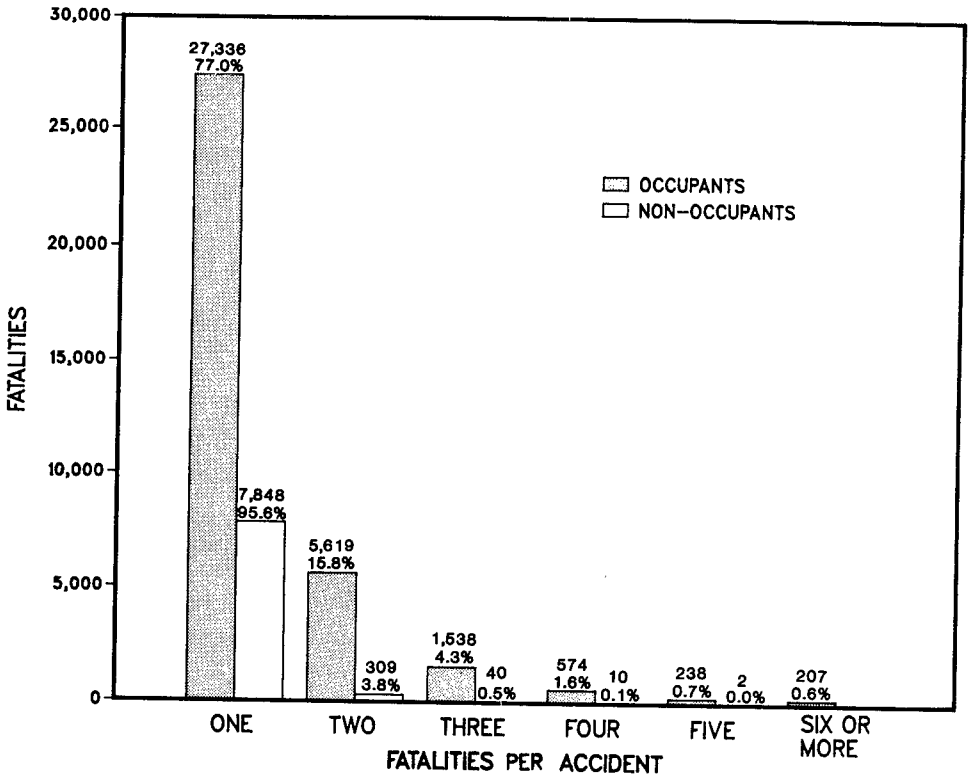
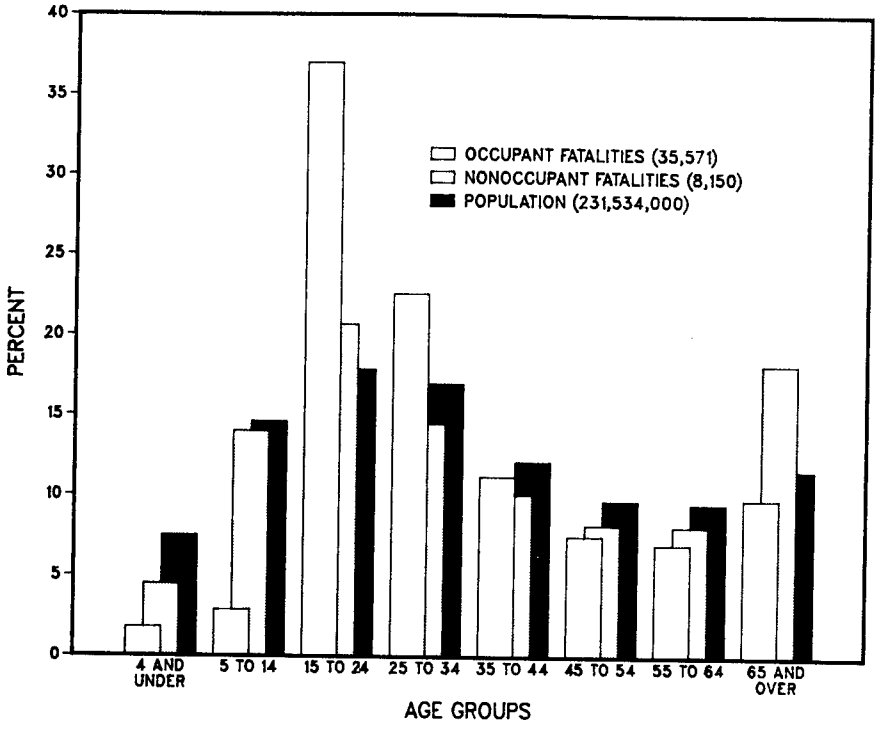


FIGURE 19
DISTRIBUTION OF U.S. POPULATION AND FATALITIES BY AGE



Source for population: U.S. Bureau of Census

NOTE: 241 Fatalities where Age was Unknown

As in previous years, the greatest number of fatalities in 1982 occurred in the summer. Nearly 40 percent more traffic deaths occurred during summer than during winter (Figure 20). About the same number of fatalities occurred during the spring and fall seasons. It is not known for certain that the seasonal fatality **rates** differed because exposure data (VMT) on a seasonal basis are not available.

Fatalities by month for 1982 and the monthly averages for 1981 (Figure 21) reflect the same seasonal variations. Fatalities increased dramatically after April, then decreased after August. The fatalities for motorcycle occupants was far more seasonal. Nonoccupant fatalities varied only slightly from month to month.

Several factors can influence these monthly changes from year to year: (a) the yearly increase or decrease in overall fatalities, (b) changes in the severity and duration of winter conditions, and (c) fuel shortages and economic conditions and their effects on driving habits and VMT. While the precise effect of each of these factors is not known, they should be considered when examining monthly fatalities.

FIGURE 20
SEASONAL DISTRIBUTION OF FATALITIES
(43,721)

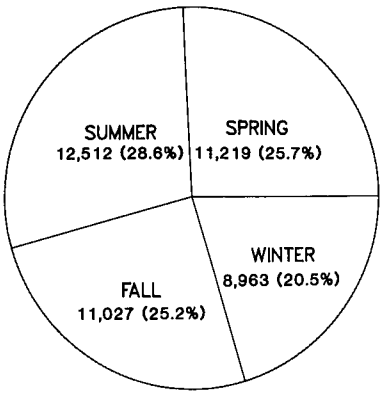
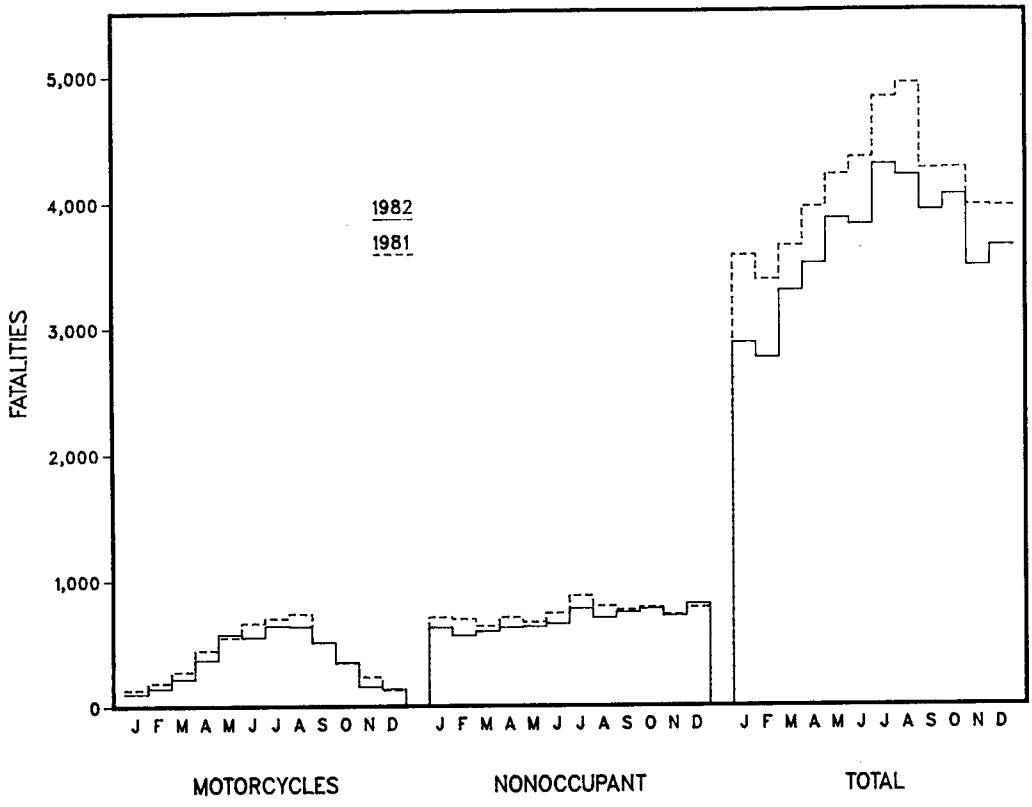


FIGURE 21
FATALITIES BY MONTH
(43,721)



As in previous years, Fridays, Saturdays, and Sundays accounted for more than half of all deaths (Figure 22).

On weekdays, the fewest deaths occurred between 4 a.m. and 8 a.m., and the largest percentage occurred between 4 p.m. and 8 p.m. (Figure 23). On weekends these highs and lows occurred at different times, but fatality counts began to climb in the late afternoon, and peaked during late night and early morning hours.

FIGURE 22
FATALITIES BY DAY OF WEEK
(43,721)

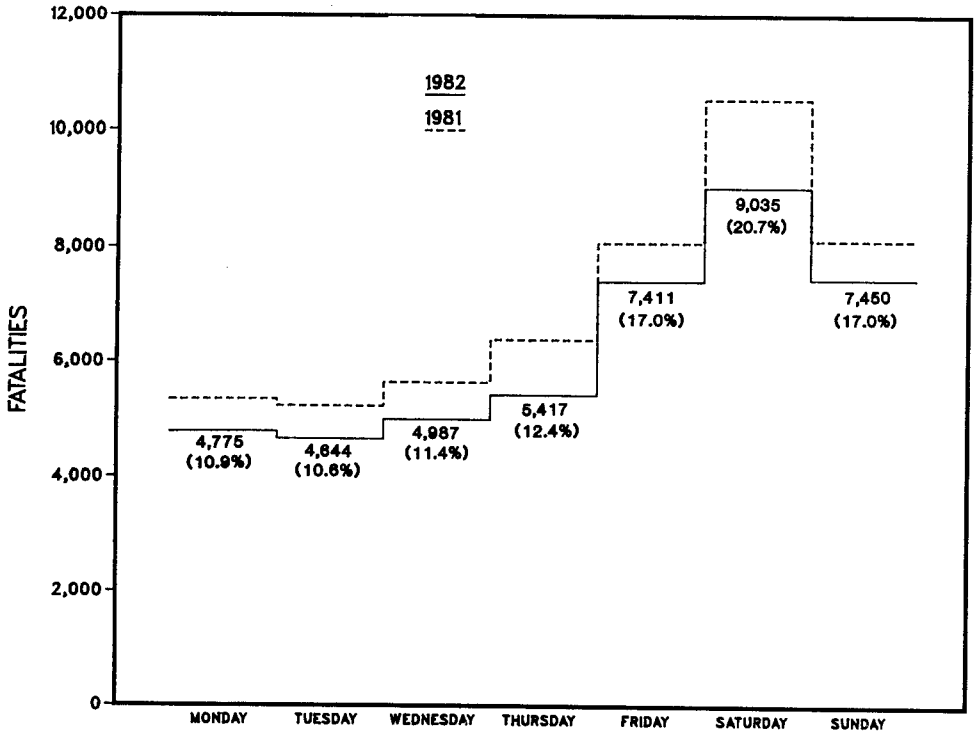
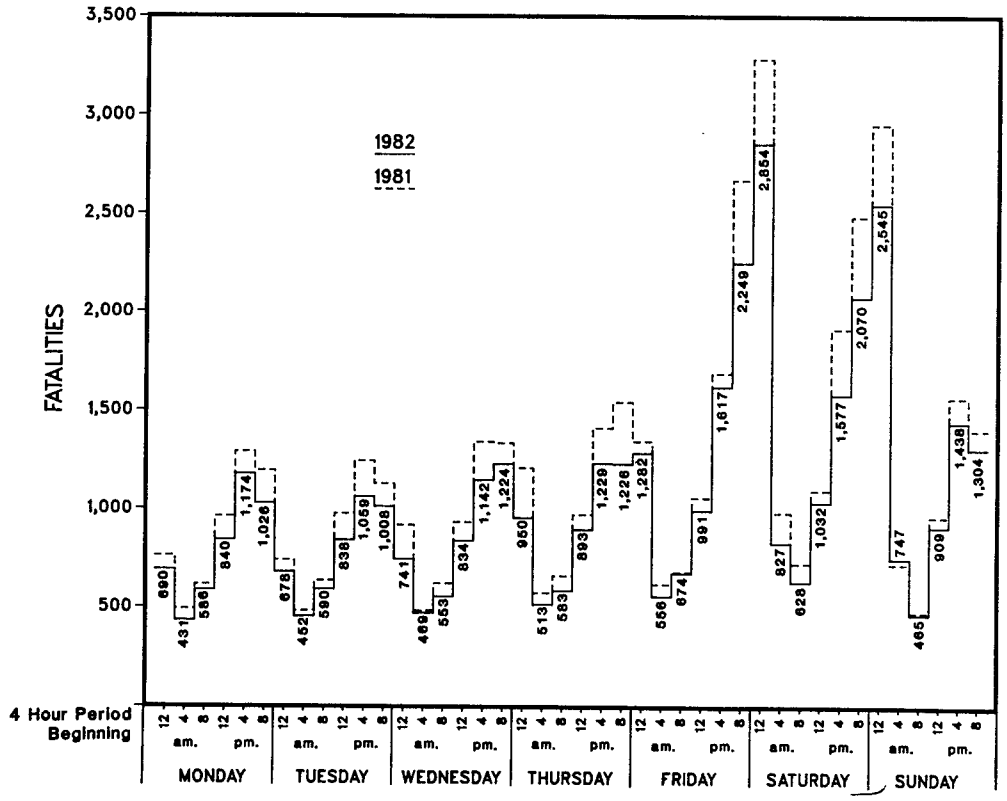


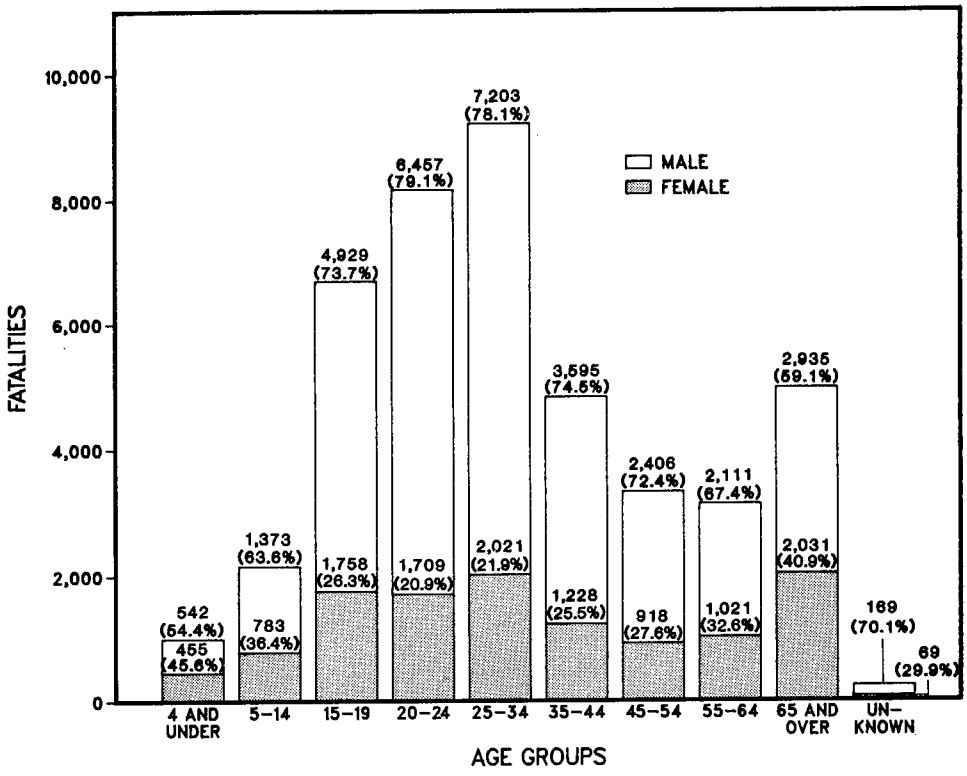
FIGURE 23
FATALITIES BY TIME OF DAY AND WEEK
(43,721)



Male fatalities dropped 11.6 percent, while female fatalities decreased only by 8.7 percent. The decrease in male fatalities ranged from a 15 percent drop for the 25-34 age group to only a 6.9 percent drop in the 35-44 age group. The greatest drop for females occurred in the 15-19 age group (down 14.6 percent), while women 65 years and older experienced only a 1.5 percent decline in fatalities. Part of these decreases reflected population shifts in age.

In 1982, as in prior years, males outnumbered females as fatal accident victims in every age group. Ages 15-34, of both sexes combined, accounted for more than half of all fatalities (55.1 percent), with males accounting for 76.6 percent and females 27.4 percent (Figure 24).

FIGURE 24
FATALITIES BY AGE AND SEX
(43,721)



NOTE: 8 Fatalities where Sex was Unknown

TABLE 40
DISTRIBUTION OF OCCUPANTS BY AGE

	All Occupants		Drivers		Passengers		Unknown	
	Involved	Fatalities	Involved	Fatalities	Involved	Fatalilties	Involved	Fatalities
4 or less	2,332	629			2,332	629		
Percent	2.5	1.8			6.4	5.8		
5-14	4,602	1,013	190	136	4,409	876	3	1
Percent	5.0	2.9	.3	.6	12.1	8.1	2.1	1.1
15-24	34,154	13,150	19,009	8,626	15,065	4,469	80	55
Percent	37.0	37.0	34.1	35.0	41.3	41.4	55.2	61.8
25-34	20,256	8,030	14,718	6,352	5,504	1,656	34	22
Percent	21.9	22.6	26.4	25.8	15.1	15.3	23.4	24.7
35-44	10,332	3,992	7,947	3,265	2,378	726	7	1
Percent	11.2	11.2	14.2	13.3	6.5	6.7	4.8	1.1
45-54	6,609	2,648	4,963	2,079	1,641	565	5	4
Percent	7.2	7.5	8.9	8.4	4.5	5.2	3.4	4.5
55-64	5,461	2,468	3,926	1,846	1,533	620	2	2
Percent	5.9	6.9	7.0	7.5	4.2	5.7	1.4	2.2
65 or Over	6,115	3,478	3,871	2,283	2,241	1,192	3	3
Percent	6.6	9.8	6.9	9.3	6.1	11.0	2.1	3.4
Unknown	2,496	104	1,145	30	1,340	73	11	1
Percent	2.7	.3	2.1	.1	3.7	.7	7.6	1.1
Total	92,357	35,512	55,769	24,617	36,443	10,806	145	89
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 41 lists the number of deaths that occurred on major holidays. The days selected for each holiday are those on which it was assumed most holiday travelers were on the road. The New Year's holiday includes deaths from accidents that occurred on December 31, 1982 and January 1, 1982.

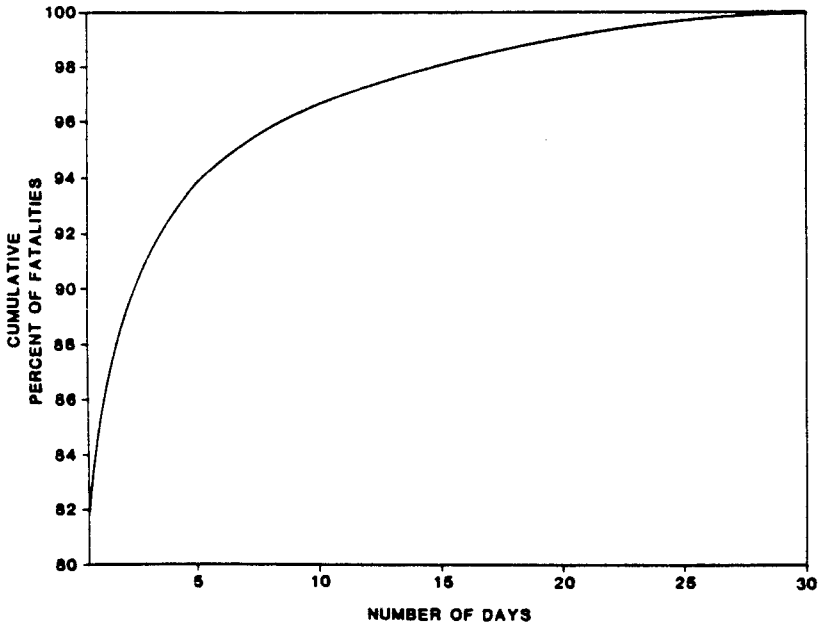
The days included in holiday periods accounted for 7.0 percent of all the deaths in 1982. The most fatal holiday was the 5-day Thanksgiving period (671 fatalities--1.5 percent of the year's total), followed by the 4-day periods around Labor Day (614 deaths), Independence Day (578 deaths), Memorial Day (482 deaths) and Christmas(458 deaths). By way of comparison, during a typical non-holiday 4-day period, Friday through Monday, an average of 552 fatalities (1.3 percent of the annual toll) occurred in 1982, a rate virtually unchanged from 1981.

Four of every five deaths (83.4 percent) that resulted from traffic accidents occurred on the same day as did the accident (Figure 25).

TABLE 41
1982 HOLIDAY FATALITIES

	Number	Percent of Total
New Year's Eve December 31, 1982	116	0.3
New Year's Day January 1, 1982	187	0.4
Memorial Day 6:00 p.m. May 28, 1982 to Midnight May 31, 1982	482	1.1
Fourth of July 6:00 p.m. July 2, 1982 to Midnight July 5, 1982	578	1.3
Labor Day 6:00 p.m. September 3, 1982 to Midnight September 6, 1982	614	1.4
Thanksgiving November 24, 1982 to November 28, 1982	671	1.5
Christmas December 24, 1982 to December 27, 1982	458	1.0
Total 1982 Fatalilties	43,721	100.0

FIGURE 25
NUMBER OF DAYS BETWEEN ACCIDENT AND FATALITY

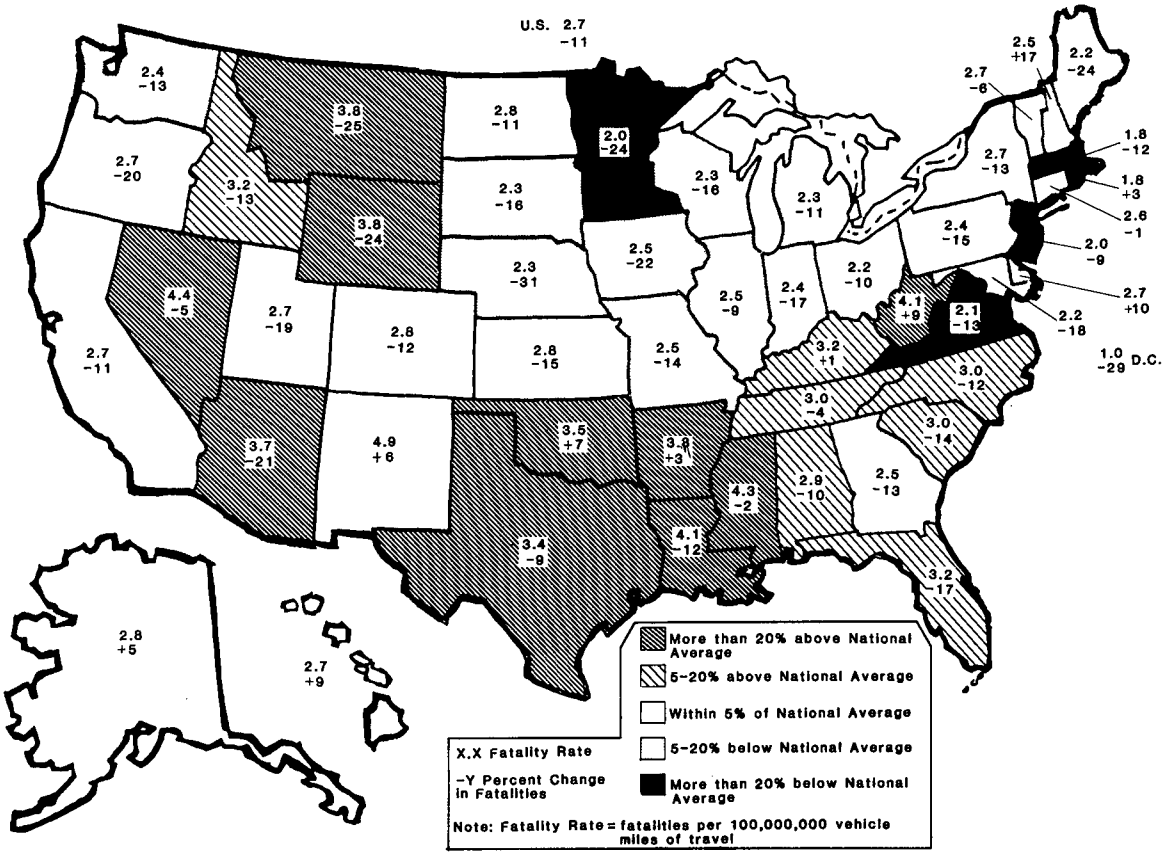


IV. State Statistics

During 1982 the Nation's fatality rate decreased from 3.17 to 2.75 deaths per 100 million vehicle miles of travel (VMT), a decrease of 13 percent from 1981. Of the 50 states, 41 experienced a rate decrease and 24 had decreases that exceeded the national average (Figure 26).* Table 43 lists state fatality rates for 1982, percent changes in the state-by-state death count from 1981 to 1982, and fatalities for the previous years. Generally, northern states had larger decreases than states on the east and west coasts. Southern states generally had only modest decreases.

As could be expected, the two most frequently reported first harmful events in fatal accidents were collisions with motor vehicles in transport and collisions with fixed objects (Table 42). This was true in most states.

FIGURE 26
1982 FATALITY RATE AND PERCENT CHANGE IN FATALITIES FROM 1981



*VMT by state are preliminary estimates made by FHWA.

Some notable exceptions were the high incidence of overturn among fatal accidents in the more sparsely populated and mountainous states of Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, the Dakotas, Utah, and Wyoming. In other areas (Arizona, Florida, New York and, most notably, the District of Columbia) collision with a pedestrian or pedalcyclist ranked as either the most frequent or second most frequent first harmful event in fatal accidents. In the District of Columbia such collisions with nonoccupants accounted for almost one-third (32.4 percent) of all fatal accidents.

TABLE 42
PERCENT OF FATAL ACCIDENTS BY FIRST HARMFUL EVENT
(38,899)

		Noncollision		Collision with				
State	Total	Overturn	Other	Pedestrian or Pedalcyclist	Motor Vehicle in Transport	Other Object not Fixed	Fixed Object	Unknown
Alabama	744	12.1	1.5	14.1	37.2	3.0	32.0	0.1
Alaska	96	14.6	2.1	15.6	41.7	5.2	20.8	
Arizona	636	19.0	1.4	24.5	34.9	2.4	17.5	0.3
Arkansas	478	13.6	2.1	15.1	39.3	4.6	25.3	
California	4,122	10.3	1.0	19.8	34.2	5.5	29.2	
Colorado	597	22.4	2.3	15.2	31.5	5.0	23.6	
Connecticut	464	6.0	.9	17.5	37.3	2.4	35.9	
Delaware	115	.9	1.7	21.7	36.5	.9	38.3	
District of Columbia	34	2.9	2.9	32.4	35.3	5.9	20.6	
Florida	2,300	6.9	2.7	30.4	39.4	1.8	18.8	
Georgia	1,097	8.1	1.7	15.9	40.7	3.4	30.2	
Hawaii	145	11.0	2.8	22.8	31.7	.7	31.0	
Idaho	212	22.2	.9	12.3	33.0	5.2	26.4	
Illinois	1,476	6.4	2.6	22.7	35.9	4.1	28.3	
Indiana	839	3.3	1.0	13.7	43.0	5.1	33.9	
Iowa	431	13.2	1.2	11.4	40.1	3.7	30.4	
Kansas	433	14.5	.5	10.6	43.9	4.2	26.3	
Kentucky	726	8.0	2.6	14.7	33.5	3.2	38.0	
Louisiana	962	3.3	1.5	24.8	39.4	2.6	28.4	
Maine	152	6.6	3.9	18.4	33.6	4.6	32.9	
Maryland	575	2.1	1.6	22.4	40.3	5.2	28.4	
Massachusetts	611	1.8	.8	24.2	30.8	1.8	40.6	
Michigan	1,257	7.2	1.4	20.6	40.7	4.1	25.9	0.1
Minnesota	508	15.4	1.2	15.4	46.1	3.0	18.9	
Mississippi	617	12.3	1.0	13.1	40.0	3.7	29.1	0.8
Missouri	785	9.8	1.3	13.1	37.8	5.1	32.9	
Montana	215	28.8	.9	8.8	31.2	4.2	26.1	
Nebraska	226	12.8	.9	11.9	45.1	5.8	23.5	
Nevada	248	19.8	2.8	19.8	27.0	2.8	27.8	
New Hampshire	154	9.1	1.9	15.6	35.1	.6	37.7	
New Jersey	965	1.8	.5	28.3	34.1	2.5	32.8	
New Mexico	489	25.8	1.2	20.2	30.5	4.7	17.6	
New York	1,963	4.1	1.1	31.7	30.4	4.1	28.6	
North Carolina	1,168	7.4	.9	21.5	35.3	3.3	31.5	0.1
North Dakota	128	16.4	.8	7.8	47.7	5.5	21.8	
Ohio	1,447	4.1	1.7	17.9	36.3	5.0	35.0	
Oklahoma	916	2.6	1.7	13.3	44.7	4.0	33.7	
Oregon	464	18.1	1.7	15.1	32.5	3.4	29.2	
Pennsylvania	1,531	4.1	.7	17.6	37.7	2.0	37.8	0.1
Rhode Island	97	2.1	2.1	25.8	27.8	5.2	37.0	
South Carolina	667	9.1	3.3	21.6	35.2	2.4	28.4	
South Dakota	129	18.6	.8	13.2	36.4	2.3	26.4	2.3
Tennessee	944	10.7	1.5	12.0	36.4	3.2	36.2	
Texas	3,699	11.5	1.8	19.8	38.5	5.3	23.1	
Utah	263	24.3	1.5	16.7	34.2	7.2	16.1	
Vermont	92	9.8	2.2	16.3	28.3	4.3	39.1	
Virginia	781	8.8	1.7	18.8	32.4	2.3	36.0	
Washington	671	16.2	1.9	15.4	34.0	3.4	29.1	
West Virginia	388	8.2	2.1	12.9	36.3	2.1	37.9	0.5
Wisconsin	669	6.6	1.8	14.3	44.1	3.9	29.3	
Wyoming	173	35.3	1.7	11.6	34.1	2.9	14.4	
Total	38,899	9.2	1.6	19.6	36.8	3.9	28.9	0.0

The reduction in traffic fatalities was not uniform throughout the nation. Some states had minor increases while others experienced decreases greater than 30 percent (Table 43). The northern part of the country experienced the largest reductions, followed by the adjacent states and the entire west coast. The gulf and southwestern states had the smallest reduction.

TABLE 43
FATALITIES FOR 1977-1982
PERCENT CHANGE 1980, 1981-1982
AND FATALITIES PER 100 MILLION VMT IN 1982

State	1977	1978	1979	1980	1981	1982	% Change in Fatalities 1980-1982	% Change in Fatalities 1981-1982	Fatalities Per 100 Million VMT
Alabama	1,081	1,142	998	940	933	839	-10.7	-10.1	2.9
Alaska	135	127	90	88	100	105	19.3	5.0	2.8
Arizona	933	1,027	1,029	947	917	724	-23.5	-21.0	3.7
Arkansas	551	571	548	588	536	550	-6.5	2.6	3.3
California	4,839	5,310	5,542	5,496	5,170	4,618	-16.0	-10.7	2.7
Colorado	694	694	691	709	755	667	-5.9	-11.7	2.8
Connecticut	441	452	568	575	518	515	-10.4	-.6	2.6
Delaware	119	125	118	153	111	122	-20.3	9.9	2.7
District of Columbia	58	49	44	41	49	35	-14.6	-28.6	1.0
Florida	2,021	2,235	2,593	2,825	3,044	2,536	-10.2	-16.7	3.2
Georgia	1,372	1,472	1,524	1,508	1,418	1,229	-18.5	-13.3	2.5
Hawaii	149	194	205	186	150	163	-12.4	8.7	2.7
Idaho	325	327	333	331	293	255	-23.0	-13.0	3.2
Illinois	2,126	2,140	2,017	1,975	1,821	1,652	-16.4	-9.3	2.5
Indiana	1,210	1,266	1,299	1,166	1,147	954	-18.2	-16.8	2.4
Iowa	628	638	655	626	613	480	-23.3	-21.7	2.5
Kansas	552	572	519	595	580	493	-17.1	-15.0	2.8
Kentucky	940	878	896	820	812	822	.2	1.2	3.2
Louisiana	990	1,079	1,195	1,219	1,233	1,091	-10.5	-11.5	4.1
Maine	213	237	236	265	219	167	-37.0	-23.7	2.2
Maryland	661	711	671	756	781	640	-15.3	-18.1	2.2
Massachusetts	744	861	917	881	746	655	-25.7	-12.2	1.8
Michigan	1,915	2,020	1,823	1,750	1,564	1,392	-20.5	-11.0	2.3
Minnesota	836	962	867	848	753	571	-32.7	-24.2	2.0
Mississippi	684	784	715	695	744	730	5.0	-1.9	4.3
Missouri	1,181	1,190	1,147	1,175	1,034	890	-24.3	-13.9	2.5
Montana	316	270	332	325	338	254	-21.8	-24.9	3.8
Nebraska	345	340	330	396	378	261	-34.1	-31.0	2.3
Nevada	251	305	354	346	294	280	-19.1	-4.8	4.4
New Hampshire	149	171	184	194	148	173	-10.8	16.9	2.5
New Jersey	1,082	1,124	1,142	1,120	1,162	1,061	-5.3	-8.7	2.0
New Mexico	668	669	633	606	544	577	-4.8	6.1	4.9
New York	2,336	2,436	2,396	2,610	2,487	2,160	-17.2	-13.1	2.7
North Carolina	1,428	1,492	1,527	1,503	1,475	1,303	-13.3	-11.7	3.0
North Dakota	175	181	128	151	166	148	-2.0	-10.8	2.8
Ohio	1,835	2,047	2,281	2,033	1,776	1,607	-21.0	-9.5	2.2
Oklahoma	852	901	853	959	989	1,054	9.9	6.6	3.5
Oregon	657	708	676	646	645	518	-19.8	-19.7	2.7
Pennsylvania	2,067	2,081	2,153	2,089	2,029	1,733	-17.0	-14.6	2.4
Rhode Island	133	108	123	129	102	105	-18.6	2.9	1.8
South Carolina	927	883	900	852	845	730	-14.3	-13.6	3.0
South Dakota	208	191	211	228	177	148	-35.1	-16.4	2.3
Tennessee	1,223	1,241	1,210	1,153	1,104	1,055	-8.5	-4.4	3.0
Texas	3,635	3,914	4,168	4,366	4,623	4,213	-3.5	-8.9	3.4
Utah	355	370	321	334	364	295	-11.7	-19.0	2.7
Vermont	116	119	159	137	114	107	-21.9	-6.1	2.7
Virginia	1,118	1,063	1,016	1,045	1,011	879	-15.9	-13.1	2.1
Washington	912	985	1,015	971	862	748	-23.0	-13.2	2.4
West Virginia	514	457	512	523	410	446	-14.7	8.8	4.1
Wisconsin	931	971	985	972	918	770	-20.8	-16.1	2.3
Wyoming	246	241	244	245	264	201	-18.0	-23.9	3.8
Total	47,877	50,331	51,093	51,091	49,301	43,721	-14.4	-11.3	2.7

Table 44 lists the 1982 fatal accident totals and monthly percentages by state. Large variations in monthly percentages can be expected in states with small numbers of fatal accidents. As in previous years, states with a greater number of fatalities, and in geographical areas with severe weather conditions, fewer fatal accidents occurred during winter months.

