2010
South Dakota
Motor Vehicle Traffic Crash Summary

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

Dennis Daugaard
Governor

MARKS
SPOT
THE
WHY DIE?

STATE OF SOUTH DAKOTA
DENNIS DAUGAARD, GOVERNOR

June 15, 2011

My Fellow South Dakotans:

I am pleased to present the 2010 South Dakota Motor Vehicle Traffic Crash Summary. The information in this report is used to identify traffic safety problems and to implement effective counter-measures.

During 2010, motor vehicle crashes claimed the lives of 140 persons on our public roadways. Forty-nine of those deaths were alcohol-related. Over one-third of the lives claimed by alcohol-related crash deaths were persons under the age of 30!

Sadly, all of these deaths were preventable.

Although South Dakota fatality and injury rates are lower than some of our neighboring states, we need to stay focused on taking personal responsibility for safe driving habits and teaching our children to do the same.

Therefore, I ask you to set a good example by avoiding distracted driving, wearing seatbelts every time you get into your vehicle, using a designated driver if necessary, and encouraging family, friends and co-workers to do the same.

If each of us shares in these responsibilities, South Dakota will continue to be a safe place for its citizens and for the many visitors who travel our roadways each year.

Sincerely,

Dennis

Dennis Daugaard

STATE CAPITOL • 500 EAST CAPITOL • PIERRE, SOUTH DAKOTA 57501-5070 • 605.773.3212

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I. INTRODUCTION

The Motor Vehicle Traffic Crash Summary is divided into two main sections, Historical Trends and 2010 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 2010 Traffic Crash Profile section details the crash picture for 2010 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: Chuck.Fergen@state.sd.us

Webpage: http://dps.sd.gov/enforcement/accident_records/Annual_Crash_Reports.aspx

SOUTH DAKOTA TRAFFIC STATISTICAL SUMMARY
2009-2010

	2009	2010
➢ NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC CRASHES	**16,994**	**17,626**
➢ AMOUNT OF MOTOR VEHICLE TRAFFIC CRASH PROPERTY DAMAGE	**$82 MILLION**	**$93 MILLION**
➢ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH INJURIES	**5,704**	**5801**
➢ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH FATALITIES	**131**	**140**
➢ FATALITY RATE PER 100,000,000 MILES OF TRAVEL	**1.50**	**1.58**
➢ PERCENT OF DRIVERS IN FATAL CRASHES WHO HAD BEEN DRINKING	**35.6%**	**26.2%**
➢ NUMBER KILLED IN ALCOHOL-RELATED CRASHES	**61**	**49**
➢ NUMBER INJURED IN ALCOHOL-RELATED CRASHES	**692**	**646**
➢ NUMBER OF PEDESTRIANS KILLED	**4**	**9**
➢ NUMBER OF MOTORCYCLISTS KILLED	**16**	**27**
➢ NUMBER OF BICYCLISTS KILLED	**0**	**2**
➢ PERCENT OF LICENSED DRIVERS UNDER 25	**16.2%**	**15.8%**
➢ PERCENT OF CRASH-INVOLVED SPEEDING DRIVERS UNDER 25	**51.8%**	**49.7%**
➢ PERCENT OF CRASH-INVOLVED DRINKING DRIVERS UNDER 25	**35.4%**	**33.0%**
➢ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**111**	**101**
➢ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES WHO WERE WEARING A SAFETY RESTRAINT *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**28**	**28**
➢ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE IN MOTOR VEHICLE CRASHES WHO WERE KILLED	**1**	**1**
WHO WERE INJURED *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**14**	**17**
➢ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE WITH CHILD RESTRAINT NOT USED PROPERLY WHO WERE KILLED	**0**	**0**
WHO WERE INJURED *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**5**	**2**
➢ ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC CRASHES	**$358 MILLION**	**$379 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 2001-2010 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
2001-2010

State	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
South Dakota	2.0	2.2	2.4	2.3	2.3	2.3	1.7	1.4	1.5	**1.6**
Iowa	1.5	1.3	1.4	1.2	1.4	1.4	1.4	1.4	1.2	**1.0**
Minnesota	1.1	1.2	1.2	1.0	1.0	0.9	0.9	0.8	0.8	**0.7**
Montana	2.3	2.6	2.4	2.0	2.3	2.3	2.4	2.1	2.0	**1.7**
Nebraska	1.4	1.6	1.5	1.3	1.4	1.4	1.3	1.1	1.0	**0.9**
North Dakota	1.5	1.3	1.4	1.3	1.6	1.4	1.4	1.3	1.8	**1.3**
Wyoming	2.2	2.0	1.8	1.8	1.9	2.1	1.6	1.7	1.4	**1.6**
National	1.5	1.5	1.5	1.4	1.5	1.4	1.3	1.3	1.2	**1.1**

Note: Death Rate is the number of traffic fatalities per 100 million vehicle miles traveled.
The 2010 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

FIGURE 2-1
South Dakota Fatality Rate
vs. Wyoming - North Datkota - National Rates

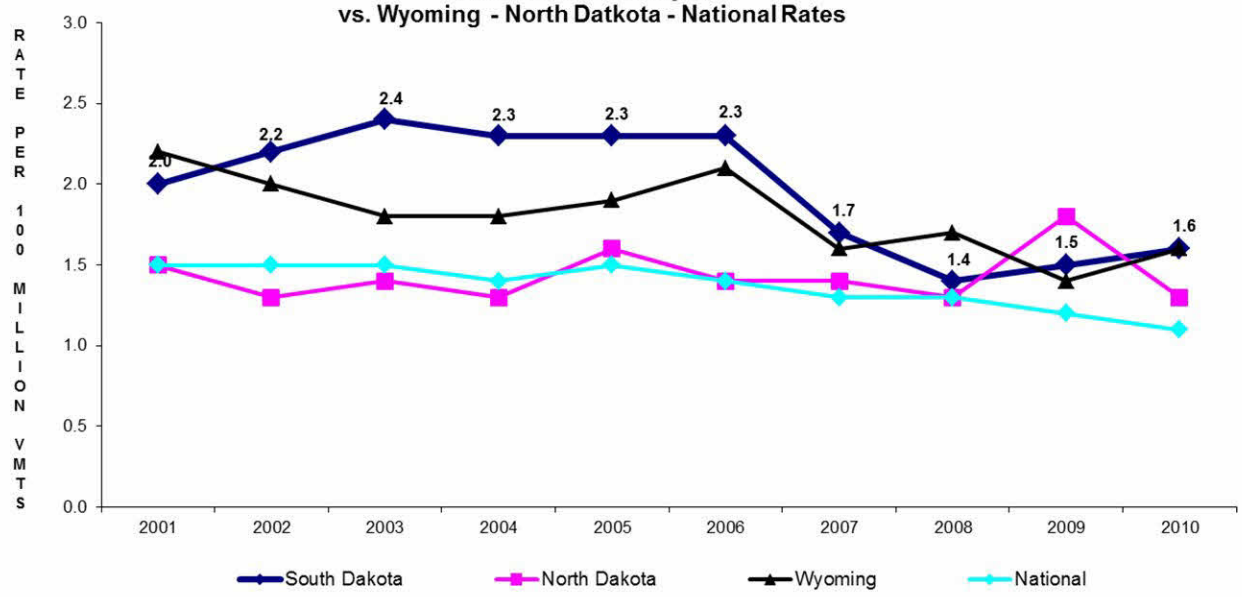


TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic crashes from 1981 through 2010. Any comparison of motor vehicle crashes must be made with caution due to the changes in the definition of a reportable crash. For example, in the late 1970's the definition of a fatality caused 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 2010 death rate increased to 1.58, a 5.4% increase from the 2009 death rate of 1.50. The 5,801 people injured in crashes are a 1.7% increase from the 5,704 in 2009 (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)
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
2010	**140**	**1.58**	**5,801**	**17,626**	**198.92**	**124**	**4155**	**13,347**	**8,861**	**992**

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 140 traffic fatalities during 2010, 49 or 35.0% 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
2004-2010

	2004	2005	2006	2007	2008	2009	2010
Total Crashes	6.7% (1153)	6.8% (1113)	7.0% (1099)	5.9% (959)	6.1% (977)	6.0% (1022)	5.7% (999)
Fatal Crashes	36.7% (61)	39.2% (62)	39.0% (67)	42.3% (55)	41.3% (45)	45.5% (51)	35.5% (44)
Injury Crashes	13.3% (607)	12.7% (552)	13.4% (563)	11.5% (467)	11.4% (467)	11.6% (474)	10.8% (448)
PDO Crashes	3.9% (485)	4.2% (499)	4.1% (469)	3.6% (437)	4.0% (465)	3.9% (497)	3.8% (507)
Fatalities	39.6% (78)	39.8% (74)	37.7% (72)	42.5% (62)	39.7% (48)	46.6% (61)	35.0% (49)
Injuries	14.3% (936)	13.2% (818)	14.2% (854)	11.5% (666)	11.5% (659)	12.1% (692)	11.1% (646)

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
2004-2010

AGE	2004	2005	2006	2007	2008	2009	2010
0 – 5	3	1	0	0	1	0	0
6 - 12	1	0	0	1	0	2	0
13 - 19	11	10	13	10	6	15	6
20	3	2	1	1	1	0	0
21 - 29	26	20	19	18	15	14	12
30 - 39	15	16	15	13	12	11	8
40 - 49	11	15	11	13	7	9	11
50 - 59	4	5	11	4	4	6	9
60 & OLDER	4	5	2	2	2	4	3
Unknown/Not Stated	0	0	0	0	0	0	0
TOTAL	**78**	**74**	**72**	**62**	**48**	**61**	**49**

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

FIGURE 2-2 2010 CRASH FATALITIES
Alcohol Related vs Non Alcohol Related

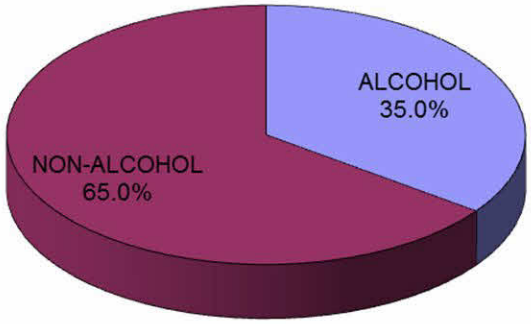
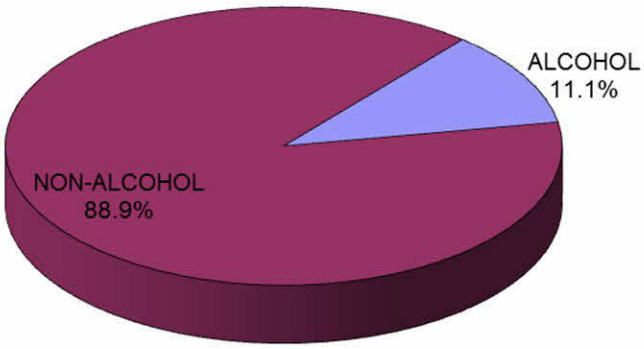


FIGURE 2-3 2010 CRASH INJURIES
Alcohol Related vs Non Alcohol Related



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 decreased by 6.3% while non-alcohol related fatal and injury crashes increased by 2.7% from the 2009 totals. **The number of DWI arrests decreased by 8.9% from 2009.**

TABLE 2-4
CRASH AND ARREST ACTIVITY
2001- 2010

	FATAL CRASHES		FATAL & INJURY CRASHES			
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED	DWI [1] ARRESTS	DWI [1] CONVICTIONS
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
2010	44	80	492	3,787	9,246	5,882

Note: [1] – Based on South Dakota Courts - The State of the Judiciary and 2010 Annual Report of the S. D. Unified Judicial System - January 2010 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 2001 through 2010.
FIGURE 2-5 presents the alcohol related and non-alcohol related fatal crash experience for the years of 2001 through 2010.

