2016
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

My Fellow South Dakotans,

The annual South Dakota Motor Vehicle Traffic Crash Summary is compiled to identify traffic safety issues and to implement effective counter-measures. This publication is a sobering reminder that not a day goes by without a traffic crash occurring in South Dakota.

A majority of our roadway fatalities occur on rural highways and county roads. During 2016, motor vehicle crashes claimed the lives of 116 individuals. Fifty-five of those deaths were alcohol-related. And sadly, 70 percent of motor vehicle occupants killed on South Dakota roadways were not wearing a seatbelt.

With the growing number of new drivers and vehicles on the roadway, it is important we stay alert and drive safely. Slow down, buckle up, and watch out for the other individual. If you choose to consume alcohol, designate a sober driver and encourage others to do the same. Let's make South Dakota a safer place for its citizens and for the many visitors who travel our roadways each year.

Life is about making the right choices. Thank you in advance for the conscientious safety choices you make each day that make a great tomorrow possible.

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 2016 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 2016 Traffic Crash Profile section details the crash picture for 2016 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. Copies of accident reports are available online at www.SafeSD.gov for a fee of ten dollars. This fee is comprised of a $6 convenience fee and a $4 fee as required by SD Law §§32-34-13.1 for a copy of an accident report.

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: Lee.Axdahl@state.sd.us

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

NOTE! Data Extracted on 04/20/2017. This report reflects a one day picture of CY2016 data collected, any data received after this date would not be included in this report.

SOUTH DAKOTA TRAFFIC STATISTICAL SUMMARY
2015-2016

	2015	2016
➢ NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC CRASHES----------	**17,791**	**17,512**
➢ AMOUNT OF MOTOR VEHICLE TRAFFIC CRASH PROPERTY DAMAGE--------	**$104 MILLION**	**$103 MILLION**
➢ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH INJURIES----------	**5,525**	**5,174**
➢ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH FATALITIES----------	**133**	**116**
➢ FATALITY RATE PER 100,000,000 MILES OF TRAVEL ----------	**1.43**	**1.23**
➢ PERCENT OF DRIVERS IN FATAL CRASHES WHO HAD BEEN DRINKING-----	**24.6%**	**32.6%**
➢ NUMBER KILLED IN ALCOHOL-RELATED CRASHES ----------	**48**	**55**
➢ NUMBER INJURED IN ALCOHOL-RELATED CRASHES----------	**721**	**589**
➢ NUMBER OF PEDESTRIANS KILLED----------	**5**	**6**
➢ NUMBER OF MOTORCYCLISTS KILLED ----------	**31**	**22**
➢ NUMBER OF BICYCLISTS KILLED----------	**1**	**0**
➢ PERCENT OF LICENSED DRIVERS UNDER 25----------	**15.0%**	**15.0%**
➢ PERCENT OF CRASH-INVOLVED SPEEDING DRIVERS UNDER 25----------	**47.6%**	**45.4%**
➢ PERCENT OF CRASH-INVOLVED DRINKING DRIVERS UNDER 25 ----------	**30.1%**	**29.9%**
➢ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES ---------- *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**95**	**83**
➢ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES WHO WERE WEARING A SAFETY RESTRAINT ---------- *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**28**	**21**
➢ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE		
IN MOTOR VEHICLE CRASHES WHO WERE KILLED----------	**0**	**0**
WHO WERE INJURED---------- *(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)*	**5**	**9**
➢ 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)*	**2**	**0**
➢ ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC CRASHES ----------	**$449 MILLION**	**$413 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 2006-2015 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
2006-2015

State	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
South Dakota	2.3	1.7	1.4	1.5	1.6	1.2	1.5	1.5	1.5	1.4
Iowa	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.0	1.0	0.9
Minnesota	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.7
Montana	2.3	2.4	2.1	2.0	1.7	1.8	1.7	1.9	1.6	1.8
Nebraska	1.4	1.3	1.1	1.0	0.9	0.9	1.1	1.1	1.2	1.2
North Dakota	1.4	1.4	1.3	1.7	1.3	1.6	1.7	1.5	1.3	1.3
Wyoming	2.1	1.6	1.7	1.4	1.7	1.5	1.3	0.9	1.6	1.5
National	1.4	1.3	1.3	1.2	1.1	1.1	1.2	1.1	1.1	1.1

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

Source: National Highway Traffic Safety Administration (NHTSA) – Fatality Analysis Reporting System (FARS)

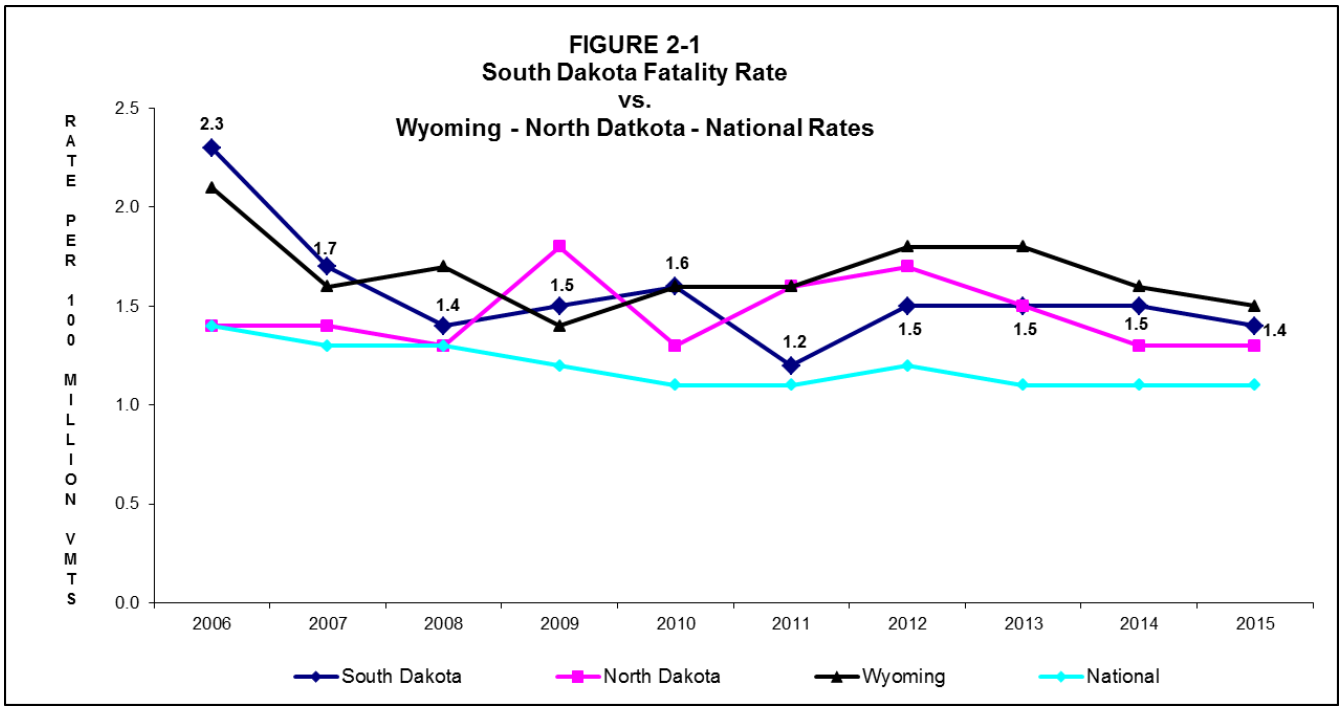


TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic crashes from 1987 through 2016. Any comparison of motor vehicle crashes must be made with caution due to the changes in the definition of a reportable crash. For example, in the late 1970's the definition of a fatality caused 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 2016 death rate decreased to 1.23, a 14.6% decrease from the 2015 death rate of 1.44. The 5,174 people injured in crashes are an 6.4% decrease from the 5,525 in 2015 (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)
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	4,155	13,347	8,861	992
2011	111	1.23	5,374	17,362	193.06	101	3,973	13,288	8,993	976
2012	133	1.47	5,432	16,261	179.15	118	3,887	12,256	9,077	992
2013	135	1.48	5,475	16,635	182.52	121	3,929	12,585	9,114	998
2014	136	1.49	5,090	17,346	189.45	125	3,805	13,416	9,156	1,010
2015	134	1.44	5,525	17,791	190.99	116	3,995	13,681	9,315	1,128
2016	**116**	**1.23**	**5,174**	**17,512**	**185.04**	**103**	**3,831**	**13,578**	**9,464**	**1,031**

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 years 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, 29.7% alcohol involved fatal crashes for 2011 is the lowest. Of the 116 traffic fatalities during 2016, 55 or 47.4% were alcohol related (see Table 2-3). Alcohol statistics dating back to the 1970's show 2011 to have the lowest number of alcohol related fatalities for any one-year period (37). The highest number is 138 for the year of 1973.