TABLE 44
PERCENT OF FATAL ACCIDENTS BY MONTH

State	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alabama	744	6.6	5.4	9.3	8.1	10.9	10.3	8.2	8.7	7.8	8.1	8.3	8.3
Alaska	96	6.3	6.3	4.2	7.3	9.4	14.6	13.5	10.4	9.4	9.4	4.2	5.2
Arizona	636	10.4	9.0	7.4	7.4	9.4	7.4	8.2	8.6	8.0	9.1	6.8	8.3
Arkansas	478	7.1	7.3	6.7	7.1	8.6	10.7	9.4	10.0	7.9	11.3	7.3	6.5
California	4,122	6.8	6.6	8.5	8.2	8.1	8.8	8.7	9.1	9.7	9.5	8.0	8.1
Colorado	597	7.9	6.2	5.9	8.2	11.4	9.4	11.1	10.4	8.7	7.4	6.9	6.7
Connecticut	464	5.6	4.7	5.6	7.3	10.1	8.6	10.6	9.9	10.3	8.6	9.7	8.8
Delaware	115	11.3	2.6	4.3	8.7	8.7	12.2	10.4	9.6	9.6	11.3	7.0	4.3
District of Columbia	34	5.9	2.9	8.8	14.7	17.6		2.9	17.6	14.7		8.8	5.9
Florida	2,300	9.0	9.9	9.7	9.6	8.8	7.4	7.2	7.5	6.9	7.0	7.3	9.8
Georgia	1,097	7.0	6.9	7.6	8.8	8.2	9.6	7.4	9.4	8.8	9.8	9.5	7.1
Hawaii	145	9.0	7.6	14.5	9.7	4.8	5.5	6.2	11.7	7.6	6.9	7.6	9.0
Idaho	212	3.8	2.4	7.1	9.0	8.5	11.8	13.2	12.3	9.0	11.3	8.5	3.3
Illinois	1,476	5.6	5.6	7.6	8.1	8.2	9.5	10.8	9.5	9.8	9.8	7.4	8.2
Indiana	839	5.2	2.4	7.3	6.9	10.4	9.8	10.8	9.8	9.9	9.4	8.5	9.7
Iowa	431	4.2	3.9	7.0	9.7	11.4	4.9	10.7	11.1	10.4	7.9	9.7	9.0
Kansas	433	7.2	4.8	6.2	9.2	8.3	7.4	12.5	10.6	12.0	8.5	8.5	4.6
Kentucky	726	6.9	6.1	6.6	7.3	9.2	8.4	11.3	9.8	7.9	8.8	10.2	7.6
Louisiana	962	7.0	7.1	8.1	9.6	9.5	7.8	7.1	7.5	9.7	9.9	8.0	8.9
Maine	152	7.2	5.3	4.6	5.9	7.9	5.3	11.2	13.2	13.2	6.6	8.6	11.2
Maryland	575	5.6	6.6	7.3	8.0	8.9	7.3	10.3	9.7	9.0	9.0	9.7	8.5
Massachusetts	611	7.0	7.4	6.9	7.2	7.4	7.7	10.5	7.7	9.0	10.0	9.0	10.3
Michigan	1,257	6.4	5.6	6.8	6.8	7.6	8.9	10.7	11.1	9.1	9.6	9.3	8.2
Minnesota	508	3.9	4.3	4.7	7.1	6.9	9.6	13.8	11.6	6.1	11.4	10.4	10.0
Mississippi	617	7.1	5.8	9.1	6.3	8.4	9.1	9.2	11.5	7.0	10.7	8.3	7.5
Missouri	785	6.8	5.5	6.1	8.2	8.4	9.4	10.3	8.5	9.0	10.7	7.0	10.1
Montana	215	6.0	1.4	6.0	11.2	8.8	8.4	12.6	12.6	10.2	8.8	8.4	5.6
Nebraska	226	5.8	7.1	6.2	6.2	8.8	5.8	11.1	13.7	8.0	11.1	8.8	7.5
Nevada	248	8.5	5.6	10.1	8.1	10.5	10.5	10.5	10.1	8.1	6.0	4.8	7.3
New Hampshire	154	3.9	5.2	4.5	8.4	11.0	7.1	12.3	9.1	14.9	5.2	7.8	10.4
New Jersey	965	6.0	6.5	6.9	8.2	8.4	7.5	9.7	8.7	8.1	9.6	9.1	11.2
New Mexico	489	6.7	4.5	5.5	8.4	10.0	9.6	10.2	8.8	8.4	9.8	8.4	9.6
New York	1,963	5.2	5.8	7.9	6.6	9.1	9.3	10.0	9.7	9.3	9.6	8.2	9.4
North Carolina	1,168	6.2	6.0	5.7	7.8	8.0	8.6	10.0	9.4	9.1	10.5	9.8	8.9
North Dakota	128	1.6	3.9	13.3	7.8	5.5	7.8	11.7	10.2	14.1	12.5	6.3	5.5
Ohio	1,447	5.4	6.2	7.8	6.9	9.1	10.0	10.8	9.8	9.5	10.9	7.0	6.8
Oklahoma	916	6.4	6.7	8.3	10.5	8.5	9.7	10.0	11.8	7.6	8.6	6.3	5.5
Oregon	464	5.0	5.8	7.3	7.8	9.5	8.4	11.0	12.1	9.1	9.3	8.0	6.9
Pennsylvania	1,531	6.5	6.7	6.6	7.1	7.9	8.8	10.3	10.4	9.5	10.1	7.8	8.4
Rhode Island	97	5.2	9.3	5.2	6.2	8.2	7.2	11.3	13.4	8.2	9.3	8.2	8.2
South Carolina	667	5.1	7.9	8.1	7.9	7.9	7.6	9.6	8.1	9.0	10.0	9.4	9.1
South Dakota	129	3.9	7.0	4.7	5.4	11.6	8.5	9.3	17.8	10.9	7.8	5.4	7.8
Tennessee	944	7.6	6.9	5.9	7.6	8.2	8.8	9.0	8.2	10.0	10.1	8.2	9.6
Texas	3,699	7.6	6.9	8.0	8.2	9.8	9.0	9.3	9.4	8.4	8.1	6.8	8.5
Utah	263	4.9	6.1	9.9	6.5	9.1	8.7	12.2	13.3	11.4	5.7	6.1	6.1
Vermont	92	3.3	6.5	5.4	4.3	4.3	12.0	16.3	8.7	9.8	15.2	5.4	8.7
Virginia	781	6.3	5.5	5.8	9.5	10.6	9.0	9.9	7.8	7.4	10.4	7.3	10.6
Washington	671	6.4	4.9	6.9	8.5	10.0	9.7	10.4	10.6	11.8	8.0	7.3	5.5
West Virginia	388	7.5	7.0	8.2	8.5	10.3	9.0	9.3	7.5	7.7	9.3	8.5	7.2
Wisconsin	669	4.5	5.4	6.4	7.6	9.0	7.9	12.6	9.9	9.9	9.4	6.9	10.6
Wyoming	173	8.1	4.0	5.8	9.8	4.6	11.6	11.0	12.1	12.7	6.4	6.4	7.5
Total	38,899	6.6	6.3	7.5	8.0	8.9	8.8	9.8	9.6	9.0	9.3	7.9	8.4

The variations in percentages of fatalities by functional class of roadway (Table 45) may be caused by differences among the states in the share of total roadway mileage accounted for by each of the types. Nationally, about half of all fatal accidents occurred on arterial routes other than limited access highways. These roadways, plus collector roads and local streets, accounted for more than four of every five fatal accidents (86.1 percent).

TABLE 45
PERCENT OF FATALITIES BY ROADWAY FUNCTION CLASS
(43,721)

State	Total	Interstate	Other Freeway & Expressway	Other Principal Arterial	Minor Arterial	Collector	Local	Unknown
Alabama	839	6.4		17.9	.1	27.3	48.3	
Alaska	105		1.0	29.5	32.4	29.5	4.8	2.9
Arizona	724	14.4	.4	19.5	29.1	21.4	15.1	.1
Arkansas	550	6.9	.2	34.9	17.6	20.4	20.0	
California	4,618	9.9	6.2	33.3	22.3	18.4	9.8	.0
Colorado	667	17.5	.4	32.5	18.1	24.4	6.9	
Connecticut	515	15.9	4.1	23.9	21.9	23.9	10.3	
Delaware	122	7.4	1.6	36.1	18.9	21.3	14.8	
District of Columbia	35	11.4	11.4	45.7	22.9		8.6	
Florida	2,536	6.3	14.8	26.5	8.6	12.9	13.2	17.7
Georgia	1,229	11.6		18.4	23.6	20.6	25.8	
Hawaii	163	4.3	11.7	14.7	40.5	23.9	4.9	
Idaho	255	14.5		34.1	9.4	21.2	20.8	
Illinois	1,652	7.9	.2	16.3	41.3	17.5	16.7	
Indiana	954	8.2	1.2	21.8	25.9	27.3	15.7	
Iowa	480	6.5		23.8	25.4	29.8	14.6	
Kansas	493	7.3	2.0	39.6	9.5	17.4	17.6	6.5
Kentucky	822	7.7	.7	19.0	19.8	41.7	11.1	
Louisiana	1,091	6.0	.3	22.5	45.2	19.2	6.2	.6
Maine	167	2.4	1.8	19.8	22.8	34.7	18.6	
Maryland	640	11.3	3.4	26.7	23.4	18.8	12.8	3.6
Massachusetts	655	8.9	8.2	22.1		48.9	11.8	.2
Michigan	1,392	6.8	1.2	26.9	26.0	22.4	16.3	.3
Minnesota	571	5.1	.5	24.9	27.7	28.9	12.8	.2
Mississippi	730	7.8	1.4	23.3	24.1	25.5	17.3	.7
Missouri	890	11.7	1.1	35.3	1.0	35.2	15.7	
Montana	254	15.0		35.0	19.7	19.3	11.0	
Nebraska	261	7.3	2.3	39.5	12.6	16.1	22.2	
Nevada	280	15.0	.4	29.3	28.6	17.1	9.6	
New Hampshire	173	7.5	.6	20.2	27.2	32.4	12.1	
New Jersey	1,061	5.7	5.8	29.7	29.7	18.8	10.4	
New Mexico	577	14.9	.5	19.1	27.2	19.6	17.3	1.4
New York	2,160	6.6	6.9	26.5	27.9	19.3	12.8	.1
North Carolina	1,303	5.3	2.7	18.8	11.9	39.8	21.5	.1
North Dakota	148	5.4	1.4	29.1	22.3	29.1	12.8	
Ohio	1,607	8.5	1.4	18.9	23.1	29.9	18.3	
Oklahoma	1,054	11.7	2.6	13.4	27.1	28.6	5.2	11.5
Oregon	518	9.7	1.0	43.4	14.3	22.8	8.9	
Pennsylvania	1,733	7.2	1.7	28.3	25.4	18.4	17.5	1.4
Rhode Island	105	14.3	2.9	23.8	31.4	12.4	10.5	4.8
South Carolina	730	5.5		44.2	3.3	28.8	18.2	
South Dakota	148	6.8		41.2	7.4	23.6	19.6	1.4
Tennessee	1,055	10.7	.1	20.9	27.5	23.2	17.5	
Texas	4,213	13.9	3.1	21.1	126.1	21.5	14.2	
Utah	295	21.4	3.4	17.6	11.5	3.4	42.0	.7
Vermont	107	11.2		43.0	23.4	.9	21.5	
Virginia	879	9.7	3.1	22.8	25.8	22.9	15.7	.1
Washington	748	10.6	1.1	27.4	22.2	21.5	17.1	.1
West Virginia	446	3.4		19.5	30.7	35.9	10.5	
Wisconsin	770	4.3		28.4	27.5	21.4	18.3	
Wyoming	201	15.4		20.9	21.9	31.8	10.0	
Total	43,721	9.2	3.2	25.5	22.5	23.0	15.1	1.6

TABLE 46
ACCIDENT RATES PER LICENSED DRIVER AND PER SQUARE MILE

State	Total Fatalities	Licensed Drivers	Fatalities per 100,000 Drivers	Land Area (Square Mi.)	Fatalities per 1,000 Square Mi.
Alabama	839	2,316,209	36.2	51,609	16.3
Alaska	105	320,719	32.7	586,412	.2
Arizona	724	2,085,980	34.7	113,909	6.4
Arkansas	550	1,591,119	34.6	53,104	10.4
California	4,618	16,299,376	28.3	158,693	29.1
Colorado	667	2,182,380	30.6	104,247	6.4
Connecticut	515	2,235,145	23.0	5,009	102.8
Delaware	122	433,284	28.2	2,057	59.3
District of Columbia	35	385,100	9.1	67	522.4
Florida	2,536	7,978,824	31.8	58,560	43.3
Georgia	1,229	3,605,067	34.1	58,876	20.9
Hawaii	163	561,346	29.0	6,450	25.3
Idaho	255	633,411	40.3	83,557	3.1
Illinois	1,652	6,964,608	23.7	56,400	29.3
Indiana	954	3,345,254	28.5	36,291	26.3
Iowa	480	1,926,852	24.9	56,290	8.5
Kansas	493	1,693,782	29.1	82,264	6.0
Kentucky	822	2,141,104	38.4	40,395	20.3
Louisiana	1,091	2,539,776	43.0	48,523	22.5
Maine	167	757,264	22.1	33,215	5.0
Maryland	640	2,741,333	23.3	10,577	60.5
Massachusetts	655	3,641,141	18.0	8,257	79.3
Michigan	1,392	6,390,130	21.8	58,216	23.9
Minnesota	571	2,397,077	23.8	84,068	6.8
Mississippi	730	1,734,173	42.1	47,716	15.3
Missouri	890	3,297,491	27.0	69,686	12.8
Montana	254	491,879	51.6	147,138	1.7
Nebraska	261	1,084,396	24.1	77,227	3.4
Nevada	280	654,658	42.8	110,540	2.5
New Hampshire	173	677,478	25.5	9,304	18.6
New Jersey	1,061	5,337,632	19.9	7,836	135.4
New Mexico	577	942,972	61.2	121,666	4.7
New York	2,160	8,992,488	24.0	49,756	43.4
North Carolina	1,303	3,903,103	33.4	52,586	24.8
North Dakota	148	428,006	34.6	70,665	2.1
Ohio	1,607	7,668,931	21.0	41,222	39.0
Oklahoma	1,054	2,039,398	51.7	69,919	15.1
Oregon	518	1,893,609	27.4	96,981	5.3
Pennsylvania	1,733	7,351,333	23.6	45,333	38.2
Rhode Island	105	599,687	17.5	1,214	86.5
South Carolina	730	1,959,351	37.3	31,055	23.5
South Dakota	148	486,421	30.4	77,047	1.9
Tennessee	1,055	2,902,326	36.4	42,244	25.0
Texas	4,213	10,154,386	41.5	267,339	15.8
Utah	295	913,773	32.3	84,916	3.5
Vermont	107	355,051	30.1	9,609	11.1
Virginia	879	3,625,377	24.2	40,817	21.5
Washington	748	2,774,210	27.0	68,192	11.0
West Virginia	446	1,410,893	31.6	24,181	18.4
Wisconsin	770	3,036,428	25.4	56,154	13.7
Wyoming	201	397,788	50.5	97,914	2.1
Total	43,721	150,279,519	29.1	3,615,303	12.1

TABLE 47
PERCENT OF OCCUPANT FATALITIES BY VEHICLE TYPE

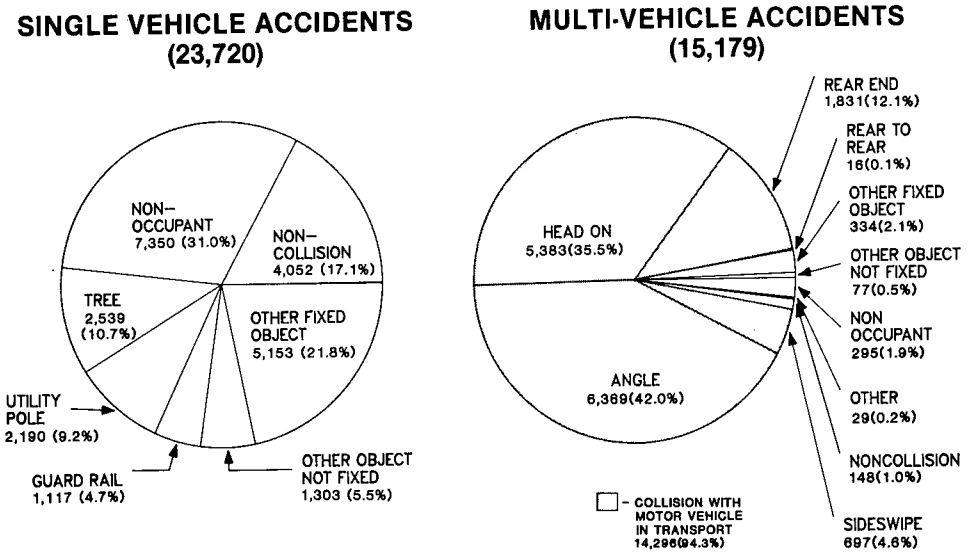
State	Total	Passenger Car	Motor-Cycles	Buses	Light Trucks	Medium Trucks	Heavy Trucks	Special Vehicles	Unknown
Alabama	729	68.9	7.4	.1	18.8	.1	3.0	1.2	.5
Alaska	90	45.6	6.7		33.3	1.1	2.2	5.6	5.6
Arizona	558	50.9	15.0		25.1	.4	2.0	5.7	.9
Arkansas	474	54.9	5.5		31.4	.4	4.6	3.0	.2
California	3,720	61.4	18.7	.1	15.4	.3	1.3	2.7	.1
Colorado	563	55.4	13.1	.2	20.4	.2	3.6	7.1	
Connecticut	430	69.3	23.3		3.7		1.4	2.3	
Delaware	94	70.2	18.1		7.4	2.1	1.1	1.1	
District of Columbia	24	66.7	16.6		16.7				
Florida	1,806	58.5	9.8	.1	13.6	.2	1.2	.4	16.2
Georgia	1,045	67.5	11.0	.2	15.9	.8	1.6	2.5	.5
Hawaii	126	64.3	14.2		14.3	.8	.8	4.8	.8
Idaho	228	61.4	9.2		21.9	.9	3.1	3.1	.4
Illinois	1,287	70.6	14.4	.2	10.5	.5	1.6	2.2	
Indiana	828	69.2	13.0		12.4		2.7	2.3	.4
Iowa	429	61.1	15.9		14.5	.5	1.2	6.8	
Kansas	440	54.5	11.3		17.5	.7	3.0	3.0	10.0
Kentucky	709	68.3	7.0		16.8	.1	4.5	3.0	.3
Louisiana	840	61.7	10.8	.1	21.3	.6	1.7	3.2	.6
Maine	139	61.9	21.6		12.2		2.2	1.4	.7
Maryland	500	72.0	15.2		9.0	.2	2.0	1.4	.2
Massachusetts	505	71.5	12.7		7.7	.2	1.4	1.2	5.3
Michigan	1,118	75.9	10.2	.2	9.0	.2	1.0	3.3	.2
Minnesota	482	66.4	14.9	.2	13.5	.2	1.9	2.9	
Mississippi	646	67.2	7.7	.2	19.8	.2	2.9	1.4	.6
Missouri	778	67.5	8.7	.1	16.5	.4	3.6	3.2	
Montana	232	52.6	7.8		26.7	.4	4.7	7.8	
Nebraska	230	52.6	13.7		23.9	.2	3.9	5.7	
Nevada	229	70.3	9.6		16.2		1.3	2.6	
New Hampshire	149	64.4	14.2		15.4			6.0	
New Jersey	767	78.5	11.7	.1	7.3		1.6	.5	.3
New Mexico	471	55.4	10.0		27.4		3.4	2.3	1.5
New York	1,480	73.8	12.6	.2	9.5	.5	1.4	2.0	
North Carolina	1,043	70.9	8.6	.3	14.0	.6	2.9	2.6	.1
North Dakota	138	60.1	13.2		23.9		1.4	1.4	
Ohio	1,325	69.3	15.5		9.4	.8	2.3	2.7	
Oklahoma	919	58.9	9.7		26.9	.0	3.0	1.5	
Oregon	444	63.5	14.0		18.5	.2	1.6	2.0	.2
Pennsylvania	1,432	69.1	9.9	.1	8.4	.6	2.7	3.8	5.4
Rhode Island	77	62.3	24.7		3.9				9.1
South Carolina	579	69.6	12.0		13.5	.9	1.4	2.6	
South Dakota	131	64.9	9.8		17.6		2.3	4.6	.8
Tennessee	930	67.0	8.3	.2	16.3	.8	2.6	4.6	.2
Texas	3,409	60.2	11.8	.2	22.2	.6	2.6	2.4	
Utah	250	59.2	12.4		17.2		4.4	6.8	
Vermont	90	64.4	12.3		12.2		1.1	5.6	4.4
Virginia	728	71.2	7.7		13.3	.7	2.3	3.3	1.5
Washington	639	62.6	16.6		16.0		1.9	2.7	.2
West Virginia	395	67.3	7.6		14.7	.5	2.5	7.1	.3
Wisconsin	659	65.3	17.1		10.6	.9	2.0	4.1	
Wyoming	178	51.7	5.5		31.5	1.1	6.2	3.4	.6
Total	35,512	65.0	12.4	.1	15.6	.4	2.2	2.8	1.5

V. Accidents

About 60 percent of all fatal accidents involved only one vehicle, up slightly from 1981 because the decrease in multiple vehicle accidents (-18.1) was much greater than the decrease in single vehicle accidents (-7.2).* Overall, the first harmful event in almost half (46.9 percent) of these single vehicle accidents was collision with a fixed object and the second most frequent was collision with a nonoccupant (Figure 27). Nonoccupants include pedestrians, pedalcyclists and others not in or upon a motor vehicle in transport. The majority of these were pedestrians.

In almost all multiple-vehicle accidents, the first harmful event reported was collision of two or more motor vehicles in transport (97.1 percent) (Figure 27).** Angle collisions constituted the most frequent manner in which these accidents occurred, followed by head on collisions.

FIGURE 27
DISTRIBUTION OF FATAL ACCIDENTS BY FIRST HARMFUL EVENT



*In Figure 27, "other objects not fixed" include railway trains, animals, and parked motor vehicles. "Other fixed objects" include buildings, curbs or walls, dividers, fences, and impact attenuators.
**In Figure 27, "other objects not fixed" include animals, parked motor vehicles, and unknown first harmful events. The "other" category includes unknown manner of collision.)

COLLISIONS

Figure 28 shows the distribution of fatal accidents and occupant deaths among types of collisions.

- Single-vehicle collisions accounted for 61 percent of all fatal accidents and 49.6 percent of all occupant fatalities.
- The most frequently reported manner of collision in multiple vehicle accidents, "angle" impact (16.4 percent of all fatal accidents), accounted for 20.8 percent of all occupant deaths.*

Of the 15,179 fatal multiple vehicle accidents, 89 percent (13,520) were two-vehicle collisions. Collisions of two passenger cars comprised the single largest group of multiple vehicle accidents, accounting for 34.3 percent of the total. The next largest group was collisions of passenger cars with light trucks (18.9 percent). In fact, passenger cars were involved in 81.6 percent of the two-vehicle collisions (Table 48).

FIGURE 28
ACCIDENTS AND OCCUPANT FATALITIES BY MANNER OF COLLISION

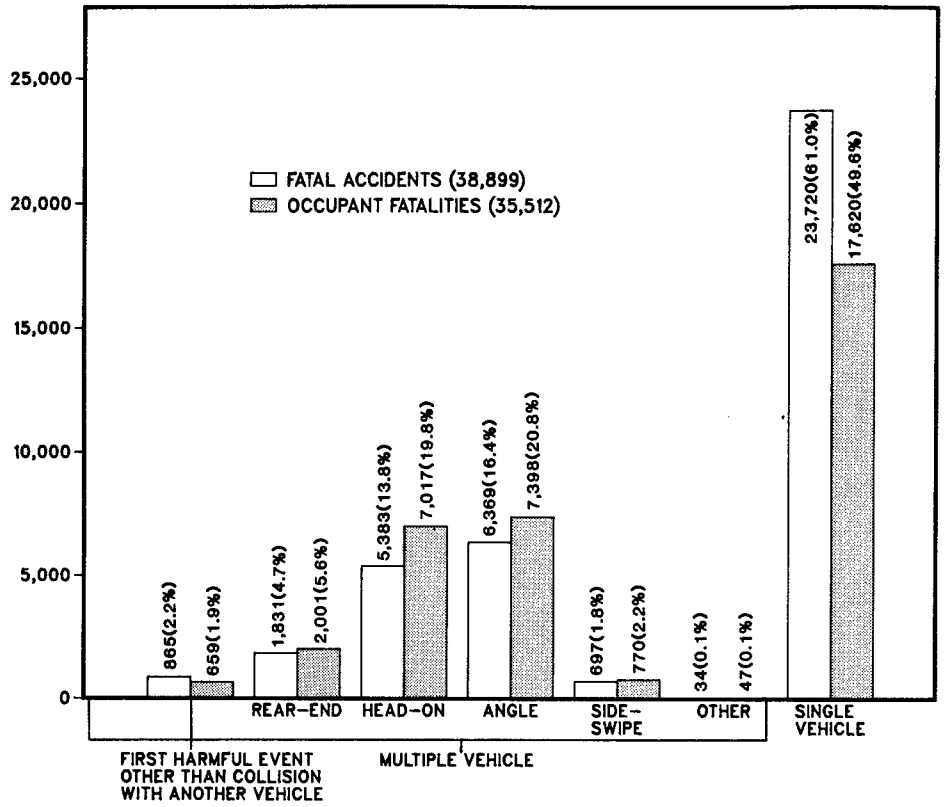


TABLE 48
FATAL ACCIDENTS BY VEHICLE MIX IN TWO-VEHICLE ACCIDENTS
(13,520)

	Unknown Vehicles	Other Vehicles	Buses	Heavy Trucks	Medium Trucks	Light Trucks	Other Cycles	Motor cycles	Passenger Cars
Passenger Cars									4,636
Percent									34.3
Motorcycles								60	1,162
Percent								.4	8.6
Other Cycles							1	3	77
Percent									.6
Light Trucks						390	34	525	2,560
Percent						2.9	.3	3.9	18.9
Medium Trucks					3	61	2	26	280
Percent						.5		.2	2.1
Heavy Trucks				100	22	533	5	142	1,618
Percent				.7	.2	3.9		1.1	12.0
Buses				6	3	18		19	87
Percent						.1		.1	.6
Other Vehicles		11	6	54	16	135	4	75	351
Percent		.1		.4	.1	1.0		.6	2.6
Unknown	55	4	2	21	4	73		28	267
Percent	.4			.2		.5		.2	2.0
TOTAL	454	654	141	2,501	417	4,329	126	2,040	11,038
Percent	3.4	4.8	1.0	18.5	3.1	32.0	.9	15.1	81.6

*The "Other" category in Figure 28 includes rear-to-rear collisions and "unknown manner of collision."

In two-vehicle collisions, fatalities were most frequent for occupants of passenger cars, motorcycles and light trucks. Two-vehicle fatal accidents that involved motorcycles resulted in the death of a motorcycle rider 99.3 percent of the time. Fatal collisions of a truck with another vehicle more often resulted in the death of an occupant of the other vehicle than to a truck occupant. Only 9 bus occupants were killed in two-vehicle collisions in 1982 (Table 49).

HIGHWAY AND ENVIRONMENT

An important element of fatal accidents is the environment in which they occur--the type of roadway, light and weather conditions, and the type of object with which the vehicle collided.

More than half (58.4 percent) of all fatalities occurred on level undivided highways. Over one in four (30.1 percent) fatalities occurred on a curve (Figure 29).

FIGURE 29
FATAL ACCIDENTS BY ROADWAY ALIGNMENT AND PROFILE
(38,899)

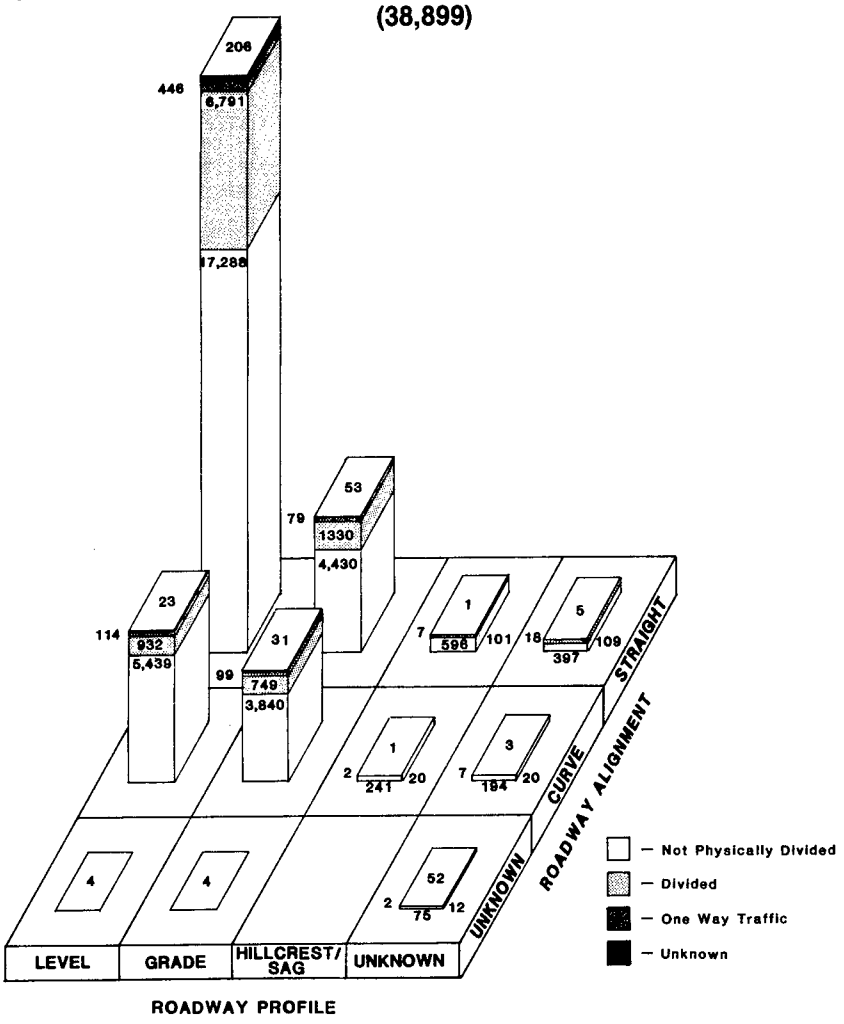


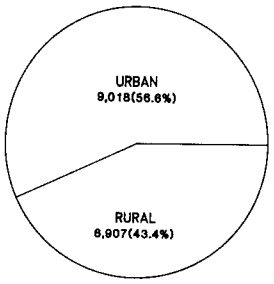
TABLE 49
OCCUPANT FATALITY MIX IN TWO-VEHICLE FATAL ACCIDENTS
(12,798)

Vehicle in which Fatality Occurred	Other Vehicle: Passenger Cars	Motorcycles	Other Cycles	Light Trucks	Medium Trucks	Heavy Trucks	Buses	Other	Unknown	Total
Passenger Cars	4,228	9	1	1,855	271	1,605	81	254	141	8,445
	33.0	.1		14.5	2.1	12.5	.6	2.0	1.1	66.0
Motorcycles	1,136	50	1	520	26	142	19	72	27	1,993
	8.9	.4		4.1	.2	1.1	.2	.6	.2	15.6
Other Cycles	76	1	1	34	2	5		4		123
	.6			.3						1.0
Light Trucks	526	1		353	52	516	17	58	37	1,560
	4.1			2.8	.4	4.0	.1	.5	.3	12.2
Medium Trucks	8			4	3	12	2	1	1	31
	.1					.1				.2
Heavy Trucks	45			14	4	90		2	2	157
	.4			.1		.7				1.2
Buses	4					5				9
										.1
Other	114	2		68	14	51	5	11	2	267
	.9			.5	.1	.4		.1		2.1
Unknown	104			29	3	21	3	2	51	213
	.8			.2		.2			.4	1.7
Total	6,241	63	3	2,877	375	2,447	127	404	261	12,798
	48.8	.5		22.5	2.9	19.1	1.0	3.2	2.0	100.0

As in previous years, data indicate that more than half (56.6 percent) of the 1982 estimated vehicle miles of travel (VMT) were in urban areas (Figure 30), although considerably less than half (43.7 percent) of the fatal accidents occurred in these areas (Figure 31). In urban areas 1.9 fatal accidents occurred for each 100 million VMT. In rural areas the rate was almost two-thirds higher--3.1 accidents per 100 million VMT. Urban travel increased by 3.6 percent while deaths decreased by 10.2 percent. Rural travel increased 1 percent while deaths decreased by 10.7 percent.