There were 44 alcohol related fatal crashes during 2010, which compares to 51 in 2009. The previous three-year average was 50 for the years of 2007-2009.

There were 492 alcohol related fatal and injury crashes during 2010, which compares to 525 in 2009. The previous three-year average was 520 or a 5.3 percent decrease in 2010. Non-alcohol related fatal and injury crashes in 2010 increased (2.7%) when compared to 2009 and increased 2.6 percent from the previous three-year average (2007-2009).

There were 9,246 DWI arrests in fiscal year 2010. This level has gone down 15.8% from the previous three-year average (2007-2009). There were 5,882 DWI convictions in fiscal year 2010. This level has gone down 14.9% from the previous 3-year average (2007-2009).

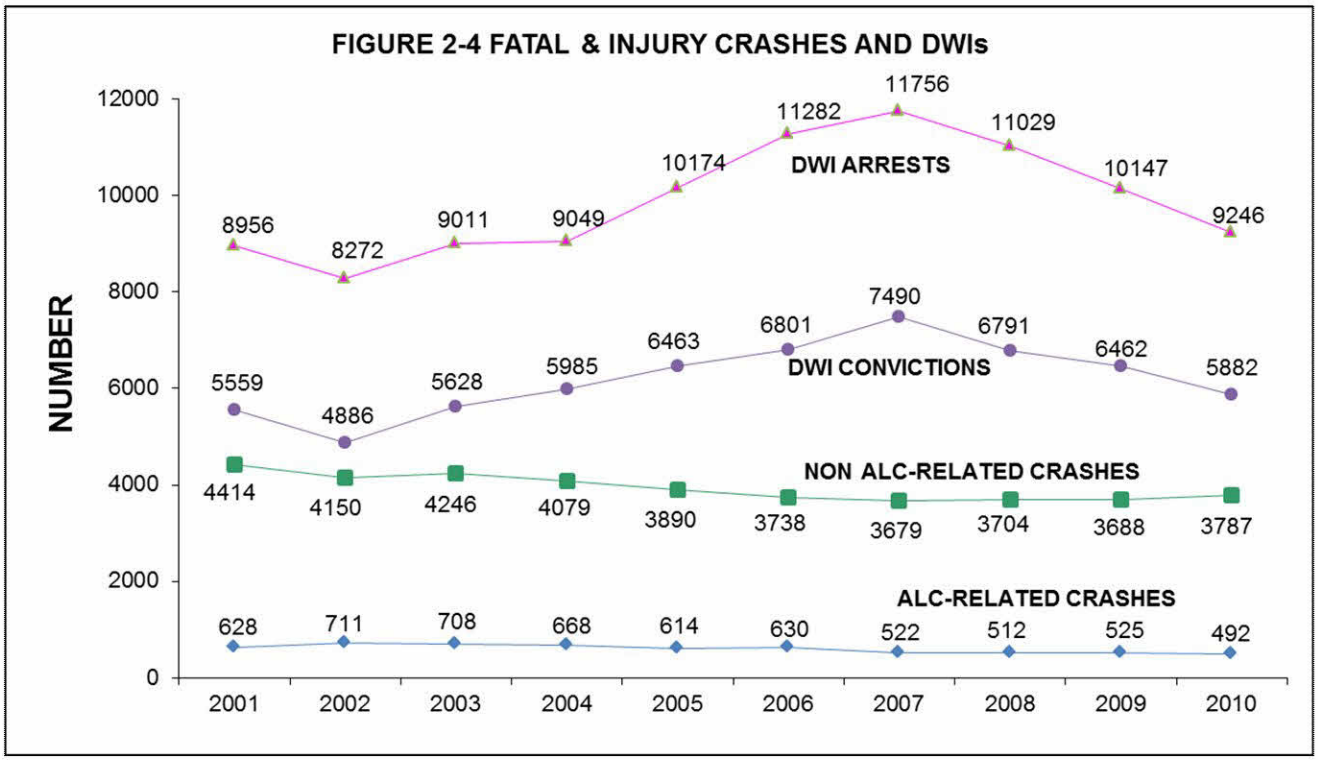


FIGURE 2-4 FATAL & INJURY CRASHES AND DWIs
NUMBER
12000
10000
8000
6000
4000
2000
0
DWI ARRESTS
8956
8272
9011
9049
10174
11282
11756
11029
10147
9246
DWI CONVICTIONS
5559
4886
5628
5985
6463
6801
7490
6791
6462
5882
NON ALC-RELATED CRASHES
4414
4150
4246
4079
3890
3738
3679
3704
3688
3787
ALC-RELATED CRASHES
628
711
708
668
614
630
522
512
525
492
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010

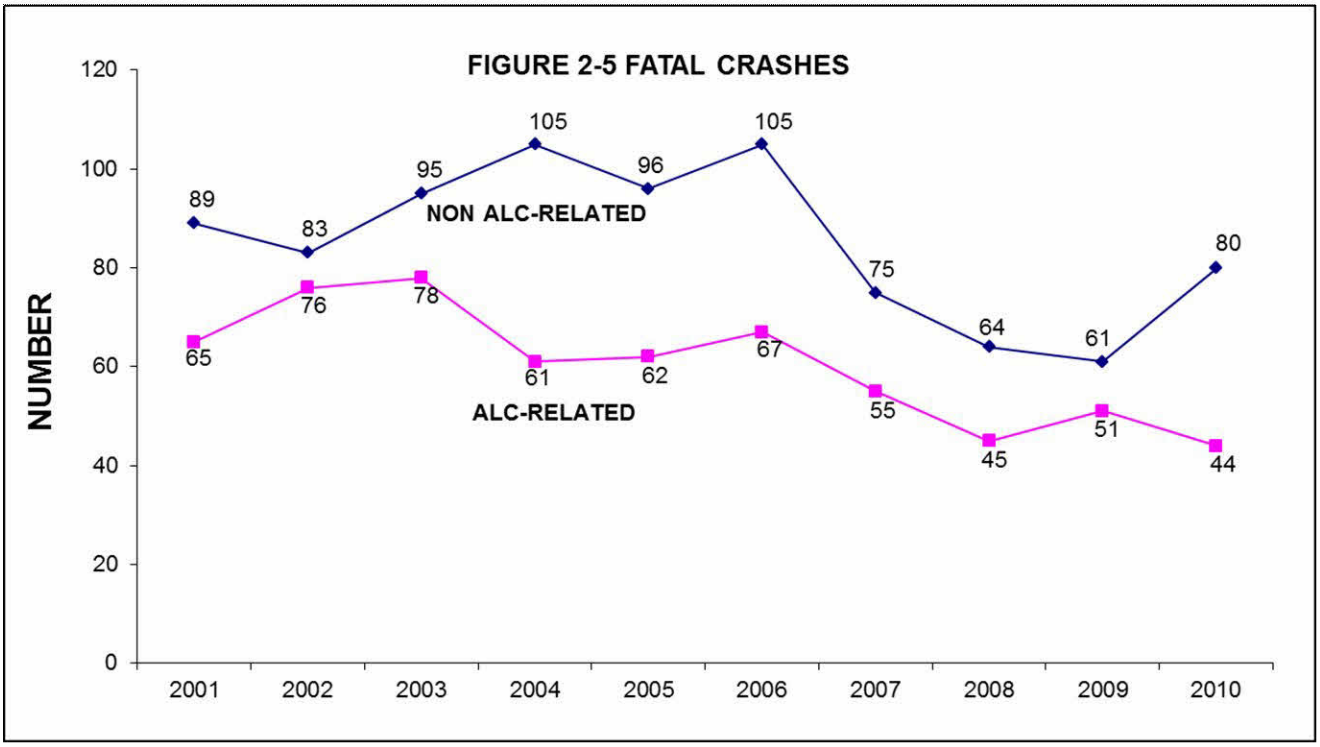


FIGURE 2-5 FATAL CRASHES
NUMBER
120
100
80
60
40
20
0
NON ALC-RELATED
89
83
95
105
96
105
75
64
61
80
ALC-RELATED
65
76
78
61
62
67
55
45
51
44
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010

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. Sixty-seven occupants were killed while not wearing any safety restraint, while twenty-six occupants killed were wearing a lap belt and shoulder harness, and two were wearing a lap belt only. (See TABLE 2-5)

Thirty-four (33.7%) of the 101 killed occupants were either partially or totally ejected from the vehicle. (See TABLE 2-5B)

TABLE 2-5 SAFETY RESTRAINT USAGE - KILLED OCCUPANTS

	2005	2006	2007	2008	2009	2010
No Safety Equipment	96	117	74	60	79	67
Lap Belt Only	1	1	0	1	1	2
Shoulder Harness Only	0	0	0	1	0	0
Lap Belt & Shoulder Harness	33	23	23	25	26	26
Child Restraint Used Properly	0	1	0	0	1	0
Child Restraint Not Properly Used	1	0	1	1	0	0
Other, Not Stated or Unknown	16	16	10	6	4	6
TOTAL	**147**	**158**	**108**	**94**	**111**	**101**

TABLE 2-5A SAFETY RESTRAINT USAGE - INJURED OCCUPANTS

	2005	2006	2007	2008	2009	2010
No Safety Equipment	1,238	1,173	1,058	1,080	1,012	956
Lap Belt Only	79	68	52	59	48	46
Shoulder Harness Only	28	21	36	33	35	47
Lap Belt & Shoulder Harness	3,680	3,461	3,423	3,395	3,506	3,503
Child Restraint Used Properly	66	67	59	66	57	61
Child Restraint Not Properly Used	5	13	4	3	7	2
Other, Not Stated or Unknown	373	396	354	314	316	365
TOTAL	**5,469**	**5,199**	**4,986**	**4,950**	**4,980**	**4,980**

Note: *Motor vehicle drivers and passengers are considered occupants.*
Drivers & Passengers of motorcycles, mopeds, ATVs and snowmobiles are not counted in the above tables 2-5 & 2-5A.

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

	KILLED						INJURED					
	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008	2009	2010
Not Ejected	73	73	55	47	50	67	5,299	4,996	4,811	4,798	4,841	4,851
Partial Ejection	11	15	4	4	11	9	16	20	15	19	19	10
Total Ejection	60	68	48	43	48	25	131	159	130	100	107	106
Unknown Ejection	1	2	1	0	2	0	21	24	30	21	13	11
Not Applicable	2	0	0	0	0	0	2	0	0	12	0	2
TOTAL	**147**	**158**	**108**	**94**	**111**	**101**	**5,469**	**5,199**	**4,986**	**4,950**	**4,980**	**4,980**

