

**1997**  
**South Dakota**  
**Motor Vehicle**  
**Traffic Accident**  
**Summary**



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Prepared By  
Department of Transportation  
Accident Records

In Cooperation With  
Department of Commerce & Regulation  
Office of Highway Safety

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## I. INTRODUCTION

The South Dakota Motor Vehicle Traffic Accident Summary was developed to provide an overview of the South Dakota traffic accident picture, as well as make frequently requested information available. Information from 1997 comprises the major portion of the book; however, basic historic trends are also provided for reference.

The Motor Vehicle Traffic Accident Summary is divided into two main sections, Historical Trends and 1997 Motor Vehicle Traffic Accident Profile. The Historical Trend section provides information on alcohol involvement in motor vehicle accidents, severity of injury by record type and sex of drivers involved in accidents. This section also provides data on restraint usage and accident trends. The 1997 Traffic Accident Profile section details the accident picture for 1997 as well as a glossary of terms.

The majority of the information in this book is provided by the Accident Records Section within the Department of Transportation. Current state law requires an accident report be filed for each motor vehicle traffic accident resulting in the **death or injury of a person, or property damage to an apparent extent of five hundred dollars or more to any one person's property or one thousand dollars accumulated damage per accident.** Law enforcement agencies provide the accident reports to Accident Records. These reports are available to the public for a fee of four dollars.

Examples of reports available through Accident Records are:

STANDARD REPORTS - These reports provide the user with a standard set of summary information for a preselected subset of all accidents, e.g., all accidents involving a drinking driver.

PLOT MAPS - These maps supply the user with a graphic display on which the location of each accident in a given geographic area has been plotted on transparent paper and scaled to overlay maps provided by the Department of Transportation.

SPECIAL REQUESTS - Special requests are answered using several computer packages, one of which is an on-line query system which provides almost immediate response to requests of a very specific nature.

For additional information or copies, write or call:

Accident Records Section  
700 East Broadway Avenue  
Pierre, SD 57501-2586  
Phone: (605) 773-4156

SOUTH DAKOTA  
STATISTICAL SUMMARY  
1997

NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC ACCIDENTS: **20,899**

AMOUNT OF MOTOR VEHICLE TRAFFIC ACCIDENT PROPERTY DAMAGE: **\$79 million**

NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENT INJURIES: **8,161**

NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENT FATALITIES: **148**

FATALITY RATE PER 100,000,000 MILES OF TRAVEL: **1.88**

PERCENT OF DRIVERS IN FATAL ACCIDENTS WHO HAD BEEN DRINKING: **27.8%**

NUMBER KILLED IN ALCOHOL-RELATED ACCIDENTS: **59**

NUMBER INJURED IN ALCOHOL-RELATED ACCIDENTS: **1,024**

NUMBER OF PEDESTRIANS KILLED: **6**

NUMBER OF MOTORCYCLISTS KILLED: **9**

NUMBER OF BICYCLISTS KILLED: **1**

PERCENT OF LICENSED DRIVERS UNDER 25: **18.6%**

PERCENT OF ACCIDENT-INVOLVED SPEEDING DRIVERS UNDER 25: **46.3%**

PERCENT OF ACCIDENT-INVOLVED DRINKING DRIVERS UNDER 25: **39.4%**

NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES: **132, 26** WERE WEARING A SAFETY RESTRAINT (EXCLUDES MOPED, MOTORCYCLE & SNOWMOBILE OCCUPANTS)

NUMBER OF DWI CONVICTIONS: **5,542** (Source: Dept. of Commerce & Regulation-Driver Improvement)

SEATBELT USE RATE OF ACCIDENT-INVOLVED DRIVERS: **81.2%**

NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE KILLED IN MOTOR VEHICLE ACCIDENTS: **2**

NUMBER OF PROPERLY RESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE KILLED IN MOTOR VEHICLE ACCIDENTS: **0**

ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC ACCIDENTS: **\$302 MILLION**

Source: SD Department of Transportation: Accident Records

## II. HISTORICAL TRENDS

### Motor Vehicle Accidents

The preliminary death rates per 100 million vehicle miles traveled from 1988-1997 for South Dakota, states surrounding South Dakota, and the nation are shown in TABLE 2-1. The national rate has shown a decline over the last ten years. FIGURE 2-1 compares South Dakota with the national rate and two comparable rural states, North Dakota and Wyoming. The South Dakota rate has been adjusted to comply with changes made by the Department of Transportation in the computation of vehicle miles of travel.

**TABLE 2-1  
FATALITY RATE COMPARISON  
1988-1997**

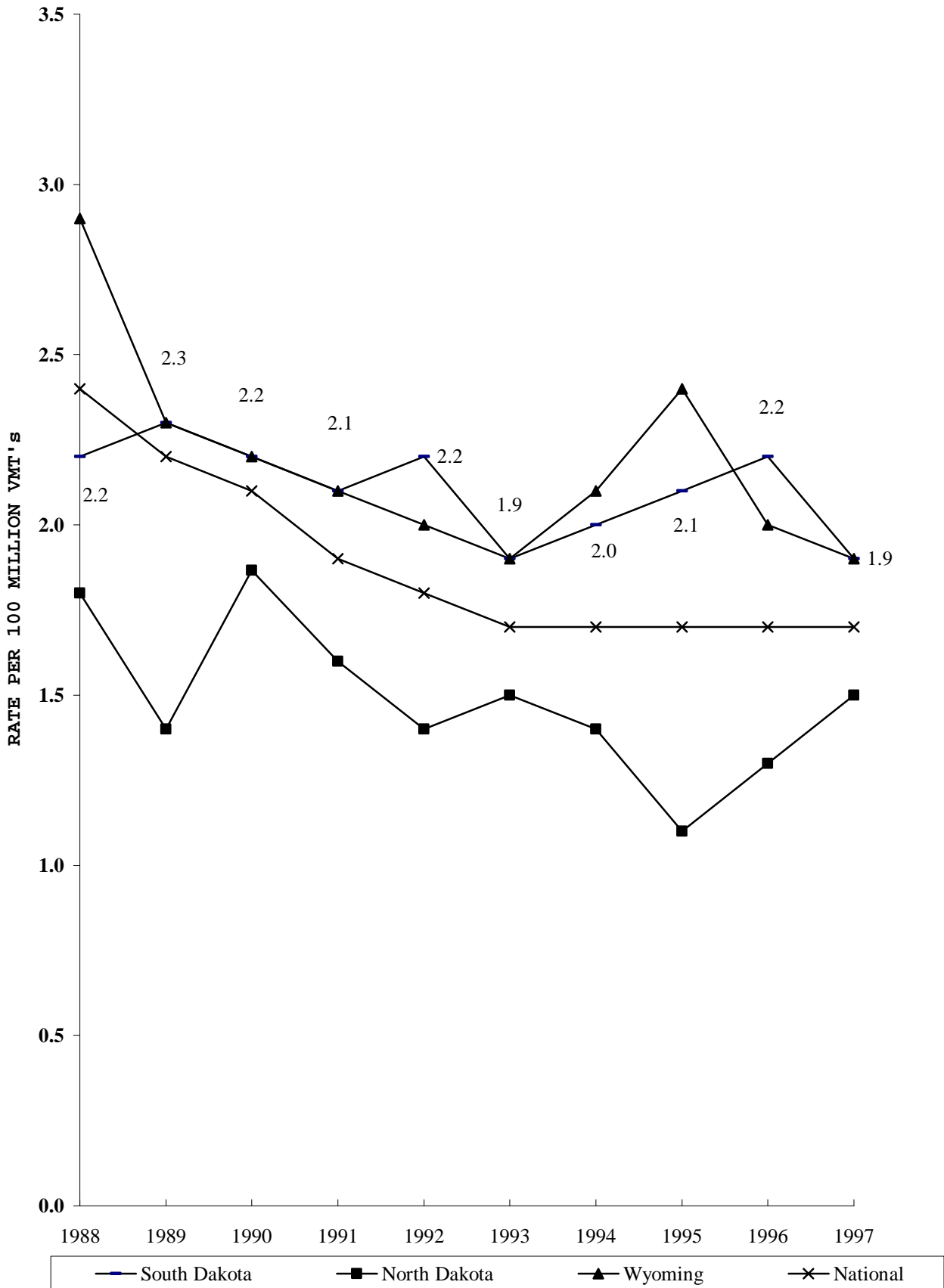
<u>State</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
South Dakota	2.2	2.3	2.2	2.1	2.2	1.9	2.0	2.1	2.2	1.9
Iowa	2.6	2.3	2.0	2.1	1.8	1.8	1.8	2.0	1.7	1.7
Minnesota	1.7	1.6	1.5	1.3	1.4	1.3	1.5	1.4	1.3	1.3
Montana	2.4	2.2	2.5	2.3	2.1	2.3	2.3	2.3	2.1	N/A
Nebraska	2.0	2.1	1.9	2.0	1.9	1.7	1.8	1.6	1.8	1.8
North Dakota	1.8	1.4	1.9	1.6	1.4	1.5	1.4	1.1	1.3	1.5
Wyoming	2.9	2.3	2.2	2.1	2.0	1.9	2.1	2.4	2.0	1.9
National	2.4	2.2	2.1	1.9	1.8	1.7	1.7	1.7	1.7	1.7

Note: Death Rate is the number of traffic fatalities per 100 million vehicle miles traveled.

Source: SD Department of Transportation: Accident Records

TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic accidents from 1965 through 1997. Any comparison of motor vehicle accidents must be made with caution due to the changes in the definition of a reportable accident. For example, in the late 1970's the definition of a fatality caused by a motor vehicle accident was changed from the death occurring up to one year after the accident to death occurring within 30 days after the accident. There does not appear to be a single reason why there are fewer fatalities; however, the national 55 mph speed limit law initiated in 1974 and the increased efforts in the drinking driving area in 1981 have probably had the most impact. Other factors include improvements in the highways, safer vehicles, and traffic enforcement efforts. Using vehicle miles of travel, the 1997 death rate decreased to 1.88, a 17.9% decrease from the 1996 adjusted 2.24 rate. The 8,161 people injured is a 3.9% decrease from the 8,490 for 1996 (see TABLE 2-2).

**FIG2-1 FATALITY RATE COMPARISON**





**TABLE 2-2  
SOUTH DAKOTA YEARLY COMPARISON  
OF MOTOR VEHICLE TRAFFIC FATALITIES, INJURIES,  
ACCIDENTS, MILES TRAVELED, & REGISTERED MOTOR VEHICLES**

<u>Year</u>	<u>Deaths</u>	<u>Death Rate<sup>1</sup></u>	<u>Injuries</u>	<u>Total Accd.</u>	<u>Total Accd. Rate<sup>4</sup></u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO<sup>2</sup> Accd.</u>	<u>Miles<sup>3</sup> Traveled +(000,000)</u>	<u>Registered Motor Vehicles +(000)</u>
1965	244	6.13	4,685	10,015	251.44	194	2,880	6,941	3,983	396
1966	265	6.50	5,072	10,821	265.55	205	3,087	7,529	4,075	402
1967	224	5.41	5,286	12,154	293.43	183	3,250	8,721	4,142	407
1968	255	5.91	5,612	14,061	326.01	215	3,396	10,450	4,313	409
1969	296	6.79	5,921	16,565	379.84	219	3,584	12,762	4,361	422
1970	238	5.12	5,492	16,165	347.78	189	3,395	12,581	4,648	427
1971	262	5.36	6,705	16,995	347.97	210	4,152	12,633	4,884	444
1972	294	5.83	6,718	17,883	354.89	235	4,267	13,381	5,039	467
1973	286	5.57	6,774	14,985	291.76	228	4,321	10,436 <sup>2</sup>	5,136	494
1974	229	4.47	6,211	11,727	228.77	203	4,077	7,447	5,126	519
1975	198	3.82	6,769	15,146	292.06	163	4,398	10,585 <sup>2</sup>	5,186	533
1976	224	4.07	7,423	15,755	286.30	188	4,840	10,727	5,503	554
1977	211	3.67	7,603	18,020	313.17	180	5,013	12,827	5,754	575
1978	194	3.33	7,861	18,085	310.21	168	5,263	12,654 <sup>2</sup>	5,830	599
1979	211	3.76	7,189	16,059	286.05	169	4,826	11,064	5,614	616
1980	228	3.69	7,147	14,845	240.25	188	4,770	9,887	6,179 <sup>3</sup>	622
1981	177	2.86	6,771	14,375	232.38	162	4,614	9,599	6,186	637
1982	148	2.33	6,174	14,605	229.57	129	4,192	10,284	6,362	640
1983	175	2.77	6,287	14,971	237.07	147	4,175	10,649	6,315	655
1984	143	2.24	6,158	15,093	236.42	132	4,297	10,664	6,384	669
1985	130	2.07	6,240	15,435	245.94	109	4,229	11,097	6,276	674
1986	134	2.15	6,008	13,714	219.85	118	4,105	9,491 <sup>2</sup>	6,238	686
1987	134	2.09	6,221	13,083	203.59	107	4,173	8,803	6,426	711
1988	147	2.22	6,579	14,821	224.02	127	4,455	10,239	6,616	709
1989	152	2.27	6,828	15,005	223.79	134	4,605	10,266	6,705	719
1990	153	2.19	7,261	15,073	215.67	139	4,820	10,114	6,989	698
1991	143	2.10	7,310	16,009	235.32	130	4,830	11,049	6,803	710
1992	161	2.24	7,813	17,170	238.51	141	5,112	11,917	7,199	722
1993	140	1.89	8,410	18,664	251.74	118	5,525	13,021	7,414	749
1994	154	2.02	8,540	19,408	254.30	141	5,711	13,556	7,632	805
1995	158	2.06	8,323	19,362	252.41	140	5,543	13,679	7,671	812
1996	175	2.24	8,490	21,653	277.57	142	5,653	15,858	7,801	815
1997	148	1.88	8,161	20,899	264.81	128	5,478	15,293	7,892	827

<sup>1</sup> Number of deaths per 100 million vehicle miles traveled.

<sup>2</sup> Prior to July 1, 1973 the threshold for a reportable property damage only (PDO) accident was \$100 to one person's property. July 1, 1973 the PDO amount was increased to \$250.

January 1, 1975, the PDO threshold definition changed to accumulated property damage of \$250 or more. July 1, 1978 the PDO threshold was increased to \$400 accumulated property damage. July 1, 1986, the PDO threshold definition changed to \$500 damage to any one person's property or \$1000 accumulated property damage per accident.

<sup>3</sup> Miles traveled from years 1980 through 1991 have been revised to agree with the Highway Performance Monitoring System's (HPMS) miles traveled. The revised travel was provided by Data Inventory of the SD Department of Transportation. Note! This revision of the miles traveled has caused the Death Rates to be adjusted also. Current year 1997 may be adjusted and updated in next year's publication.

<sup>4</sup> Number of accidents per 100 million vehicle miles traveled.