Fatal accidents occurred more frequently on roadways with a 55 mph speed limit than on any other set of roadways (Figure 32). The percentage of these accidents (47.6 percent) was more than three times that of the next highest, those in 26 to 35 mph zone. Not surprisingly, rural areas dominated the frequency of accidents on roadways with a 55 mph speed limit and urban areas dominated the death toll on roadways with speed limits less than 45 mph.

FIGURE 30
TOTAL VEHICLE MILES OF TRAVEL*
(15,925)



*100 Million

FIGURE 31
FATAL ACCIDENTS BY LAND USE
(38,899)

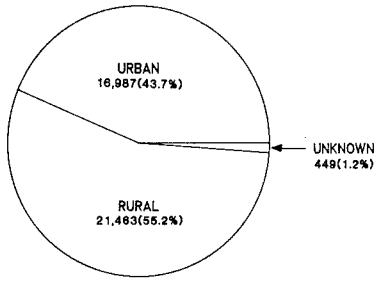
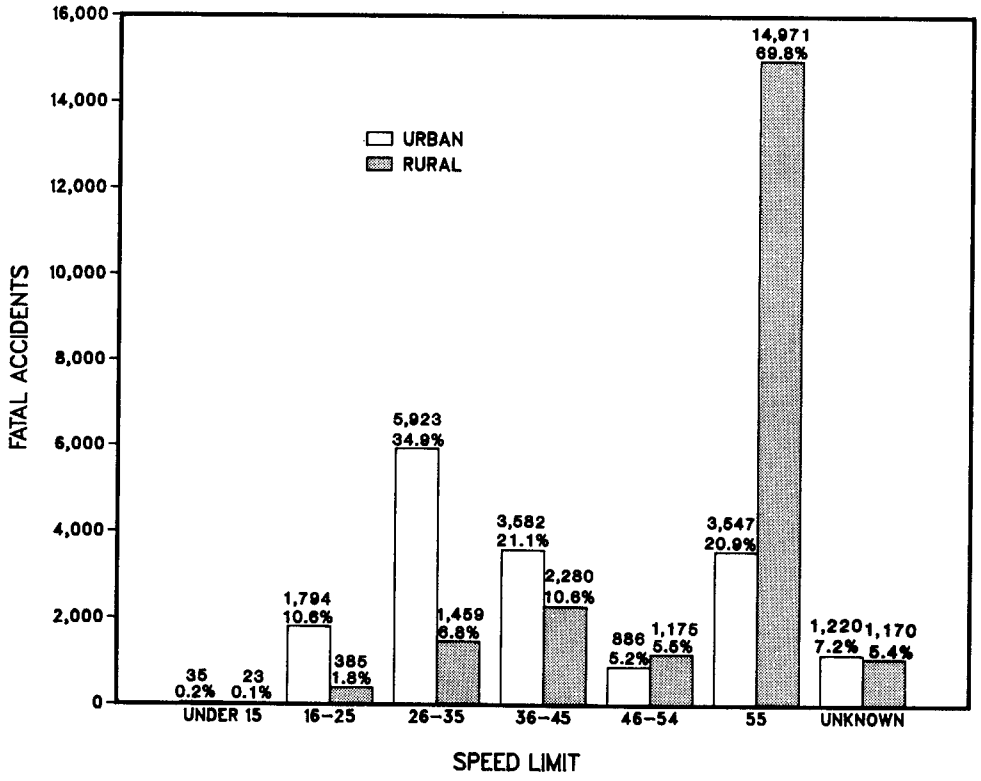


FIGURE 32
FATAL ACCIDENTS BY SPEED LIMIT AND LAND USE
(38,899)



NOTE: 449 FATAL ACCIDENTS WHERE LAND USE WAS UNKNOWN.

Figure 33 shows the distributions of accidents in urban and rural areas among functional classes of roadway. The largest differences between urban and rural areas occurred on collector roads. These accounted for only 10.8 percent of fatal accidents in urban areas and 33.3 percent of those in rural accidents. Interstate and other limited access routes accounted for 17.7 percent of the fatal accidents in urban areas and only 8.2 percent in rural areas, where few such facilities exist.

Table 50 shows the distribution of accident-involved vehicle types among classes of roadway. Overall, non-limited access arterials accounted for slightly more than half (50.3 percent) of all vehicle involvements. Eighty percent of heavy-truck involvements occurred on the Interstate, on other freeways, and on arterials, probably because most heavy-truck mileage is on these roads. FHWA estimates that 19.2 percent of the VMT in the U.S. was on the Interstate System, yet the Interstate System accounted for only 9.2 percent of all vehicles involved in fatal accidents. Because exposure data for other road classes is not available it is impossible to compare this rate to rates of vehicle involvements in fatal accidents on other road systems.

FIGURE 33
FATAL ACCIDENTS BY ROADWAY FUNCTION CLASS

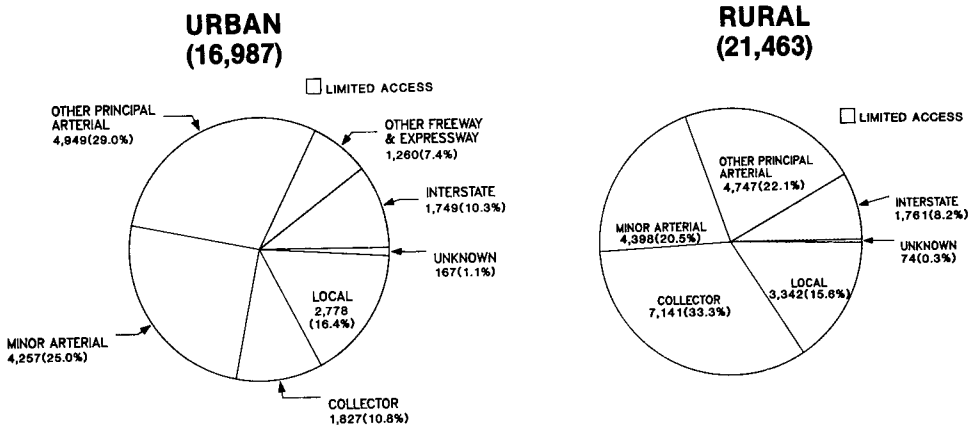


TABLE 50
VEHICLE TYPES INVOLVED IN FATAL ACCIDENTS BY ROADWAY FUNCTION CLASS

	Interstate	Other Freeway & Expressway	Other Principal Arterial	Minor Arterial	Collector	Local Street	Unknown	Total
Passenger Cars	2,979	1,259	9,349	8,125	7,395	4,358	490	33,955
Percent	8.8	3.7	27.5	23.9	21.8	12.8	1.4	100.0
Motorcycles	193	122	908	1,005	1,016	913	86	4,243
Percent	4.5	2.9	21.4	23.7	23.9	21.5	2.0	100.0
Other Motorized Cycles	1	6	43	37	38	52		177
Percent	.6	3.4	24.3	20.9	21.5	29.4		100.0
Light Trucks	819	255	2,547	2,304	2,486	1,494	152	10,057
Percent	8.1	2.5	25.3	22.9	24.7	14.9	1.5	100.0
Medium Trucks	66	12	192	161	163	73	6	673
Percent	9.8	1.8	28.5	23.9	24.2	10.8	.9	100.0
Heavy Trucks	868	101	1,409	775	540	174	48	3,915
Percent	22.2	2.6	36.0	19.8	13.8	4.4	1.2	100.0
Special Vehicles	106	26	313	328	361	314	8	1,456
Percent	7.3	1.8	21.5	22.5	24.8	21.6	.5	100.0
Buses	18	7	91	62	45	53	1	286
Percent	6.3	2.4	31.8	25.1	15.7	18.5	.3	100.0
Unknown	131	112	395	242	240	208	136	1,464
Percent	8.9	7.7	27.0	16.5	16.4	14.2	9.3	100.0
Total	5,180	1,895	15,231	13,040	12,278	7,639	927	56,190
Percent	9.2	3.4	27.1	23.2	21.9	13.6	1.6	100.0

A total of 437 fatal accidents occurred in and around construction and roadway maintenance zones, down from 518 in 1981. Table 51 distributes these accidents by functional class of roadway. The significant reduction in these fatal accidents occurred primarily in construction zones. Overall, the number of maintenance related fatal accidents did not decrease from the previous year. Fatal accidents in construction zones on Interstate highways were 32.5 percent lower than the previous year.

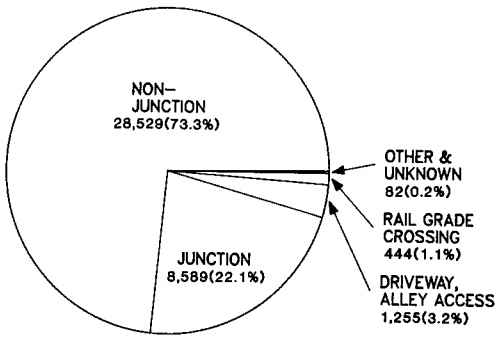
Most accidents (73.3 percent) occurred away from roadway junctions, and most roadway junctions at which accidents did occur were intersections (Figure 34). A stop sign was the control device most often present at these intersections (reported at 30.7 percent of the intersections) although intersections with no traffic controls and those with traffic signals were also significantly represented (23.8 and 21.7 percent of the intersections respectively).(Figure 35).

TABLE 51
FATAL ACCIDENTS IN CONSTRUCTION MAINTENANCE ZONES BY ROADWAY FUNCTION CLASS
(437)

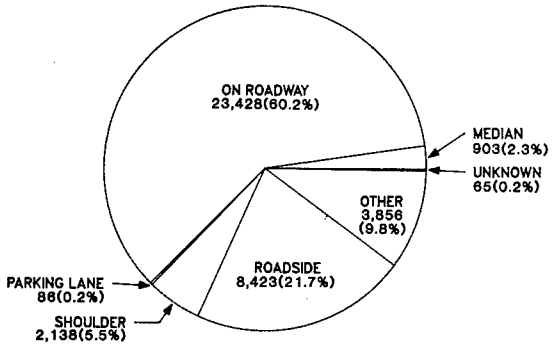
	Construction Zone	Maintenance Zone	Utility Zone	Unknown Work Zone	Total
Interstate	79	18		12	109
Other Freeway & Expressway	7	5	1	4	17
Other Principal Arterial	88	13	1	6	108
Minor Arterial	77	10	4	5	96
Collector	47	7		4	58
Local	31	6	2	8	47
Unknown	2				2
Total	331	59	8	39	437

FIGURE 34
FATAL ACCIDENT ENVIRONMENT

RELATION TO JUNCTION
(38,899)



RELATION TO ROADWAY
(38,899)



Although 60.2 percent of all accidents occurred on the roadway (Figure 34), two out of five occurred off the roadway--at the roadside (21.7 percent), on roadway shoulders (5.5 percent), and at other off-road locations (10 percent).*

Twenty-three percent of the 444 fatal accidents at rail-highway grade crossings occurred where there were neither stop signs, gates, signals, nor watchmen to alert motorists to oncoming trains (Figure 36).

FIGURE 35
FATAL ACCIDENTS BY ROAD JUNCTION AND INTERSECTION TRAFFIC CONTROLS
(8,589)

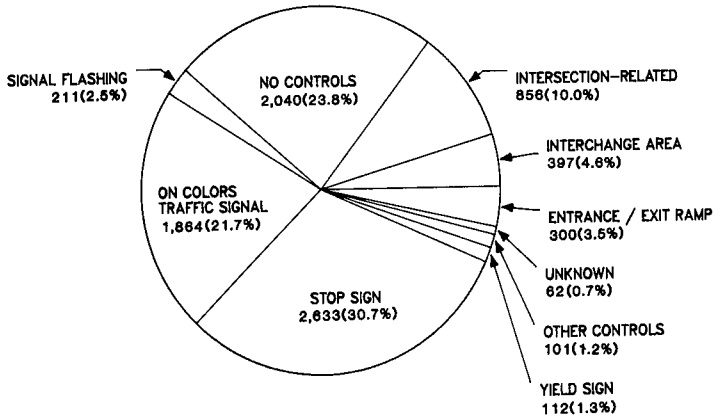
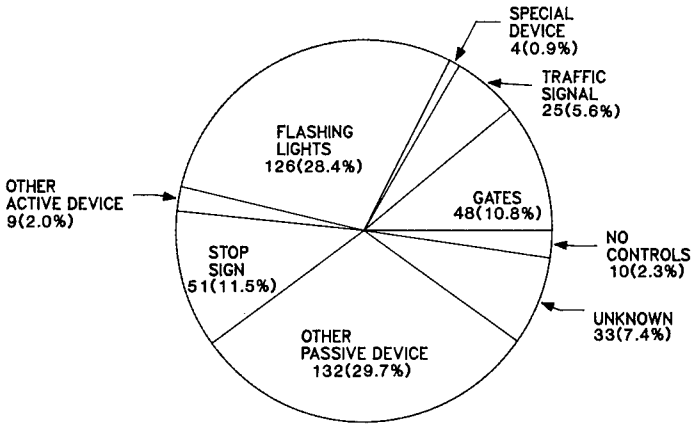


FIGURE 36
FATAL ACCIDENT ENVIRONMENT AT RAILROAD CROSSING CONTROLS
(444)



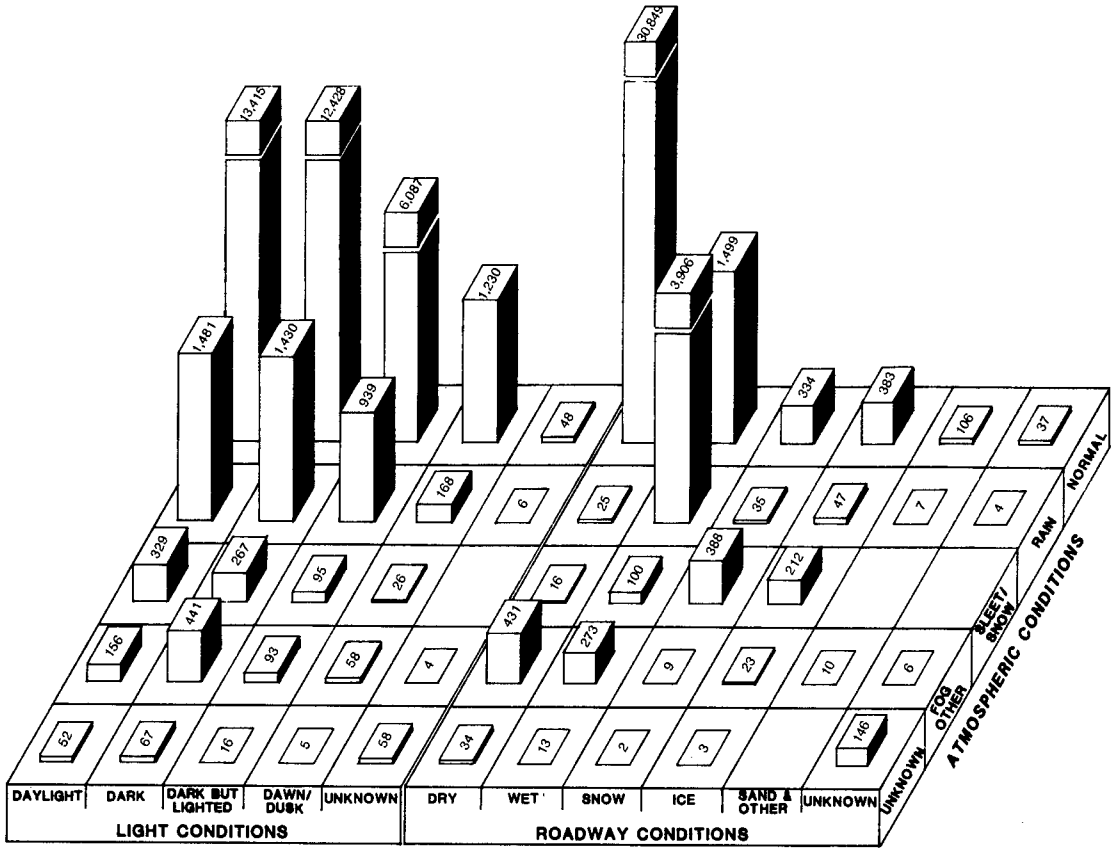
*Accidents that occurred off the roadway were included in the FARS file if a set of events involving the loss of control of a motor vehicle began on the roadway or the vehicle was in motion within the trafficway. See Glossary for definition of a "Trafficway".

Fatal accidents occurred most often during normal weather regardless of lighting condition (Figure 37).* Indeed, normal weather is associated with 86.9 percent of all fatal accidents that occurred during daylight hours and 98.4 percent of all fatal accidents that occurred on dry roads.

Water, snow, ice or slush on the roadway while it was still raining, snowing, or sleeting accounted for only about 12 percent of all fatal accidents.

The substantial fatality reductions that occurred during 1982 were almost entirely in periods of normal weather. Fatalities remained at previous levels or actually increased during periods of inclement weather.

FIGURE 37
ATMOSPHERIC CONDITIONS IN FATAL ACCIDENTS BY LIGHT AND SURFACE CONDITIONS
(38,899)



"Other" atmospheric conditions include smog, smoke, and blowing sand or dust. The term "normal" denotes no adverse weather conditions. "Other" roadway surface conditions include dirt and oil.

VI. Vehicles

The 38,899 fatal accidents in 1982 involved 56,190 motor vehicles, 10.3 percent fewer than in 1981. Though significant, this decrease was not as sharp as were the decreases in fatal accidents (11.6 percent), total deaths (11.3 percent), or total occupant deaths (12.1 percent). Figure 38 represents the number of vehicles per fatal accident.

Table 52 presents the distribution of vehicles, vehicle occupants, and associated occupant fatalities among vehicle types. As noted earlier, passenger cars were the most frequently involved and accounted for the largest proportion of occupant deaths. However, passenger cars were reported in 12.3 percent fewer fatal accidents in 1982 than in 1981, while the number of passenger car occupants killed dropped 13 percent. The next two most frequently involved vehicle types, associated with the next largest proportions of occupant fatalities, were light trucks and motorcycles.

FIGURE 38
NUMBER OF VEHICLES PER FATAL ACCIDENT
(38,899)

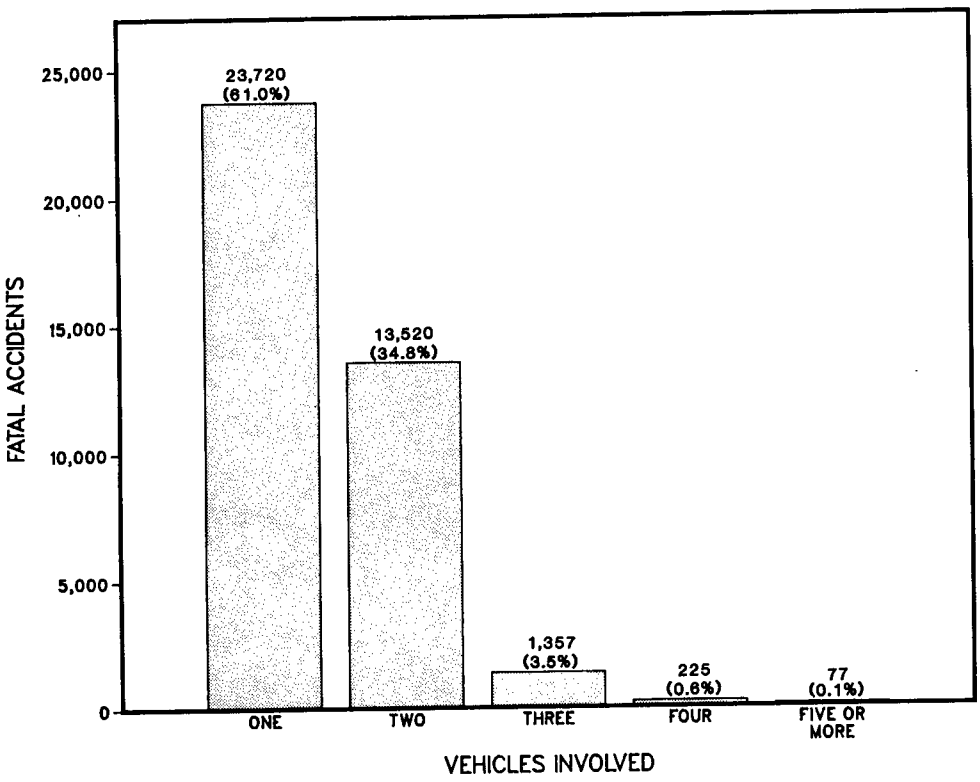


TABLE 52
INVOLVED VEHICLES, OCCUPANTS AND OCCUPANT FATALITIES BY BODY TYPE

	Vehicles		Occupants		Occupant Fatalities	
	Number	Percent	Number	Percent	Number	Percent
Passenger Cars	**33,955**	**60.4**	**58,643**	**63.5**	**23,098**	**65.0**
Convertible	299	.5	483	.5	236	.7
2 Door Sedan, Hardtop, Coupe	19,516	34.7	33,536	36.3	13,747	38.7
3 Door/2 Door Hatchback	1,254	2.2	2,189	2.4	1,048	3.0
4 Door Sedan Hardtop	8,078	14.4	14,025	15.2	5,184	14.6
5 Door/4 Door Hatchback	151	.3	270	.3	131	.4
Station Wagon	2,376	4.2	4,493	4.9	1,515	4.3
Hatchback Doors Unknown	39	.1	74	.1	38	.1
Other Auto	3		5			
Unknown Auto	1,953	3.5	3,134	3.4	1,031	2.9
Auto Based Pickup	280	.5	417	.5	167	.5
Auto Based Short Panel	6		17		1	
Motorcycles	**4,243**	**7.6**	**5,297**	**5.7**	**4,202**	**11.8**
Other Motorized Cycles	**177**	**.3**	**227**	**.2**	**181**	**.5**
Moped	108	.2	139	.2	109	.3
Other Motorcycle - Minibike	41	.1	54	.1	44	.1
Unknown Motorcycle	28		34		28	.1
Buses	**286**	**.5**	**925**	**1.0**	**35**	**.1**
School Bus	104	.2	335	.4	9	
Cross Country/ Intercity Bus	39	.1	207	.2	5	
Transit Bus	103	.2	211	.2	11	
Other Bus	30	.1	159	.2	10	
Unknown Bus	10		13			
Light Trucks and Vans	**10,057**	**17.9**	**17,133**	**18.6**	**5,553**	**15.6**
Van	1,532	2.7	3,085	3.3	740	2.1
Commercial Cutaway Van	94	.2	128	.1	28	.1
Other Van	11		26		7	
Unknown Van	72	.1	122	.1	28	.1
Pickup	7,865	14.0	12,903	14.0	4,531	12.8
Pickup with Camper	87	.2	185	.2	49	.1
Cab Chassis Based Light Truck	117	.2	166	.2	43	.1
Panel Truck	13		23		10	
Truck Based Station Wagon	148	.3	325	.4	74	.2
Other Conventional Light Truck	2		2		2	
Unknown Conventional Light Truck	64	.1	89	.1	26	.1
Unknown Light Truck	52	.1	79	.1	15	
Heavy Trucks	**4,588**	**8.2**	**5,446**	**5.9**	**934**	**2.6**
Straight Medium or Heavy Truck GVWR 10,000 and 19,500 Lbs.	238	.4	327	.4	49	.1
Straight Heavy Truck GVWR 19,500 and 26,000 Lbs.	157	.3	204	.2	46	.1
Straight Heavy Truck GVWR over 26,000 Lbs.	283	.5	342	.4	49	.1
Truck Tractor	3,553	6.3	4,123	4.5	721	2.0
Unknown Medium Truck	47	.1	58	.1	9	
Unknown Heavy Truck	79	.1	85	.1	9	
Straight Truck Unknown GVWR	231	.4	307	.3	51	.1
Special and Other Vehicles	**1,414**	**2.5**	**2,623**	**2.8**	**982**	**2.8**
Snowmobile	29	.1	40		29	.1
Farm Equipment except Trucks	139	.2	222	.2	93	.3
All Terrain Vehicles	37	.1	69	.1	35	.1
Construct. Equip. except Trucks	39	.1	37		12	
Go Cart,Fork Lift,Sweeper, etc.	43	.1	57	.1	34	.1
Auto Based Short Utility	483	.9	907	1.0	403	1.1
Van Based Motorhome	35	.1	73	.1	13	
Pickup Based Motorhome	13		31		4	
Utility Truck	517	.9	996	1.1	321	.9
Utility Truck, Unknown Base	11		17		4	
Medium or Heavy Truck Based Motorhome	10		17		1	
Unknown Truck Camper/Motorhome	58	.1	157	.2	33	.1
Unknown	**1,470**	**2.6**	**2,063**	**2.2**	**527**	**1.5**
Unknown Truck	151	.3	211	.2	34	.1
Unknown Other Vehicles	4		24		2	
Unknown Body Type	1,315	2.3	1,828	2.0	491	1.4
Total	**56,190**	**100.0**	**92,357**	**100.0**	**35,512**	**100.0**

Motorcycles accounted for 5,297 (5.7 percent) of the 92,357 occupant involvements but 4,202 (11.8 percent) of the 35,512 occupants killed. Conversely, medium and heavy trucks together accounted for 5.9 percent of all occupants but only 2.6 percent of those killed. The smallest decreases reported in fatal accidents from 1981 to 1982 were among light and heavy trucks (-7.6 percent and -9.3 percent respectively). Not surprisingly, large trucks experienced a much larger decrease (-13.1 percent) in occupant fatalities than small trucks (-9.4 percent). In marked contrast to other vehicle types, increases occurred from the previous year in the number of other motorized cycles (12.7 percent) and special vehicles (26.7 percent) involved in fatal accidents and in the number of occupant fatalities associated with these vehicles (14.6 percent and 40.8 percent respectively).

Table 53 distributes involved vehicle types by most harmful event. Collisions with parked motor vehicles, animals, and trains are included in the "other objects not fixed" category and "collision with motor vehicle in transport" is a subgroup of "objects not fixed." "Collision with motor vehicle in transport" accounted for 51.4 percent of the most harmful events in fatal accidents. Collisions with roadside structures (i.e., dividers, culverts or ditches, curbs or walls, embankments, fences, light supports, guard rails, sign posts, utility poles, impact attenuators, and bridges or overpasses) were cited as the most harmful event for 8.2 percent of the vehicles. Collisions with other fixed objects (buildings, trees, and shrubbery) were cited for 5.6 percent of the vehicles.

The incidence of most harmful events recorded for the 17,620 occupant deaths that resulted from single-vehicle accidents and the 17,892 occupant deaths from multi-vehicle accidents are shown in Tables 54 and 55.

Trees and shrubbery were struck most frequently in single-vehicle accidents in both urban and rural areas. The second most frequently struck fixed objects were utility poles in urban areas and embankments in rural areas.

Multi-vehicle fatalities in rural areas most often involved head-on crashes. In urban areas the greatest number of fatalities occurred in angle crashes.

TABLE 53
VEHICLES INVOLVED IN FATAL ACCIDENTS BY MOST HARMFUL EVENT
(56,190)

Noncollision - 8,140(14.5%)

Collision with Nonoccupant - 7,883(14.0%)

Collision with Motor Vehicle in Transport - 28,864(51.4%)

Collision with Other Objects Not Fixed - 1,255(2.2%)

Collision with Highway Appurtenances - 4,598(8.2%)

Collision with Other Fixed Objects - 3,149(5.6%)

Unknown - 2,301(4.1%)

TABLE 54
MOST HARMFUL EVENT IN SINGLE VEHICLE OCCUPANT FATALITIES BY LAND USE AND ROADWAY FUNCTION CLASS (17,620)

Most Harmful Event	Interstate Freeway	Other Freeways & Expressways	Other Principal Arterials	Minor Arterial	Collector	Local Street	Unknown	Total
URBAN								
Total	780	476	1,318	1,452	761	1,284	70	6,141
Noncollision	331	206	352	361	184	385	13	1,832
Collision with Object not Fixed	77	23	106	151	85	156	15	613
Building		2	24	28	17	37	1	109
Culvert/Ditch	5	3	16	32	12	29	7	104
Curb/Wall	21	17	40	47	29	48	5	207
Divider	19	9	7	11	3	1	1	51
Embankment	15	4	21	29	9	28	3	109
Fence	5	3	8	14	3	9		42
Guard Rail	111	54	27	30	13	16	3	254
Light Support	11	5	57	46	13	20		152
Sign Post	5	1	20	20	6	3	1	56
Tree/Shrubbery	23	50	175	274	198	271	7	998
Utility Pole	17	37	238	233	136	137	7	805
Other Poles/Support	18	9	36	37	16	13	1	130
Impact Attenuator	4		2	1				7
Other Fixed Objects	11	7	34	31	11	27	2	123
Bridge (Fixed Object)	82	34	76	47	12	23		274
Unknown	23	12	79	58	13	78		263
RURAL								
Total	1,080		1,733	1,899	4,211	2,362	37	11,322
Noncollision	673		964	887	2,027	1,120	18	5,689
Collision with Object not Fixed	90		84	84	167	215		640
Building	22		5	8	25	14	1	53
Culvert/Ditch	10		59	97	163	87	5	433
Curb/Wall	2		10	10	24	13	2	69
Divider	36		3		8	2		15
Embankment	5		96	104	210	82		528
Fence	71		10	14	39	14	2	84
Guard Rail	3		49	32	68	14	1	235
Light Support	7		2	2	1	5		13
Sign Post	45		11	16	16	2		52
Tree/Shrubbery	5		223	320	839	527	5	1,959
Utility Pole			71	92	241	96	2	507
Other Poles/Support	6							
Other Fixed Objects	15		16	23	40	16		101
Bridge (Fixed Object)	54		10	20	28	19		92
Unknown	35		71	62	145	61	1	394
			49	124	162	71		441
UNKNOWN								
Total	5	3	10	1	1		137	157
Noncollision			3	1	1		58	63
Collision with Object not Fixed		1					7	8
Building							3	3
Culvert/Ditch			2				3	5
Curb/Wall							1	1
Divider			1				1	2
Embankment							3	3
Fence							2	2
Guard Rail			1				4	5
Light Support							1	1
Tree/Shrubbery			3				17	20
Utility Pole		2					15	17
Other Poles/Support							5	5
Impact Attenuator							1	1
Other Fixed Objects							1	1
Bridge (Fixed Object)							4	4
Unknown	5						10	15
Total	1,865	479	3,061	3,352	4,973	3,646	244	17,620

TABLE 55
MOST HARMFUL EVENT IN MULTI-VEHICLE OCCUPANT FATALITIES BY LAND USE AND ROADWAY FUNCTION CLASS
(17,892)

Most Harmful Event	Interstate Freeway	Other Freeways & Expressways	Other Principal Arterials	Minor Arterial	Collector	Local Street	Unknown	Total
URBAN								
Total	**702**	**519**	**2,457**	**1,936**	**633**	**756**	**62**	**7,065**
Noncollision	101	46	94	71	23	17	1	353
Nonoccupant		1	1			1		3
Tree or Shrubbery		6	7	13	5	6		37
Utility Pole	3	3	18	9	8	5		46
Guard Rail	9	4	1		2			16
Bridge	10	3	2	2	1	1		19
Culvert or Ditch	2							2
Other Object not Fixed	10	1	7	5	3	6		32
Other Fixed Objects	11	4	34	15	4	4	2	74
Collision with Motor Vehicle in Transport								
Rear End	181	78	249	144	32	51	8	743
Head On	173	133	624	543	193	174	14	1,854
Rear to Rear	3		3	2	2			10
Angle	84	168	1,142	989	325	399	35	3,142
Sideswipe	46	24	59	43	14	23	1	210
Other	69	48	216	100	21	69	1	524
RURAL								
Total	**728**		**3,281**	**2,727**	**3,011**	**825**	**39**	**10,611**
Noncollision	102		172	126	179	47	2	628
Tree Or Shrubbery	3		15	15	18	5		56
Utility Pole			5	6	7	3		21
Guard Rail	2		6	1	1	1		11
Bridge	4		1	4	3			12
Culvert or Ditch				3	3			6
Embankment			3		1	1		5
Other Object not Fixed	8		10	12	2	4		36
Other Fixed Objects	2		7	4	10	7		30
Collision with Motor Vehicle in Transport								
Rear End	213		256	160	188	32	3	852
Head On	211		1,502	1,304	1,273	351	9	4,650
Rear to Rear			6	1	6			13
Angle	105		1,011	779	1,096	322	25	3,338
Sideswipe	31		98	100	85	22		336
Other	47		189	212	139	30		617
UNKNOWN								
Total	**6**	**5**	**15**	**4**	**1**	**2**	**183**	**216**
Noncollision			1	2			12	15
Tree or Shrubbery							1	1
Utility Pole							3	3
Guard Rail							1	1
Other Fixed Objects			1					1
Collision with Motor Vehicle in Transport								
Rear End			1	2			14	17
Head On		2	8			2	40	52
Angle		3	4		1		94	102
Sideswipe							5	5
Other	6						13	19
Total	**1,436**	**524**	**5,753**	**4,667**	**3,645**	**1,583**	**284**	**17,892**

The greatest number (68.9 percent) of fatal single and multi-vehicle crashes occurred when the vehicles were reported as "going straight" (Figure 39). More than one-third (33.9 percent) of all fatal accidents were two vehicle collisions in which both vehicles were reported "going straight" prior to the crash.

The remainder of this chapter examines various aspects of fatal accidents by generic vehicle type.