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

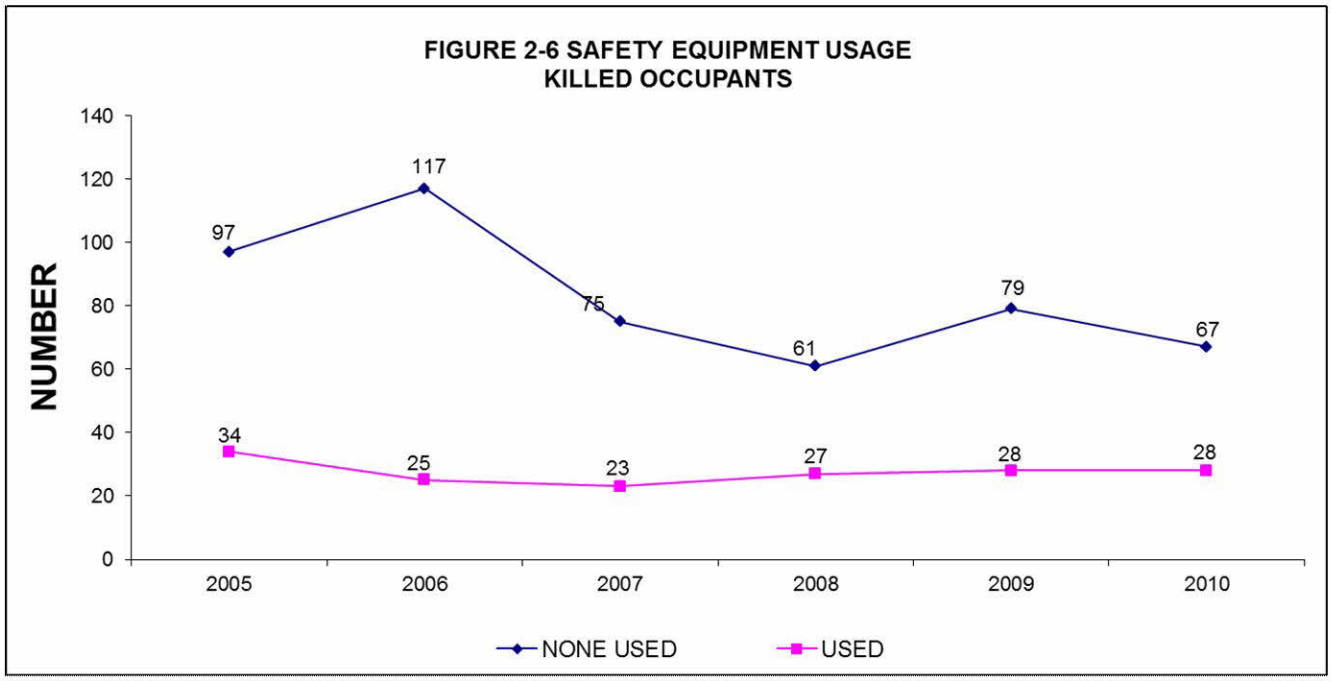


FIGURE 2-6 SAFETY EQUIPMENT USAGE
KILLED OCCUPANTS
NUMBER
140
120
100
80
60
40
20
0
97
117
75
61
79
67
34
25
23
27
28
28
2005
2006
2007
2008
2009
2010
NONE USED
USED

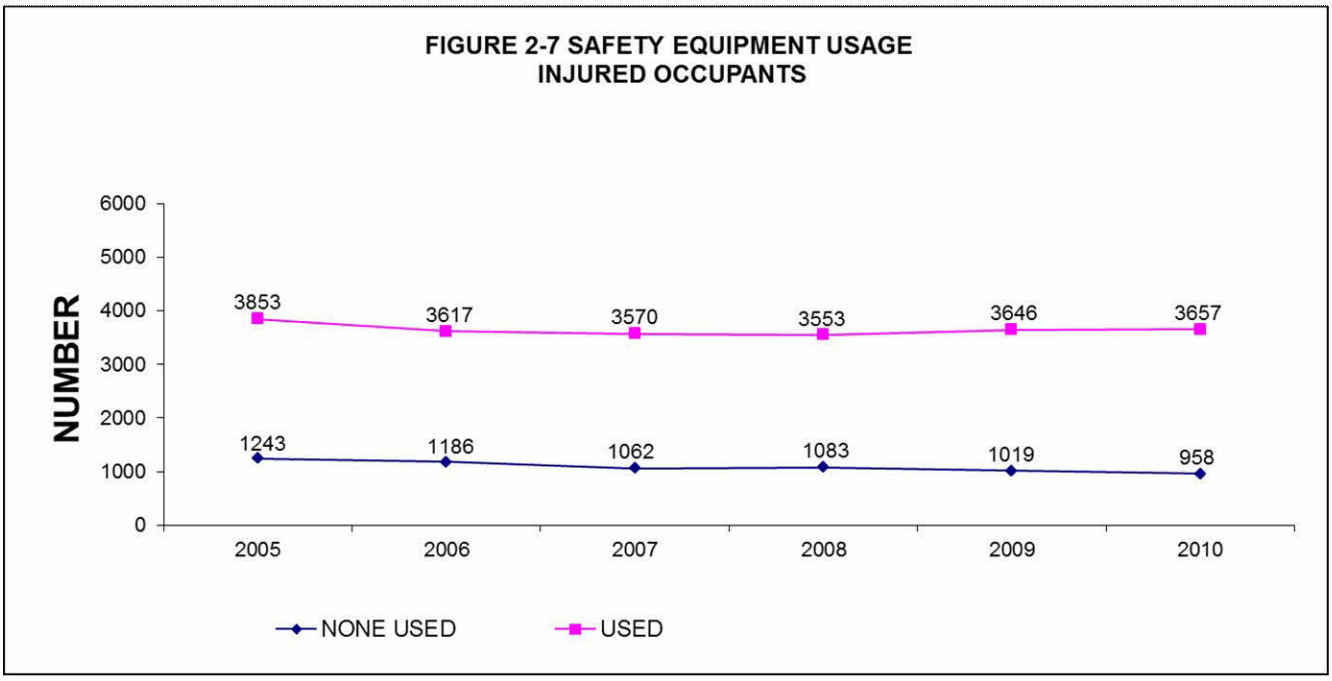


FIGURE 2-7 SAFETY EQUIPMENT USAGE
INJURED OCCUPANTS
NUMBER
6000
5000
4000
3000
2000
1000
0
3853
3617
3570
3553
3646
3657
1243
1186
1062
1083
1019
958
2005
2006
2007
2008
2009
2010
NONE USED
USED

The Child Passenger Restraint System (SDCL 32-37) law took effect on July 1, 1984 - since that time there have been 59 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 was one fatality to a motor vehicle occupant from birth through four years of age during 2010, which compares to two fatalities during 2009 (see TABLE 2-6).

There were 82 children (birth through 4 years old) injured in 2010, which compares to 79 for 2009. Fifty-nine of the 82 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
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
2010	**1**	**32**	**50**	**82**

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 - 2010

	Fatalities	Injuries
No Safety Equipment Used	1	14
Lap Belt Only	0	0
Shoulder Harness Only	0	1
Lap Belt & Shoulder Harness	0	10
Child Restraint Used Properly	0	48
Child Restraint Not Used Properly	0	2
Other, Not Stated or Unknown	0	7
TOTAL	**1**	**82**

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 496 and 22 deaths per year. Licensed motorcyclists increased 1.8 percent during 2010 while fatalities increased by eleven to 27 (see Table 2-7). Moped crashes are included with motorcycle crashes. There were no moped fatalities during 2010. 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
1990 - 2010

	Motorcycle Crashes			Motorcyclists		Registered	Licensed
Year	Total	Fatal	Injury	Fatalities	Injuries	Motorcycles	Motorcyclists
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
2010	**529**	**27**	**455**	**27**	**569**	**65,686**	**77,153**

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

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TABLE 2-8
PEDESTRIAN FATALITIES AND INJURIES
1990 - 2010

Year	Fatalities	Injuries
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
2010	**9**	**108**

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

TABLE 2-9
BICYCLE FATALITIES AND INJURIES
1990 - 2010

Year	Fatalities	Injuries
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
2010	**2**	**105**

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
2001- 2010

Holiday	Total Hours	Total Crashes	Fatal Crashes	Injury Crashes	Fatalities	Injuries
MEMORIAL DAY						
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
2010	**78**	**120**	**0**	**36**	**0**	**45**
FOURTH OF JULY						
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
2010	**78**	**129**	**1**	**36**	**1**	**49**
LABOR DAY						
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
2010	**78**	**116**	**2**	**25**	**2**	**33**

Holiday	Total Hours	Total Crashes	Fatal Crashes	Injury Crashes	Fatalities	Injuries
THANKSGIVING						
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
2010	**102**	**211**	**1**	**23**	**1**	**32**
CHRISTMAS						
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
2010	**78**	**141**	**0**	**26**	**0**	**36**
NEW YEARS						
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
2010-11	**78**	**128**	**0**	**24**	**0**	**28**

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 2001 through 2010. 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
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
2010	**845**	**14.6**	**2,136**	**36.8**	**2,820**	**48.6**	**5,801**	**140**

Note: This table also includes operators of other working type units (i.e.: 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
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
2010	**536**	**13.1**	**1,455**	**35.6**	**2,099**	**51.3**	**4,090**	**80**

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
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
2010	**253**	**17.0**	**589**	**39.7**	**643**	**43.3**	**1,485**	**49**

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
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
2010	**10**	**9.5**	**52**	**49.5**	**43**	**41.0**	**105**	**2**

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
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
2010	**45**	**41.7**	**35**	**32.4**	**28**	**25.9**	**108**	**9**

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
2000 - 2010

	CRASH INVOLVED DRIVERS				LICENSED DRIVERS			
	MALE		FEMALE		MALE		FEMALE	
	No.	%	No.	%	No.	%	No.	%
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	301,618	50.1	300,547	49.9
2010	**14,718**	**57.5**	**10,659**	**41.6**	**301,903**	**50.1**	**300,372**	**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. 2010 MOTOR VEHICLE CRASH PROFILE

Introduction

This section profiles the reported motor vehicle traffic crashes for 2010. 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 2010, there were 17,626 reported motor vehicle traffic crashes, the majority of crashes being property damage only 13,347 (75.7%). Injury crashes accounted for 4,155 (23.6%) of the crashes, while 124 (0.7%) were fatal crashes. There were 5,801 persons injured and 140 persons killed in crashes during 2010 (see TABLE 3-1).

TABLE 3-1
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS, PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS
2010

	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	536	63.4	1,455	68.1	2,099	74.4	4,090	70.5	80	57.1
Passengers	253	29.9	589	27.6	643	22.8	1,485	25.6	49	35.0
Pedestrians	45	5.3	35	1.6	28	1.0	108	1.9	9	6.4
Bicycle Dr	10	1.2	52	2.4	43	1.5	105	1.8	2	1.4
Other*	1	0.1	5	0.2	7	0.2	13	0.2	0	0.0
TOTAL	**845**	**100**	**2,136**	**100**	**2,820**	**100**	**5,801**	**100**	**140**	**100**

*Other – 13 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 2010, 32.1 percent of the fatalities and 46.3 percent of the injuries occurred to occupants of passenger cars. Occupants of pickups and vans accounted for 25 percent of the fatalities and 20.5 percent of the injuries. Additionally, in 2010 twenty-seven motorcyclists and nine pedestrians were killed. Two bicyclists were killed during 2010 (See Table 3-2).

TABLE 3-2
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION
2010

	Fatalities		Injuries	
	No.	%	No.	%
Passenger Cars, Mini-vans	48	34.3	3,094	53.3
Pickups, Cargo Vans***	32	22.9	780	13.4
SUV's (Sports Utility Vehicles)	13	9.3	929	16.0
Trucks (All)*	7	5.0	122	2.1
Motorcycle	27	19.3	514	8.9
Moped	0	0.0	41	0.7
ATV's / 4-Wheelers	1	0.7	29	0.5
Bus	0	0.0	55	0.9
Farm Machinery, Heavy Equipment	0	0.0	9	0.2
Motor Home	0	0.0	6	0.1
Snowmobile	0	0.0	3	0.1
Bicycle	2	1.4	105	1.8
Pedestrians	9	6.4	108	1.9
Other**	1	0.7	6	0.1
Unknown	0	0.0	0	0.0
TOTAL	**140**	**100**	**5,801**	**100**

*Trucks Specifics:	Fatalities	Injuries
Straight Truck	3	46
Straight Truck with Trailer	0	6
Truck Tractor Only	0	0
Truck Tractor with Single Semi Trailer	4	68
Truck Tractor with Two or More Trailers	0	2
TOTAL	**7**	**122**

Note: **Other -- includes Train, Animal Drawn Vehicle and Other Types of Motor Vehicles.
***Cargo Vans are defined as large van-based light trucks used to transport cargo or large vans used to transport people with seating for 9 or more people, including the driver.