Source: SD Department of Transportation: Accident Records

Alcohol Involvement

Seventeen (28.8%) of the people killed in alcohol related accidents were teenagers. Alcohol involved accidents and injuries show a decrease in 1997 when compared to a 6 year (91-96) average (see Table 2-3). Alcohol statistics dating back to the 1970's show 1993 to have the lowest number of fatalities for any one year period and the highest number is 138 for the year of 1973.

**TABLE 2-3  
ALCOHOL INVOLVED ACCIDENTS AS PERCENT OF ALL ACCIDENTS  
1991-1997**

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
Total Accidents	9.9 (1578)	8.6 (1485)	8.0 (1501)	8.1 (1574)	7.5 (1457)	7.0 (1508)	6.9 (1449)
Fatal Accidents	43.8 (57)	46.1 (65)	39.8 (47)	44.7 (63)	42.9 (60)	38.0 (54)	39.1 (50)
Injury Accidents	16.2 (784)	14.9 (764)	13.3 (736)	14.1 (805)	13.3 (735)	12.8 (722)	12.0 (656)
PDO Accidents	6.7 (737)	5.5 (656)	5.5 (718)	5.2 (706)	4.8 (662)	4.6 (732)	4.9 (743)
Fatalities	43.4 (62)	46.6 (75)	39.3 (55)	45.5 (70)	44.3 (70)	38.9 (68)	39.9 (59)
Injuries	17.1 (1253)	15.8 (1231)	14.4 (1207)	15.1 (1286)	14.1 (1175)	13.8 (1170)	12.5 (1024)

NOTE: Alcohol involvement for Fatal Accidents is based upon a positive BAC result and/or Indication of alcohol use by at least one driver, pedestrian or bicycle driver as reported by the investigating officer.

For Injury and Property Damage Accidents - It is based upon indication of alcohol use by at least one driver, pedestrian or bicycle driver as reported by the investigating officer.

**TABLE 2-3A  
PERSONS KILLED IN ALCOHOL INVOLVED ACCIDENTS BY AGE  
1991 - 1997**

<u>AGE</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
0 - 5	1	1	0	0	0	2	1
6 - 12	1	1	0	1	0	2	1
13 - 19	4	17	7	16	6	10	17
20	4	2	1	1	1	2	3
21 - 29	19	9	16	21	28	18	10
30 - 39	14	20	17	12	18	15	14
40 - 49	7	10	10	8	9	5	6
50 - 59	5	5	0	4	2	7	3
60 & OLDER	7	10	3	7	6	7	4
Unknown/Not Stated	0	0	1	0	0	0	0
TOTAL	62	75	55	70	70	68	59

Source: SD Department of Transportation: Accident Records

FIGURE 2-2 1997 TRAFFIC FATALITIES  
Alcohol Related vs Non Alcohol Related

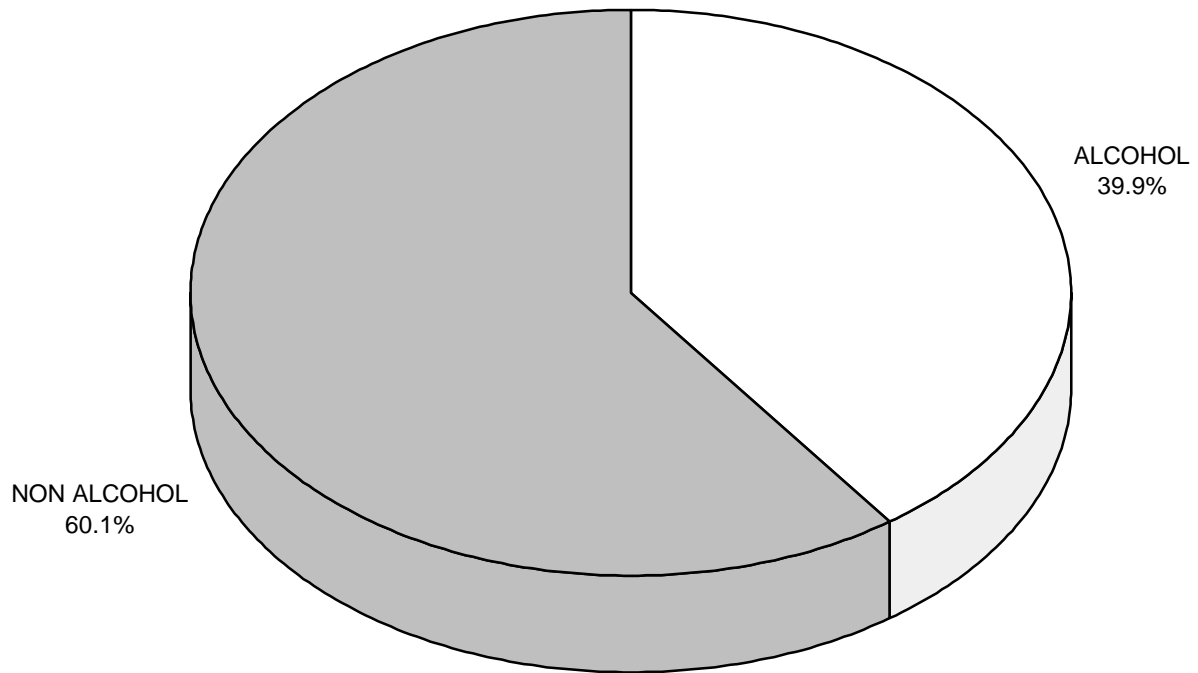
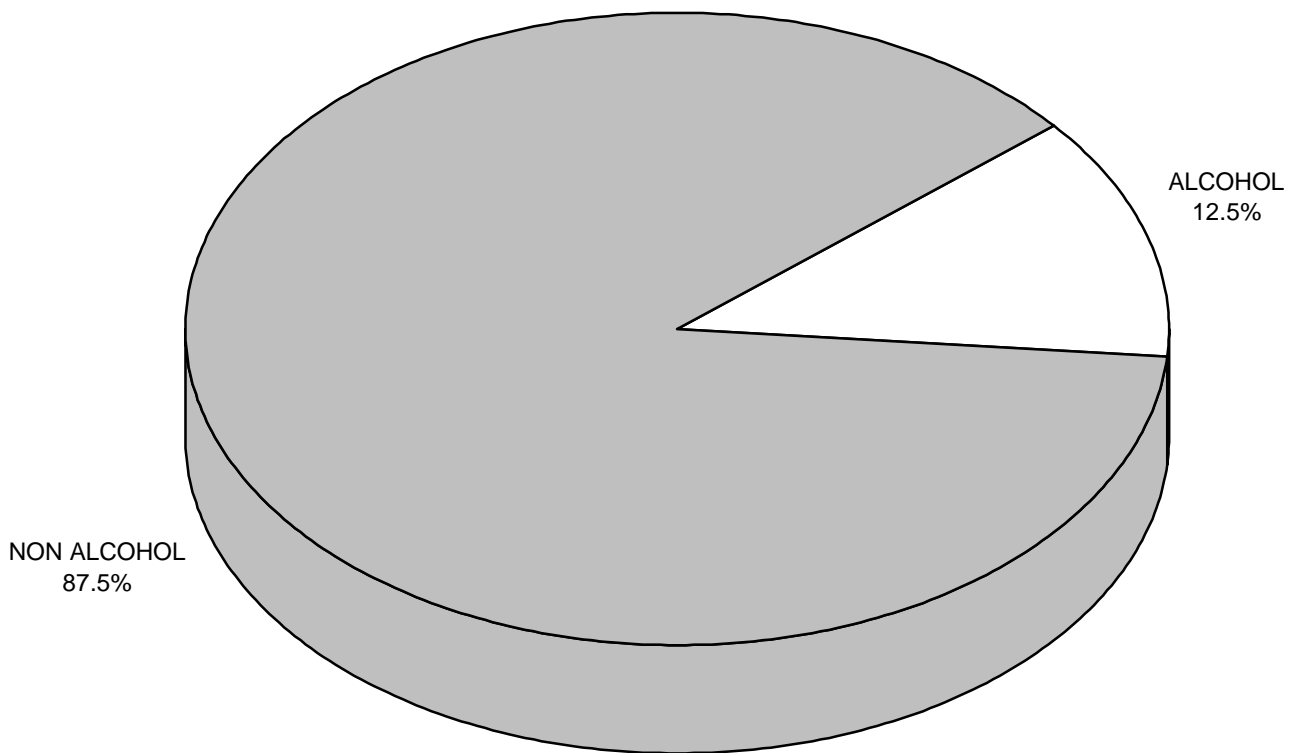


FIGURE 2-3 1997 TRAFFIC INJURIES  
Alcohol Related vs Non Alcohol Related



The following accident and arrest data is presented to monitor changes in alcohol-related fatal and injury accidents and to compare changes with nonalcohol-related accident experiences (see TABLE 2-4). Alcohol-related fatal and injury accidents decreased by 9.0% while nonalcohol-related fatal and injury accidents decreased by 2.4% from the 1996 totals. The number of DWI arrests decreased by 9.8% from 1996.

**TABLE 2-4  
ACCIDENT AND ARREST ACTIVITY  
1989 - 1997**

	FATAL ACCIDENTS		FATAL & INJURY ACCIDENTS		DWI ARRESTS*
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED	
1989	70	64	843	3,896	7,698
1990	71	68	949	4,010	7,499
1991	57	73	841	4,119	8,291
1992	65	76	829	4,424	8,378
1993	47	71	783	4,860	8,821
1994	63	78	868	4,984	9,574
1995	60	80	795	4,888	8,923
1996	54	88	776	5,019	9,712
1997	50	78	706	4,900	8,757

\*Source: South Dakota Courts - The State of the Judiciary and 1997 Annual Report of the S. D. Unified Judicial System - January 1998  
Based on Fiscal Year statistics

Source: SD Department of Transportation: Accident Records

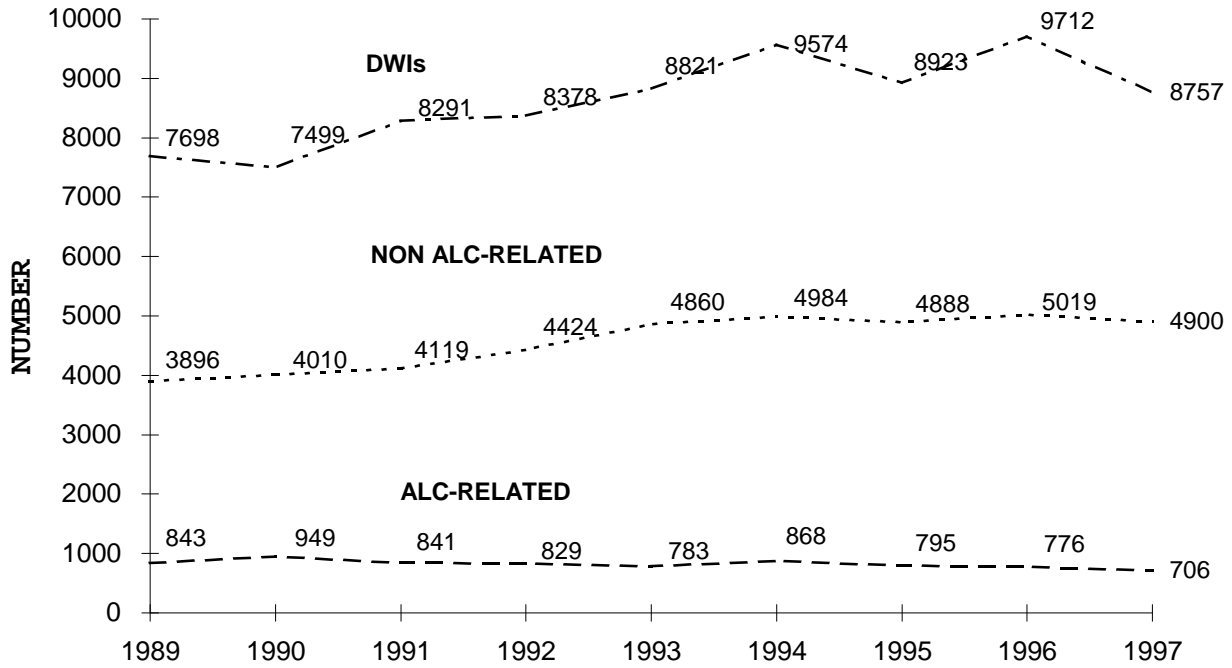
FIGURE 2-4 presents the annual counts of DWI arrests, alcohol-related fatal and injury accidents, and nonalcohol-related fatal and injury accidents from 1989 through 1997. FIGURE 2-5 presents the alcohol-related and nonalcohol-related fatal accident experience for the years of 1989 through 1997.

There were 50 alcohol-related fatal accidents during 1997, which compares to 54 in 1996. The previous three-year average was 59 for the years of 1994-1996.

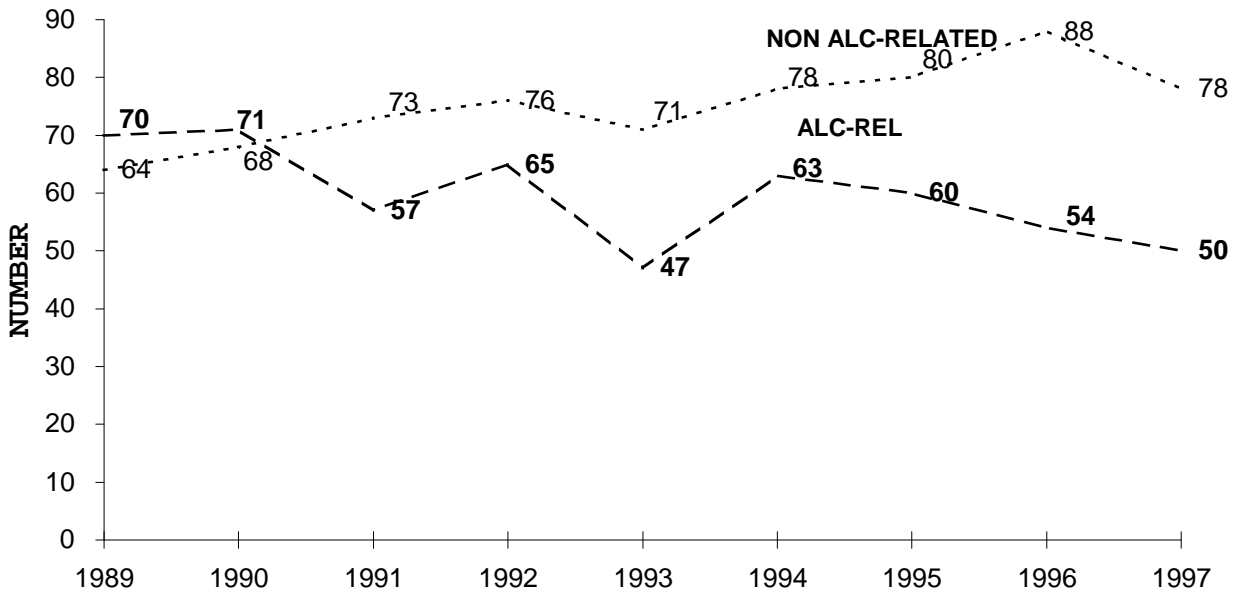
There were 706 alcohol-related fatal and injury accidents during 1997, which compares to 776 in 1996. The previous three-year average was 813 or a 13.2 percent decrease in 1997. Nonalcohol-related fatal and injury accidents in 1997 decreased (2.4%) when compared to 1996 and decreased 1.3 percent from the previous three-year average (94-96).

