2009
South Dakota
Motor Vehicle Traffic Crash Summary

Prepared By
Department of Public Safety
Office of Highway Safety/Accident Records

M. Michael Rounds
Governor

MARKS
SPOT
THE
WHY DIE?

TABLE OF CONTENTS

I. INTRODUCTION 1

South Dakota Statistical Summary 2

II. HISTORICAL TRENDS 3

Motor Vehicle Crashes 3
Alcohol Involvement 6
Restraint Usage 10
Cycle and Pedestrian Crashes 13
Holiday Counts 16
Severity of Injuries 18
Sex of Drivers 20

III. MOTOR VEHICLE CRASH PROFILE 21

Introduction 21
First Harmful Event 26
Manner of Collision 27
Highway System 28
County Summary 32
City Summary 34
Roadway Surface Conditions 35
Crashes by Time of Day, Month, and Day of Week 36
Drivers 39
Contributing Circumstances 44
Motorcycles 46
Pedestrians 49
Bicycles 51

IV. IMPORTANT EVENTS AND DATES 52

V. GLOSSARY OF TERMS 53

LIST OF TABLES

2-1 Fatality Rate Comparison 3
2-2 South Dakota Yearly Comparison of Motor Vehicle Traffic Fatalities, Injuries, Crashes, Miles Traveled, and Registered Motor Vehicles 4
2-3 Alcohol Involved Crashes as Percent of All Crashes 6
2-3A Persons Killed in Alcohol Involved Crashes by Age 6
2-4 Crash and Arrest Activity 8
2-5 Safety Restraint Usage Killed Occupants 10
2-5A Safety Restraint Usage Injured Occupants 10
2-5B Killed & Injured Motor Vehicle Occupants by Ejection Status 10
2-6 Fatalities and Injuries to Motor Vehicle Occupants Under Five Years of Age 12
2-6A Safety Restraint Usage Under 5 Years of Age 12
2-7 Motorcycle Crashes 13
2-8 Pedestrian Fatalities and Injuries 15
2-9 Bicycle Fatalities and Injuries 15
2-10 Crashes During Holidays 16-17
2-11 Fatalities and Injuries of Total Persons 18
2-12 Fatalities and Injuries of Total Drivers 18
2-13 Fatalities and Injuries of Total Passengers 19
2-14 Fatalities and Injuries of Total Bicycle Drivers 19
2-15 Fatalities and Injuries of Total Pedestrians 19
2-16 Sex of Drivers 20
3-1 Fatalities and Severity of Injuries of Drivers, Passengers, Pedestrians, and Bicyclists 21
3-2 Fatalities and Injuries by Mode of Transportation 22
3-3 Vehicle Types Involved in Crashes 24
3-4 Fatalities and Injuries by Age Group 25
3-5 First Harmful Event 26
3-6 Manner of Collision for Crashes Involving a Collision Between Two or More Motor Vehicles 27
3-7 Crashes by Type of Highway 28
3-8 Reported Traffic Crashes - South Dakota Counties 30
3-8A Reported Alcohol Traffic Crashes - South Dakota Counties 31
3-9 Counties Having More Than Two Percent of the Rural Fatal and Injury Crashes 32
3-10 Traffic Crashes - South Dakota Cities Population 2500 and Over 34
3-11 Roadway Surface Conditions 35
3-12 Crashes by Time of Day 36
3-13 Crashes by Month 37
3-14 Crashes by Day of Week 37
3-15 Age of Drivers in Crashes 39
3-16 Age of Drinking Drivers in Crashes 40
3-17 Licensed Drivers and Fatal and Injury Crash-Involved Drivers by Age 41
3-18 Motor Vehicle Driver Contributing Circumstances 45
3-19 Motorcyclists by Age Group 46
3-20 Helmet Use by Motorcycle Drivers in Crashes 48
3-21 Age of Pedestrians in Traffic Crashes 49
3-22 Alcohol Involvement by Pedestrians 50
3-23 Rural vs. City Pedestrian Crashes 50
3-24 Age of Bicycle Drivers in Traffic Crashes 51

LIST OF FIGURES

2-1 Fatality Rate Comparison 3

2-2 Traffic Fatalities - Alcohol Related vs. Non-Alcohol Related 7

2-3 Traffic Injuries - Alcohol Related vs. Non-Alcohol Related 7

2-4 Fatal and Injury Crashes and DWIs 9

2-5 Fatal Crashes 9

2-6 Safety Equipment Usage Killed Occupants 11

2-7 Safety Equipment Usage Injured Occupants 11

3-1 Fatalities by Travel Mode 23

3-2 Injuries by Travel Mode 23

3-3 Traffic Crashes by Highway System Type 29

3-4 Fatal Traffic Crashes by Highway System Type 29

3-5 Rural Fatal and Injury Crashes/Vehicle Miles Traveled 33

3-6 Crashes by Time of Day 38

3-7 Crashes by Month 38

3-8 Crashes by Day of Week 38

3-9 Drivers by Age Group - Fatal and Injury Crash-Involved Drivers 42

3-10 Young Drivers - Fatal and Injury Crash-Involved Drivers 43

3-11 Motorcyclists - Crash-Involved Motorcycle and Moped Drivers 47

I. INTRODUCTION

The Motor Vehicle Traffic Crash Summary is divided into two main sections, Historical Trends and 2009 Motor Vehicle Traffic Crash Profile. The Historical Trend section provides information on alcohol involvement in motor vehicle crashes, severity of injury by record type and sex of drivers involved in crashes. This section also provides data on restraint usage and crash trends. The 2009 Traffic Crash Profile section details the crash picture for 2009 as well as a glossary of terms.

The South Dakota Crash Data System conforms to standards established by the Model Minimum Uniform Crash Criteria (MMUCC) guidelines. The purpose of MMUCC is to provide a standardized data set for describing crashes of motor vehicles that generates the necessary information to improve highway safety.

By utilizing MMUCC, the highway safety community is making an explicit statement that comparable data from all states are crucial to our ability to identify problems and make improvements.

Information collected from crash reports is merged into a central computerized crash database. This data provides the basic information necessary for developing effective highway and traffic safety programs. The crash data is used by local, state and federal agencies to:

- Identify highway and traffic safety problem areas.
- Initiate and evaluate the effectiveness of laws and policies intended to reduce deaths, injuries, injury severity and costs.
- Assess the relationship between vehicle and highway characteristics, crash propensity, and injury severity to support either the development of countermeasures or their evaluation.

The majority of the information in this book is compiled by the Office of Accident Records within the Department of Public Safety. Current state law requires an accident report to 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 one thousand dollars or more to any one person's property or two thousand dollars accumulated damage per accident.**

Law enforcement agencies provide the accident reports to the Office of Accident Records. These individual reports are available to the public for a search fee of four dollars.

FOR FURTHER INFORMATION:

Office of Accident Records
118 West Capitol Avenue
Pierre SD 57501-2000

Phone: 605.773.4156
Facsimile: 605.773.6893
E-mail: arinfo@state.sd.us

SOUTH DAKOTA TRAFFIC STATISTICAL SUMMARY
2008-2009

	2008	2009
➢ NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC CRASHES	15,907	16,994
➢ AMOUNT OF MOTOR VEHICLE TRAFFIC CRASH PROPERTY DAMAGE	$77 MILLION	$82 MILLION
➢ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH INJURIES	5,708	5,704
➢ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH FATALITIES	121	131
➢ FATALITY RATE PER 100,000,000 MILES OF TRAVEL	1.43	1.50
➢ PERCENT OF DRIVERS IN FATAL CRASHES WHO HAD BEEN DRINKING	29.3%	35.6%
➢ NUMBER KILLED IN ALCOHOL-RELATED CRASHES	48	61
➢ NUMBER INJURED IN ALCOHOL-RELATED CRASHES	659	692
➢ NUMBER OF PEDESTRIANS KILLED	10	4
➢ NUMBER OF MOTORCYCLISTS KILLED	15	16
➢ NUMBER OF BICYCLISTS KILLED	0	0
➢ PERCENT OF LICENSED DRIVERS UNDER 25	16.5%	16.2%
➢ PERCENT OF CRASH-INVOLVED SPEEDING DRIVERS UNDER 25	55.9%	51.8%
➢ PERCENT OF CRASH-INVOLVED DRINKING DRIVERS UNDER 25	38.9%	35.4%
➢ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	94	111
➢ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES WHO WERE WEARING A SAFETY RESTRAINT *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	27	28
➢ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE IN MOTOR VEHICLE CRASHES WHO WERE KILLED	3	1
WHO WERE INJURED *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	7	14
➢ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE WITH CHILD RESTRAINT NOT USED PROPERLY WHO WERE KILLED	1	0
WHO WERE INJURED *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	2	5
➢ ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC CRASHES	$320 MILLION	$358 MILLION

Source: SD Department of Public Safety – Office of Accident Records

II. HISTORICAL TRENDS

Motor Vehicle Crashes

The preliminary death rates per 100 million vehicle miles traveled from 2000-2009 for South Dakota, states surrounding South Dakota and the nation are shown in TABLE 2-1. FIGURE 2-1 compares South Dakota with the national rate and two comparable rural states, North Dakota and Wyoming.

TABLE 2-1
FATALITY RATE COMPARISON
2000-2009

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
South Dakota	2.1	2.0	2.2	2.4	2.3	2.3	2.3	1.7	1.4	**1.5**
Iowa	1.5	1.5	1.3	1.4	1.2	1.4	1.4	1.4	1.4	**1.2**
Minnesota	1.2	1.1	1.2	1.2	1.0	1.0	0.9	0.9	0.8	**0.8**
Montana	2.4	2.3	2.6	2.4	2.0	2.3	2.3	2.4	2.1	**2.1**
Nebraska	1.5	1.4	1.6	1.5	1.3	1.4	1.4	1.3	1.1	**1.0**
North Dakota	1.2	1.5	1.3	1.4	1.3	1.6	1.4	1.4	1.3	**1.8**
Wyoming	1.9	2.2	2.0	1.8	1.8	1.9	2.1	1.6	1.7	**1.4**
National	1.5	1.5	1.5	1.5	1.4	1.5	1.4	1.3	1.3	**1.2**

Note: Death Rate is the number of traffic fatalities per 100 million vehicle miles traveled.
The 2009 rates are preliminary estimates and will be updated the following year with the final numbers.

Source: SD Department of Public Safety - Office of Accident Records

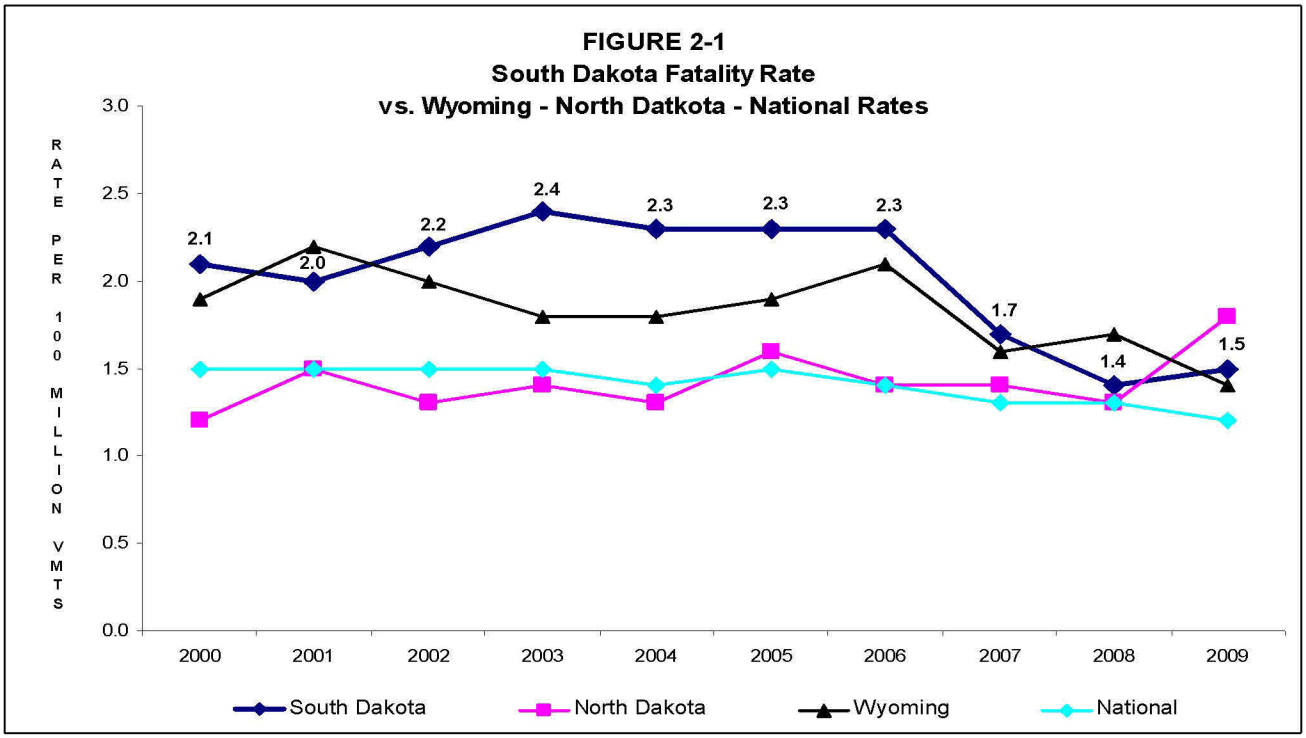


TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic crashes from 1980 through 2009. Any comparison of motor vehicle crashes must be made with caution due to the changes in the definition of a reportable crash. For example, in the late 1970's the definition of a fatality caused by a motor vehicle crash was changed from the death occurring up to one year after the crash to death occurring within 30 days after the crash. Using vehicle miles of travel, the 2009 death rate increased to 1.50, a 4.9% increase from the 2008 death rate of 1.43. The 5,704 people injured in crashes are a 0.1% decrease from the 5,708 in 2008 (see TABLE 2-2).

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

Year	Deaths	Death Rate[1]	Injuries	Total Crashes	Total Crashes Rate[4]	Fatal Crashes	Injury Crashes	PDO[2] Crashes	Miles[3] Traveled +(000,000)	Registered Motor Vehicles[5] +(000)
1980	228	3.69	7,147	14,845	240.25	188	4,770	9,887	6,179[3]	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[2]	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
1999	150	1.84	7,574	20,019	245.00	136	5,032	14,851	8,171	841
2000	173	2.08	7,888	19,475	234.16	150	5,252	14,073[2]	8,317	862
2001	171	2.04	7,118	17,699	211.43	154	4,888	12,657	8,371	872
2002	180	2.12	6,997	17,335	204.47	159	4,702	12,474	8,478	890
2003	203	2.43	6,944	18,018	215.99	173	4,781	13,064	8,342	909
2004	197	2.38	6,535	17,163	207.33	166	4,581	12,416	8,278	927
2005	186	2.29	6,212	16,254	200.07	158	4,346	11,750	8,124	919
2006	191	2.25	6,015	15,730	185.04	172	4,196	11,362	8,501	972
2007	146	1.72	5,782	16,220	191.25	130	4,071	12,019	8,481	971
2008	121	1.43	5,708	15,907	187.80	109	4,107	11,691	8,470	924[5]
2009	**131**	**1.50**	**5,704**	**16,994**	**194.44**	**112**	**4,101**	**12,781**	**8,740**	**952**

FOOTNOTES

[1] Number of deaths per 100 million vehicle miles traveled.

[2] 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 crash.
July 1, 2000 the PDO threshold definition changed to $1,000 damage to any one person's property or $2,000 accumulated property damage per crash.

[3]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.

[4]Number of crashes per 100 million vehicle miles traveled.

[5]Based on statutory changes primarily impacting SDCL 32-5-2.7 in 2008, a vehicle plate can be effective on more than one vehicle per year due to vehicle replacement. Thus, the registration count may be lower than past year s data based on previous plate registration staying with the vehicle.

Source: SD Department of Public Safety – Office of Accident Records
SD Department of Transportation – Inventory Management
SD Department of Revenue – Titles and Registration

Alcohol Involvement

When comparing records dating back to 1979, 36.7% alcohol involved fatal crashes for 2004 is the lowest. Of the 131 traffic fatalities during 2009, 61 or 46.6% were alcohol related (see Table 2-3). Alcohol statistics dating back to the 1970's show 2008 to have the lowest number of alcohol related fatalities for any one-year period (48). The highest number is 138 for the year of 1973.