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

FIGURE 3-1 FATALITIES BY TRAVEL MODE 2010

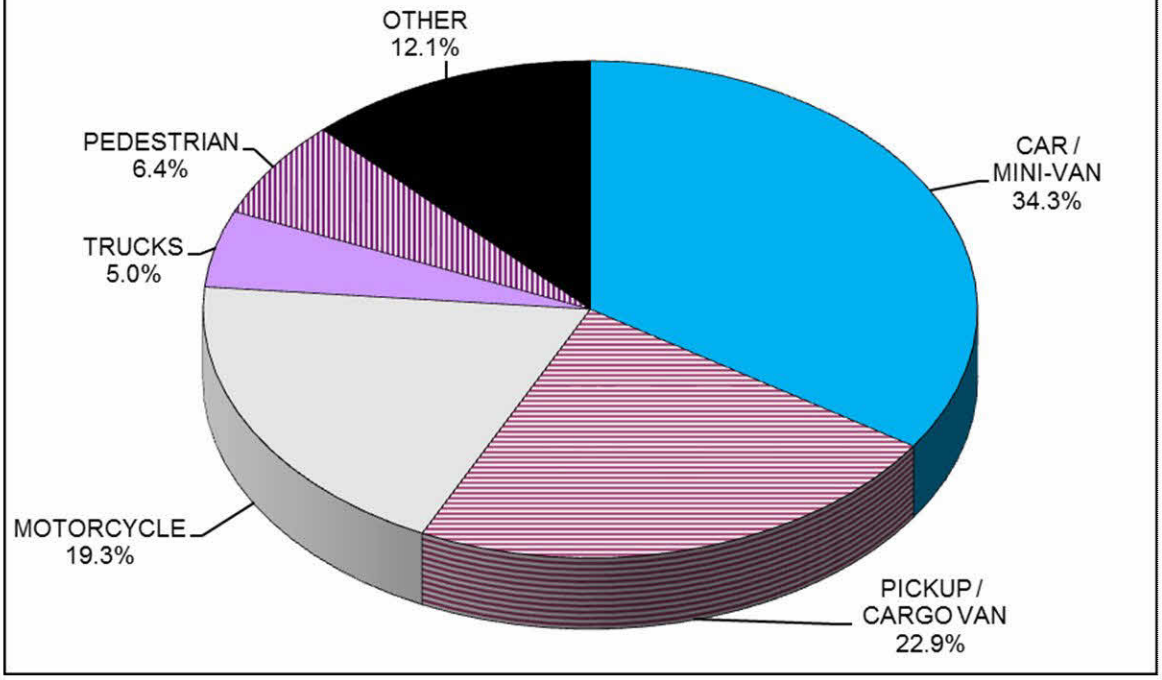
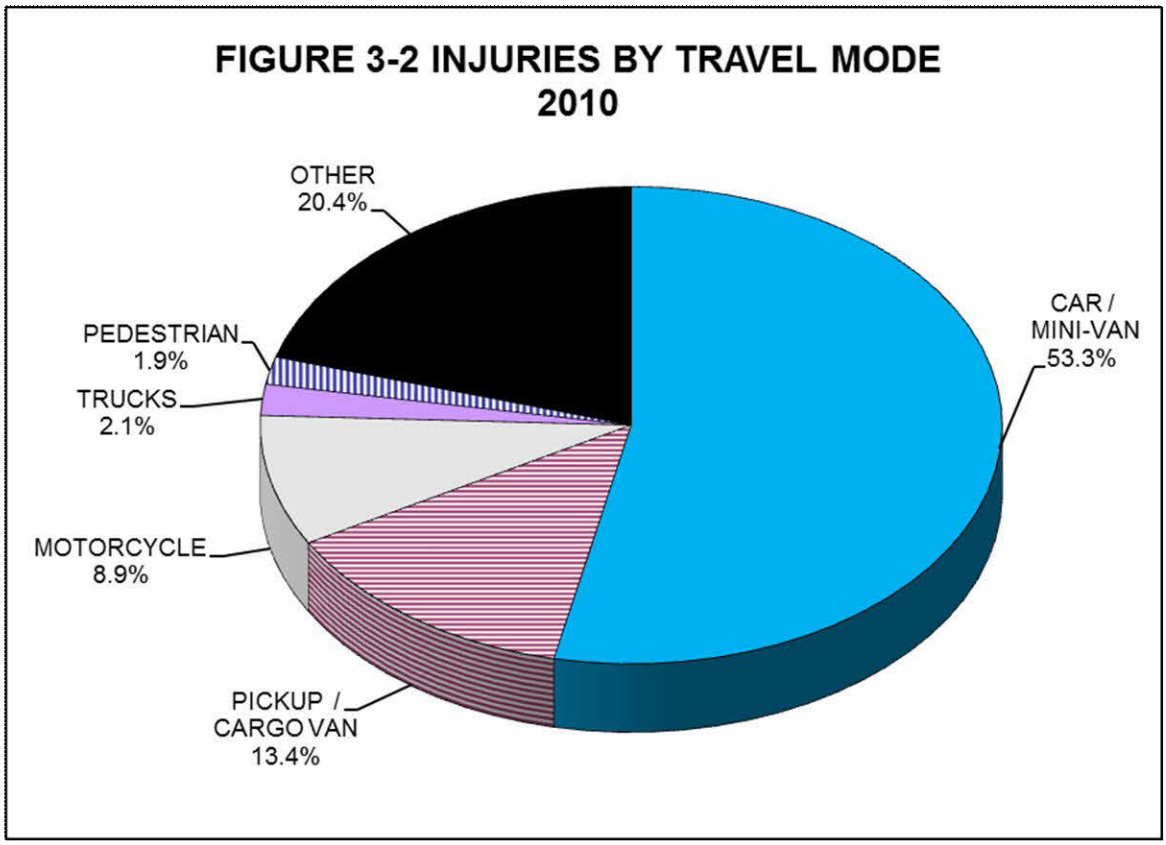


FIGURE 3-2 INJURIES BY TRAVEL MODE 2010



** Other includes ATVs, SUVs, Bicycle, Farm Machinery, Heavy Equipment, Bus, Motor Home, Snowmobile, 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 32.3 percent of the vehicles involved in fatal crashes and 48.2 percent of those involved in injury crashes. Pickups and vans made up 24.9 percent of the vehicles involved in fatal crashes.

TABLE 3-3
VEHICLE TYPES INVOLVED IN CRASHES
2010

	All Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Passenger Cars / Mini-vans	14,636	55.0	66	34.9	3,770	54.4	10,800	55.4
Pickups, Cargo Vans	5,044	19.0	42	22.2	1,071	15.4	3,931	20.2
SUV's (Sports Utility Vehicles)	4,774	17.9	21	11.1	1,218	17.6	3,535	18.1
Trucks (All)*	1,188	4.5	21	11.1	258	3.7	909	4.7
Motorcycle	541	2.0	34	18.0	458	6.6	49	0.3
Moped	41	0.2	0	0.0	39	0.6	2	0.0
ATV's / 4-wheelers	38	0.1	1	0.5	32	0.5	5	0.0
Bus	139	0.5	0	0.0	41	0.6	98	0.5
Farm Machinery / Heavy Equip.	72	0.3	3	1.6	23	0.3	46	0.2
Motor Home	35	0.1	0	0.0	7	0.1	28	0.1
Snowmobile	4	0.0	0	0.0	3	0.0	1	0.0
Other	15	0.1	1	0.5	6	0.1	8	0.0
Unknown	88	0.3	0	0.0	7	0.1	81	0.4
TOTAL	**26,615**	**100**	**189**	**100**	**6,933**	**100**	**19,493**	**100**

* Trucks Specifics:	All Crashes	Fatal Crashes	Injury Crashes	PDO Crashes
Straight Truck	408	8	86	314
Straight Truck with Trailer	130	1	19	110
Truck Tractor Only	11	0	1	10
Truck Tractor with Single Semi Trailer	600	11	145	444
Truck Tractor with Two or More Trailers	39	1	7	31
TOTAL	**1,188**	**21**	**258**	**909**

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 24 people (17.1%) of the persons killed were under 20 years of age and a total of 1,038 or (17.9%) of the persons injured were from 25 through 34 years of age. One child age 0-5 was killed during 2010 (see Table 3-4).

TABLE 3-4
FATALITIES AND INJURIES BY AGE GROUP
2010

	Fatalities		Injuries	
	No.	%	No.	%
0 - 5	1	0.7	104	1.8
6 - 13	5	3.6	271	4.7
14 - 15	4	2.9	217	3.7
16 - 17	4	2.9	392	6.8
18	5	3.6	214	3.7
19	5	3.6	184	3.2
20	0	0.0	157	2.7
21 - 24	7	5.0	563	9.7
25 - 34	24	17.1	1038	17.9
35 - 44	15	10.7	691	11.9
45 - 54	25	17.9	839	14.5
55 - 64	16	11.4	573	9.9
65 - Over	29	20.7	550	9.5
Unknown	0	0.0	8	0.1
Total	**140**	**100**	**5,801**	**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 37.9 percent of the fatal crashes and only 10.8 percent of the total crashes, while 37.1 percent of the fatal crashes and 42.0 percent of all crashes represented a collision between two or more vehicles (see TABLE 3-5).

TABLE 3-5
FIRST HARMFUL EVENT
2010

First Harmful Event	Total Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Motor Vehicle Collision With:								
MV in Transport	7,406	42.0	46	37.1	2,330	56.1	5,030	37.7
A Fixed or Other Object	2,278	12.9	17	13.7	556	13.4	1,705	12.8
An Animal	4,937	28.0	2	1.6	95	2.3	4,840	36.3
A Pedestrian	100	0.6	9	7.3	91	2.2	0	0.0
A Bicyclist	108	0.6	2	1.6	104	2.5	2	0.0
A Parked Motor Vehicle	815	4.6	1	0.8	78	1.9	736	5.5
A Railroad Vehicle	7	0.0	0	0.0	3	0.1	4	0.0
Equipment in Roadway	63	0.4	0	0.0	5	0.1	58	0.4
Non-Collision (Overturning or Other)	1,912	10.8	47	37.9	893	21.5	972	7.3
Total	**17,626**	**100**	**124**	**100**	**4,155**	**100**	**13,347**	**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 43.5 percent of the fatal crashes, 50.3 percent of the injury crashes, and 55.9 percent of the property damage only crashes. Angle collisions are the most prevalent for severe crashes, accounting for 43.5 percent of the fatal crashes and 54.1 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
2010

Manner of Collision	Total Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Rear-End	2,647	35.7	8	17.4	982	42.1	1,657	32.9
Head-On	128	1.7	12	26.1	76	3.3	40	0.8
Angle	4,005	54.1	20	43.5	1,172	50.3	2,813	55.9
Sideswipe-Same Direction	525	7.1	3	6.5	71	3.0	451	9.0
Sideswipe-Opposite Dir.	101	1.4	3	6.5	29	1.2	69	1.4
Rear-Rear	1	0.0	0	0.0	0	0.0	1	0.0
Unknown	0	0.0	0	0.0	0	0.0	0	0.0
Total	7,407	100	46	100	2,330	100	5,031	100
No Collision Between 2 or more MV	10,219		78		1,825		8,316	
Total Crashes	**17,626**		**124**		**4,155**		**13,347**	

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 31.8 percent of the PDO crashes and 45.7 percent of the injury crashes while accounting for 8.1 percent of the fatal crashes.