FIGURE 39
VEHICLE MANEUVER IN FATAL ACCIDENTS

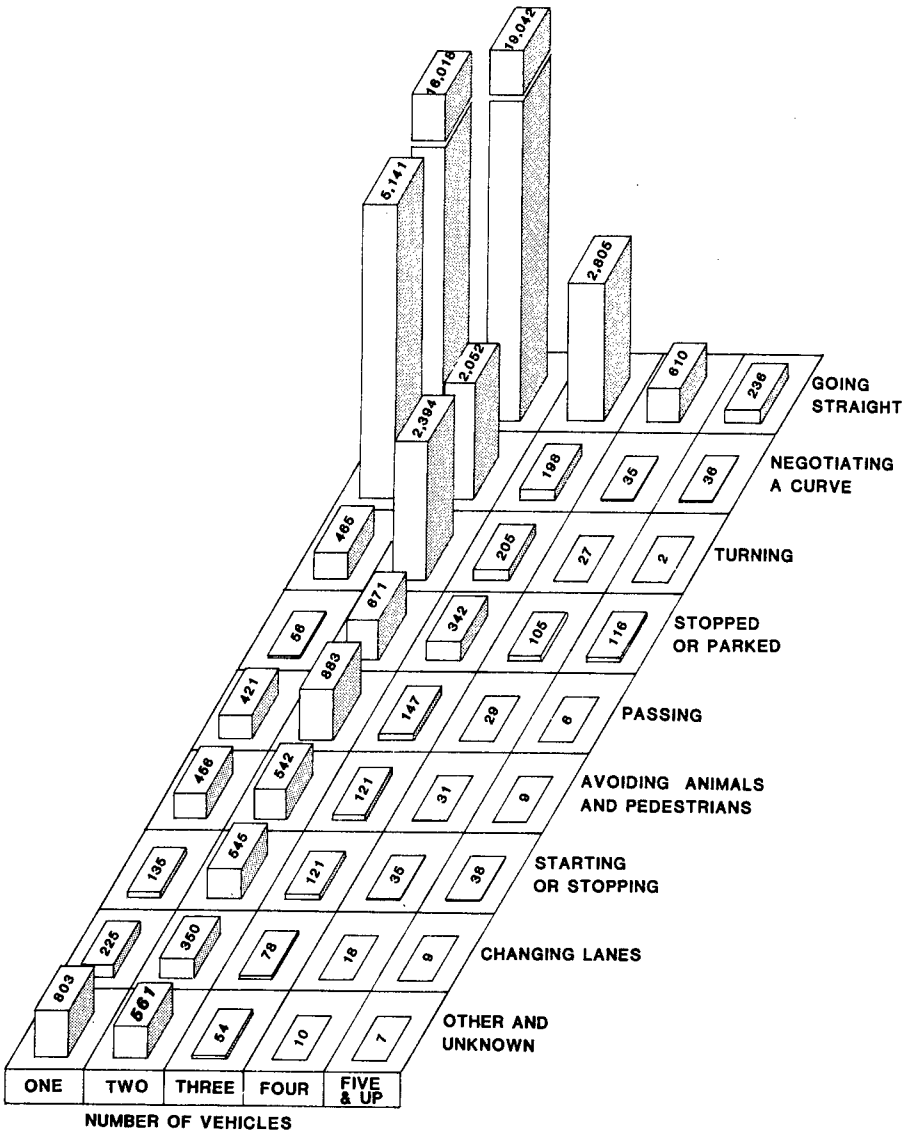
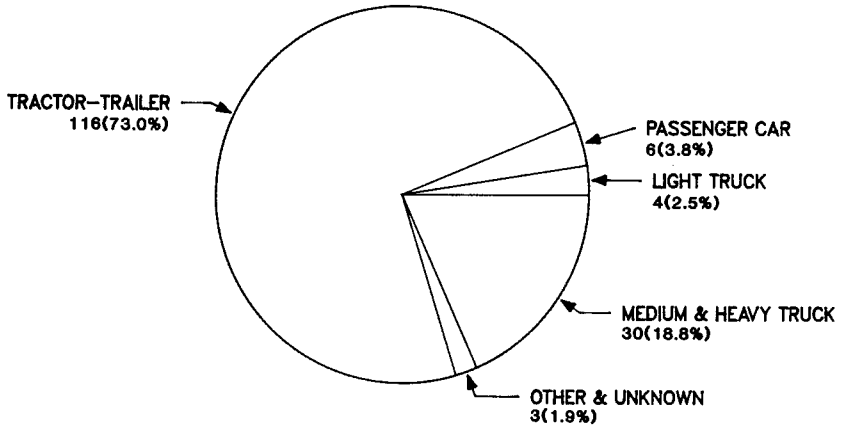


FIGURE 40
HAZARDOUS CARGO CARRYING VEHICLES INVOLVED IN FATAL ACCIDENTS (159)



PASSENGER CARS

Almost two-thirds (65 percent) of all vehicles involved in fatal accidents were passenger cars. Table 52 shows the distribution of vehicle involvements and occupant deaths by type of passenger car. Two-door sedans, hardtops, and coupes were the most frequently involved passenger car types (56.7 percent) and accounted for most car occupant deaths (58.5 percent). Next most frequently involved were four-door sedans or hardtops (23.5 percent), which accounted for 22.1 percent of the car occupant fatalities.

FIGURE 41
VEHICLE DAMAGE IN FATAL ACCIDENTS BY MOST SEVERE INJURY IN VEHICLE

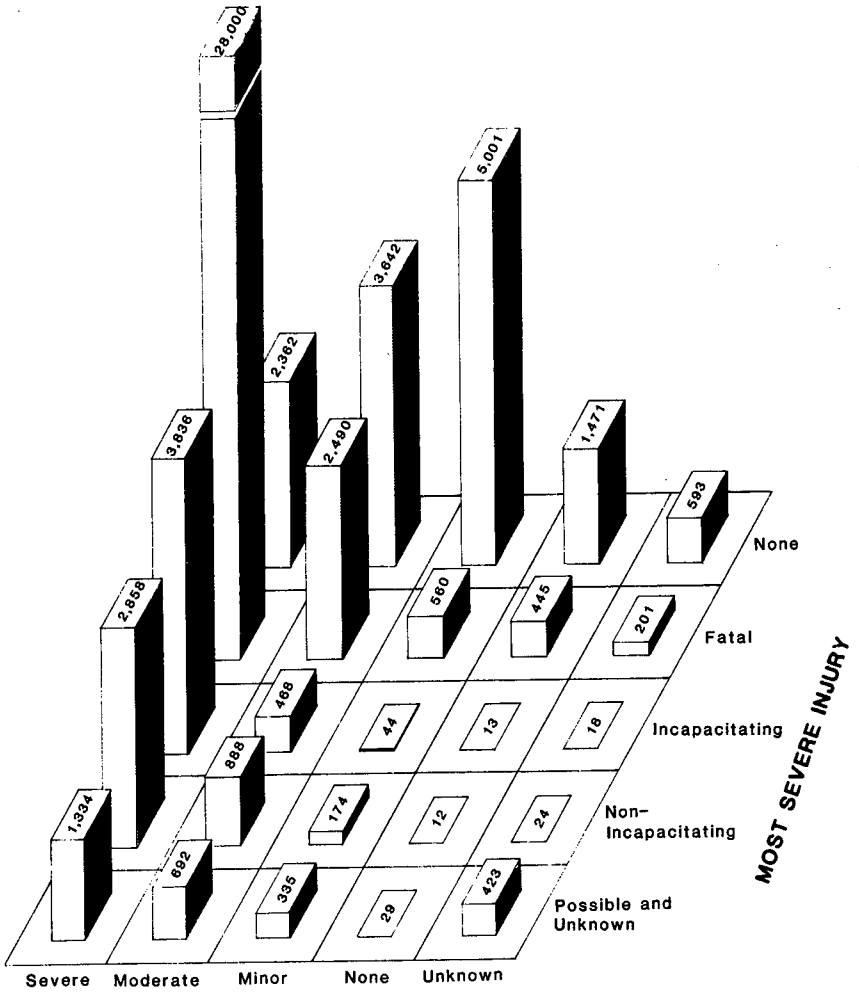


Figure 42 shows the six-year history of fatal accidents and fatalities involving passenger cars; 33,955 passenger cars were involved in 27,292 fatal accidents in 1982, resulting in 23,098 passenger car occupants killed, a decrease of 13 percent from 1981.

The distribution of involved passenger cars by most harmful event is displayed in Figure 43. Collision with a motor vehicle in transport was the most harmful event for slightly less than half(48.8 percent) of the passenger cars involved in fatal accidents. Vehicles involved in collisions with other motor vehicles are further subdivided by the "manner of collision," an accident related variable associated with the first harmful event in the accident, which may be inaccurate for collisions of three or more vehicles. Collisions with nonoccupants and noncollisions together accounted for another 27.8 percent. However, if all fixed-object collisions are combined into a single category, they were cited more often than was either "collision with nonoccupant" or "noncollision."

FIGURE 42
PASSENGER CAR INVOLVED FATAL ACCIDENTS AND RELATED FATALITIES FOR 1977 TO 1982

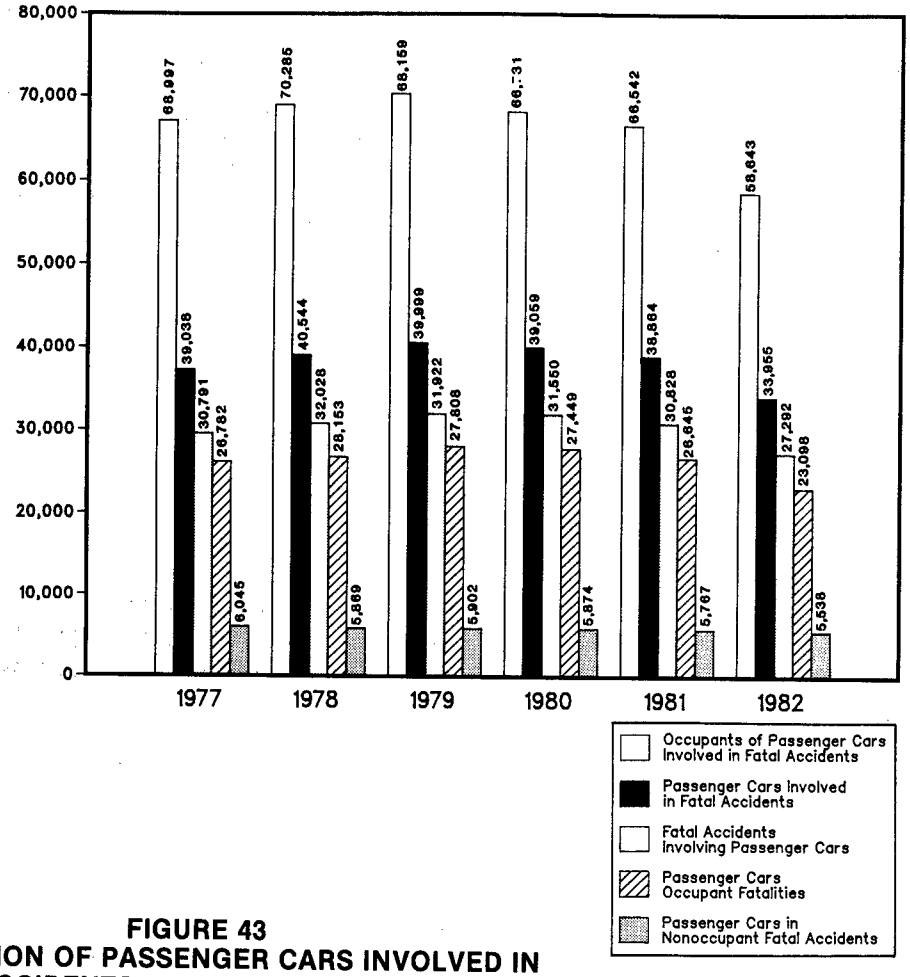
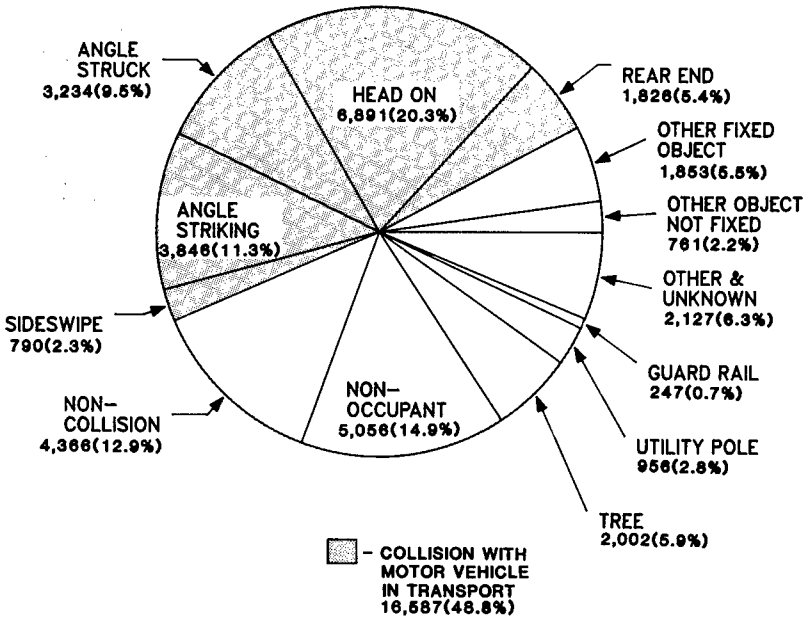


FIGURE 43
DISTRIBUTION OF PASSENGER CARS INVOLVED IN FATAL ACCIDENTS BY MOST HARMFUL EVENT (33,955)

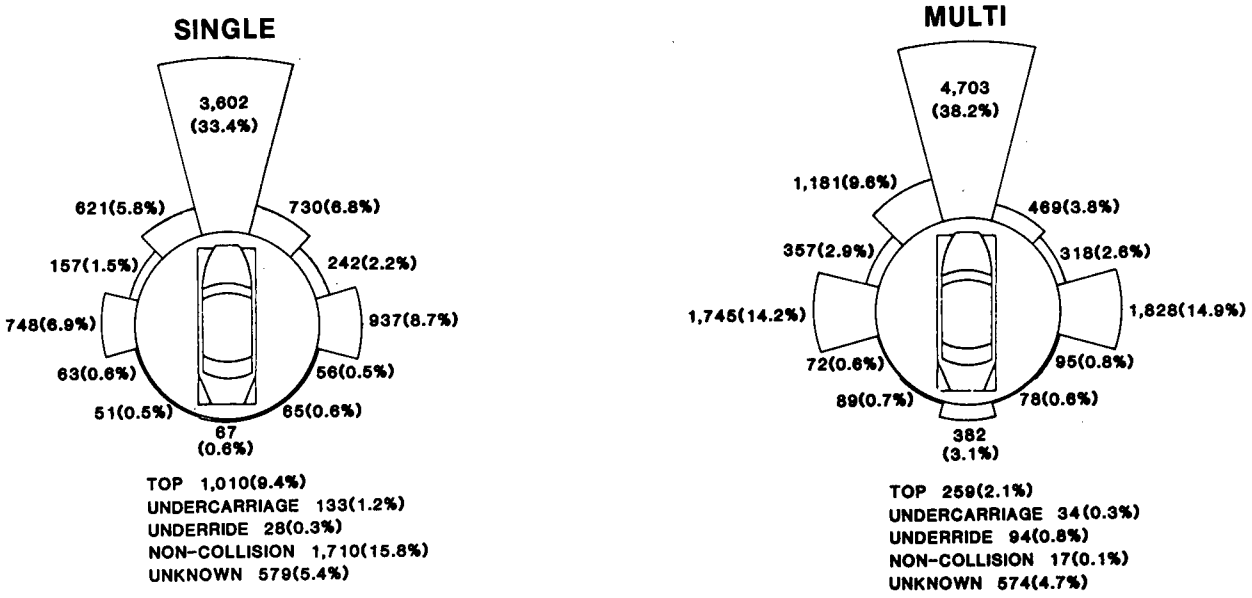


Each of the 23,098 passenger car occupant deaths in 1982 can also be classified by the point on the vehicle at which the principal impact occurred such as a truck hitting an overpass bridge. When the terms "Front," "Rear," "Left Side," and "Right Side" are used in this report, they refer to groupings as follows:

Front:
clock points 11, 12, and 1
Rear:
clock points 5, 6, and 7
Left side:
clock points 8, 9, and 10
Right side:
clock points 2, 3, and 4

The impact points "top," "undercarriage" and "underride" are also included in Figure 44. "Top" was recorded when the vehicle incurred damage from impacting its top against an object during the accident, an example being a truck hitting a bridge overpass. "Undercarriage" refers to the underside of the vehicle. "Underride" refers to accidents in which a vehicle slides under another vehicle, the most common example being that of an automobile striking the rear or side of a tractor-trailer and continuing wholly or partly under the truck. The principal point of impact recorded for such an accident would be "underride" for the striking automobile and "undercarriage" for the struck truck.

FIGURE 44
DISTRIBUTION OF PASSENGER CAR OCCUPANT FATALITIES BY POINT OF PRINCIPAL IMPACT



Noncollision data are also included. When the only event in an accident is an overturn, for example, the accident is not considered a collision and impact points are not coded.

Frontal collisions were associated with almost half of all passenger car occupant deaths. Occupant deaths were about equal for left and right side collisions and, taken together, accounted for the second largest proportion of passenger car occupant deaths (28.7 percent).

More than one in ten (13 percent) passenger car occupant deaths resulted from noncollision events (e.g., overturn, gas inhalation, vehicle fire, immersion).

Significantly, subcompact and compact size cars accounted for 13,495 (58.4 percent) of all passenger car occupant deaths (Table 56). Small subcompact cars had 21.6 percent of the fatalities and only 17.2 percent of the involved vehicles, while large cars had 9.7 percent of the fatalities and 12.8 percent of the involved vehicles.

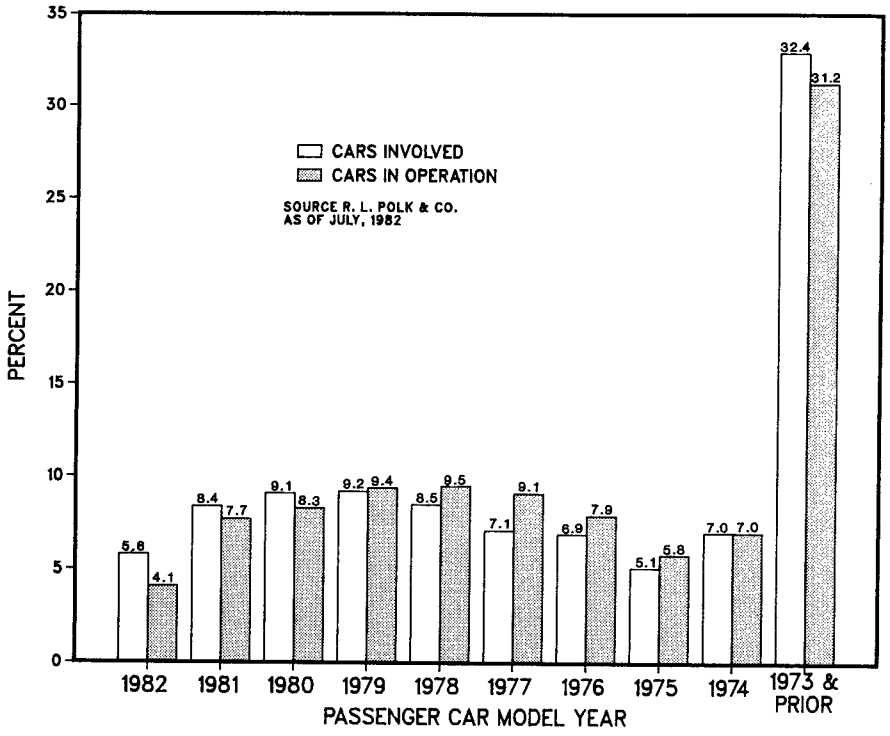
While the number of fatalities and vehicles in fatal accidents dropped about 13 percent, the decline was not consistent among automobiles of all sizes. Fatalities in smaller cars remained about the same while fatalities in intermediate and full size cars dropped considerably.

The model-year distribution of passenger car involvements in fatal accidents is compared to the model-year distribution of passenger cars estimated by R.L. Polk and Company to be in operation as of July, 1982 (Figure 45). The figure does not include 143 accident-involved 1983 model-year cars because they were introduced in September 1982. Passenger cars 9 years old or older were involved in fatal accidents slightly more often than their representation in the total population would indicate. The newest model cars also appear to be over-represented.

TABLE 56
PASSENGER CAR FATALITIES BY VEHICLE SIZE

	Fatalities		Vehicles Involved in Fatal Accidents	
	Number	Percent	Number	Percent
Small Subcompact Wheelbase less the 96"	4,994	21.6	5,837	17.2
Subcompact Wheelbase between 96" and 101"	2,648	11.5	3,332	9.8
Compact Wheelbase between 102" and 111"	5,853	25.3	8,187	24.1
Intermediate Wheelbase between 112" and 120"	4,671	20.2	8,152	24.0
Full Size Wheelbase greater than 120"	2,226	9.7	4,357	12.8
Wheelbase Unknown	2,706	11.7	4,090	12.1
Total	23,098	100.0	33,955	100.0

FIGURE 45
PASSENGER CAR INVOLVEMENT BY MODEL YEAR
(20,154)



NOTE: 76 CARS WITH UNKNOWN MODEL YEAR INVOLVED.

MOTORCYCLES

In 1982, motorcycle occupant fatalities declined about 11 percent.* A total of 4,202 motorcycle riders were killed in 4,132 accidents that involved 4,243 motorcycles. The six-year history in Figure 46 illustrates that while fatal motorcycle accidents increased from 1976 to 1980, the number of accidents, motorcycles involved, and riders killed all began to decline in 1981, a trend that continued through 1982. However, the number of rider fatalities continued to exceed the number of fatal motorcycle accidents. This is the only vehicle type for which this is true. When a motorcycle was involved in a fatal accident, at least one fatality was almost always a motorcycle rider: 1.02 motorcyclist died for every motorcycle involved in a fatal accident.

As was the case with passenger cars, most motorcycles (49.3 percent) involved in fatal accidents collided with other motor vehicles in transport (Figure 47). Also, motorcycles collided with "other fixed objects" 14.4 percent of the time, almost triple the rate of passenger car collisions in this category and more frequently than such collisions experienced by any other vehicle type considered in this chapter. As in fatal accidents involving passenger cars, collision with all types of "fixed objects" was cited more often for motorcycles than was "noncollision."

FIGURE 46
MOTORCYCLE INVOLVED FATAL ACCIDENTS AND RELATED FATALITIES FOR 1977-1982

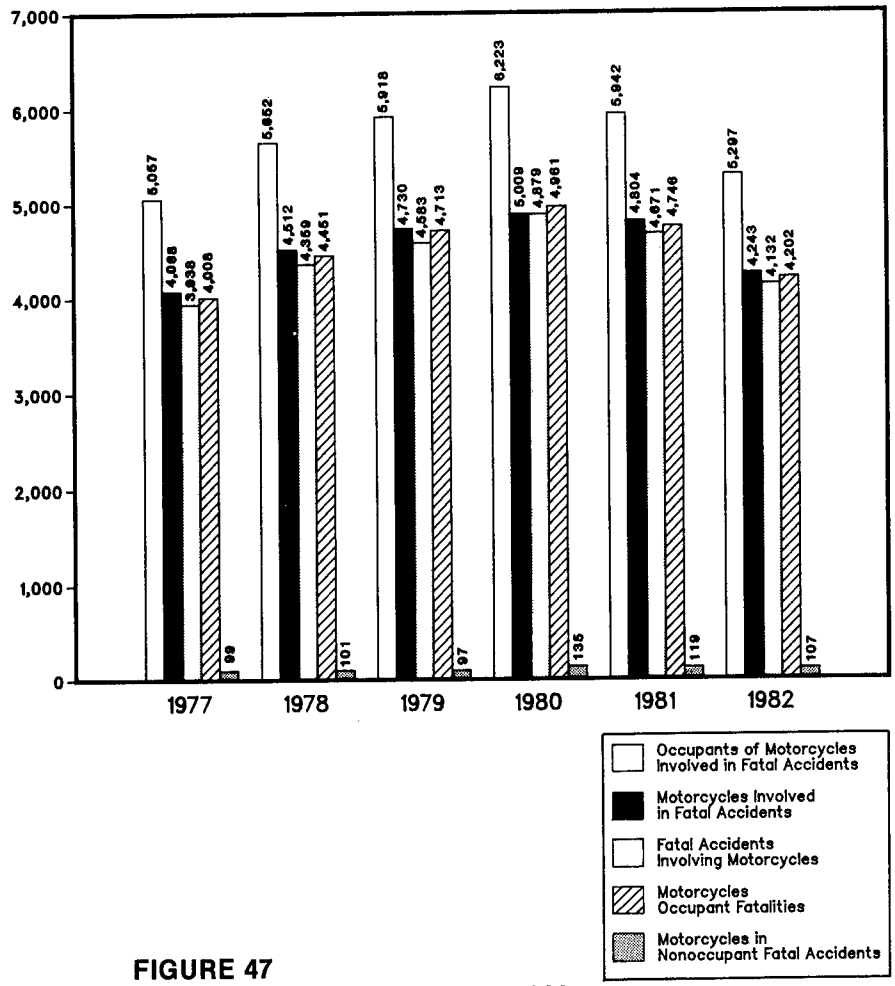
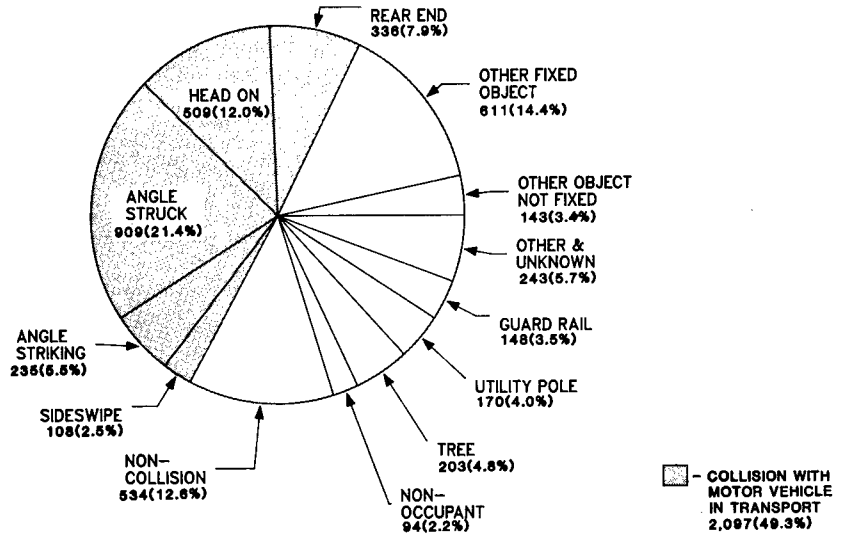


FIGURE 47
DISTRIBUTION OF MOTORCYCLES INVOLVED IN FATAL ACCIDENTS BY MOST HARMFUL EVENT (4,243)



*The term "motorcycles," as used in this section, does not include mopeds, motorscooters, minibikes, and motorcycle types not specifically named in the FARS file. The total number of riders, rider fatalities, fatal accidents, and motorcycle involvements associated with mopeds, motorscooters, minibikes and unknown type motorcycles, in addition to motorcycles, are shown in Table 57.

Of the 4,202 motorcycle riders killed in 1982, frontal impacts were associated even more often than was the case for passenger cars--69.3 percent of motorcycle-rider deaths (Figure 48). Only 12.6 percent of the rider fatalities resulted from noncollision events, including overturns and falls from vehicles. As with passenger cars, little difference was found between fatality rates resulting from principal impacts to the left and right sides.

LIGHT TRUCKS

Fatal accidents and occupant deaths associated with light trucks* continued to decline in 1982, a trend that began in 1981 (Figure 49). However, the decline was not as great as with passenger cars. In fact, fatal accidents and fatalities declined less for small trucks than for any other vehicle category considered in this report.

FIGURE 48
DISTRIBUTION OF MOTORCYCLE OCCUPANT FATALITIES BY POINT OF PRINCIPAL IMPACT

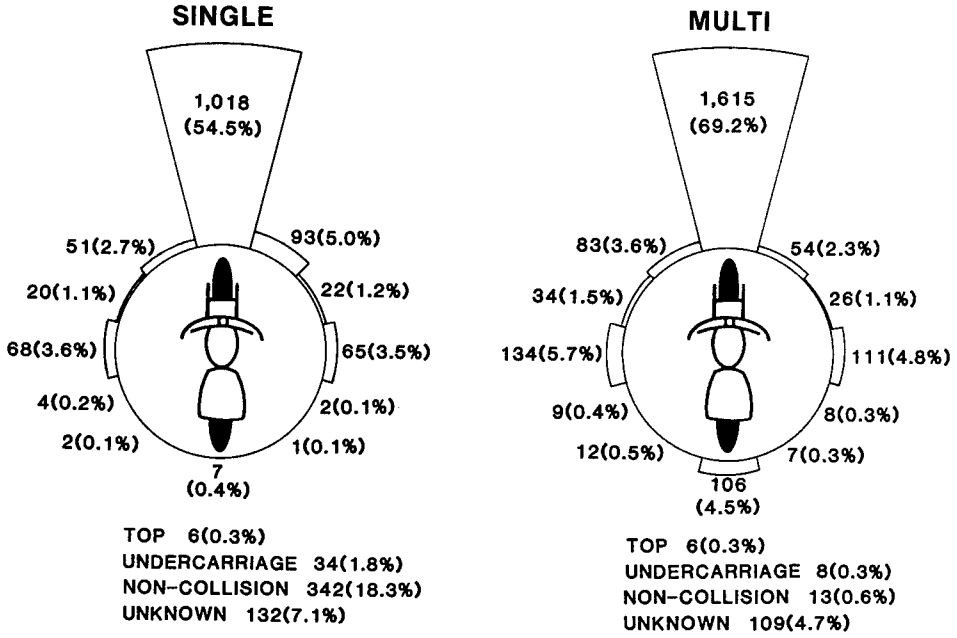
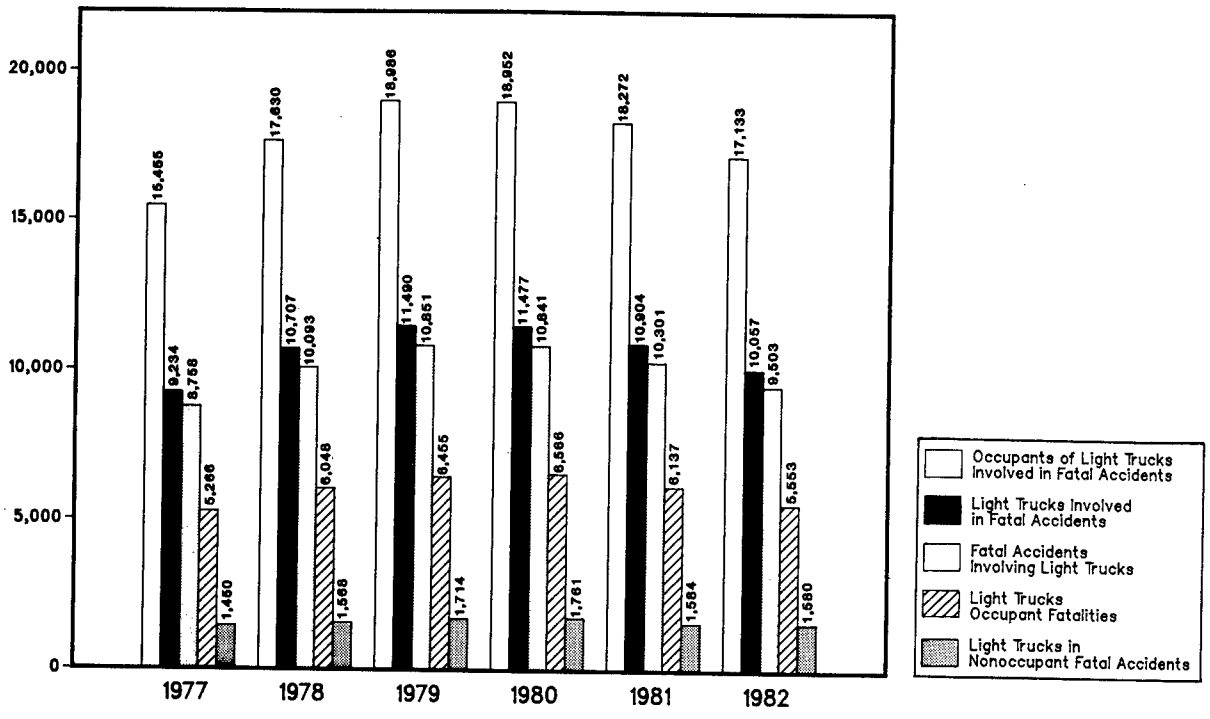


FIGURE 49
LIGHT TRUCK INVOLVED FATAL ACCIDENTS AND RELATED FATALITIES FOR 1977-1982



*Among light trucks were included pickups, vans, and truck-based station wagons.

The 5,553 light-truck occupant deaths in 1982 represent a decrease from 1981 of 9.5 percent, a departure from the 10.5 percent average annual rate of increase that persisted from 1975 to 1979.

Pickup trucks were involved in fatal accidents almost five times as often as were vans and accounted for more than six times the occupant deaths (Table 58).

The most harmful event reported for almost half (47.8 percent) of the 10,057 light trucks involved in 1982 fatal accidents (Figure 50) was collision with a motor vehicle in transport. Noncollision events were cited for another 20.3 percent, including falls from the vehicle, overturns, fires, explosions, gas inhalations, injury in the vehicle, immersions, and other noncollisions. This is substantially greater than noncollision events reported for passenger cars.

Light trucks collided with nonoccupants in 14.5 percent of the fatal accidents involving light trucks. This was almost the same as that reported for passenger cars (Figures 50 and 43). Again, as with cars and motorcycles, frontal impacts accounted for the single largest share of occupant fatalities (50 percent).