There were 8,757 DWI arrests in fiscal year 1997. This level is down 6.9% from the previous three-year average (94-96).

**FIG 2-4 F&I ACCIDENTS AND DWIs**



**FIG2-5 FATAL ACCIDENTS**



## SAFETY RESTRAINT USAGE, EJECTION AND CHILD INJURIES

On January 1, 1995 the statute took effect requiring front seat occupants to be fastened by a safety belt system. The use of safety equipment is reported for all motor vehicle drivers and only those passengers that are injured. During 1997, a record of 81.2 percent of the drivers in accidents were reported to be using safety restraints (see TABLE 2-5). Eighty-nine occupants were killed while not wearing any safety restraint, while twenty-four occupants killed were wearing lap and shoulder harness, none were wearing a lap belt only and 2 wore shoulder harness only, one was not properly restrained in a child safety seat and one was reported as other type restraint (does not include occupants of motorcycles, mopeds and snowmobiles).

Sixty-two (47%) of the 132 killed occupants were either partially or totally ejected from the vehicle (see TABLE 2-5A).

TABLE 2-5  
SAFETY RESTRAINT USAGE  
ACCIDENT-INVOLVED DRIVERS  
1992 - 1997

<u>AGE</u>	<u>USAGE RATE</u>					
	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
14 - 15	25.3%	28.6%	33.4%	67.4%	72.4%	74.1%
16 - 17	22.1%	25.6%	32.5%	69.5%	72.5%	73.0%
18 - 20	29.7%	28.8%	35.2%	71.2%	73.8%	75.2%
21 - 24	35.2%	37.4%	42.0%	77.3%	79.5%	79.3%
25 - 34	42.7%	44.5%	51.1%	80.6%	82.8%	83.2%
35 - 44	46.3%	46.4%	54.4%	82.3%	83.6%	85.0%
45 - 54	47.5%	48.9%	55.2%	83.3%	86.8%	86.0%
55 - 64	41.0%	46.4%	51.4%	83.8%	85.9%	84.6%
65 - Over	38.6%	39.1%	45.9%	80.9%	80.6%	81.9%
Total	38.4%	40.0%	46.2%	78.2%	80.6%	81.2%
	(9,178)	(10,752)	(12,873)	(21,465)	(25,087)	(23,896)

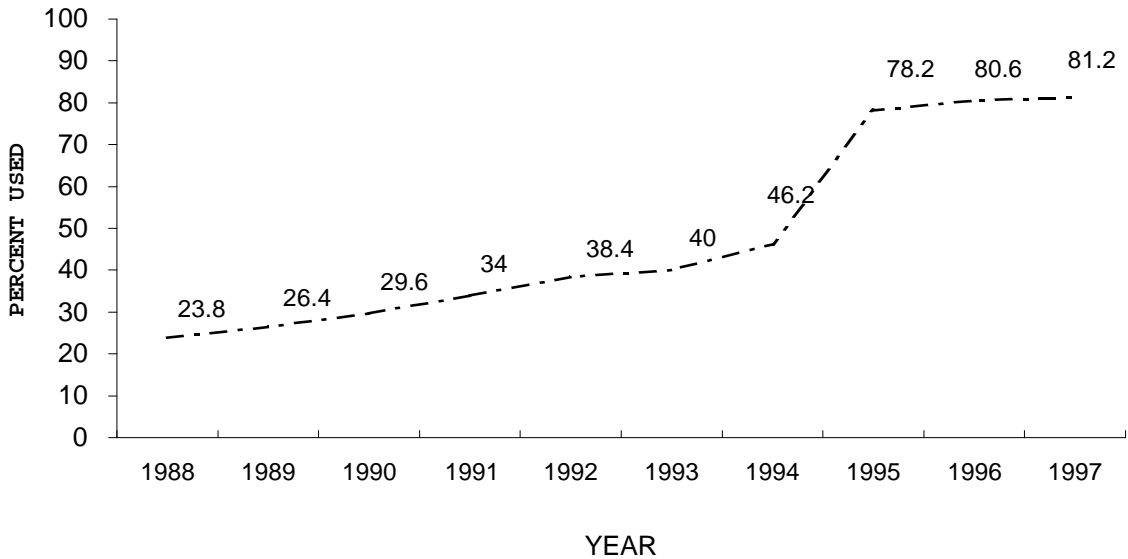
Source: SD Department of Transportation: Accident Records

TABLE 2-5A  
FATALITIES BY EJECTION STATUS FOR MOTOR VEHICLE OCCUPANTS  
(Excludes Motorcycle, Mopeds and Snowmobiles)  
1997

Not Ejected	70
Partial Ejection	11
Total Ejection	51
Unknown Ejection	0
Total	132

Source: SD Department of Transportation: Accident Records

**FIGURE 2-6 SAFETY RESTRAINT USAGE  
ACCIDENT INVOLVED DRIVERS**



**TABLE 2-5B  
FATALITIES AND INJURIES TO MOTOR VEHICLE OCCUPANTS  
BY SAFETY EQUIPMENT USAGE  
1997**

	<u>Fatalities</u>	<u>Injuries</u>
No Safety Equipment	89	2,642
Lap Belt Only	0	211
Shoulder Harness Only	2	78
Lap Belt & Shoulder Harness	24	4,135
Child Restraint Used Properly	0	39
Child Restraint Not Properly Used	1	4
Other Type Restraints	1	13
Not Stated or Unknown	15	458
<b>TOTAL</b>	<b>132</b>	<b>7,580</b>

Note: Motor vehicle drivers and passengers are considered occupants. Motorcycle, moped and snowmobile drivers and motorcycle, moped and snowmobile passengers are not counted in this table.

Source: SD Department of Transportation: Accident Records

There were two fatalities to motor vehicle occupants from birth through four years of age during 1997, which compares to two fatalities during 1996 (see TABLE 2-6).

There were 124 children (birth through 4 years) injured in 1997, which compares to 146 in 1996 and the three-year average of 138. Eighty-eight of the 124 injured children were restrained by a lap belt, a shoulder harness, a lap and shoulder harness or a child safety restraint used properly (see TABLE 2-6A). The Child Passenger Restraint System (SDCL 32-37) took effect on January 1, 1984 -- since that time there have been 30 deaths to occupants of this age group and two have been restrained by a child safety restraint properly used and none have been restrained by a lap belt or lap and shoulder harness.

TABLE 2-6  
FATALITIES & INJURIES TO MOTOR VEHICLE OCCUPANTS  
UNDER 5 YEARS OF AGE

<u>YEAR</u>	<u>FATALITIES</u>	<u>SERIOUS INJURY</u>	<u>SLIGHT INJURY</u>	<u>TOTAL NONFATAL INJURIES</u>
1987	3	87	59	146
1988	3	101	50	151
1989	1	83	52	135
1990	1	67	46	113
1991	2	87	56	143
1992	0	77	54	131
1993	2	90	69	159
1994	1	78	54	132
1995	2	77	59	136
1996	2	78	68	146
1997	2	78	46	124

NOTE: Table includes passengers of Motor vehicles normally equipped with safety restraints.

TABLE 2-6A  
FATALITIES & INJURIES TO MOTOR VEHICLE OCCUPANTS UNDER 5 YEARS OLD  
BY SAFETY EQUIPMENT USAGE  
1997

	<u>Fatalities</u>	<u>Injuries</u>
No Safety Equipment Used	1	26
Lap Belt Only	0	17
Shoulder Harness Only	0	2
Lap Belt & Shoulder Harness	0	33
Child Restraint Used Properly	0	36
Child Restraint Not Used Properly	1	4
Other	0	0
Not Stated or Unknown	0	6
TOTAL	2	124

Source: SD Department of Transportation: Accident Records



## Cycle and Pedestrian Accidents

The following tables provide a yearly comparison of South Dakota's motorcycle, pedestrian, and bicycle accidents, injuries, and fatalities. During the last 10 years the average number of motorcycle involved accidents is 379 and 14 deaths per year. Licensed motorcyclists increased slightly during 1997 while fatalities decreased to the lowest number in 20 years. Moped accidents are included with motorcycle accidents. The number of motorcycle fatalities for 1997 includes one moped driver. Over the years this is only the second moped fatality and the number of injuries is small. See pages 46-51 for additional motorcycle, pedestrian, and bicycle accident information.

TABLE 2-7  
MOTORCYCLE ACCIDENTS  
1974 - 1997

<u>Year</u>	<u>Motorcycle Accidents</u>			<u>Motorcyclists</u>		<u>Registered Motorcycles</u>	<u>Licensed Motorcyclists</u>
	<u>Total</u>	<u>Fatal</u>	<u>Injury</u>	<u>Fatalities</u>	<u>Injuries</u>		
1974	344	8		9	372	22,964	
1975	377	14	321	14	388	23,980	
1976	465	9	402	9	501	25,058	
1977	495	17	419	19	529	26,560	
1978	523	14	456	14	560	27,590	34,225
1979	597	21	522	22	664	31,102	37,286
1980	707	17	608	18	763	35,045	41,431
1981	697	15	598	15	729	38,265	43,170
1982	548	12	473	13	581	38,418	Not Available
1983	573	12	489	12	591	39,255	45,544
1984	564	10	488	10	567	38,956	45,763
1985	551	14	469	15	569	37,905	45,805
1986	475	10	405	10	492	36,036	45,210
1987	399	13	347	14	417	33,800	44,956
1988	424	13	371	13	441	31,421	44,058
1989	377	14	329	14	394	29,942	45,844
1990	492	20	432	23	555	23,719	46,184
1991	407	9	359	10	420	24,133	46,986
1992	383	10	317	11	388	23,389	47,906
1993	320	10	267	12	324	26,173	48,822
1994	387	19	326	20	415	25,822	49,492
1995	375	14	320	14	407	25,155	49,932
1996	309	10	264	11	342	24,704	50,013
1997	316	9	261	9	334	24,561	50,205

Source: SD Department of Transportation: Accident Records

TABLE 2-8  
PEDESTRIAN FATALITIES AND INJURIES  
1977 - 1997

<u>Year</u>	<u>Fatalities</u>	<u>Injuries</u>
1977	21	164
1978	15	185
1979	16	167
1980	21	162
1981	20	130
1982	16	146
1983	20	139
1984	14	139
1985	8	136
1986	15	165
1987	7	126
1988	14	149
1989	10	125
1990	15	138
1991	11	165
1992	7	192
1993	18	163
1994	23	176
1995	14	148
1996	11	141
1997	6	124

TABLE 2-9  
BICYCLE FATALITIES AND INJURIES  
1977 - 1997

<u>Year</u>	<u>Fatalities</u>	<u>Injuries</u>
1977	7	89
1978	3	82
1979	4	96
1980	0	78
1981	0	83
1982	1	93
1983	1	99
1984	4	95
1985	3	119
1986	1	115
1987	1	157
1988	2	137
1989	2	144
1990	3	135
1991	4	147
1992	1	161
1993	0	179
1994	0	156
1995	1	122
1996	2	139
1997	1	115

Source: SD Department of Transportation: Accident Records

## Holiday Counts

TABLE 2-10 provides a yearly comparison of South Dakota motor vehicle accident experience during major holiday observances. These counts are frequently requested.

TABLE 2-10  
ACCIDENTS DURING HOLIDAYS  
1985 - 1997

<u>Holiday</u>	<u>Total Hours</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
<u>MEMORIAL DAY*</u>						
1985	78	124	3	44	3	65
1986	78	142	3	37	3	56
1987	78	97	1	28	1	47
1988	78	127	2	36	2	68
1989	78	121	1	46	1	63
1990	78	120	1	39	2	51
1991	78	155	2	58	2	84
1992	78	120	2	35	2	57
1993	78	160	3	60	4	89
1994	78	141	1	43	1	67
1995	78	155	1	49	1	84
1996	78	139	0	33	0	61
1997	78	130	0	33	0	48
<u>FOURTH OF JULY</u>						
1985	102	170	1	58	1	93
1986	78	109	4	47	4	94
1987	78	124	1	53	4	74
1988	78	138	2	48	2	74
1989	102	185	3	67	3	119
1990	30	64	1	20	1	34
1991	102	195	1	61	1	91
1992	78	159	0	56	0	102
1993	78	150	2	60	2	117
1994	78	152	2	59	3	110
1995	102	226	3	69	3	112
1996	102	208	7	59	9	93
1997	78	139	1	53	1	99
<u>LABOR DAY</u>						
1985	78	127	3	40	3	63
1986	78	106	1	34	1	62
1987	78	135	2	44	3	73
1988	78	131	1	45	1	94
1989	78	134	1	58	4	101
1990	78	123	2	51	3	84
1991	78	118	1	43	1	64
1992	78	117	1	38	1	68
1993	78	151	4	49	5	87
1994	78	141	0	56	0	90
1995	78	150	1	45	1	74
1996	78	159	1	51	3	102
1997	78	137	4	37	4	62

\*Nationally Observed

<u>Holiday</u>	<u>Total Hours</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
<u>THANKSGIVING</u>						
1985	102	272	0	51	0	76
1986	102	162	3	37	3	63
1987	102	255	2	56	3	91
1988	102	224	1	42	1	70
1989	102	232	2	61	2	112
1990	102	186	1	48	1	65
1991	102	365	3	69	3	116
1992	102	244	1	55	1	82
1993	102	342	0	58	0	98
1994	102	297	0	58	0	85
1995	102	319	4	68	4	115
1996	102	384	2	75	2	127
1997	102	225	1	41	2	68
<u>CHRISTMAS</u>						
1985	54	97	1	13	2	25
1986	102	88	1	28	1	51
1987	102	209	1	63	2	108
1988	78	153	1	38	1	57
1989	78	179	1	50	1	87
1990	102	178	1	34	1	55
1991	54	52	0	16	0	24
1992	102	193	1	36	1	59
1993	78	178	1	35	1	51
1994	78	131	1	26	1	47
1995	78	151	1	38	2	62
1996	30	101	0	20	0	35
1997	102	130	1	26	1	36
<u>NEW YEARS</u>						
1985-86	54	98	1	19	1	27
1986-87	102	138	1	30	1	49
1987-88	102	151	0	33	0	43
1988-89	78	103	2	23	2	40
1989-90	78	84	0	31	0	50
1990-91	102	166	2	43	2	71
1991-92	54	95	1	28	1	47
1992-93	102	261	0	52	0	85
1993-94	78	172	0	43	0	62
1994-95	78	121	2	34	2	62
1995-96	78	234	3	60	3	91
1996-97	30	90	1	21	2	33
1997-98	102	169	1	37	1	54

Source: SD Department of Transportation: Accident Records

## SEVERITY OF INJURIES BY PERSON TYPE

The following tables provide a yearly comparison of South Dakota's total injuries, drivers injuries, passengers injuries, bicyclists injuries and pedestrians injuries from 1988 through 1997. The percentages are row percentages.