Non-interstate rural roads tallied 73.4 percent of the fatal crashes. The Interstate system experienced 2,732 (15.5%) of the total crashes while accounting for an estimated 30.0 percent of the vehicle miles traveled in 2010. Twenty 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
2010

Type of Highway	Total Crashes Number	%	Fatal Crashes Number	%	Injury Crashes Number	%	PDO Crashes Number	%	No. Killed	No. Injured
Interstate - Rural	1,747	9.9	17	13.7	315	7.6	1,415	10.6	20	474
US/State Hwys.-Rural	4,528	25.7	57	46.0	731	17.6	3,740	28.0	61	1,144
Co./Local Rds.-Rural	2,884	16.4	34	27.4	630	15.2	2,220	16.6	42	899
Interstate - City	985	5.6	3	2.4	181	4.4	801	6.0	3	242
US/State Hwys.-City	1,062	6.0	3	2.4	352	8.5	707	5.3	4	498
City Streets/Alleys	6,151	34.9	10	8.1	1,898	45.7	4,243	31.8	10	2,478
Unknown/Not Reported	269	1.5	0	0.0	48	1.2	221	1.7	0	66
Total	**17,626**	**100**	**124**	**100**	**4,155**	**100**	**13,347**	**100**	**140**	**5,801**

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

FIGURE 3-3 2010
TRAFFIC CRASHES
BY SYSTEM TYPE

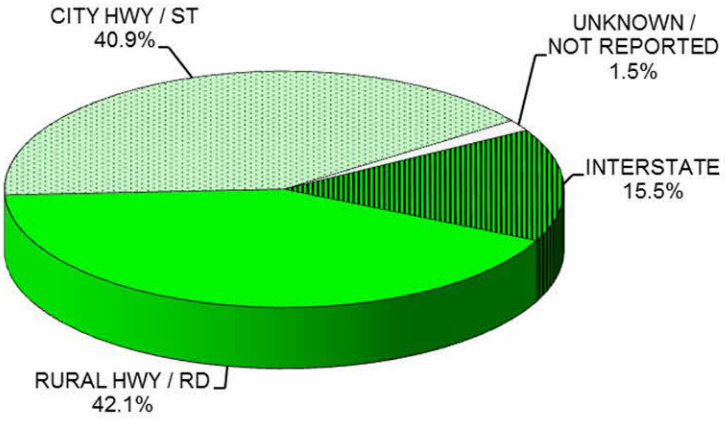


FIGURE 3-4 2010
FATAL TRAFFIC CRASHES
BY SYSTEM TYPE

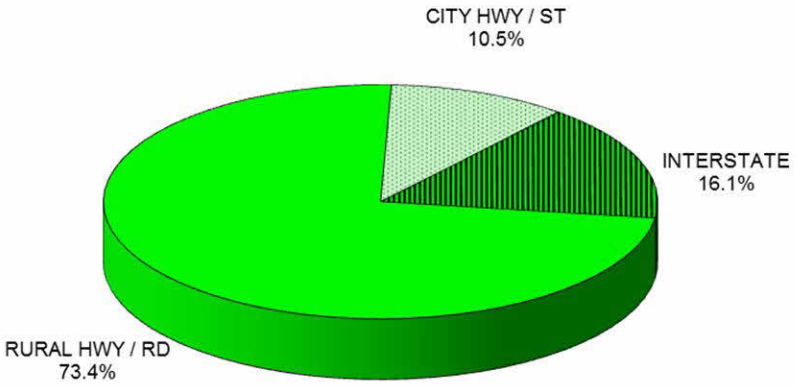


TABLE 3-8
MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2010

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	121	1	15	105	1	21
BEADLE	312	0	72	240	0	113
BENNETT	18	2	8	8	2	29
BON HOMME	116	1	19	96	1	30
BROOKINGS	563	3	131	429	4	168
BROWN	781	1	135	645	1	182
BRULE	125	1	22	102	1	36
BUFFALO	26	0	5	21	0	9
BUTTE	157	1	22	134	1	27
CAMPBELL	33	0	3	30	0	4
CHARLES MIX	77	3	24	50	3	36
CLARK	90	1	12	77	1	19
CLAY	206	0	46	160	0	66
CODINGTON	581	4	131	446	4	169
CORSON	71	1	10	60	1	15
CUSTER	213	1	60	152	1	92
DAVISON	558	2	103	453	2	142
DAY	64	2	18	44	3	27
DEUEL	150	0	30	120	0	36
DEWEY	92	1	12	79	1	13
DOUGLAS	20	1	1	18	1	2
EDMUNDS	139	1	15	123	1	18
FALL RIVER	151	2	29	120	2	47
FAULK	99	0	15	84	0	22
GRANT	171	0	33	138	0	51
GREGORY	43	1	17	25	1	25
HAAKON	92	1	11	80	1	20
HAMLIN	155	2	18	135	4	27
HAND	118	0	15	103	0	21
HANSON	111	1	25	85	1	42
HARDING	45	2	6	37	2	9
HUGHES	268	3	66	199	3	93
HUTCHINSON	150	0	26	124	0	34
HYDE	18	0	4	14	0	5
JACKSON	119	3	23	93	3	31
JERAULD	74	2	6	66	2	7
JONES	75	6	13	56	7	24
KINGSBURY	150	1	10	139	1	12
LAKE	197	2	33	162	2	45
LAWRENCE	662	6	174	482	6	234
LINCOLN	764	6	177	581	7	279
LYMAN	192	3	21	168	4	35
MARSHALL	83	0	6	77	0	9
MC COOK	177	1	25	151	1	34
MC PHERSON	48	1	4	43	1	10
MEADE	500	1	115	384	1	165
MELLETTE	17	0	2	15	0	2
MINER	83	2	5	76	2	8
MINNEHAHA	3,936	10	1,285	2,641	10	1,694
MOODY	235	2	31	202	4	36
PENNINGTON	2,352	8	683	1,661	8	937
PERKINS	50	0	5	45	0	6
POTTER	62	0	8	54	0	13
ROBERTS	220	2	46	172	2	63
SANBORN	107	1	12	94	1	17
SHANNON	56	12	26	18	18	65
SPINK	278	2	39	237	2	56
STANLEY	124	0	15	109	0	18
SULLY	63	1	2	60	1	6
TODD	19	1	3	15	1	6
TRIPP	153	3	28	122	4	42
TURNER	80	2	24	54	2	45
UNION	289	0	66	223	0	93
WALWORTH	86	0	17	69	0	19
YANKTON	404	5	88	311	5	133
ZIEBACH	37	2	4	31	2	7
Total:	**17,626**	**124**	**4,155**	**13,347**	**140**	**5,801**

TABLE 3-8A
ALCOHOL INVOLVED MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2010

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	2	0	1	1	0	1
BEADLE	13	0	5	8	0	6
BENNETT	5	1	4	0	1	19
BON HOMME	9	0	4	5	0	6
BROOKINGS	19	0	7	12	0	10
BROWN	36	0	13	23	0	15
BRULE	4	0	2	2	0	2
BUFFALO	3	0	1	2	0	1
BUTTE	10	1	3	6	1	3
CAMPBELL	0	0	0	0	0	0
CHARLES MIX	8	1	5	2	1	7
CLARK	2	1	0	1	1	0
CLAY	10	0	6	4	0	13
CODINGTON	26	0	10	16	0	11
CORSON	4	0	4	0	0	8
CUSTER	14	0	6	8	0	7
DAVISON	19	1	10	8	1	15
DAY	6	0	3	3	0	5
DEUEL	5	0	2	3	0	2
DEWEY	3	0	1	2	0	1
DOUGLAS	0	0	0	0	0	0
EDMUNDS	8	0	4	4	0	5
FALL RIVER	10	1	4	5	1	7
FAULK	4	0	3	1	0	4
GRANT	7	0	4	3	0	5
GREGORY	6	0	5	1	0	7
HAAKON	1	0	0	1	0	0
HAMLIN	4	0	3	1	0	5
HAND	4	0	3	1	0	4
HANSON	3	0	1	2	0	1
HARDING	1	1	0	0	1	2
HUGHES	18	3	4	11	3	5
HUTCHINSON	5	0	3	2	0	4
HYDE	2	0	1	1	0	1
JACKSON	5	1	1	3	1	1
JERAULD	2	1	1	0	1	1
JONES	5	1	3	1	1	5
KINGSBURY	6	1	2	3	1	2
LAKE	12	0	7	5	0	12
LAWRENCE	55	1	24	30	1	29
LINCOLN	45	4	17	24	5	25
LYMAN	7	1	3	3	1	3
MARSHALL	6	0	3	3	0	4
MC COOK	5	0	2	3	0	2
MC PHERSON	1	0	0	1	0	0
MEADE	24	1	13	10	1	19
MELLETTE	0	0	0	0	0	0
MINER	3	0	1	2	0	1
MINNEHAHA	263	4	120	139	4	160
MOODY	9	1	4	4	1	4
PENNINGTON	152	3	66	83	3	89
PERKINS	3	0	0	3	0	0
POTTER	1	0	1	0	0	1
ROBERTS	19	2	9	8	2	15
SANBORN	2	0	1	1	0	1
SHANNON	19	7	7	5	11	26
SPINK	18	1	11	6	1	16
STANLEY	2	0	2	0	0	2
SULLY	1	1	0	0	1	3
TODD	0	0	0	0	0	0
TRIPP	11	1	8	2	1	15
TURNER	5	0	4	1	0	4
UNION	12	0	2	10	0	3
WALWORTH	7	0	4	3	0	6
YANKTON	26	2	9	15	2	11
ZIEBACH	2	1	1	0	1	4
Total:	**999**	**44**	**448**	**507**	**49**	**646**

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 eleven counties (see TABLE 3-9). Each of these counties reported over two percent of all rural fatal and injury crashes. These eleven counties accounted for 52.6 percent of rural fatal and injury crashes and 71.2 percent of all fatal and injury crashes in South Dakota. Pennington County has 10.2 percent of all rural fatal and injury crashes with Minnehaha accounting for 8.9 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.

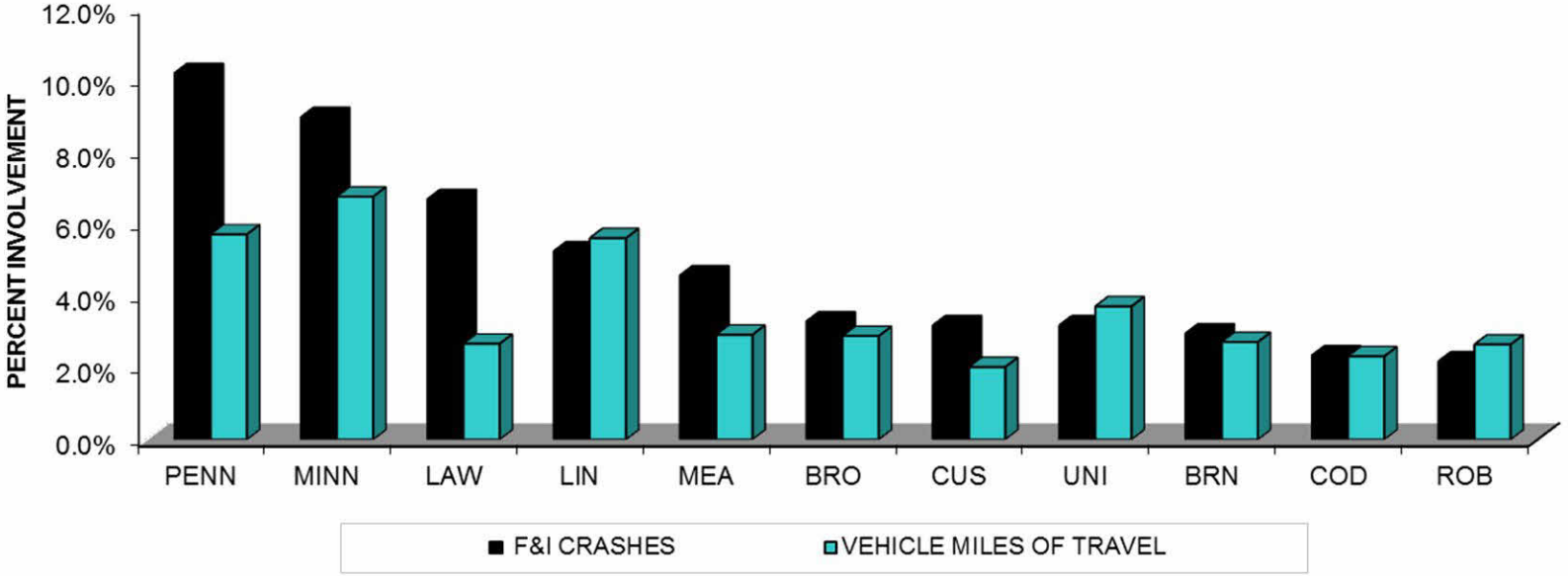
TABLE 3-9
COUNTIES HAVING MORE THAN TWO PERCENT OF THE RURAL FATAL & INJURY CRASHES
2010

County	Rural Fatal & Injury Crashes	Percent of All Rural Fatal & Injury Crashes	Percent of Rural VMTS
PENNINGTON	183	10.2	5.7
MINNEHAHA	161	8.9	6.7
LAWRENCE	120	6.7	2.7
LINCOLN	94	5.2	5.6
MEADE	82	4.6	2.9
BROOKINGS	59	3.3	2.9
CUSTER	57	3.2	2.0
UNION	57	3.2	3.7
BROWN	53	2.9	2.7
CODINGTON	42	2.3	2.3
ROBERTS	39	2.2	2.6

Note: Total Rural Fatal and Injury Crashes: 1,800
S.D. Vehicle Miles of Travel Report (2010 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 - 2010



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 10.5 percent of the fatal crashes. The two largest cities (Sioux Falls, Rapid City) accounted for 70.2 percent of fatal and injury crashes occurring in cities and 59.8 percent of the property damage only crashes.