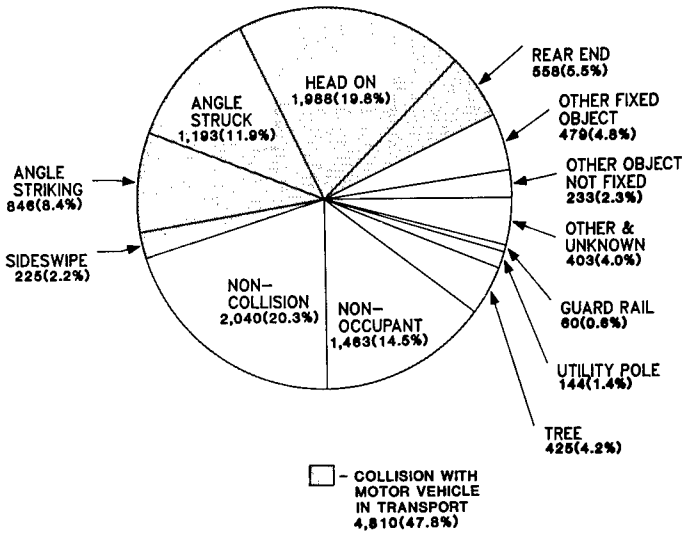
TABLE 57
INVOLVED VEHICLES, OCCUPANTS AND FATALITIES BY BODY TYPE FOR MOTORCYCLE

	VEHICLES		OCCUPANTS		OCCUPANT FATALITIES	
	Number	Percent	Number	Percent	Number	Percent
Motorcycle	4,243	96.0	5,297	95.9	4,202	95.9
Moped	108	2.4	139	2.5	109	2.5
Other Motorcycle	41	.9	54	1.0	44	1.0
Unknown Motorcycle	28	.6	34	.6	28	.6
Total	4,420	100.0	5,524	100.0	4,383	100.0

TABLE 58
INVOLVED VEHICLES, OCCUPANTS AND FATALITIES BY BODY TYPE FOR LIGHT TRUCKS

	VEHICLES		OCCUPANTS		OCCUPANT FATALITIES	
	Number	Percent	Number	Percent	Number	Percent
Van	1,709	17.0	3,361	19.6	803	14.5
Pickup	7,952	79.1	13,088	76.4	4,580	82.5
Other Light Truck	280	2.8	516	3.0	129	2.3
Unknown Light Truck	116	1.2	168	1.0	41	.7
Total	10,057	100.0	17,133	100.0	5,553	100.0

FIGURE 50
DISTRIBUTION OF LIGHT TRUCKS INVOLVED IN FATAL ACCIDENTS BY MOST HARMFUL EVENT (10,057)



MEDIUM TRUCKS

In 1982, 1,002 out of 5,831 occupants of medium* and large trucks were killed in a total of 4,619 fatal accidents. As might be expected, proportionately fewer occupants of these vehicles (1 of 5) were killed in fatal accidents than in automobiles (2 of 5) or light trucks (1 of 3).

FIGURE 51
DISTRIBUTION OF LIGHT TRUCK OCCUPANT FATALITIES BY POINT OF PRINCIPAL IMPACT

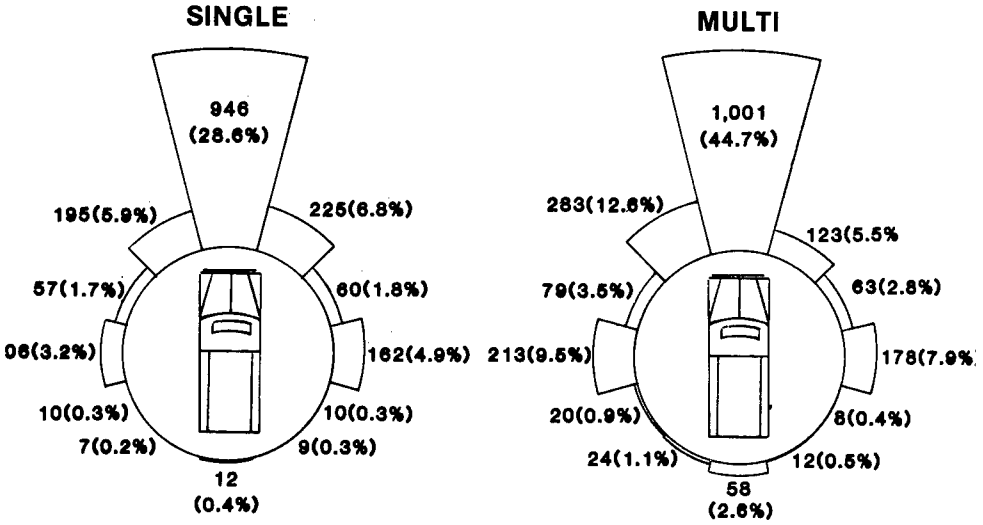


TABLE 59
INVOLVED VEHICLES, OCCUPANTS AND FATALITIES BY GROSS VEHICLE WEIGHT

	VEHICLE		OCCUPANTS		OCCUPANT FATALITIES	
	Number	Percent	Number	Percent	Number	Percent
10,000 to 19,500 Lbs.	238	35.4	327	36.5	49	31.6
19,500 to 26,000 Lbs.	157	23.3	204	22.8	46	29.7
Unknown GVW	278	41.3	365	40.7	60	38.7
Total	673	100.0	896	100.0	155	100.0

The history of medium truck accidents and occupant deaths since 1977 is shown in Figure 52. The 21.7 percent decrease in fatal accident involvements from 1981 is surpassed by an even larger decrease (34 percent) in occupant fatalities to 155 in 1982.

To an even greater degree than the fatal accident experience of other vehicle types considered, the most harmful event cited for most medium truck involvements in 1982 fatal accidents (85.8 percent) was one of the following (Figure 53):

- o Collision with Motor Vehicle in Transport (62 percent)
- o Noncollision (12.8 percent)
- o Collision with Nonoccupant (11 percent)

FIGURE 52
MEDIUM TRUCK INVOLVED FATAL ACCIDENTS AND RELATED FATALITIES FOR 1977-1982

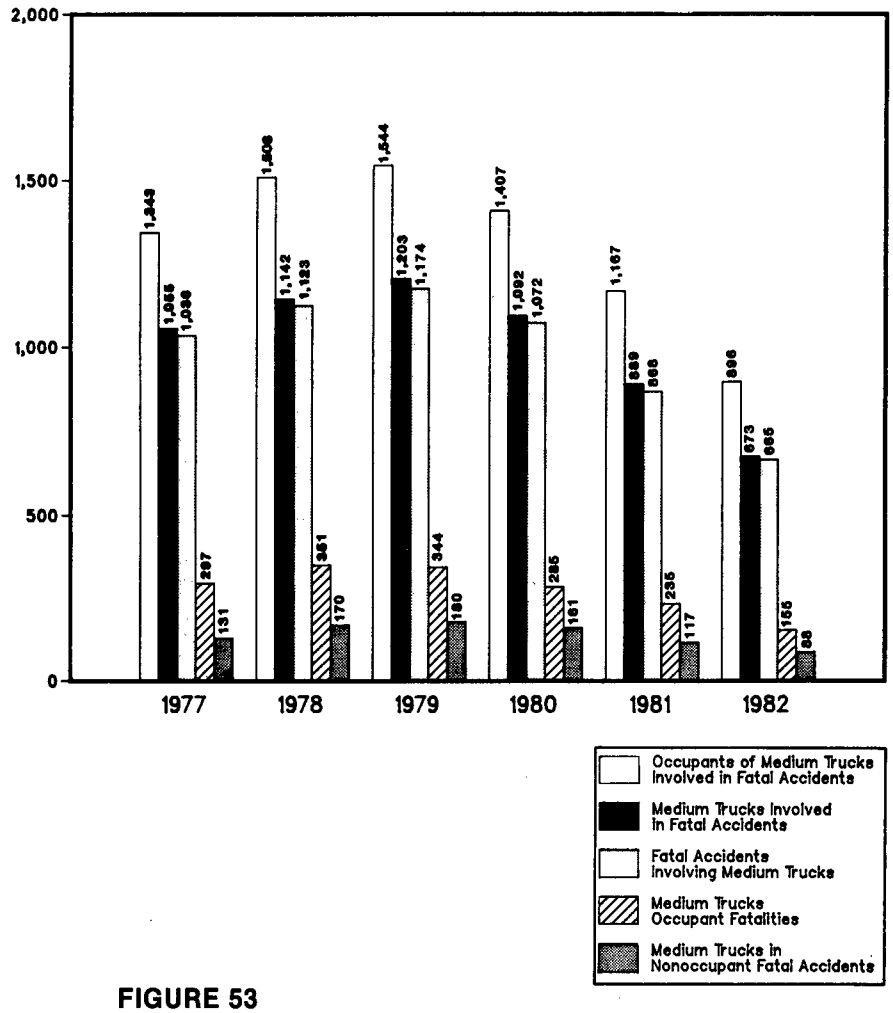
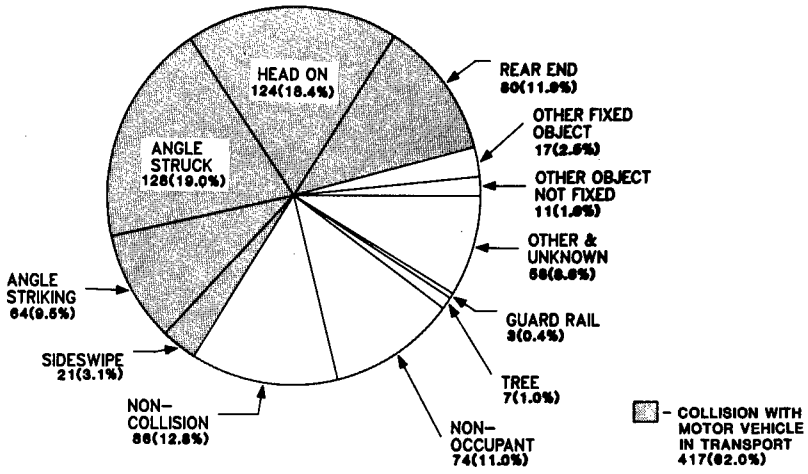


FIGURE 53
DISTRIBUTION OF MEDIUM TRUCKS INVOLVED IN FATAL ACCIDENTS BY MOST HARMFUL EVENT (673)



*"Medium trucks" are defined as single-unit trucks with gross vehicle weights (GVW) between 10,000 and 26,000 pounds. Single-unit trucks of unknown GVW are also included in this group.

As with other vehicle types, frontal impacts accounted for the largest share (39.4 percent) of occupant deaths (Figure 54). However, the proportions of occupant deaths that resulted from top impacts and noncollisions were larger for medium trucks than for all other vehicle types except heavy trucks. Combined, they accounted for 33.6 percent of medium-truck occupant deaths. In FARS, underride is not applicable for this type vehicle.

HEAVY TRUCKS

The number of heavy trucks* involved in fatal accidents increased sharply from 1976 to 1979, the number of occupants in these trucks who were killed increased more slowly (Figure 55). As a result, the gap between involvements and occupant deaths widened. Since 1979, both involvements and occupant deaths have declined as has the difference between the two. Occupant deaths decreased 8.2 percent from 1980 to 1981 and dropped another 13.1 percent from 1981 to 1982.

FIGURE 54
DISTRIBUTION OF MEDIUM TRUCK OCCUPANT FATALITIES BY POINT OF PRINCIPAL INTEREST

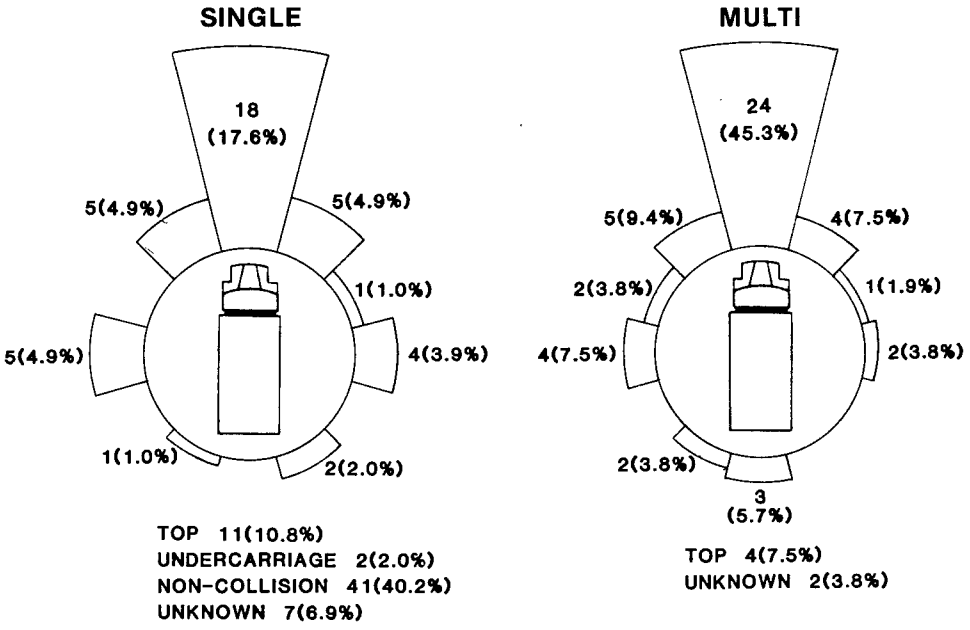
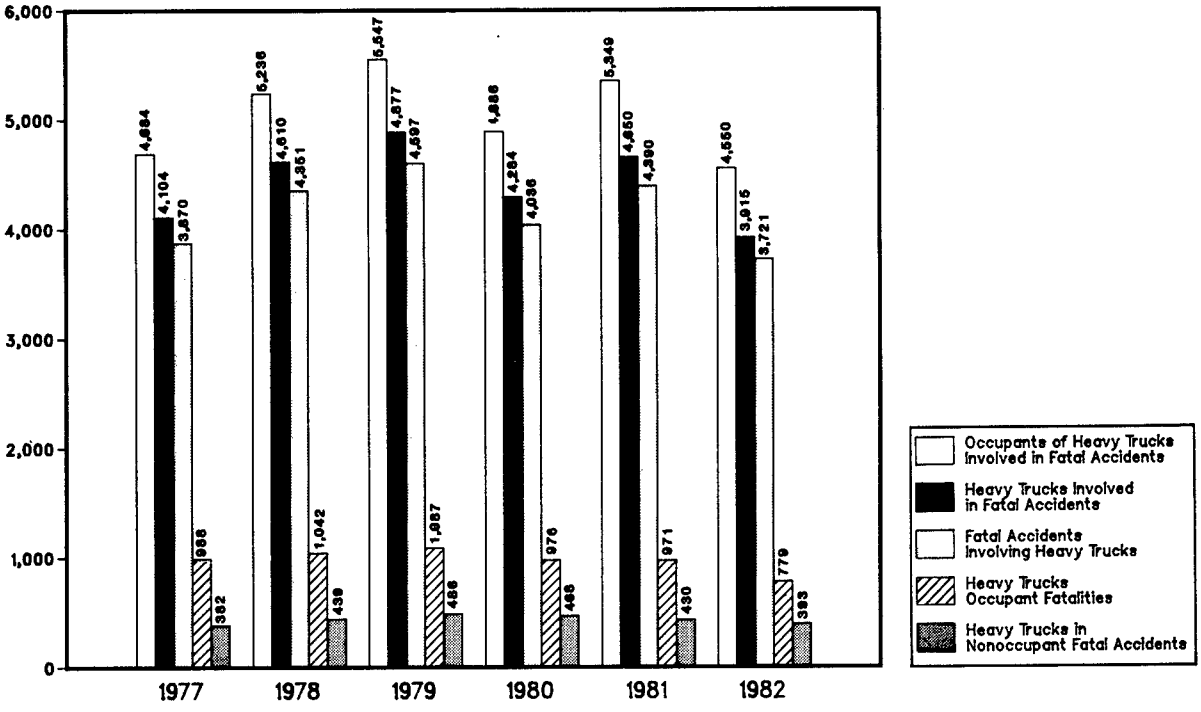


FIGURE 55
HEAVY TRUCK INVOLVED FATAL ACCIDENTS AND RELATED FATALITIES FOR 1977-1982



*"Heavy trucks" include (1) single unit trucks with GVW greater than 26,000 pounds, (2) tractor-trailer combinations, (3) trucks with cargo trailer(s), and (4) truck-tractors pulling no trailer.

More than two-thirds (67.3 percent) of the 3,915 heavy trucks involved in fatal accidents had a "collision with a motor vehicle in transport" considered the most harmful event, a proportion larger than that of involvements by any of the other vehicle types considered thus far (Figure 56). Conversely, the proportion of heavy trucks that experienced noncollisions as the most harmful event (11.6 percent) and the proportion that experienced collisions with nonoccupants (8.9 percent) were both smaller than those of any of the other vehicle type except motorcycles.

Vehicle size appears to correlate well with the likelihood of occupant fatality resulting from top impacts (Figure 57). As the size of the vehicle increases from motorcycle to heavy truck, the proportion of occupant deaths associated with top principal impacts also increases. Top impact was involved in 9.2 percent of the 779 heavy-truck occupant deaths.

As with other vehicle types, frontal impacts are associated with the largest proportion of occupant fatalities. Underride is not applicable to this vehicle type.

FIGURE 56
DISTRIBUTION OF HEAVY TRUCKS INVOLVED IN FATAL ACCIDENTS BY MOST HARMFUL EVENT
(3,915)

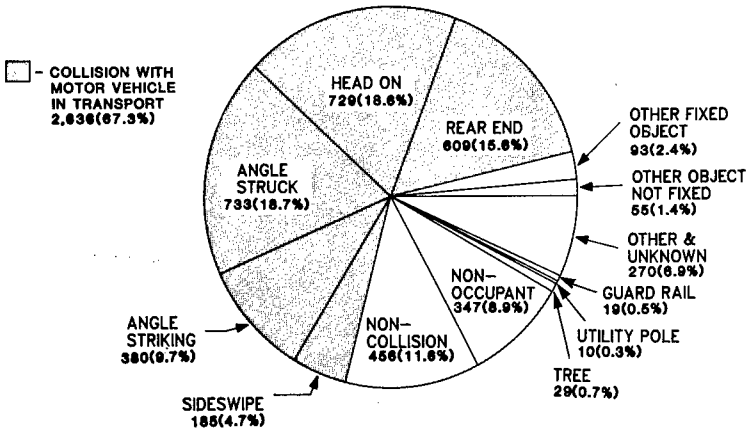


FIGURE 57
DISTRIBUTION OF HEAVY TRUCK OCCUPANT FATALITIES BY POINT OF PRINCIPAL IMPACT

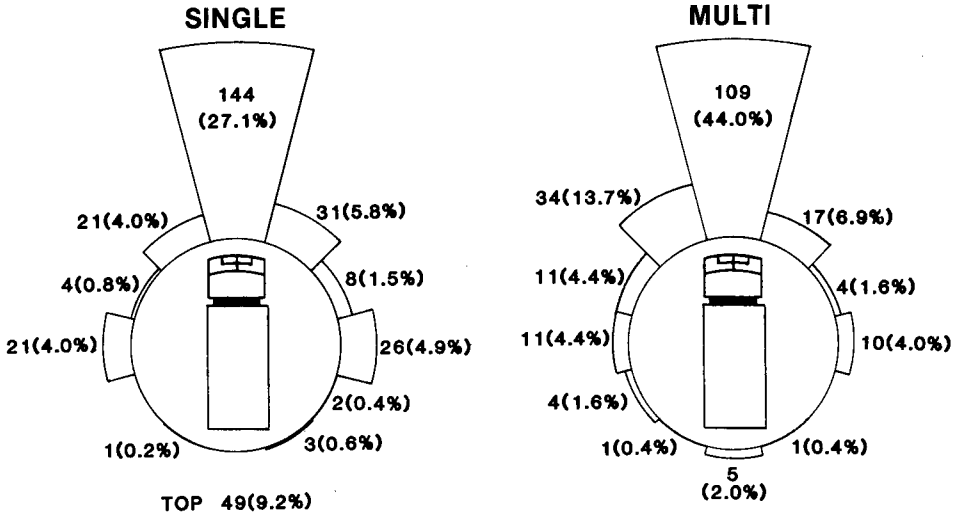


TABLE 60
INVOLVED VEHICLES, OCCUPANTS AND FATALITIES BY TRAILING UNITS FOR COMBINATION TRUCKS BY TRAILING UNITS

	VEHICLES		OCCUPANTS		OCCUPANT FATALITIES	
	Number	Percent	Number	Percent	Number	Percent
None	232	6.5	274	6.6	38	5.3
One Unit	3,173	89.3	3,690	89.6	655	90.8
Two or More Units	131	3.7	142	3.4	25	3.5
Unknown Number	10	0.3	10	0.2	1	0.1
Unknown if Any	7	0.2	7	0.2	2	0.3
Total	3,553	100.0	4,123	100.0	721	100.0

SCHOOL BUSES

This category includes both vehicles **designed** as buses and used in school transportation and vehicles of any body type **functioning** as school buses. (Figure 58 includes accident involvements and occupant fatalities for only those school buses **designed** as buses).

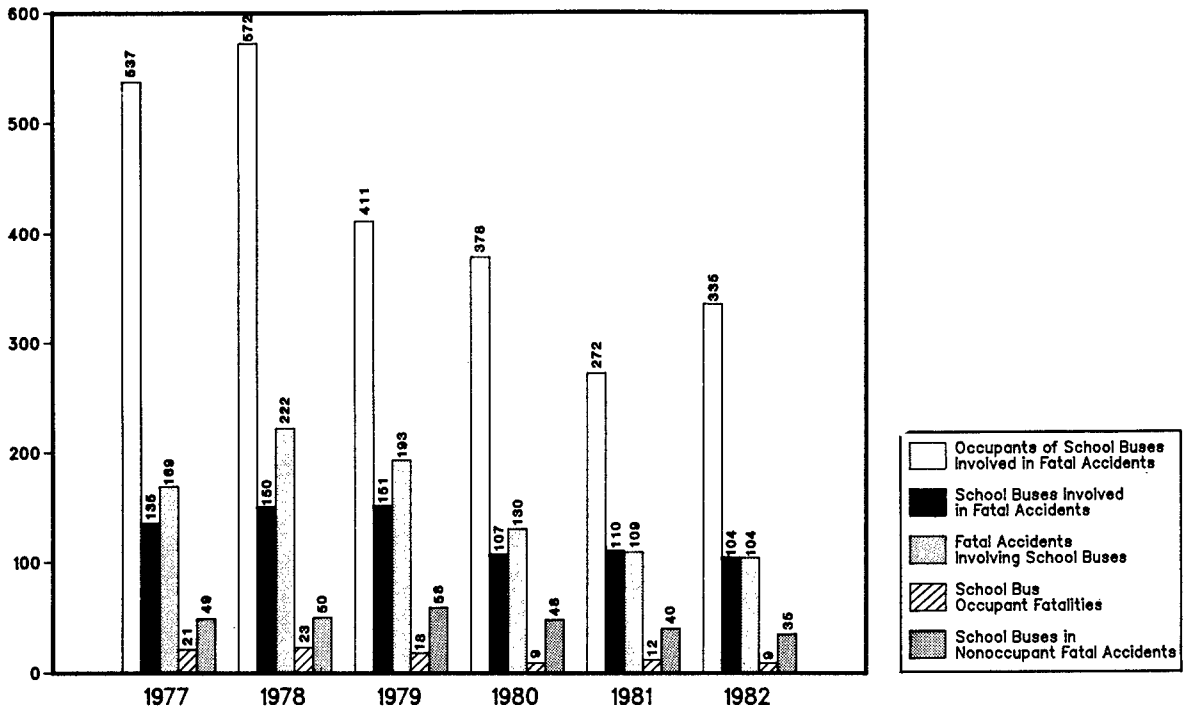
In FARS, a "school bus-related accident" is any fatal accident in which a vehicle functioning as a school bus is either directly or indirectly involved. Thus the category includes, for example, any accident in which a child disembarking from a school bus is struck by another vehicle. The fact that the child was struck after exiting the bus permits the accident to be classified as school bus-related even though the bus was neither a struck nor striking vehicle. Occupants of those vehicles which did not have the typical school bus body type but which were functioning as school buses were included with school bus occupants.

School bus-related accidents have been decreasing since 1978 (Figure 58). Occupant deaths declined 35.7 percent in 1982 from 1981. Fatal accidents involving school buses dropped 20 percent from the previous year. The number of

TABLE 61
INVOLVED VEHICLES, OCCUPANTS AND FATALITIES BY BODY TYPE FOR BUSES

	VEHICLE		OCCUPANTS		OCCUPANT FATALITIES	
	Number	Percent	Number	Percent	Number	Percent
School Bus	112	38.1	385	39.5	21	44.7
Cross Country	39	13.3	207	21.2	5	10.6
Transit Bus	103	35.0	211	21.6	11	23.4
Other Bus	30	10.2	159	16.3	10	21.3
Unknown Bus	10	3.4	13	1.3	0	.0
Total	294	100.0	975	100.0	47	100.0

FIGURE 58
SCHOOL BUS INVOLVED FATAL ACCIDENTS AND RELATED FATALITIES FOR 1977-1982



school buses involved in nonoccupant fatal accidents was at its lowest point since 1977. A smaller proportion (2.9 percent) of the occupants of school buses that were involved in fatal accidents in 1982 were themselves killed in those accidents than was the case for accident-involved occupants of any of the other vehicle types considered in this chapter.

The 104 school bus-related accidents in 1982 resulted in 143 deaths, 49 people who were killed were nonoccupants and 88 were vehicle occupants, but only 21 of these were school bus occupants. In Figure 59, which presents a further distribution of these fatalities, "other drivers" and "other passengers" were occupants of involved vehicles that were neither school buses nor vehicles being used as school buses.

The age distribution of the 48 pedestrians killed in the school bus accidents is depicted in Figure 60. Children under nine accounted for about three-fourths of the pedestrian fatalities.

FIGURE 59
DISTRIBUTION OF FATALITIES IN FATAL ACCIDENTS INVOLVING SCHOOL BUSES
(137)

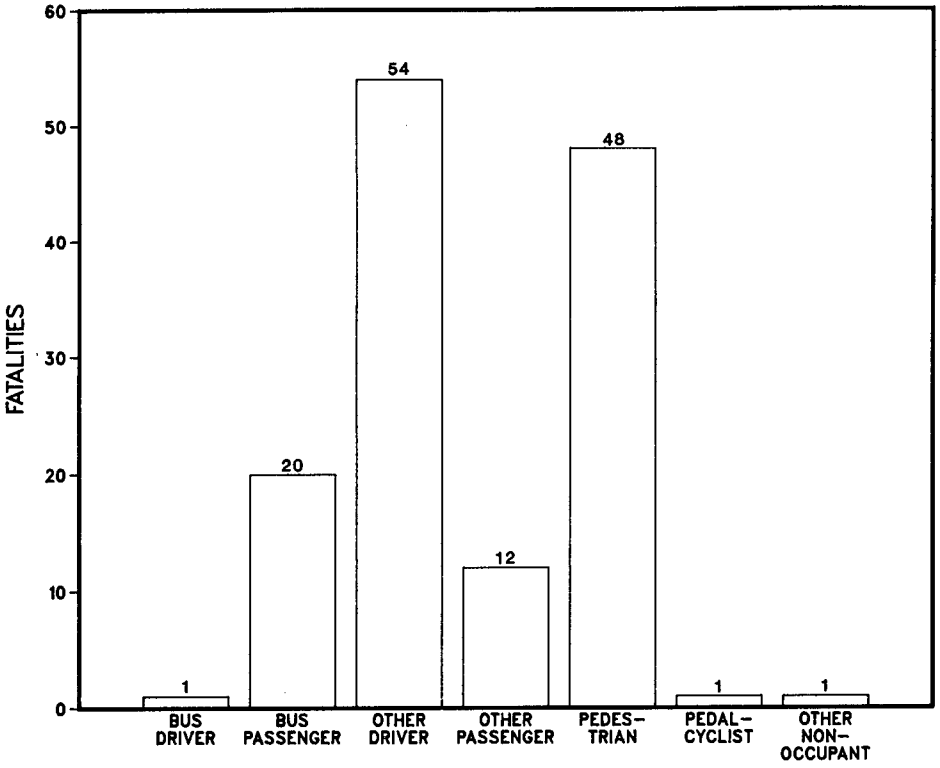
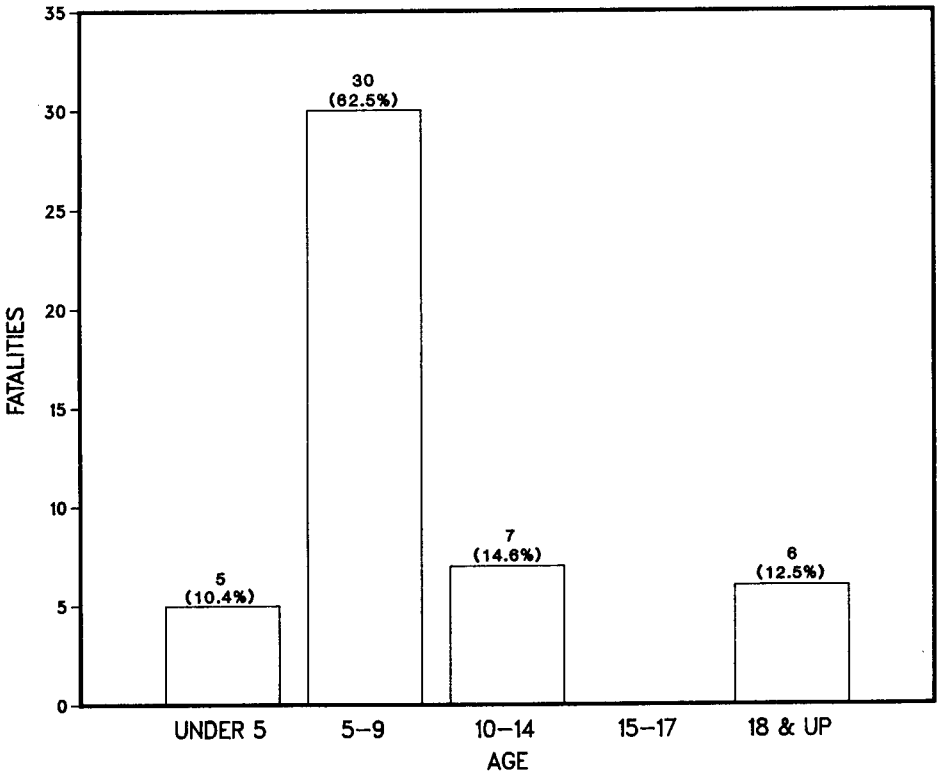


FIGURE 60
PEDESTRIAN FATALITIES IN FATAL SCHOOL BUS ACCIDENTS
(48)



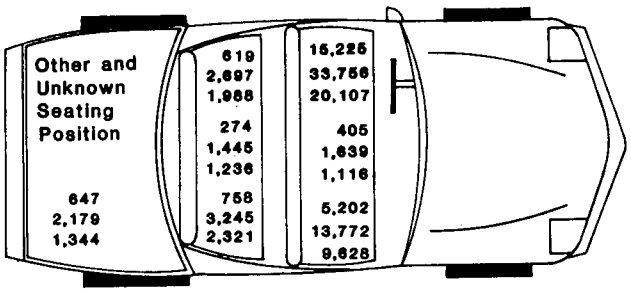
VII. Occupants

Four of every five persons (81.2 percent) killed in traffic accidents in 1982 were occupants of a vehicle. More than two-thirds of these were drivers.

Of the total 35,512 occupants killed, 23,098 (65 percent) were occupants of passenger cars (Figure 61). Almost two-thirds of these (65.9 percent) were seated in what is customarily the driver's position, at the front left. Almost half (45.1 percent) of the 33,756 occupants of that seating position in **all** passenger cars involved in fatal accidents were killed (Figure 61).

In vehicles other than passenger cars, more occupants of the front left seat were killed than were occupants of other seating positions (Figure 62). Of the 22,024 occupants of the driver's position in these involved vehicles, 42.7 percent--slightly less than for passenger cars--were killed.

FIGURE 61
PASSENGER CAR OCCUPANT AND FATALITY SEATING POSITIONS



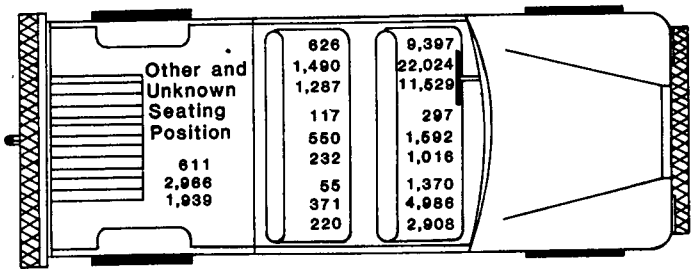
TOTAL

23,098 - Fatalities

58,643 - Occupants

37,740 - Occupants of vehicles in which a fatality occurred

FIGURE 62
NON-PASSENGER CAR OCCUPANT AND FATALITY SEATING POSITIONS



TOTAL

12,414 - Fatalities

33,714 - Occupants

19,131 - Occupants of vehicles in which a fatality occurred

Drivers involved in fatal accidents in 1982 are classified according to age groupings and types of vehicle driven (Table 62). The "other" body types in the motorcycle vehicle class (mopeds, minibikes, motorscooters, and others) are included to provide driver-age distributions for these types of vehicles. The "other" vehicle category consists of buses, special vehicles and unknown truck vehicle types. A distribution by single- and multi-vehicle accident involvement is also included.

About one-third (34.4 percent) of all drivers involved in fatal accidents in 1982 were less than 25 years old. The fatal accident involvement of these drivers dropped 13.8 percent from 1981, a decrease that was greater than that experienced by older drivers. This age group accounted for over half of the the involved motorcycle drivers, about 30 percent of the drivers of involved passenger cars and light trucks.

It is noteworthy that drivers younger than 25 were about evenly divided between single-vehicle and multi-vehicle fatal accidents, but that older drivers were progressively less involved in single-vehicle accidents compared to their involvements in multi-vehicle accidents.