Note: For definition of class of injury see page 20.

TABLE 2-11  
FATALITIES AND SEVERITY OF INJURIES  
OF TOTAL PERSONS

<u>Year</u>	<u>Incapacitating Injuries</u>		<u>Non-Incapacitating Injuries</u>		<u>Possible Injuries</u>		<u>Total Injuries</u>	<u>Total Killed</u>
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>		
1988	1307	19.9	2818	42.8	2454	37.3	6579	147
1989	1366	20.0	2770	40.6	2692	39.4	6828	152
1990	1501	20.7	3009	41.4	2751	37.9	7261	153
1991	1598	21.9	2945	40.3	2767	37.9	7310	143
1992	1765	22.6	3036	38.9	3012	38.6	7813	161
1993	1715	20.4	3253	38.7	3442	40.9	8410	140
1994	1902	22.3	3110	36.4	3528	41.3	8540	154
1995	1734	20.8	3163	38.0	3426	41.2	8323	158
1996	1883	22.2	3052	35.9	3555	41.9	8490	175
1997	1655	20.3	3156	38.7	3350	41.0	8161	148

TABLE 2-12  
FATALITIES AND SEVERITY OF INJURIES  
OF TOTAL DRIVERS

<u>Year</u>	<u>Incapacitating Injuries</u>		<u>Non-Incapacitating Injuries</u>		<u>Possible Injuries</u>		<u>Total Injuries</u>	<u>Total Killed</u>
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>		
1988	786	18.8	1720	41.0	1685	40.2	4191	82
1989	782	18.2	1676	39.0	1841	42.8	4299	87
1990	936	20.2	1842	39.7	1857	40.1	4635	100
1991	927	20.0	1792	38.7	1913	41.3	4632	98
1992	1011	20.4	1855	37.5	2085	42.1	4951	99
1993	1041	19.8	1941	37.0	2271	43.2	5253	79
1994	1083	20.0	1929	35.7	2398	44.3	5410	92
1995	1030	19.0	1955	36.2	2422	44.8	5407	98
1996	1114	20.4	1938	35.5	2413	44.2	5465	98
1997	1014	19.2	1962	37.1	2308	43.7	5284	94

TABLE 2-13  
FATALITIES AND SEVERITY OF INJURIES OF TOTAL PASSENGERS

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
1988	433	20.6	961	45.7	711	33.8	2105	49
1989	501	22.1	971	42.9	791	35.0	2263	53
1990	480	20.4	1035	44.0	839	35.6	2354	35
1991	562	23.7	997	42.1	809	34.2	2368	30
1992	629	25.1	1015	40.4	866	34.5	2510	54
1993	572	20.3	1142	40.5	1103	39.2	2817	43
1994	715	25.6	1039	37.1	1044	37.3	2798	39
1995	612	23.1	1084	41.0	948	35.9	2644	45
1996	679	24.7	985	35.9	1083	39.4	2747	64
1997	572	21.7	1079	40.9	987	37.4	2638	47

TABLE 2-14  
FATALITIES AND SEVERITY OF INJURIES OF TOTAL BICYCLE DRIVERS

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
1988	28	20.9	79	59.0	27	20.1	134	2
1989	37	26.2	76	53.9	28	19.9	141	2
1990	29	22.0	72	54.5	31	23.5	132	3
1991	34	23.6	85	59.0	25	17.4	144	4
1992	44	27.5	90	56.3	26	16.3	160	1
1993	42	23.9	105	59.7	29	16.5	176	0
1994	37	23.7	80	51.3	39	25.0	156	0
1995	27	22.1	68	55.7	27	22.1	122	1
1996	31	22.6	80	58.4	26	19.0	137	2
1997	29	25.2	63	54.8	23	20.0	115	1

TABLE 2-15  
FATALITIES AND SEVERITY OF INJURIES OF TOTAL PEDESTRIANS

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
1988	60	40.3	58	38.9	31	20.8	149	14
1989	46	36.8	47	37.6	32	25.6	125	10
1990	56	40.6	60	43.5	22	15.9	138	15
1991	75	45.5	70	42.4	20	12.1	165	11
1992	81	42.2	76	39.6	35	18.2	192	7
1993	60	36.8	65	39.9	38	23.3	163	18
1994	67	38.1	62	35.2	47	26.7	176	23
1995	64	43.2	55	37.2	29	19.6	148	14
1996	59	41.8	49	34.8	33	23.4	141	11
1997	40	32.3	52	41.9	32	25.8	124	6

Sex of Drivers

Table 2-16 provides a yearly comparison of drivers involved in motor vehicle accidents by sex of driver. The table also compares licensed drivers by sex.

TABLE 2-16  
SEX OF DRIVERS  
1987 - 1997

	<u>ACCIDENT INVOLVED DRIVERS</u>				<u>LICENSED DRIVERS</u>			
	MALE		FEMALE		MALE		FEMALE	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
1987	12,815	64.0	7,213	36.0	247,418	51.0	238,137	49.0
1988	14,688	64.2	8,207	35.8	244,576	50.7	238,130	49.3
1989	14,581	63.1	8,520	36.9	251,120	51.0	241,468	49.0
1990	14,347	62.3	8,666	37.7	248,959	50.6	243,500	49.4
1991	15,263	62.5	9,156	37.5	252,916	50.5	247,717	49.5
1992	16,353	62.2	9,926	37.8	256,191	50.5	251,591	49.5
1993	18,132	61.9	11,167	38.1	260,591	50.4	256,288	49.6
1994	18,668	61.2	11,845	38.8	260,150	50.1	259,265	49.9
1995	18,407	61.2	11,687	38.8	263,705	50.0	263,439	50.0
1996	20,593	60.6	13,408	39.4	264,207	49.9	265,201	50.1
1997	19,570	60.8	12,628	39.2	266,828	49.9	268,184	50.1

Note: Accident Involved Drivers table does not include cases where the sex of the driver was not reported.

Source: SD Department of Transportation: Accident Records

### III. 1997 MOTOR VEHICLE ACCIDENT PROFILE

#### Introduction

This section profiles the reported motor vehicle traffic accidents for 1997. Information will be given on where the accidents are occurring, when accidents happen, who is involved, and factors that contribute to accidents or why they are occurring. **Column percentages may not total 100 percent due to rounding error.**

During 1997, there were 20,899 reported motor vehicle traffic accidents, the majority of accidents being property damage only 15,293 (73.2%). Injury accidents accounted for 5,478 (26.2%) of the accidents, while 128 (0.6%) were fatal accidents. There were 8,161 persons injured and 148 persons killed in accidents during 1997 (see TABLE 3-1).

TABLE 3-1  
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS,  
PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS  
1997

	Incapac. Injuries		Non- Incapac. Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	1,014	61.3	1,962	62.2	2,308	68.9	5,284	64.7	94	63.5
Passengers	572	34.6	1,079	34.2	987	29.5	2,638	32.3	47	31.8
Pedestrians	40	2.4	52	1.6	32	1.0	124	1.5	6	4.1
Bicycle Dr	29	1.8	63	2.0	23	0.7	115	1.4	1	0.7
Total	1,655	100	3,156	100	3,350	100	8,161	100	148	100

#### Definition of Injuries:

**Killed:** An injury which results in death. An injury caused death that occurs within 30 days of an accident is considered an accident fatality.

**Incapacitating:** Any injury other than a fatal which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred (severe lacerations, broken limbs or unable to leave the scene of the accident without assistance).

**Non-Incapacitating:** Any injury other than a fatal injury or incapacitating injury which is evident to observers at the scene of the accident (minor lacerations, lumps on the head, abrasions and bruises).

**Possible Injury:** Any injury reported or claimed which is not a fatal injury, incapacitating injury, or non-incapacitating injury (momentary unconsciousness, limping, nausea, or complaint of pain).

Source: SD Department of Transportation: Accident Records



TABLE 3-2 provides information on persons killed and injured by method or mode of transportation. During 1997, 53.4 percent of the fatalities and 59.0 percent of the injuries occurred to occupants of passenger cars. Occupants of pickups and vans accounted for 32.4 percent of the fatalities. Additionally, in 1997 6 pedestrians and 9 motorcyclists were killed. There was one bicyclist killed during 1997 (see Table 3-2).

Bicycle and farm machinery are included in Other on page 22 (FIGURE 3-2).

TABLE 3-2  
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION  
1997

	Fatalities		Injuries	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Passenger Cars	79	53.4	4,815	59.0
Pickups, Vans	48	32.4	2,560	31.4
Motorcycle, Moped	9	6.1	334	4.1
Pedestrians	6	4.1	124	1.5
Trucks (All)*	5	3.4	156	1.9
Bicycle	1	0.7	115	1.4
Other	0	0.0	47	0.6
Farm Machinery	0	0.0	10	0.1
Unknown	0	0.0	0	0.0
<b>Total</b>	<b>148</b>	<b>100</b>	<b>8,161</b>	<b>100</b>

*Trucks	<u>Fatalities</u>	<u>Injuries</u>
Straight Truck	1	58
Straight Truck with Trailer	0	8
Truck Tractor Only	0	1
Truck Tractor with Single Semi Trailer	4	89
Truck Tractor with Two or More Trailers	0	0
<b>Total</b>	<b>5</b>	<b>156</b>

Note: Other includes Bus, Motor Home, Snowmobile, Heavy Equipment, Train, Animal Drawn Vehicle, Other Type Motor Vehicles.

Source: SD Department of Transportation: Accident Records

FIGURE 3-1 FATALITIES BY TRAVEL MODE  
1997

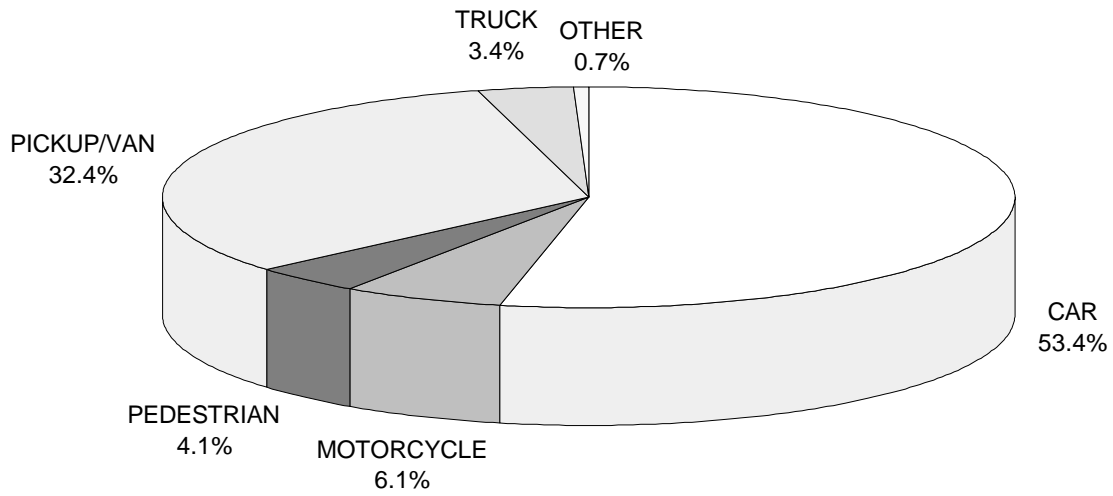


FIGURE 3-2 INJURIES BY TRAVEL MODE  
1997

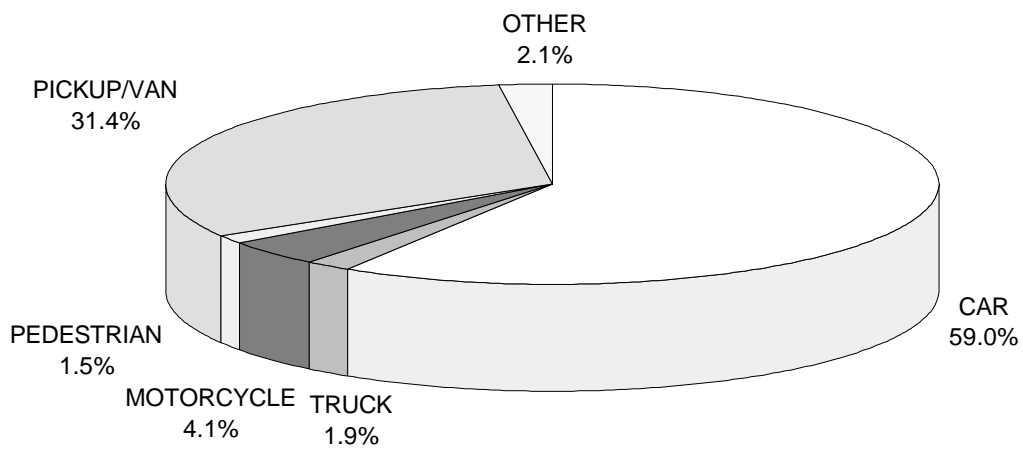


TABLE 3-3 provides information on all accident-involved vehicles by type. Passenger cars made up 50.5 percent of the vehicles involved in fatal accidents and 57.9 percent of those involved in injury accidents. Pickups and vans made up 34.1 percent of the vehicles involved in fatal accidents.

TABLE 3-3  
VEHICLE TYPES INVOLVED IN ACCIDENTS  
1997

	All Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Passenger Cars	19,216	56.7	92	50.5	5,378	57.9	13,746	56.3
Pickups, Vans	12,707	37.5	62	34.1	3,192	34.4	9,453	38.7
Trucks (All)*	1,262	3.7	15	8.2	342	3.7	905	3.7
Motorcycle	350	1.0	8	4.4	291	3.1	51	0.2
Farm Machinery or Heavy Equipment	89	0.3	3	1.6	27	0.3	59	0.2
Bus	67	0.2	1	0.5	12	0.1	54	0.2
Motor Home	54	0.2	0	0.0	13	0.1	41	0.2
Moped	6	0.0	1	0.5	5	0.1	0	0.0
Snowmobile	10	0.0	0	0.0	7	0.1	3	0.0
Other or Unknown	105	0.3	0	0.0	14	0.2	91	0.4
Total	33,866	100	182	100	9,281	100	24,403	100

*Trucks	All Accd.	Fatal Accd.	Injury Accd.	PDO Accd.
Straight Truck	476	2	145	329
Straight Truck with Trailer	90	0	23	67
Truck Tractor Only	20	0	5	15
Truck Tractor with Single Semi Trailer	646	12	165	469
Truck Tractor with Two or More Trailers	30	1	4	25
Total	1,262	15	342	905

Source: SD Department of Transportation: Accident Records

TABLE 3-4 provides information on the ages of persons killed and injured. Sixteen and seventeen year olds accounted for 7.4 percent of the fatalities while 752 (9.2%) of the injured were within this age group (see Table 3-4).