TABLE 3-10
TRAFFIC CRASHES SOUTH DAKOTA CITIES
POPULATION 2500 AND OVER
2010

City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
Aberdeen	403	1	81	321	1	101
Belle Fourche	32	0	5	27	0	5
Box Elder	52	0	24	28	0	37
Brandon	57	1	14	42	1	21
Brookings	248	1	73	174	1	92
Canton	37	0	7	30	0	9
Dell Rapids	31	0	5	26	0	6
Harrisburg	8	0	2	6	0	2
Hartford	9	0	2	7	0	2
Hot Springs	51	0	7	44	0	9
Huron	149	0	48	101	0	71
Lead	13	0	4	9	0	5
Madison	45	0	12	33	0	18
Milbank	40	0	9	31	0	16
Mitchell	343	0	70	273	0	92
Mobridge	35	0	8	27	0	8
N. Sioux City	30	0	5	25	0	5
Pierre	159	2	50	107	2	71
Rapid City	1,591	3	476	1,112	3	642
Redfield	42	0	6	36	0	6
Sioux Falls	3,255	3	1,180	2,072	3	1,544
Sisseton	49	0	7	42	0	9
Spearfish	207	0	49	158	0	63
Sturgis	95	0	29	66	0	37
Tea	15	0	1	14	0	1
Vermillion	97	0	23	74	0	35
Watertown	383	0	91	292	0	120
Winner	15	0	3	12	0	3
Yankton	206	2	65	139	2	91

Note! The cities of Harrisburg, Hartford, N. Sioux City & Tea have been added to this table due to an increas in population showing up in the April 1, 2010 Census.

Source: SD Department of Public Safety – Office of Accident Records
US Census Bureau

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 23 percent of all reported property damage crashes and 20.2 percent of all fatal and injury crashes. Dry roads were reported in 67.8 percent of all fatal and injury crashes.

TABLE 3-11
ROADWAY SURFACE CONDITIONS
2010

	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Dry	11,697	66.4	101	81.5	2,801	67.4	8,795	65.9
Wet	1,631	9.3	6	4.8	406	9.8	1,219	9.1
Snow	1,713	9.7	2	1.6	319	7.7	1,392	10.4
Slush	311	1.8	1	0.8	84	2.0	226	1.7
Ice	1,753	9.9	8	6.5	403	9.7	1,342	10.1
Frost	156	0.9	3	2.4	44	1.1	109	0.8
Water	30	0.2	0	0.0	9	0.2	21	0.2
Sand, mud, dirt, gravel	212	1.2	2	1.6	77	1.9	133	1.0
Oil	5	0.0	1	0.8	1	0.0	3	0.0
Other	13	0.1	0	0.0	5	0.1	8	0.1
Unknown / Not reported	105	0.6	0	0.0	6	0.1	99	0.7
Total	17,626	100	124	100	4,155	100	13,347	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 2:00-4:59 p.m. Twenty-nine or 23.4 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 1,022 (24.6%) of the injury crashes occurred. The peak three hour period for property damage only crashes was 4:00-6:59 p.m. with 2,655 (19.9%) of the property damage only crashes occurred (see TABLE 3-12).

Twenty-five fatal crashes or 20.2 percent occurred during August in 2010. The month of August also shows 495 injury crashes or 11.9 percent of the injury crashes. The month of November shows 1,796 property damage only crashes which represents 13.5 percent of the property damage only crashes for 2010 (see TABLE 3-13).

The day of the week Friday accounts for 2,930 of the total crashes or 16.6 percent, with 716 (17.2%) of injury crashes and 2,189 (16.4%) of property damage only crashes. Friday also accounted for 25 fatal crashes or 20.2 percent of the total for 2010 (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
2010

Time	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
Midnight	296	3	63	230	4	78
1:00 AM	251	4	64	183	4	91
2:00 AM	244	3	68	173	3	83
3:00 AM	190	4	41	145	5	68
4:00 AM	199	0	41	158	0	54
5:00 AM	415	2	52	361	2	63
6:00 AM	660	7	93	560	8	124
7:00 AM	1,130	6	225	899	6	303
8:00 AM	767	6	182	579	6	261
9:00 AM	615	5	146	464	7	220
10:00 AM	682	1	176	505	1	234
11:00 AM	829	7	233	589	7	312
12:00 PM	943	5	280	658	5	385
1:00 PM	813	7	267	539	8	388
2:00 PM	856	8	294	554	9	398
3:00 PM	1,183	8	362	813	8	524
4:00 PM	1,095	13	336	746	18	508
5:00 PM	1,326	6	324	996	8	466
6:00 PM	1,162	6	243	913	6	327
7:00 PM	934	10	189	735	11	273
8:00 PM	906	0	151	755	0	195
9:00 PM	931	6	130	795	6	189
10:00 PM	672	3	101	568	4	131
11:00 PM	447	3	81	363	3	109
Unknown	80	1	13	66	1	17
Total	**17,626**	**124**	**4,155**	**13,347**	**140**	**5,801**

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

TABLE 3-13
CRASHES BY MONTH
2010

Month	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
JANUARY	1,771	9	372	1,390	13	512
FEBRUARY	1,690	2	370	1,318	2	498
MARCH	1,117	9	255	853	9	372
APRIL	938	9	239	690	12	329
MAY	1,172	13	315	844	14	429
JUNE	1,264	10	332	922	10	467
JULY	1,343	14	424	905	14	618
AUGUST	1,340	25	495	820	29	684
SEPTEMBER	1,292	10	347	935	11	489
OCTOBER	1,704	8	341	1,355	10	482
NOVEMBER	2,130	13	321	1,796	14	463
DECEMBER	1,865	2	344	1,519	2	458
Total	**17,626**	**124**	**4,155**	**13,347**	**140**	**5,801**

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

TABLE 3-14
CRASHES BY DAY OF WEEK
2010

Day	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
SUNDAY	1,964	16	462	1,486	16	682
MONDAY	2,525	14	584	1,927	21	784
TUESDAY	2,444	15	558	1,871	17	777
WEDNESDAY	2,637	13	633	1,991	13	881
THURSDAY	2,746	20	622	2,104	20	849
FRIDAY	2,930	25	716	2,189	30	994
SATURDAY	2,380	21	580	1,779	23	834
Total	**17,626**	**124**	**4,155**	**13,347**	**140**	**5,801**

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

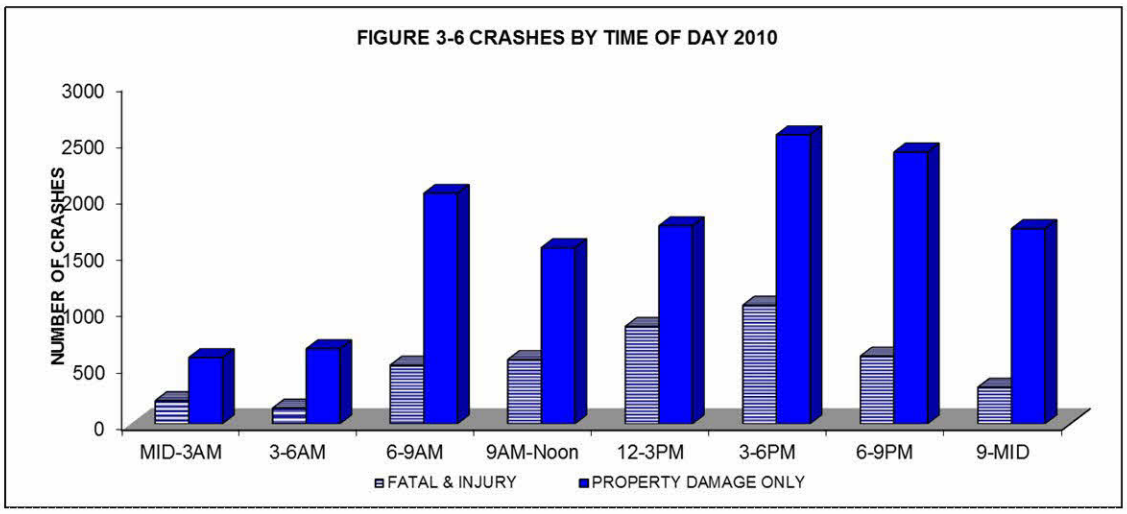


FIGURE 3-6 CRASHES BY TIME OF DAY 2010
NUMBER OF CRASHES
3000
2500
2000
1500
1000
500
0
MID-3AM
3-6AM
6-9AM
9AM-Noon
12-3PM
3-6PM
6-9PM
9-MID
FATAL & INJURY
PROPERTY DAMAGE ONLY

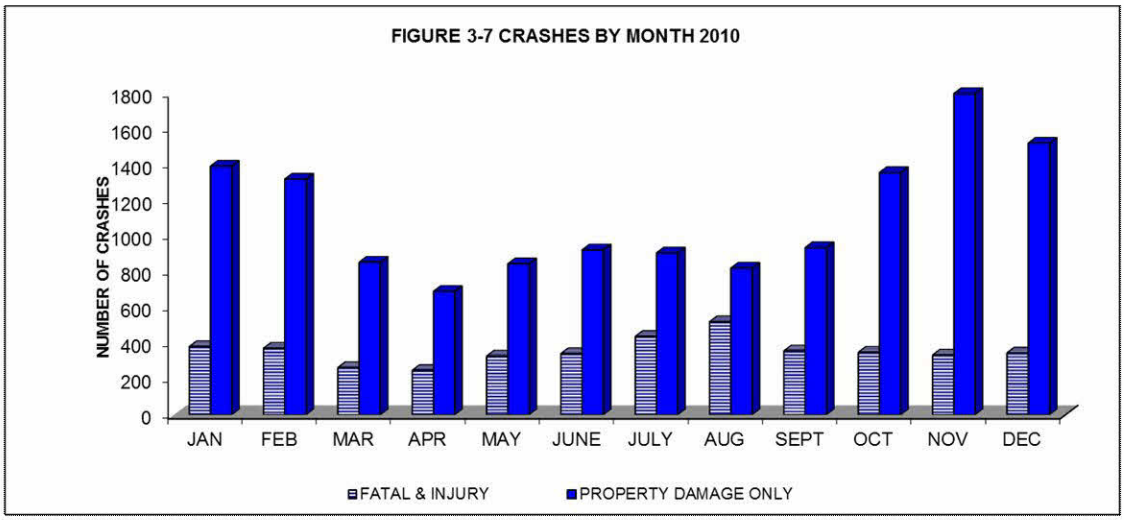


FIGURE 3-7 CRASHES BY MONTH 2010
NUMBER OF CRASHES
1800
1600
1400
1200
1000
800
600
400
200
0
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEPT
OCT
NOV
DEC
FATAL & INJURY
PROPERTY DAMAGE ONLY

