

1998  
South Dakota  
**Motor Vehicle  
Traffic Accident  
Summary**



**William J. Janklow**  
Governor

Prepared By  
Department of Transportation  
Accident Records Office

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 1998 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 1998 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 1998 Traffic Accident Profile section details the accident picture for 1998 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  
1998

NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC ACCIDENTS: **19,735**

AMOUNT OF MOTOR VEHICLE TRAFFIC ACCIDENT PROPERTY DAMAGE: **\$72 million**

NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENT INJURIES: **7,723**

NUMBER OF MOTOR VEHICLE TRAFFIC ACCIDENT FATALITIES: **165**

FATALITY RATE PER 100,000,000 MILES OF TRAVEL: **2.05**

PERCENT OF DRIVERS IN FATAL ACCIDENTS WHO HAD BEEN DRINKING: **26.6%**

NUMBER KILLED IN ALCOHOL-RELATED ACCIDENTS: **65**

NUMBER INJURED IN ALCOHOL-RELATED ACCIDENTS: **1,074**

NUMBER OF PEDESTRIANS KILLED: **7**

NUMBER OF MOTORCYCLISTS KILLED: **9**

NUMBER OF BICYCLISTS KILLED: **2**

PERCENT OF LICENSED DRIVERS UNDER 25: **18.8%**

PERCENT OF ACCIDENT-INVOLVED SPEEDING DRIVERS UNDER 25: **52.2%**

PERCENT OF ACCIDENT-INVOLVED DRINKING DRIVERS UNDER 25: **39.3%**

NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES: **147, 36** WERE WEARING A SAFETY RESTRAINT (EXCLUDES MOPED, MOTORCYCLE & SNOWMOBILE OCCUPANTS)

NUMBER OF DWI CONVICTIONS: **6,690** (Source: Dept. of Commerce & Regulation-Driver Improvement)

NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE KILLED IN MOTOR VEHICLE ACCIDENTS: **1**, NUMBER KILLED WITH UNKNOWN RESTRAINT USAGE: **3**

NUMBER OF RESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE KILLED IN MOTOR VEHICLE ACCIDENTS: **1** LAP BELT ONLY, **1** CHILD RESTRAINT SYSTEM USED PROPERLY.

ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC ACCIDENTS: **\$341 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 1989-1998 for South Dakota, states surrounding South Dakota, and the nation are shown in TABLE 2-1. The national rate has remained nearly the same for the past 6 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  
1989-1998**

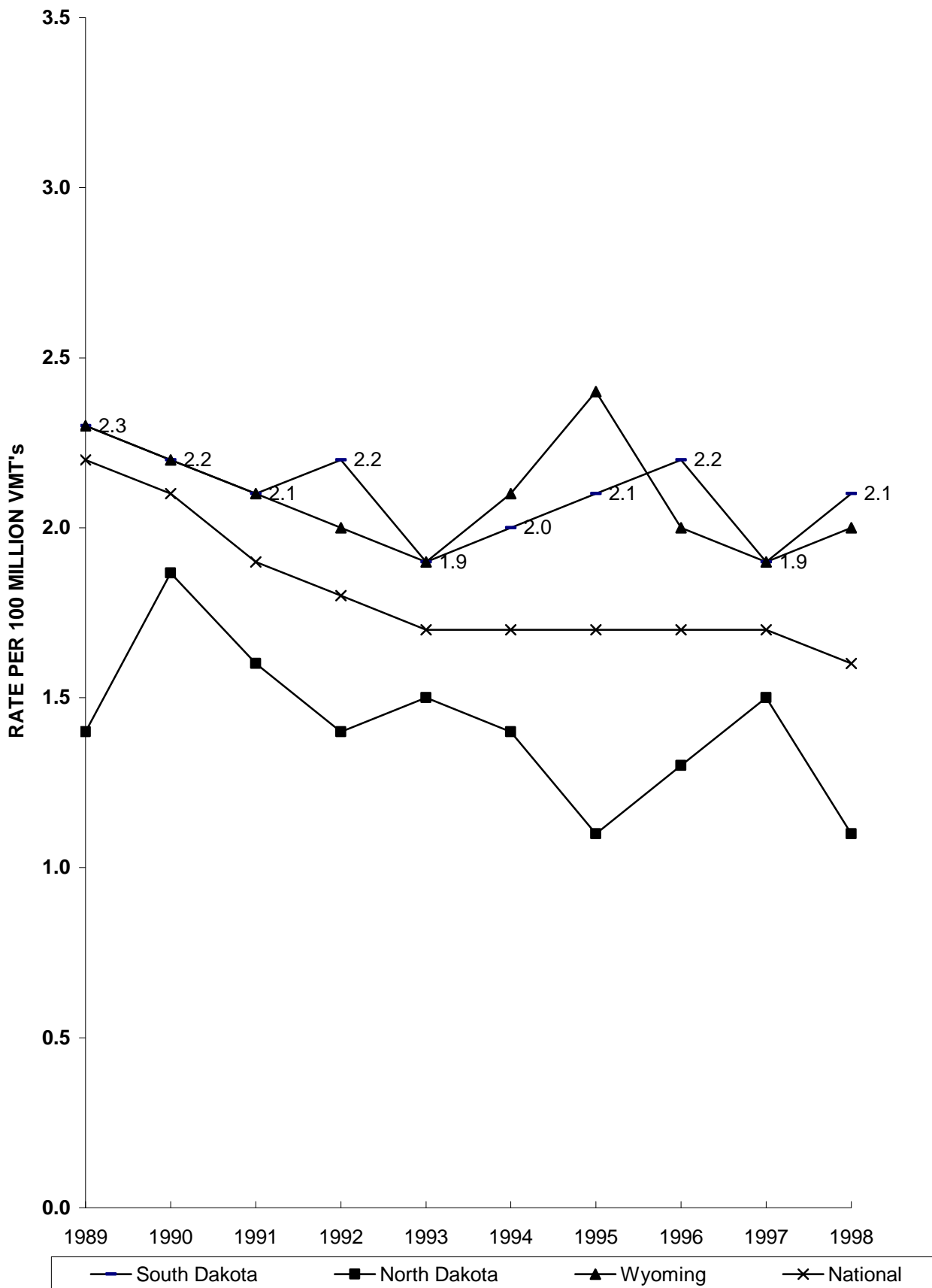
<u>State</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
South Dakota	2.3	2.2	2.1	2.2	1.9	2.0	2.1	2.2	1.9	2.1
Iowa	2.3	2.0	2.1	1.8	1.8	1.8	2.0	1.7	1.7	1.5
Minnesota	1.6	1.5	1.3	1.4	1.3	1.5	1.4	1.3	1.3	1.4
Montana	2.2	2.5	2.3	2.1	2.3	2.3	2.3	2.1	2.8	2.5
Nebraska	2.1	1.9	2.0	1.9	1.7	1.8	1.6	1.8	1.8	1.8
North Dakota	1.4	1.9	1.6	1.4	1.5	1.4	1.1	1.3	1.5	1.1
Wyoming	2.3	2.2	2.1	2.0	1.9	2.1	2.4	2.0	1.9	2.0
National	2.2	2.1	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.6

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 1966 through 1998. 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 1998 death rate increased to 2.05, a 10.6% increase from the 1997 1.88 rate. The 7,723 people injured is a 5.4% decrease from the 8,161 for 1997 (see TABLE 2-2).

FIGURE 2-1 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>
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
1998	165	2.05	7,723	19,735	245.49	149	5,112	14,474	8,039	837

<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 1998 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

Nearly 57 percent (56.9%) of the people killed in alcohol related accidents were under the age of 30. The percent of alcohol involved accidents in all levels of severity show a decrease in 1998 when compared to a 6 year (92-97) 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  
1992-1998**

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Total Accidents	8.6 (1485)	8.0 (1501)	8.1 (1574)	7.5 (1457)	7.0 (1508)	6.9 (1449)	7.1 (1393)
Fatal Accidents	46.1 (65)	39.8 (47)	44.7 (63)	42.9 (60)	38.0 (54)	39.1 (50)	40.3 (60)
Injury Accidents	14.9 (764)	13.3 (736)	14.1 (805)	13.3 (735)	12.8 (722)	12.0 (656)	12.9 (662)
PDO Accidents	5.5 (656)	5.5 (718)	5.2 (706)	4.8 (662)	4.6 (732)	4.9 (743)	4.6 (671)
Fatalities	46.6 (75)	39.3 (55)	45.5 (70)	44.3 (70)	38.9 (68)	39.9 (59)	39.4 (65)
Injuries	15.8 (1231)	14.4 (1207)	15.1 (1286)	14.1 (1175)	13.8 (1170)	12.5 (1024)	13.9 (1074)

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  
1992 - 1998**

<u>AGE</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
0 - 5	1	0	0	0	2	1	1
6 - 12	1	0	1	0	2	1	0
13 - 19	17	7	16	6	10	17	15
20	2	1	1	1	2	3	2
21 - 29	9	16	21	28	18	10	19
30 - 39	20	17	12	18	15	14	14
40 - 49	10	10	8	9	5	6	9
50 - 59	5	0	4	2	7	3	4
60 & OLDER	10	3	7	6	7	4	1
Unknown/Not Stated	0	1	0	0	0	0	0
TOTAL	75	55	70	70	68	59	65