TABLE 3-4  
FATALITIES AND INJURIES  
BY AGE GROUP  
1997

	Fatalities		Injuries	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
0 - 5	3	2.0	185	2.3
6 - 13	5	3.4	493	6.0
14 - 15	7	4.7	501	6.1
16 - 17	11	7.4	752	9.2
18	8	5.4	335	4.1
19	4	2.7	254	3.1
20	6	4.1	247	3.0
21 - 24	9	6.1	779	9.5
25 - 34	24	16.2	1,403	17.2
35 - 44	21	14.2	1,214	14.9
45 - 54	18	12.2	851	10.4
55 - 64	7	4.7	432	5.3
65 - Over	25	16.9	661	8.1
Unknown	0	0.0	54	0.7
Total	148	100	8,161	100

Source: SD Department of Transportation: Accident Records

## First Harmful Event

The initial incident which causes injury or damage is referred to as the first harmful event. Non-collision (overturning or other non-collision) represented 32.8 percent of the fatal accidents and only 12.4 percent of the total accidents, while 35.9 percent of the fatal accidents and 51.7 percent of all accidents represented a collision between 2 or more vehicles (see TABLE 3-5).

TABLE 3-5  
FIRST HARMFUL EVENT  
1997

<u>First Harmful Event</u>	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Motor Vehicle Collision With:								
Another MV (Not Parked)	10,797	51.7	46	35.9	3,216	58.7	7,535	49.3
A Fixed or Other Object	2,608	12.5	30	23.4	712	13.0	1,866	12.2
An Animal	3,488	16.7	2	1.6	164	3.0	3,322	21.7
A Parked Motor Vehicle	1,161	5.6	0	0.0	90	1.6	1,071	7.0
A Pedestrian	114	0.5	6	4.7	108	2.0	0	0.0
A Bicyclist	117	0.6	1	0.8	115	2.1	1	0.0
A Railroad Vehicle	23	0.1	1	0.8	11	0.2	11	0.1
Non-Collision (Overturning or Other)	2,591	12.4	42	32.8	1,062	19.4	1,487	9.7
Total	20,899	100	128	100	5,478	100	15,293	100

Source: SD Department of Transportation: Accident Records

## Manner of Collision

Head-on collisions are the most prevalent for severe accidents, accounting for 41.3 percent of the fatal accidents and only 2.1 percent of the total accidents. Angle collisions are second in prevalence for fatal accidents accounting for 19.6 percent of the fatal accidents and 23.4 percent of the total accidents (see TABLE 3-6). The most common type or manner of collision between two or more vehicles is a rear-end collision. Rear-end collisions constitute 17.4 percent of the fatal accidents, 40.3 percent of the injury accidents, and 28.3 percent of the property damage only accidents.

TABLE 3-6  
MANNER OF COLLISION FOR ACCIDENTS INVOLVING A COLLISION  
BETWEEN TWO OR MORE MOTOR VEHICLES  
1997

<u>Manner of Collision</u>	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Rear-End	3,439	31.9	8	17.4	1,297	40.3	2,134	28.3
Head-On	232	2.1	19	41.3	129	4.0	84	1.1
Angle	2,531	23.4	9	19.6	817	25.4	1,705	22.6
Sideswipe-Same Direction	874	8.1	4	8.7	136	4.2	734	9.7
Sideswipe-Opposite Dir.	281	2.6	0	0.0	66	2.1	215	2.9
Turning Movement	2,853	26.4	6	13.0	738	22.9	2,109	28.0
Backing Movement	587	5.4	0	0.0	33	1.0	554	7.4
Total	10,797	100	46	100	3,216	100	7,535	100

Source: SD Department of Transportation: Accident Records

## Highway System

The number of reported accidents by highway system is presented in TABLE 3-7. Injury and PDO accidents happened predominately within city limits. City streets and alleys experienced 37.5 percent of the PDO accidents and 34.4 percent of the injury accidents.

Noninterstate rural roads tallied 77.3 percent of the fatal accidents with 53 (41.4%) fatal accidents occurring on U.S./State highways and 46 (35.9%) on County/Local roads. The Interstate system experienced 2,739 (13.1%) of the total accidents while accounting for an estimated 27 percent of the vehicle miles traveled in 1997. Fifteen (11.7%) of the fatal accidents happened on the interstate system (see FIGURES 3-3 and 3-4).

TABLE 3-7  
ACCIDENTS BY TYPE OF HIGHWAY  
1997

<u>Type of Highway</u>	<u>Total Accidents</u>		<u>Fatal Accidents</u>		<u>Injury Accidents</u>		<u>PDO Accidents</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>
Interstate - Rural	2,080	10.0	13	10.2	516	9.4	1,551	10.1
US/State Hwys.-Rural	4,098	19.6	53	41.4	975	17.8	3,070	20.1
Co./Local Rds.-Rural	3,193	15.3	46	35.9	861	15.7	2,286	14.9
Interstate - City	659	3.2	2	1.6	186	3.4	471	3.1
US/State Hwys.-City	3,239	15.5	6	4.7	1,058	19.3	2,175	14.2
City Streets/Alleys	7,630	36.5	8	6.3	1,882	34.4	5,740	37.5
Total	20,899	100	128	100	5,478	100	15,293	100

Source: SD Department of Transportation: Accident Records

FIGURE 3-3 1997 TRAFFIC ACCIDENTS  
By Highway System Type

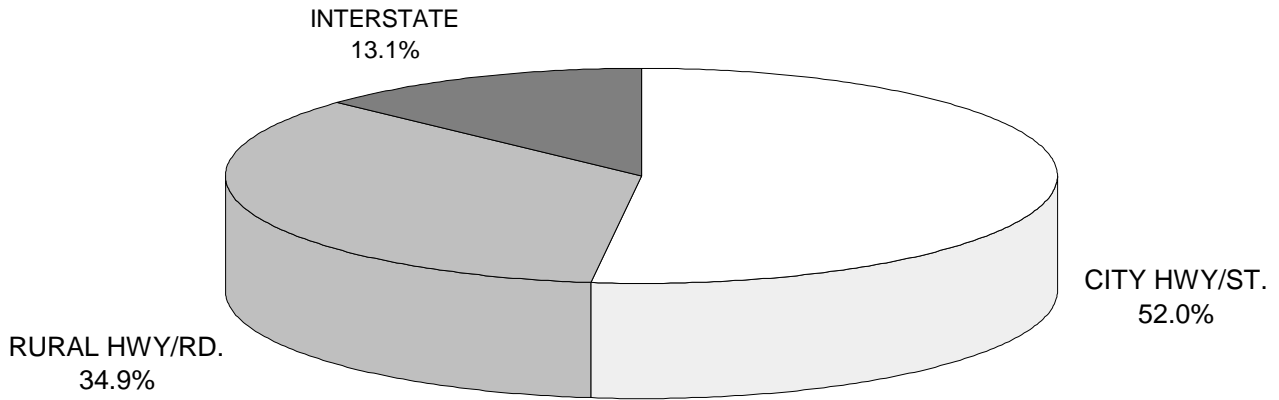
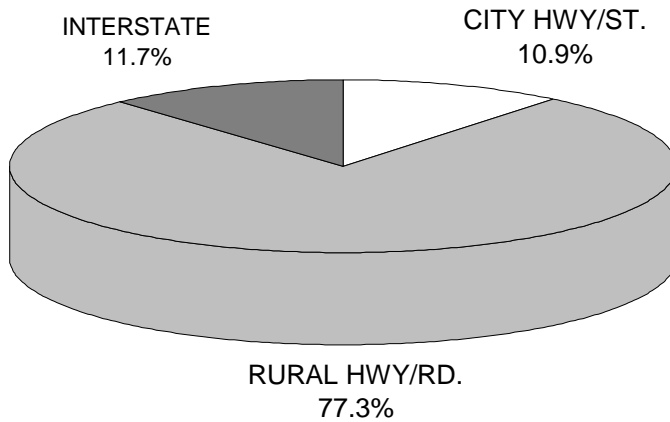


FIGURE 3-4 1997 FATAL TRAFFIC ACCIDENTS  
By Highway System Type





## County Summary

TABLE 3-8 provides a summary of all reported accidents by county in South Dakota.

Rural fatal and injury accidents occurred predominately in thirteen counties (see TABLE 3-9). Each of these counties reported over two percent of all rural fatal and injury accidents. The thirteen accounted for 52.7 percent of rural fatal and injury accidents and 23.2 percent of all fatal and injury accidents in South Dakota. Pennington County had 7.9 percent of all rural fatal and injury accidents with Minnehaha and Lawrence counties accounting for 7.8 and 6.0 percent. FIGURE 3-5 presents the percentage involvement of rural fatal and injury accidents and compares this to the percentage of rural vehicle miles traveled in these counties.

## City Summary

Reported traffic accidents within South Dakota's cities (population of 2,500 and more) are presented in TABLE 3-10. These cities reported 52.9 percent of the statewide injury accidents and 10.9 percent of the fatal accidents. The two largest cities (Sioux Falls, Rapid City) accounted for 62.7 percent of fatal and injury accidents and 53.8 percent of the property damage only accidents that occurred in cities with populations of 2,500 or more.

## Roadway Surface Conditions

The majority of the accidents occurred on dry roads, including fatal and injury accidents (see TABLE 3-11). Combining similar "bad" road conditions, ice, snow, frost, and slush accounts for 30.1 percent of all reported property damage accidents and 23.9 percent of all fatal and injury accidents. Dry roads were reported in 64.8 percent of all fatal and injury accidents.

## Contributing Circumstances (Vision Obscurement and Other)

Contributing circumstances at the accident level involve two categories: vision obscurement and other. The reporting officer may include one, two, or no contributing circumstances for each category.

Vision Obscurement - refers to conditions such as: fog or smoke, blowing soil, dirt or sand, rain, snow, sleet or hail, windshield or window obscured, glare from sun or lights, trees or other vegetation, snowbank, etc. Rain, snow, sleet or hail was the most frequently reported vision obscurement and was indicated as a problem in 5.8 percent of all accidents.

Contributing Circumstances - Other - These contributing circumstances include wind conditions, slippery surface, road shoulder conditions, objects or animals in the road, phantom vehicle, pedestrians, bicyclists, road construction conditions, rough roads, and faulty or missing traffic control devices. The most common condition reported was slippery surface, and it was reported as a factor in 23.9 percent of all accidents.

TABLE 3-8  
 REPORTED TRAFFIC ACCIDENTS  
 SOUTH DAKOTA COUNTIES  
 1997

<u>County</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd</u>	<u>Fatalities</u>	<u>Injuries</u>
AURORA	131	1	22	108	1	35
BEADLE	445	4	124	317	6	171
BENNETT	29	1	12	16	1	21
BON HOMME	122	4	28	90	4	56
BROOKINGS	798	3	191	604	4	284
BROWN	1,445	5	312	1,128	5	435
BRULE	169	0	34	135	0	55
BUFFALO	25	2	8	15	2	12
BUTTE	217	1	52	164	1	95
CAMPBELL	58	0	5	53	0	5
CHARLES MIX	113	3	28	82	3	49
CLARK	110	0	20	90	0	25
CLAY	262	2	66	194	2	88
CODINGTON	704	5	204	495	5	294
CORSON	56	1	20	35	1	31
CUSTER	224	0	65	159	0	94
DAVISON	697	5	139	553	7	182
DAY	148	1	30	117	1	50
DEUEL	171	1	25	145	2	42
DEWEY	80	2	19	59	2	31
DOUGLAS	39	0	7	32	0	10
EDMUNDS	101	0	17	84	0	23
FALL RIVER	142	2	42	98	2	62
FAULK	79	0	26	53	0	38
GRANT	250	4	50	196	4	79
GREGORY	83	1	29	53	1	43
HAAKON	70	0	15	55	0	20
HAMLIN	171	0	39	132	0	49
HAND	136	0	18	118	0	22
HANSON	117	3	28	86	5	43
HARDING	36	0	7	29	0	11
HUGHES	445	1	108	336	2	149
HUTCHINSON	134	4	32	98	5	51
HYDE	35	2	12	21	2	24
JACKSON	115	3	40	72	5	66
JERAULD	62	0	11	51	0	15
JONES	93	1	20	72	1	31
KINGSBURY	165	1	25	139	1	38
LAKE	262	0	58	204	0	80
LAWRENCE	660	2	209	449	2	317
LINCOLN	508	2	130	376	2	197
LYMAN	160	2	45	113	2	72
MC COOK	196	2	54	140	2	76
MC PHERSON	33	1	4	28	1	11

TABLE 3-8 (continued)

<u>County</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd</u>	<u>Fatalities</u>	<u>Injuries</u>
MARSHALL	127	0	20	107	0	28
MEADE	508	1	155	352	1	219
MELLETTE	9	1	0	8	1	2
MINER	83	1	23	59	1	28
MINNEHAHA	4,896	8	1,344	3,544	9	1,965
MOODY	296	0	55	241	0	70
PENNINGTON	2,498	6	884	1,608	6	1,372
PERKINS	86	2	19	65	2	25
POTTER	84	1	14	69	1	21
ROBERTS	225	6	72	147	7	110
SANBORN	126	2	20	104	2	33
SHANNON	99	8	37	54	9	71
SPINK	271	1	39	231	1	66
STANLEY	88	1	15	72	1	26
SULLY	49	1	12	36	1	16
TODD	26	5	7	14	5	15
TRIPP	140	2	41	97	2	80
TURNER	155	2	33	120	2	64
UNION	341	3	91	247	4	140
WALWORTH	150	1	24	125	1	30
YANKTON	512	3	136	373	7	186
ZIEBACH	34	1	7	26	1	12
Total:	20,899	128	5,478	15,293	148	8,161

Source: SD Department of Transportation: Accident Records

TABLE 3-9  
COUNTIES HAVING MORE THAN TWO PERCENT OF THE  
RURAL FATAL & INJURY ACCIDENTS  
1997

<u>County</u>	<u>Rural Fatal &amp; Injury Accidents</u>	<u>Percent of All Rural Fatal &amp; Injury Accidents</u>	<u>Percent of Rural VMTS*</u>
PENNINGTON	194	7.9	7.0
MINNEHAHA	193	7.8	6.0
LAWRENCE	149	6.0	3.3
MEADE	109	4.4	3.2
LINCOLN	100	4.1	4.2
BROOKINGS	92	3.7	2.5
BROWN	89	3.6	3.2
UNION	71	2.9	3.6
CODINGTON	68	2.8	2.3
ROBERTS	68	2.8	2.6
CUSTER	57	2.3	1.8
YANKTON	55	2.2	1.6
MC COOK	53	2.2	2.0