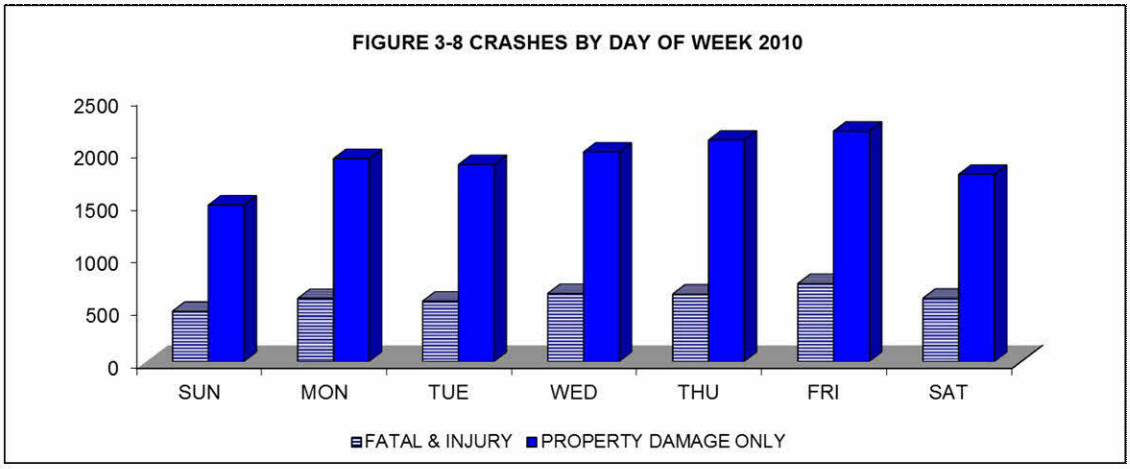


FIGURE 3-8 CRASHES BY DAY OF WEEK 2010
2500
2000
1500
1000
500
0
SUN
MON
TUE
WED
THU
FRI
SAT
FATAL & INJURY
PROPERTY DAMAGE ONLY

Drivers

In the 17,626 reported motor vehicle crashes there were 25,600 motor vehicle drivers involved, including 187 drivers in fatal crashes and 6,789 drivers in injury crashes. Of these drivers 80 were killed, which is 57.1 percent of all persons killed in motor vehicle crashes and 70.5 percent or 4,090 of the 5,801 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, 28 percent of the drivers were under 25 years of age and 47.1 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 20.9 percent of the drivers involved in fatal crashes and 29.1 percent of the drivers in injury crashes. Drivers under the age of 35 make up 36.9 percent of the drivers in fatal crashes and 49.4 percent of the drivers in injury crashes. Forty-seven or 25.1 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
2010

Age	Drivers In All Crashes No.	%	Drivers In Fatal Crashes No.	%	Drivers In Injury Crashes No.	%	Drivers In PDO Crashes No.	%
0 - 5	1	0.0	0	0.0	1	0.0	0	0.0
6 - 13	16	0.1	0	0.0	10	0.1	6	0.0
14 - 15	636	2.5	4	2.1	170	2.5	462	2.5
16 - 17	1,542	6.0	3	1.6	423	6.2	1,116	6.0
18	840	3.3	9	4.8	240	3.5	591	3.2
19	824	3.2	4	2.1	230	3.4	590	3.2
20	758	3.0	2	1.1	200	2.9	556	3.0
21 - 24	2,553	10.0	17	9.1	700	10.3	1,836	9.9
25 - 34	4,895	19.1	30	16.0	1,376	20.3	3,489	18.7
35 - 44	3,649	14.3	24	12.8	944	13.9	2,681	14.4
45 - 54	4,154	16.2	34	18.2	1,071	15.8	3,049	16.4
55 - 64	2,887	11.3	27	14.4	712	10.5	2,148	11.5
65 - Over	2,543	9.9	32	17.1	658	9.7	1,853	9.9
Unknown	302	1.2	1	0.5	54	0.8	247	1.3
Total	**25,600**	**100**	**187**	**100**	**6,789**	**100**	**18,624**	**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 1,007 drinking drivers in all crashes which is 3.9 percent of all drivers in crashes. Forty-nine or 26.2 percent of drivers in fatal crashes had been drinking while 445 or 6.6 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 16.3 percent of the drinking drivers in fatal crashes and 33.9 percent of the drinking drivers in injury crashes. Those drivers under 35 years of age accounted for 44.9 percent of the drinking drivers in fatal crashes and 59.8 percent of the drinking drivers in all crashes.

TABLE 3-16
AGE OF DRINKING DRIVERS IN CRASHES
2010

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	0	0.0	1	0.2	0	0.0
14 - 15	5	0.5	0	0.0	5	1.1	0	0.0
16 - 17	24	2.4	0	0.0	8	1.8	16	3.1
18	29	2.9	2	4.1	13	2.9	14	2.7
19	41	4.1	2	4.1	16	3.6	23	4.5
20	38	3.8	0	0.0	18	4.0	20	3.9
21 - 24	194	19.3	4	8.2	90	20.2	100	19.5
25 - 34	270	26.8	14	28.6	116	26.1	140	27.3
35 - 44	153	15.2	12	24.5	59	13.3	82	16.0
45 - 54	151	15.0	9	18.4	75	16.9	67	13.1
55 - 64	73	7.2	2	4.1	33	7.4	38	7.4
65 - Over	25	2.5	3	6.1	11	2.5	11	2.1
Unknown	3	0.3	1	2.0	0	0.0	2	0.4
Total	**1,007**	**100**	**49**	**100**	**445**	**100**	**513**	**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 15.8 percent of the total licensed drivers, 32.3 percent of the drinking drivers in fatal and injury crashes and 49.6 percent of the speeding drivers in fatal and injury crashes. Drivers under 35 years of age constitute 32.6 percent of all licensed drivers, with 58.6 percent of the drinking drivers and 70.4 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
2010

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	11	0.2	1	0.2	3	0.5
14 - 15	1.7	174	2.5	5	1.0	38	6.9
16 - 17	2.7	426	6.1	8	1.6	61	11.0
18	1.5	249	3.6	15	3.0	34	6.1
19	1.6	234	3.4	18	3.6	29	5.2
20	1.6	202	2.9	18	3.6	33	6.0
21 - 24	6.7	717	10.3	94	19.0	75	13.6
25 - 34	16.7	1,406	20.2	130	26.3	114	20.6
35 - 44	14.4	968	13.9	71	14.4	58	10.5
45 - 54	18.1	1,105	15.8	84	17.0	59	10.7
55 - 64	16.8	739	10.6	35	7.1	28	5.1
65 - Over	18.2	690	9.9	14	2.8	18	3.3
Unknown	0.0	55	0.8	1	0.2	3	0.5
TOTAL	**100**	**6,976**	**100**	**494**	**100**	**553**	**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 2010
Fatal and Injury Crash Involved Drivers

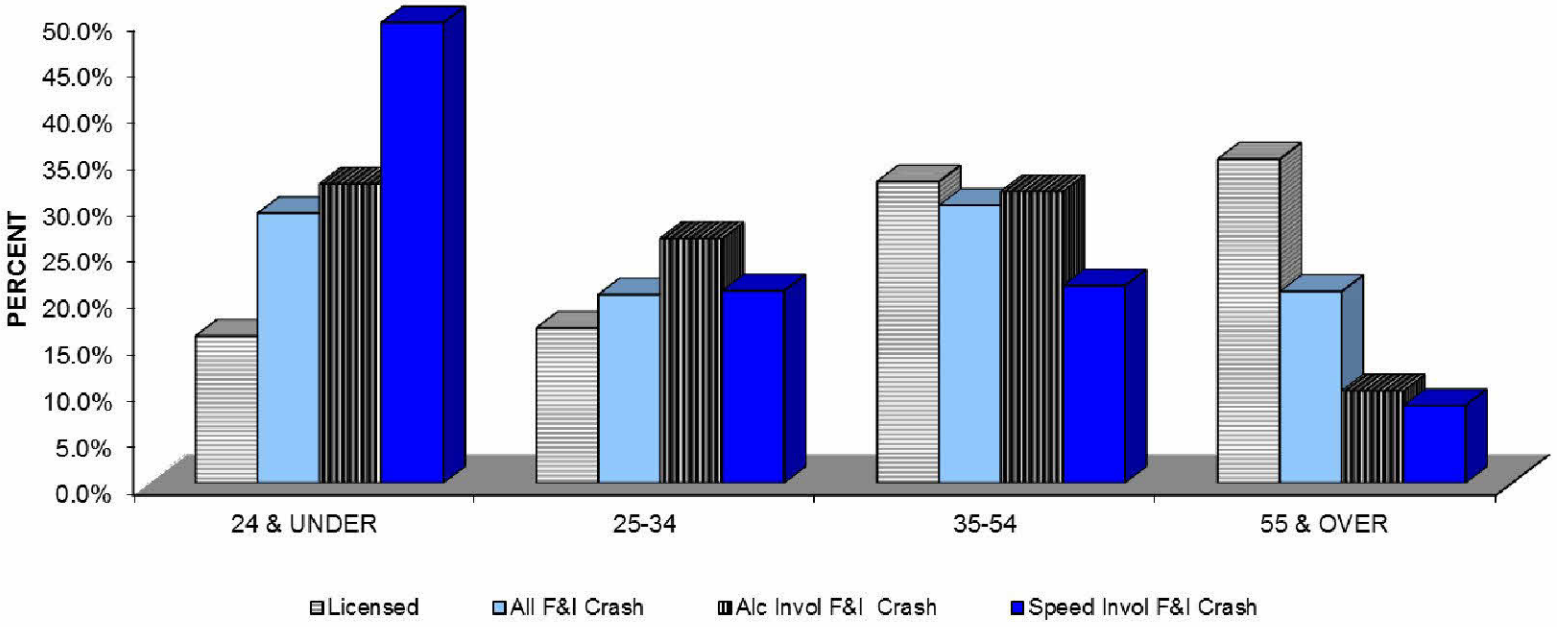
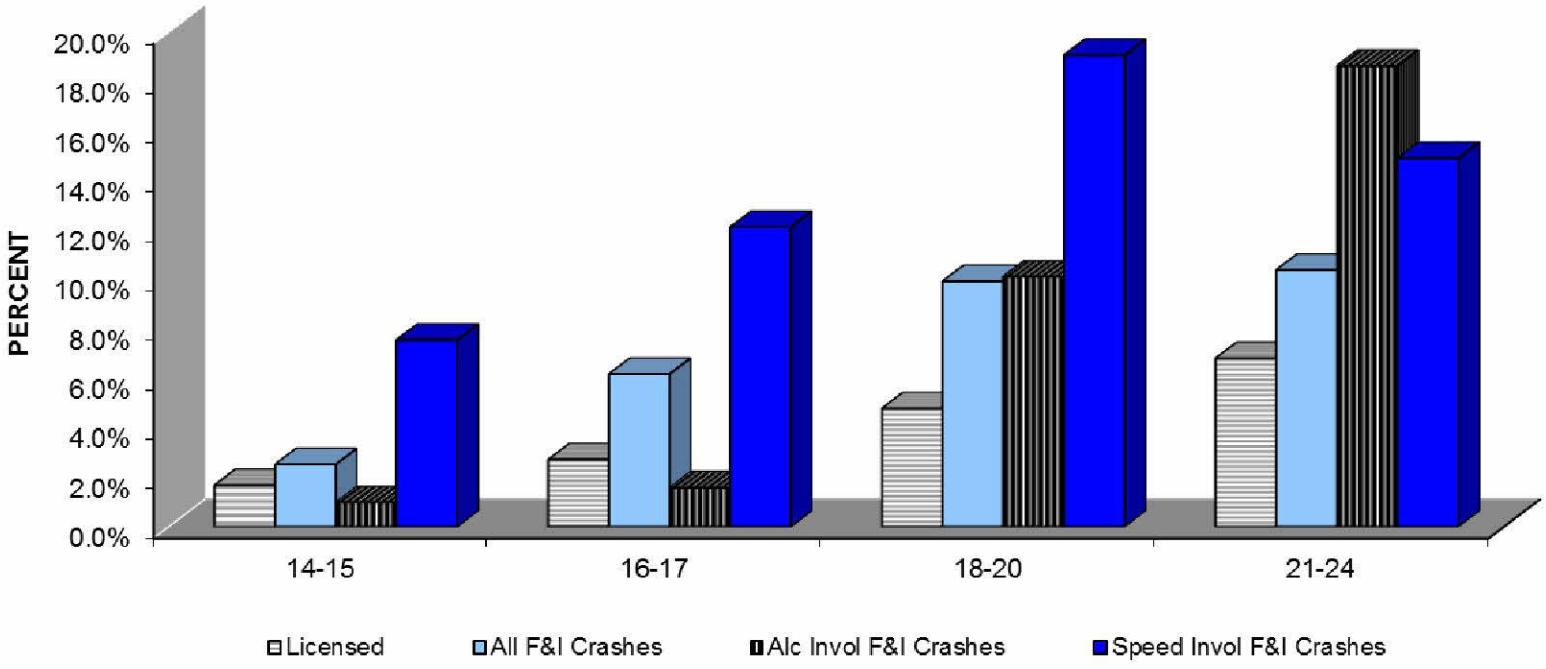