TABLE 2-3
ALCOHOL INVOLVED CRASHES AS PERCENT OF ALL CRASHES
2003-2009

	2003	2004	2005	2006	2007	2008	2009
Total Crashes	7.0% (1261)	6.7% (1153)	6.8% (1113)	7.0% (1099)	5.9% (959)	6.1% (977)	6.0% (1022)
Fatal Crashes	45.1% (78)	36.7% (61)	39.2% (62)	39.0% (67)	42.3% (55)	41.3% (45)	45.5% (51)
Injury Crashes	13.2% (630)	13.3% (607)	12.7% (552)	13.4% (563)	11.5% (467)	11.4% (467)	11.6% (474)
PDO Crashes	4.2% (553)	3.9% (485)	4.2% (499)	4.1% (469)	3.6% (437)	4.0% (465)	3.9% (497)
Fatalities	46.3% (94)	39.6% (78)	39.8% (74)	37.7% (72)	42.5% (62)	39.7% (48)	46.6% (61)
Injuries	14.4% (1000)	14.3% (936)	13.2% (818)	14.2% (854)	11.5% (666)	11.5% (659)	12.1% (692)

NOTE: Alcohol involvement for Fatal Crashes 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 Crashes - 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 CRASHES BY AGE
2003-2009

AGE	2003	2004	2005	2006	2007	2008	2009
0 – 5	3	3	1	0	0	1	0
6 - 12	1	1	0	0	1	0	2
13 - 19	18	11	10	13	10	6	15
20	0	3	2	1	1	1	0
21 - 29	24	26	20	19	18	15	14
30 - 39	22	15	16	15	13	12	11
40 - 49	10	11	15	11	13	7	9
50 - 59	11	4	5	11	4	4	6
60 & OLDER	5	4	5	2	2	2	4
Unknown/Not Stated	0	0	0	0	0	0	0
TOTAL	**94**	**78**	**74**	**72**	**62**	**48**	**61**

Source: SD Department of Public Safety: Office of Accident Records

FIGURE 2-2 2009 CRASH FATALITIES
Alcohol Related vs Non Alcohol Related

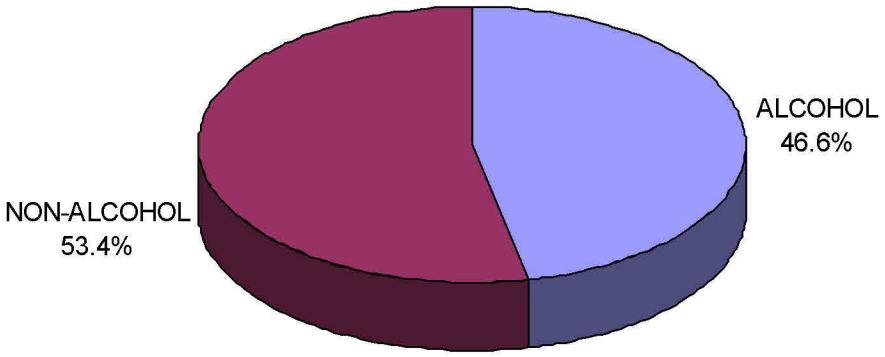
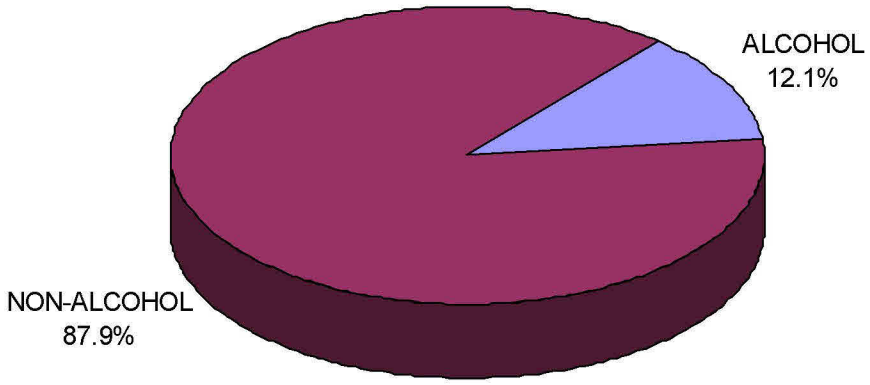


FIGURE 2-3 2009 CRASH INJURIES
Alcohol Related vs Non Alcohol Related



The following crash and arrest data is presented to monitor changes in alcohol-related fatal and injury crashes and to compare changes with non-alcohol related crash experiences (see TABLE 2-4). Alcohol-related fatal and injury crashes increased by 2.5% while non-alcohol related fatal and injury crashes decreased by 0.4% from the 2008 totals. **The number of DWI arrests decreased by 8% from 2008.**

TABLE 2-4
CRASH AND ARREST ACTIVITY
2000- 2009

	FATAL CRASHES		FATAL & INJURY CRASHES			
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED	DWI [1] ARRESTS	DWI [1] CONVICTIONS
2000	65	85	713	4,689	9,430	5,543
2001	65	89	628	4,414	8,956	5,559
2002	76	83	711	4,150	8,272	4,886
2003	78	95	708	4,246	9,011	5,628
2004	61	105	668	4,079	9,049	5,985
2005	62	96	614	3,890	10,174	6,463
2006	67	105	630	3,738	11,282	6,801
2007	55	75	522	3,679	11,756	7,490
2008	45	64	512	3,704	11,029	6,791
2009	51	61	525	3,688	10,147	6,462

Note: [1] – Based on South Dakota Courts - The State of the Judiciary and 2009 Annual Report of the S. D. Unified Judicial System - January 2008 Based on Fiscal Year statistics.
DWI Convictions are guilty pleas, plus suspended impositions, plus convictions at trial, less dismissals & acquittals at trial.

FIGURE 2-4 presents the annual counts of DWI arrests, alcohol related fatal and injury crashes, and non-alcohol related fatal and injury crashes from 2000 through 2009.
FIGURE 2-5 presents the alcohol related and non-alcohol related fatal crash experience for the years of 2000 through 2009.

There were 51 alcohol related fatal crashes during 2009, which compares to 45 in 2008. The previous three-year average was 56 for the years of 2006-2008.

There were 525 alcohol related fatal and injury crashes during 2009, which compares to 512 in 2008. The previous three-year average was 555 or a 5.4 percent decrease in 2009. Non-alcohol related fatal and injury crashes in 2009 decreased (0.4%) when compared to 2008 and decreased 0.5 percent from the previous three-year average (06-08).

There were 10,147 DWI arrests in fiscal year 2009. This level has gone down 10.6% from the previous three-year average (06-08). There were 6,462 DWI convictions in fiscal year 2009. This level has gone down 8% from the previous 3-year average (06-08).

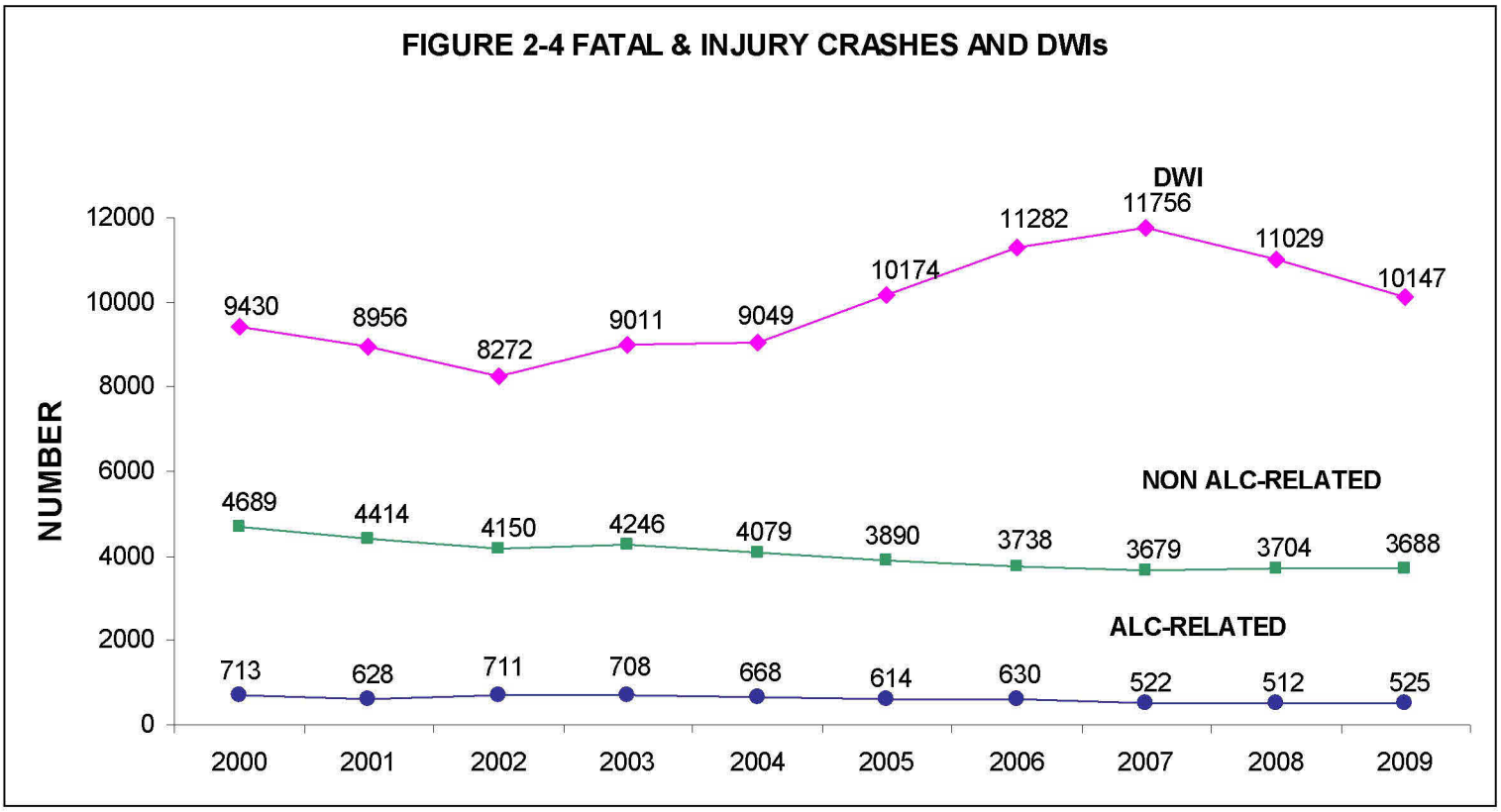


FIGURE 2-4 FATAL & INJURY CRASHES AND DWIs
NUMBER
12000
10000
8000
6000
4000
2000
0
DWI
9430
8956
8272
9011
9049
10174
11282
11756
11029
10147
NON ALC-RELATED
4689
4414
4150
4246
4079
3890
3738
3679
3704
3688
ALC-RELATED
713
628
711
708
668
614
630
522
512
525
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009

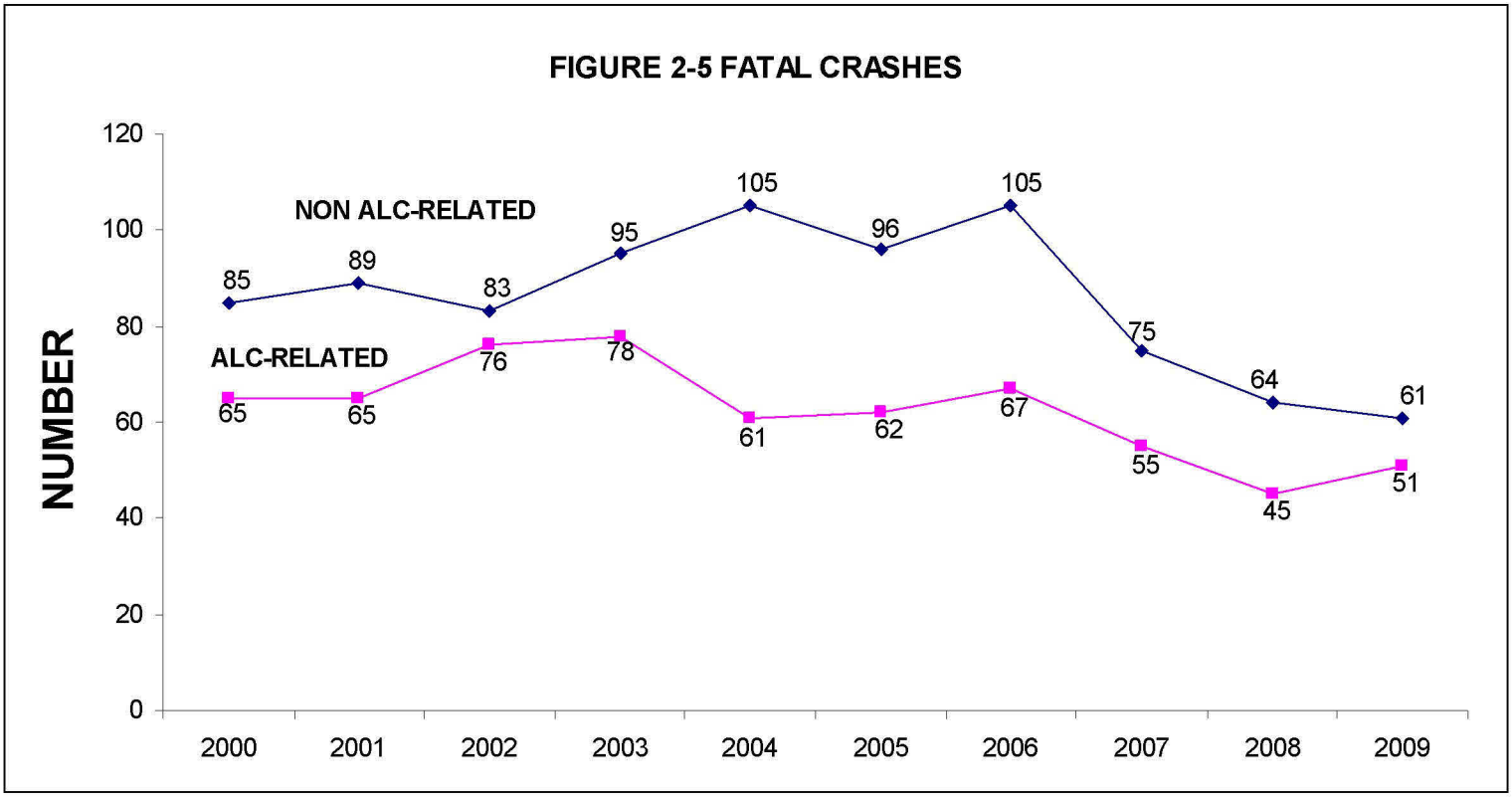


FIGURE 2-5 FATAL CRASHES
NUMBER
120
100
80
60
40
20
0
NON ALC-RELATED
85
89
83
95
105
96
105
75
64
61
ALC-RELATED
65
65
76
78
61
62
67
55
45
51
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009

Safety Restraint Usage, Ejection and Child Injuries

Front seat occupants have been required to be fastened by a safety belt system since 1995. The use of safety equipment is reported for all motor vehicle drivers and only those passengers that are injured. Seventy-nine occupants were killed while not wearing any safety restraint, while twenty-six occupants killed were wearing a lap belt and shoulder harness, and one was wearing a lap belt only. One passenger was killed with child restraint used properly. (See TABLE 2-5)

Fifty-nine (53.2%) of the 111 killed occupants were either partially or totally ejected from the vehicle. (See TABLE 2-5B)

TABLE 2-5 SAFETY RESTRAINT USAGE - KILLED OCCUPANTS

	2004	2005	2006	2007	2008	2009
No Safety Equipment	103	96	117	74	60	79
Lap Belt Only	1	1	1	0	1	1
Shoulder Harness Only	2	0	0	0	1	0
Lap Belt & Shoulder Harness	39	33	23	23	25	26
Child Restraint Used Properly	0	0	1	0	0	1
Child Restraint Not Properly Used	0	1	0	1	1	0
Other, Not Stated or Unknown	14	16	16	10	6	4
TOTAL	**159**	**147**	**158**	**108**	**94**	**111**