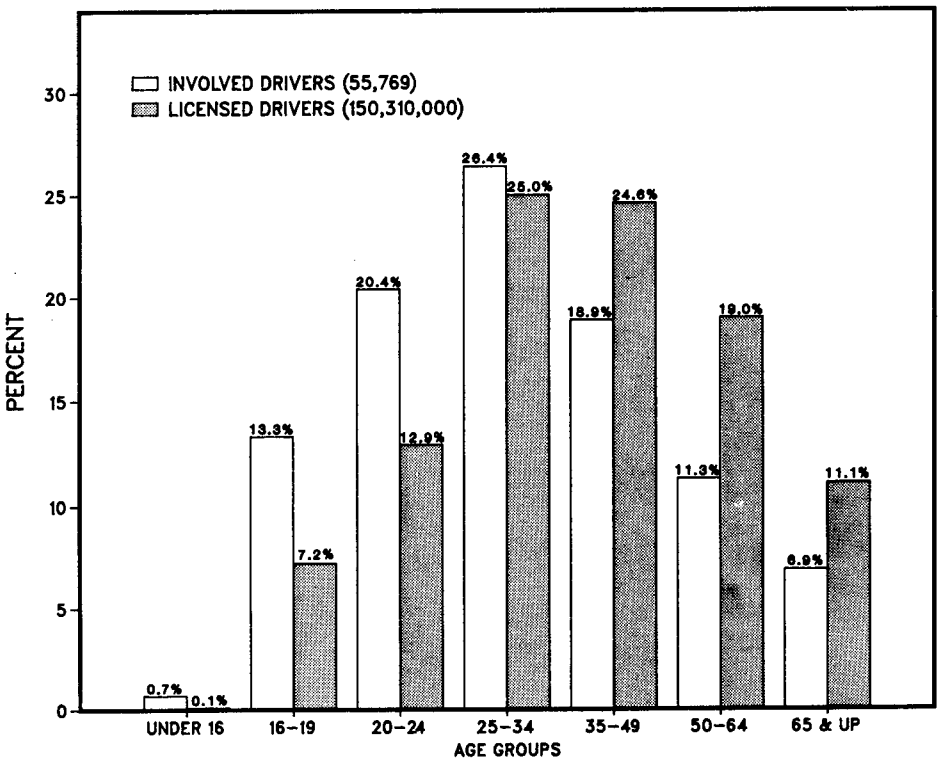
TABLE 62
DRIVERS INVOLVED IN FATAL ACCIDENTS BY VEHICLE TYPE AND AGE

	Under 16	16-19	20-24	25-34	35-49	50-64	65 and over	Unknown	Total
Passenger Car	146	5,111	7,140	8,250	5,678	3,862	3,091	470	33,748
Percent	.4	15.1	21.2	24.4	16.8	11.4	9.2	1.4	100.0
Motorcycle	120	699	1,324	1,409	543	112	23	8	4,238
Percent	2.8	16.5	31.2	33.2	12.8	2.6	.5	.2	100.0
Moped, Mini-bike, Etc.	47	40	22	27	12	17	12		177
Percent	26.6	22.6	12.4	15.3	6.8	9.6	6.8		100.0
Light Trucks	40	1,182	1,898	2,815	2,146	1,249	547	76	9,953
Percent	.4	11.9	19.1	28.3	21.6	12.5	5.5	.8	100.0
Medium Trucks	1	37	108	180	214	99	17	2	658
Percent	.2	5.6	16.4	27.4	32.5	15.0	2.6	.3	100.0
Heavy Trucks	2	47	402	1,286	1,426	640	43	21	3,867
Percent	.1	1.2	10.4	33.3	36.9	16.6	1.1	.5	100.0
Unknown	4	110	156	265	174	98	77	566	1,450
Percent	.3	7.6	10.8	18.3	12.0	6.8	5.3	39.0	100.0
Other	51	205	307	486	360	206	61	2	1,678
Percent	3.0	12.2	18.3	29.0	21.5	12.3	3.6	.1	100.0
Total	411	7,431	11,357	14,718	10,553	6,283	3,871	1,145	55,769
Percent	.7	13.3	20.4	26.4	18.9	11.3	6.9	2.1	100.0
Number of Vehicles in Accident									
Single Vehicle Accident	174	3,652	5,381	6,285	3,910	2,131	1,170	898	23,601
Percent	.7	15.5	22.8	26.6	16.6	9.0	5.0	3.8	100.0
Multi-vehicle Accident	237	3,779	5,976	8,433	6,643	4,152	2,701	247	32,168
Percent	.7	11.7	18.6	26.2	20.7	12.9	8.4	.8	100.0

Figure 63 compares drivers in fatal accidents with licensed drivers by age. Young drivers have far more fatal accidents per licensee than do older drivers.

As in previous years, Fridays and Saturdays proved to be the worst days for drivers to be on the road (37 percent of the 55,769 driver-involvements in fatal accidents) and nighttime and early morning hours (8:00 p.m. to 4:00 a.m.) were the worst times (42 percent). However, the greatest decrease in fatal accidents occurred on those days and

FIGURE 63
DRIVERS IN FATAL ACCIDENTS VERSUS LICENSED DRIVERS BY AGE



NOTE: 486 INVOLVED DRIVERS WITH UNKNOWN AGE.

during those time periods. Again, younger drivers were the most likely to be involved in fatal accidents during those times (Tables 63 & 64).

Drivers 15-35 experienced the greatest decline in fatalities, with teenage drivers leading the drop (down 15.7 percent). Significantly, the largest decrease for teenage drivers occurred in the middle of the week, while the primary decreases for older drivers occurred on Thursday and Saturday. On average, decreases were greatest during the late evening and early morning hours. Drivers in the 35-49 age group and those older than 65 had the smallest decrease, down 7.7 percent and 3.2 percent respectively. Population increases in older age groups, especially the over 65 group, probably account for these small decreases.

TABLE 63
DRIVERS IN FATAL ACCIDENTS BY AGE AND DAY OF WEEK
(55,769)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
14 and Under	22	29	25	12	29	41	32	190
Percent	11.6	15.3	13.2	6.3	15.3	21.6	16.8	100.0
15-19	723	714	747	910	1,293	1,819	1,445	7,652
Percent	9.4	9.3	9.8	11.9	16.9	23.8	18.9	100.0
20-24	1,154	1,087	1,217	1,291	1,977	2,526	2,105	11,357
Percent	10.2	9.6	10.7	11.4	17.4	22.2	18.5	100.0
25-34	1,615	1,616	1,734	1,926	2,556	2,905	2,366	14,718
Percent	11.0	11.0	11.8	13.1	17.4	19.7	16.1	100.0
35-49	1,297	1,267	1,360	1,396	1,835	1,909	1,488	10,553
Percent	12.3	12.0	12.9	13.2	17.4	18.1	14.1	100.0
50-64	821	804	829	904	1,071	1,062	792	6,283
Percent	13.1	12.8	13.2	14.4	17.0	16.9	12.6	100.0
65 and over	527	554	564	595	613	532	486	3,871
Percent	13.6	14.3	14.6	15.4	15.8	13.7	12.6	100.0
Unknown Age	121	107	112	139	204	248	214	1,145
Percent	10.6	9.3	9.8	12.1	17.8	21.7	18.7	100.0
Total	6,280	6,178	6,588	7,173	9,578	11,042	8,928	55,769
Percent	11.3	11.1	11.8	12.9	17.2	19.8	16.0	100.0

TABLE 64
DRIVERS IN FATAL ACCIDENTS BY AGE AND TIME OF DAY
(55,769)

	Mid-3:59 a.m.	4:00-7:59 a.m.	8:00-11:59 a.m.	Noon-3:59 p.m.	4:00-7:59 p.m.	8:00-11:59 p.m.	Unknown	Total
Age								
14 and Under	8	3	22	49	81	27		190
Percent	4.2	1.6	11.6	25.8	42.6	14.2		100.0
15-19	1,857	568	537	1,061	1,518	2,087	24	7,652
Percent	24.3	7.4	7.0	13.9	19.8	27.3	.3	100.0
20-24	3,267	1,126	792	1,291	2,211	2,631	39	11,357
Percent	28.8	9.9	7.0	11.4	19.5	23.2	.3	100.0
25-34	3,294	1,405	1,328	2,043	3,176	3,416	56	14,718
Percent	22.4	9.5	9.0	13.9	21.6	23.2	.4	100.0
35-49	1,635	1,008	1,254	1,816	2,483	2,324	33	10,553
Percent	15.5	9.6	11.9	17.2	23.5	22.0	.3	100.0
50-64	541	594	932	1,411	1,659	1,123	23	6,283
Percent	8.6	9.5	14.8	22.5	26.4	17.9	.4	100.0
65 and Over	127	179	910	1,297	978	373	7	3,871
Percent	3.3	4.6	23.5	33.5	25.3	9.6	.2	100.0
Unknown Age	366	115	41	60	173	355	35	1,145
Percent	32.0	10.0	3.6	5.2	15.1	31.0	3.1	100.0
Total	11,095	4,998	5,816	9,028	12,279	12,336	217	55,769
Percent	19.9	9.0	10.4	16.2	22.0	22.1	.4	100.0

The previous driving records of 55,599 drivers involved in fatal accidents were also tabulated (Table 65). This group excludes drivers who fled the scene, leaving their vehicles at the accident. In determining previous driving records, FARS only counts those offenses that occurred in the three

TABLE 65
DRIVERS IN FATAL ACCIDENTS BY TYPE AND NUMBER OF PREVIOUS VIOLATIONS
(55,599)

	NUMBER OF PREVIOUS VIOLATIONS							
TYPE OF PREVIOUS VIOLATION	None	One	Two	Three	Four	Five or More	Unknown	Total
Accidents								
Licensed	38,319	7,197	1,569	369	83	31	94	47,662
Percent	80.4	15.1	3.3	.8	.2	.1	.2	100.0
Unlicensed	3,827	790	237	62	14	3	561	5,494
Percent	69.7	14.4	4.3	1.1	.3	.1	10.2	100.0
Unknown	27	5	3	1	1		2,406	2,443
Percent	1.1	.2	.1	.0	.0		98.5	100.0
Total	**42,173**	**7,992**	**1,809**	**432**	**98**	**34**	**3,061**	**55,599**
Percent	**75.9**	**14.4**	**3.3**	**.8**	**.2**	**.1**	**5.5**	**100.0**
Suspensions & Revocations								
Licensed	44,735	2,066	529	149	59	29	95	47,662
Percent	93.9	4.3	1.1	.3	.1	.1	.2	100.0
Unlicensed	3,160	1,095	405	155	57	61	561	5,494
Percent	57.5	19.9	7.4	2.8	1.0	1.1	10.2	100.0
Unknown	26	9		1			2,407	2,443
Percent	1.1	.4		.0			98.5	100.0
Total	**47,921**	**3,170**	**934**	**305**	**116**	**90**	**3,063**	**55,599**
Percent	**86.2**	**5.7**	**1.7**	**.5**	**.2**	**.2**	**5.5**	**100.0**
Driving while Intoxicated Convictions								
Licensed	46,158	1,252	126	19	4	4	99	47,662
Percent	96.8	2.6	.3	.0	.0	.0	.2	100.0
Unlicensed	4,075	623	174	42	14	5	561	5,494
Percent	74.2	11.3	3.2	.8	.3	.1	10.2	100.0
Unknown	32	3	1				2,407	2,443
Percent	1.3	.1	.0				98.5	100.0
Total	**50,265**	**1,878**	**301**	**61**	**18**	**9**	**3,067**	**55,599**
Percent	**90.4**	**3.4**	**.5**	**.1**	**.0**	**.0**	**5.5**	**100.0**
Speeding Convictions								
Licensed	33,183	8,539	3,369	1,378	582	514	97	47,662
Percent	69.6	17.9	7.1	2.9	1.1	1.1	.2	100.0
Unlicensed	3,367	791	381	180	112	112	561	5,494
Percent	61.3	14.4	6.9	3.3	2.0	2.0	10.2	100.0
Unknown	23	8	3	3			2,406	2,443
Percent	.9	.3	.1	.1			98.5	100.0
Total	**36,573**	**9,338**	**3,753**	**1,561**	**626**	**626**	**3,064**	**55,599**
Percent	**65.8**	**16.8**	**6.8**	**2.8**	**1.2**	**1.1**	**5.5**	**100.0**
Other Moving Violations								
Licensed	37,309	7,063	2,065	710	243	176	96	47,662
Percent	78.3	14.8	4.3	1.5	.5	.4	.2	100.0
Unlicensed	3,226	925	389	194	102	97	561	5,494
Percent	58.7	16.8	7.1	3.5	1.9	1.8	10.2	100.0
Unknown	25	8	2	1		1	2,406	2,443
Percent	1.0	.3	.1	.0		.0	98.5	100.0
Total	**40,560**	**7,996**	**2,456**	**905**	**345**	**274**	**3,063**	**55,599**
Percent	**73.0**	**14.4**	**4.4**	**1.6**	**.6**	**.5**	**5.5**	**100.0**

Note: Drivers present at the scene of the accident only.

years prior to the 1982 fatal accident. Similar data are illustrated in Figure 64 for those 21,921 drivers who had at least one previous harmful moving violation, demonstrating the frequency of multiple convictions.

Although most involved drivers had no previous recorded violations, this majority was smallest for speeding violations (65.8 percent). Also, in every category other than speeding convictions a higher proportion of unlicensed drivers had multiple previous convictions recorded than did their licensed counterparts. Among licensed drivers, the greatest number of previous multiple convictions were, in descending order, for speeding, other harmful moving violations, and accidents, whereas among unlicensed drivers the descending order of previous multiple convictions was for suspensions/revocations, other harmful moving violations, and speeding. A higher percentage of unlicensed drivers had previous recorded convictions for driving while intoxicated (DWI) than did licensed drivers.

Figure 65 shows the number of drivers tested for alcohol. (The role of alcohol in fatal accidents is discussed in Chapter 1.)

FIGURE 64
INVOLVED DRIVERS WITH AT LEAST ONE PREVIOUS OFFENSE

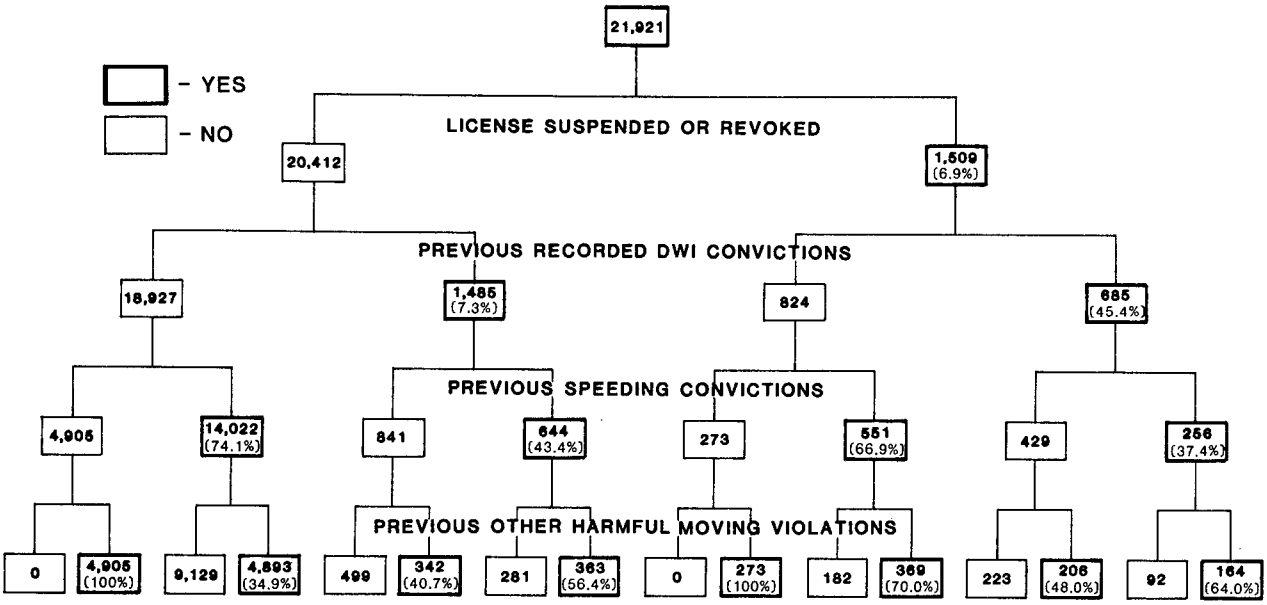
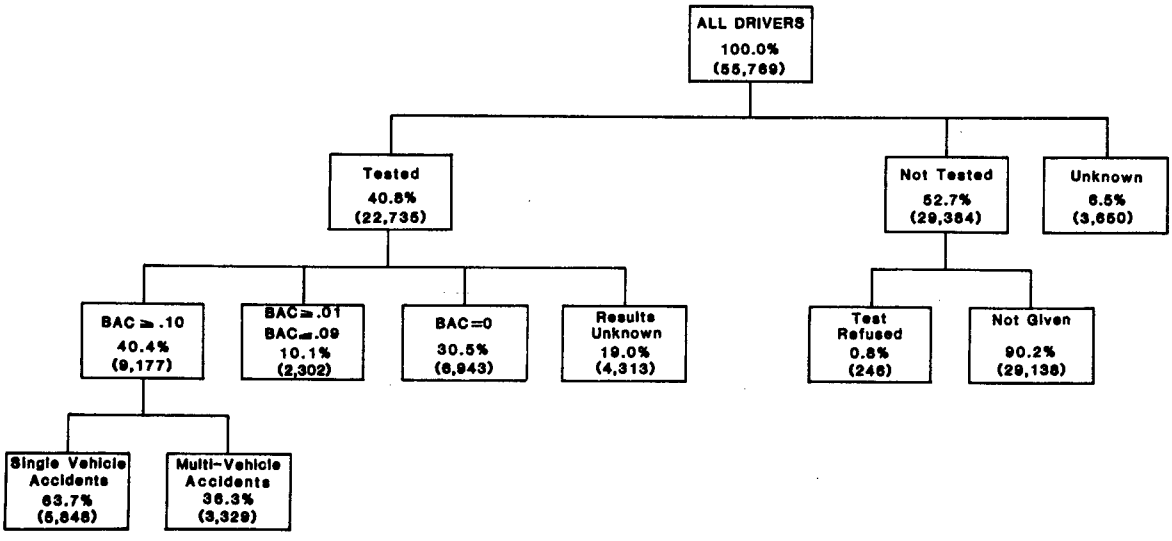


FIGURE 65
ALCOHOL TEST RESULTS OF ALL DRIVERS INVOLVED IN FATAL ACCIDENTS

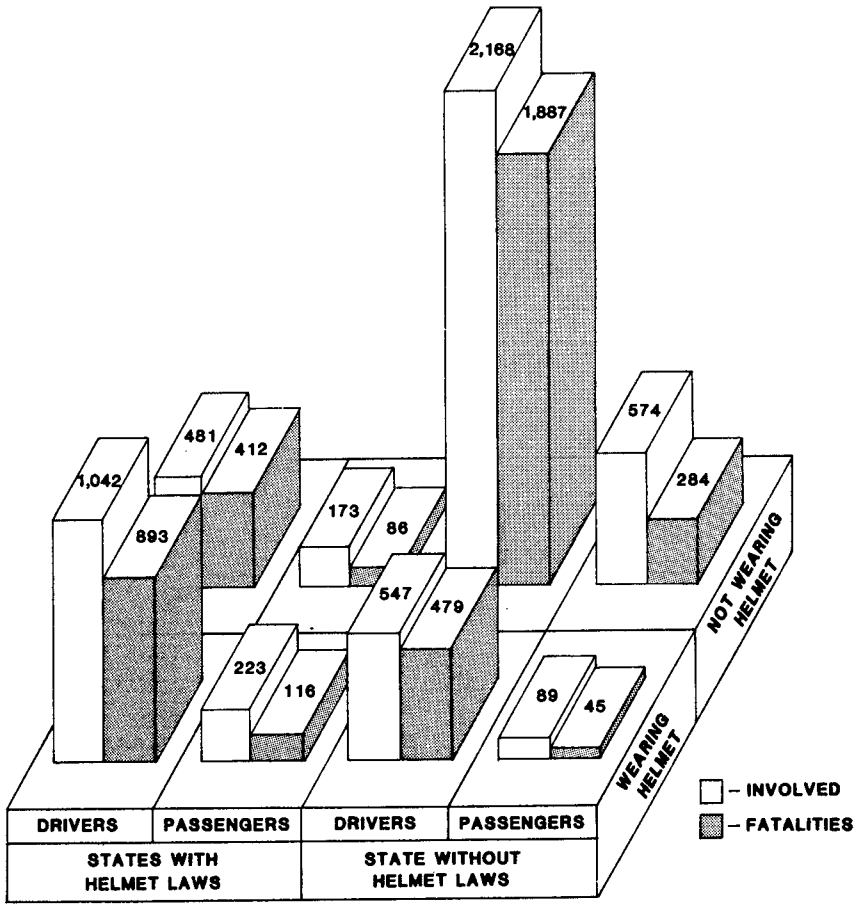


MOTORCYCLE RIDERS

The largest number (64.1 percent) of motorcycle riders died in states without helmet use requirements (Figure 66).* Almost 80 percent of all motorcyclists involved in fatal accidents were killed. Almost two-thirds (63.5 percent) of all fatally injured motorcyclists were not wearing helmets. In states that required helmet use, 33.1 percent of the fatally injured motorcyclists were not wearing helmets. In states that had no such law, 80.6 percent of fatally injured cyclists were not wearing a helmet.

The data in Figure 66 are for information purposes only and do not attempt to relate the effectiveness of the mandatory helmet laws on helmet usage or fatal injury reduction. FARS data do not include cases where the helmet may have saved the life of the rider. In fact, other studies sponsored by NHTSA[1] found that helmetless motorcycle riders receive injuries to the head or neck almost twice to three times as often as do helmeted riders. These data are confirmed by the National Accident Sampling System (NASS).

FIGURE 66
MOTORCYCLE HELMET USAGE



*This figure does not include mopeds, minibikes or other types of motorized cycles other than those specifically identified as "motorcycles."

[1]University of Southern California, 1980. University of Kansas, 1980. Department of Highways, State of Colorado, 1980. University of South Dakota, 1980.

VIII. Non-Occupants

Nonoccupants accounted for 8,209 deaths in 1982--18.8 percent of all traffic fatalities. Of these, 88.6 percent (7,274) were pedestrians, and 10.4 percent (851) were pedalcyclists. The others include occupants of parked vehicles and people riding on animals or animal-drawn conveyances. Nonoccupant fatalities declined 7.5 percent from 1981, a decline substantially less than the 12.1 percent drop in occupant fatalities.

Nonoccupants involved in fatal accidents had a much greater chance of death (89.8 percent) than did occupants (38.5 percent). The age distributions of fatally injured occupants and nonoccupants are quite dissimilar (Table 66). More than two-thirds (70.1 percent) of all involved occupants, whether killed or not, were between 15-44 years old, while nonoccupant involvement was more evenly distributed across a range of ages. The same was true for those who were fatally injured. Young people in the age group 5-14 had the largest decline in nonoccupant fatalities (-12.7 percent), while nonoccupant fatalities in the 34-44 age group actually increased by 12.1 percent.

TABLE 66
ALL NONOCCUPANTS AND OCCUPANTS BY AGE

	Nonoccupants				Occupants			
	All Involved		Fatalities		All Involved		Fatalities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
4 or Less	410	4.5	369	4.5	2,332	2.5	629	1.8
5-14	1,269	13.9	1,144	13.9	4,602	5.0	1,013	2.9
15-24	1,985	21.7	1,703	20.7	34,154	37.0	13,150	37.0
25-34	1,390	15.2	1,194	14.5	20,256	21.9	8,030	22.6
35-44	932	10.2	833	10.1	10,332	11.2	3,992	11.2
45-54	730	8.0	676	8.2	6,609	7.2	2,648	7.5
55-64	708	7.7	664	8.1	5,461	5.9	2,468	6.9
65 and Over	1,538	16.8	1,489	18.1	6,115	6.6	3,478	9.8
Unknown	180	2.0	137	1.7	2,496	2.7	104	.3
Total	9,142	100.0	8,209	100.0	92,357	100.0	35,512	100.0

Almost twice as many pedestrians and a quarter more pedalcyclists were killed in urban areas as in rural areas (Figure 67).

About 70 percent of the nonoccupant deaths occurred away from roadway intersections, in a crosswalk, or in a parking lane (Table 67).

TABLE 67
NONOCCUPANT FATALITIES BY LAND USE, NONMOTORIST LOCATION AND ROADWAY FUNCTION CLASS

Location	Interstate Freeway	Other Freeways & Expressways	Other Principal Arterials	Minor Arterial	Collector	Local Street	Unknown	Total
Total	**727**	**391**	**2,313**	**1,814**	**1,420**	**1,379**	**165**	**8,209**
URBAN								
Total	**463**	**388**	**1,654**	**1,254**	**565**	**904**	**46**	**5,274**
Pedestrian								
Intersection Not on roadway					1			1
Non-Intersection Parking Lane	1							1
Non-Intersection On Shoulder	9	3	3			1		16
Non-Intersection Not on Roadway				1				1
Pedalcyclist								
Intersection Crosswalk				1				1
Intersection Not on Roadway			1					1
Unknown				1				1
Other Non-Occupant								
Intersection Crosswalk	3	7	192	108	31	47	1	389
Intersection Not in Crosswalk	16	26	294	213	101	154	5	809
Intersection Not on Roadway		2	10	7	2	6		27
Intersection Unknown			12	10	3	2	1	28
Non-Intersection Crosswalk	3	2	26	7	2	5	1	46
Non-Intersection Not in crosswalk	357	300	1020	815	367	587	34	3,480
Non-Intersection Parking Lane			3	2	1	9		15
Non-Intersection On Shoulder	59	22	43	36	14	18	2	194
Non-Intersection Bicycle Path					1			1
Non-Intersection Outside Trafficway	4	5	7	15	6	18		55
Non-Intersection Not on Roadway	7	11	22	25	21	34	2	122
Non-Intersection Unknown		4	11	6	6	11		38
Unknown	4	6	10	7	9	12		48

NOTE: 122 Nonoccupant Fatalities where Land Use was unknown

TABLE 67 (continued)

Location	Interstate Freeway	Other Freeways & Expressways	Other Principal Arterials	Minor Arterial	Collector	Local Street	Unknown	Total
RURAL Total	261		655	559	855	472	11	2,813
Pedestrian								
Non-Intersection Not in Crosswalk	1		1					2
Non-Intersection On Shoulder	16		2	4	2			24
Non-Intersection Outside Trafficway			1		1			2
Non-Intersection Other				1				1
Pedalcyclist								
Intersection Not in Crosswalk				2				2
Non-Intersection Not in Crosswalk				2	1	1		4
Non-Intersection On Shoulder	1							1
Non-Intersection Not on Roadway				1				1
Other Non-Occupant								
Intersection Crosswalk			6	9	7			22
Intersection Not in Crosswalk	3		54	42	53	41	1	194
Intersection Not on Roadway			1					1
Intersection Unknown			1	1				2
Non-Intersection Crosswalk	3		10	6	7			26
Non-Intersection Not in Crosswalk	181		505	417	692	371	8	2,174
Non-Intersection Parking Lane			3			1		4
Non-Intersection On Shoulder	47		47	49	53	32		228
Non-Intersection Outside Trafficway	5		3	3	9	4		24
Non-Intersection Other	2		14	10	19	10	1	56
Non-Intersection Unknown			3	3	5	4		15
Unknown	2		4	9	6	8	1	30

FIGURE 67
NONOCCUPANT FATALITIES BY LAND USE
(8,209)

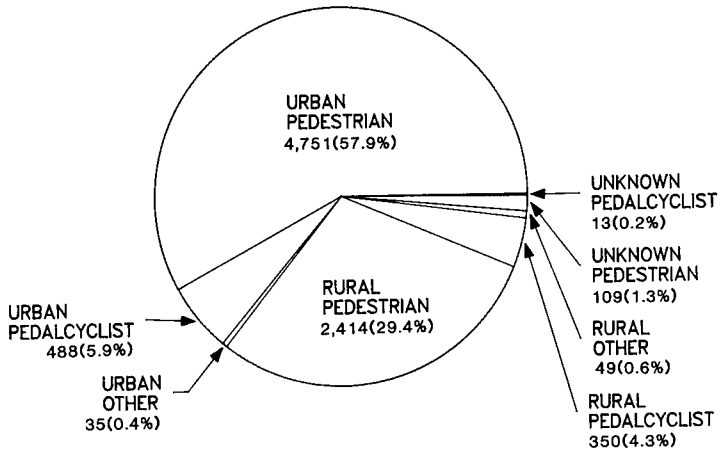


FIGURE 68
NONOCCUPANT FATALITIES BY LOCATION AT INTERSECTIONS
(1,498)

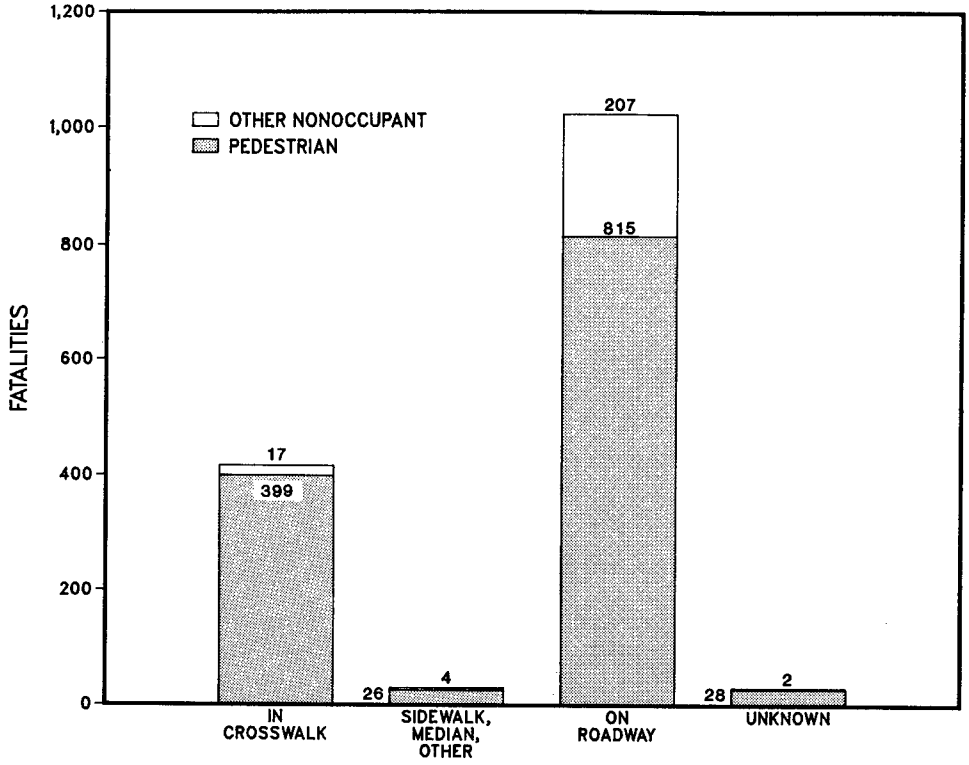
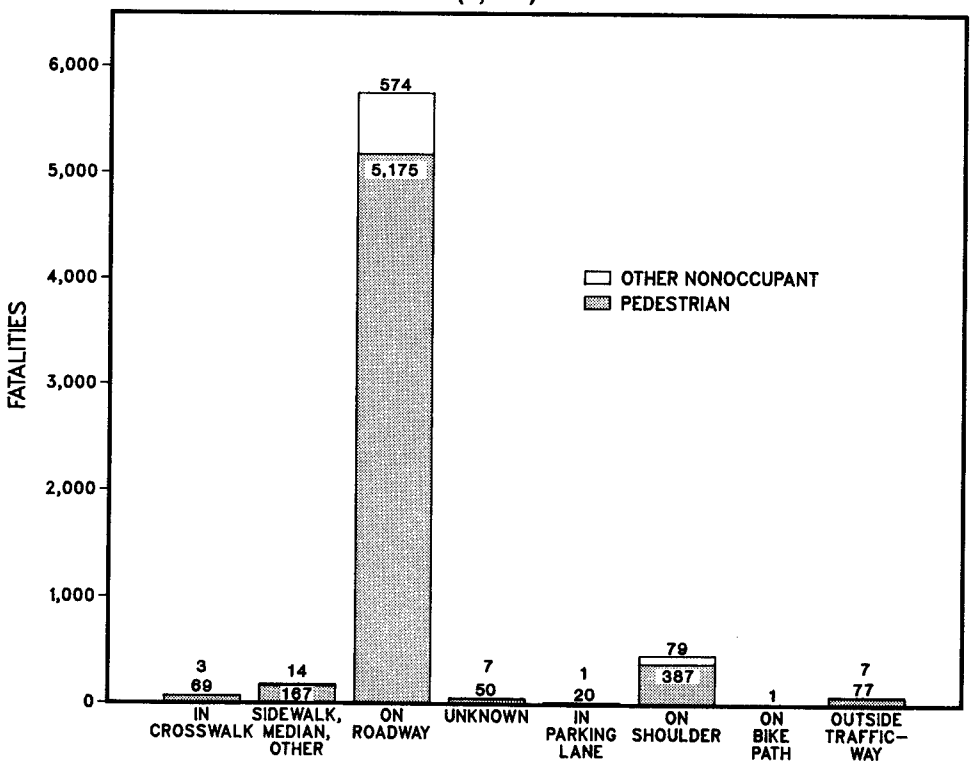


FIGURE 69
NONOCCUPANT FATALITIES BY LOCATION NOT AT INTERSECTIONS
(6,711)



PEDESTRIANS

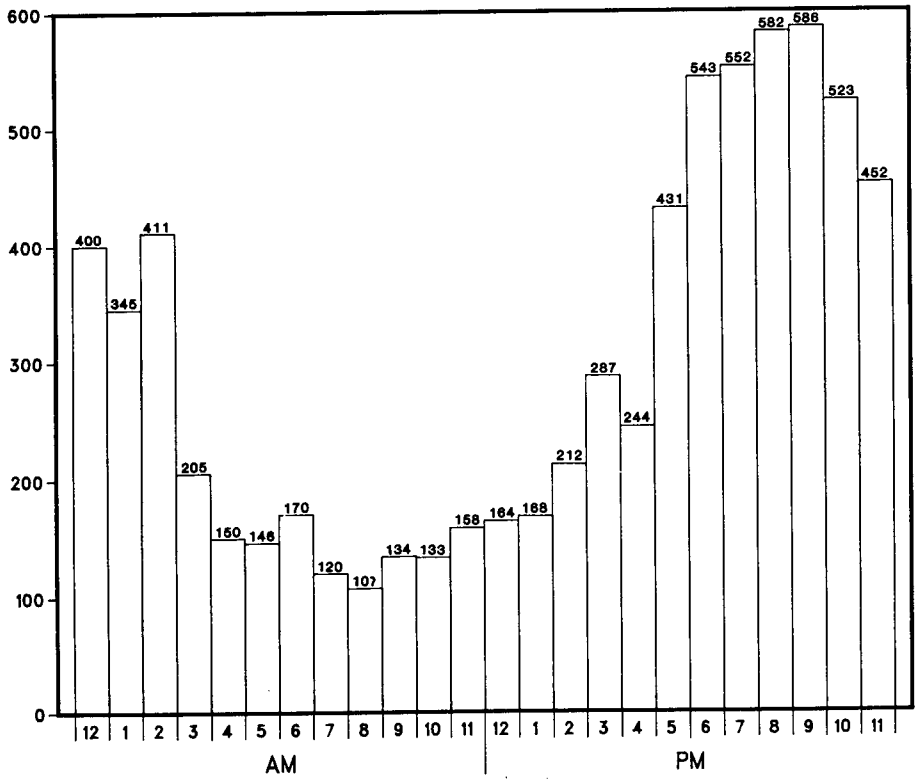
A total of **7,941** pedestrians were involved in fatal accidents in 1982. Of these, **91.6** percent (7,274) were killed.