TABLE 2-3
ALCOHOL INVOLVED CRASHES AS PERCENT OF ALL CRASHES
2010-2016

	2010	2011	2012	2013	2014	2015	2016
Total Crashes	5.7%	5.7%	6.1%	5.9%	5.8%	6.1%	5.5%
	(999)	(992)	(988)	(986)	(1002)	(1086)	(962)
Fatal Crashes	35.5%	29.7%	38.1%	30.6%	35.2%	36.2%	45.6%
	(44)	(30)	(45)	(37)	(44)	(42)	(47)
Injury Crashes	10.8%	11.5%	12.5%	11.6%	11.2%	12.3%	10.7%
	(448)	(457)	(486)	(454)	(426)	(492)	(411)
PDO Crashes	3.8%	3.8%	3.7%	3.9%	4.0%	4.0%	3.7%
	(507)	(505)	(457)	(495)	(532)	(552)	(504)
Fatalities	35.0%	33.3%	39.8%	31.1%	34.6%	36.6%	47.4%
	(49)	(37)	(53)	(42)	(47)	(49)	(55)
Injuries	11.1%	11.8%	13.3%	11.7%	11.5%	13.0%	11.4%
	(646)	(633)	(721)	(639)	(583)	(721)	(589)

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
2010-2016

AGE	2010	2011	2012	2013	2014	2015	2016
0 – 5	0	0	2	0	1	0	1
6 - 12	0	1	2	0	0	0	0
13 - 19	6	7	4	0	4	3	8
20	0	0	3	1	2	1	1
21 - 29	12	8	14	17	12	9	21
30 - 39	8	9	10	8	11	11	11
40 - 49	11	5	7	9	6	6	5
50 - 59	9	5	8	6	8	13	4
60 & OLDER	3	2	3	1	3	5	4
Unknown/Not Stated	0	0	0	0	0	0	0
TOTAL	**49**	**37**	**53**	**42**	**47**	**48**	**55**

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

FIGURE 2-2 2016 CRASH FATALITIES
Alcohol Related vs Non Alcohol Related

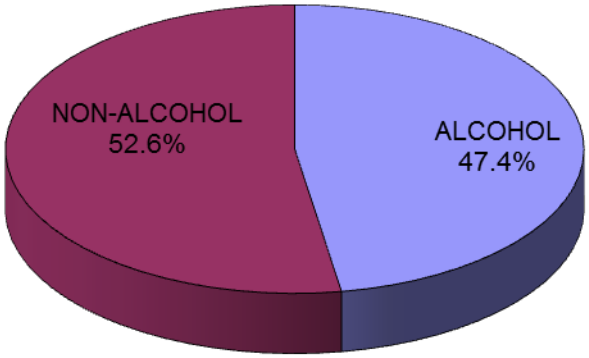
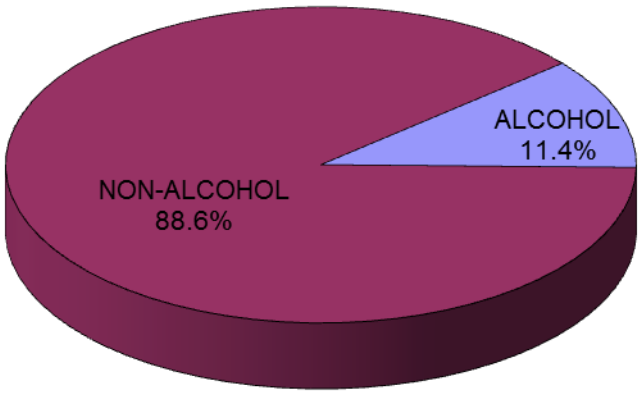


FIGURE 2-3 2016 CRASH INJURIES
Alcohol Related vs Non Alcohol Related



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 14.1% while non-alcohol related fatal and injury crashes decreased by 2.8% from the 2015 totals. **The number of DWI arrests increased by 9.7% from 2015.**

TABLE 2-4
CRASH AND ARREST ACTIVITY
2007- 2016

	FATAL CRASHES		FATAL & INJURY CRASHES			
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED	DWI [1] ARRESTS	DWI [1] CONVICTIONS
2007	55	75	522	3,679	11,756	9,971
2008	45	64	512	3,704	11,029	9,486
2009	51	61	525	3,688	10,147	8,899
2010	44	80	492	3,787	9,246	8,187
2011	30	71	487	3,587	8,744	7,455
2012	45	73	531	3,474	9,194	8,264
2013	37	84	491	3,551	8,683	7,965
2014	44	81	470	3,460	9,450	7,146
2015	41	74	533	3,577	9,271	6,835
2016	47	56	458	3,476	10,166	7,280

Note: [1] – Based on South Dakota Courts - The State of the Judiciary and Fiscal Year 2015 Annual Report of the S. D. Unified Judicial System - Based on Fiscal Year statistics.
DWI Convictions are guilty pleas, plus suspended impositions, plus convictions 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 2007 through 2016.

FIGURE 2-5 presents the alcohol related and non-alcohol related fatal crash experience for the years of 2007 through 2016.

There were 47 alcohol related fatal crashes during 2016, which compares to 41 in 2015. The previous three-year average was 41 for the years of 2013-2015.

There were 458 alcohol related fatal and injury crashes during 2016, which compares to 533 in 2015. The previous three-year average was 498 or a 8 percent decrease in 2016. Non-alcohol related fatal and injury crashes in 2016 decreased (2.8%) when compared to 2015 and decreased 1.5 percent from the previous three-year average (2013-2015).

There were 10,166 DWI arrests in fiscal year 2016. This level has gone up 11.3% from the previous three-year average (2013-2015). There were 7,280 DWI convictions in fiscal year 2016. This level has gone down 0.5% from the previous 3-year average (2013-2015).

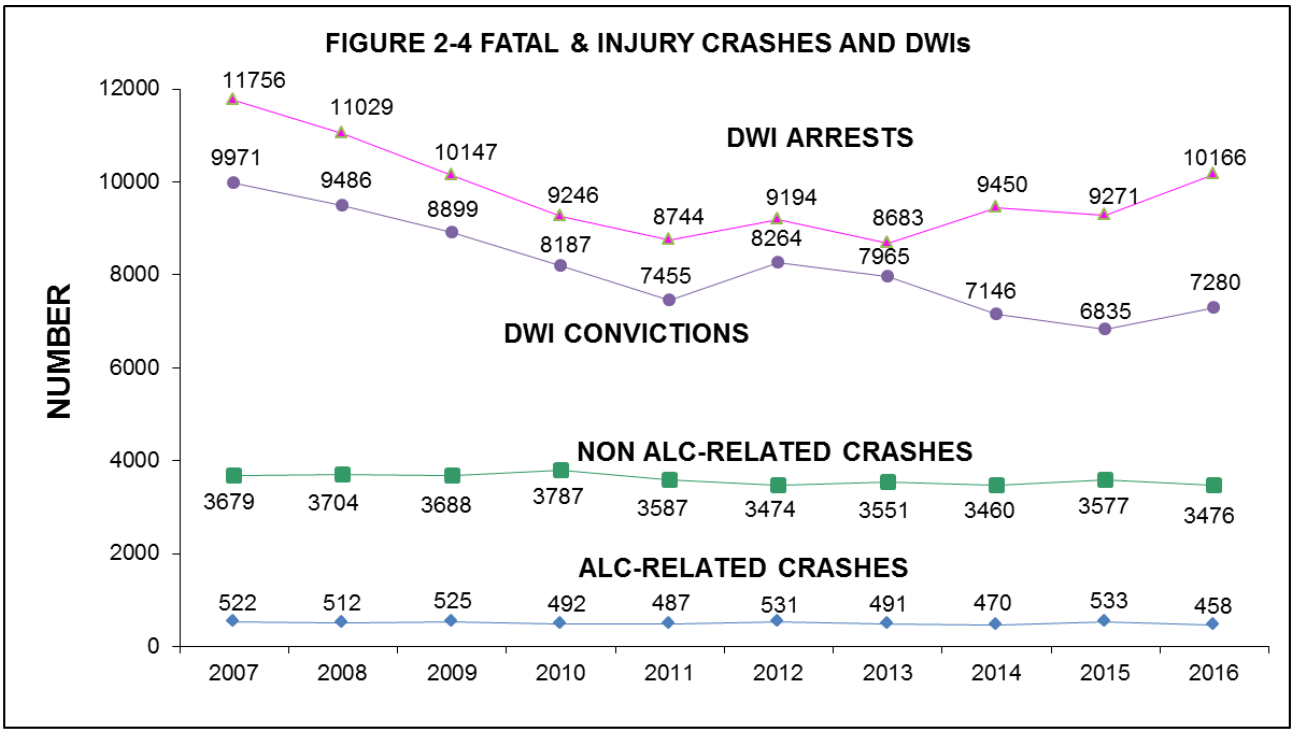


FIGURE 2-4 FATAL & INJURY CRASHES AND DWIs
NUMBER
12000
10000
8000
6000
4000
2000
0
DWI ARRESTS
11756
11029
10147
9246
8744
9194
8683
9450
9271
10166
DWI CONVICTIONS
9971
9486
8899
8187
7455
8264
7965
7146
6835
7280
NON ALC-RELATED CRASHES
3679
3704
3688
3787
3587
3474
3551
3460
3577
3476
ALC-RELATED CRASHES
522
512
525
492
487
531
491
470
533
458
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