TABLE 2-5A SAFETY RESTRAINT USAGE - INJURED OCCUPANTS

	2004	2005	2006	2007	2008	2009
No Safety Equipment	1,361	1,238	1,173	1,058	1,080	1,012
Lap Belt Only	81	79	68	52	59	48
Shoulder Harness Only	32	28	21	36	33	35
Lap Belt & Shoulder Harness	3,847	3,680	3,461	3,423	3,395	3,506
Child Restraint Used Properly	60	66	67	59	66	57
Child Restraint Not Properly Used	2	5	13	4	3	7
Other, Not Stated or Unknown	428	373	396	354	314	315
TOTAL	**5,811**	**5,469**	**5,199**	**4,986**	**4,950**	**4,980**

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

TABLE 2-5B KILLED & INJURED MOTOR VEHICLE OCCUPANTS BY EJECTION STATUS
(Excludes Motorcycle, Mopeds, ATVs and Snowmobiles)

	KILLED						INJURED					
	2004	2005	2006	2007	2008	2009	2004	2005	2006	2007	2008	2009
Not Ejected	81	73	73	55	47	50	5,130	5,299	4,996	4,811	4,798	4,841
Partial Ejection	14	11	15	4	4	11	20	16	20	15	19	19
Total Ejection	57	60	68	48	43	48	148	131	159	130	100	107
Unknown Ejection	7	1	2	1	0	2	505	21	24	30	21	13
Not Applicable	0	2	0	0	0	0	8	2	0	0	12	0
TOTAL	**159**	**147**	**158**	**108**	**94**	**111**	**5,811**	**5,469**	**5,199**	**4,986**	**4,950**	**4,980**

Source: SD Department of Public Safety: Office of Accident Records

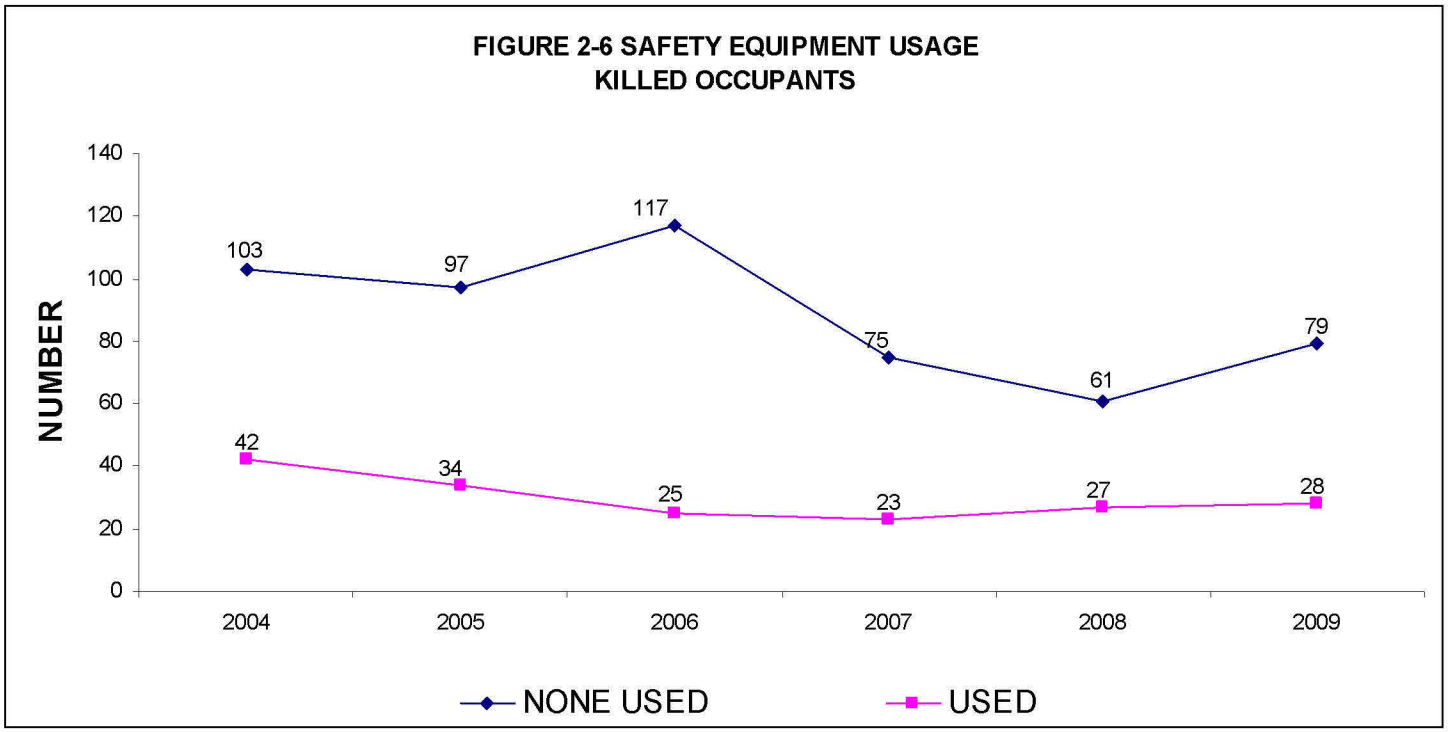


FIGURE 2-6 SAFETY EQUIPMENT USAGE
KILLED OCCUPANTS
NUMBER
140
120
100
80
60
40
20
0
103
97
117
75
61
79
42
34
25
23
27
28
2004
2005
2006
2007
2008
2009
NONE USED
USED

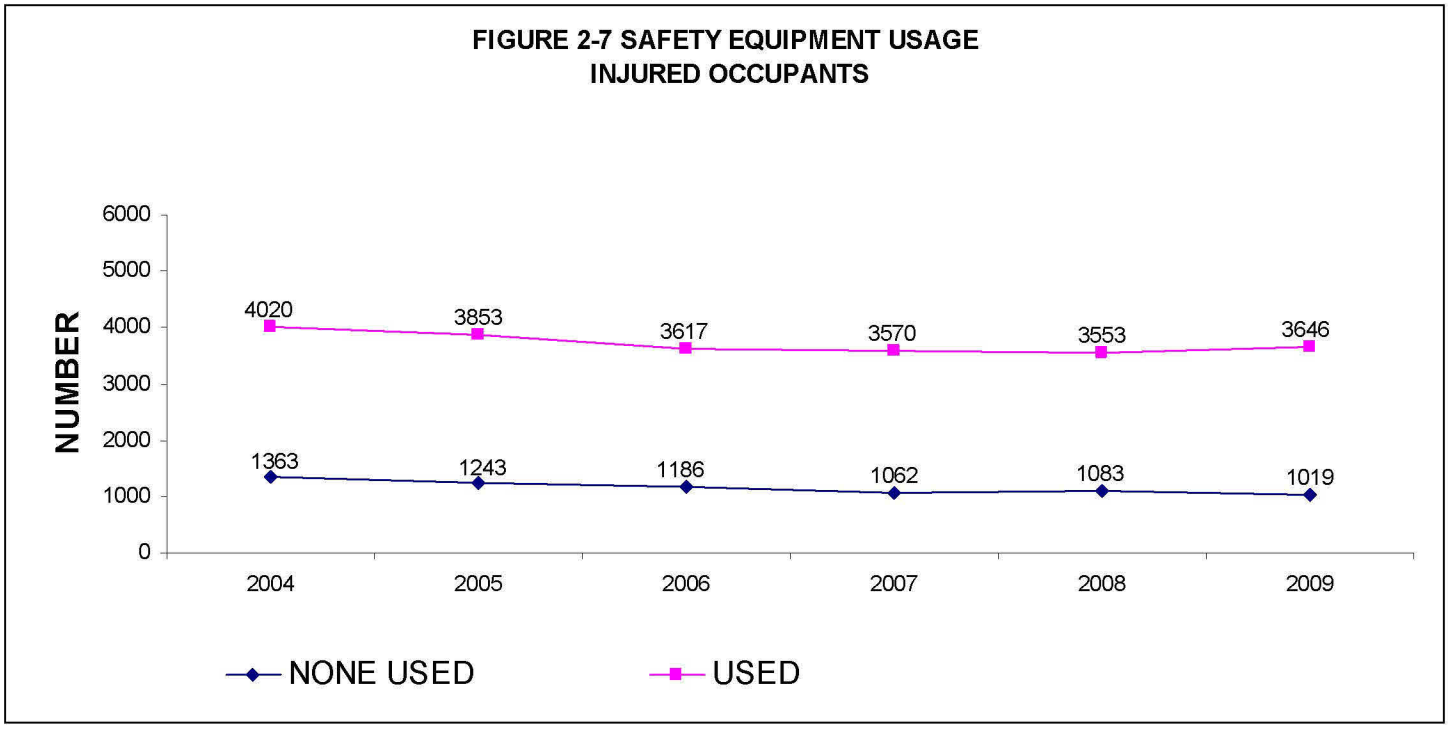


FIGURE 2-7 SAFETY EQUIPMENT USAGE
INJURED OCCUPANTS
NUMBER
6000
5000
4000
3000
2000
1000
0
4020
3853
3617
3570
3553
3646
1363
1243
1186
1062
1083
1019
2004
2005
2006
2007
2008
2009
NONE USED
USED

The Child Passenger Restraint System (SDCL 32-37) law took effect on July 1, 1984 - since that time there have been 58 deaths to occupants of this age group. Only six have been restrained by a child safety restraint properly used, two were restrained by a lap belt only. No deaths have been reported where a lap and shoulder harness was used to restrain the child.

There were two fatalities to motor vehicle occupants from birth through four years of age during 2009, which compares to three fatalities during 2008 (see TABLE 2-6).

There were 79 children (birth through 4 years old) injured in 2009, which compares to 72 for 2008. Sixty-one of the 79 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).

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

YEAR	FATALITIES	SERIOUS INJURY	SLIGHT INJURY	TOTAL NONFATAL INJURIES
1999	1	76	54	130
2000	1	45	55	100
2001	1	61	52	113
2002	2	56	60	116
2003	5	53	52	105
2004	3	44	57	101
2005	2	43	58	101
2006	2	49	69	118
2007	1	29	47	76
2008	3	26	46	72
2009	**2**	**24**	**55**	**79**

NOTE: Table includes passengers of Motor Vehicles not normally equipped with safety restraints.

TABLE 2-6A
FATALITIES & INJURIES TO MOTOR VEHICLE OCCUPANTS UNDER 5 YEARS OLD BY SAFETY EQUIPMENT USAGE - 2009

	Fatalities	Injuries
No Safety Equipment Used	1	9
Lap Belt Only	0	0
Shoulder Harness Only	0	0
Lap Belt & Shoulder Harness	0	11
Child Restraint Used Properly	1	50
Child Restraint Not Used Properly	0	5
Other, Not Stated or Unknown	0	4
TOTAL	**2**	**79**

Source: SD Department of Public Safety - Office of Accident Records

Cycle and Pedestrian Crashes

The following tables provide a yearly comparison of South Dakota's motorcycle, pedestrian, and bicycle crashes, injuries, and fatalities. During the last 10 years, the average number of motorcycle-involved crashes is 490 and 21 deaths per year. Licensed motorcyclists increased 3.1 percent during 2009 while fatalities increased by one to 16 (see Table 2-7). Moped crashes are included with motorcycle crashes. There were no moped fatalities during 2009. 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 crash information.

TABLE 2-7
MOTORCYCLE CRASHES
1989 - 2009

	Motorcycle Crashes			Motorcyclists		Registered	Licensed
Year	Total	Fatal	Injury	Fatalities	Injuries	Motorcycles	Motorcyclists
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
1999	381	10	326	10	406	25,735	52,641
2000	473	21	404	22	520	29,175	54,066
2001	395	19	336	19	418	31,493	55,658
2002	427	18	353	20	426	33,906	57,471
2003	515	21	448	21	568	37,528	59,971
2004	517	24	435	26	536	41,579	62,805
2005	515	20	439	22	531	46,383	65,019
2006	544	22	461	22	589	53,451	67,513
2007	519	25	428	28	554	58,529	70,270
2008	505	14	442	15	532	58,508	73,500
2009	**493**	**14**	**429**	**16**	**508**	**62,735**	**75,790**

Source: SD Department of Public Safety – Office of Accident Records

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE 2-8
PEDESTRIAN FATALITIES AND INJURIES
1989 - 2009

Year	Fatalities	Injuries
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
1999	11	131
2000	13	115
2001	15	111
2002	8	104
2003	10	91
2004	9	95
2005	15	89
2006	7	113
2007	7	110
2008	10	96
2009	**4**	**95**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 2-9
BICYCLE FATALITIES AND INJURIES
1989 - 2009

Year	Fatalities	Injuries
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
1999	0	102
2000	1	120
2001	1	105
2002	1	87
2003	1	109
2004	1	77
2005	0	99
2006	1	92
2007	0	101
2008	0	103
2009	**0**	**98**

Source: SD Department of Public Safety – Office of Accident Records

Holiday Counts

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

TABLE 2-10
CRASHES DURING HOLIDAYS
2000- 2009

Holiday	Total Hours	Total Crashes	Fatal Crashes	Injury Crashes	Fatalities	Injuries
MEMORIAL DAY						
2000	78	159	0	39	0	67
2001	78	133	1	33	1	49
2002	78	155	2	28	2	43
2003	78	151	1	27	1	50
2004	78	143	1	27	1	45
2005	78	142	1	34	1	53
2006	78	126	2	38	2	55
2007	78	127	1	31	1	49
2008	78	88	0	20	0	26
2009	**78**	**123**	**2**	**41**	**3**	**60**
FOURTH OF JULY						
2000	102	213	5	67	7	110
2001	30	52	4	15	4	27
2002	102	189	3	64	3	95
2003	78	146	1	57	2	82
2004	78	114	4	27	5	40
2005	78	138	3	42	6	62
2006	102	169	3	39	3	54
2007	30	40	0	13	0	25
2008	78	137	2	43	2	61
2009	**78**	**127**	**1**	**32**	**1**	**42**
LABOR DAY						
2000	78	144	3	45	4	69
2001	78	134	4	42	5	64
2002	78	132	3	38	3	55
2003	78	123	1	39	1	62
2004	78	129	0	37	0	51
2005	78	119	3	39	3	59
2006	78	115	3	29	3	45
2007	78	109	1	40	1	70
2008	78	110	2	36	2	47
2009	**78**	**122**	**2**	**33**	**2**	**45**

Holiday	Total Hours	Total Crashes	Fatal Crashes	Injury Crashes	Fatalities	Injuries
THANKSGIVING						
2000	102	210	2	36	2	54
2001	102	260	0	49	0	71
2002	102	259	2	48	2	83
2003	102	222	0	42	0	54
2004	102	274	2	53	2	69
2005	102	279	1	49	1	78
2006	102	268	2	51	2	82
2007	102	260	6	32	7	57
2008	102	241	4	52	5	81
2009	**102**	**243**	**1**	**38**	**1**	**46**
CHRISTMAS						
2000	78	126	0	25	0	39
2001	102	160	3	33	3	61
2002	30	31	0	7	0	8
2003	102	195	3	46	3	66
2004	102	85	1	9	1	19
2005	78	98	1	21	4	33
2006	78	112	2	25	2	31
2007	102	239	1	49	1	65
2008	102	148	2	31	4	49
2009	**78**	**151**	**1**	**29**	**1**	**40**
NEW YEARS						
2000-01	78	152	2	38	2	54
2001-02	102	166	1	34	1	51
2002-03	30	113	2	26	2	39
2003-04	102	173	0	39	0	53
2004-05	102	110	1	30	1	49
2005-06	78	134	4	27	4	47
2006-07	78	146	0	38	0	59
2007-08	102	137	0	26	0	29
2008-09	102	178	1	29	1	42
2009-10	**78**	**142**	**2**	**23**	**2**	**33**