Source: SD Department of Transportation: Accident Records

FIGURE 2-2 1998 TRAFFIC FATALITIES  
Alcohol Related vs Non Alcohol Related

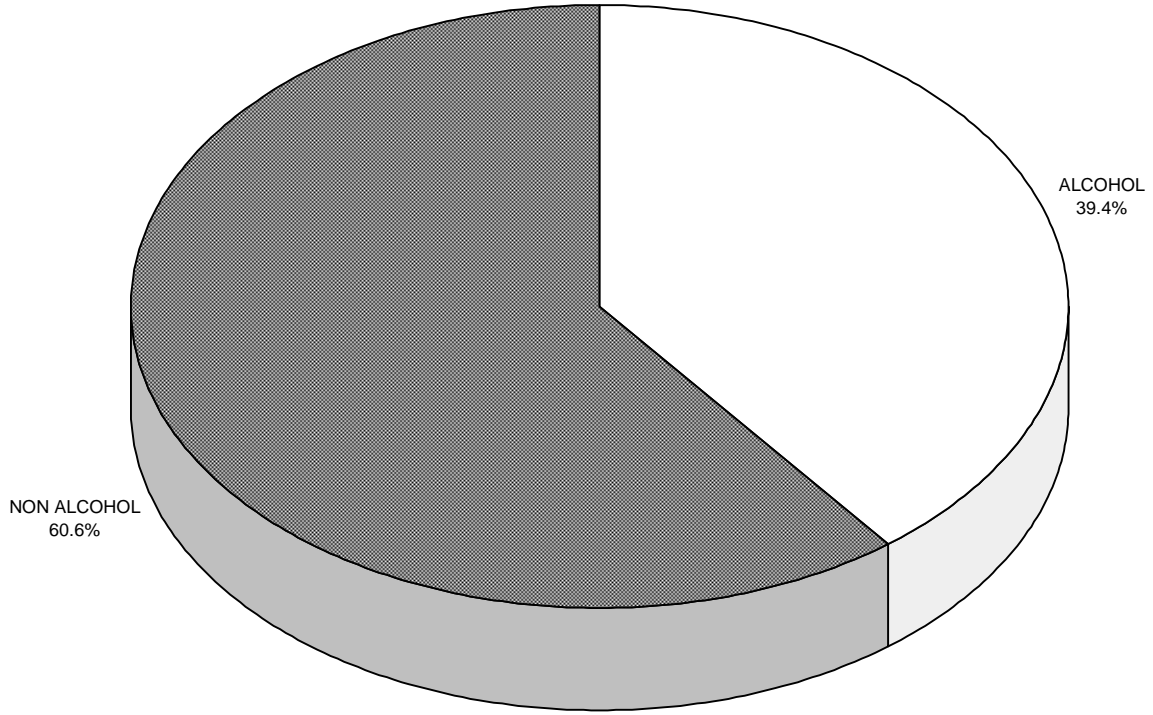
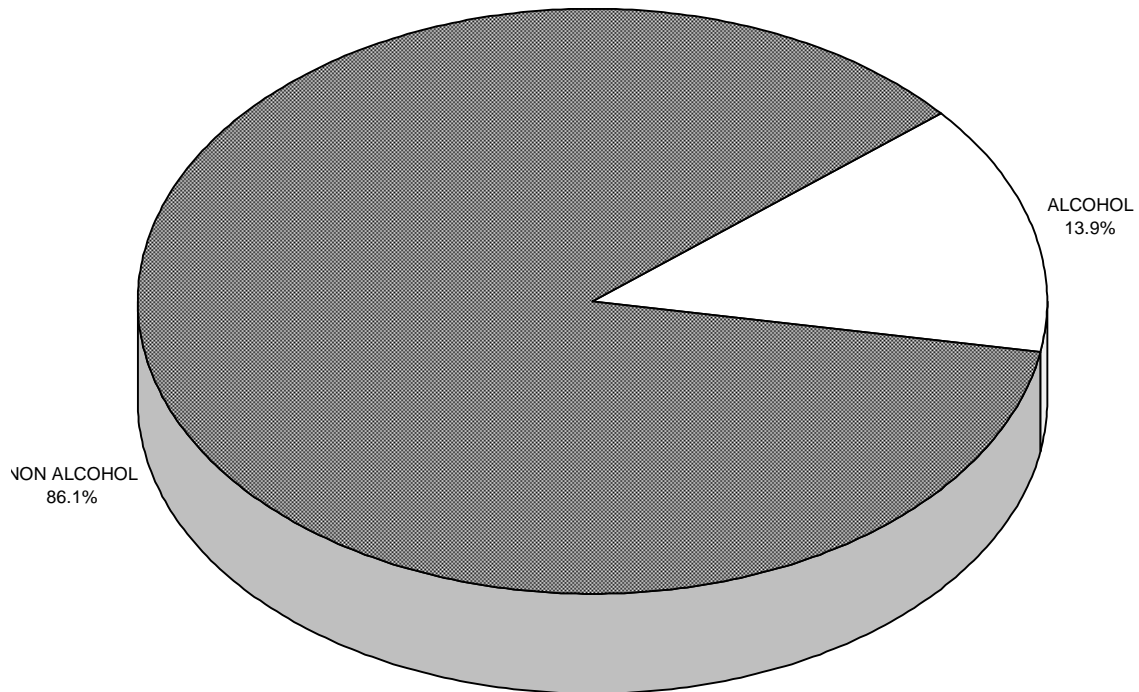


FIGURE 2-3 1998 TRAFFIC INJURIES  
Alcohol Related vs Non Alcohol Related



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 increased by 2.3% while nonalcohol-related fatal and injury accidents decreased by 7.4% from the 1997 totals. The number of DWI arrests decreased by 1.5% from 1997.

**TABLE 2-4  
ACCIDENT AND ARREST ACTIVITY  
1990 - 1998**

	FATAL ACCIDENTS		FATAL & INJURY ACCIDENTS		DWI ARRESTS*
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED	
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
1998	60	89	722	4,539	8,630

\*Source: South Dakota Courts - The State of the Judiciary and 1998 Annual Report of the S. D. Unified Judicial System - January 1999  
Based on Fiscal Year statistics

Source: SD Department of Transportation: Accident Records

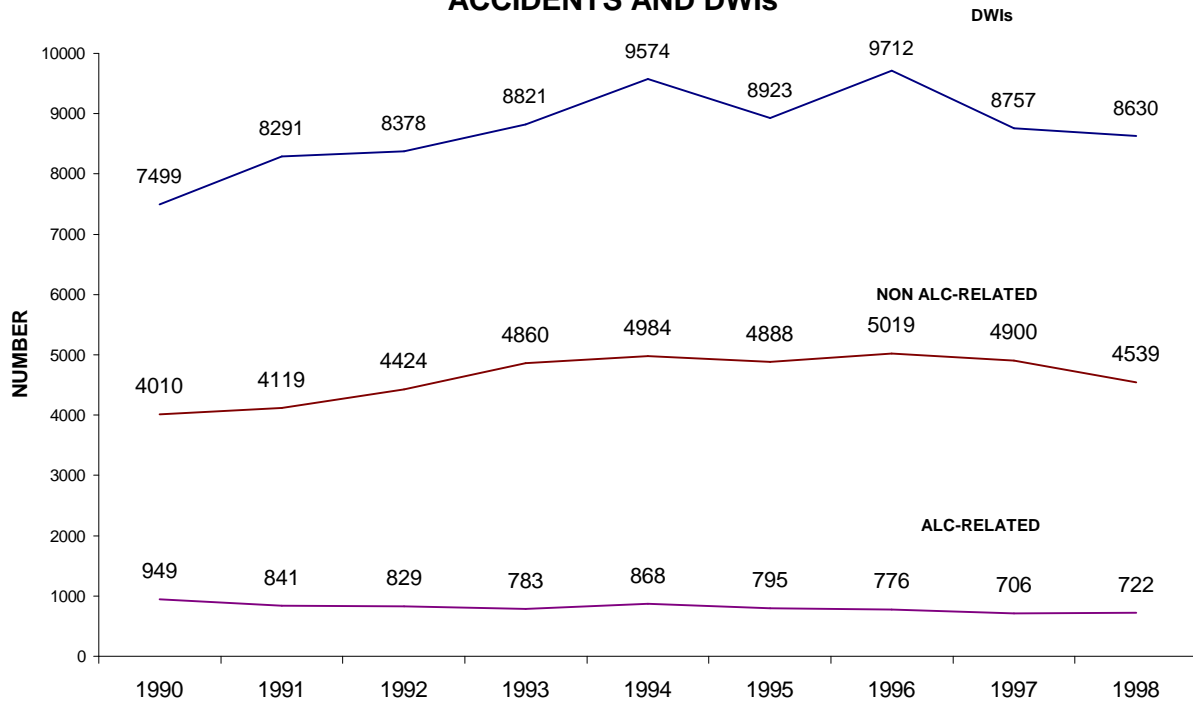
FIGURE 2-4 presents the annual counts of DWI arrests, alcohol-related fatal and injury accidents, and nonalcohol-related fatal and injury accidents from 1990 through 1998. FIGURE 2-5 presents the alcohol-related and nonalcohol-related fatal accident experience for the years of 1990 through 1998.

There were 60 alcohol-related fatal accidents during 1998, which compares to 50 in 1997. The previous three-year average was 55 for the years of 1995-1997.

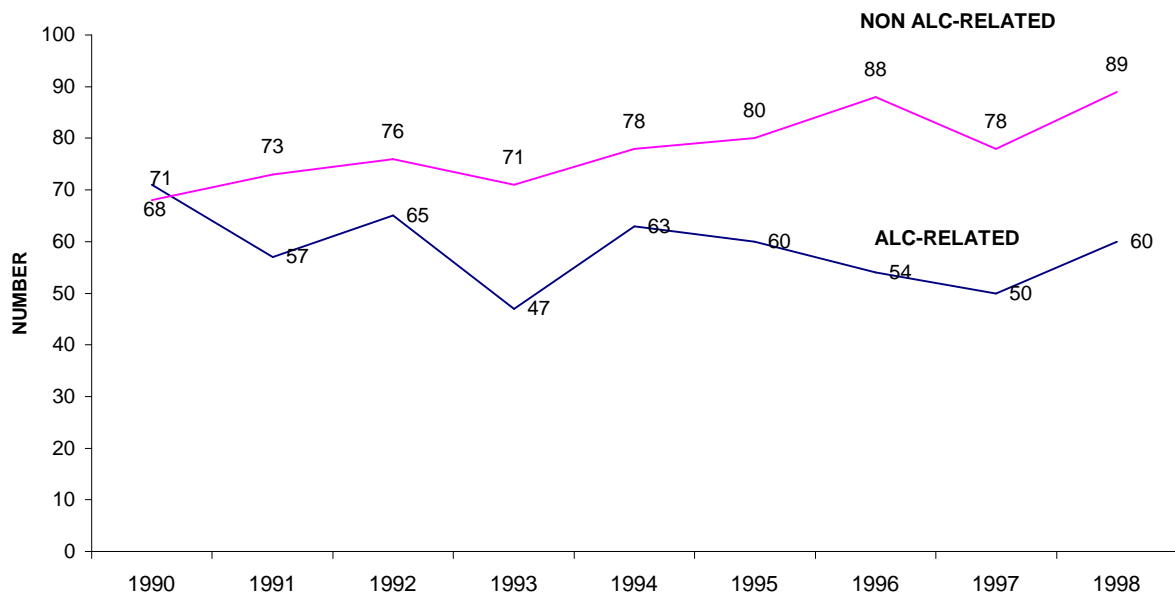
There were 722 alcohol-related fatal and injury accidents during 1998, which compares to 706 in 1997. The previous three-year average was 759 or a 4.9 percent decrease in 1998. Nonalcohol-related fatal and injury accidents in 1998 decreased (7.4%) when compared to 1997 and decreased 8.0 percent from the previous three-year average (95-97).

There were 8,630 DWI arrests in fiscal year 1998. This level is down 5.5% from the previous three-year average (95-97).

**FIGURE 2-4 FATAL & INJURY ACCIDENTS AND DWIs**



**FIGURE 2-5 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. Ninety-five occupants were killed while not wearing any safety restraint, while thirty-one occupants killed were wearing lap and shoulder harness, 2 wore other type restraints, one was wearing a lap belt only, 1 wore shoulder harness only and one wore a child restraint used properly (see TABLE 2-5).

Sixty-seven (45.6%) of the 147 killed occupants were either partially or totally ejected from the vehicle (see TABLE 2-5B).