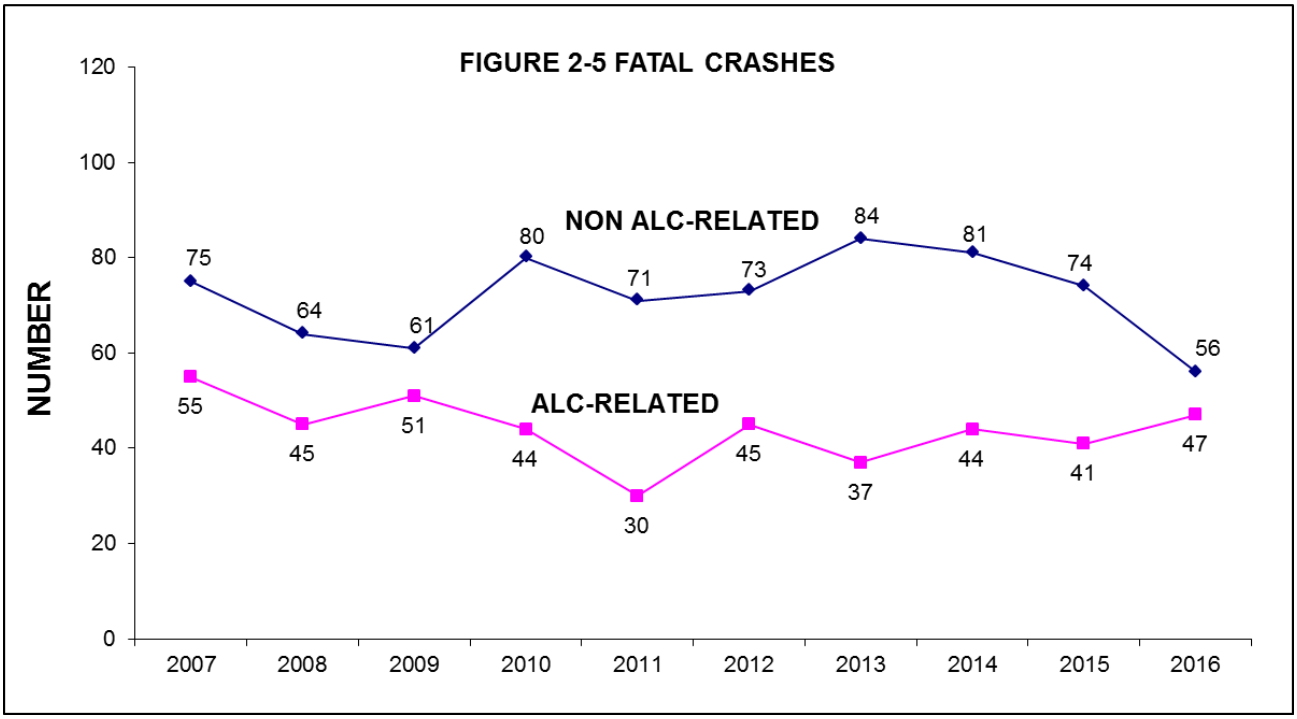


FIGURE 2-5 FATAL CRASHES
NUMBER
120
100
80
60
40
20
0
NON ALC-RELATED
75
64
61
80
71
73
84
81
74
56
ALC-RELATED
55
45
51
44
30
45
37
44
41
47
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

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. Fifty-eight occupants were killed while not wearing any safety restraint, while twenty-one occupants killed were wearing a lap belt, shoulder harness or both. (See TABLE 2-5)

Forty-three (51.8%) of the 83 killed occupants were either partially or totally ejected from the vehicle. (See TABLE 2-5B)

TABLE 2-5 SAFETY RESTRAINT USAGE – KILLED OCCUPANTS

	2011	2012	2013	2014	2015	2016
No Safety Equipment	52	65	61	72	60	58
Lap Belt Only	0	0	1	2	1	2
Shoulder Harness Only	0	0	0	0	1	1
Lap Belt & Shoulder Harness	22	28	33	28	26	18
Child Restraint Used Properly	0	1	0	0	0	0
Child Restraint Not Properly Used	0	0	0	0	0	0
Other, Not Stated or Unknown	13	8	8	4	7	4
TOTAL	**87**	**102**	**103**	**106**	**95**	**83**

TABLE 2-5A SAFETY RESTRAINT USAGE – INJURED OCCUPANTS

	2011	2012	2013	2014	2015	2016
No Safety Equipment	899	899	884	712	825	728
Lap Belt Only	45	39	39	35	52	39
Shoulder Harness Only	33	21	21	22	23	18
Lap Belt & Shoulder Harness	3,325	3,319	3,476	3,309	3,442	3,410
Child Restraint Used Properly	44	62	60	48	51	53
Child Restraint Not Properly Used	2	3	2	3	2	1
Other, Not Stated or Unknown	281	290	243	250	278	248
TOTAL	**4,629**	**4,633**	**4,725**	**4,379**	**4,673**	**4,497**

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

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

	KILLED						INJURED					
	2011	2012	2013	2014	2015	2016	2011	2012	2013	2014	2015	2016
Not Ejected	43	46	61	65	57	40	4,473	4,501	4,613	4,287	4,552	4,373
Partial Ejection	4	9	6	5	3	7	22	10	14	16	20	14
Total Ejection	39	47	35	36	34	36	103	114	89	67	84	91
Unknown Ejection	1	0	1	0	1	0	29	7	9	9	16	17
Not Applicable	0	0	0	0	0	0	2	1	0	0	1	2
TOTAL	**87**	**102**	**103**	**106**	**95**	**83**	**4,629**	**4,633**	**4,725**	**4,379**	**4,673**	**4,497**

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

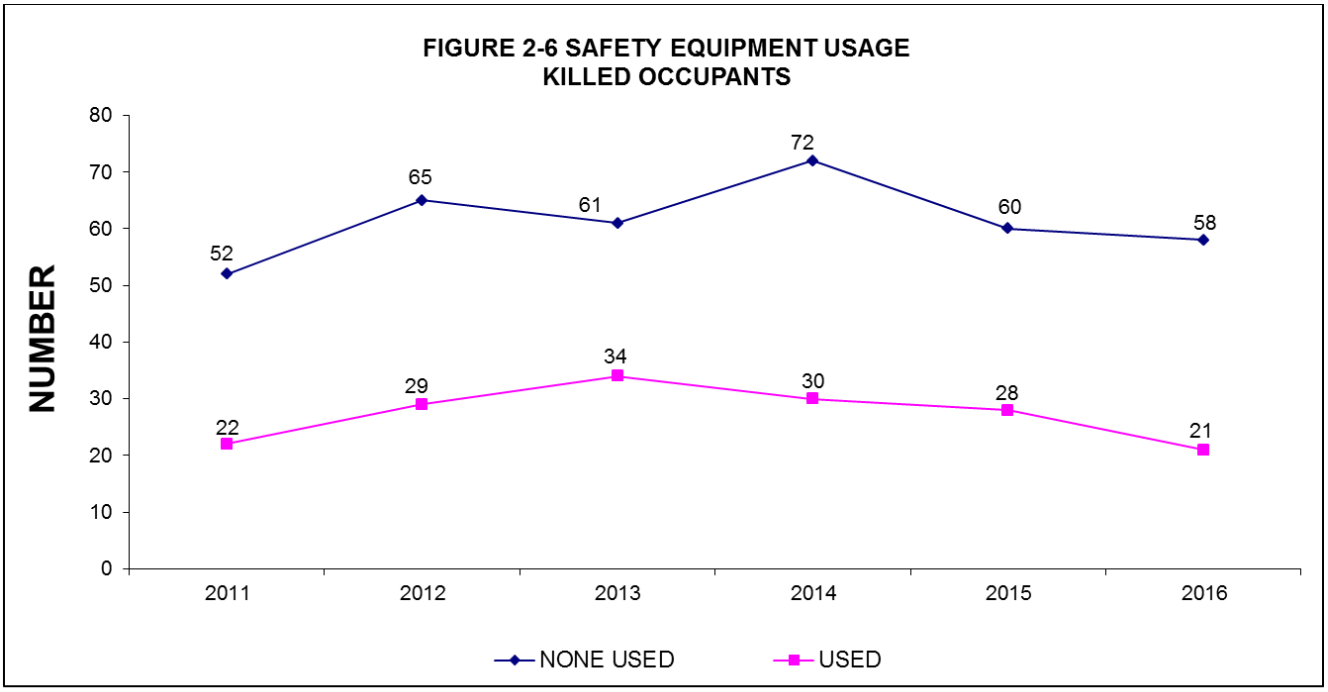


FIGURE 2-6 SAFETY EQUIPMENT USAGE
KILLED OCCUPANTS
NUMBER
80
70
60
50
40
30
20
10
0
52
65
61
72
60
58
22
29
34
30
28
21
2011
2012
2013
2014
2015
2016
NONE USED
USED