Source: SD Department of Public Safety - Office of Accident Records

Severity of Injuries by Person Type

The following tables provide a yearly comparison of South Dakota's total injuries, driver's injuries, passenger's injuries, bicyclist's injuries and pedestrian's injuries from 2000 through 2009. 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 No.	%	Non-Incapacitating Injuries No.	%	Possible Injuries No.	%	Total Injuries	Total Killed
2000	1,603	20.3	2,975	37.7	3,310	42.0	7,888	173
2001	1,434	20.1	2,693	37.8	2,991	42.0	7,118	171
2002	1,466	21.0	2,710	38.7	2,821	40.3	6,997	180
2003	1,450	20.9	2,688	38.7	2,806	40.4	6,944	203
2004	1,232	18.9	2,366	36.2	2,937	44.9	6,535	197
2005	1,167	18.8	2,193	35.3	2,852	45.9	6,212	186
2006	1,028	17.1	2,178	36.2	2,809	46.7	6,015	191
2007	883	15.3	2,149	37.2	2,750	47.6	5,782	146
2008	924	16.2	1,989	34.9	2,795	49.0	5,708	121
2009	**842**	**14.8**	**1,988**	**34.9**	**2,874**	**50.4**	**5,704**	**131**

Note: This table also includes operators of other working type units (ie: motor vehicles used as equipment—snowplows, construction/maintenance vehicles, road graders, etc. & emergency response units.) (See Table 3-1)

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

Year	Incapacitating Injuries No.	%	Non-Incapacitating Injuries No.	%	Possible Injuries No.	%	Total Injuries	Total Killed
2000	1,012	19.3	1,949	37.3	2,269	43.4	5,230	97
2001	929	19.3	1,786	37.0	2,109	43.7	4,824	104
2002	946	20.3	1,761	37.8	1,957	42.0	4,664	119
2003	930	19.6	1,807	38.0	2,018	42.4	4,755	124
2004	844	18.3	1,586	34.4	2,177	47.3	4,607	129
2005	778	17.7	1,485	33.7	2,141	48.6	4,404	115
2006	687	16.5	1,430	34.3	2,058	49.3	4,175	134
2007	576	14.2	1,441	35.5	2,040	50.3	4,057	101
2008	628	15.4	1,372	33.6	2,078	51.0	4,078	80
2009	**548**	**13.6**	**1,360**	**33.8**	**2,115**	**52.6**	**4,023**	**89**

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

Year	Incapacitating Injuries No.	%	Non-Incapacitating Injuries No.	%	Possible Injuries No.	%	Total Injuries	Total Killed
2000	519	21.4	922	38.1	982	40.5	2,423	62
2001	442	21.3	802	38.6	834	40.1	2,078	51
2002	468	21.8	861	40.2	814	38.0	2,143	52
2003	470	23.6	783	39.3	738	37.1	1,991	68
2004	346	19.7	691	39.4	715	40.8	1,752	58
2005	339	20.9	633	39.1	648	40.0	1,620	56
2006	303	18.5	649	39.7	683	41.8	1,635	49
2007	270	17.9	600	39.8	639	42.3	1,509	38
2008	255	17.9	507	35.6	662	46.5	1,424	31
2009	**257**	**17.3**	**536**	**36.1**	**691**	**46.6**	**1,484**	**38**

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

Year	Incapacitating Injuries No.	%	Non-Incapacitating Injuries No.	%	Possible Injuries No.	%	Total Injuries	Total Killed
2000	29	24.4	56	47.1	34	28.6	119	1
2001	23	21.9	55	52.4	27	25.7	105	1
2002	10	11.8	49	57.6	26	30.6	85	1
2003	17	15.9	59	55.1	31	29.0	107	1
2004	12	15.6	41	53.2	24	31.2	77	1
2005	15	15.5	49	50.5	33	34.0	97	0
2006	10	10.9	49	53.3	33	35.9	92	1
2007	11	10.9	50	49.5	40	39.6	101	0
2008	12	11.7	68	66.0	23	22.3	103	0
2009	**13**	**13.5**	**47**	**49.0**	**36**	**37.5**	**96**	**0**

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

Year	Incapacitating Injuries No.	%	Non-Incapacitating Injuries No.	%	Possible Injuries No.	%	Total Injuries	Total Killed
2000	42	36.5	48	41.7	25	21.7	115	13
2001	40	36.0	50	45.0	21	18.9	111	15
2002	42	40.4	38	36.5	24	23.1	104	8
2003	33	36.3	39	42.9	19	20.9	91	10
2004	29	30.5	47	49.5	19	20.0	95	9
2005	35	39.3	25	28.1	29	32.6	89	15
2006	28	24.8	50	44.2	35	31.0	113	7
2007	26	23.6	56	50.9	28	25.5	110	7
2008	28	29.2	41	42.7	27	28.1	96	10
2009	**24**	**25.3**	**44**	**46.3**	**27**	**28.4**	**95**	**4**

Sex of Drivers

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

TABLE 2-16
GENDER OF DRIVERS: CRASH & LICENCED
1999 - 2009

	CRASH INVOLVED DRIVERS				LICENSED DRIVERS			
	MALE		FEMALE		MALE		FEMALE	
	No.	%	No.	%	No.	%	No.	%
1999	18,190	59.8	12,213	40.2	277,345	50.0	277,789	50.0
2000	17,737	60.1	11,751	39.9	277,127	49.9	277,858	50.1
2001	15,774	60.2	10,409	39.8	277,662	49.9	278,369	50.1
2002	14,975	59.7	10,108	40.3	278,283	49.9	279,149	50.1
2003	15,382	59.2	10,586	40.8	282,195	49.9	283,007	50.1
2004	14,614	59.6	9,901	40.4	286,432	49.9	287,931	50.1
2005	13,681	58.1	9,467	40.9	287,841	49.9	289,179	50.1
2006	13,114	58.8	9,111	40.8	291,548	50.0	290,969	50.0
2007	13,529	58.1	9,616	41.3	294,381	50.0	294,165	50.0
2008	13,334	58.1	9,620	41.9	298,983	50.1	298,330	49.9
2009	**14,030**	**57.4**	**10,296**	**42.1**	**30,1618**	**50.1**	**300,547**	**49.9**

Note: Crash Involved Drivers table does not include cases where the sex of the driver was not reported. Licensed drivers with unknown age not included in totals.

Source: Crash Involved Drivers: SD Department of Public Safety – Office of Accident Records
Source: Licensed Drivers: SD Department of Public Safety – Driver License Issuance

III. 2009 MOTOR VEHICLE CRASH PROFILE

Introduction

This section profiles the reported motor vehicle traffic crashes for 2009. Information will be given on where the crashes are occurring, when crashes happen, who is involved, and factors that contribute to crashes or why they are occurring. *Column percentages may not total 100 percent due to rounding error.*

During 2009, there were 16,994 reported motor vehicle traffic crashes, the majority of crashes being property damage only 12,781 (75.2%). Injury crashes accounted for 4,101 (24.1%) of the crashes, while 112 (0.7%) were fatal crashes. There were 5,704 persons injured and 131 persons killed in crashes during 2009 (see TABLE 3-1).

TABLE 3-1
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS, PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS
2009

	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	548	65.1	1,360	68.4	2,115	73.6	4,023	70.5	89	67.9
Passengers	257	30.5	536	27.0	691	24.1	1,484	26.0	38	29.0
Pedestrians	24	2.9	44	2.2	27	0.9	95	1.7	4	3.1
Bicycle Dr	13	1.5	47	2.4	36	1.3	96	1.7	0	0.0
Other*	0	0.0	1	0.1	5	0.2	6	0.1	0	0.0
TOTAL	**842**	**100**	**1,988**	**100**	**2,874**	**100**	**5,704**	**100**	**131**	**100**

*Other – 6 injuries were sustained by operators of working units.

Definition of Injuries:

Killed: An injury that results in death. An injury caused death that occurs within 30 days of a crash is considered a crash 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 crash without assistance).

Non-Incapacitating: Any injury other than a fatal injury or incapacitating injury that is evident to observers at the scene of the crash (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 Public Safety - Office of Accident Records

TABLE 3-2 provides information on persons killed and injured by method or mode of transportation. During 2009, 40.5 percent of the fatalities and 47.3 percent of the injuries occurred to occupants of passenger cars. Occupants of pickups and vans accounted for 23.7 percent of the fatalities and 19.8 percent of the injuries. Additionally, in 2009 sixteen motorcyclists and 4 pedestrians were killed. No bicyclists were killed during 2009 (See Table 3-2).

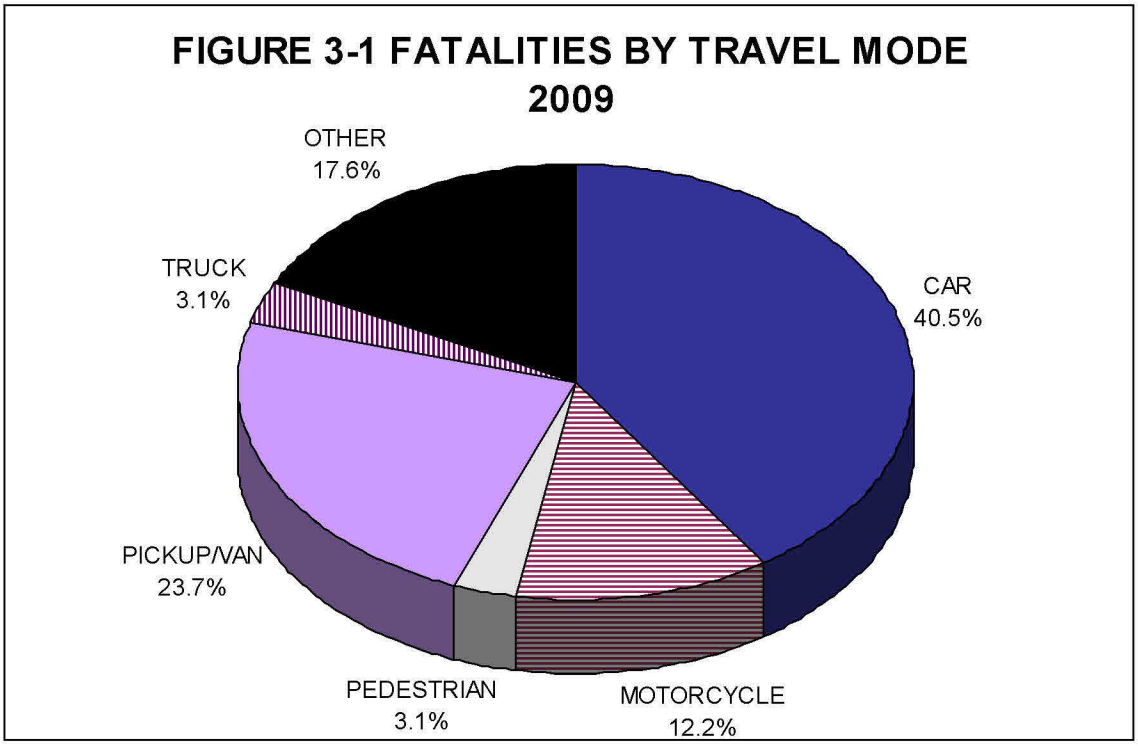
TABLE 3-2
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION
2009

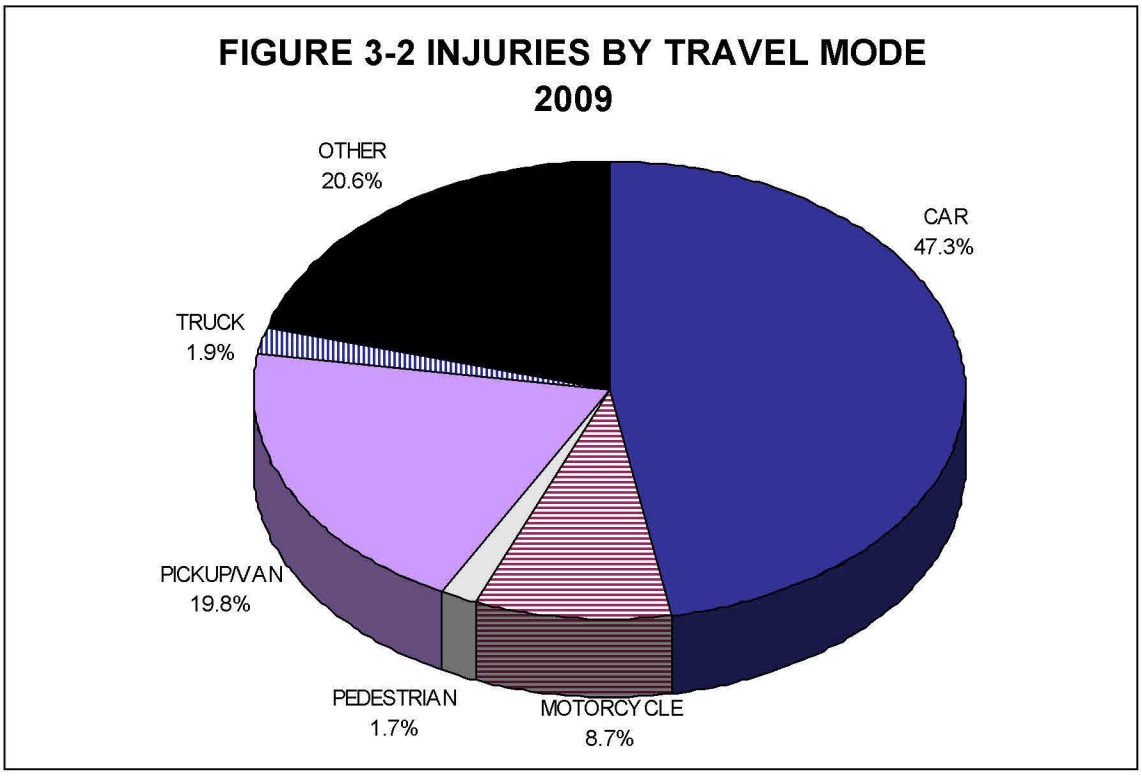
	Fatalities		Injuries	
	No.	%	No.	%
Passenger Cars	53	40.5	2,698	47.3
Pickups, Vans	31	23.7	1,131	19.8
Motorcycle, Moped	16	12.2	495	8.7
SUV's (Sports Utility Vehicles)	22	16.8	989	17.3
Pedestrians	4	3.1	95	1.7
ATV's / 4-Wheelers	0	0.0	22	0.4
Trucks (All)*	4	3.1	108	1.9
Bicycle	0	0.0	98	1.7
Other	1	0.8	63	1.1
Farm Machinery	0	0.0	5	0.1
Unknown	0	0.0	0	0.0
TOTAL	**131**	**100**	**5,704**	**100**

*Trucks Specifics:	Fatalities	Injuries
Straight Truck	2	45
Straight Truck with Trailer	0	9
Truck Tractor Only	1	2
Truck Tractor with Single Semi Trailer	1	49
Truck Tractor with Two or More Trailers	0	3
TOTAL	**4**	**108**

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

Source: SD Department of Public Safety – Office of Accident Records





** Other includes ATVs, SUVs, Bicycle, Farm Machinery, Bus, Motor Home, Snowmobile, Heavy Equipment, Train, Animal Drawn Vehicle and Other Types of Motor Vehicles.

TABLE 3-3 provides information on all crash-involved vehicles by type. Passenger cars made up 39.2 percent of the vehicles involved in fatal crashes and 48.7 percent of those involved in injury crashes. Pickups and vans made up 21.6 percent of the vehicles involved in fatal crashes.

TABLE 3-3
VEHICLE TYPES INVOLVED IN CRASHES
2009

	All Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Passenger Cars	12,507	49.4	58	39.2	3,352	48.7	9,097	49.7
Pickups, Vans	6,494	25.6	32	21.6	1,496	21.7	4,966	27.2
SUV's (Sports Utility Vehicles)	4,502	17.8	25	16.9	1,260	18.3	3,217	17.6
Trucks (All)*	1,018	4.0	15	10.1	225	3.3	778	4.3
Motorcycle	494	2.0	15	10.1	429	6.2	50	0.3
Farm Machinery	33	0.1	1	0.7	12	0.2	20	0.1
Bus	116	0.5	1	0.7	35	0.5	80	0.4
Motor Home	35	0.1	1	0.7%	6	0.1	28	0.2
ATV's / 4-wheelers	27	0.1	0	0.0	22	0.3	5	0.0
Moped	33	0.1	0	0.0	31	0.5	2	0.0
Snowmobile	3	0.0	0	0.0	3	0.0	0	0.0
Other or Unknown	56	0.2	0	0.0	11	0.2	45	0.2
TOTAL	**25,318**	**100**	**148**	**100**	**6,882**	**100**	**18,288**	**100**

* Trucks Specifics:	All Crashes	Fatal Crashes	Injury Crashes	PDO Crashes
Straight Truck	423	6	83	334
Straight Truck with Trailer	119	0	16	103
Truck Tractor Only	16	1	2	13
Truck Tractor with Single Semi Trailer	426	7	119	300
Truck Tractor with Two or More Trailers	34	1	5	28
TOTAL	**1,018**	**15**	**225**	**778**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-4 provides information on the ages of persons killed and injured. A total of 31 people (23.7%) of the persons killed were under 20 years of age and a total of 958 or (16.8%) of the persons injured were from 25 through 34 years of age. Two children ages 0-5 were killed during 2009 (see Table 3-4).