FIGURE 3-10 YOUNG DRIVERS 2010
Fatal & Injury Crash Involved Drivers



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 3.6 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 17.2 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 2010. Running off road and speeding were other leading driver contributing circumstances in fatal crashes. It was indicated that the drinking of 31 or 16.6 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
2010

	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	631	2.5	2	1.1	252	3.7	377	2.0
Distracted	883	3.4	1	0.5	347	5.1	535	2.9
Drinking	615	2.4	31	16.6	265	3.9	319	1.7
Driving Too Fast for Condition	2,141	8.4	14	7.5	612	9.0	1,515	8.1
Exceeded Speed Limit	333	1.3	16	8.6	169	2.5	148	0.8
Fail to Yield to Vehicle	3,107	12.1	11	5.9	972	14.3	2,124	11.4
Failure to Keep in Proper Lane	489	1.9	12	6.4	148	2.2	329	1.8
Fatigued/Fell Asleep	214	0.8	5	2.7	88	1.3	121	0.6
Following Too Closely	1,139	4.4	2	1.1	399	5.9	738	4.0
Improper Backing	425	1.7	0	0.0	35	0.5	390	2.1
Improper Passing	157	0.6	2	1.1	43	0.6	112	0.6
Improper Turn	343	1.3	2	1.1	88	1.3	253	1.4
Not Stated**	4,615	18.0	0	0.0	0	0.0	4,615	24.8
Other*	1,311	5.1	12	6.4	452	6.7	847	4.5
Over-correcting/Over-steering	479	1.9	12	6.4	196	2.9	271	1.5
Running Off Road	989	3.9	26	13.9	400	5.9	563	3.0
Swerving or Avoiding due to: *wind, slippery surface, vehicle, object, non-motorist, etc.*	500	2.0	6	3.2	154	2.3	340	1.8
Unknown	860	3.4	14	7.5	222	3.3	624	3.4
Wrong Side of Road	118	0.5	11	5.9	55	0.8	52	0.3
Total Drivers	**25,600**		**187**		**6,789**		**18,624**	

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

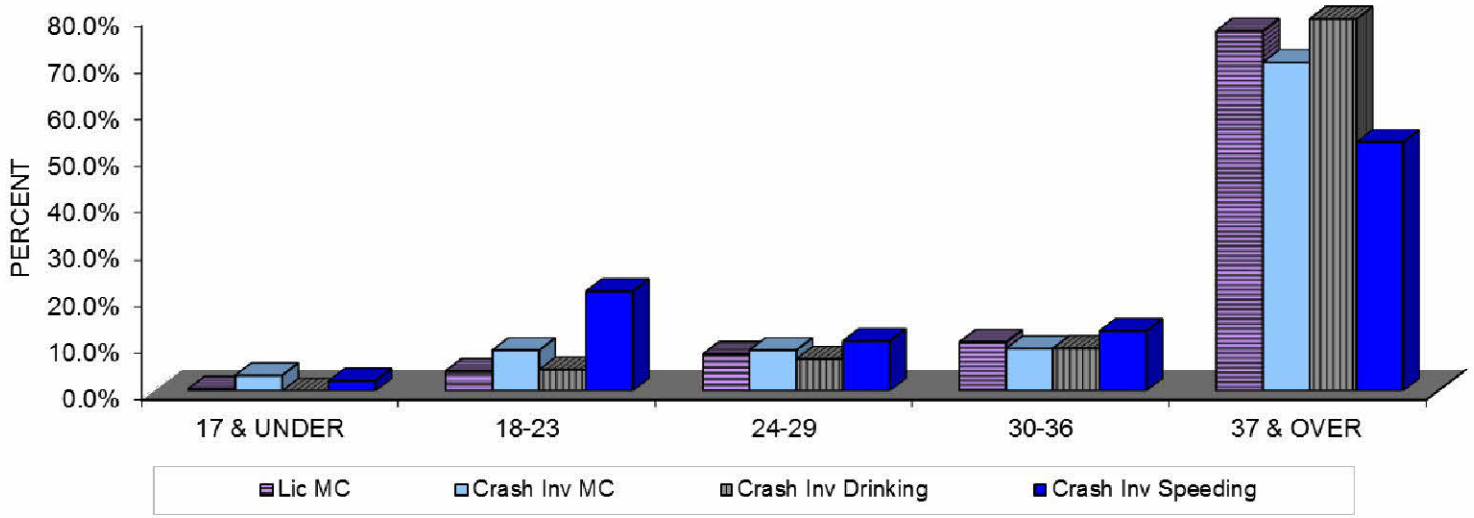
Motorcycle crashes constitute 3.0 percent of all crashes, 21.8 percent of all fatal crashes, and 7.8 percent of all injury crashes. There were 27 people killed and 569 injured on motorcycles in the 529 reported motorcycle crashes during 2010 (see TABLE 2-7). The young motorcycle driver is over represented in crashes when compared to their portion of licensed motorcycle operators. The licensed drivers under 20 years of age represent 1.3 percent of the licensed motorcycle drivers, 5.6 percent of drivers involved in motorcycle crashes, and 12.8 percent of the speeding drivers involved in motorcycle crashes (see TABLE 3-19 and FIGURE 3-11).

TABLE 3-19
MOTORCYCLISTS BY AGE GROUP
2010

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	1	0.2	0	0.0	0	0.0
14 - 15	56	0.1	3	0.5	0	0.0	0	0.0
16 - 17	287	0.4	15	2.6	0	0.0	1	2.1
18 - 19	661	0.9	13	2.3	0	0.0	5	10.6
20 - 21	1,120	1.5	17	3.0	1	2.3	2	4.3
22 - 23	1,504	1.9	20	3.5	1	2.3	3	6.4
24 - 25	1,900	2.5	15	2.6	1	2.3	2	4.3
26 - 27	1,986	2.6	17	3.0	2	4.5	3	6.4
28 - 29	2,172	2.8	18	3.1	0	0.0	0	0.0
30 - 31	2,272	2.9	20	3.5	1	2.3	4	8.5
32 - 36	5,777	7.5	32	5.6	3	6.8	2	4.3
37 - 41	6,752	8.8	40	7.0	3	6.8	4	8.5
42 - 51	19,683	25.5	163	28.3	18	40.9	12	25.5
52 - Over	32,983	42.7	201	35.0	14	31.8	9	19.1
Unknown	1	0.0	0	0.0	0	0.0	0	0.0
Total	**77,154**	**100**	**575**	**100**	**44**	**100**	**47**	**100**

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

FIGURE 3-11 MOTORCYCLISTS 2010
Crash Involved Motorcycle & Moped Drivers



There were 27 motorcyclist fatalities during 2010. Twenty were motorcycle drivers and seven passengers. Two drivers and one passenger wore a helmet only, four drivers and one passenger wore helmet and eye protection, eight drivers and two passengers wore eye protection only, six drivers and three passengers did not use safety equipment. Helmets were used by 174 or 31.4 percent of the motorcycle drivers in crashes while 380 or 68.6 percent did not wear a helmet (see TABLE 3-20).

TABLE 3-20
HELMET USE BY MOTORCYCLE DRIVERS IN CRASHES
2010

Age	Helmet Used No.	Helmet Used %	Helmet Not Used No.	Helmet Not Used %
06 - 13	1	100.0	0	0.0
14 - 15	2	66.7	1	33.3
16 - 17	7	50.0	7	50.0
18 - 20	7	38.9	11	61.1
21 - 24	14	35.9	25	64.1
25 - 34	19	22.9	64	77.1
35 - 44	19	23.8	61	76.3
45 - Over	105	33.2	211	66.8
Unknown	0	0.0	0	0.0
Total	**174**	**31.4**	**380**	**68.6**

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 nine pedestrian deaths and 108 injuries in motor vehicle crashes during 2010 (see TABLE 3-21). The youngest pedestrian killed was sixteen years old, while the oldest was ninety-three years old. Of the injured pedestrians, 13.9 percent were between the ages of 5-13. Cities accounted for 84.3 percent of the pedestrian injuries, while 44.4 percent of the fatalities were rural (see TABLE 3-23). Of the nine pedestrians killed, 5 were male and 4 female. Of the 108 pedestrians injured, 68 were male and 40 female.

Officers reported that of the nine pedestrians killed two had been drinking alcohol (see TABLE 3-22).

TABLE 3-21
AGE OF PEDESTRIANS IN TRAFFIC CRASHES
2010

Age	Fatalities No.	Fatalities %	Injuries No.	Injuries %
0 - 4	0	0.0	3	2.8
5 - 13	0	0.0	15	13.9
14 - 19	2	22.2	22	20.4
20 - 24	1	11.1	10	9.3
25 - 34	2	22.2	9	8.3
35 - 44	1	11.1	8	7.4
45 - 54	0	0.0	25	23.1
55 - 64	1	11.1	7	6.5
65 - Over	2	22.2	9	8.3
Total	**9**	**100**	**108**	**100**

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

TABLE 3-22
ALCOHOL INVOLVEMENT BY PEDESTRIANS
2010

Alcohol Involvement	Fatalities No.	Fatalities %	Injuries No.	Injuries %
Alcohol or Drugs	2	22.2	22	20.4
No Alcohol	7	77.8	86	79.6
Unknown	0	0.0	0	0.0
Total	**9**	**100**	**108**	**100**

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

TABLE 3-23
RURAL vs. CITY PEDESTRIAN CRASHES
2010

	Fatalities	%	Injuries	%
Rural	4	44.4	17	15.7
City	5	55.6	91	84.3
Total	**9**	**100**	**108**	**100**

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

Bicycles

During 2010 there were two bicyclists killed (see TABLE 2-9). There were 105 bicycle drivers injured in reported motor vehicle crashes during 2010 (see TABLE 3-24). The leading factor in bicycle-involved crashes was improper crossing which was reported for 19.8 percent of the injured bicycle drivers. Eighty-three of the injured bicycle drivers in crashes had no contributing circumstances. The yearly 1990-2010 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

TABLE 3-24
AGE OF BICYCLE DRIVERS IN TRAFFIC CRASHES
2010

Age	Fatalities Number	Injuries Number	%
0 - 4	0	1	1.0
5 - 13	0	29	27.6
14 - 19	0	19	18.1
20 - 24	1	13	12.4
25 - 34	0	13	12.4
35 - 44	0	10	9.5
45 - 54	1	12	11.4
55 - 64	0	7	6.7
65 - Over	0	1	1.0
Total	**2**	**105**	**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 driver's 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, 2009, 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."

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