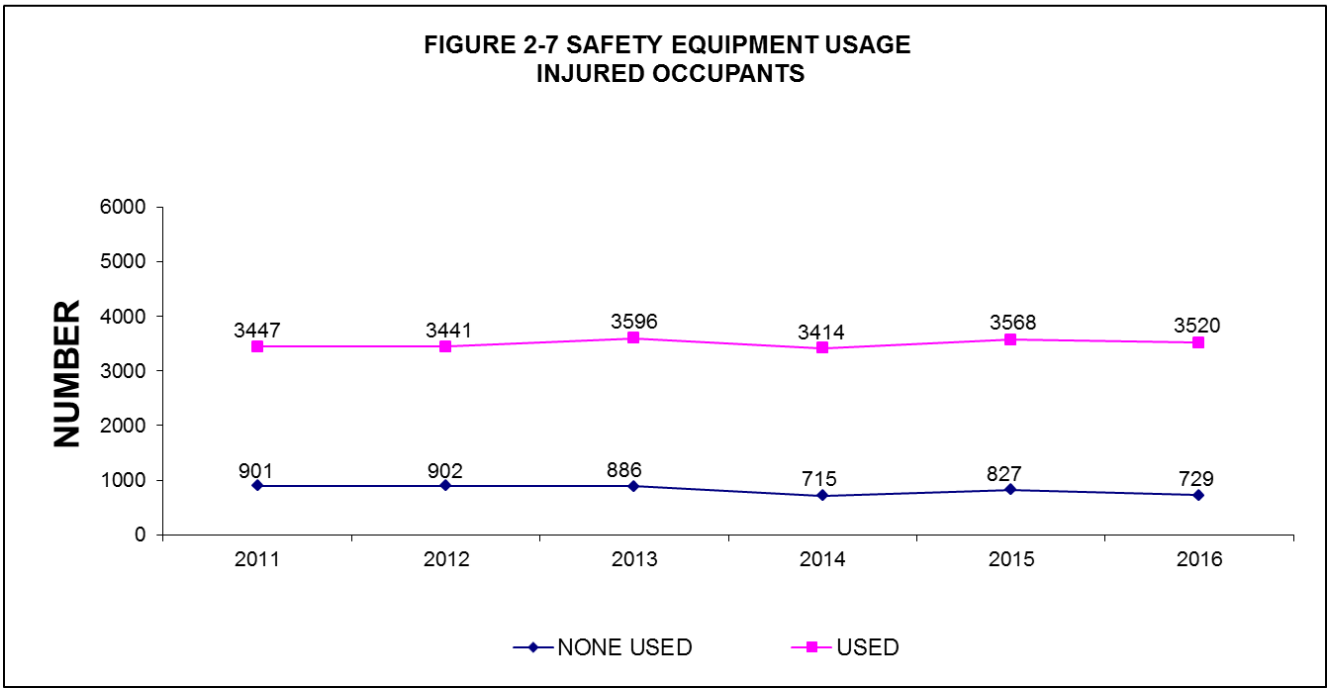


FIGURE 2-7 SAFETY EQUIPMENT USAGE
INJURED OCCUPANTS
NUMBER
6000
5000
4000
3000
2000
1000
0
3447
3441
3596
3414
3568
3520
901
902
886
715
827
729
2011
2012
2013
2014
2015
2016
NONE USED
USED

The Child Passenger Restraint System (SDCL 32-37) law took effect on July 1, 1984 - since that time there have been 68 deaths to occupants of this age group. Of these deaths only seven were reported to have been restrained by a child safety restraint properly used, five 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 reported fatal injury to a motor vehicle occupant from birth through four years of age during 2016, which compares to one fatality during 2015 (see TABLE 2-6).

There were 63 children (birth through 4 years old) injured in 2016, which compares to 48 for 2015. Fifty-four of the 63 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
2006	2	49	69	118
2007	1	29	47	76
2008	3	26	46	72
2009	2	24	55	79
2010	1	33	50	83
2011	0	25	41	66
2012	4	36	39	75
2013	0	36	39	75
2014	3	15	40	55
2015	1	21	27	48
2016	**1**	**28**	**35**	**63**

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 - 2016

	Fatalities	Injuries
No Safety Equipment Used	0	9
Lap Belt Only	1	0
Shoulder Harness Only	0	0
Lap Belt & Shoulder Harness	0	13
Child Restraint Used Properly	0	41
Child Restraint Not Used Properly	0	0
Other, Not Stated or Unknown	0	0
		0
TOTAL	**1**	**63**

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 past 10 years, the average number of motorcycle-involved crashes is 511 and 22 deaths per year. Licensed motorcyclists increased 1.7 percent during 2016 while fatalities decreased by nine to 22 (see Table 2-7). Moped crashes are included with motorcycle crashes. There was one moped fatality during 2016. Over the years this is only the third moped fatality and the number of injuries is small. See pages 46-51 for additional motorcycle, pedestrian, and bicycle crash information.

TABLE 2-7
MOTORCYCLE CRASHES
1996 - 2016

	Motorcycle Crashes			Motorcyclists		Registered	Licensed
Year	Total	Fatal	Injury	Fatalities	Injuries	Motorcycles	Motorcyclists
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
2011	455	15	388	14	468	69,660	78,626
2012	501	24	421	25	501	73,310	80,410
2013	491	21	398	22	474	75,669	82,313
2014	470	17	401	17	473	78,380	83,623
2015	598	30	485	31	614	89,079	85,513
2016	475	22	387	22	450	94,539	87,027

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

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TABLE 2-8
PEDESTRIAN FATALITIES AND INJURIES
1996 - 2016

Year	Fatalities	Injuries
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
2011	7	119
2012	2	116
2013	9	124
2014	9	101
2015	5	95
2016	**6**	**93**

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

TABLE 2-9
BICYCLE FATALITIES AND INJURIES
1996 - 2016

Year	Fatalities	Injuries
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
2011	1	88
2012	0	110
2013	0	87
2014	2	77
2015	1	90
2016	**0**	**73**

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
2007- 2016

Holiday	Total Hours	Total Crashes	Fatal Crashes	Injury Crashes	Fatalities	Injuries
MEMORIAL DAY						
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
2011	78	123	0	21	0	30
2012	78	137	1	30	1	42
2013	78	100	0	21	0	34
2014	78	123	4	24	6	34
2015	78	118	3	16	4	24
2016	**78**	**121**	**0**	**31**	**0**	**37**
FOURTH OF JULY						
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
2011	78	127	2	30	2	42
2012	30	45	2	11	2	14
2013	102	153	1	41	1	64
2014	78	123	3	32	3	37
2015	78	127	3	33	3	49
2016	**78**	**131**	**2**	**33**	**2**	**47**
LABOR DAY						
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
2011	78	120	3	33	3	52
2012	78	138	1	38	1	56
2013	78	107	1	33	1	52
2014	78	110	0	35	0	42
2015	78	129	2	36	2	54
2016	**78**	**106**	**1**	**31**	**1**	**46**

Holiday	Total Hours	Total Crashes	Fatal Crashes	Injury Crashes	Fatalities	Injuries
THANKSGIVING						
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
2011	102	215	1	29	1	34
2012	102	225	0	37	0	48
2013	102	182	2	29	2	39
2014	102	201	2	26	2	37
2015	102	243	2	39	2	61
2016	**102**	**191**	**1**	**23**	**2**	**28**
CHRISTMAS						
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
2011	78	107	0	21	0	32
2012	102	149	1	23	1	41
2013	30	55	0	12	0	20
2014	102	219	4	42	5	65
2015	78	150	0	18	0	31
2016	**78**	**119**	**1**	**23**	**1**	**33**
NEW YEARS						
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
2011-12	78	118	0	31	0	40
2012-13	102	148	0	29	0	35
2013-14	30	48	1	8	1	13
2014-15	102	210	0	44	0	57
2015-16	78	138	1	35	1	47
2016-17	**78**	**158**	**2**	**26**	**2**	**37**

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 2007 through 2016. The percentages are row percentages.

Note: For definition of class of injury, see page 21.