TABLE 3-4
FATALITIES AND INJURIES BY AGE GROUP
2009

	Fatalities		Injuries	
	No.	%	No.	%
0 - 5	2	1.5	105	1.8
6 - 13	6	4.6	269	4.7
14 - 15	1	0.8	228	4.0
16 - 17	10	7.6	384	6.7
18	7	5.3	220	3.9
19	5	3.8	199	3.5
20	0	0.0	203	3.6
21 - 24	13	9.9	595	10.4
25 - 34	17	13.0	958	16.8
35 - 44	28	21.4	692	12.1
45 - 54	12	9.2	801	14.0
55 - 64	19	14.5	576	10.1
65 - Over	11	8.4	470	8.2
Unknown	0	0.0	4	0.1
Total	**131**	**100**	**5,704**	**100**

Source: SD Department of Public Safety - Office of Accident Records

First Harmful Event

The initial incident that causes injury or damage is referred to as the first harmful event. Non-collision (overturning or other non-collision) represented 48.2 percent of the fatal crashes and only 10.1 percent of the total crashes, while 25.9 percent of the fatal crashes and 40.2 percent of all crashes represented a collision between 2 or more vehicles (see TABLE 3-5).

TABLE 3-5
FIRST HARMFUL EVENT
2009

First Harmful Event	Total Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Motor Vehicle Collision With:								
MV in Transport	6,827	40.2	29	25.9	2,260	55.1	4,538	35.5
A Fixed or Other Object	2,429	14.3	17	15.2	606	14.8	1,806	14.1
An Animal	5,094	30.0	5	4.5	120	2.9	4,969	38.9
A Pedestrian	90	0.5	3	2.7	87	2.1	0	0.0
A Bicyclist	97	0.6	0	0.0	97	2.4	0	0.0
A Parked Motor Vehicle	695	4.1	1	0.9	79	1.9	615	4.8
A Railroad Vehicle	13	0.1	3	2.7	6	0.1	4	0.0
Equipment in Roadway	38	0.2	0	0.0	8	0.2	30	0.2
Non-Collision (Overturning or Other)	1,711	10.1	54	48.2	838	20.4	819	6.4
Total	**16,994**	**100**	**112**	**100**	**4,101**	**100**	**12,781**	**100**

Source: SD Department of Public Safety – Office of Accident Records

Manner of Collision

The most common type of manner of collision between two or more vehicles is an angle collision. Angle collisions constitute 65.5 percent of the fatal crashes, 52.4 percent of the injury crashes, and 57.7 percent of the property damage only crashes. Angle collisions are the most prevalent for severe crashes, accounting for 65.5 percent of the fatal crashes and 56 percent of the total crashes. (See TABLE 3-6).

TABLE 3-6
MANNER OF COLLISION FOR CRASHES INVOLVING A COLLISION BETWEEN TWO OR MORE MOTOR VEHICLES
2009

Manner of Collision	Total Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Rear-End	2,410	35.3	1	3.4	947	41.9	1,462	32.2
Head-On	86	1.3	6	20.7	53	2.3	27	0.6
Angle	3,820	56.0	19	65.5	1,184	52.4	2617	57.7
Sideswipe-Same Direction	426	6.2	1	3.4	52	2.3	373	8.2
Sideswipe-Opposite Dir.	83	1.2	2	6.9	24	1.1	57	1.3
Rear-Rear	2	0.0	0	0.0	0	0.0	2	0.0
Unknown	0	0.0	0	0.0	0	0.0	0	0.0
Total	6,827	100	29	100	2,260	100	4,538	100
No Collision Between 2 or more MV	10,167		83		1,841		8,243	
Total Crashes	**16,994**		**112**		**4,101**		**12,781**	

NOTE: Beginning in 2004, South Dakota developed its Crash Data System to conform to the standards established by the Model Minimum Uniform Crash Criteria (MMUCC) guidelines. These guidelines have changed the way the data is collected, such as Manner of Collision. This element will be based on the impact location (i.e. front, side or rear) and vehicle orientation (i.e. facing the same or opposite direction) of the contact vehicles in the First Harmful Event. The data element Turning Movement collected in past years is currently reported as Angle.

Source: SD Department of Public Safety - Office of Accident Records

Highway System

The number of reported crashes by "type of highway system" is presented in TABLE 3-7. **Fatal and PDO crashes happen predominately in rural areas.** City streets and alleys experienced 30.9 percent of the PDO crashes and 46 percent of the injury crashes while accounting for 5.4 percent of the fatal crashes.

Non-interstate rural roads tallied 77.7 percent of the fatal crashes. The Interstate system experienced 2,558 (15.1%) of the total crashes while accounting for an estimated 29.9 percent of the vehicle miles traveled in 2009. Eighteen or 16.1 percent of the fatal crashes happened on the interstate system. (See FIGURES 3-3 and 3-4)

TABLE 3-7
CRASHES BY TYPE OF HIGHWAY
2009

Type of Highway	Total Crashes Number	%	Fatal Crashes Number	%	Injury Crashes Number	%	PDO Crashes Number	%	No. Killed	No. Injured
Interstate - Rural	1,577	9.3	12	10.7	258	6.3	1,307	10.2	16	369
US/State Hwys.-Rural	4,530	26.7	43	38.4	748	18.2	3,739	29.3	51	1,082
Co./Local Rds.-Rural	2,871	16.9	44	39.3	625	15.2	2,202	17.2	49	892
Interstate - City	981	5.8	6	5.4	182	4.4	793	6.2	6	235
US/State Hwys.-City	946	5.6	1	0.9	339	8.3	606	4.7	2	499
City Streets/Alleys	5,835	34.3	6	5.4	1,885	46.0	3,944	30.9	7	2,552
Unknown/Not Reported	254	1.5	0	0.0	64	1.6	190	1.5	0	75
Total	**16,994**	**100**	**112**	**100**	**4,101**	**100**	**12,781**	**100**	**131**	**5,704**

Source: SD Department of Public Safety – Office of Accident Records

FIGURE 3-3 2009
TRAFFIC CRASHES
BY SYSTEM TYPE

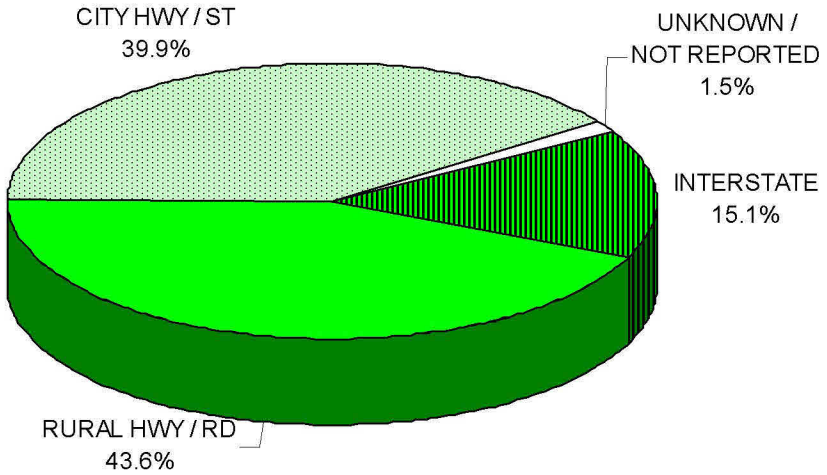


FIGURE 3-4 2009
FATAL TRAFFIC CRASHES
BY SYSTEM TYPE

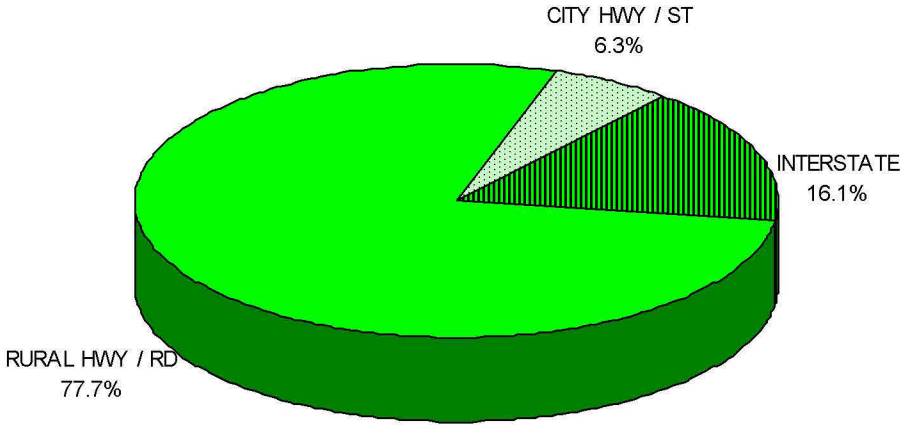


TABLE 3-8
MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2009

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	139	1	27	111	1	37
BEADLE	307	3	79	225	4	121
BENNETT	21	0	9	12	0	11
BON HOMME	109	1	17	91	1	24
BROOKINGS	565	2	123	440	2	169
BROWN	768	2	141	625	2	186
BRULE	120	1	19	100	1	22
BUFFALO	23	0	3	20	0	5
BUTTE	177	2	38	137	3	59
CAMPBELL	46	0	5	41	0	8
CHARLES MIX	90	4	25	61	5	46
CLARK	96	0	9	87	0	14
CLAY	213	2	47	164	2	76
CODINGTON	618	2	133	483	2	175
CORSON	68	2	15	51	2	30
CUSTER	254	0	62	192	0	85
DAVISON	485	2	87	396	2	121
DAY	73	0	22	51	0	31
DEUEL	101	1	17	83	1	23
DEWEY	73	2	9	62	2	13
DOUGLAS	35	0	8	27	0	9
EDMUNDS	118	2	17	99	2	20
FALL RIVER	149	2	37	110	3	52
FAULK	72	0	12	60	0	19
GRANT	145	1	25	119	1	33
GREGORY	40	1	8	31	1	11
HAAKON	75	1	7	67	1	8
HAMLIN	137	1	14	122	1	18
HAND	108	1	14	93	2	22
HANSON	124	0	26	98	0	29
HARDING	57	1	14	42	1	18
HUGHES	316	0	75	241	0	101
HUTCHINSON	118	1	23	94	1	38
HYDE	8	0	2	6	0	3
JACKSON	96	2	18	76	2	30
JERAULD	50	1	5	44	1	13
JONES	62	0	10	52	0	12
KINGSBURY	188	1	17	170	1	30
LAKE	202	0	40	162	0	52
LAWRENCE	658	1	180	477	1	240
LINCOLN	627	4	158	465	4	221
LYMAN	176	3	23	150	5	33
MARSHALL	114	0	9	105	0	13
MC COOK	163	1	26	136	1	37
MC PHERSON	41	0	6	35	0	8
MEADE	520	6	125	389	8	177
MELLETTE	10	0	1	9	0	3
MINER	81	0	11	70	0	15
MINNEHAHA	3,786	9	1,282	2,495	10	1,724
MOODY	238	0	36	202	0	43
PENNINGTON	2,227	9	657	1,561	10	934
PERKINS	54	0	7	47	0	9
POTTER	72	0	10	62	0	15
ROBERTS	174	5	42	127	8	69
SANBORN	99	1	9	89	1	11
SHANNON	28	12	7	9	12	39
SPINK	252	1	22	229	1	29
STANLEY	113	0	12	101	0	17
SULLY	27	0	4	23	0	6
TODD	25	5	1	19	8	3
TRIPP	147	3	15	129	3	20
TURNER	78	1	21	56	1	29
UNION	239	3	51	185	5	62
WALWORTH	110	0	16	94	0	19
YANKTON	452	5	105	342	5	144
ZIEBACH	37	1	6	30	1	10
Total:	**16,994**	**112**	**4,101**	**12,781**	**131**	**5,704**

TABLE 3-8A
ALCOHOL INVOLVED MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2009

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	10	0	6	4	0	8
BEADLE	23	1	14	8	1	14
BENNETT	0	0	0	0	0	0
BON HOMME	6	0	2	4	0	2
BROOKINGS	23	0	10	13	0	18
BROWN	39	0	15	24	0	23
BRULE	6	0	3	3	0	3
BUFFALO	0	0	0	0	0	0
BUTTE	18	1	9	8	1	13
CAMPBELL	1	0	0	1	0	0
CHARLES MIX	10	1	6	3	1	12
CLARK	3	0	1	2	0	1
CLAY	7	1	1	5	1	5
CODINGTON	33	1	13	19	1	15
CORSON	7	1	4	2	1	11
CUSTER	10	0	7	3	0	8
DAVISON	20	0	10	10	0	11
DAY	6	0	4	2	0	5
DEUEL	9	0	1	8	0	1
DEWEY	4	1	2	1	1	3
DOUGLAS	2	0	2	0	0	2
EDMUNDS	4	0	3	1	0	5
FALL RIVER	15	2	9	4	3	15
FAULK	3	0	2	1	0	2
GRANT	13	0	6	7	0	8
GREGORY	3	0	3	0	0	4
HAAKON	2	0	1	1	0	1
HAMLIN	5	0	3	2	0	4
HAND	1	0	1	0	0	1
HANSON	1	0	1	0	0	1
HARDING	3	0	1	2	0	1
HUGHES	12	0	7	5	0	8
HUTCHINSON	5	1	3	1	1	6
HYDE	0	0	0	0	0	0
JACKSON	3	2	1	0	2	6
JERAULD	2	1	1	0	1	4
JONES	1	0	0	1	0	0
KINGSBURY	9	1	5	3	1	6
LAKE	13	0	7	6	0	10
LAWRENCE	42	1	20	21	1	26
LINCOLN	34	0	15	19	0	27
LYMAN	7	2	3	2	4	9
MARSHALL	14	0	5	9	0	6
MC COOK	4	0	1	3	0	1
MC PHERSON	2	0	2	0	0	4
MEADE	39	2	18	19	2	26
MELLETTE	0	0	0	0	0	0
MINER	2	0	1	1	0	1
MINNEHAHA	279	3	125	151	3	162
MOODY	13	0	6	7	0	6
PENNINGTON	145	5	66	74	5	97
PERKINS	0	0	0	0	0	0
POTTER	0	0	0	0	0	0
ROBERTS	12	1	5	6	3	10
SANBORN	2	0	1	1	0	1
SHANNON	14	10	3	1	10	23
SPINK	9	0	2	7	0	2
STANLEY	2	0	1	1	0	1
SULLY	0	0	0	0	0	0
TODD	4	4	0	0	7	2
TRIPP	5	1	3	1	1	3
TURNER	9	1	6	2	1	8
UNION	18	3	8	7	5	14
WALWORTH	8	0	3	5	0	5
YANKTON	25	3	16	6	3	20
ZIEBACH	1	1	0	0	1	1
Total:	**1,022**	**51**	**474**	**497**	**61**	**692**

County Summary

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

Rural fatal and injury crashes occurred predominately in twelve counties (see TABLE 3-9). Each of these counties reported over two percent of all rural fatal and injury crashes. These twelve counties accounted for 54 percent of rural fatal and injury crashes and 72.7 percent of all fatal and injury crashes in South Dakota. Pennington County has 11.4 percent of all rural fatal and injury crashes with Minnehaha accounting for 6.9 percent. FIGURE 3-5 presents the percentage involvement of rural fatal and injury crashes and compares this to the percentage of rural vehicle miles traveled in these counties.