TABLE 2-5  
SAFETY RESTRAINT USAGE  
KILLED OCCUPANTS

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
No Safety Equipment	88	91	86	96	89	95
Lap Belt Only	0	0	1	5	0	1
Shoulder Harness Only	2	0	2	3	2	1
Lap Belt & Shoulder Harness	10	10	16	32	24	31
Child Restraint Used Properly	0	0	0	0	0	1
Child Restraint Not Properly Used	0	1	0	0	1	0
Other Type Restraints	0	0	0	0	1	2
Not Stated or Unknown	10	8	23	14	15	16
Total	110	110	128	150	132	147

TABLE 2-5A  
SAFETY RESTRAINT USAGE  
INJURED OCCUPANTS

	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
No Safety Equipment	5,134	4,711	2,854	2,861	2,642	2,572
Lap Belt Only	175	203	248	248	211	171
Shoulder Harness Only	55	102	85	69	78	77
Lap Belt & Shoulder Harness	1,920	2,274	3,945	4,199	4,135	3,803
Child Restraint Used Properly	51	36	42	56	39	46
Child Restraint Not Properly Used	13	5	5	7	4	5
Other Type Restraints	16	14	13	15	13	11
Not Stated or Unknown	376	449	450	412	458	394
Total	7,740	7,794	7,642	7,867	7,580	7,079

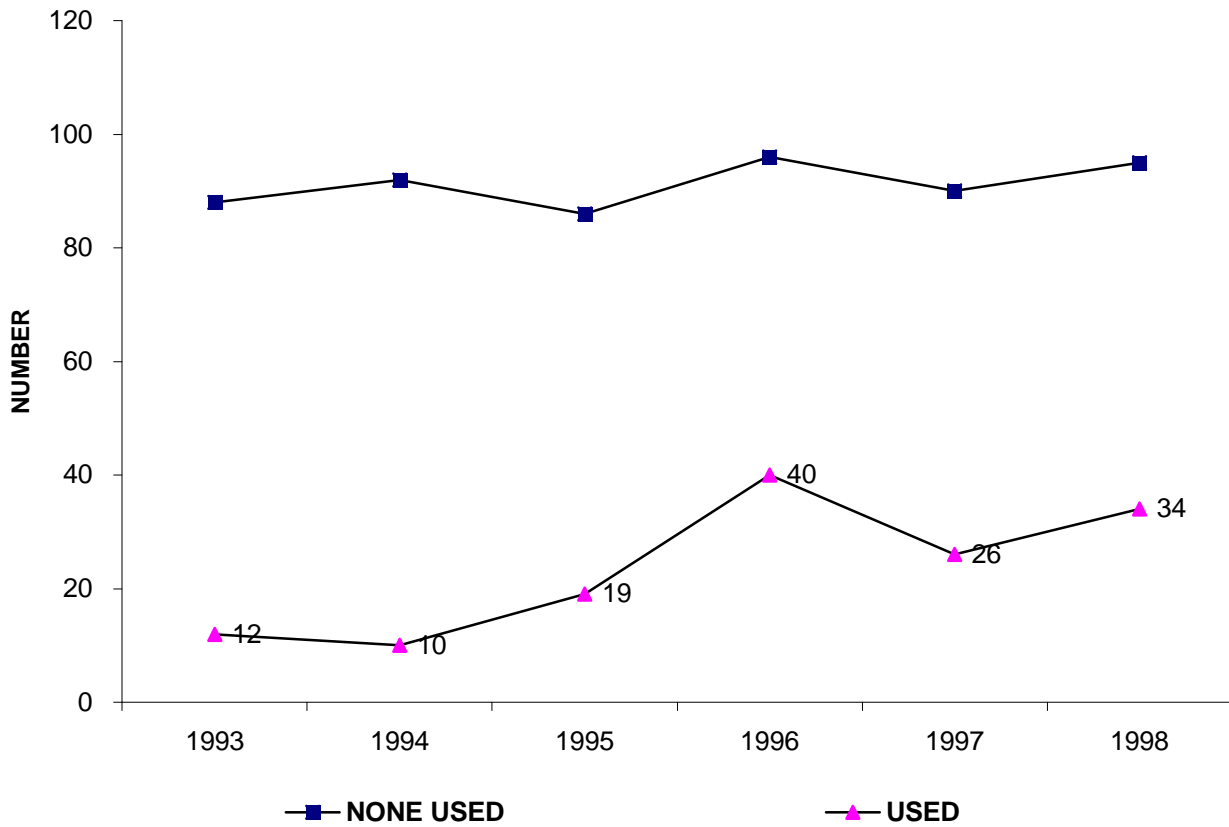
Note: Motor vehicle drivers and passengers are considered occupants. Motorcycle, moped and snowmobile drivers and motorcycle, moped and snowmobile passengers are not counted in the above tables.

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

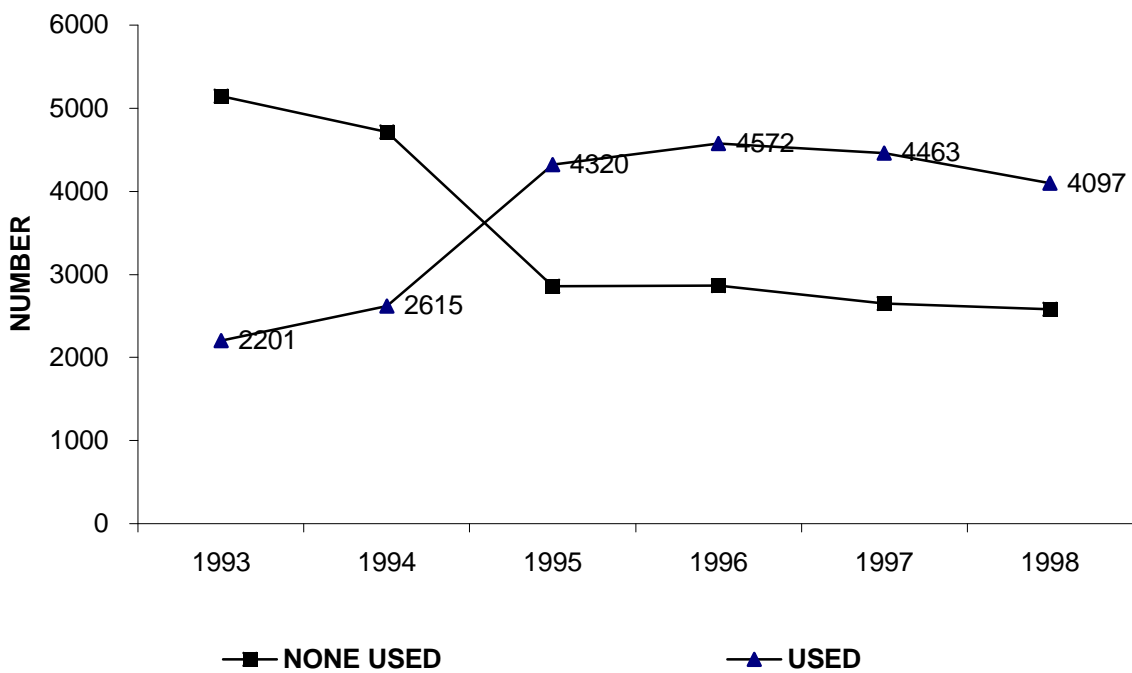
1998	
Not Ejected	77
Partial Ejection	17
Total Ejection	50
Unknown Ejection	3
Total	147

Source: SD Department of Transportation: Accident Records

**FIGURE 2-6 SAFETY EQUIPMENT USAGE  
KILLED OCCUPANTS**



**FIGURE 2-7 SAFETY EQUIPMENT USAGE  
INJURED OCCUPANTS**



There were six fatalities to motor vehicle occupants from birth through four years of age during 1998, which compares to two fatalities during 1997 (see TABLE 2-6).

There were 118 children (birth through 4 years) injured in 1998, which compares to 124 in 1997 and the three-year average of 135. Seventy-five of the 118 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 July 1, 1984 -- since that time there have been 36 deaths to occupants of this age group and three have been restrained by a child safety restraint properly used and one was restrained by a lap belt only. No deaths have been reported where a lap and shoulder harness was used to restrain the child.

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>
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
1998	6	70	48	118

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  
1998

	<u>Fatalities</u>	<u>Injuries</u>
No Safety Equipment Used	1	33
Lap Belt Only	1	11
Shoulder Harness Only	0	3
Lap Belt & Shoulder Harness	0	16
Child Restraint Used Properly	1	45
Child Restraint Not Used Properly	0	5
Other	0	1
Not Stated or Unknown	3	4
TOTAL	6	118

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 372 and 13 deaths per year. Licensed motorcyclists increased 2.2 percent during 1998 while fatalities remained the same as last year which is the lowest number in 20 years. Moped accidents are included with motorcycle accidents. There were no moped fatalities during 1998. Over the years there have been two moped fatalities and the number of injuries is small. See pages 46-51 for additional motorcycle, pedestrian, and bicycle accident information.

TABLE 2-7  
MOTORCYCLE ACCIDENTS  
1975 - 1998

<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>		
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
1998	358	9	307	9	373	25,188	51,307

Source: SD Department of Transportation: Accident Records

TABLE 2-8  
PEDESTRIAN FATALITIES AND INJURIES  
1978 - 1998

<u>Year</u>	<u>Fatalities</u>	<u>Injuries</u>
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
1998	7	137

TABLE 2-9  
BICYCLE FATALITIES AND INJURIES  
1978 - 1998

<u>Year</u>	<u>Fatalities</u>	<u>Injuries</u>
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
1998	2	133

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  
1986 - 1998

<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>						
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
1998	78	149	1	35	1	68
<u>FOURTH OF JULY</u>						
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
1998	78	181	3	57	3	81
<u>LABOR DAY</u>						
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
1998	78	139	2	35	2	66

\*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>						
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
1998	102	309	1	53	1	82
<u>CHRISTMAS</u>						
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
1998	78	182	1	41	1	70
<u>NEW YEARS</u>						
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
1998-99	78	207	1	37	1	57

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 1989 through 1998. 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

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
1998	1579	20.4	3026	39.2	3118	40.4	7723	165

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

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
1998	954	19.2	1896	38.1	2123	42.7	4973	105

**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.	%		
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
1998	537	21.6	1007	40.6	937	37.8	2481	51

**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.	%		
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
1998	34	25.8	63	47.7	35	26.5	132	2

**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.	%		
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
1998	54	39.4	60	43.8	23	16.8	137	7

## 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 - 1998

	<u>ACCIDENT INVOLVED DRIVERS</u>				<u>LICENSED DRIVERS</u>			
	<u>MALE</u>		<u>FEMALE</u>		<u>MALE</u>		<u>FEMALE</u>	
	<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
1998	17,969	60.0	11,961	40.0	273,284	49.9	274,049	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. 1998 MOTOR VEHICLE ACCIDENT PROFILE

#### Introduction

This section profiles the reported motor vehicle traffic accidents for 1998. 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 1998, there were 19,735 reported motor vehicle traffic accidents, the majority of accidents being property damage only 14,474 (73.3%). Injury accidents accounted for 5,112 (25.9%) of the accidents, while 149 (0.8%) were fatal accidents. There were 7,723 persons injured and 165 persons killed in accidents during 1998 (see TABLE 3-1).

TABLE 3-1  
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS,  
PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS  
1998

	Incapac. Injuries		Non-Incapac. Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	954	60.4	1,896	62.7	2,123	68.1	4,973	64.4	105	63.6
Passengers	537	34.0	1,007	33.3	937	30.1	2,481	32.1	51	30.9
Pedestrians	54	3.4	60	2.0	23	0.7	137	1.8	7	4.2
Bicycle Dr	34	2.2	63	2.1	35	1.1	132	1.7	2	1.2
Total	1,579	100	3,026	100	3,118	100	7,723	100	165	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 1998, 53.3 percent of the fatalities and 60.1 percent of the injuries occurred to occupants of passenger cars. Occupants of pickups and vans accounted for 33.9 percent of the fatalities. Additionally, in 1998 seven pedestrians and nine motorcyclists were killed. There were two bicyclists killed during 1998 (see Table 3-2).