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
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
2011	760	14.1	1,927	35.9	2,687	50.0	5,374	111
2012	811	14.9	2,010	37.0	2,611	48.1	5,432	133
2013	832	15.2	1,997	36.6	2,633	48.2	5,462	135
2014	738	14.5	1,826	35.9	2,526	49.6	5,090	136
2015	803	14.5	2,071	37.5	2,651	48.0	5,525	133
2016	**692**	**13.4**	**1,892**	**36.6**	**2,590**	**50.1**	**5,174**	**116**

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
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
2011	531	13.7	1,311	33.9	2,027	52.4	3,869	69
2012	553	14.5	1,323	34.7	1,932	50.7	3,808	92
2013	544	14.0	1,345	34.7	1,984	51.2	3,873	100
2014	527	14.0	1,303	34.7	1,923	51.2	3,753	97
2015	538	13.2	1,479	36.4	2,044	50.3	4,061	95
2016	**464**	**11.9**	**1,396**	**35.8**	**2,036**	**52.3**	**3,896**	**86**

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
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
2011	188	14.6	498	38.7	600	46.7	1,286	34
2012	219	15.7	574	41.3	598	43.0	1,391	39
2013	239	17.4	551	40.2	581	42.4	1,371	26
2014	171	14.8	441	38.2	542	47.0	1,154	28
2015	229	18.1	492	38.8	547	43.1	1,268	32
2016	**194**	**17.7**	**413**	**37.6**	**492**	**44.8**	**1,099**	**24**

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
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
2011	8	9.3	52	60.5	26	30.2	86	1
2012	10	9.1	65	59.1	35	31.8	110	0
2013	13	14.9	44	50.6	30	34.5	87	0
2014	9	12.0	42	56.0	24	32.0	75	2
2015	9	10.0	53	58.9	28	31.1	90	1
2016	**6**	**8.2**	**38**	**52.1**	**29**	**39.7**	**73**	**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
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
2011	31	26.1	61	51.3	27	22.7	119	7
2012	27	23.3	47	40.5	42	36.2	116	2
2013	36	29.0	55	44.4	33	26.6	124	9
2014	30	29.7	37	36.6	34	33.7	101	9
2015	26	27.4	41	43.2	28	29.5	95	5
2016	**24**	**25.8**	**40**	**43.0**	**29**	**31.2**	**93**	**6**

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
2006 - 2016

	CRASH INVOLVED DRIVERS				LICENSED DRIVERS			
	MALE		FEMALE		MALE		FEMALE	
	No.	%	No.	%	No.	%	No.	%
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
2011	14,585	58.3	10,427	41.7	303,017	50.2	300,216	49.8
2012	13,601	58.5	9,655	41.5	305,385	50.3	301,394	49.7
2013	14,174	58.5	10,051	41.5	309,218	50.4	304,694	49.6
2014	14,950	59.0	10,402	41.0	312,671	50.4	307,682	49.6
2015	15,209	58.6	10,733	41.4	318,195	50.4	312,869	49.6
2016	**14,866**	**58.6**	**10,485**	**41.4**	**320,646**	**50.5**	**314,772**	**49.5**

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. 2016 MOTOR VEHICLE CRASH PROFILE

Introduction

This section profiles the reported motor vehicle traffic crashes for 2016. 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 2016, there were 17,512 reported motor vehicle traffic crashes, the majority of crashes being property damage only 13,578 (77.5%). Injury crashes accounted for 3,831 (21.9%) of the crashes, while 103 (0.6%) were fatal crashes. There were 5,174 persons injured and 116 persons killed in crashes during 2016 (see TABLE 3-1).

TABLE 3-1
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS, PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS
2016

	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	464	67.1	1,396	73.8	2,036	78.6	3,896	75.3	86	74.1
Passengers	194	28.0	413	21.8	492	19.0	1,099	21.2	24	20.7
Pedestrians	24	3.5	40	2.1	29	1.1	93	1.8	6	5.2
Bicycle Drv	6	0.9	38	2.0	29	1.1	73	1.4	0	0.0
Other*	4	0.6	5	0.3	4	0.2	13	0.3	0	0.0
TOTAL	**692**	**100**	**1,892**	**100**	**2,590**	**100**	**5,174**	**100**	**116**	**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 2016, 28.4 percent of the fatalities and 47.5 percent of the injuries occurred to occupants of passenger cars and mini-vans. Occupants of pickups and cargo vans accounted for 24.1 percent of the fatalities and 14.4 percent of the injuries. Additionally, in 2016 twenty-one motorcyclists and six pedestrians were killed.
(See Table 3-2).

TABLE 3-2
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION
2016

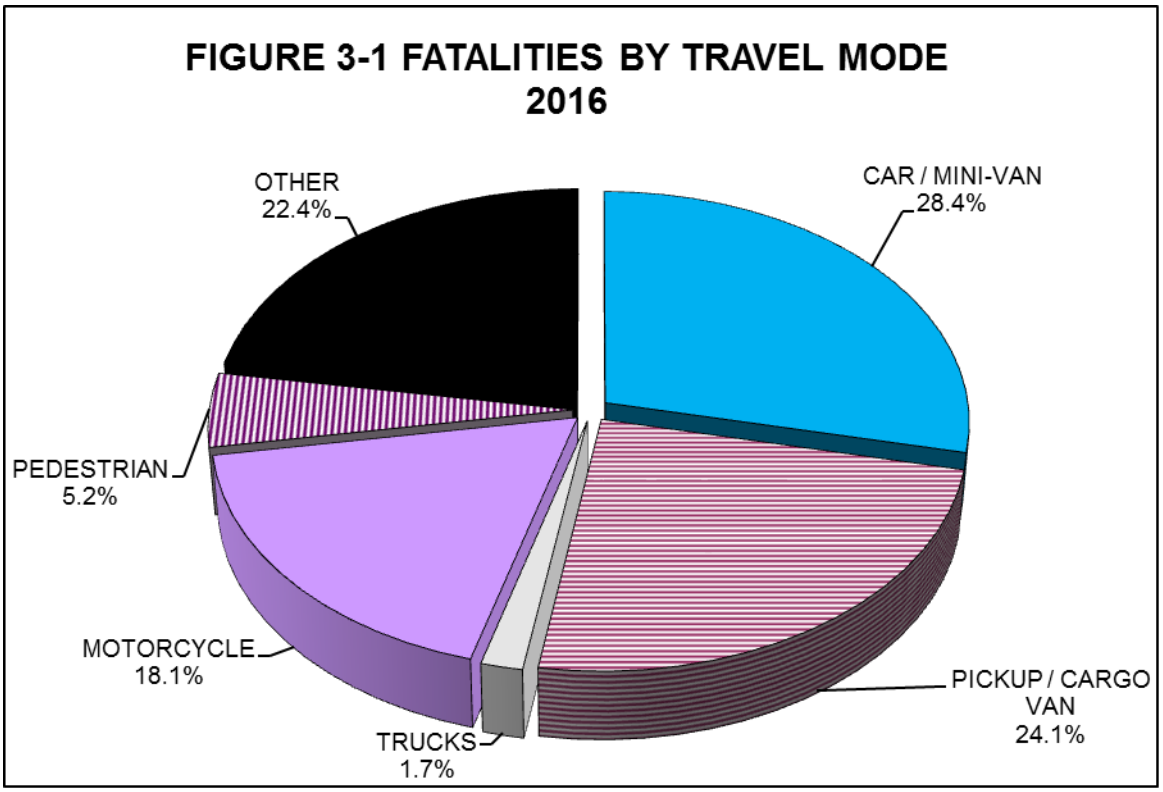
	Fatalities No.	Fatalities %	Injuries No.	Injuries %
Passenger Cars, Mini-vans	33	28.4	2,458	47.5
Pickups, Cargo Vans***	28	24.1	745	14.4
SUV's (Sports Utility Vehicles)	20	17.2	1,147	22.2
Trucks (All)*	2	1.7	102	2.0
Motorcycle	21	18.1	427	8.3
Moped	1	0.9	23	0.4
ATV's / 4-Wheelers	5	4.3	41	0.8
Bus	0	0.0	42	0.8
Farm Machinery, Heavy Equipment	0	0.0	11	0.2
Motor Home	0	0.0	4	0.1
Snowmobile	0	0.0	1	0.0
Bicycle	0	0.0	73	1.4
Pedestrians	6	5.2	93	1.8
Other**	0	0.0	7	0.1
Unknown	0	0.0	0	0.0
TOTAL	**116**	**100**	**5,174**	**100**