Note: Total Rural Fatal and Injury Accidents: 2,464

\*S.D. Vehicle Miles of Travel Report April 1998

Source: SD Department of Transportation: Accident Records

FIGURE 3-5 RURAL F&I ACC/VMTS SELECTED COUNTIES - 1997

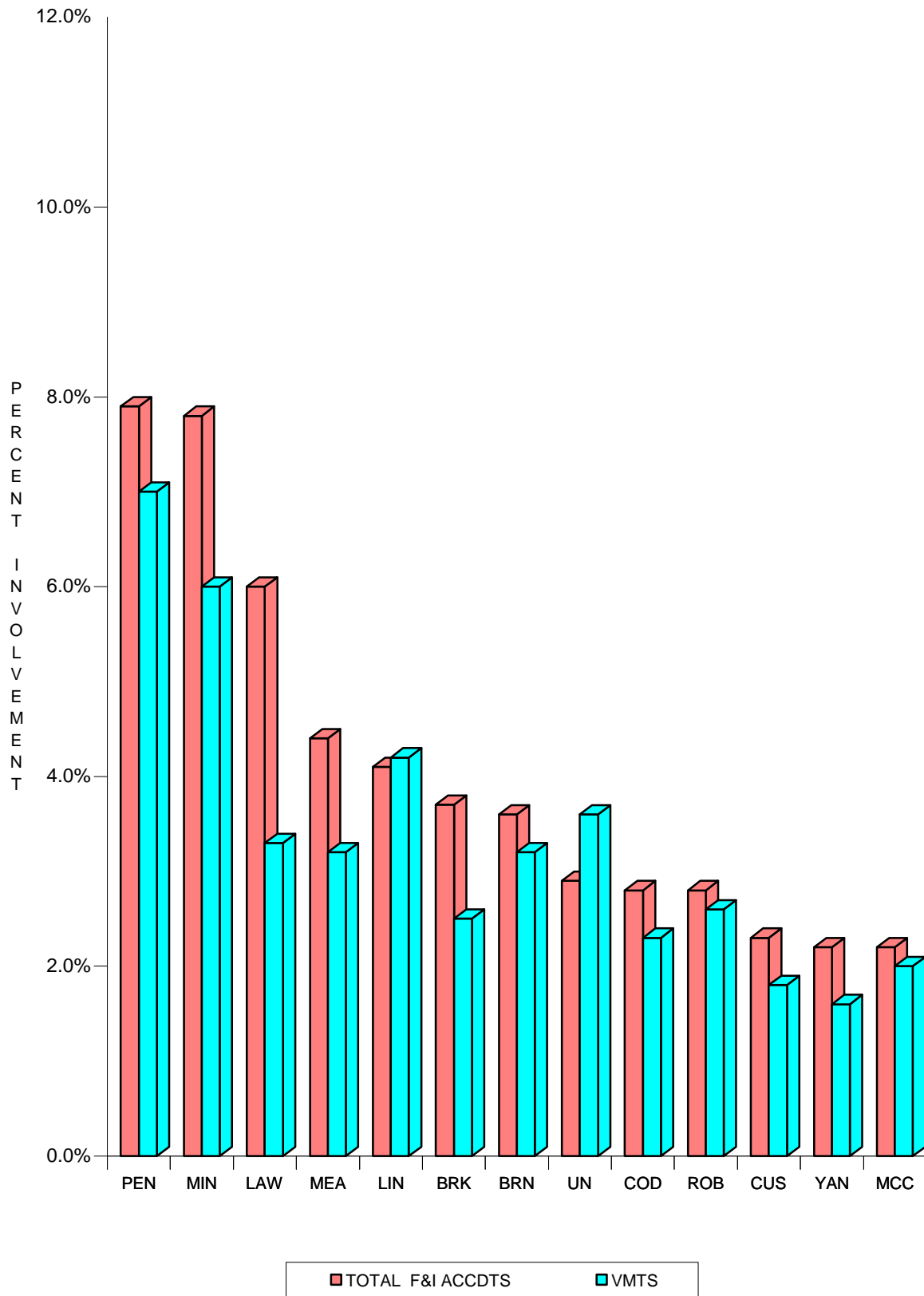


TABLE 3-10  
 TRAFFIC ACCIDENTS SOUTH DAKOTA CITIES  
 POPULATION 2500 AND OVER  
 1997

<u>City</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
Aberdeen	1,000	2	221	777	2	306
Belle Fourche	80	0	9	71	0	12
Box Elder	41	0	14	27	0	26
Brandon City	40	0	6	34	0	7
Brookings	384	0	97	287	0	134
Canton	61	0	18	43	0	22
Hot Springs	55	1	18	36	1	22
Huron	259	1	87	171	1	120
Lead	49	0	7	42	0	7
Madison	105	0	23	82	0	31
Milbank	86	1	14	71	1	22
Mitchell	536	1	110	425	1	142
Mobridge	65	0	9	56	0	12
Pierre	338	0	81	257	0	110
Rapid City	1,814	2	675	1,137	2	1,031
Redfield	60	0	11	49	0	19
Sioux Falls	3,921	4	1,145	2,772	5	1,662
Sisseton	56	0	6	50	0	9
Spearfish	139	0	38	101	0	48
Sturgis	168	0	46	122	0	64
Vermillion	131	0	36	95	0	48
Watertown	466	2	136	328	2	197
Winner	43	0	12	31	0	20
Yankton	285	0	81	204	0	108

Source: SD Department of Transportation: Accident Records

TABLE 3-11  
ROADWAY SURFACE CONDITIONS  
1997

	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Dry	12,722	60.9	100	78.1	3,530	64.4	9,092	59.5
Wet	2,042	9.8	5	3.9	585	10.7	1,452	9.5
Ice	3,545	17.0	9	7.0	779	14.2	2,757	18.0
Frost	249	1.2	4	3.1	70	1.3	175	1.1
Slush	318	1.5	2	1.6	80	1.5	236	1.5
Snow	1,827	8.7	4	3.1	394	7.2	1,429	9.3
Mud	26	0.1	0	0.0	7	0.1	19	0.1
Other	60	0.3	0	0.0	21	0.4	39	0.3
Unknown	110	0.5	4	3.1	12	0.2	94	0.6
Total	20,899	100	128	100	5,478	100	15,293	100

Source: SD Department of Transportation: Accident Records

#### Accidents by Time of Day, Month, and Day of Week

The late afternoon, 3:00-5:59 p.m., was the peak three-hour period for accidents to occur. There were 22.8 percent of property damage only and 26.3 percent of injury accidents occurring during this time period. The hours between 3:00-3:59 p.m. and 10:00-10:59 p.m. tallied the most fatal accidents (22). Eleven fatal accidents occurred during each one hour period (see TABLE 3-12).

The month of August had the most fatal accidents (20) during 1997, while the month of January had the most injury and property damage only accidents. The 20 fatal accidents during August represented 15.6 percent of the total for 1997. The 589 injury accidents during January represented 10.8 percent for 1997 and the 2,147 property damage only accidents during January represent 14.0 percent of the total for 1997.

Friday accounts for 16.6 percent of the injury accidents and 17.1 percent of the total accidents. Saturday accounts for 20.9 percent of the fatalities (see TABLE 3-14).

FIGURES 3-6 through 3-8 illustrate the distributions by time of day, month, and day of week.

TABLE 3-12  
ACCIDENTS BY TIME OF DAY  
1997

<u>Time</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
Midnight	386	4	96	286	6	146
1:00 AM	341	6	97	238	6	151
2:00 AM	318	5	106	207	6	148
3:00 AM	213	3	52	158	4	77
4:00 AM	170	3	44	123	4	61
5:00 AM	318	3	45	270	3	62
6:00 AM	506	3	88	415	4	129
7:00 AM	1,095	4	274	817	4	370
8:00 AM	969	4	269	696	5	383
9:00 AM	799	5	206	588	6	291
10:00 AM	778	4	208	566	5	302
11:00 AM	971	9	282	680	9	413
12:00 PM	1,192	6	339	847	6	517
1:00 PM	1,043	4	306	733	4	461
2:00 PM	1,179	3	359	817	4	509
3:00 PM	1,709	11	514	1,184	11	776
4:00 PM	1,559	6	459	1,094	8	690
5:00 PM	1,682	5	470	1,207	5	726
6:00 PM	1,368	4	330	1,034	5	496
7:00 PM	1,089	9	252	828	9	408
8:00 PM	819	5	163	651	6	238
9:00 PM	934	6	194	734	7	299
10:00 PM	733	11	152	570	13	248
11:00 PM	536	1	138	397	4	210
Unknown	192	4	35	153	4	50
Total	20,899	128	5,478	15,293	148	8,161

Source: SD Department of Transportation: Accident Records



TABLE 3-13  
ACCIDENTS BY MONTH  
1997

<u>Month</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
JANUARY	2,746	10	589	2,147	17	862
FEBRUARY	2,006	6	493	1,507	7	686
MARCH	1,570	3	415	1,152	3	578
APRIL	1,333	8	347	978	8	518
MAY	1,340	7	349	984	7	492
JUNE	1,483	11	465	1,007	11	717
JULY	1,539	16	504	1,019	18	804
AUGUST	1,626	20	578	1,028	23	908
SEPTEMBER	1,499	14	429	1,056	18	665
OCTOBER	1,757	10	453	1,294	10	687
NOVEMBER	2,208	13	452	1,743	16	664
DECEMBER	1,792	10	404	1,378	10	580
Total	20,899	128	5,478	15,293	148	8,161

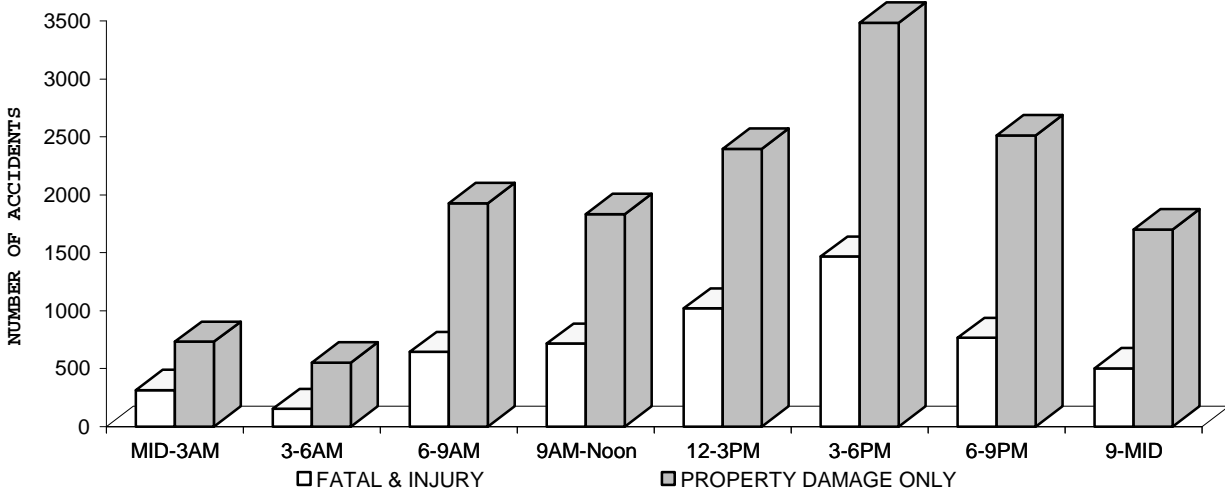
Source: SD Department of Transportation: Accident Records

TABLE 3-14  
ACCIDENTS BY DAY OF WEEK  
1997

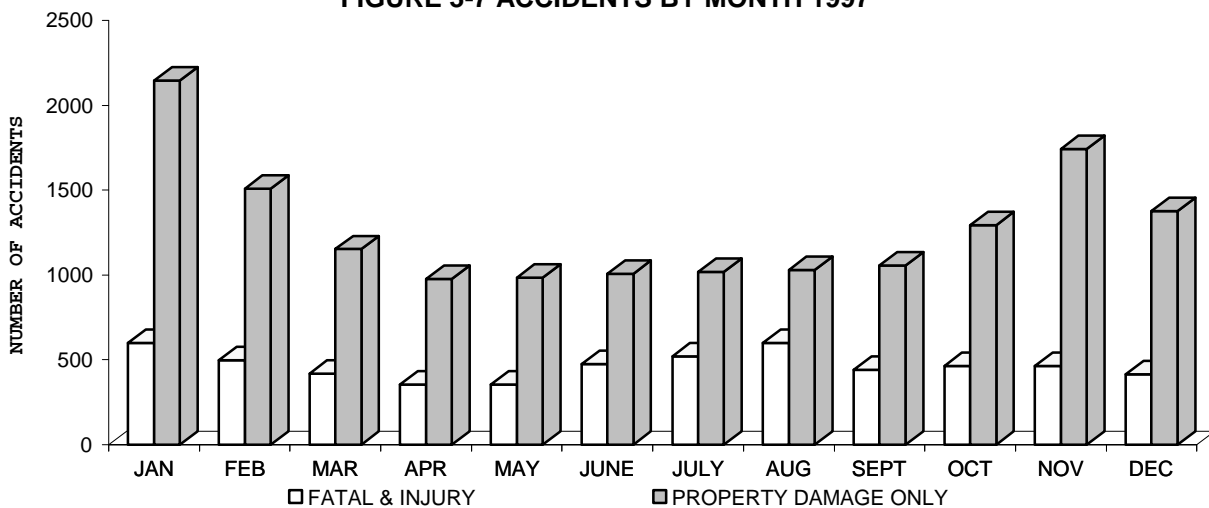
<u>Day</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
SUNDAY	2,231	23	574	1,634	26	894
MONDAY	3,070	16	826	2,228	16	1,210
TUESDAY	3,055	15	809	2,231	16	1,167
WEDNESDAY	3,042	14	781	2,247	17	1,155
THURSDAY	2,914	14	755	2,145	18	1,121
FRIDAY	3,569	20	912	2,637	24	1,365
SATURDAY	3,018	26	821	2,171	31	1,249
Total	20,899	128	5,478	15,293	148	8,161

Source: SD Department of Transportation: Accident Records

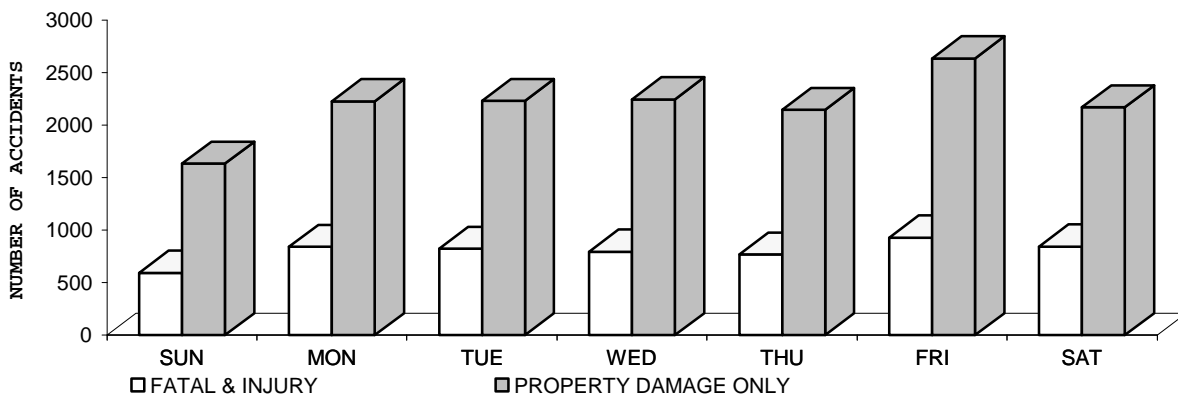
**FIGURE 3-6 ACCIDENTS BY TIME OF DAY 1997**



**FIGURE 3-7 ACCIDENTS BY MONTH 1997**



**FIGURE 3-8 ACCIDENTS BY DAY OF WEEK 1997**



## Drivers

There were 32,375 motor vehicle drivers in the 20,899 reported motor vehicle accidents, including 180 drivers in fatal accidents and 9,115 drivers in injury accidents. Ninety-four drivers were killed, which is 63.5 percent of all persons killed in motor vehicle accidents and 64.7 percent of the 8,161 injured persons were drivers (see TABLE 3-1).