TABLE 3-2  
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION  
1998

	Fatalities		Injuries	
	No.	%	No.	%
Passenger Cars	88	53.3	4,638	60.1
Pickups, Vans	56	33.9	2,303	29.8
Motorcycle, Moped	9	5.5	373	4.8
Pedestrians	7	4.2	137	1.8
Trucks (All)*	2	1.2	102	1.3
Bicycle	2	1.2	133	1.7
Other	1	0.6	28	0.4
Farm Machinery	0	0.0	9	0.1
Unknown	0	0.0	0	0.0
<b>Total</b>	<b>165</b>	<b>100</b>	<b>7,723</b>	<b>100</b>

*Trucks	Fatalities	Injuries
Straight Truck	1	42
Straight Truck with Trailer	0	10
Truck Tractor Only	0	5
Truck Tractor with Single Semi Trailer	1	45
Truck Tractor with Two or More Trailers	0	0
<b>Total</b>	<b>2</b>	<b>102</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  
1998

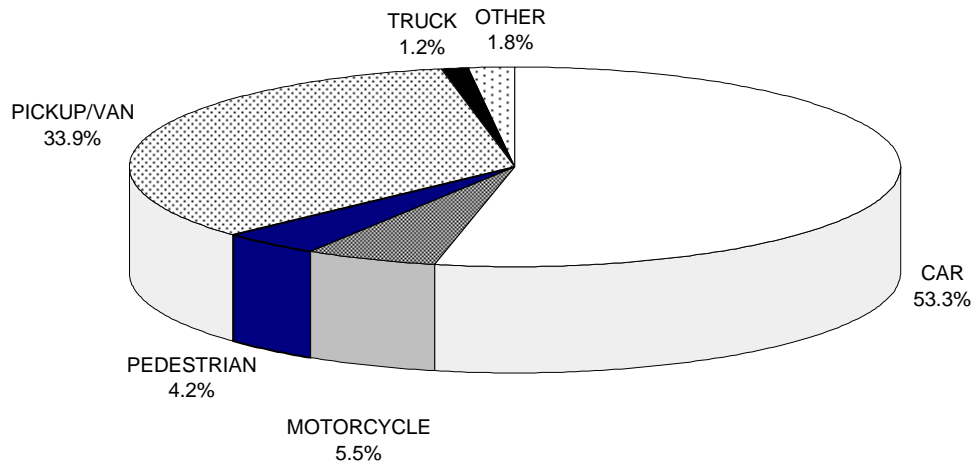


FIGURE 3-2 INJURIES BY TRAVEL MODE  
1998

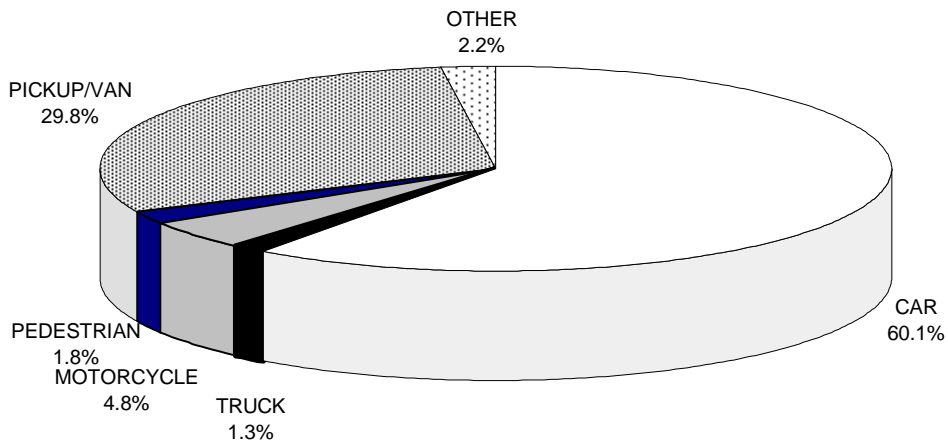


TABLE 3-3 provides information on all accident-involved vehicles by type. Passenger cars made up 50.2 percent of the vehicles involved in fatal accidents and 58.4 percent of those involved in injury accidents. Pickups and vans made up 37.6 percent of the vehicles involved in fatal accidents.

TABLE 3-3  
VEHICLE TYPES INVOLVED IN ACCIDENTS  
1998

	All Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Passenger Cars	17,869	56.8	111	50.2	5,085	58.4	12,673	56.3
Pickups, Vans	11,800	37.5	83	37.6	2,996	34.4	8,721	38.8
Trucks (All)*	1,075	3.4	14	6.3	231	2.7	830	3.7
Motorcycle	386	1.2	10	4.5	329	3.8	47	0.2
Farm Machinery or Heavy Equipment	87	0.3	2	0.9	27	0.3	58	0.3
Bus	72	0.2	0	0.0	13	0.1	59	0.3
Motor Home	41	0.1	0	0.0	12	0.1	29	0.1
Moped	2	0.0	0	0.0	2	0.0	0	0.0
Snowmobile	3	0.0	0	0.0	1	0.0	2	0.0
Other or Unknown	100	0.3	1	0.5	15	0.2	84	0.4
Total	31,435	100	221	100	8,711	100	22,503	100

*Trucks	All Accd.	Fatal Accd.	Injury Accd.	PDO Accd.
Straight Truck	365	3	81	281
Straight Truck with Trailer	80	1	19	60
Truck Tractor Only	18	0	6	12
Truck Tractor with Single Semi Trailer	574	10	122	442
Truck Tractor with Two or More Trailers	38	0	3	35
Total	1,075	14	231	830

Source: SD Department of Transportation: Accident Records

TABLE 3-4 provides information on the ages of persons killed and injured. Twenty-one to twenty-four year olds accounted for 10.3 percent of the fatalities while 718 (9.2%) of the injured were within this age group. Seven children ages 0-5 were killed during 1998 (see Table 3-4).

TABLE 3-4  
FATALITIES AND INJURIES  
BY AGE GROUP  
1998

	Fatalities		Injuries	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
0 - 5	7	4.2	179	2.3
6 - 13	6	3.6	461	6.0
14 - 15	11	6.7	492	6.4
16 - 17	10	6.1	806	10.4
18	4	2.4	379	4.9
19	8	4.8	319	4.1
20	4	2.4	230	3.0
21 - 24	17	10.3	718	9.3
25 - 34	23	13.9	1,199	15.5
35 - 44	22	13.3	1,094	14.2
45 - 54	20	12.1	768	9.9
55 - 64	6	3.6	419	5.4
65 - Over	27	16.4	615	8.0
Unknown	0	0.0	44	0.6
Total	165	100	7,723	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 28.9 percent of the fatal accidents and only 8.6 percent of the total accidents, while 38.9 percent of the fatal accidents and 49.3 percent of all accidents represented a collision between 2 or more vehicles (see TABLE 3-5).

TABLE 3-5  
FIRST HARMFUL EVENT  
1998

<u>First Harmful Event</u>	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Motor Vehicle Collision With:								
Another MV (Not Parked)	9,738	49.3	58	38.9	3,032	59.3	6,648	45.9
A Fixed or Other Object	2,770	14.0	35	23.5	776	15.2	1,959	13.5
An Animal	4,228	21.4	1	0.7	119	2.3	4,108	28.4
A Parked Motor Vehicle	1,023	5.2	3	2.0	105	2.1	915	6.3
A Pedestrian	127	0.6	7	4.7	120	2.3	0	0.0
A Bicyclist	133	0.7	2	1.3	130	2.5	1	0.0
A Railroad Vehicle	12	0.1	0	0.0	8	0.2	4	0.0
Non-Collision (Overturning or Other)	1,704	8.6	43	28.9	822	16.1	839	5.8
Total	19,735	100	149	100	5,112	100	14,474	100

Source: SD Department of Transportation: Accident Records

## Manner of Collision

Head-on collisions are the most prevalent for severe accidents, accounting for 34.5 percent of the fatal accidents and only 1.6 percent of the total accidents. Angle collisions are second in prevalence for fatal accidents accounting for 25.9 percent of the fatal accidents and 21.0 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 12.1 percent of the fatal accidents, 41.8 percent of the injury accidents, and 31.1 percent of the property damage only accidents.

TABLE 3-6  
MANNER OF COLLISION FOR ACCIDENTS INVOLVING A COLLISION  
BETWEEN TWO OR MORE MOTOR VEHICLES  
1998

<u>Manner of Collision</u>	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Rear-End	3,343	34.3	7	12.1	1,268	41.8	2,068	31.1
Head-On	158	1.6	20	34.5	86	2.8	52	0.8
Angle	2,046	21.0	15	25.9	726	23.9	1,305	19.6
Sideswipe-Same Direction	741	7.6	4	6.9	106	3.5	631	9.5
Sideswipe-Opposite Dir.	196	2.0	3	5.2	49	1.6	144	2.2
Turning Movement	2,710	27.8	9	15.5	762	25.1	1,939	29.2
Backing Movement	544	5.6	0	0.0	35	1.2	509	7.7
Total	9,738	100	58	100	3,032	100	6,648	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 34.3 percent of the PDO accidents and 36.6 percent of the injury accidents.

Noninterstate rural roads tallied 78.5 percent of the fatal accidents with 72 (48.3%) fatal accidents occurring on U.S./State highways and 45 (30.2%) on County/Local roads. The Interstate system experienced 2,441 (12.4%) of the total accidents while accounting for an estimated 27 percent of the vehicle miles traveled in 1998. Ten (6.7%) of the fatal accidents happened on the interstate system (see FIGURES 3-3 and 3-4).

TABLE 3-7  
ACCIDENTS BY TYPE OF HIGHWAY  
1998

<u>Type of Highway</u>	<u>Total Accidents</u>		<u>Fatal Accidents</u>		<u>Injury Accidents</u>		<u>PDO Accidents</u>		<u>No. Killed</u>	<u>No. Injured</u>
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>		
Interstate - Rural	1,757	8.9	9	6.0	345	6.7	1,403	9.7	9	541
US/State Hwys.-Rural	3,969	20.1	72	48.3	766	15.0	3,131	21.6	83	1,321
Co./Local Rds.-Rural	3,279	16.6	45	30.2	861	16.8	2,373	16.4	49	1,297
Interstate - City	684	3.5	1	0.7	174	3.4	509	3.5	1	264
US/State Hwys.-City	3,207	16.3	10	6.7	1,097	21.5	2,100	14.5	11	1,664
City Streets/Alleys	6,839	34.7	12	8.1	1,869	36.6	4,958	34.3	12	2,636
Total	19,735	100	149	100	5,112	100	14,474	100	165	7,723

Source: SD Department of Transportation: Accident Records

FIGURE 3-3 1998 TRAFFIC ACCIDENTS  
BY SYSTEM TYPE

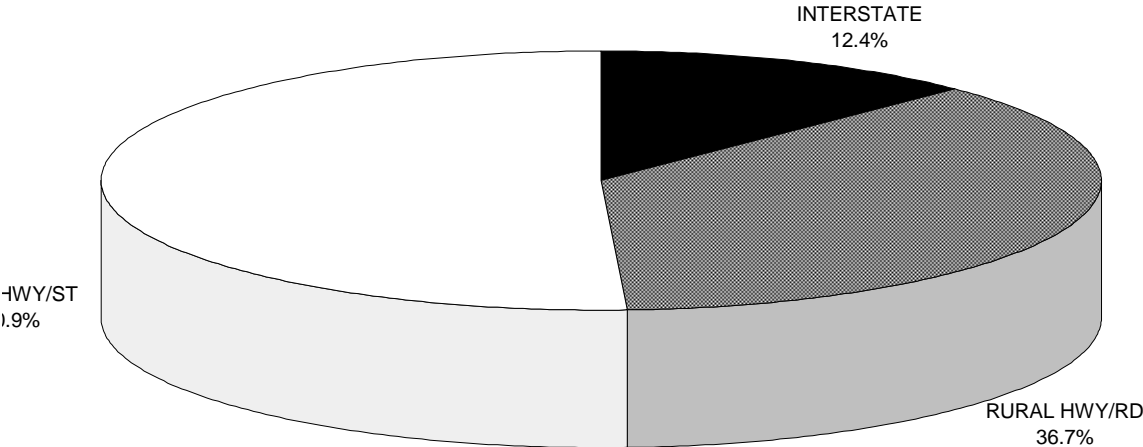
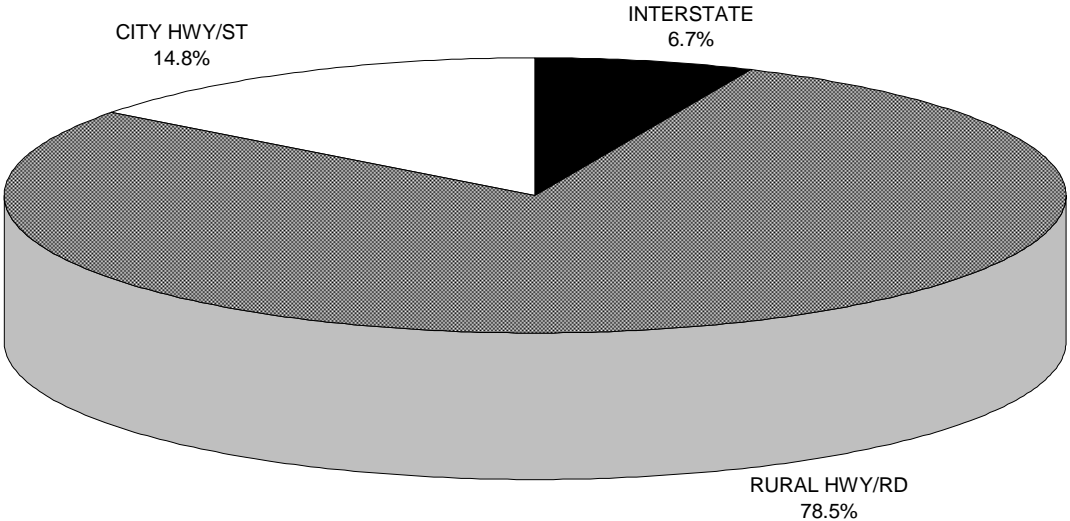