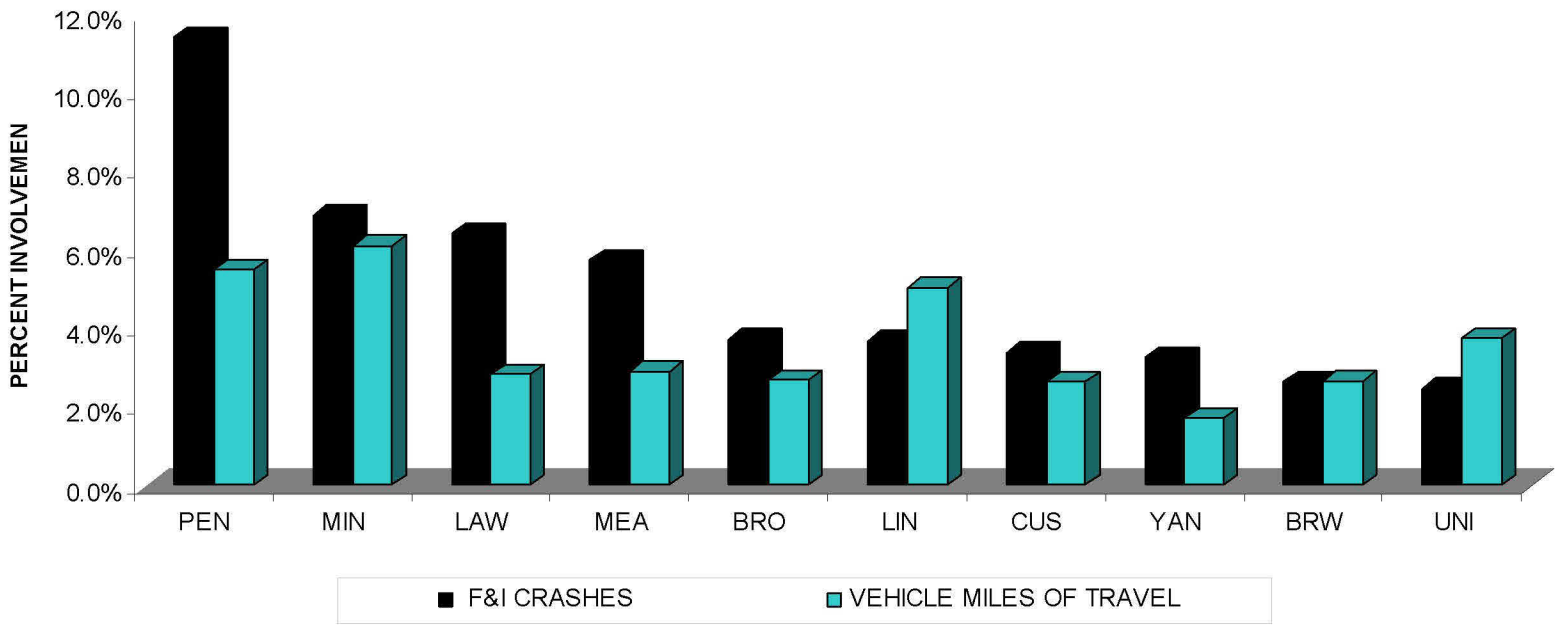
TABLE 3-9
COUNTIES HAVING MORE THAN TWO PERCENT OF THE RURAL FATAL & INJURY CRASHES
2009

County	Rural Fatal & Injury Crashes	Percent of All Rural Fatal & Injury Crashes	Percent of Rural VMTS
PENNINGTON	199	11.4	5.8
MINNEHAHA	120	6.9	6.8
LAWRENCE	112	6.4	2.9
MEADE	100	5.7	3.0
BROOKINGS	65	3.7	2.8
LINCOLN	65	3.7	5.6
CUSTER	59	3.4	2.1
YANKTON	57	3.3	1.7
BROWN	46	2.6	2.2
UNION	43	2.5	4.0
DAVISON	39	2.2	1.6
ROBERTS	37	2.1	2.7

Note: Total Rural Fatal and Injury Crashes: 1,745
S.D. Vehicle Miles of Travel Report (2009 data)

Source: SD Department of Public Safety – Office of Accident Records
SD Department of Transportation – Data Inventory

FIGURE 3-5 RURAL F&I CRASHES/VMTS
SELECTED COUNTIES - 2009



City Summary

Reported traffic crashes within South Dakota's cities (population of 2,500 and more) are presented in TABLE 3-10. These cities reported 56.7 percent of the statewide injury crashes and 9.8 percent of the fatal crashes. The two largest cities (Sioux Falls, Rapid City) accounted for 72 percent of fatal and injury crashes occurring in cities and 60.2 percent of the property damage only crashes.

TABLE 3-10
TRAFFIC CRASHES SOUTH DAKOTA CITIES
POPULATION 2500 AND OVER
2009

City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
Aberdeen	361	0	97	264	0	125
Belle Fourche	37	0	8	29	0	11
Box Elder	50	0	17	33	0	43
Brandon	36	0	10	26	0	15
Brookings	220	0	58	162	0	72
Canton	21	0	3	18	0	3
Dell Rapids	37	0	2	35	0	3
Hot Springs	47	0	13	34	0	15
Huron	146	2	54	90	3	78
Lead	14	0	4	10	0	5
Madison	50	0	14	36	0	17
Milbank	24	0	5	19	0	8
Mitchell	284	1	49	234	1	62
Mobridge	29	0	4	25	0	4
Pierre	185	0	58	127	0	80
Rapid City	1461	2	441	1018	3	611
Redfield	27	0	7	20	0	8
Sioux Falls	3159	6	1233	1920	6	1660
Sisseton	46	0	10	36	0	14
Spearfish	193	0	43	150	0	60
Sturgis	94	0	29	65	0	40
Vermillion	77	0	14	63	0	21
Watertown	417	0	99	318	0	130
Winner	19	0	3	16	0	5
Yankton	191	0	51	140	0	75

Source: SD Department of Public Safety – Office of Accident Records

Roadway Surface Conditions

The majority of the crashes occurred on dry roads, including fatal and injury crashes (see TABLE 3-11). Combining similar "bad" road conditions, ice, snow, frost, and slush accounts for 22 percent of all reported property damage crashes and 18 percent of all fatal and injury crashes. Dry roads were reported in 68.9 percent of all fatal and injury crashes.

TABLE 3-11
ROADWAY SURFACE CONDITIONS
2009

	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Dry	11,386	67.0	96	85.7	2,806	68.4	8,484	66.4
Wet	1,570	9.2	3	2.7	431	10.5	1,136	8.9
Snow	1,714	10.1	4	3.6	311	7.6	1,399	10.9
Slush	300	1.8	0	0.0	77	1.9	223	1.7
Ice	1,421	8.4	5	4.5	314	7.7	1,102	8.6
Frost	132	0.8	1	0.9	48	1.2	83	0.6
Water	15	0.1	0	0.0	4	0.1	11	0.1
Sand,mud,dirt,gravel	282	1.7	3	2.7	85	2.1	194	1.5
Oil	6	0.0	0	0.0	3	0.1	3	0.0
Other	18	0.1	0	0.0	13	0.3	5	0.0
Unknown / Not reported	150	0.9	0	0.0	9	0.2	141	1.1
Total	**16,994**	**100**	**112**	**100**	**4,101**	**100**	**12,781**	**100**

Source: SD Department of Public Safety – Office of Accident Records

Crashes by Time of Day, Month, and Day of Week

The peak three-hour period for fatal crashes was 5:00-7:59 p.m. Thirty or 26.8 percent of the fatal crashes occurred during this three hour period. The peak three hour period for injury crashes was 3:00-5:59 p.m. with 1,072 (26.1%) of the injury crashes occurred. The peak three hour period for property damage only crashes was 5:00-7:59 p.m. with 2,660 (20.8%) of the property damage only crashes occurred (see TABLE 3-12).

Twenty fatal crashes or 17.9 percent occurred during July in 2009. The month of August shows 457 injury crashes or 11.1 percent of the injury crashes. The month of November shows 1,808 property damage only crashes which represents 14.1 percent of the property damage only crashes for 2009 (see TABLE 3-13).

The day of the week Friday accounts for 2,882 of the total crashes or 17 percent, with 718 (17.5%) of injury crashes and 2,145 (16.8%) of property damage only crashes. Sunday accounted for 23 fatal crashes or 20.5 percent of the total for 2009 (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
CRASHES BY TIME OF DAY
2009

Time	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
Midnight	310	5	64	241	5	97
1:00 AM	261	3	62	196	3	86
2:00 AM	237	9	62	166	9	93
3:00 AM	162	3	38	121	4	48
4:00 AM	203	3	38	162	4	47
5:00 AM	400	3	50	347	3	67
6:00 AM	648	5	89	554	5	119
7:00 AM	1,030	3	195	832	4	286
8:00 AM	715	3	169	543	3	220
9:00 AM	536	7	135	394	9	188
10:00 AM	616	2	180	434	3	250
11:00 AM	711	4	227	480	4	321
12:00 PM	870	5	277	588	5	375
1:00 PM	807	5	250	552	6	346
2:00 PM	803	2	278	523	2	384
3:00 PM	1,138	4	349	785	5	498
4:00 PM	1,055	3	344	708	7	467
5:00 PM	1,332	15	379	938	16	514
6:00 PM	1,181	9	241	931	9	344
7:00 PM	993	6	196	791	9	291
8:00 PM	873	2	143	728	4	197
9:00 PM	930	4	116	810	5	175
10:00 PM	655	3	112	540	3	151
11:00 PM	448	3	92	353	3	121
Unknown	80	1	15	64	1	19
Total	**16,994**	**112**	**4,101**	**12,781**	**131**	**5,704**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-13
CRASHES BY MONTH
2009

Month	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
JANUARY	1,713	5	358	1,350	9	486
FEBRUARY	992	5	241	746	5	355
MARCH	1,108	11	279	818	12	396
APRIL	1,018	4	293	721	6	389
MAY	1,138	13	333	792	17	471
JUNE	1,304	6	379	919	7	516
JULY	1,243	20	381	842	22	536
AUGUST	1,253	13	457	783	15	642
SEPTEMBER	1,241	12	317	912	12	459
OCTOBER	1,721	6	357	1,358	6	509
NOVEMBER	2,110	12	290	1,808	15	372
DECEMBER	2,153	5	416	1,732	5	573
Total	**16,994**	**112**	**4,101**	**12,781**	**131**	**5,704**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-14
CRASHES BY DAY OF WEEK
2009

Day	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
SUNDAY	1,932	23	452	1,457	24	644
MONDAY	2,405	14	559	1,832	16	758
TUESDAY	2,417	11	549	1,857	11	718
WEDNESDAY	2,573	17	588	1,968	19	813
THURSDAY	2,428	6	629	1,793	7	878
FRIDAY	2,882	19	718	2,145	24	995
SATURDAY	2,357	22	606	1,729	30	898
Total	**16,994**	**112**	**4,101**	**12,781**	**131**	**5,704**

Source: SD Department of Public Safety – Office of Accident Records

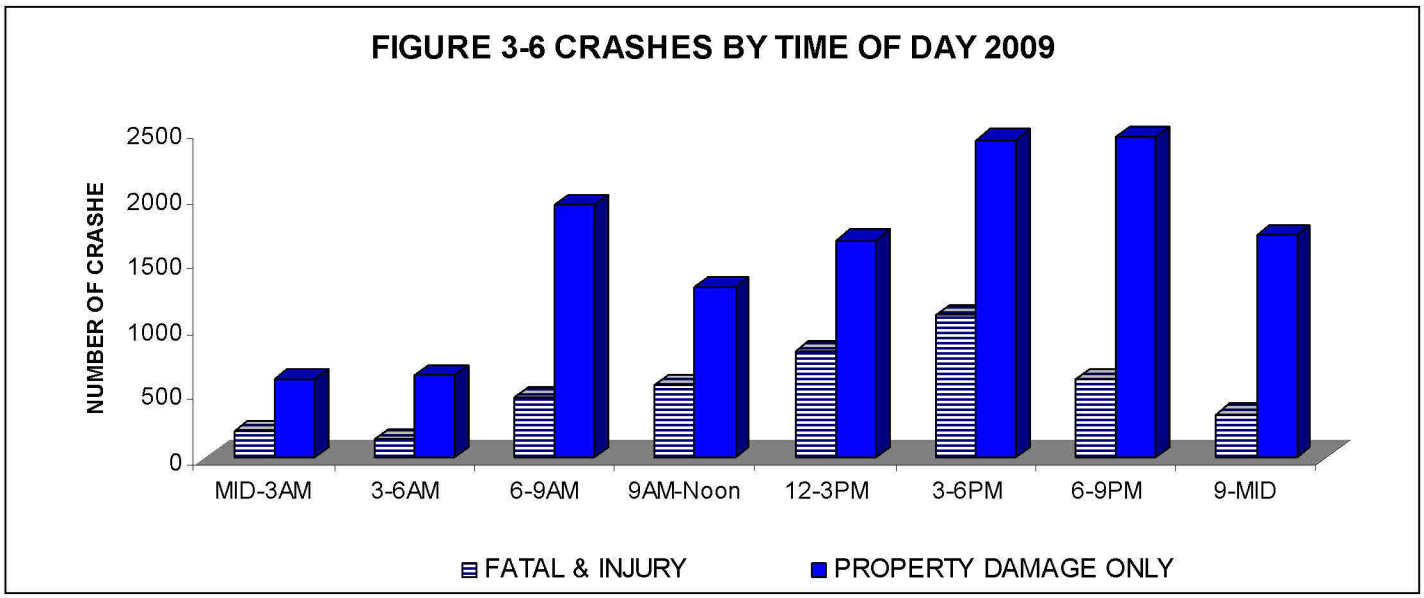


FIGURE 3-6 CRASHES BY TIME OF DAY 2009
NUMBER OF CRASHE
2500
2000
1500
1000
500
0
MID-3AM
3-6AM
6-9AM
9AM-Noon
12-3PM
3-6PM
6-9PM
9-MID
FATAL & INJURY
PROPERTY DAMAGE ONLY

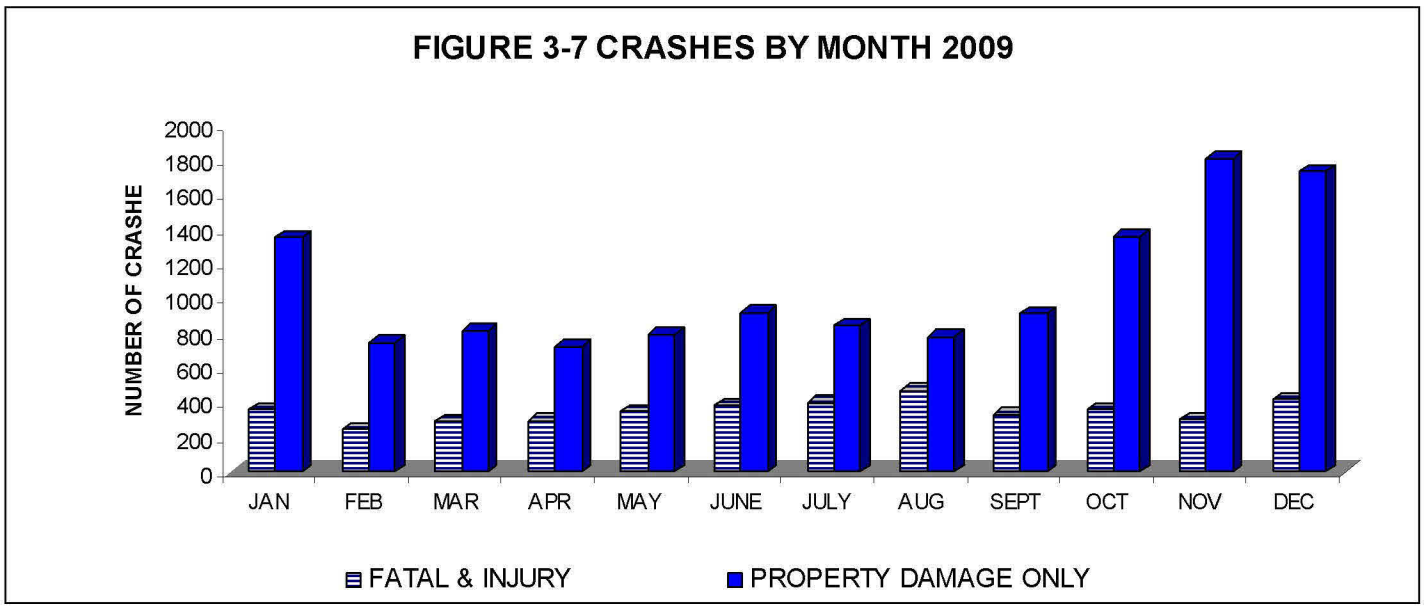


FIGURE 3-7 CRASHES BY MONTH 2009
NUMBER OF CRASHE
2000
1800
1600
1400
1200
1000
800
600
400
200
0
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEPT
OCT
NOV
DEC
FATAL & INJURY
PROPERTY DAMAGE ONLY