Almost half (47.9 percent) of all pedestrian fatalities occurred between 6 p.m. and midnight (Figure 70).

The youngest pedestrians were killed more often than were those in any other age group away from an intersection and on a roadway (Table 68). The greatest percentage of deaths both at intersections and on the roadway were to 5-9 year-olds. Those with the greatest proportion of off-roadway, non-intersection fatalities were 10-17 years old.

Alcohol involvement in pedestrian deaths is discussed in Chapter 1.

FIGURE 70
TIME OF DAY OF FATAL PEDESTRIAN ACCIDENTS
(7,117)



NOTE: 47 FATAL PEDESTRIAN ACCIDENTS UNKNOWN TIME.

TABLE 68
PEDESTRIAN FATALITIES BY AGE AND LOCATION

	Intersection			Non-Intersection				
	in Crosswalk or Roadway	on Sidewalk or Median	Unknown	in Crosswalk or Roadway	Sidewalk or Shoulder	Unknown	Other	Total
Under 5	36		2	280	21	1	3	343
5 to 9	90	3	1	359	13	2	1	469
10 to 17	102		2	419	77	8	3	611
18 to 44	287	11	4	2,332	341	29	30	3,034
45 to 64	240	6	5	898	90	4	9	1,252
65 and Over	440	5	12	879	83	5	9	1,433
Unknown	19	1	2	97		1	5	132
Total	1,214	26	28	5,264	632	50	60	7,274

PEDALCYCLISTS

A total of 1,008 pedalcyclists were involved in 843 fatal accidents in 1982. Of these, 851 (84.4 percent) were killed and four out of five of those killed (79.5 percent) were male.

Although only 15.1 percent of all fatal accidents occurred on local streets, 24.7 percent of those involving a pedalcyclist were on such roadways (Figure 71). About 69 percent of pedalcyclist deaths occurred during the hours between 4 a.m. and 8 p.m. (Figure 72).

Most (70 percent) of the preschool age pedalcyclists killed in traffic accidents were killed away from intersections (Table 69). Only 25.4 percent of all pedalcyclist fatalities occurred at an intersection.

FIGURE 71
FATAL ACCIDENTS INVOLVING PEDALCYCLISTS BY ROADWAY FUNCTION CLASS
(843)

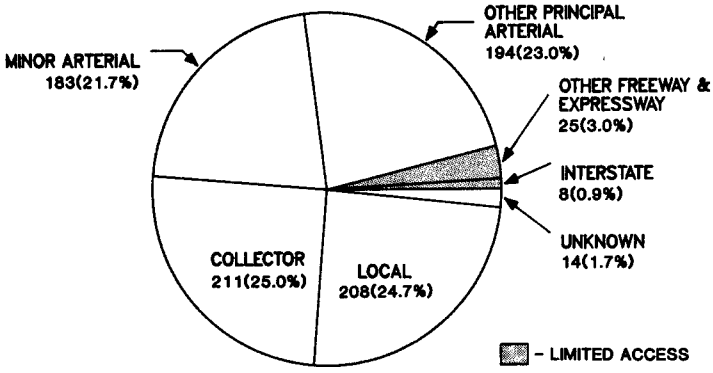


FIGURE 72
TIME OF DAY OF FATAL PEDALCYCLIST ACCIDENTS
(843)

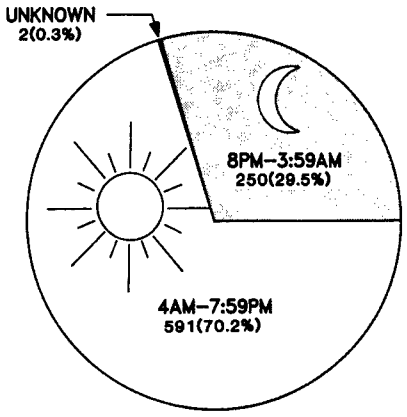


TABLE 69
PEDALCYCLIST FATALITIES BY AGE AND LOCATION
(851)

	Intersection			Non-Intersection				
	in Crosswalk or Roadway	on Sidewalk or Median	Unknown	in Crosswalk or Roadway	Sidewalk or Shoulder	Unknown	Other	Total
Under 5	5			14	1			20
5 to 9	29			95	7			131
10 to 17	86	2	1	205	17	4	6	321
18 to 44	57		1	166	15	2	8	249
45 to 64	19			43	8		2	72
65 and over	19			31		1	2	53
Unknown	1			3			1	5
Total	216	2	2	557	48	7	19	851

OTHER NONOCCUPANTS

There were 84 "other" nonoccupants killed in 1982. These were nearly all occupants of vehicles not in transport, but also included people on horseback and occupants of animal-drawn conveyances. The largest segment (39.6 percent) of these accidents occurred on limited access roadways (Figure 73). Most of them (61.9 percent) were on the shoulder or (25 percent) in the parking lane (Table 70).

FIGURE 73
FATAL ACCIDENTS INVOLVING OTHER NONOCCUPANTS BY ROADWAY FUNCTION CLASS
(172)

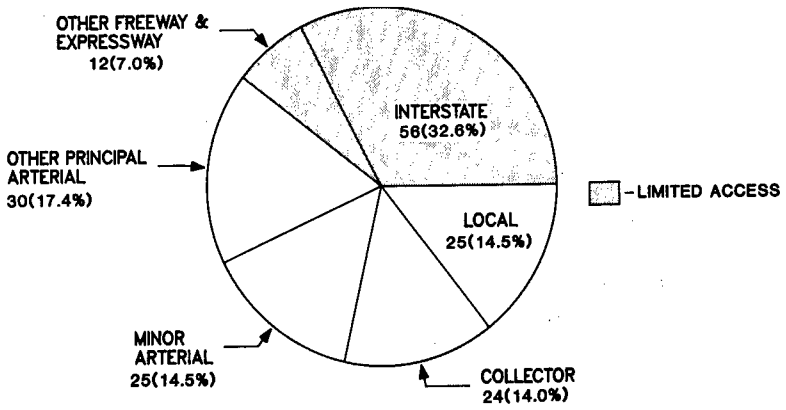


TABLE 70
FATALITIES BY AGE AND LOCATION FOR OTHER NONOCCUPANTS
(84)

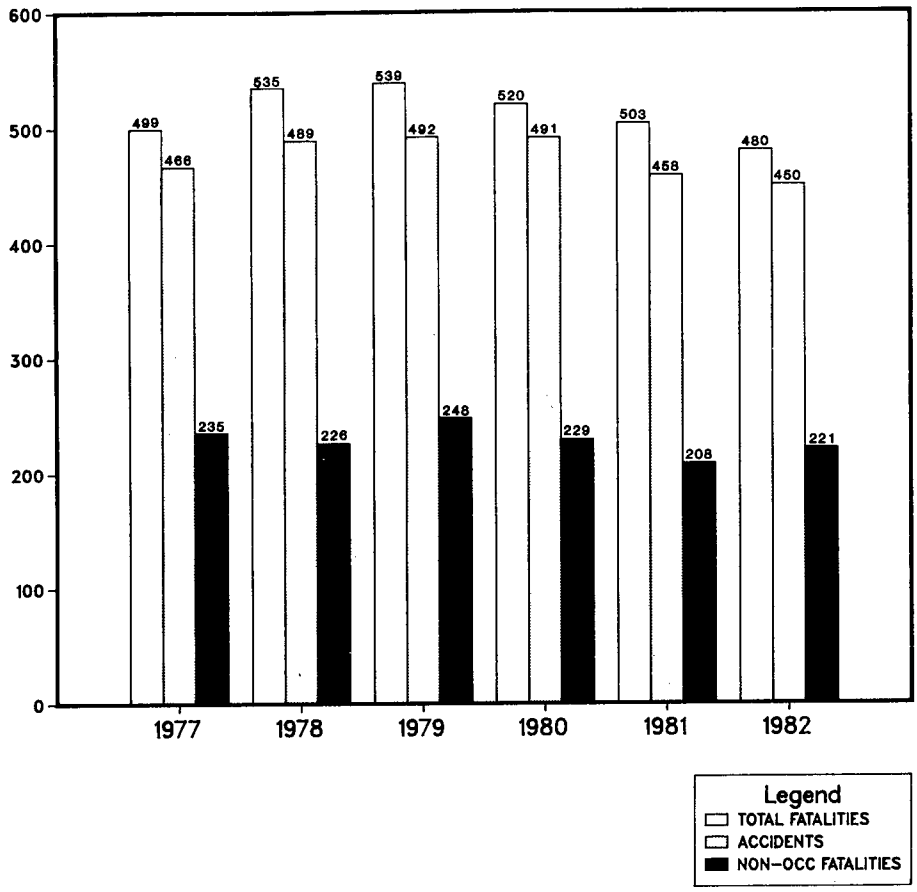
	Intersection		Non-Intersection			
	in Crosswalk or Roadway	on Sidewalk or Median	in Crosswalk or Roadway	Sidewalk or Shoulder	Other	Total
Under 5		2	1	3		6
5 to 9	3		4	2		9
10 to 17	3		6	7		16
18 to 44	1		5	27	1	34
45 to 64			3	13		16
65 and Over	1		2			3
Total	8	2	21	52	1	84

IX. Puerto Rico

The fatal accident experience in Puerto Rico is treated separately in this report to conform to the practice of other national data gathering systems. In summary, the figures and tables in this chapter show that the pattern of fatal accidents in Puerto Rico differs from the national pattern in some respects. In other respects the data may indicate changing patterns of vehicle use in Puerto Rico during recent years.

- 450 fatal accidents occurred in Puerto Rico in 1982, a decrease of only 1.7 percent from 1981 (Figure 74).
- 480 people were killed (down 4.6% from 1981), 50.6 percent of them nonoccupants, up from 41.4 percent in 1981.

FIGURE 74
FATALITIES AND FATAL ACCIDENTS FOR 1977-1982
(Puerto Rico)



- o 81.3 percent of all fatal victims were males. They greatly outnumbered females in all age groups except the 4-and-under group, in which they were evenly divided (Figure 75).

- o 69.4 percent of the vehicles involved in fatal accidents were passenger cars, down from 73.3 percent a year ago. The next largest group was light trucks (Table 71).

- o 32 percent of the occupants of involved passenger cars were killed (Table 71), compared to 33.9 percent in 1981.

FIGURE 75
FATALITIES BY AGE AND SEX
(Puerto Rico)
(480)

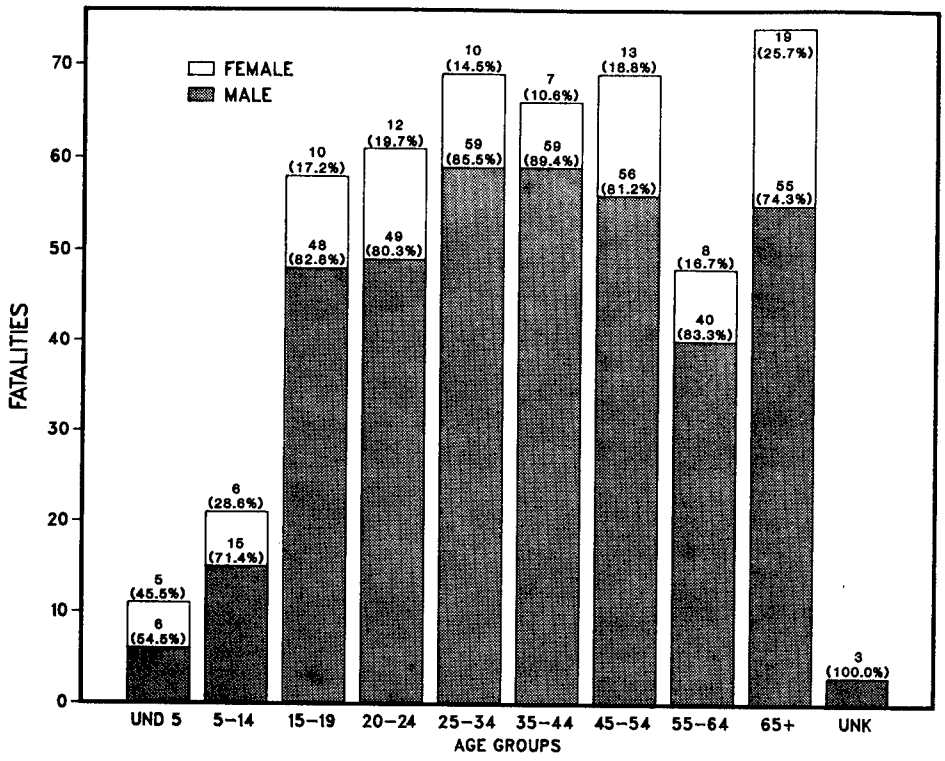


TABLE 71
VEHICLES, OCCUPANTS AND OCCUPANT FATALITIES BY VEHICLE TYPE
(Puerto Rico)

	Passenger Cars	Motor-cycles	Special Other Motorized Cycles	Light Trucks	Medium Trucks	Heavy Trucks	Special Vehicles	Buses	Unknown	Other	Total
Vehicles	404	22	3	45	1	5	19	2	80	480	581
Percent	69.54	3.79	.52	7.75	.17	.86	3.27	.34	13.77	82.62	100.00
Occupants	643	27	3	76	1	5	33	2	86	755	876
Percent	73.40	3.08	.34	8.68	.11	.57	3.77	.23	9.82	86.19	100.00
Fatalities	206	19	2	10	1		15		6	238	259
Percent	79.54	7.34	.77	3.86	.39		5.79		2.32	91.89	100.00

- 52 percent of the fatally injured drivers who were tested for alcohol were legally intoxicated (Table 72). However, only about 50 to 60 percent of the fatally injured drivers are tested for alcohol in Puerto Rico (Table 73).

TABLE 72
PERCENT OF TESTED FATALLY INJURED DRIVERS BY BLOOD ALCOHOL CONTENT (Puerto Rico)

	Blood Alcohol Content		
	None	0.01-0.09%	0.10% or more
1975	47	16	37
1976	45	19	36
1977	39	8	53
1978[1]	19	10	71
1979	38	9	53
1980	48	7	45
1981	44	8	48
1982	38	10	52

[1]Bias in data

TABLE 73
TESTING FOR ALCOHOL INVOLVEMENT (Puerto Rico)

	Fatally Injured Drivers	Tested for Alcohol	Percent Tested
1975	130	56	43
1976	141	63	45
1977	145	84	58
1978	158	74	47
1979	171	91	53
1980	183	115	63
1981	181	101	56
1982	162	94	58

- Most drivers held valid driver's licenses (Table 74).

- 221 nonoccupants were killed, up from 208 in 1981. As with national statistics, most of these occurred on the roadway and away from intersections (Table 75).

TABLE 74
DRIVERS BY AGE, DRINKING INVOLVEMENT*, LICENSE STATUS
(Puerto Rico)

	AGE GROUPS								
	14 and Under	15-19	20-24	25-34	35-49	50-64	Over 65	and Unknown	Total
Not Drinking									
Total	**2**	**42**	**78**	**108**	**110**	**35**	**11**	**10**	**396**
Percent	.5	10.6	19.7	27.3	27.8	8.8	2.8	2.5	100.0
Licensed		26	60	91	99	29	11	5	321
Percent		8.1	18.7	28.3	30.8	9.0	3.4	1.6	100.0
Suspended License		1		1	5				7
Percent		14.3		14.3	71.4				100.0
Expired License		1							1
Percent		100.0							100.0
Other	2	14	18	16	6	6		5	67
Percent	3.0	20.9	26.9	23.9	9.0	9.0		7.5	100.0
Drinking Involved									
Total		**6**	**18**	**37**	**24**	**9**		**1**	**95**
Percent		6.3	18.9	38.9	25.3	9.5		1.1	100.0
Licensed		4	11	26	19	8		1	69
Percent		5.8	15.9	37.7	27.5	11.6		1.4	100.0
Suspended License				4	2				6
Percent				66.7	33.3				100.0
Other		2	7	7	3	1			20
Percent		10.0	35.0	35.0	15.0	5.0			100.0
Total	**2**	**58**	**102**	**150**	**142**	**46**	**12**	**66**	**578**
Percent	**.3**	**10.0**	**17.6**	**26.0**	**24.6**	**8.0**	**2.1**	**11.4**	**100.0**

*Drinking involved as indicated by the police.

TABLE 75
NONOCCUPANT FATALITIES BY LOCATION
(Puerto Rico)
(200)

	Pedestrian		Pedalcyclist		Other Nonoccupant		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Intersection								
In Crosswalk	4	2.0					4	1.8
Sidewalk, Median Island	2	1.0					2	.9
In Roadway	15	7.5	4	22.2	1	33.3	20	9.0
Non-Intersection								
In Crosswalk	4	2.0					4	1.8
Sidewalk, Median, Island	5	2.5					5	2.3
On Road Shoulder	14	7.0	2	11.1			16	7.2
Outside Trafficway	4	2.0					4	1.8
Roadway	70	35.0	2	11.1			72	32.6
Unknown	63	31.5	9	50.0	1	33.3	73	33.0
Unknown	19	9.5	1	5.6	1	33.3	21	9.5
Total	200	100.0	18	100.0	3	100.0	221	100.0

X. Selected Comparisons 1975-1982

The downward trend in highway traffic fatalities that began in 1981 not only continued but accelerated in 1982. The annual decrease in number of fatalities, as well as the annual percentage decrease in fatalities, was greater in 1982 than in 1981.

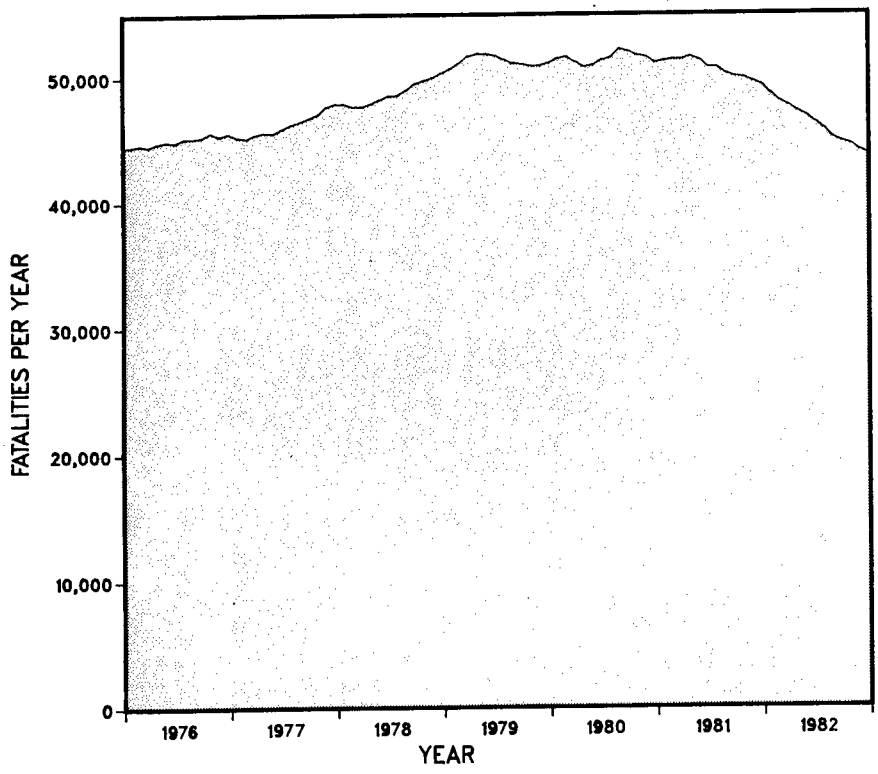
The number of fatalities in calendar year 1982 was less than in any other 12-month period during the years 1975-1982.

The number of vehicle miles travelled annually and the number of licensed drivers have both increased during this 8-year period. The fatality rate, against either of these indices of the amount of exposure to accident hazard, has also therefore decreased since 1975. Each of these rates--fatalities per vehicle mile travelled and fatalities per licensed driver--had a greater annual decrease in 1982 than in 1981. Each of these rates was lower in 1982 than in any calendar year in the 1975-1982 Period.

TOTAL FATALITIES

Figure 76 shows the number of fatalities in each 12-month period from 1975 to 1982. There has been an unbroken monthly decrease in this number from April 1981 to the end of 1982. This means that in each of these twenty months the number of fatalities in that month was less than the number in the corresponding month one year earlier. The average steepness of the decline is greater in 1982 than in the last eight months of 1981. By October 1982 the annual toll was below the previous minimum of calendar year 1975. The 16.5 percent rise in annual fatalities, an increase of over 7000, that built up over a period of forty months (December 1975 to April 1979) disappeared in 18 months.

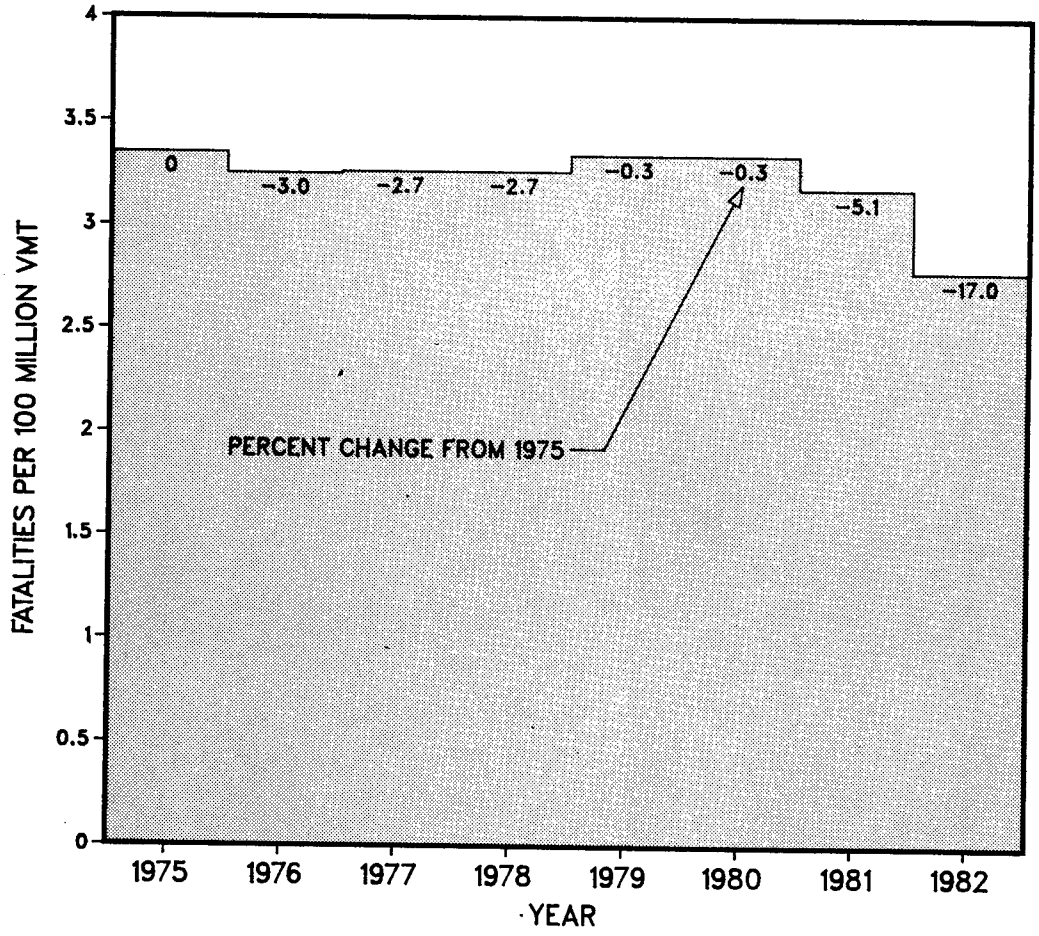
FIGURE 76
TOTAL TRAFFIC FATALITIES
12-MONTH MOVING TOTAL



FATALITIES PER VEHICLE MILE TRAVELLED

The fatality rate against total vehicle miles travelled is shown in Figure 77 as an annual average for each of the 8 years. The increase in 1979-80 represents a slight increase in number of fatalities and a slight decrease in vehicle miles travelled. Except for these two years, the number of vehicle miles travelled steadily increased. It was 18 percent higher in 1982 than in 1975. The annual decrease in rate is greater in 1982 than in 1981 and the 1982 rate is the minimum for the period, down about 17 percent from the 1975 maximum and from the 1979-80 rate.

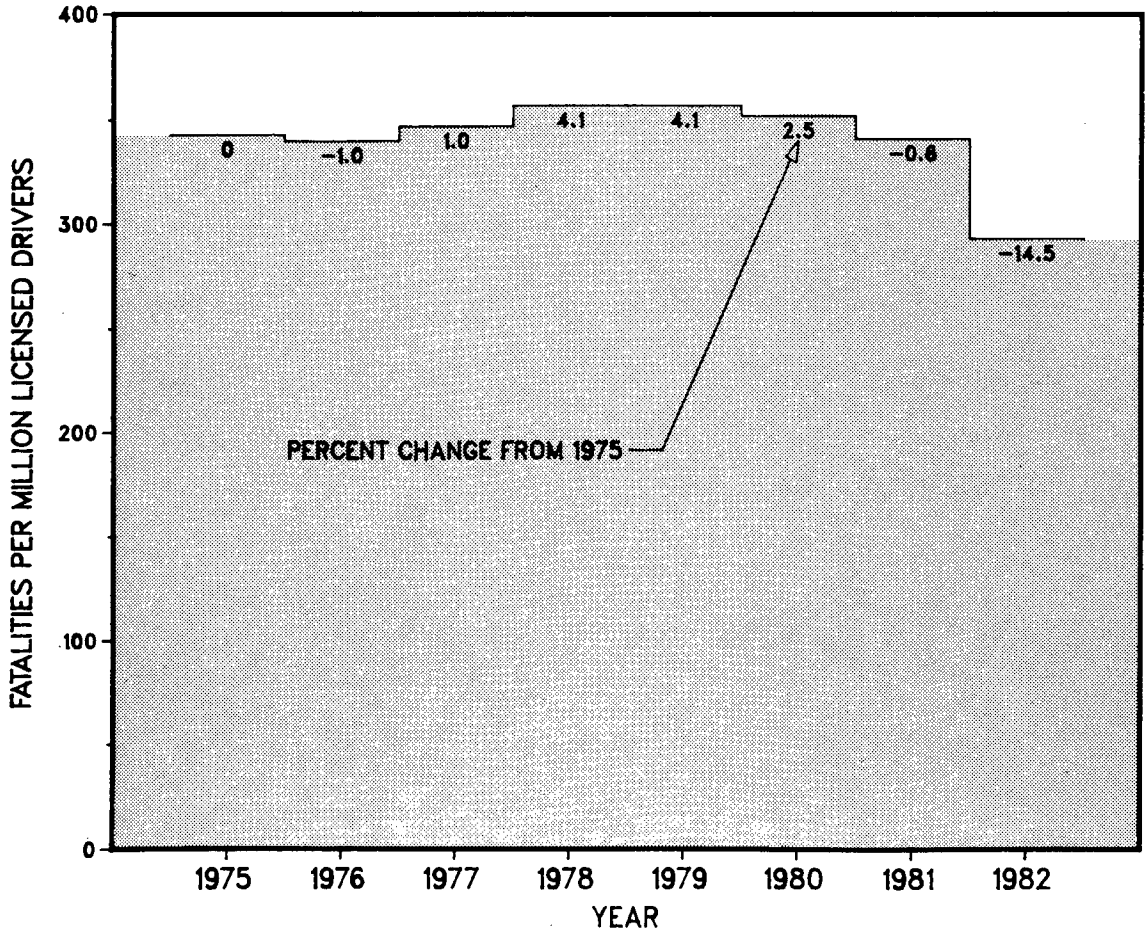
FIGURE 77
RATIO OF TOTAL FATALITIES TO VEHICLE MILES TRAVELLED



FATALITIES PER LICENSED DRIVER

The rate of fatalities per licensed driver is shown in Figure 78. Again the annual decrease is greater in 1982 than in 1981 and the 1982 rate is the minimum for the period. The 1982 rate is 14.5 percent less than the 1975 rate and is nearly 18 percent less than the 1978-79 maximum. The number of licensed drivers increased every year from 1975 to 1982.

FIGURE 78
RATIO OF TOTAL FATALITIES TO LICENSED DRIVERS

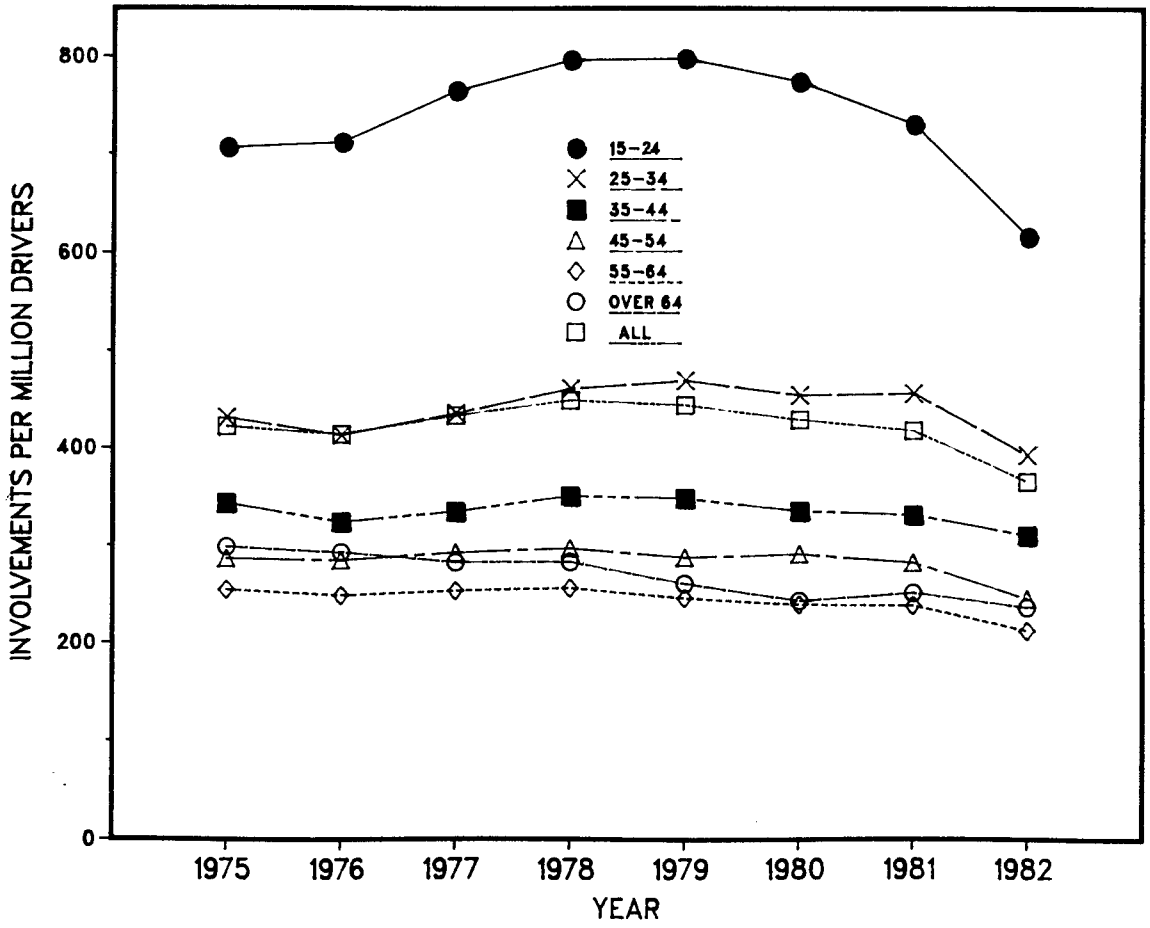


DRIVER AGE

The fatality rate per licensed driver varies with driver age. In multi- driver accidents it is not always possible to associate specific fatalities with specific drivers. The effect of driver age, however, can be shown by the ratio of drivers, of an age group, that were involved in fatal accidents to the number of licensed drivers in that age group. This age- dependent rate is plotted in Figure 79.

For every age category the decrease in rate from 1981 to 1982 was greater than the decrease one year earlier. The 1982 rate is, for every age, the lowest annual rate in the 8 years. The only change in ranking by age, for the age grouping used here, is that the over 64 drivers moved down one rank between 1976 and 1977. With the exception of this age group, increasing age goes with decreasing involvement rate.