FIGURE 3-4 1998 FATAL TRAFFIC ACCIDENTS  
BY SYSTEM TYPE





## 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 twelve counties (see TABLE 3-9). Each of these counties reported over two percent of all rural fatal and injury accidents. The twelve accounted for 52.0 percent of rural fatal and injury accidents and 20.8 percent of all fatal and injury accidents in South Dakota. Pennington County has 10.0 percent of all rural fatal and injury accidents with Minnehaha and Meade counties accounting for 7.9 and 5.7 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 56.6 percent of the statewide injury accidents and 11.4 percent of the fatal accidents. The two largest cities (Sioux Falls, Rapid City) accounted for 63.5 percent of fatal and injury accidents and 58.0 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 16.6 percent of all reported property damage accidents and 13.0 percent of all fatal and injury accidents. Dry roads were reported in 73.4 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 4.5 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 14.8 percent of all accidents.

TABLE 3-8  
 REPORTED TRAFFIC ACCIDENTS  
 SOUTH DAKOTA COUNTIES  
 1998

<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	101	1	18	82	1	30
BEADLE	374	4	100	270	4	158
BENNETT	31	2	8	21	2	22
BON HOMME	101	0	16	85	0	24
BROOKINGS	672	6	169	497	6	242
BROWN	1,201	4	301	896	4	439
BRULE	193	1	35	157	1	55
BUFFALO	19	1	8	10	1	17
BUTTE	227	1	57	169	1	86
CAMPBELL	46	0	3	43	0	3
CHARLES MIX	124	1	27	96	1	41
CLARK	148	2	16	130	2	23
CLAY	236	0	75	161	0	119
CODINGTON	532	1	146	385	1	202
CORSON	64	2	13	49	2	25
CUSTER	268	1	74	193	1	114
DAVISON	637	3	127	507	4	194
DAY	131	2	44	85	3	70
DEUEL	171	3	31	137	3	38
DEWEY	76	1	17	58	1	21
DOUGLAS	48	1	9	38	1	14
EDMUNDS	136	1	18	117	1	29
FALL RIVER	155	3	50	102	3	72
FAULK	83	1	7	75	1	9
GRANT	171	1	30	140	1	42
GREGORY	70	3	26	41	3	45
HAAKON	66	1	7	58	2	15
HAMLIN	165	2	28	135	2	40
HAND	117	0	16	101	0	24
HANSON	89	1	13	75	1	22
HARDING	42	1	6	35	1	8
HUGHES	438	4	115	319	4	163
HUTCHINSON	139	3	29	107	4	48
HYDE	24	0	8	16	0	17
JACKSON	119	0	33	86	0	51
JERAULD	80	0	11	69	0	15
JONES	73	0	18	55	0	22
KINGSBURY	154	0	28	126	0	38
LAKE	240	0	53	187	0	76
LAWRENCE	620	4	169	447	4	257
LINCOLN	553	6	122	425	7	204
LYMAN	137	2	14	121	3	31
MC COOK	198	3	37	158	3	64
MC PHERSON	19	2	4	13	3	12

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	124	1	16	107	1	22
MEADE	530	4	163	363	4	276
MELLETTE	18	4	4	10	4	11
MINER	98	0	18	80	0	28
MINNEHAHA	4,707	12	1,316	3,379	13	1,894
MOODY	227	1	53	173	1	79
PENNINGTON	2,564	13	910	1,641	14	1,410
PERKINS	82	1	19	62	1	21
POTTER	82	0	13	69	0	15
ROBERTS	183	6	58	119	6	92
SANBORN	90	2	11	77	2	19
SHANNON	109	6	32	71	6	61
SPINK	231	0	36	195	0	50
STANLEY	101	1	21	79	1	36
SULLY	47	2	12	33	7	17
TODD	17	10	3	4	11	18
TRIPP	133	2	21	110	2	31
TURNER	157	2	35	120	2	49
UNION	325	1	75	249	1	104
WALWORTH	127	2	21	104	2	41
YANKTON	462	4	137	321	5	204
ZIEBACH	33	0	2	31	0	4
Total:	19,735	149	5,112	14,474	165	7,723

Source: SD Department of Transportation: Accident Records

TABLE 3-9  
COUNTIES HAVING MORE THAN TWO PERCENT OF THE  
RURAL FATAL & INJURY ACCIDENTS  
1998

<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	210	10.0	6.8
MINNEHAHA	166	7.9	6.1
MEADE	120	5.7	3.2
LAWRENCE	106	5.1	3.3
LINCOLN	92	4.4	4.3
BROOKINGS	76	3.6	2.5
CUSTER	64	3.1	1.8
BROWN	58	2.8	3.1
MOODY	53	2.5	2.4
ROBERTS	51	2.4	2.6
UNION	49	2.3	3.7
YANKTON	47	2.2	1.7

Note: Total Rural Fatal and Injury Accidents: 2,098

\*S.D. Vehicle Miles of Travel Report April 1999

Source: SD Department of Transportation: Accident Records  
SD Department of Transportation: Data Inventory

**FIGURE 3-5 RURAL F&I ACC/VMTS SELECTED COUNTIES - 1998**

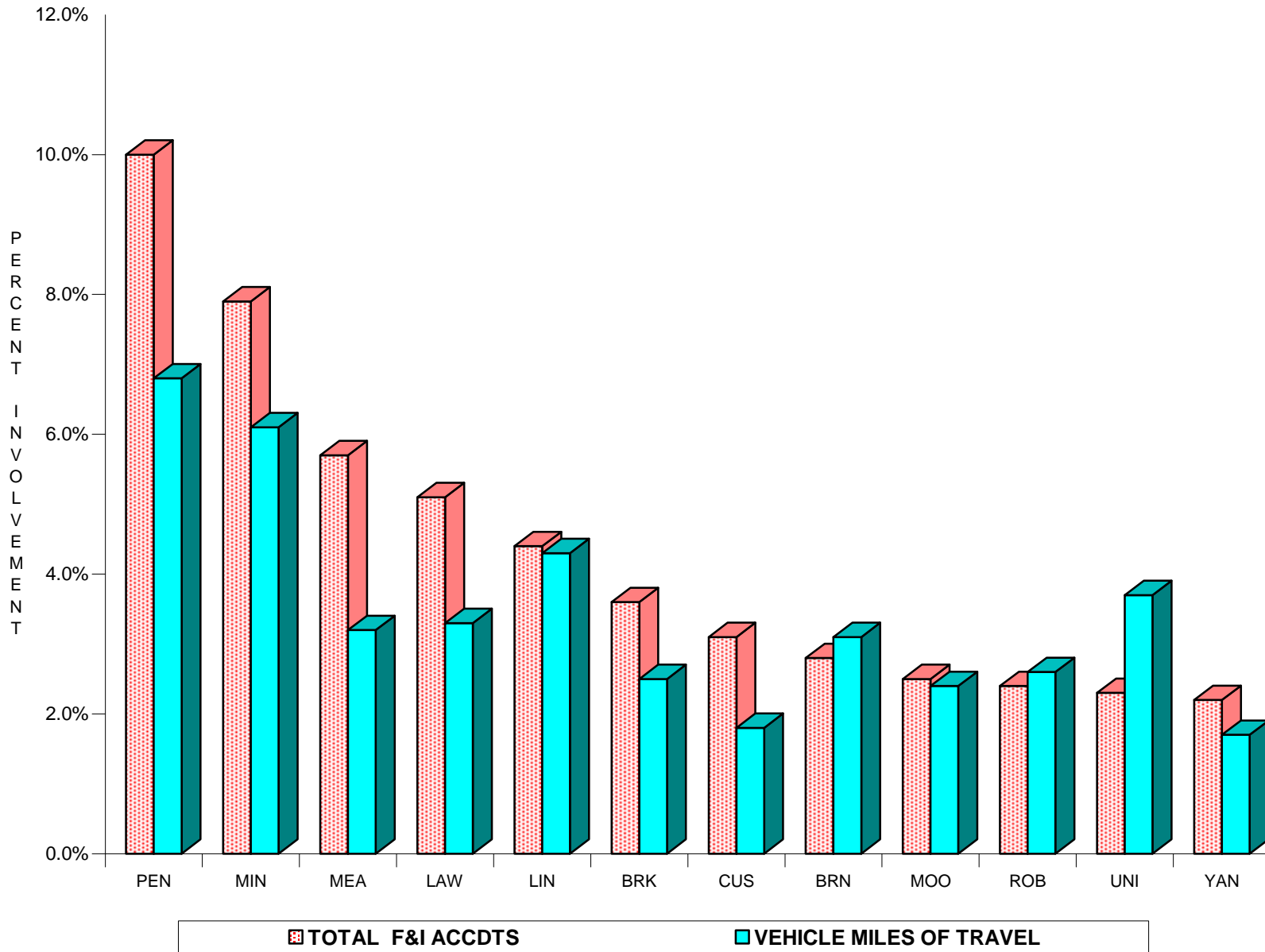


TABLE 3-10  
 TRAFFIC ACCIDENTS SOUTH DAKOTA CITIES  
 POPULATION 2500 AND OVER  
 1998

<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	811	0	239	572	0	344
Belle Fourche	90	0	18	72	0	25
Box Elder	44	0	11	33	0	21
Brandon City	41	1	9	31	2	17
Brookings	338	0	98	240	0	128
Canton	62	0	12	50	0	17
Hot Springs	38	0	13	25	0	17
Huron	204	1	73	130	1	110
Lead	41	0	11	30	0	12
Madison	66	0	20	46	0	25
Milbank	64	0	9	55	0	11
Mitchell	471	0	95	376	0	139
Mobridge	34	1	6	27	1	18
Pierre	357	1	92	264	1	128
Rapid City	1,844	5	692	1,147	5	1,054
Redfield	46	0	8	38	0	9
Sioux Falls	3,793	6	1,147	2,640	6	1,642
Sisseton	47	0	11	36	0	13
Spearfish	155	0	36	119	0	51
Sturgis	150	0	47	103	0	76
Vermillion	130	0	40	90	0	67
Watertown	331	1	114	216	1	157
Winner	23	0	3	20	0	3
Yankton	258	1	91	166	1	142

Source: SD Department of Transportation: Accident Records

TABLE 3-11  
ROADWAY SURFACE CONDITIONS  
1998

	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Dry	14,129	71.6	124	83.2	3,740	73.2	10,265	70.9
Wet	2,306	11.7	11	7.4	656	12.8	1,639	11.3
Ice	1,357	6.9	5	3.4	308	6.0	1,044	7.2
Frost	156	0.8	3	2.0	61	1.2	92	0.6
Slush	416	2.1	1	0.7	105	2.1	310	2.1
Snow	1,165	5.9	3	2.0	200	3.9	962	6.6
Mud	28	0.1	0	0.0	13	0.3	15	0.1
Other	40	0.2	1	0.7	20	0.4	19	0.1
Unknown	138	0.7	1	0.7	9	0.2	128	0.9
<b>Total</b>	<b>19,735</b>	<b>100</b>	<b>149</b>	<b>100</b>	<b>5,112</b>	<b>100</b>	<b>14,474</b>	<b>100</b>

Source: SD Department of Transportation: Accident Records

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

The peak 3 hour period for fatal and property damage only accidents was 4:00-6:59 p.m. Thirty-three (22.1%) of the fatal accidents and 3,181 (22.0%) of the property damage only accidents occurred during this time. The peak 3 hour period for injury accidents was 3:00-5:59 p.m. when 1,317 (25.8%) of the accidents occurred. The hour of 6:00-6:59 p.m. tallied the most fatal accidents (14) (see TABLE 3-12).