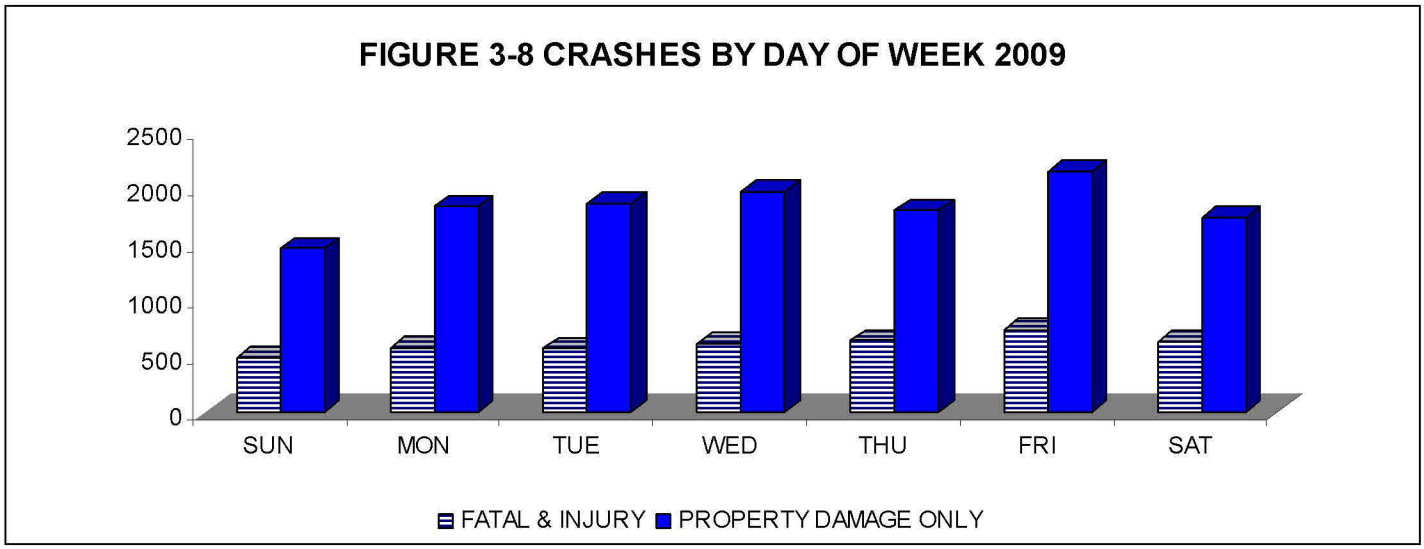


FIGURE 3-8 CRASHES BY DAY OF WEEK 2009
2500
2000
1500
1000
500
0
SUN
MON
TUE
WED
THU
FRI
SAT
FATAL & INJURY
PROPERTY DAMAGE ONLY

Drivers

In the 16,994 reported motor vehicle crashes there were 24,451 motor vehicle drivers involved, including 146 drivers in fatal crashes and 6,748 drivers in injury crashes. Of these drivers 89 were killed, which is 67.9 percent of all persons killed in motor vehicle crashes and 70.5 percent or 4,023 of the 5,704 injured persons were drivers (see TABLE 3-1).

Young drivers are involved in more crashes than any other age group (see TABLE 3-15). In reported crashes, 29.3 percent of the drivers were under 25 years of age and 47.7 percent were under 35. Age of drivers involved in fatal and injury crashes follow the pattern of drivers in all crashes. Those drivers under 25 represent 24.0 percent of the drivers involved in fatal crashes and 31.2 percent of the drivers in injury crashes. Drivers under the age of 35 make up 42.5 percent of the drivers in fatal crashes and 50.5 percent of the drivers in injury crashes. Forty-two or 28.8 percent of the drivers in fatal crashes were 21-34 years of age (see TABLE 3-15).

TABLE 3-15
AGE OF DRIVERS IN CRASHES
2009

Age	Drivers In All Crashes No.	%	Drivers In Fatal Crashes No.	%	Drivers In Injury Crashes No.	%	Drivers In PDO Crashes No.	%
0 - 5	0	0.0	0	0.0	0	0.0	0	0.0
6 - 13	16	0.1	1	0.7	6	0.1	9	0.1
14 - 15	654	2.7	1	0.7	183	2.7	470	2.7
16 - 17	1,544	6.3	7	4.8	446	6.6	1,091	6.2
18	899	3.7	5	3.4	292	4.3	602	3.4
19	798	3.3	5	3.4	231	3.4	562	3.2
20	733	3.0	1	0.7	221	3.3	511	2.9
21 - 24	2,527	10.3	15	10.3	725	10.7	1,787	10.2
25 - 34	4,504	18.4	27	18.5	1,305	19.3	3,172	18.1
35 - 44	3,526	14.4	23	15.8	941	13.9	2,562	14.6
45 - 54	3,965	16.2	19	13.0	1,032	15.3	2,914	16.6
55 - 64	2,848	11.6	23	15.8	748	11.1	2,077	11.8
65 - Over	2,258	9.2	16	11.0	576	8.5	1,666	9.5
Unknown	179	0.7	3	2.1	42	0.6	134	0.8
Total	**24,451**	**100**	**146**	**100**	**6,748**	**100**	**17,557**	**100**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-16 provides information on the age of drinking drivers in motor vehicle crashes. There were a reported 1,024 drinking drivers in all crashes which is 4.2 percent of all drivers in crashes. Fifty-two or 35.6 percent of drivers in fatal crashes had been drinking while 470 or 7.0 percent of the drivers involved in injury crashes had been drinking.

Young drivers are predominantly the drinking drivers in all crashes. Those drivers under 25 years of age accounted for 38.5 percent of the drinking drivers in fatal crashes and 32.6 percent of the drinking drivers in injury crashes. Those drivers under 35 years of age accounted for 57.7 percent of the drinking drivers in fatal crashes and 60.5 percent of the drinking drivers in all crashes.

TABLE 3-16
AGE OF DRINKING DRIVERS IN CRASHES
2009

Age	Drivers In All Crashes No.	%	Drivers In Fatal Crashes No.	%	Drivers In Injury Crashes No.	%	Drivers In PDO Crashes No.	%
6 - 13	1	0.1	1	1.9	0	0.0	0	0.0
14 - 15	5	0.5	0	0.0	1	0.2	4	0.8
16 - 17	35	3.4	5	9.6	16	3.4	14	2.8
18	35	3.4	3	5.8	16	3.4	16	3.2
19	31	3.0	2	3.8	15	3.2	14	2.8
20	46	4.5	0	0.0	17	3.6	29	5.8
21 - 24	210	20.5	9	17.3	88	18.7	113	22.5
25 - 34	257	25.1	10	19.2	126	26.8	121	24.1
35 - 44	172	16.8	8	15.4	84	17.9	80	15.9
45 - 54	147	14.4	6	11.5	68	14.5	73	14.5
55 - 64	56	5.5	4	7.7	26	5.5	26	5.2
65 - Over	20	2.0	1	1.9	10	2.1	9	1.8
Unknown	9	0.9	3	5.8	3	0.6	3	0.6
Total	**1,024**	**100**	**52**	**100**	**470**	**100**	**502**	**100**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-17 compares age of drivers in fatal and injury crashes, drinking drivers in fatal and injury crashes, and speeding drivers in fatal and injury crashes with licensed drivers by age. The young driver is over represented as those drivers in fatal and injury crashes, drinking drivers in fatal and injury crashes, and speeding drivers in fatal and injury crashes. In South Dakota, licensed drivers under 25 years of age represent 16.2 percent of the total licensed drivers, 33.1 percent of the drinking drivers in fatal and injury crashes and 47.3 percent of the speeding drivers in fatal and injury crashes. Drivers under 35 years of age constitute 32.8 percent of all licensed drivers, with 59.2 percent of the drinking drivers and 71.0 percent of the speeding drivers involved in fatal and injury crashes being under 35 years of age (also see FIGURES 3-9 and 3-10).

TABLE 3-17
LICENSED DRIVERS AND FATAL AND INJURY CRASH-INVOLVED DRIVERS BY AGE
2009

Age	Licensed Drivers %	Drivers In Fatal & Injury Crashes No.	%	Drinking Drivers In Fatal & Injury Crashes No.	%	Speeding Drivers In Fatal & Injury Crashes No.	%
0 - 13	0.0	7	0.1	1	0.2	0	0.0
14 - 15	1.7	184	2.7	1	0.2	35	6.8
16 - 17	2.8	453	6.6	21	4.0	44	8.6
18	1.6	297	4.3	19	3.6	35	6.8
19	1.6	236	3.4	17	3.3	32	6.2
20	1.7	222	3.2	17	3.3	26	5.1
21 - 24	6.9	740	10.7	97	18.6	71	13.8
25 - 34	16.6	1,332	19.3	136	26.1	122	23.7
35 - 44	14.6	964	14.0	92	17.6	57	11.1
45 - 54	18.5	1,051	15.2	74	14.2	48	9.3
55 - 64	16.2	771	11.2	30	5.7	25	4.9
65 - Over	17.9	592	8.6	11	2.1	18	3.5
Unknown	0.0	45	0.7	6	1.1	1	0.2
TOTAL	**100**	**6,894**	**100**	**522**	**100**	**514**	**100**

Sources: SD Department of Public Safety – Office of Accident Records
SD Department of Public Safety – Driver License Issuance

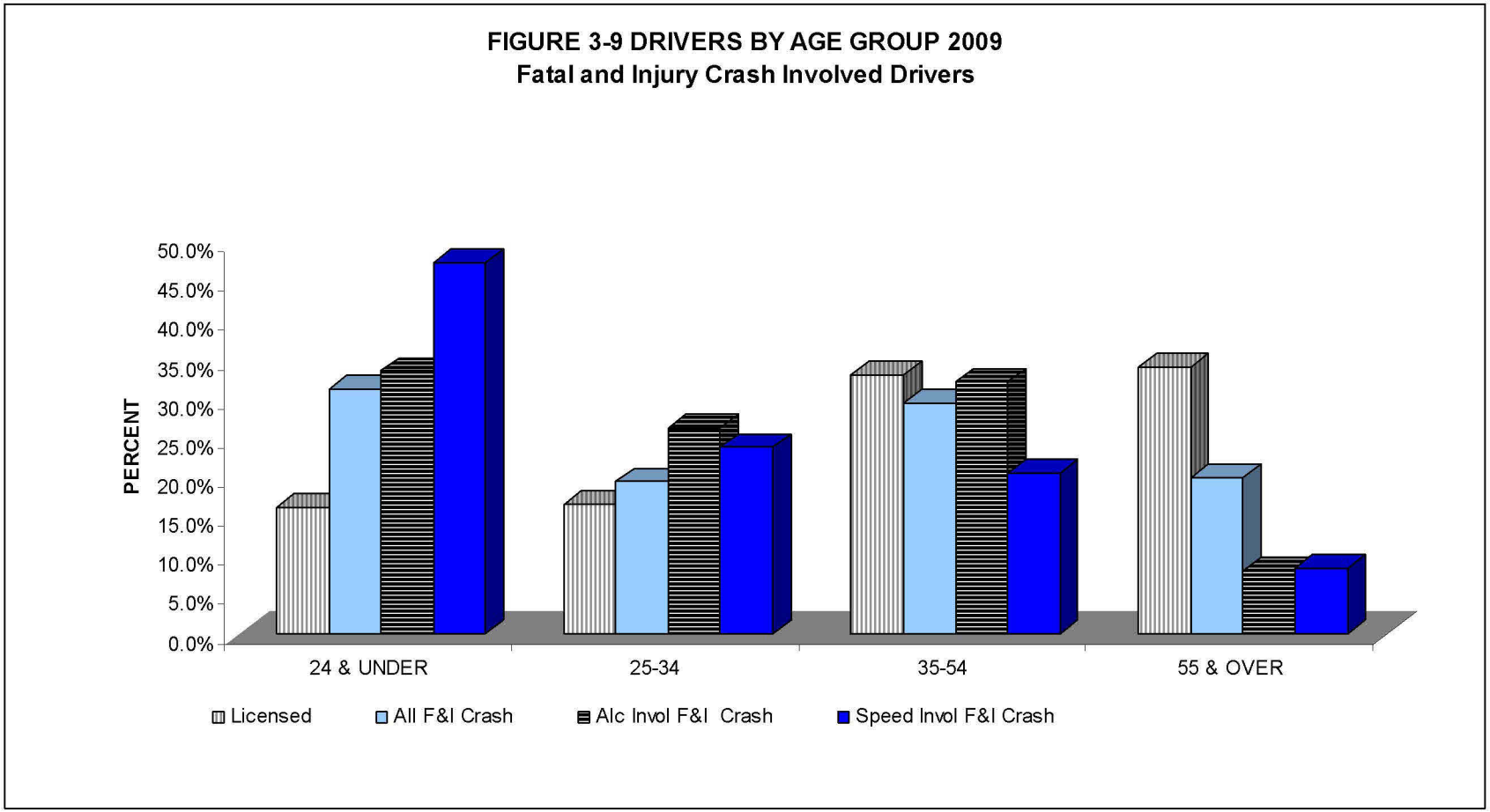


FIGURE 3-9 DRIVERS BY AGE GROUP 2009
Fatal and Injury Crash Involved Drivers
PERCENT
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
24 & UNDER
25-34
35-54
55 & OVER
Licensed
All F&I Crash
Alc Invol F&I Crash
Speed Invol F&I Crash

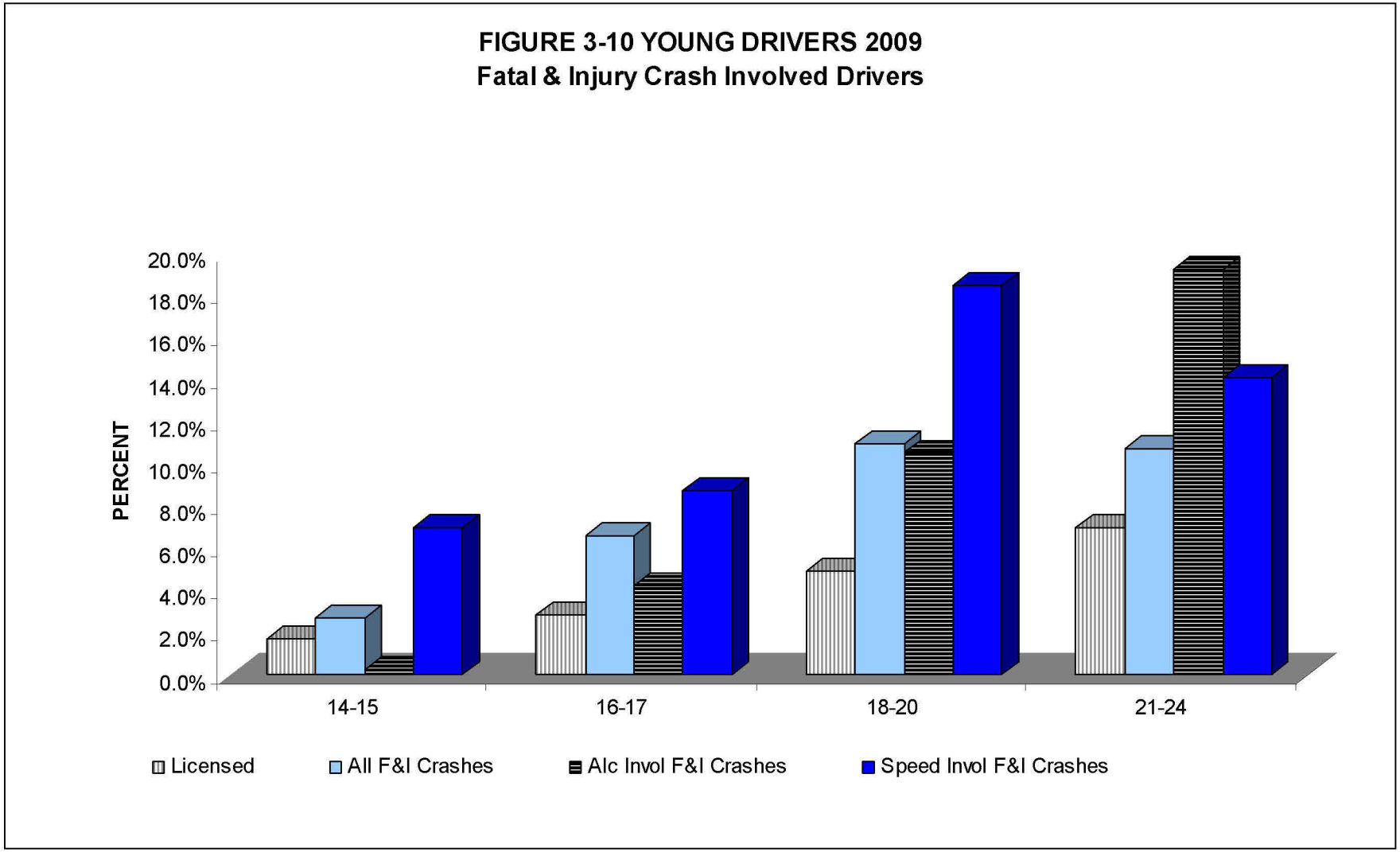


FIGURE 3-10 YOUNG DRIVERS 2009
Fatal & Injury Crash Involved Drivers
PERCENT
20.0%
18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
14-15
16-17
18-20
21-24
Licensed
All F&I Crashes
Alc Invol F&I Crashes
Speed Invol F&I Crashes

Contributing Circumstances (Vision Obscurement and Road)

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

Vision Obscurement - refers to conditions such as: weather condition; physical obstruction; windshield or window obscured by frost, snow, mud, etc.; snow bank; trees, crops, bushes or other vegetation; guardrail barrier; motor vehicle; building; signs, billboards, etc.; glare; and other. Weather condition was the most frequently reported vision obscurement and was indicated as a problem in 4 percent of all crashes.