FIGURE 79
FATAL ACCIDENT INVOLVEMENT RATE
FOR VARIOUS DRIVER AGE GROUPS



XI. Classifications

Accident, injury and fatality counts as coded in FARS may differ somewhat from those based on the standard definitions in the Manual on Classification of Motor Vehicle Traffic Accidents, a manual developed by the National Safety Council's Committee on Motor Vehicle Traffic Accident Classification and approved as the national standard by the American National Standards Institute (ANSI).* The standard was developed to engender uniformity in the classification and use of accident data. As such it applies to **all** accidents, whether or not they result in death. In part because FARS counts **only** fatal accidents (and only those where death occurs within 30 days of the accident), its counts are not always comparable with ANSI classification counts.

However, the following sections summarize 1982 FARS data as distributed among ANSI classifications where applicable. Paragraph numbers cited for each section are those used in the ANSI manual.

Persons by Injury Severity
(ANSI 3.1)

In ANSI, five categories are used to classify accident-involved persons by the most severe injury sustained:

- o No injury
- o Possible injury
- o Evident but non-incapacitating injury
- o Incapacitating injury
- o Fatal injury

The level of injury severity used is that which prevailed at the scene of the accident, with one significant exception--fatalities. Using ANSI manual criteria, injuries are considered fatal if they result in death anytime within 12 months of the accident. FARS uses instead the 30-day rule (see Chapter I) to conform with international counting systems. Expansion of the 30-day rule to 12 months results in a count of only 2 percent more fatalities and significantly sacrifices timeliness of reporting. Using the 12-month rule adopted by ANSI, full fatality counts would not be available until at least a full year after the end of the base year in which the counted accidents occurred.

Personal involvements in FARS-counted accidents in 1982 were distributed among the ANSI injury-severity classifications as follows:

o No Injury	20,792
o Possible Injury	5,502
o Non-Incapacitating	12,793
o Incapacitating	17,617
o Fatal	43,721
o Unknown Severity	372
o Died Prior to Accident	6
o Unknown	696
o Total	**101,499**

Vehicles by Damage Severity
(ANSI 3.2)

Four categories are specified by ANSI to classify vehicle involvements in accidents by the most severe damage they receive:

- o No damage
- o Other damage
- o Functional damage
- o Disabling damage

These classifications usually are applied only to vehicles involved in non-injury accidents because injury to a person is considered more severe than property damage. Nevertheless, vehicle involvements in FARS-counted accidents are also coded according to ANSI damage classifications. In 1982, this resulted in the following distribution of involved vehicles:

o No damage	1,991
o Other damage	6,169
o Functional damage	8,266
o Disabling damage	38,489
o Unknown	1,275
o Total	**56,190**

Accidents by Injury Severity
(ANSI 3.3)

Using ANSI groupings, accidents are classified according to the most severe personal injury sustained in them, as described in 3.1. Using this method of classification, all 38,899 accidents in FARS are, by definition, fatal.

*Manual On Classification of Motor Vehicle Traffic Accidents, National Safety Council, Third Edition, Chicago. ANSI D16.1-1976 (revision of D16.1-1970) November, 1976.

Accidents by Damage Severity
(ANSI 3.4)

Accidents are also classified according to the most severe vehicle damage sustained, as in 3.2 above. Using ANSI classifications, the 1982 accidents counted in FARS had the following distribution of most severe vehicle damage:

o No damage	1,935
o Other damage	5,757
o Functional damage	6,731
o Disabling damage	23,295
o Unknown damage	1,181
o Total	**38,899**

Accidents by Number of Involved Vehicles
(ANSI 3.5)

Accidents can also be classified by the number of motor vehicles in transport which were involved. Non-contact vehicles, such as one which forced another off the road but was not itself involved in an impact, are not counted as accident-involved. The 38,899 fatal accidents in 1982, as illustrated in Figure 38, were classified as follows:

o 1 vehicle	23,720
o 2 vehicles	13,520
o 3 vehicles	1,357
o 4 vehicles	225
o 5 vehicles	55
o 6 vehicles	9
o 7 vehicles	6
o 8 or more vehicles	7

Accidents by First Harmful Event
(ANSI 3.6)

The first harmful event that occurs in each accident, rather than the **most** harmful event, is specified in the ANSI manual as a classification for uniformity in accident statistics reporting. The categories are mutually exclusive. The frequency of 1982 FARS-counted accidents, as shown in Figure 27, was distributed among first harmful events as follows:

o Noncollision overturn	3,594
o Other noncollision	606
o Collision with pedestrian	6,783
o Collision with motor vehicle in transport	14,323
o Collision with parked vehicle	744
o Collision with railway vehicle	426
o Collision with pedalcycle	839
o Collision with animal	78
o Collision with fixed object	11,238
o Collision with other object	251
o Unknown	17
o Total	**38,899**

Accidents by Location (ANSI 3.7)

Two mutually exclusive categories of accident location are specified in the ANSI manual: on-roadway and off-roadway.

An on-roadway accident is (1) an event in which the initial point of contact between colliding units in the **first harmful event** is within that part of the trafficway designed, improved and ordinarily used for motor vehicle traffic or (2) a non-collision in which the vehicle involved was partly or entirely on the roadway at the time of the first harmful event. All other accidents are off-roadway. FARS accidents in 1982, as illustrated in Figure 34, occurred:

o On-roadway	23,428
o Off-roadway	15,406
o Unknown	65
o Total	**38,899**

Junction related locations include four mutually exclusive categories. Intersection-related accidents occur on approaches to or exits from intersections, interchanges and driveways as a result of activities, behavior or controls related to the movement of traffic through the intersection. Following are 1982 FARS data distributed among the four ANSI categories, as shown in Figure 34:

o At intersection	8,589
o Driveway access	1,255
o Intersection-related	476
o Non-junction	28,529
o Unknown	50
o Total	**38,899**

ANSI uses "class trafficway" to describe the administrative class of the roadway where an accident occurred. In 1982 FARS coding, class trafficway was replaced by "functional class," as shown in Figure 33.

Class of trafficway is divided between two mutually exclusive categories:

o Fully controlled access highway
o Other

All Interstate Highways and other freeways and expressways coded in FARS data are considered fully controlled. The results, summarized from Figure 33:

o Fully controlled	4,791
o Other	33,474
o Unknown	634
o Total	**38,899**

Land Use is classified by ANSI as urban or rural, based on urban area boundaries approved by the Federal Highway Administration. As shown in Figure 31, 1982 fatal accidents were distributed as follows:

o Urban	16,987
o Rural	21,463
o Unknown	449
o Total	**38,899**

Accidents are also classified by governmental jurisdiction. Tables 41 to 43 and Figure 26 distribute 1982 fatalities by state. County and city jurisdictions were also coded in FARS but, in the interest of brevity, the resulting body of data is not included in this report, but are available from NHTSA.

Motor Vehicle Classifications
(ANSI 3.8)

ANSI specifies eight mutually exclusive categories for classifying motor vehicles involved in accidents:

o Automobile
o Motorcycle
o Bus
o Light truck
o Single unit truck
o Truck tractor
o Truck combination
o Other motor vehicles

Categories used in FARS, although more detailed, are compatible with these ANSI specifications. Table 52 describes all vehicle body types coded in FARS. Summarized according to ANSI definitions, the following vehicle involvements were counted in 1982 FARS accidents:

o Automobile	33,669
o Motorcycle	4,420
o Bus	286
o Light Truck	11,402
o Single Unit Truck	1,103
o Truck Tractor or Truck Combination	3,553
o Other (including unknown & unknown truck)	1,757
o Total	**56,190**

Glossary

Alcohol Involvement--An accident is considered to be alcohol involved if there was a positive blood alcohol test result on one of the involved drivers or nonoccupants, or if the police investigation indicated that drinking was involved, whether there was a supporting alcohol test or not, or if a driver was cited for Driving While Intoxicated or Driving Under the Influence of Liquor.

Automatic (Passive) Restraint System--Any restraint system that requires no action on the part of the driver or passengers to be operable, e.g., air bags or passive belts.

Body Type--Individual types of motor vehicles coded in the FARS file, as listed in Appendix B.

Buses--Unless otherwise noted, includes school buses, cross country buses, transit buses, and other and unknown type buses.

Driver--An occupant of a vehicle who is in physical control of a motor vehicle in transport or, for an out-of-control vehicle, an occupant who was in control until control was lost.

Fatal Motor Vehicle Traffic Accident--An accident that involves a motor vehicle in transport on a trafficway and in which at least one person dies within 30 days of the accident.

First Harmful Event--The first event during an accident that caused injury or property damage.

Fixed Objects -- Stationary structures or vegetation attached to the terrain.

Gross Vehicle Weight (GVW)--The maximum rated capacity of a vehicle and includes the weight of the vehicle, all added equipment, driver and passengers, and load.

Heavy Truck-- (1) single unit truck with GVW greater than 26,000 lbs., (2) tractor-trailer combination, (3) truck with cargo trailer(s), and (4) truck-tractor pulling no trailer. (See Appendix B.)

Initial Impact Point--The first impact point that produced personal injury or property damage.

Land Use--The accident location, i.e., urban or rural.

Light Truck--Pickups, vans, and truck based stationwagons. (See Appendix B.)

Manner of Collision-- Accidents in which the first harmful event was a collision between two motor vehicles in transport and is described as one of the following:

Angle--Collisions which are not head-on, rear-end, rear-to-rear, or sideswipe.

Head-on--Refers to a collision where the front end of one vehicle collides with the front end of another vehicle while the two vehicles are traveling in opposite directions.

Rear-end--A collision between the rear of one vehicle and the front of another vehicle.

Manual (Active) Restraint System--Occupant restraints that require some action, usually buckling, before they are effective. They include shoulder belt, lap belt, lap and shoulder belt, or child safety seat.

Medium Truck--Any single unit truck with a GVW between 10,000 and 26,000 lbs., or unknown GVW. (See Appendix B.)

Moped--A motor-driven cycle capable of speeds up to approximately 30 miles an hour and which can also be pedaled.

Most Harmful Event--The event during an accident that is judged to have produced the greatest personal injury or property damage.

Motorcycle--A two- or three-wheeled motor vehicle designed to transport one or two persons. For the purposes of this report, the following are not included unless otherwise noted: motorscooters, minibikes, and mopeds. (See Appendix B.)

Motor Vehicle in Transport--A motor vehicle which is in motion or on a roadway.

Noncollision--a class of accidents in which the first harmful event does not involve a collision with a fixed object or a nonfixed object. This includes overturn, fire/explosion, gas inhalation, falls from a vehicle and injuries in a vehicle.

Nonoccupant--Any person who is not an occupant of a motor vehicle in transport and includes: (1) pedestrians, (2) pedalcyclists, (3) occupants of parked motor vehicles, and (4) others such as skateboard riders, persons riding on an animal, persons riding in animal-drawn conveyance, etc.

Objects Not Fixed--Objects that are movable or moving but are not

motor vehicles, pedestrians, pedalcyclists, animals, or trains (e.g., cargo in roadway).

Occupant--Any person who is in or upon a motor vehicle in transport and includes the driver, passengers, and persons riding on the exterior of a motor vehicle (e.g., a skateboard rider who is set in motion by holding on to a vehicle).

Passenger--Any occupant of a motor vehicle who is not a driver.

Passenger Car--Any of the following types of motor vehicles: (1) convertible; (2) 2-door sedan, hardtop or coupe; (3) 4-door sedan or hardtop; (4) 3 or 5 door hatchback coupe; (5) automobile with pickup body; (6) stationwagon; and (7) other and unknown type passenger cars (e.g., gocarts).

Pedalcyclist--A person on a vehicle which is operated solely by pedals.

Pedestrian--Any person not in or upon a motor vehicle or other vehicle.

Principal Impact Point--The impact that is judged to have produced the greatest personal injury or property damage.

Roadway--That part of a trafficway used for motor vehicle travel.

Roadway Function Class-- The classification describing the role of the highway in a region.

Interstate--limited access divided facility of at least four lanes designated by the Federal Highway Administration as part of the Interstate System.

Other Freeways and Expressways--Limited access facilities not on the Interstate System, with full lane separation.

Other Principal Arterial--Major streets or highways with grade crossings, serving as high volume traffic corridors that connect major generators of travel.

Minor Arterials--Streets and highways that connect between less concentrated traffic generating areas such as neighborhood shopping centers and schools.

Collectors--Streets providing direct access to neighborhoods as well as direct access to arterials.

Local Streets and Roads--Streets whose primary purpose is providing direct access with little or no through traffic.

School Bus--A specific type of vehicle which, independent of ownership or design, is used to transport children to and from school.

School Bus Related Accident--Any accident in which a vehicle, regardless of body design, used as a school bus is directly or indirectly involved, such as an accident involving school children alighting from a vehicle.

Special Vehicle--Consists of the following types of vehicles: (1) snowmobile; (2) farm equipment other than trucks; (3) dune buggy or swamp buggy; (4) construction equipment other than trucks; (5) ambulance; (6) large limousine; (7) self-propelled camper and motor home; (8) fire truck; (9) on/off road vehicle; and (10) other special vehicle.

Trafficway--Any road, street or highway open to the public as a matter of right or custom for moving persons or property from one place to another.

Vehicle Type--A series of motor vehicle body types that have been grouped together because of their design similarities. The principal vehicle types used in this report are passenger cars, motorcycles, pedalcycles, light trucks, medium trucks and heavy trucks, buses and special vehicles. See the definitions of each of the vehicle types elsewhere in this glossary.

Appendix A - 1982 Coding Forms

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

1982 Fatal Accident Reporting System (FARS)
ACCIDENT LEVEL

Form Approved thru 12/31/83
O.M.B. No. 2127-0006

STATE CASE NO. _____

This report is authorized by the Highway Safety Act of 1966, P.L. 89-564. While the law does not require you to respond, the State is obligated under the terms of a grant of funds to defray the expense of reporting this information to cooperate in or to make the results of this survey comprehensive, accurate and timely.

CASE NUMBER STATE (GSA CODES) [1][2] | **CONSECUTIVE NUMBER** [3][4][5][6] | **TRANSACTION CODE** [7][8] = 1 (11 – Original Submission, 12 – Update or Change) | **CARD NO.** [9] = 1

CITY [14][15][16][17] | **COUNTY** [18][19][20]

DATE (MONTH DAY YEAR) [21][22][23][24][25][26] = 8 2

TIME [27][28][29][30] (Military Time, 9999 – Unknown)

Number of Vehicle Forms Submitted [31][32]

Number of Person Forms Submitted [33][34]

LAND USE [35]
1 – Urban
2 – Rural
3 – Unknown

ROADWAY FUNCTION CLASS [36]
1 – Principal Arterial - Interstate
2 – Principal Arterial - Other Urban Freeways and Expressways
3 – Principal Arterial - Other
4 – Minor Arterial
5 – Urban Collector
6 – Major Rural Collector
7 – Minor Rural Collector
8 – Local Road or Street
9 – Unknown

FEDERAL-AID SYSTEM [37]
1 – Interstate
2 – Other Federal-Aid Primary
3 – Federal-Aid Secondary
4 – Federal-Aid Urban Arterials
5 – Federal-Aid Urban Collectors
6 – Non-Federal-Aid Arterials
7 – Non-Federal-Aid Collectors
8 – Non-Federal-Aid Local
9 – Unknown

CLASS TRAFFICWAY [38]
1 – Interstate
2 – Other U.S. Route
3 – Other State Route
4 – County Road
5 – Local Street
8 – Other
9 – Unknown

TRAFFICWAY IDENTIFIER [39][40][41][42][43][44][45][46][47][48]
Actual Posted Number, Assigned Number, or Common Name (if No Posted or Assigned Number)
Except: Nine Fill if Unknown

MILEPOINT [49][50][51][52][53]
Actual to Nearest .1 Mile (Assumed Decimal)
Except: 00000 – None
99999 – Unknown

SPECIAL JURISDICTION [54]
0 – No Special Jurisdiction
1 – National Park Service
2 – Military
3 – Indian Reservation
4 – College/University Campus
5 – Other Federal Properties
8 – Other
9 – Unknown

FIRST HARMFUL EVENT [55][56]
(See Instruction Manual)

MANNER OF COLLISION [57]
0 – Not Collision with Vehicle in Transport
1 – Rear-End
2 – Head On
3 – Rear-to-Rear
4 – Angle
5 – Sideswipe, Same Direction
6 – Sideswipe, Opposite Direction
9 – Unknown

RELATION TO JUNCTION [58]
1 – Non-Junction
2 – Intersection
3 – Intersection Related
4 – Interchange Area
5 – Driveway, Alley Access, etc.
6 – Entrance/Exit Ramp
7 – Rail Grade Crossing
8 – In Crossover
9 – Unknown

RELATION TO ROADWAY [59]
1 – On Roadway
2 – Shoulder
3 – Median
4 – Roadside
5 – Outside Right-of-Way
6 – Off Roadway – Location Unknown
7 – In Parking Lane
8 – Gore
9 – Unknown

TRAFFICWAY FLOW [60]
1 – Not Physically Divided (Two Way Trafficway)
2 – Divided Highway, Median Strip (Without Traffic Barrier)
3 – Divided Highway, Median Strip (With Traffic Barrier)
4 – One Way Trafficway
9 – Unknown

NUMBER OF TRAVEL LANES [61]
Actual Value Except:
7 – Seven or more lanes
9 – Unknown

SPEED LIMIT [62][63]
Actual Miles Per Hour Except:
00 – No Statutory Limit
99 – Unknown

ROADWAY ALIGNMENT [64]
1 – Straight
2 – Curve
9 – Unknown

ROADWAY PROFILE [65]
1 – Level
2 – Grade
3 – Hillcrest
4 – Sag
9 – Unknown

ROADWAY SURFACE TYPE [66]
1 – Concrete
2 – Blacktop (Bituminous)
3 – Brick or Block
4 – Slag, Gravel or Stone
5 – Dirt
8 – Other
9 – Unknown

ROADWAY SURFACE CONDITION [67]
1 – Dry
2 – Wet
3 – Snow or Slush
4 – Ice
5 – Sand, Dirt, Oil
8 – Other
9 – Unknown

TRAFFIC CONTROL DEVICE [68][69]
(See Instruction Manual)

TRAFFIC CONTROL DEVICE FUNCTIONING [70]
0 – No Controls
1 – Device Not Functioning
2 – Device Functioning - Functioning Improperly
3 – Device Functioning Properly
9 – Unknown

HIT AND RUN [71]
0 – No Hit and Run
1 – Hit Motor Vehicle in Transport
2 – Hit Pedestrian or Non-Motorist
3 – Hit Parked Vehicle or Object

LIGHT CONDITION [72]
1 – Daylight
2 – Dark
3 – Dark but lighted
4 – Dawn
5 – Dusk
9 – Unknown

ATMOSPHERIC CONDITIONS [73]
1 – No Adverse Atmospheric Conditions
2 – Rain
3 – Sleet
4 – Snow
5 – Fog
6 – Rain and Fog
7 – Sleet and Fog
8 – Other: Smog, Smoke, Blowing Sand or Dust
9 – Unknown

CONSTRUCTION/MAINTENANCE ZONE [74]
0 – None
1 – Construction
2 – Maintenance
3 – Utility
4 – Work Zone, Type Unknown

NOTIFICATION TIME EMS [75][76][77][78]
Military Time Except:
0000 – Not Notified
9999 – Unknown

ARRIVAL TIME EMS [79][80][81][82]
Military Time Except:
0000 – Not Notified
9999 – Unknown

SCHOOL BUS RELATED [83]
0 – No
1 – Yes

RELATED FACTORS [84][85] [86][87] [88][89]
See Instruction Manual "Related Factors – ACCIDENT LEVEL"

RAIL GRADE CROSSING IDENTIFIER [90][91][92][93][94][95][96]
(See Instruction Manual)

CARD NO. [9] = 2

ADDITIONAL STATE INFORMATION (See Instruction Manual) [14][15][16][17][18][19][20][21][22][23][24][25][26][27][28][29][30][31][32][33]

HS Form 214 (Rev. 12/81)

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

1982 Fatal Accident Reporting System (FARS)
VEHICLE/DRIVER LEVEL

Form Approved thru 12/31/83
O.M.B. No. 2127-0006

STATE CASE NO. _____

This report is authorized by the Highway Safety Act of 1966, P.L. 89-564. While the law does not require you to respond, the State is obligated under the terms of a grant of funds to defray the expense of reporting this information to cooperate in or to make the results of this survey comprehensive, accurate and timely.

CASE NUMBER STATE (GSA CODES) 1 2

CONSECUTIVE NUMBER 3 4 5 6

TRANSACTION CODE 7 8
21 – Original Submission
22 – Update or Change
2

CARD NO. 9
1

VEHICLE NUMBER (Assigned by Analyst) 10 11

VEHICLE MAKE (See Instruction Manual) 14 15

VEHICLE MODEL (See Instruction Manual) 16 17

BODY TYPE (See Instruction Manual) 18 19

MODEL YEAR 20 21
Actual Value except
99 – Unknown

VEHICLE IDENTIFICATION NO. 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38
Actual Value except:
Zero Fill if no VIN
Nine Fill if Unknown

REGISTRATION STATE 39 40
GSA CODES Except:
00 – Not Applicable
92 – No Registration
93 – Multiple State Reg. In-State
94 – Multiple State Reg., Out-of-State
95 – U.S. Government Tags
96 – Military Vehicle
97 – Foreign Countries
99 – Unknown

ROLLOVER 41
0 – No Rollover
1 – First Event
2 – Subsequent Event

JACKKNIFE 42
0 – Not an Articulated Vehicle
1 – No
2 – First Event
3 – Subsequent Event

TRAVEL SPEED 43 44
Actual Miles Per Hour Except:
00 – Stopped Vehicle
97 – Ninety-seven MPH or Greater
99 – Unknown

HAZARDOUS CARGO 45
0 – No
1 – Yes
9 – Unknown

VEHICLE TRAILERING 46
0 – No
1 – Yes, One Trailing Unit
2 – Yes, Two or more Trailing Units
3 – Yes, Number of Trailing Units Unknown
9 – Unknown

SPECIAL USE 47
0 – No Special Use
1 – Taxi
2 – Vehicle Used as School Bus
3 – Vehicle Used as other Bus
4 – Military
5 – Police
6 – Ambulance
7 – Firetruck
9 – Unknown

EMERGENCY USE 48
0 – No
1 – Yes

IMPACT POINT – INITIAL 49 50
00 – Non-Collision
01-12 – Clock Points
13 – Top
14 – Undercarriage
15 – Under Ride
16 – Override
99 – Unknown

IMPACT POINT – PRINCIPAL 51 52
00 – Non-Collision
01-12 – Clock Points
13 – Top
14 – Undercarriage
15 – Under Ride
16 – Override
99 – Unknown

EXTENT OF DEFORMATION 53
0 – None
2 – Other (Minor)
4 – Functional (Moderate)
6 – Disabling (Severe)
9 – Unknown

VEHICLE ROLE 54
0 – Non-Collision
1 – Striking
2 – Struck
3 – Both
9 – Unknown

MANNER OF LEAVING SCENE 55
1 – Driven
2 – Towed Away
3 – Abandoned
9 – Unknown

FIRE OCCURRENCE 56
0 – No Fire
1 – Fire Occurred in Vehicle During Accident

NUMBER OF OCCUPANTS 57 58
Actual Value if Total Known
96 – 96 or more
97 – Unknown – Only Injured Reported
99 – Unknown

RELATED FACTORS 59 60 61 62
See Instruction Manual "Related Factors – VEHICLE LEVEL"

VEHICLE MANEUVER (See Instruction Manual) 63 64

MOST HARMFUL EVENT (See Instruction Manual) 65 66

Card No. 9
2

DRIVER PRESENCE 14
1 – Driver Operated Vehicle
2 – Driverless
3 – Driver Left Scene
9 – Unknown

LICENSE STATE GSA CODES 15 16
Except:
94 – Military
95 – Canada
96 – Mexico
97 – Other Foreign Countries
99 – Unknown

LICENSE/CLASS VEHICLE COMPLIANCE 17
0 – No License Required
1 – No License, License Required
2 – Valid License for This Class Vehicle Only
3 – One Valid License, but Not for This Class Vehicle
4 – Multiple Class Licenses, Valid License for This Class Vehicle
5 – Multiple Class Licenses, No Valid License for This Class Vehicle
9 – Unknown

LICENSE STATUS 18
0 – None Required
1 – None
2 – Valid
3 – Suspended
4 – Revoked
5 – Expired
6 – Cancelled or Denied
7 – Learner's Permit
8 – Temporary
9 – Unknown

COMPLIANCE WITH LICENSE RESTRICTIONS 19
0 – No Restrictions
1 – Restrictions Complied With
2 – Restrictions Not Complied With
3 – Restrictions, Compliance Unknown
9 – Unknown

DRIVER TRAINING 20
0 – None
1 – High School
2 – Commercial
3 – School Bus
4 – Traffic School
5 – Two or more Types
6 – Training, Type Unknown
9 – Unknown

VIOLATIONS CHARGED 21
0 – None
1 – Alcohol or Drugs
2 – Speeding
3 – Alcohol or Drugs and Speeding
4 – Reckless Driving
5 – Driving with a Suspended or Revoked License
6 – Other Moving Violation
7 – Non-Moving Violation
8 – Violation, Type Unknown or Other Violation
9 – Unknown

PREVIOUS RECORDED ACCIDENTS 22 23
Actual Value Except:
00 – None
99 – Unknown

PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS 24 25
Actual Value Except:
00 – None
99 – Unknown

PREVIOUS DWI CONVICTIONS 26 27
Actual Value Except:
00 – None
99 – Unknown

PREVIOUS SPEEDING CONVICTIONS 28 29
Actual Value Except:
00 – None
99 – Unknown

PREVIOUS OTHER HARMFUL MV CONVICTIONS 30 31
Actual Value Except:
00 – None
99 – Unknown

DATE OF LAST ACCIDENT, SUSPENSION, OR CONVICTION 32 33 34 35
Mo. Yr.
00 – No Record
99 – Unknown

DATE OF FIRST ACCIDENT SUSPENSION, OR CONVICTION 36 37 38 39
Mo. Yr.
00 – No Record
99 – Unknown

RELATED FACTORS 40 41 42 43 44 45
See Instruction Manual, "Related Factors – DRIVER LEVEL"

HS Form 214A (Rev. 12/81)

U.S. G.P.O. 1981-522-849/70

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

1982 Fatal Accident Reporting System (FARS)
PERSON LEVEL

Form Approved thru 12/31/83
O.M.B. No. 2127-0006

STATE CASE NO. _____

This report is authorized by the Highway Safety Act of 1966, P.L. 89-564. While the law does not require you to respond, the State is obligated under the terms of a grant of funds to defray the expense of reporting this information to cooperate in or to make the results of this survey comprehensive, accurate and timely.

CASE NUMBER STATE (GSA CODES) [1] [2]

CONSECUTIVE NUMBER [3] [4] [5] [6]

TRANSACTION CODE [7] [8] = 3
31 – Original Submission
32 – Update or Change

CARD NO. [9] = 1

VEHICLE NUMBER (Assigned by Analyst) [10] [11]
00 – Non-Motorist

PERSON NUMBER (Assigned by Analyst) [12] [13]

NON-MOTORIST STRIKING VEHICLE NUMBER [14] [15]
Assigned Vehicle Number
Except:
99 – Unknown

AGE [16] [17]
Actual Value
00 – Up to One Year
97 – Ninety-Seven Years or Older
99 – Unknown

SEX [18]
1 – Male
2 – Female
9 – Unknown

PERSON TYPE [19]
1 – Driver of a Motor Vehicle in Transport
2 – Passenger of a Motor Vehicle in Transport
3 – Occupant of a Motor Vehicle Not in Transport
4 – Occupant of a Non-Motor Vehicle Transport Device
5 – Non-Occupant – Pedestrian
6 – Non-Occupant – Bicyclist
7 – Non-Occupant – Other Cyclist
8 – Non-Occupant – Other or Unknown
9 – Unknown Occupant Type in a Motor Vehicle in Transport

SEATING POSITION [20] [21]
00 – Non-Motorist
11 – Front Seat – Left Side (Driver's Side)
12 – – Middle
13 – – Right Side
18 – – Other
19 – – Unknown
21 – Second Seat – Left Side
22 – – Middle
23 – – Right Side
28 – – Other
29 – – Unknown
31 – Third Seat – Left Side
32 – – Middle
33 – – Right Side
38 – – Other
39 – – Unknown
41 – Fourth Seat – Left Side
42 – – Middle
43 – – Right Side
48 – – Other
49 – – Unknown
50 – Sleeper Section of Cab (Truck)
51 – Other Passenger in Enclosed Passenger or Cargo Area
52 – Other Passenger in Unenclosed Passenger or Cargo Area
53 – Other Passenger in Passenger or Cargo Area, Unknown Whether or Not Enclosed
54 – Trailing Unit
55 – Riding on Vehicle Exterior
99 – Unknown

MANUAL (ACTIVE) RESTRAINT SYSTEM – USE [22]
0 – None Used - Vehicle Occupant/Not Applicable - Non-Motorist
1 – Shoulder Belt
2 – Lap Belt
3 – Lap and Shoulder Belt
4 – Child Safety Seat
5 – Motorcycle Helmet
8 – Restraint Used – Type Unknown or Other including Other Helmet
9 – Unknown

AUTOMATIC (PASSIVE) RESTRAINT SYSTEM – FUNCTION [23]
0 – Not Equipped or Non-Motorist
1 – Automatic Belt in Use
2 – Automatic Belt Not In Use
3 – Deployed Air Bag
4 – Non-deployed Air Bag
9 – Unknown

NON-MOTORIST LOCATION [24] [25]
00 – Not Applicable – Vehicle Occupant
01 – Intersection – In Crosswalk
02 – Intersection – On Roadway, Not in Crosswalk
03 – Intersection – On Roadway, Crosswalk Not Available
04 – Intersection – On Roadway, Crosswalk Availability Unknown
05 – Intersection – Not on Roadway
09 – Intersection – Unknown
10 – Non-Intersection – In Crosswalk
11 – Non-Intersection – On Roadway, Not in Crosswalk
12 – Non-Intersection – On Roadway, Crosswalk Not Available
13 – Non-Intersection – On Roadway, Crosswalk Availability Unknown
14 – Non-Intersection – In Parking Lane
15 – Non-Intersection – On Road Shoulder
16 – Non-Intersection – Bike Path
17 – Non-Intersection – Outside Trafficway
18 – Non-Intersection – Other, Not on Roadway
19 – Non-Intersection – Unknown
99 – Unknown

EJECTION [26]
0 – Not Ejected
1 – Totally Ejected
2 – Partially Ejected
9 – Unknown

EXTRICATION [27]
0 – Not Extricated
1 – Extricated
9 – Unknown

POLICE REPORTED ALCOHOL INVOLVEMENT [28]
0 – No (Alcohol Not Involved)
1 – Yes (Alcohol Involved)
8 – Not Reported
9 – Unknown (Police Reported)

ALCOHOL TEST RESULT [29] [30]
Actual Value (Decimal Implied before First Digit) (0.xx)
95 – Test Refused
96 – None Given
97 – AC Test Performed, Results Unknown
99 – Unknown

INJURY SEVERITY [31]
0 – No Injury (0)
1 – Possible Injury (C)
2 – Nonincapacitating Evident Injury (B)
3 – Incapacitating Injury (A)
4 – Fatal Injury (K)
5 – Injured, Severity Unknown
6 – Died Prior to Accident
9 – Unknown

TAKEN TO HOSPITAL OR TREATMENT FACILITY [32]
0 – No
1 – Yes
9 – Unknown

DEATH DATE [33] [34] [35] [36] [37] [38]
000000 – Not Applicable
999999 – Unknown
MONTH – DAY – YEAR

DEATH TIME [39] [40] [41] [42]
Military Time Except:
0000 – Not Applicable
9999 – Unknown

RELATED FACTORS [43] [44] [45] [46] [47] [48]
See Instruction Manual
"Related Factors – PERSON LEVEL"

HS Form 214B (Rev. 12/81)

U.S. G.P.O. 1981– 22-850/71

Appendix B

ORDER FORM FOR NHTSA TAPES / DOCUMENTATION

The U.S. Department of Transportation, Transportation Systems Center (DOT/TSC) has the following **NHTSA** data tapes, and/or, tape documentation available as specified below. Mark the appropriate blocks with an ("X") to indicate item(s) desired. Years required should be indicated by circling those dates.

I. AVAILABLE DATA TAPES* ($150.00 per tape, per year)

- ☐ **Fatal Accident Reporting System (FARS)**
  - o Sequential Version - 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983
  - o SAS Version - 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982
- ☐ **National Accident Sampling System (NASS)**
  - o Sequential Version - 1979, 1980, 1981, 1982
  - o SAS Version - 1979, 1980, 1981, 1982
- ☐ **National Crash Severity Study (NCSS)** - Sequential Versions only
  - o Pre-April (Augmented) - Jan. 1977 - Mar. 1978
  - o Post-April - Apr. 1978 - Mar. 1979
- ☐ **Pedestrian Injury Causation Study (PICS)**
  - o 1 Tape - SAS Version only

*Data tapes are available in ASCII or EBCDIC Code and tape density of 1600 or 6250 BPI. Please specify characteristics desired by circling. Documentation will be provided with each tape purchased.

II. AVAILABLE DOCUMENTATION

- ☐ **Fatal Accident Reporting System**
  - o 1975 - 1981, 1 document, @ $15.00
  - o 1982, 1983, 1 document, @ $15.00
- ☐ **National Accident Sampling System** @ $5.00 each year
  - o 1979, 1980, 1981, 1982
- ☐ **National Crash Severity Study**
  - o 1 document, @ $5.00
- ☐ **Pedestrian Injury Causation Study**
  - o 1 document, @ $5.00

****TOTAL AMOUNT: $_____**

**NOTE: Some Federal and State Offices along with their supporting contractors may not be subject to these charges. To clarify, please call Jane Hilley at NHTSA (202) 426-4844.

Please enclose a check or money order for the correct amount, made payable to: **DOT / Transportation Systems Center**. Mail to:

John F. Mitchell, DTS-32
DOT / Transportation Systems Center
Kendall Square
Cambridge, MA. 02142

Please send tapes and/or documentation to:

Company: _____

Attention: _____

Address: _____

City: _____ State: ____ Zip _____

Please include person to contact and telephone number:

_____

Shipment will be made by regular mail unless otherwise specified. If you wish to have it sent by other means, please include company and account number. _____

_____

Index to Figures and Tables by FARS Coding Elements

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