The month of August had the most fatal accidents (21) and the most injury accidents (607) during 1998, while the month of November had the most property damage only accidents. The 21 fatal accidents during August represented 14.1 percent of the total and the 607 injury accidents represented 11.9 percent for 1998. The 1,925 property damage only accidents during November represent 13.3 percent of the total for 1998 (see TABLE 3-13).

The day of the week Friday accounts for over seventeen percent of the total accidents (3,367), eighteen percent of the injury accidents (919) and nearly seventeen percent of the property damage only accidents (2,426). Thursday and Saturday accounted for 26 fatal accidents each day or nearly 35 percent of the total for 1998 (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  
1998

<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	415	4	100	311	4	136
1:00 AM	349	7	88	254	7	128
2:00 AM	323	8	102	213	8	147
3:00 AM	216	3	68	145	4	99
4:00 AM	168	2	37	129	2	52
5:00 AM	332	2	67	263	2	80
6:00 AM	551	4	94	453	5	143
7:00 AM	980	7	229	744	7	320
8:00 AM	774	10	204	560	11	298
9:00 AM	631	3	165	463	3	250
10:00 AM	693	2	184	507	2	275
11:00 AM	897	7	251	639	7	365
12:00 PM	1,033	5	339	689	5	500
1:00 PM	974	6	304	664	6	459
2:00 PM	1,029	8	311	710	9	459
3:00 PM	1,484	4	485	995	4	774
4:00 PM	1,384	11	424	949	11	630
5:00 PM	1,580	8	408	1,164	8	624
6:00 PM	1,387	14	305	1,068	18	479
7:00 PM	1,079	4	242	833	4	395
8:00 PM	855	9	186	660	11	287
9:00 PM	966	6	171	789	7	267
10:00 PM	811	6	160	645	7	267
11:00 PM	572	5	130	437	9	208
Unknown	252	4	58	190	4	81
Total	19,735	149	5,112	14,474	165	7,723

Source: SD Department of Transportation: Accident Records



TABLE 3-13  
ACCIDENTS BY MONTH  
1998

<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	1,649	10	356	1,283	12	483
FEBRUARY	1,288	10	296	982	10	455
MARCH	1,606	7	406	1,193	8	596
APRIL	1,190	15	351	824	15	549
MAY	1,537	10	464	1,063	11	715
JUNE	1,553	14	411	1,128	15	652
JULY	1,601	16	493	1,092	18	778
AUGUST	1,694	21	607	1,066	22	917
SEPTEMBER	1,463	13	429	1,021	16	629
OCTOBER	1,877	13	460	1,404	17	690
NOVEMBER	2,367	9	433	1,925	10	655
DECEMBER	1,910	11	406	1,493	11	604
Total	19,735	149	5,112	14,474	165	7,723

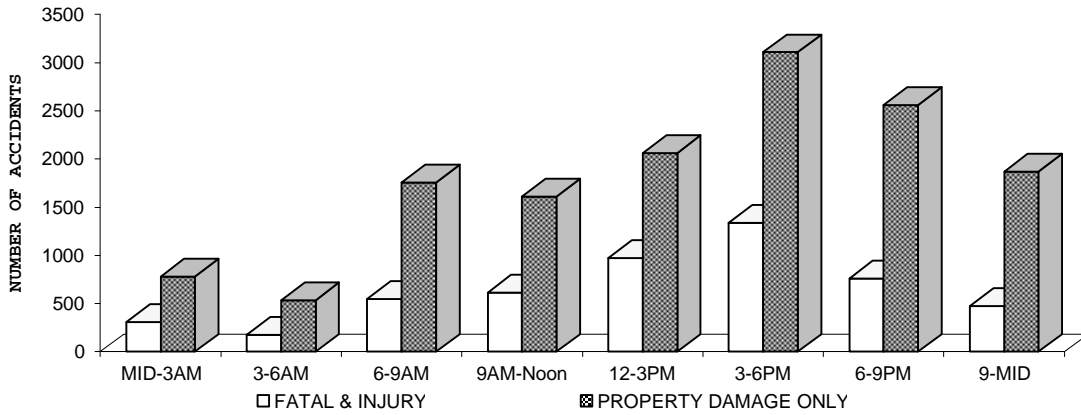
Source: SD Department of Transportation: Accident Records

TABLE 3-14  
ACCIDENTS BY DAY OF WEEK  
1998

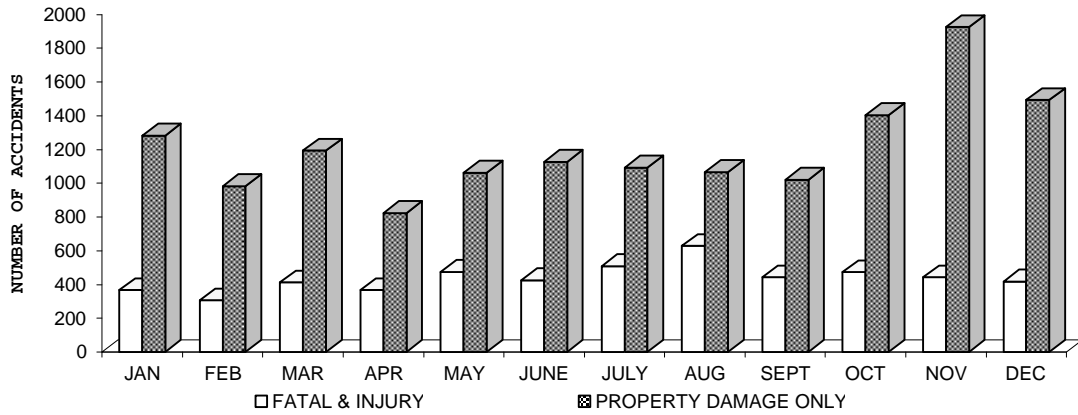
<u>Day</u>	<u>Total Accd.</u>	<u>Fatal Accd.</u>	<u>Injury Accd.</u>	<u>PDO Accd.</u>	<u>Fatalities</u>	<u>Injuries</u>
SUNDAY	2,274	22	566	1,686	24	887
MONDAY	2,853	20	727	2,106	26	1,069
TUESDAY	2,770	16	723	2,031	19	1,030
WEDNESDAY	2,898	17	737	2,144	19	1,083
THURSDAY	2,779	26	745	2,008	28	1,115
FRIDAY	3,367	22	919	2,426	22	1,399
SATURDAY	2,794	26	695	2,073	27	1,140
Total	19,735	149	5,112	14,474	165	7,723

Source: SD Department of Transportation: Accident Records

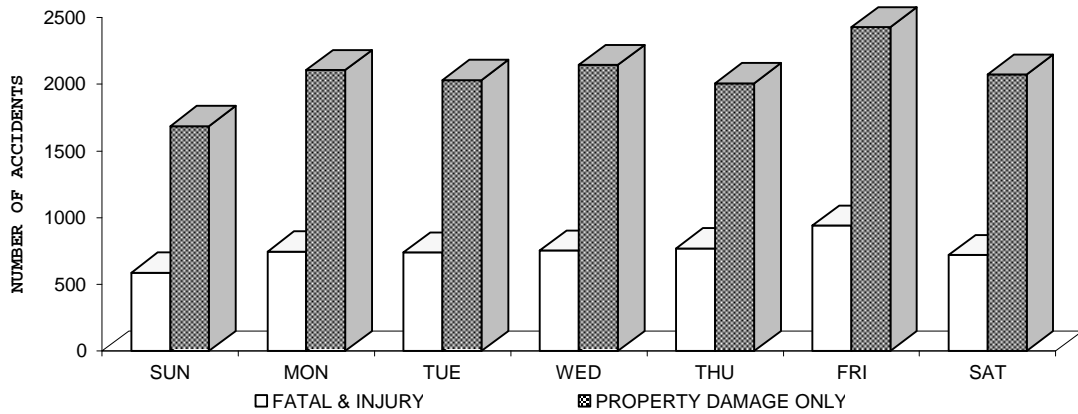
**FIGURE 3-6 ACCIDENTS BY TIME OF DAY 1998**



**FIGURE 3-7 ACCIDENTS BY MONTH 1998**



**FIGURE 3-8 ACCIDENTS BY DAY OF WEEK 1998**



## Drivers

There were 30,119 motor vehicle drivers in the 19,735 reported motor vehicle accidents, including 214 drivers in fatal accidents and 8,535 drivers in injury accidents. One hundred-five drivers were killed, which is 63.6 percent of all persons killed in motor vehicle accidents and 64.4 percent or 4,973 of the 7,723 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 34.6 percent of the drivers were under 25 years of age and 52.7 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 33.6 percent of the drivers involved in fatal accidents and 37.2 percent of the drivers in injury accidents. Drivers under the age of 35 make up 47.7 percent of the drivers in fatal accidents and 55.3 percent of the drivers in injury accidents. Thirty-seven (17.3%) of the drivers in fatal accidents were 35-44 years of age (see TABLE 3-15).

TABLE 3-15  
AGE OF DRIVERS IN ACCIDENTS  
1998

<u>Age</u>	Drivers In All Accidents		Drivers In Fatal Accidents		Drivers In Injury Accidents		Drivers In PDO Accidents	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
6 - 13	27	0.1	3	1.4	10	0.1	14	0.1
14 - 15	1,156	3.8	10	4.7	356	4.2	790	3.7
16 - 17	2,778	9.2	13	6.1	885	10.4	1,880	8.8
18	1,425	4.7	8	3.7	435	5.1	982	4.6
19	1,090	3.6	6	2.8	339	4.0	745	3.5
20	974	3.2	9	4.2	289	3.4	676	3.2
21 - 24	2,958	9.8	23	10.7	859	10.1	2,076	9.7
25 - 34	5,477	18.2	30	14.0	1,546	18.1	3,901	18.3
35 - 44	5,478	18.2	37	17.3	1,468	17.2	3,973	18.6
45 - 54	3,688	12.2	31	14.5	980	11.5	2,677	12.5
55 - 64	2,000	6.6	14	6.5	557	6.5	1,429	6.7
65 - Over	2,803	9.3	28	13.1	755	8.8	2,020	9.5
Unknown	265	0.9	2	0.9	56	0.7	207	1.0
Total	30,119	100	214	100	8,535	100	21,370	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 1,412 drinking drivers in all accidents which is 4.7 percent of all drivers in accidents. Fifty-seven or 26.6 percent of drivers in fatal accidents had been drinking while 7.8 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 43.9 percent of the drinking drivers in fatal accidents and 41.8 percent of the drinking drivers in injury accidents. Those drivers under 35 years of age accounted for 63.2 percent of the drinking drivers in fatal accidents and 65.3 percent of the drinking drivers in all accidents.