Road Contributing Circumstances - These contributing circumstances include road surface condition (wet, icy, snow, slush, etc.); road shoulder conditions; objects or animals in the road; phantom vehicle; pedestrians, bicyclists, other non-occupant in roadway; work zone conditions, rough roads; and faulty or missing traffic control devices. The most common condition reported was road surface condition, and it was reported as a factor in 22.3 percent of all crashes.

Motor Vehicle Driver Contributing Circumstances

Driver actions are reported to indicate possible factors that may have contributed to the crashes. These factors are referred to as driver contributing circumstances. Drinking was the leading driver contributing circumstance in fatal crashes during 2009. Running off road and speeding were other leading driver contributing circumstances in fatal crashes. It was indicated that the drinking of 33 or 22.6 percent of the drivers in fatal crashes contributed to the crash. Failing to Yield to Another Vehicle was the leading contributing circumstance in injury crashes. Running off Road, Driving too Fast for Conditions and Following Too Close were other leading driver contributing circumstances in injury crashes (see TABLE 3-18).

TABLE 3-18
MOTOR VEHICLE DRIVER CONTRIBUTING CIRCUMSTANCES
2009

	Drivers in All Crashes		Drivers in Fatal Crashes		Drivers in Injury Crashes		Drivers in PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Disregarded Traffic Signs or Signals	658	2.7	7	4.8	280	4.1	371	2.1
Distracted	888	3.6	0	0.0	361	5.3	527	3.0
Drinking	665	2.7	33	22.6	325	4.8	307	1.7
Driving Too Fast for Condition	1,960	8.0	6	4.1	559	8.3	1,395	7.9
Exceeded Speed Limit	387	1.6	27	18.5	189	2.8	171	1.0
Fail to Yield to Vehicle	2,783	11.4	10	6.8	901	13.4	1,872	10.7
Failure to Keep in Proper Lane	467	1.9	13	8.9	127	1.9	327	1.9
Fatigued/Fell Asleep	200	0.8	0	0.0	98	1.5	102	0.6
Following Too Closely	1,053	4.3	2	1.4	407	6.0	644	3.7
Improper Backing	358	1.5	0	0.0	26	0.4	332	1.9
Improper Passing	144	0.6	3	2.1	35	0.5	106	0.6
Improper Turn	322	1.3	3	2.1	82	1.2	237	1.3
Not Stated**	4,736	19.4	0	0.0	0	0.0	4,736	27.0
Other*	1,268	5.2	9	6.2	449	6.7	810	4.6
Over-correcting/Over-steering	530	2.2	16	11.0	219	3.2	295	1.7
Running Off Road	1,064	4.4	29	19.9	402	6.0	633	3.6
Swerving or Avoiding due to wind, slippery surface, vehicle, object, non-motorist, etc.	523	2.1	4	2.7	164	2.4	355	2.0
Unknown	769	3.1	12	8.2	230	3.4	527	3.0
Wrong Side of Road	96	0.4	6	4.1	44	0.7	46	0.3
Total Drivers	**24,451**		**146**		**6,748**		**17,557**	

Note: The investigating officer may assign from zero to two contributing circumstances to each driver, therefore, the number of drivers in motor vehicle crashes does not equal the number of contributing circumstances.

*Other includes cell phones, drugs-medication, drugs-other, failed to yield to pedestrian, illegally in roadway, illness, improper lane change, improper parking, improper signal or failure to signal, improper start from parked position, other electronic devices, and physical impairment.

** Not Stated includes first harmful event of animal hit for property damage only crashes.

Source: SD Department of Public Safety - Office of Accident Records

Motorcycles

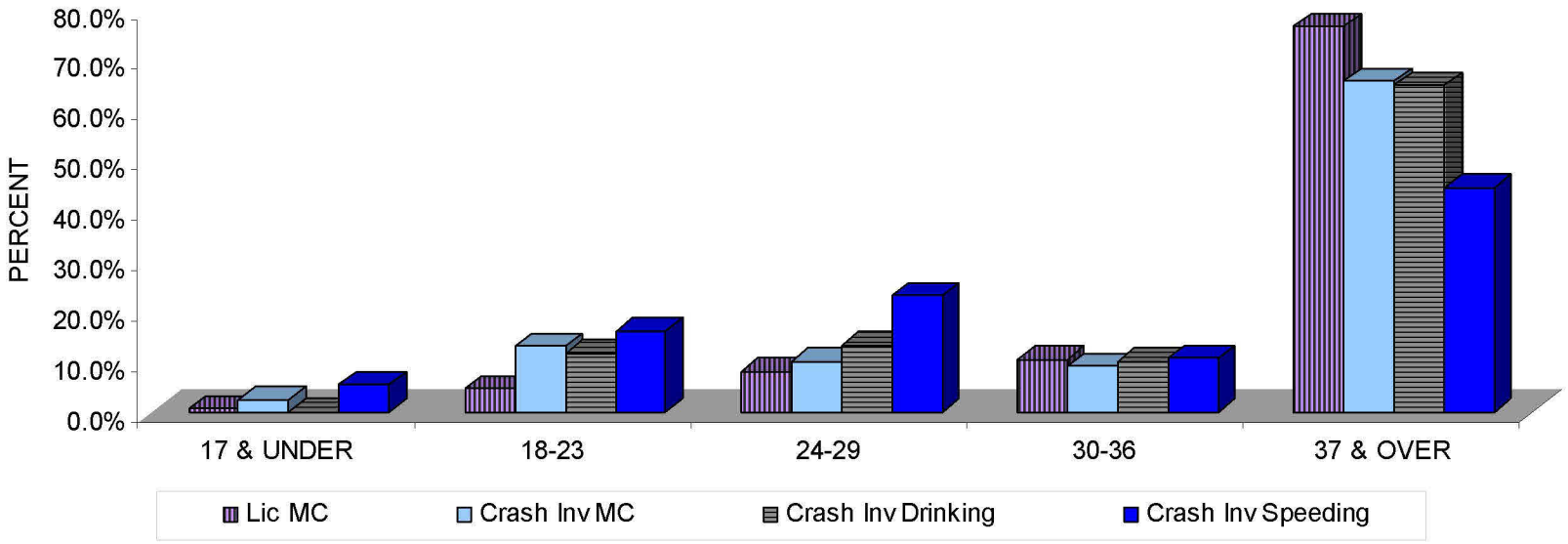
Motorcycle crashes constitute 2.9 percent of all crashes, 12.5 percent of all fatal crashes, and 7.5 percent of all injury crashes. There were 16 people killed and 508 injured on motorcycles in the 493 reported motorcycle crashes during 2009 (see TABLE 2-7). The young motorcycle driver is over represented in crashes when compared to their portion of licensed motorcycle operators. The licensed drivers under 20 years of age represent 1.4 percent of the licensed motorcycle drivers, 5.7 percent of drivers involved in motorcycle crashes, and 7.1 percent of the speeding drivers involved in motorcycle crashes (see TABLE 3-19 and FIGURE 3-11).

TABLE 3-19
MOTORCYCLISTS BY AGE GROUP
2009

Age Group	Licensed Motorcyclists No.	%	Motorcycle Drivers In Crashes No.	%	Drinking Motorcycle Drivers In Crashes No.	%	Speeding Motorcycle Drivers In Crashes No.	%
0 - 13	0	0.0	0	0.0	0	0.0	0	0.0
14 - 15	48	0.1	2	0.4	0	0.0	0	0.0
16 - 17	317	0.4	10	1.9	0	0.0	3	5.4
18 - 19	733	1.0	18	3.4	2	3.3	1	1.8
20 - 21	1,171	1.5	29	5.5	1	1.6	4	7.1
22 - 23	1,539	2.0	21	4.0	4	6.6	4	7.1
24 - 25	1,932	2.5	21	4.0	1	1.6	7	12.5
26 - 27	1,945	2.6	17	3.2	5	8.2	5	8.9
28 - 29	2,172	2.9	14	2.7	2	3.3	1	1.8
30 - 31	2,192	2.9	11	2.1	0	0.0	2	3.6
32 - 36	5,746	7.6	36	6.9	6	9.8	4	7.1
37 - 41	6,994	9.2	40	7.6	6	9.8	5	8.9
42 - 51	20,053	26.5	112	21.3	17	27.9	9	16.1
52 - Over	30,948	40.8	191	36.4	16	26.2	11	19.6
Unknown	0	0.0	3	0.6	1	1.6	0	0.0
Total	**75,790**	**100**	**525**	**100**	**61**	**100**	**56**	**100**

Sources: SD Department of Public Safety – Office of Accident Records
SD Department of Public Safety – Driver License Issuance

FIGURE 3-11 MOTORCYCLISTS 2009
Crash Involved Motorcycle & Moped Drivers



There were 16 motorcyclist fatalities during 2009. Fourteen were motorcycle drivers and two passengers. One passenger wore a helmet only, one driver wore helmet and eye protection, eight drivers and one passenger wore eye protection only and five drivers did not use safety equipment. Helmets were used by 178 or 35.2 percent of the motorcycle drivers in crashes while 327 or 64.8 percent did not wear a helmet (see TABLE 3-20).

TABLE 3-20
HELMET USE BY MOTORCYCLE DRIVERS IN CRASHES
2009

	Helmet Used		Helmet Not Used	
Age	No.	%	No.	%
06 - 13	0	0.0	0	0.0
14 - 15	0	0.0	2	100.0
16 - 17	7	70.0	3	30.0
18 - 20	10	27.8	26	72.2
21 - 24	10	25.0	30	75.0
25 - 34	17	24.6	52	75.4
35 - 44	28	38.4	45	61.6
45 - Over	105	38.5	168	61.5
Unknown	1	50.0	1	50.0
Total	**178**	**35.2**	**327**	**64.8**

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 counted as not used.

Source: SD Department of Public Safety – Office of Accident Records

Pedestrians

There were four pedestrian deaths and 95 injuries in motor vehicle crashes during 2009 (see TABLE 3-21). The youngest pedestrian killed was sixteen years old, while the oldest was sixty years old. Of the injured pedestrians, 16.8 percent were between the ages of 5-13. Cities accounted for 91.6 percent of the pedestrian injuries, while 100 percent of the fatalities were rural (see TABLE 3-23). Of the four pedestrians killed, 3 were male and 1 female. Of the 95 pedestrians injured, 50 were male and 45 female.

Officers reported that all four of the pedestrians killed had not been drinking alcohol (see TABLE 3-22).

TABLE 3-21
AGE OF PEDESTRIANS IN TRAFFIC CRASHES
2009

	Fatalities		Injuries	
Age	No.	%	No.	%
0 - 4	0	0.0	0	0.0
5 - 13	0	0.0	16	16.8
14 - 19	2	50.0	10	10.5
20 - 24	0	0.0	12	12.6
25 - 34	0	0.0	13	13.7
35 - 44	1	25.0	15	15.8
45 - 54	0	0.0	11	11.6
55 - 64	1	25.0	10	10.5
65 - Over	0	0.0	8	8.4
Total	**4**	**100**	**95**	**100**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-22
ALCOHOL INVOLVEMENT BY PEDESTRIANS
2009

Alcohol Involvement	Fatalities No.	Fatalities %	Injuries No.	Injuries %
Alcohol or Drugs	0	0.0	16	16.8
No Alcohol	4	100.0	79	83.2
Unknown	0	0.0	0	0.0
Total	**4**	**100**	**95**	**100**

Source: SD Department of Public Safety – Office of Accident Records

TABLE 3-23
RURAL vs. CITY PEDESTRIAN CRASHES
2009

	Fatalities	%	Injuries	%
Rural	4	100.0	8	8.4
City	0	0.0	87	91.6
Total	**4**	**100**	**95**	**100**

Source: SD Department of Public Safety – Office of Accident Records

Bicycles

During 2009 there were no bicyclists killed (see TABLE 2-9). There were 96 bicycle drivers injured in reported motor vehicle crashes during 2009 (see TABLE 3-24). The leading factor in bicycle-involved crashes was improper crossing which was reported for 19.1 percent of the injured bicycle drivers. Seventy-eight of the bicycle drivers in crashes had no contributing circumstances. The yearly 1989-2009 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

TABLE 3-24
AGE OF BICYCLE DRIVERS IN TRAFFIC CRASHES
2009

Age	Fatalities Number	Injuries Number	%
0 - 4	0	3	3.1
5 - 13	0	33	34.4
14 - 19	0	16	16.7
20 - 24	0	10	10.4
25 - 34	0	9	9.4
35 - 44	0	12	12.5
45 - 54	0	7	7.3
55 - 64	0	5	5.2
65 - Over	0	1	1.0
Total	**0**	**96**	**100**

Source: SD Department of Public Safety – Office of 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 law became effective for front seat occupants.

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.

July 1, 2001 - Safety belt primary law for all occupants age 17 and under.

July 1, 2002 - BAC Level changed from .10 to .08.

January 1, 2004 - South Dakota Accident Records System (SDARS) was implemented.

July 20, 2007 - Highway Patrol begins testing TraCS (Traffic and Criminal Software) in nine vehicles. Full implementation of computerized in-vehicle accident reporting expected in early 2008.

January 1, 2008 - SD Highway Patrol begins submission of all reportable crashes using TraCS (Traffic and Criminal Software) system. The Office of Accident Records will expand TraCS to add municipalities & counties for more efficient reporting during 2008

V. GLOSSARY OF TERMS

Reportable Traffic Crash

Motor vehicle traffic crash which involves death, injury or property damage to an apparent extent of one thousand dollars or more to any one person's property or accumulated property damage of two thousand dollars per crash.

Fatal Crash

Motor vehicle traffic crash in which at least one person dies as the result of the crash and dies within 30 days of the date of the crash.

Injury Crash

Motor vehicle crash in which at least one person was injured and no one was killed.

Property Damage Only (PDO) Crash

Motor vehicle crashes in which no one was killed or injured but there was property damage to an apparent extent of one thousand dollars or more to any one person's property or accumulated property damage of two thousand dollars per crash.

Fatality Rate

Number of traffic fatalities per 100 million vehicle miles traveled.

Alcohol Involved Crash

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 crashes are wage loss, medical expense, insurance administration cost, and property damage. (Source: Estimating the Costs of Unintentional Injuries, 2008, National Safety Council)

"SDCL 20-13, Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973 and the American Disabilities Act of 1990 require that the Department of Public Safety provide services to all persons without regard to race, color, creed, religion, sex, disability, ancestry or natural origin."

200 copies of this document were printed by the Department of Public Safety at the cost of $2.81 per copy.