Young drivers are involved in more accidents than any other age group (see TABLE 3-15). In reported accidents 33.2 percent of the drivers were under 25 years of age and 52.8 percent are under 35. Age of drivers involved in fatal and injury accidents follow the pattern of drivers in all accidents. Those drivers under 25 represent 28.3 percent of the drivers involved in fatal accidents and 33.7 percent of the drivers in injury accidents. Drivers under the age of 35 make up 46.1 percent of the drivers in fatal accidents and 54.3 percent of the drivers in injury accidents. Sixty-three (35.0%) of the drivers in fatal accidents were 25-44 years of age (see Table 3-15).

TABLE 3-15  
AGE OF DRIVERS IN ACCIDENTS  
1997

Age	Drivers In All Accidents		Drivers In Fatal Accidents		Drivers In Injury Accidents		Drivers In PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
6 - 13	27	0.1	1	0.6	9	0.1	17	0.1
14 - 15	1,179	3.6	4	2.2	366	4.0	809	3.5
16 - 17	2,820	8.7	13	7.2	812	8.9	1,995	8.6
18	1,326	4.1	8	4.4	367	4.0	951	4.1
19	1,133	3.5	7	3.9	327	3.6	799	3.5
20	1,044	3.2	8	4.4	273	3.0	763	3.3
21 - 24	3,204	9.9	10	5.6	920	10.1	2,274	9.9
25 - 34	6,350	19.6	32	17.8	1,878	20.6	4,440	19.2
35 - 44	6,052	18.7	31	17.2	1,649	18.1	4,372	18.9
45 - 54	3,996	12.3	29	16.1	1,111	12.2	2,856	12.4
55 - 64	2,080	6.4	10	5.6	560	6.1	1,510	6.5
65 - Over	2,903	9.0	25	13.9	789	8.7	2,089	9.1
Unknown	261	0.8	2	1.1	54	0.6	205	0.9
Total	32,375	100	180	100	9,115	100	23,080	100

Source: SD Department of Transportation: Accident Records

TABLE 3-16 provides information on the age of drinking drivers in motor vehicle accidents. There were a reported 1,468 drinking drivers in all accidents which is 4.5 percent of all drivers in accidents. Fifty or 27.8 percent of drivers in fatal accidents had been drinking while 7.3 percent of the drivers involved in injury accidents had been drinking.

Young drivers are predominantly the drinking drivers in all accidents. Those drivers under 25 years of age accounted for 40.0 percent of the drinking drivers in fatal accidents and 39.2 percent of the drinking drivers in injury accidents. Those drivers under 35 years of age accounted for 68.0 percent of the drinking drivers in fatal accidents and 67.8 percent of the drinking drivers in all accidents.

TABLE 3-16  
AGE OF DRINKING DRIVERS IN ACCIDENTS  
1997

Age	Drivers In All Accidents		Drivers In Fatal Accidents		Drivers In Injury Accidents		Drivers In PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
14 - 15	12	0.8	0	0.0	7	1.1	5	0.7
16 - 17	75	5.1	4	8.0	32	4.8	39	5.2
18	72	4.9	4	8.0	31	4.7	37	4.9
19	72	4.9	2	4.0	30	4.5	40	5.3
20	57	3.9	3	6.0	25	3.8	29	3.8
21 - 24	290	19.8	7	14.0	134	20.3	149	19.7
25 - 34	417	28.4	14	28.0	191	28.9	212	28.0
35 - 44	280	19.1	10	20.0	128	19.4	142	18.8
45 - 54	121	8.2	4	8.0	56	8.5	61	8.1
55 - 64	34	2.3	0	0.0	14	2.1	20	2.6
65 - Over	27	1.8	1	2.0	9	1.4	17	2.2
Unknown	11	0.7	1	2.0	4	0.6	6	0.8
Total	1,468	100	50	100	661	100	757	100

Source: SD Department of Transportation: Accident Records

TABLE 3-17 compares age of drivers in fatal and injury accidents, drinking drivers in fatal and injury accidents, and speeding drivers in fatal and injury accidents with licensed drivers by age. The young driver is over represented as those drivers in fatal and injury accidents, drinking drivers in fatal and injury accidents, and speeding drivers in fatal and injury accidents. Nearly 19 percent of the licensed drivers in South Dakota were under 25, but 39.2 percent of the drinking drivers in fatal and injury accidents and 48.4 percent of the speeding drivers in fatal and injury accidents were under 25 years of age. Over sixty-eight percent of the drinking drivers and 69.7 percent of the speeding drivers in fatal and injury accidents were under 35 years of age while drivers under 35 years of age constitute 36.1 percent of all licensed drivers (also see FIGURES 3-9 and 3-10).

TABLE 3-17  
LICENSED DRIVERS AND FATAL AND INJURY ACCIDENT-INVOLVED DRIVERS BY AGE  
1997

Age	Licensed Drivers %	Drivers In Fatal & Injury Accidents		Drinking Drivers In Fatal & Injury Accidents		Speeding Drivers In Fatal & Injury Accidents	
		No.	%	No.	%	No.	%
0 - 13	0.0	10	0.1	0	0.0	6	0.4
14 - 15	2.0	370	4.0	7	1.0	78	5.6
16 - 17	3.8	825	8.9	36	5.1	167	11.9
18	2.1	375	4.0	35	4.9	93	6.6
19	1.9	334	3.6	32	4.5	78	5.6
20	1.9	281	3.0	28	3.9	56	4.0
21 - 24	7.0	930	10.0	141	19.8	202	14.4
25 - 34	17.4	1,910	20.5	205	28.8	299	21.3
35 - 44	20.8	1,680	18.1	138	19.4	210	14.9
45 - 54	16.0	1,140	12.3	60	8.4	116	8.3
55 - 64	10.6	570	6.1	14	2.0	46	3.3
65 - Over	16.6	814	8.8	10	1.4	47	3.3
Unknown	0.0	56	0.6	5	0.7	7	0.5
TOTAL	100	9,295	100	711	100	1,405	100

Sources: SD Department of Transportation: Accident Records  
SD Department of Commerce & Regulation: Driver License Issuance

FIGURE 3-9 DRIVERS BY AGE GROUP 1997  
 Fatal and Injury Accd. Involved Drivers

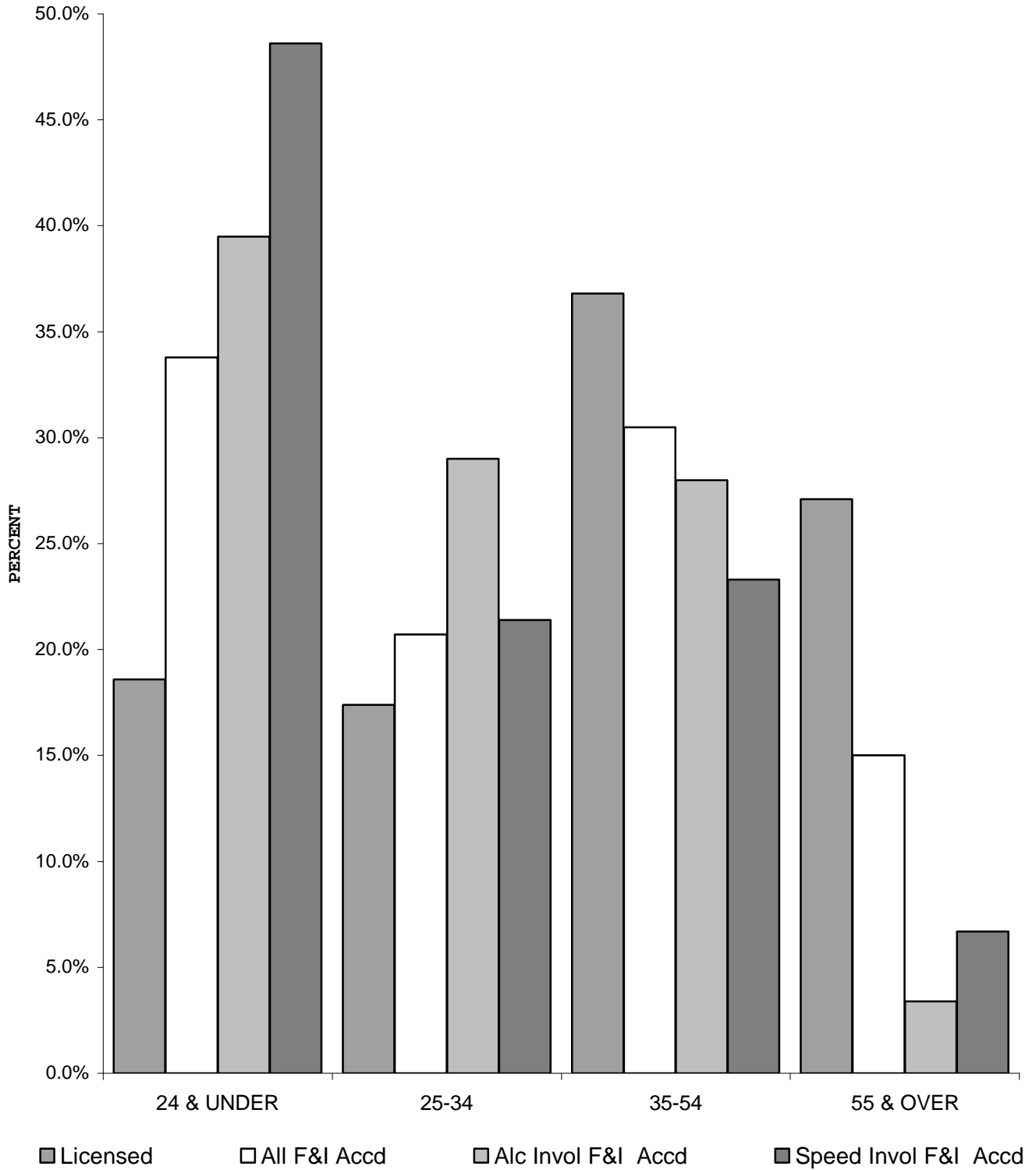
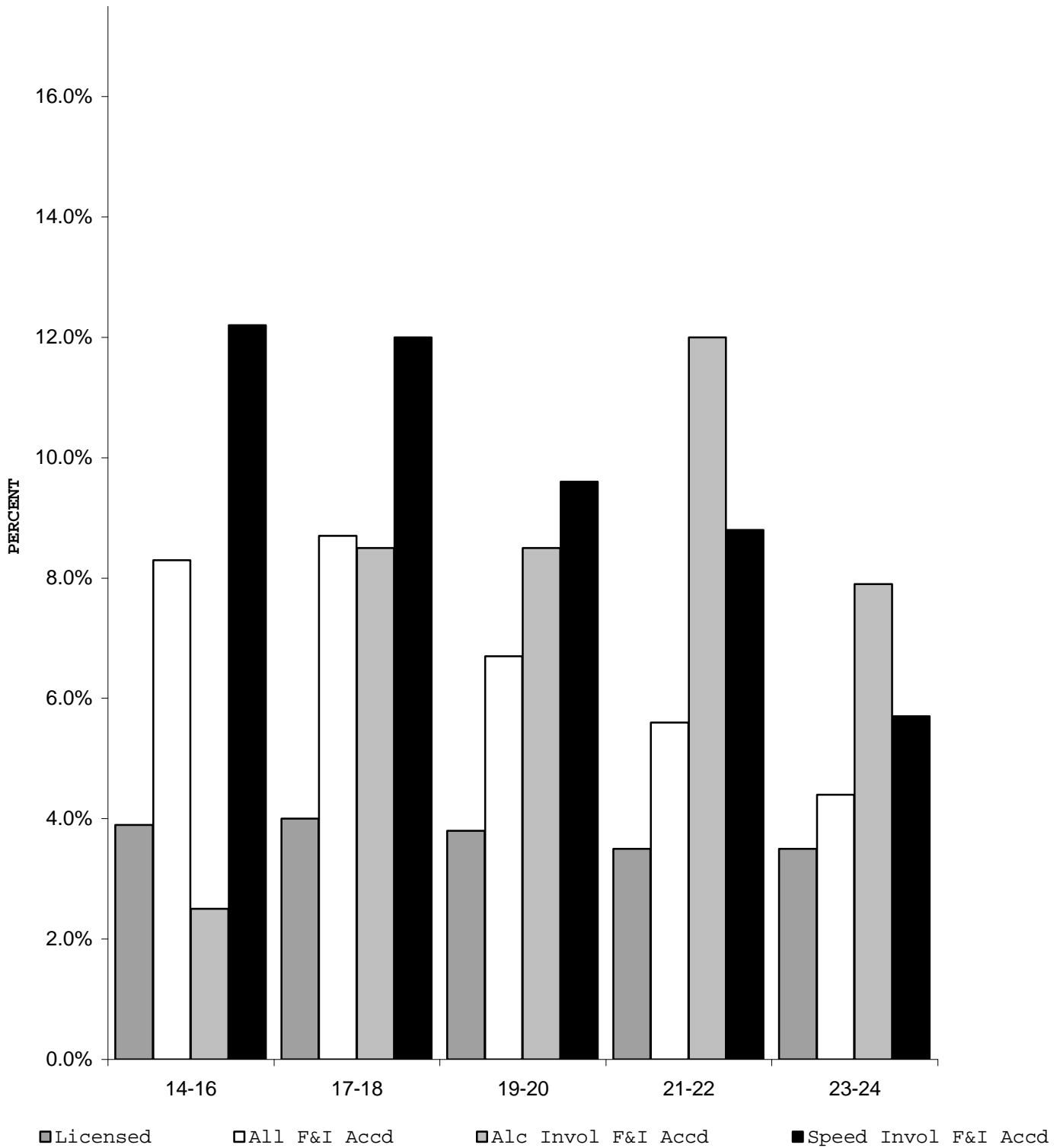


FIGURE 3-10 YOUNG DRIVERS 1997  
FATAL & INJURY ACCIDENT-INVOLVED DRIVERS



Driver actions are reported to indicate possible factors that may have contributed to the accidents. These factors are referred to as driver contributing circumstances. Drinking was the leading driver contributing circumstance in fatal accidents during 1997. It was indicated that the drinking of 50 or 27.8 percent of the drivers in fatal accidents contributed to the accident. Exceeding the speed limit and driving on the wrong side of the road were the other leading driver contributing circumstances in fatal accidents. Failing to yield to another vehicle was the leading contributing circumstance in injury accidents. Exceeding a safe speed but not the legal limit, following too closely and drinking were other leading driver contributing circumstances in injury accidents (see TABLE 3-18).