TABLE 3-16  
AGE OF DRINKING DRIVERS IN ACCIDENTS  
1998

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	3	5.3	3	0.5	6	0.9
16 - 17	77	5.5	2	3.5	44	6.6	31	4.5
18	75	5.3	1	1.8	40	6.0	34	4.9
19	60	4.2	2	3.5	35	5.3	23	3.3
20	63	4.5	4	7.0	31	4.7	28	4.0
21 - 24	268	19.0	13	22.8	124	18.7	131	18.9
25 - 34	367	26.0	11	19.3	165	24.9	191	27.6
35 - 44	297	21.0	13	22.8	134	20.2	150	21.7
45 - 54	111	7.9	6	10.5	45	6.8	60	8.7
55 - 64	39	2.8	1	1.8	22	3.3	16	2.3
65 - Over	36	2.5	0	0.0	18	2.7	18	2.6
Unknown	7	0.5	1	1.8	2	0.3	4	0.6
Total	1,412	100	57	100	663	100	692	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. Licensed drivers in South Dakota under 25 years of age represent 18.8 percent of the total licensed drivers, 41.9 percent of the drinking drivers in fatal and injury accidents and 52.9 percent of the speeding drivers in fatal and injury accidents. Over sixty-six percent (66.4) of the drinking drivers and 72.5 percent of the speeding drivers in fatal and injury accidents were under 35 years of age while drivers under 35 years of age constitute 35.7 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  
1998

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	13	0.1	0	0.0	6	0.5
14 - 15	2.2	366	4.2	6	0.8	72	6.5
16 - 17	3.7	898	10.3	46	6.4	156	14.0
18	2.0	443	5.1	41	5.7	83	7.5
19	2.0	345	3.9	37	5.1	69	6.2
20	1.9	298	3.4	35	4.9	54	4.9
21 - 24	7.0	882	10.1	137	19.0	148	13.3
25 - 34	16.9	1,576	18.0	176	24.4	218	19.6
35 - 44	20.5	1,505	17.2	147	20.4	148	13.3
45 - 54	16.5	1,011	11.6	51	7.1	81	7.3
55 - 64	10.8	571	6.5	23	3.2	33	3.0
65 - Over	16.6	783	8.9	18	2.5	39	3.5
Unknown	0.0	58	0.7	3	0.4	5	0.4
TOTAL	100	8,749	100	720	100	1,112	100

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

FIGURE 3-9 DRIVERS BY AGE GROUP 1998  
 Fatal and Injury Accd. Involved Drivers

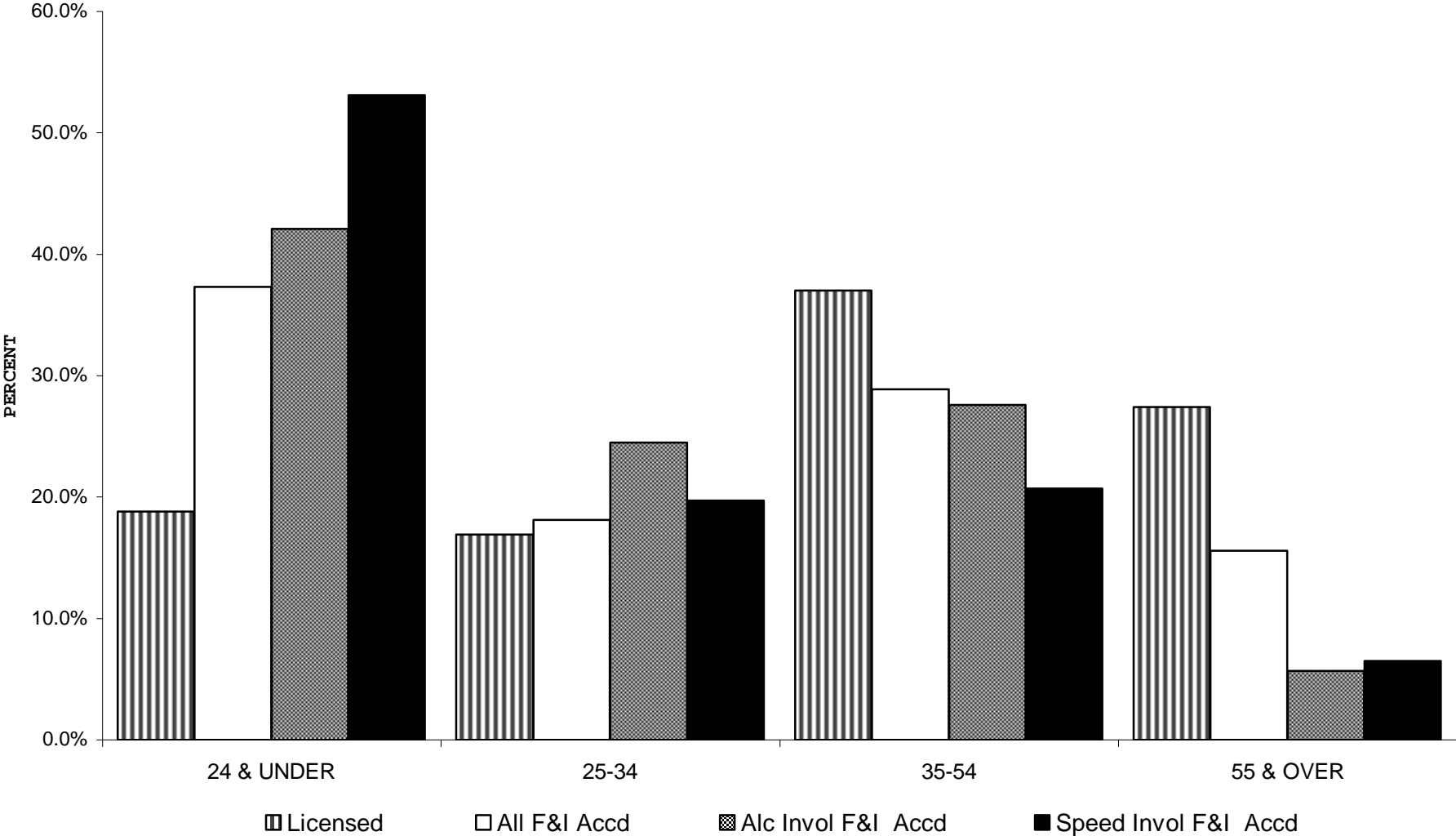
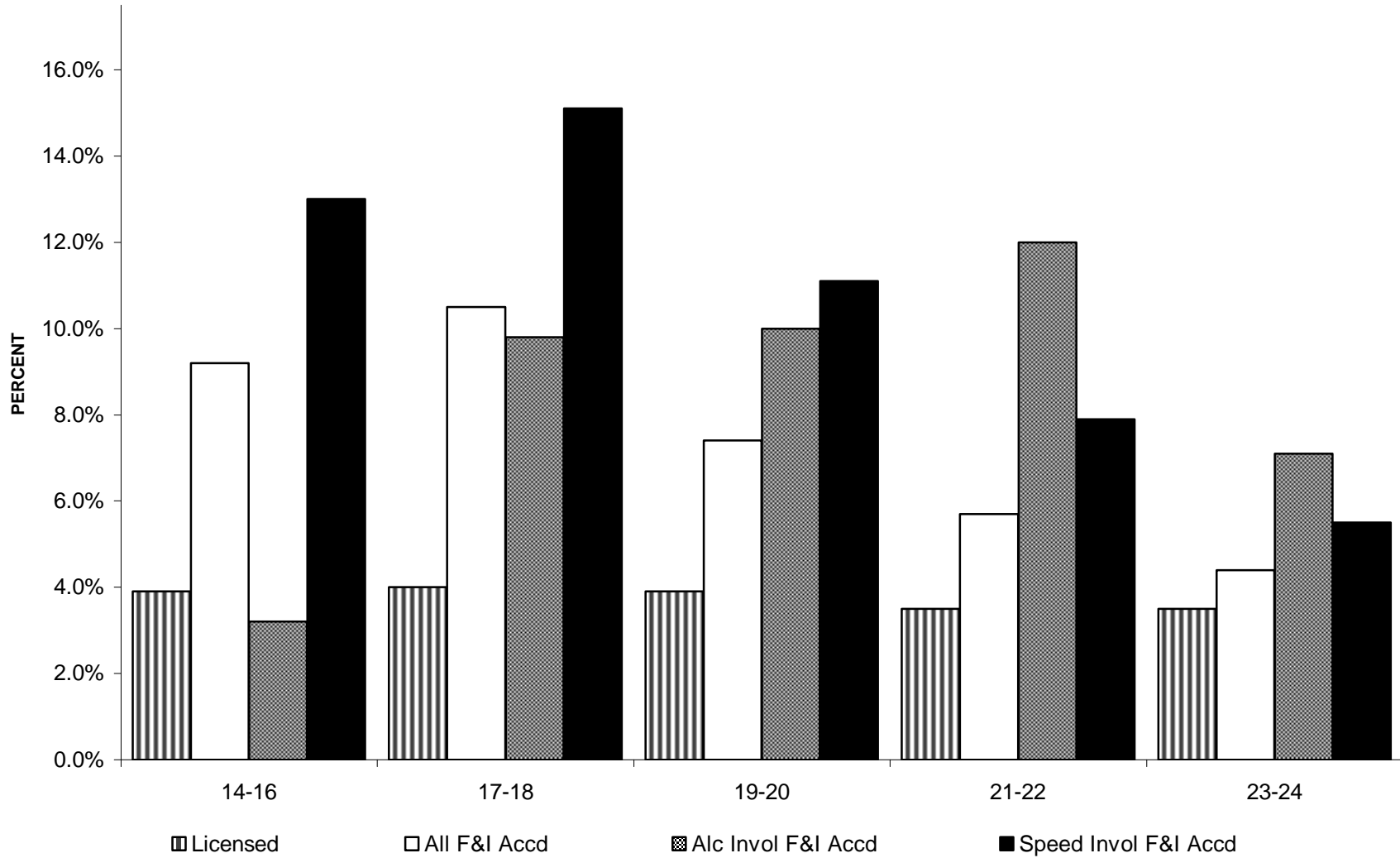


FIGURE 3-10 YOUNG DRIVERS 1998  
FATAL & INJURY ACCIDENT-INVOLVED DRIVERS



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 1998. It was indicated that the drinking of 57 or 26.6 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  
1998

	Total Accidents		Fatal Accidents		Injury Accidents		PDO Accidents	
	No.	%	No.	%	No.	%	No.	%
Drinking	1,412	4.7	57	26.6	663	7.8	692	3.2
Exceeded Speed Limit	946	3.1	49	22.9	437	5.1	460	2.2
Wrong Side of Road	418	1.4	29	13.6	160	1.9	229	1.1
Exceeded Safe Speed But Not Limit	2,041	6.8	16	7.5	610	7.1	1,415	6.6
Failed to Yield to Vehicle	3,793	12.6	14	6.5	1,248	14.6	2,531	11.8
Failed to Stop for Stop Sign or Flashing Red	424	1.4	12	5.6	185	2.2	227	1.1
Fell Asleep	309	1.0	9	4.2	141	1.7	159	0.7
Improper Passing	241	0.8	6	2.8	63	0.7	172	0.8
Distracted by Object/ Person in Car	758	2.5	0	0.0	303	3.6	455	2.1
Improper Turn	641	2.1	1	0.5	154	1.8	486	2.3
Following Too Closely	1,828	6.1	1	0.5	653	7.7	1,174	5.5
Improper Backing	632	2.1	0	0.0	35	0.4	597	2.8
Other*	2,572	8.5	18	8.4	876	10.3	1,678	7.9
Unknown	665	2.2	17	7.9	192	2.2	456	2.1
<b>Total Drivers</b>	<b>30,119</b>		<b>214</b>		<b>8,535</b>		<b>21,370</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, illness, and illegally in roadway.