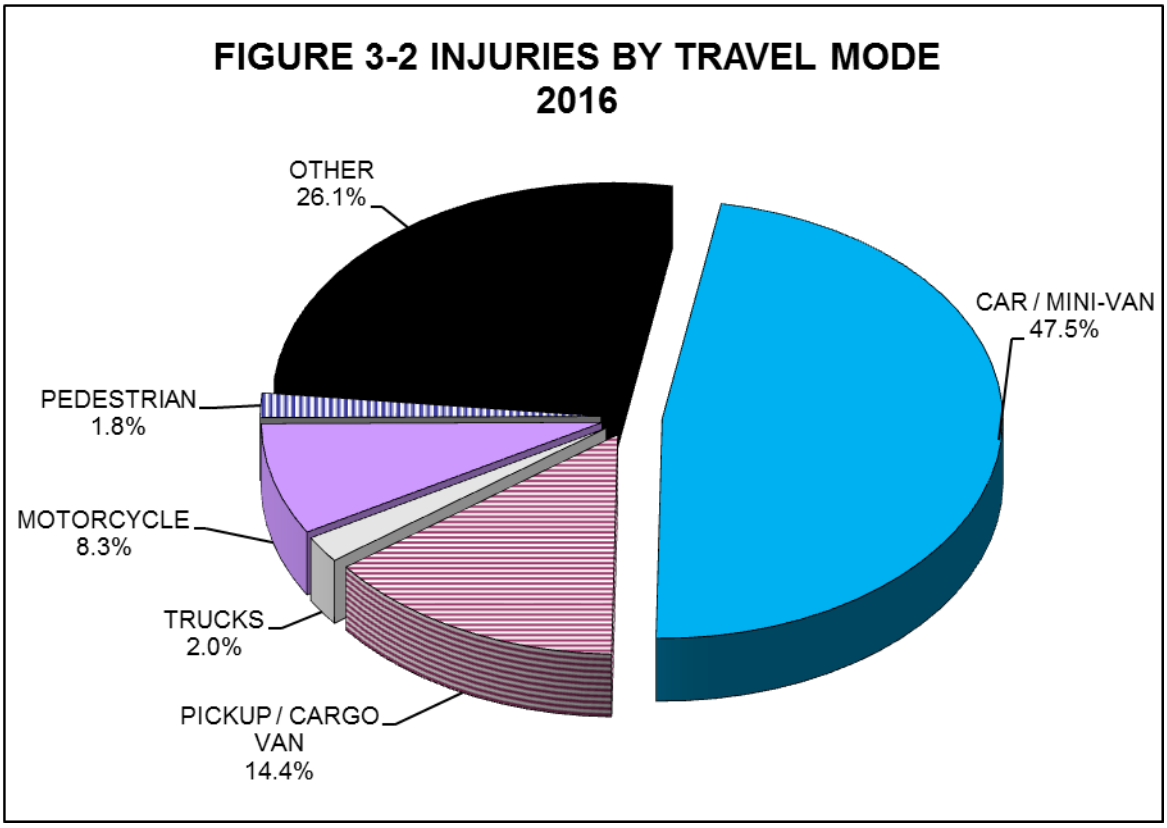
*Trucks Specifics:	Fatalities	Injuries
Straight Truck	1	40
Straight Truck with Trailer	0	4
Truck Tractor Only	0	3
Truck Tractor with Single Semi Trailer	1	52
Truck Tractor with Two or More Trailers	0	3
TOTAL	**2**	**102**

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





** 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 and mini-vans made up 27.1 percent of the vehicles involved in fatal crashes and 48.3 percent of those involved in injury crashes. Pickups and vans made up 28.6 percent of the vehicles involved in fatal crashes.

VEHICLE TYPES INVOLVED IN CRASHES
2016
TABLE 3-3

	All Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Passenger Cars / Mini-vans	13,225	49.2	38	27.1	3,143	48.3	10,044	49.6
Pickups, Cargo Vans	5,293	19.7	40	28.6	1,140	17.5	4,113	20.3
SUV's (Sports Utility Vehicles)	6,343	23.6	23	16.4	1,491	22.9	4,829	23.9
Trucks (All)*	1,124	4.2	6	4.3	231	3.5	887	4.4
Motorcycle	476	1.8	23	16.4	388	6.0	65	0.3
Moped	28	0.1	1	0.7	23	0.4	4	0.0
ATV's / 4-wheelers	50	0.2	5	3.6	35	0.5	10	0.0
Bus	111	0.4	1	0.7	22	0.3	88	0.4
Farm Machinery / Heavy Equip.	55	0.2	3	2.1	19	0.3	33	0.2
Motor Home	33	0.1	0	0.0	7	0.1	26	0.1
Snowmobile	1	0.0	0	0.0	1	0.0	0	0.0
Other	14	0.1	0	0.0	6	0.1	8	0.0
Unknown	141	0.5	0	0.0	7	0.1	134	0.7
TOTAL	**26,894**	**100**	**140**	**100**	**6,513**	**100**	**20,241**	**100**

* Trucks Specifics:	All Crashes	Fatal Crashes	Injury Crashes	PDO Crashes
Straight Truck	376	1	77	298
Straight Truck with Trailer	70	0	10	60
Truck Tractor Only	35	0	6	29
Truck Tractor with Single Semi Trailer	601	5	128	468
Truck Tractor with Two or More Trailers	42	0	10	32
TOTAL	**1,124**	**6**	**231**	**887**

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 20 people or (17.2%) of the persons killed were under 20 years of age and a total of 952 or (18.4%) of the persons injured were between 25 and 34 years of age.
Four children age 0-5 were killed during 2016 (see Table 3-4).

TABLE 3-4
FATALITIES AND INJURIES BY AGE GROUP
2016

	Fatalities		Injuries	
	No.	%	No.	%
0 - 5	4	3.4	82	1.6
6 - 13	2	1.7	198	3.8
14 - 15	2	1.7	176	3.4
16 - 17	5	4.3	267	5.2
18	3	2.6	165	3.2
19	4	3.4	144	2.8
20	2	1.7	143	2.8
21 - 24	17	14.7	492	9.5
25 - 34	25	21.6	952	18.4
35 - 44	12	10.3	688	13.3
45 - 54	13	11.2	669	12.9
55 - 64	8	6.9	622	12.0
65 - Over	19	16.4	571	11.0
Unknown	0	0.0	5	0.1
Total	**116**	**100**	**5,174**	**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 43.7 percent of the fatal crashes and only 8.7 percent of the total crashes, while 31.1 percent of the fatal crashes and 44 percent of all crashes represented a collision between two or more vehicles (see TABLE 3-5).

TABLE 3-5
FIRST HARMFUL EVENT
2016

First Harmful Event	Total Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Motor Vehicle Collision With:								
MV in Transport	7,698	44.0	32	31.1	2,227	58.1	5,439	40.1
A Fixed or Other Object	2,321	13.3	17	16.5	562	14.7	1,742	12.8
An Animal	4,867	27.8	3	2.9	88	2.3	4,776	35.2
A Pedestrian	88	0.5	6	5.8	82	2.1	0	0.0
A Bicyclist	74	0.4	0	0.0	72	1.9	2	0.0
A Parked Motor Vehicle	898	5.1	0	0.0	67	1.7	831	6.1
A Railroad Vehicle	7	0.0	0	0.0	3	0.1	4	0.0
Equipment in Roadway	40	0.2	0	0.0	6	0.2	34	0.3
Non-Collision (Overturning or Other)	1,519	8.7	45	43.7	724	18.9	750	5.5
Total	**17,512**	**100**	**103**	**100**	**3,831**	**100**	**13,578**	**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 50 percent of the fatal crashes, 52.8 percent of the injury crashes and 50.8 percent of the property damage only crashes. Angle collisions are the most prevalent for severe crashes, accounting for 50 percent of the fatal crashes and 51.4 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
2016

Manner of Collision	Total Crashes No.	%	Fatal Crashes No.	%	Injury Crashes No.	%	PDO Crashes No.	%
Rear-End	2,925	38.0	5	15.6	893	40.1	2,027	37.3
Head-On	76	1.0	11	34.4	39	1.8	26	0.5
Angle	3,957	51.4	16	50.0	1,176	52.8	2,765	50.8
Sideswipe-Same Direction	625	8.1	0	0.0	72	3.2	553	10.2
Sideswipe-Opposite Dir.	112	1.5	0	0.0	47	2.1	65	1.2
Rear-Rear	3	0.0	0	0.0	0	0.0	3	0.1
Unknown	0	0.0	0	0.0	0	0.0	0	0.0
Total	7,698	100	32	100	2,227	100	5,439	100
No Collision Between 2 or more MV	9,814		71		1,604		8,139	
Total Crashes	**17,512**		**103**		**3,831**		**13,578**	

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 35.9 percent of the PDO crashes and 45 percent of the injury crashes while accounting for 4.9 percent of the fatal crashes.

Non-interstate rural roads tallied 81.6 percent of the fatal crashes. The Interstate system experienced 2,786 (15.9%) of the total crashes while accounting for an estimated 29 percent of the vehicle miles traveled in 2016. Twelve or 11.6 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
2016

Type of Highway	Total Crashes Number	%	Fatal Crashes Number	%	Injury Crashes Number	%	PDO Crashes Number	%	No. Killed	No. Injured
Interstate - Rural	1,752	10.0	9	8.7	276	7.2	1,471	10.8	10	406
US/State Hwys-Rural	4,074	23.3	38	36.9	614	16.0	3,418	25.2	45	925
Co./Local Rds.-Rural	2,721	15.5	46	44.7	613	16.0	2,062	15.2	51	835
Interstate - City	1,034	5.9	3	2.9	172	4.5	862	6.3	3	226
US/State Hwys-City	1,305	7.5	2	1.9	428	11.2	872	6.4	2	584
City Streets/Alleys	6,605	37.7	5	4.9	1,723	45.0	4,877	35.9	5	2,191
Ramps	21	0.1	0	0.0	5	0.1	16	0.1	0	7
Unknown/Not Reported	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Total	**17,512**	**100**	**103**	**100**	**3,831**	**100**	**13,578**	**100**	**116**	**5,174**