TABLE 3-18  
MOTOR VEHICLE DRIVER CONTRIBUTING CIRCUMSTANCES  
1997

	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
No Contributing Circumstances	17,434	53.9	48	26.7	4,423	48.5	12,963	56.2
Drinking	1,468	4.5	50	27.8	661	7.3	757	3.3
Exceeded Speed Limit	990	3.1	35	19.4	430	4.7	525	2.3
Wrong Side of Road	460	1.4	24	13.3	190	2.1	246	1.1
Exceeded Safe Speed But Not Limit	3,116	9.6	24	13.3	916	10.0	2,176	9.4
Failed to Yield to Vehicle	4,102	12.7	11	6.1	1,236	13.6	2,855	12.4
Failed to Stop for Stop Sign or Flashing Red	486	1.5	5	2.8	204	2.2	277	1.2
Fell Asleep	311	1.0	9	5.0	142	1.6	160	0.7
Improper Passing	311	1.0	2	1.1	89	1.0	220	1.0
Distracted by Object/ Person in Car	710	2.2	4	2.2	303	3.3	403	1.7
Improper Turn	622	1.9	3	1.7	151	1.7	468	2.0
Following Too Closely	1,616	5.0	3	1.7	597	6.5	1,016	4.4
Improper Backing	681	2.1	0	0.0	26	0.3	655	2.8
Other*	2,839	8.8	25	13.9	960	10.5	1,854	8.0
Unknown	692	2.1	16	8.9	188	2.1	488	2.1
<b>Total Drivers</b>	<b>32,375</b>		<b>180</b>		<b>9,115</b>		<b>23,080</b>	

Note: The investigating officer may assign from zero to three contributing circumstances to each driver; therefore, the number of drivers in motor vehicle accidents does not equal the number of contributing circumstances. The number of drivers having drinking as a contributing circumstance is equal to the number of reported drinking drivers in accidents.

\*Other includes driving under posted minimum, failed to yield to pedestrian, disregarded stop and go signal, disregarded other traffic control devices, improper signal or failure to signal, turning from wrong lane, improper lane change, improper start from parked position, improper parking, failure to comply with license restrictions, drugs, medication, physical impairment, and illegally in roadway.

Source: SD Department of Transportation: Accident Records

## Motorcycles

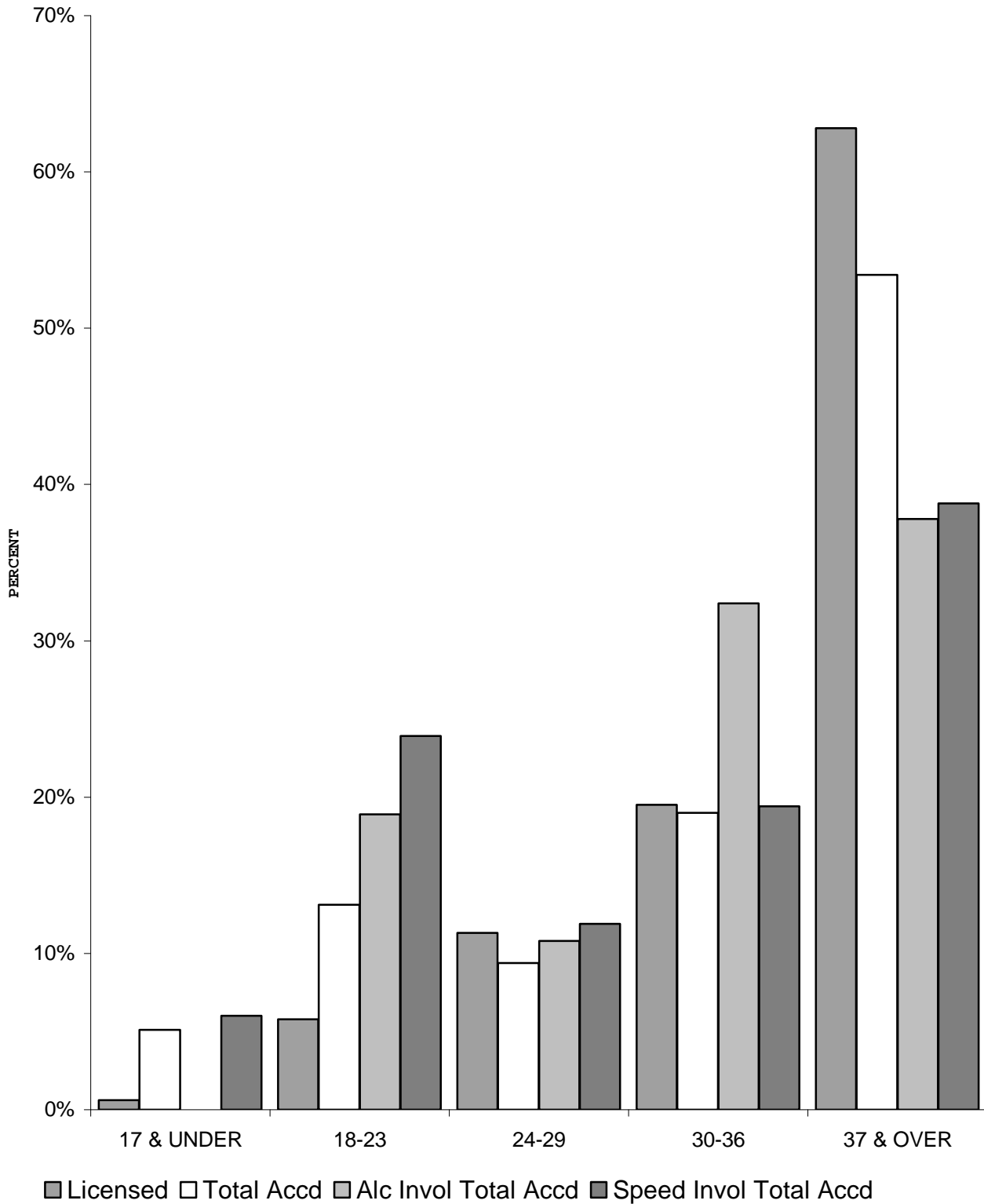
Motorcycle accidents constitute 1.5 percent of all accidents, 7.0 percent of all fatal accidents, and 4.8 percent of all injury accidents. There were 9 people killed and 334 injured on motorcycles in the 316 reported motorcycle accidents during 1997 (see TABLE 2-7). One of the motorcycle deaths during 1997 was the driver of a moped. The young motorcycle driver is over represented in accidents when compared to their portion of licensed motorcycle operators. The licensed drivers under 20 years of age represent 1.8 percent of the licensed motorcycle drivers, 9.0 percent of drivers involved in motorcycle accidents, and 14.9 percent of the speeding drivers involved in motorcycle accidents. Sixteen (23.9%) of the speeding drivers involved in motorcycle accidents were 18 through 23 years of age. Three (8.1%) of the drinking drivers were under age 22 (see TABLE 3-19 and FIGURE 3-11).

TABLE 3-19  
MOTORCYCLISTS BY AGE GROUP  
1997

Age Group	Licensed Motorcyclists		Motorcycle Drivers In Accidents		Drinking Motorcycle Drivers In Accidents		Speeding Motorcycle Drivers In Accidents	
	No.	%	No.	%	No.	%	No.	%
0 - 13	0	0.0	2	0.6	0	0.0	1	1.5
14 - 15	66	0.1	3	0.8	0	0.0	0	0.0
16 - 17	258	0.5	13	3.7	0	0.0	3	4.5
18 - 19	590	1.2	14	4.0	1	2.7	6	9.0
20 - 21	956	1.9	16	4.5	2	5.4	5	7.5
22 - 23	1,364	2.7	16	4.5	4	10.8	5	7.5
24 - 25	1,594	3.2	12	3.4	1	2.7	3	4.5
26 - 27	1,938	3.9	8	2.3	1	2.7	1	1.5
28 - 29	2,120	4.2	13	3.7	2	5.4	4	6.0
30 - 31	2,255	4.5	14	4.0	6	16.2	5	7.5
32 - 36	7,547	15.0	53	15.0	6	16.2	8	11.9
37 - 41	8,619	17.2	51	14.4	5	13.5	7	10.4
42 - 51	13,707	27.3	87	24.6	9	24.3	13	19.4
52 - Over	9,191	18.3	50	14.1	0	0.0	6	9.0
Unknown	0	0.0	2	0.6	0	0.0	0	0.0
Total	50,205	100	354	100	37	100	67	100

Sources: SD Department of Commerce & Regulation: Driver License Issuance  
SD Department of Transportation: Accidents Records

FIGURE 3-11 MOTORCYCLISTS 1997  
ACCIDENT INVOLVED MOTORCYCLE & MOPED DRIVERS



Helmets were used by 68 or 20.0 percent of the motorcycle drivers in accidents while 272 or 80.0 percent did not wear a helmet (see TABLE 3-20). Seven motorcycle drivers and one motorcycle passenger were killed during 1997. Two of the motorcycle drivers wore eye protection only, the passenger wore helmet and eye protection and the remaining 5 killed drivers did not wear safety protection.

TABLE 3-20  
HELMET USE BY MOTORCYCLE DRIVERS IN ACCIDENTS  
1997

Age	Helmet Used		Helmet Not Used	
	No.	%	No.	%
6 - 13	1	50.0	1	50.0
14 - 15	0	0.0	1	100.0
16 - 17	7	58.3	5	41.7
18 - 20	4	18.2	18	81.8
21 - 24	6	21.4	22	78.6
25 - 34	8	10.8	66	89.2
35 - 44	14	14.4	83	85.6
45 - Over	28	27.5	74	72.5
Unknown	0	0.0	2	100.0
Total	68	20.0	272	80.0

Note: Percentages are row percents.

Excludes unknown, not stated and other helmet usage. Helmet only and helmet and eye protection counted as used. Eye protection only as not used.

Source: SD Department of Transportation: Accident Records

## Pedestrians

There were six pedestrian deaths and 124 injuries in motor vehicle accidents during 1997 (see TABLE 3-21). The youngest pedestrian killed was one year old, while the oldest was 78. Of the injured pedestrians, 39.5 percent were under 20 years of age. Cities accounted for 86.3 percent of the pedestrian injuries and 50.0 percent of the fatalities (see TABLE 3-23). Of the 6 pedestrians killed, 4 were male and 2 female. Of the 124 injured, 68 were male and 56 female.

The 124 pedestrian injuries for 1997 was a 12.1 percent decrease from 1996's total of 141 (see TABLE 2-8). Officers reported that three of the 6 pedestrians killed had been drinking alcohol (see TABLE 3-22).

TABLE 3-21  
AGE OF PEDESTRIANS IN TRAFFIC ACCIDENTS  
1997

<u>Age</u>	<u>Fatalities</u>		<u>Injuries</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
0 - 5	1	16.7	10	8.1
6 - 13	0	0.0	27	21.8
14 - 19	0	0.0	12	9.7
20 - 24	0	0.0	9	7.3
25 - 34	2	33.3	18	14.5
35 - 44	1	16.7	21	16.9
45 - 54	0	0.0	12	9.7
55 - 64	0	0.0	5	4.0
65 - Over	2	33.3	10	8.1
Unknown	0	0.0	0	0.0
Total	6	100	124	100

Source: SD Department of Transportation: Accident Records

TABLE 3-22  
ALCOHOL INVOLVEMENT BY PEDESTRIANS  
1997

<u>Alcohol Involvement</u>	<u>Fatalities</u>		<u>Injuries</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Alcohol or Drugs	3	50.0	19	15.3
No Alcohol	2	33.3	99	79.8
Unknown	1	16.7	6	4.8
Total	6	100	124	100

Source: SD Department of Transportation: Accident Records

TABLE 3-23  
RURAL vs. CITY PEDESTRIAN ACCIDENTS  
1997

	<u>Fatalities</u>	<u>Injuries</u>
Rural	3	17
City	3	107
Total	6	124

Source: SD Department of Transportation: Accident Records

## Bicycles

During 1997 there was one bicyclist killed (see Table 2-9). There were 115 bicyclists injured in reported motor vehicle accidents during 1997 (see TABLE 3-24). The leading factor in bicycle involved crashes was the bicycle driver failing to yield to a motor vehicle which was reported for 37.6 percent of the bicycle drivers. Forty-five of the bicycle drivers in accidents had no contributing circumstances. The yearly 1977-1997 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

TABLE 3-24  
AGE OF BICYCLE DRIVERS IN TRAFFIC ACCIDENTS  
1997

<u>Age</u>	<u>Fatalities Number</u>	<u>Injuries Number</u>	<u>%</u>
0 - 5	0	8	7.0
6 - 13	1	65	56.5
14 - 19	0	18	15.7
20 - 24	0	6	5.2
25 - 34	0	6	5.2
35 - 44	0	7	6.1
45 - 54	0	2	1.7
55 - 64	0	1	0.9
65 - Over	0	2	1.7
Total	1	115	100

Source: SD Department of Transportation: Accident Records

#### IV. GLOSSARY OF TERMS

Reportable Traffic Accident: motor vehicle traffic accident which involves death, injury or property damage to an apparent extent of five hundred dollars or more to any one person's property or accumulated property damage of one thousand dollars per accident.

Fatal Accident: motor vehicle traffic accident in which at least one person dies as the result of the accident and dies within 30 days of the date of the accident.

Injury Accident: motor vehicle accident in which at least one person was injured and no one was killed.

Property Damage Only (PDO) Accident: motor vehicle accident in which no one was killed or injured but there was property damage to an apparent extent of five hundred dollars or more to any one person's property or accumulated property damage of one thousand dollars per accident.

Fatality Rate: number of traffic fatalities per 100 million vehicle miles traveled.

Alcohol Involved Accident: at least one driver, pedestrian, or bicycle driver had been drinking in the opinion of the investigating officer.

Economic Loss: the calculable costs of motor vehicle accidents are wage loss, medical expense, insurance administration cost, and property damage. (Source:Estimating the Costs of Accidents 1996, National Safety Council)

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