Source: SD Department of Transportation: Accident Records

## Motorcycles

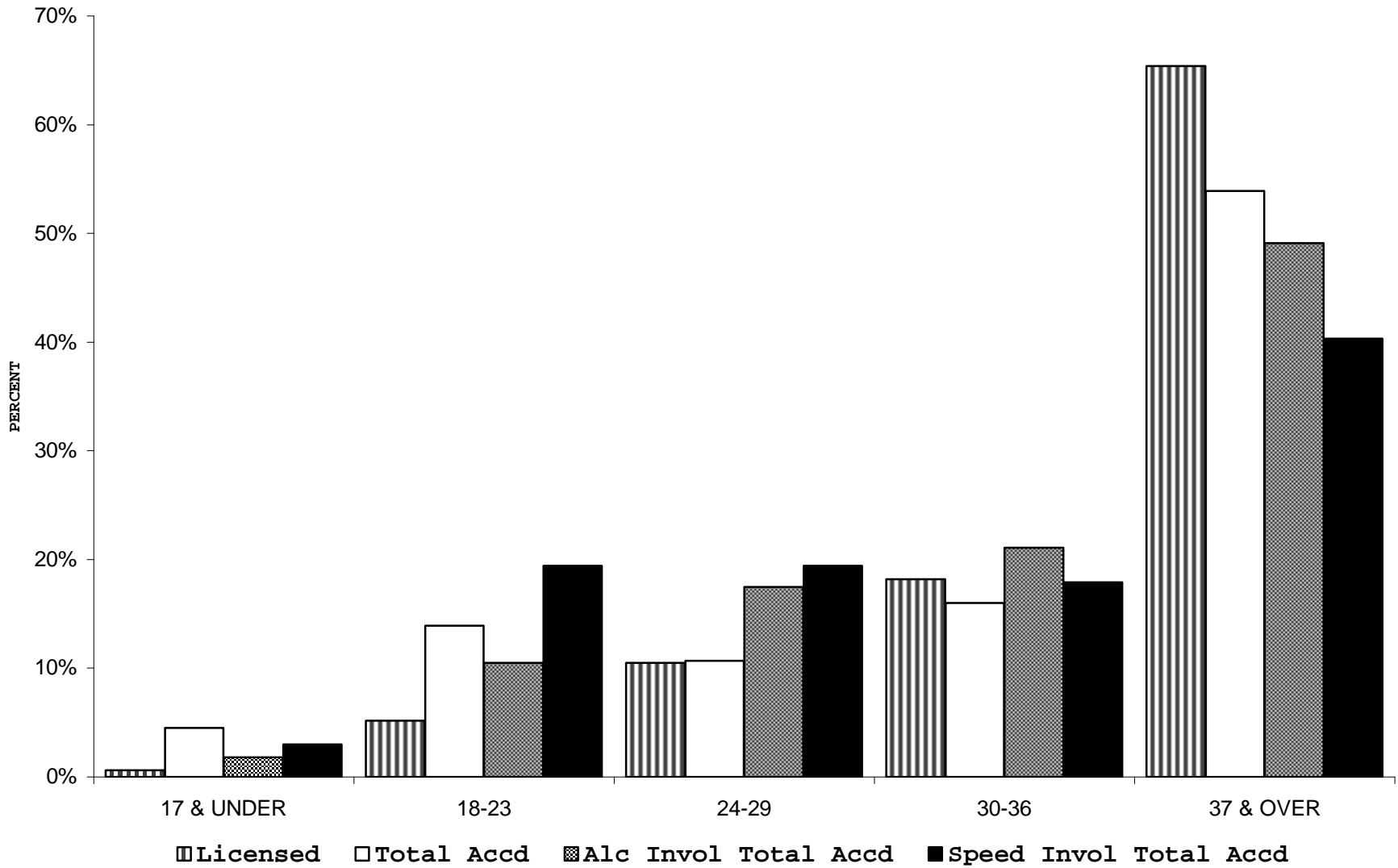
Motorcycle accidents constitute 1.8 percent of all accidents, 6.0 percent of all fatal accidents, and 6.0 percent of all injury accidents. There were 9 people killed and 373 injured on motorcycles in the 358 reported motorcycle accidents during 1998 (see TABLE 2.7). The young motorcycle driver is over 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, 7.9 percent of drivers involved in motorcycle accidents, and 9.0 percent of the speeding drivers involved in motorcycle accidents. Fifteen (22.4%) of the speeding drivers involved in motorcycle accidents were 20 through 25 years of age. Four (7.0%) of the drinking drivers were under age 22 (see TABLE 3-19 and FIGURE 3-11).

TABLE 3-19  
MOTORCYCLISTS BY AGE GROUP  
1998

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	0.5	0	0.0	0	0.0
14 - 15	55	0.1	4	1.0	0	0.0	0	0.0
16 - 17	269	0.5	11	2.9	1	1.8	2	3.0
18 - 19	580	1.1	13	3.4	0	0.0	4	6.0
20 - 21	864	1.7	24	6.3	3	5.3	6	9.0
22 - 23	1,245	2.4	16	4.2	3	5.3	3	4.5
24 - 25	1,508	2.9	8	2.1	2	3.5	6	9.0
26 - 27	1,784	3.5	14	3.7	5	8.8	4	6.0
28 - 29	2,094	4.1	19	5.0	3	5.3	3	4.5
30 - 31	2,217	4.3	10	2.6	1	1.8	1	1.5
32 - 36	7,112	13.9	51	13.4	11	19.3	11	16.4
37 - 41	8,734	17.0	47	12.3	7	12.3	6	9.0
42 - 51	14,653	28.6	92	24.1	15	26.3	15	22.4
52 - Over	10,192	19.9	67	17.5	6	10.5	6	9.0
Unknown	0	0.0	4	1.0	0	0.0	0	0.0
Total	51,307	100	382	100	57	100	67	100

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

FIGURE 3-11 MOTORCYCLISTS 1998  
ACCIDENT INVOLVED MOTORCYCLE & MOPED DRIVERS



Helmets were used by 93 or 25.1 percent of the motorcycle drivers in accidents while 278 or 74.9 percent did not wear a helmet (see TABLE 3-20). Seven motorcycle drivers and two motorcycle passengers were killed during 1998. Three of the motorcycle drivers and one of the passengers wore eye protection only, one driver wore helmet and eye protection, 2 killed drivers and one passenger did not wear safety protection. One killed driver was reported with unknown safety equipment usage.

TABLE 3-20  
HELMET USE BY MOTORCYCLE DRIVERS IN ACCIDENTS  
1998

<u>Age</u>	Helmet Used		Helmet Not Used	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
6 - 13	1	50.0	1	50.0
14 - 15	1	25.0	3	75.0
16 - 17	7	63.6	4	36.4
18 - 20	4	16.0	21	84.0
21 - 24	5	15.6	27	84.4
25 - 34	18	23.1	60	76.9
35 - 44	19	21.6	69	78.4
45 - Over	38	29.7	90	70.3
Unknown	0	0.0	3	100.0
Total	93	25.1	278	74.9

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 was not used.

Source: SD Department of Transportation: Accident Records

## Pedestrians

There were seven pedestrian deaths and 137 injuries in motor vehicle accidents during 1998 (see TABLE 3-21). The youngest pedestrian killed was two years old, while the oldest was 82. Of the injured pedestrians, 47.4 percent were under 20 years of age. Cities accounted for 87.6 percent of the pedestrian injuries and 42.9 percent of the fatalities (see TABLE 3-23). Of the 7 pedestrians killed, 5 were male and 2 female. Of the 137 injured, 74 were male and 63 female.

The 137 pedestrian injuries for 1998 was a 10.5 percent increase from 1997's total of 124 (see TABLE 2-8). Officers reported that three of the 7 pedestrians killed had been drinking alcohol (see TABLE 3-22).

TABLE 3-21  
AGE OF PEDESTRIANS IN TRAFFIC ACCIDENTS  
1998

<u>Age</u>	<u>Fatalities</u>		<u>Injuries</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
0 - 5	1	14.3	17	12.4
6 - 13	1	14.3	29	21.2
14 - 19	0	0.0	19	13.9
20 - 24	1	14.3	7	5.1
25 - 34	2	28.6	14	10.2
35 - 44	0	0.0	18	13.1
45 - 54	1	14.3	15	10.9
55 - 64	0	0.0	6	4.4
65 - Over	1	14.3	11	8.0
Unknown	0	0.0	1	0.7
Total	7	100	137	100

Source: SD Department of Transportation: Accident Records

TABLE 3-22  
ALCOHOL INVOLVEMENT BY PEDESTRIANS  
1998

<u>Alcohol Involvement</u>	<u>Fatalities</u>		<u>Injuries</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Alcohol or Drugs	3	42.9	17	12.4
No Alcohol	3	42.9	111	81.0
Unknown	1	14.3	9	6.6
Total	7	100	137	100

Source: SD Department of Transportation: Accident Records

TABLE 3-23  
RURAL vs. CITY PEDESTRIAN ACCIDENTS  
1998

	<u>Fatalities</u>	<u>Injuries</u>
Rural	4	17
City	3	120
Total	7	137

Source: SD Department of Transportation: Accident Records

## Bicycles

During 1998 there were two bicyclists killed (see TABLE 2-9). There were 132 bicycle drivers injured in reported motor vehicle accidents during 1998 (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 33.1 percent of the bicycle drivers. Fifty-two of the bicycle drivers in accidents had no contributing circumstances. The yearly 1978-1998 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

TABLE 3-24  
AGE OF BICYCLE DRIVERS IN TRAFFIC ACCIDENTS  
1998

<u>Age</u>	<u>Fatalities Number</u>	<u>Injuries Number</u>	<u>%</u>
0 - 5	0	4	3.0
6 - 13	0	75	56.8
14 - 19	0	25	18.9
20 - 24	0	6	4.5
25 - 34	1	7	5.3
35 - 44	0	6	4.5
45 - 54	0	5	3.8
55 - 64	0	2	1.5
65 - Over	1	2	1.5
Total	2	132	100

Source: SD Department of Transportation: Accident Records

#### **IV. IMPORTANT EVENTS AND DATES**

- March 1, 1974 - Speed limit lowered to 55 miles per hour.
- July 1, 1976 - Right turn on red is allowed unless prohibited by a sign reading "No right turn on red".
- July 1, 1977 - Helmet law repealed for motorcycle drivers and passengers age 18 and over.
- April 1, 1979 - Motor Vehicle Safety Inspection repealed.
- March 1, 1982 - Driving While Intoxicated Enforcement campaign began.
- July 1, 1984 - Child safety restraints became a law for children under age 5.
- April 15, 1987 - Speed limit on rural interstate raised to 65 miles per hour.
- April 1, 1988 - Drinking age raised to 21.
- April 1, 1992 - Commercial drivers license required for commercial vehicle operators.
- January 1, 1995 - Safety belt use law became effective.
- April 1, 1996 - Speed limit raised to 75 miles per hour on rural Interstate and 65 on most US and State Highways.
- January 1, 1999 - Graduated Driver License law implemented.



#### 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 1997, National Safety Council)

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