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

FIGURE 3-3 2016
TRAFFIC CRASHES
BY SYSTEM TYPE

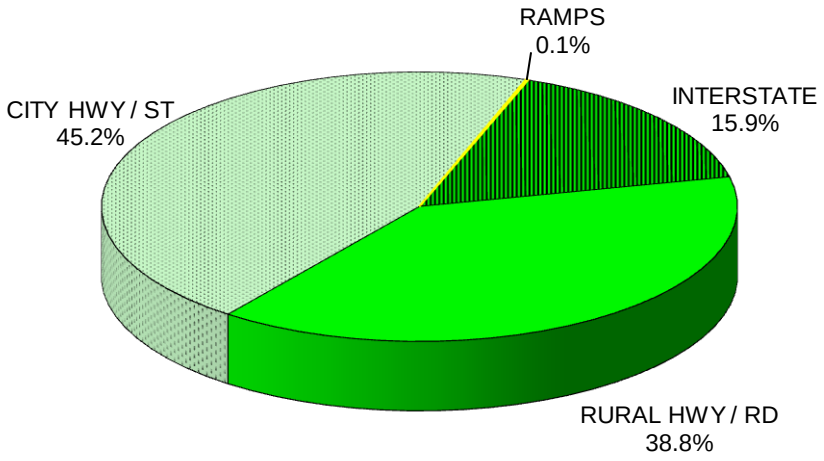


FIGURE 3-4 2016
FATAL TRAFFIC CRASHES
BY SYSTEM TYPE

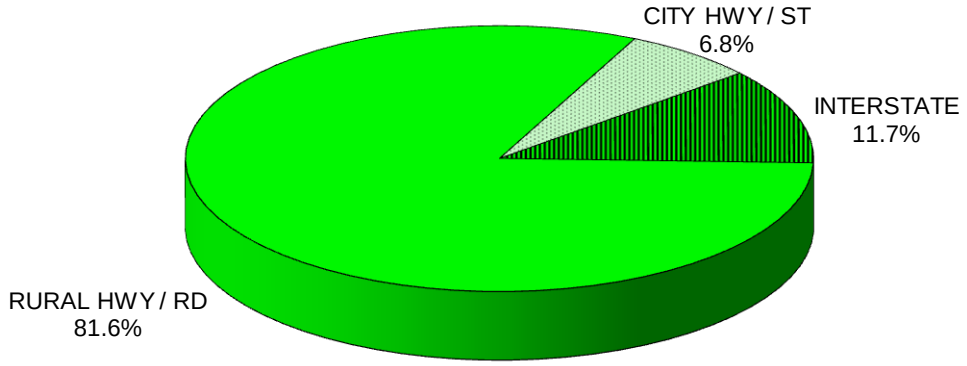


TABLE 3-8
MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2016

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	114	1	13	100	2	19
BEADLE	220	0	65	155	0	94
BENNETT	34	0	8	26	0	13
BON HOMME	76	1	13	62	3	18
BROOKINGS	503	3	105	395	4	146
BROWN	787	1	146	640	1	186
BRULE	66	0	17	49	0	20
BUFFALO	22	1	7	14	1	8
BUTTE	245	2	43	200	2	70
CAMPBELL	30	2	3	25	2	9
CHARLES MIX	107	1	37	69	1	57
CLARK	123	1	9	113	1	10
CLAY	205	1	42	162	1	54
CODINGTON	586	2	140	444	2	188
CORSON	51	1	5	45	1	5
CUSTER	265	2	55	208	2	66
DAVISON	498	2	82	414	2	109
DAY	60	0	20	40	0	29
DEUEL	114	0	19	95	0	22
DEWEY	15	0	4	11	0	5
DOUGLAS	27	1	3	23	1	8
EDMUNDS	112	2	4	106	2	6
FALL RIVER	123	0	27	96	0	40
FAULK	86	1	5	80	1	5
GRANT	82	1	24	57	1	28
GREGORY	24	0	5	19	0	9
HAAKON	12	0	3	9	0	3
HAMLIN	173	1	16	156	1	24
HAND	75	1	11	63	1	13
HANSON	93	1	20	72	1	38
HARDING	28	0	9	19	0	11
HUGHES	230	1	52	177	1	66
HUTCHINSON	100	0	20	80	0	32
HYDE	22	2	8	12	3	17
JACKSON	90	2	29	59	3	45
JERAULD	63	0	6	57	0	9
JONES	100	1	12	87	1	17
KINGSBURY	136	1	13	122	1	19
LAKE	183	1	23	159	1	33
LAWRENCE	725	9	160	556	10	206
LINCOLN	920	3	214	703	3	281
LYMAN	170	3	33	134	3	43
MARSHALL	92	1	9	82	1	12
MC COOK	186	0	25	161	0	39
MC PHERSON	53	0	6	47	0	8
MEADE	446	3	106	337	4	149
MELLETTE	14	0	1	13	0	1
MINER	78	0	7	71	0	7
MINNEHAHA	4,680	9	1,146	3,525	9	1,488
MOODY	231	0	45	186	0	58
OGLALA LAKOTA	30	9	10	11	14	50
PENNINGTON	2,277	10	660	1,607	10	877
PERKINS	73	0	6	67	0	7
POTTER	60	1	4	55	1	7
ROBERTS	160	5	35	120	5	58
SANBORN	86	0	6	80	0	9
SPINK	211	1	24	186	1	39
STANLEY	93	0	14	79	0	16
SULLY	40	0	6	34	0	8
TODD	11	1	1	9	1	1
TRIPP	146	1	14	131	1	17
TURNER	138	2	22	114	2	37
UNION	257	2	52	203	2	66
WALWORTH	94	3	27	64	3	39
YANKTON	345	3	71	271	3	96
ZIEBACH	16	0	4	12	0	4
Total:	**17,512**	**103**	**3,831**	**13,578**	**116**	**5,174**

TABLE 3-8A
ALCOHOL INVOLVED MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2016

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	3	0	1	2	0	1
BEADLE	7	0	3	4	0	5
BENNETT	1	0	1	0	0	1
BON HOMME	4	0	2	2	0	3
BROOKINGS	24	0	10	14	0	11
BROWN	43	0	21	22	0	25
BRULE	3	0	2	1	0	2
BUFFALO	4	0	4	0	0	5
BUTTE	15	1	10	4	1	17
CAMPBELL	2	1	0	1	1	2
CHARLES MIX	16	1	10	5	1	19
CLARK	2	0	1	1	0	1
CLAY	13	1	5	7	1	5
CODINGTON	36	1	18	17	1	26
CORSON	2	0	1	1	0	1
CUSTER	16	0	6	10	0	7
DAVISON	38	1	12	25	1	17
DAY	8	0	5	3	0	9
DEUEL	4	0	3	1	0	4
DEWEY	2	0	1	1	0	1
DOUGLAS	0	0	0	0	0	0
EDMUNDS	1	0	0	1	0	0
FALL RIVER	7	0	2	5	0	3
FAULK	0	0	0	0	0	0
GRANT	4	1	3	0	1	3
GREGORY	1	0	0	1	0	0
HAAKON	1	0	1	0	0	1
HAMLIN	3	0	3	0	0	3
HAND	2	0	2	0	0	2
HANSON	5	1	2	2	1	2
HARDING	1	0	0	1	0	0
HUGHES	19	1	10	8	1	13
HUTCHINSON	3	0	3	0	0	5
HYDE	3	1	0	2	2	0
JACKSON	5	1	3	1	2	4
JERAULD	2	0	1	1	0	2
JONES	4	1	2	1	1	2
KINGSBURY	3	0	0	3	0	0
LAKE	6	1	3	2	1	6
LAWRENCE	50	5	23	22	6	32
LINCOLN	38	0	13	25	0	16
LYMAN	8	0	6	2	0	7
MARSHALL	3	1	1	1	1	1
MCCOOK	6	0	2	4	0	3
MCPHERSON	0	0	0	0	0	0
MEADE	23	1	10	12	1	13
MELLETTE	0	0	0	0	0	0
MINER	0	0	0	0	0	0
MINNEHAHA	255	3	89	163	3	108
MOODY	11	0	6	5	0	9
OGLALA LAKOTA	13	8	5	0	13	41
PENNINGTON	151	7	69	75	7	100
PERKINS	3	0	1	2	0	1
POTTER	1	0	0	1	0	0
ROBERTS	17	2	8	7	2	12
SANBORN	3	0	2	1	0	2
SPINK	5	1	1	3	1	2
STANLEY	12	0	3	9	0	4
SULLY	1	0	0	1	0	0
TODD	1	1	0	0	1	0
TRIPP	6	1	4	1	1	5
TURNER	9	1	4	4	1	4
UNION	7	1	4	2	1	4
WALWORTH	7	1	3	3	1	8
YANKTON	19	1	6	12	1	9
ZIEBACH	0	0	0	0	0	0
Total:	**962**	**47**	**411**	**504**	**55**	**589**

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 fifteen counties (see TABLE 3-9). Each of these counties reported over two percent of all rural fatal and injury crashes. These fifteen counties accounted for 61.3 percent of rural fatal and injury crashes and 77.1 percent of all fatal and injury crashes in South Dakota. Pennington County has 10.1 percent of all rural fatal and injury crashes with Minnehaha County accounting for 9.1 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.

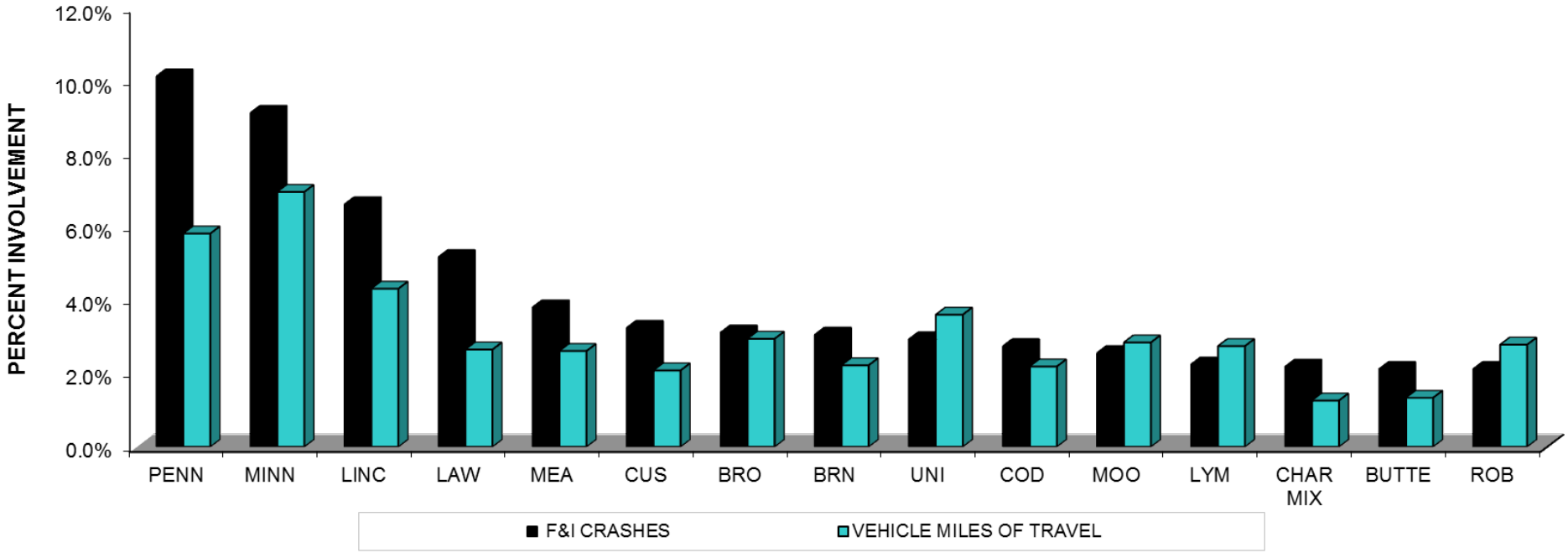
TABLE 3-9
COUNTIES HAVING MORE THAN TWO PERCENT OF THE RURAL FATAL & INJURY CRASHES
2016

County	Rural Fatal & Injury Crashes	Percent of All Rural Fatal & Injury Crashes	Percent of Rural VMTS
PENNINGTON	162	10.1%	5.8%
MINNEHAHA	146	9.1%	7.0%
LINCOLN	106	6.6%	4.3%
LAWRENCE	83	5.2%	2.7%
MEADE	61	3.8%	2.6%
CUSTER	52	3.3%	2.1%
BROOKINGS	50	3.1%	3.0%
BROWN	49	3.1%	2.8%
UNION	47	2.9%	3.6%
CODINGTON	44	2.8%	2.2%
MOODY	41	2.6%	2.9%
LYMAN	36	2.3%	2.8%
CHARLES MIX	35	2.2%	1.3%
BUTTE	34	2.1%	1.3%
ROBERTS	34	2.1%	2.8%

Note: Total Rural Fatal and Injury Crashes: 1,599
S.D. Vehicle Miles of Travel Report (2016 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 - 2016



City Summary

Reported traffic crashes within South Dakota cities (population of 2,500 and more) are presented in TABLE 3-10. These cities reported 57.8 percent of the statewide injury crashes and 7.8 percent of the fatal crashes. The two largest cities (Sioux Falls, Rapid City) accounted for 70.3 percent of fatal and injury crashes occurring in cities and 66.6 percent of the property damage only crashes.

TABLE 3-10
TRAFFIC CRASHES SOUTH DAKOTA CITIES
POPULATION 2500 AND OVER
2016

City	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
Aberdeen	430	1	95	334	1	121
Belle Fourche	55	0	11	44	0	14
Box Elder	81	0	19	62	0	29
Brandon	46	0	10	36	0	11
Brookings	234	0	57	177	0	69
Canton	18	0	1	17	0	2
Dell Rapids	31	0	4	27	0	4
Harrisburg	14	0	4	10	0	4
Hartford	19	0	3	16	0	3
Hot Springs	21	0	6	15	0	7
Huron	106	0	40	66	0	55
Lead	13	0	5	8	0	5
Madison	51	0	8	43	0	12
Milbank	6	0	2	4	0	4
Mitchell	319	0	58	261	0	72
Mobridge	22	0	8	14	0	9
N. Sioux City	23	0	3	20	0	3
Pierre	129	1	37	91	1	45
Rapid City	1,512	2	475	1,035	2	618
Redfield	30	0	4	26	0	7
Sioux Falls	4,099	4	1,080	3,015	4	1,404
Sisseton	31	0	5	26	0	6
Spearfish	267	0	61	206	0	74
Sturgis	85	0	38	47	0	53
Tea	19	0	7	12	0	8
Vermillion	82	0	21	61	0	28
Watertown	369	0	98	271	0	120
Winner	5	0	2	3	0	2
Yankton	190	0	52	138	0	62
City Totals	8,307	8	2,214	6,085	8	2,851
Statewide Totals	17,512	103	3,831	13,578	116	5,174

Note! The cities of Harrisburg, Hartford, N. Sioux City & Tea have been added to this table due to an increase 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 16 percent of all reported property damage only crashes and 14.3 percent of all fatal and injury crashes. Dry roads were reported in 74.7 percent of all fatal and injury crashes.

TABLE 3-11
ROADWAY SURFACE CONDITIONS
2016

	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Dry	13,077	74.7	88	85.4	2,849	74.4	10,140	74.7
Wet	1,420	8.1	5	4.9	338	8.8	1,077	7.9
Snow	1,439	8.2	2	1.9	260	6.8	1,177	8.7
Slush	246	1.4	2	1.9	56	1.5	188	1.4
Ice	965	5.5	3	2.9	217	5.7	745	5.5
Frost	79	0.5	0	0.0	21	0.5	58	0.4
Water	6	0.0	0	0.0	1	0.0	5	0.0
Sand, mud, dirt, gravel	192	1.1	3	2.9	75	2.0	114	0.8
Oil	1	0.0	0	0.0	0	0.0	1	0.0
Other / Not applicable	19	0.1	0	0.0	3	0.1	16	0.1
Unknown / Not reported	68	0.4	0	0.0	11	0.3	57	0.4
Total	**17,512**	**100**	**103**	**100**	**3,831**	**100**	**13,578**	**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. Twenty-three or 22.3 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 991 (25.9%) of the injury crashes occurred. The peak three hour period for property damage only crashes was 4:00-6:59 p.m. with 2,948 (21.7%) of the property damage only crashes occurred (see TABLE 3-12).

Sixteen fatal crashes or 15.5 percent occurred in October and 435 (11.4%) of the injury crashes occurred during August in 2016. The month of November shows 1,800 property damage only crashes which represents 13.3 percent of the property damage only crashes for 2016 (see TABLE 3-13).

The day of the week Friday accounts for 2,993 of the total crashes or 17.1 percent, with 2,329 (17.2%) of property damage only crashes and 649 (16.9%) of injury crashes. Saturday accounted for 18 fatal crashes or 17.5 percent of the total crashes for 2016 (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
2016

Time	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
Midnight	256	4	53	199	4	81
1:00 AM	232	2	47	183	2	60
2:00 AM	235	2	49	184	2	64
3:00 AM	160	3	21	136	4	32
4:00 AM	192	2	36	154	2	48
5:00 AM	450	1	57	392	1	68
6:00 AM	642	3	81	558	4	108
7:00 AM	1,208	4	234	970	6	317
8:00 AM	769	1	148	620	1	197
9:00 AM	627	4	151	472	6	194
10:00 AM	643	4	173	466	4	216
11:00 AM	808	6	214	588	6	288
12:00 PM	866	4	244	618	5	327
1:00 PM	861	2	245	614	2	341
2:00 PM	833	10	265	558	11	373
3:00 PM	1,144	6	332	806	9	471
4:00 PM	1,140	3	315	822	3	423
5:00 PM	1,549	6	344	1,199	7	466
6:00 PM	1,149	9	213	927	9	297
7:00 PM	900	8	176	716	8	230
8:00 PM	860	4	151	705	4	206
9:00 PM	890	6	104	780	6	131
10:00 PM	667	3	102	562	3	141
11:00 PM	401	4	71	326	5	87
Unknown	30	2	5	23	2	8
Total	**17,512**	**103**	**3,831**	**13,578**	**116**	**5,174**

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

TABLE 3-13
CRASHES BY MONTH
2016

Month	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
JANUARY	1,570	4	344	1,222	4	431
FEBRUARY	1,313	7	283	1,023	8	382
MARCH	1,110	6	262	842	6	353
APRIL	1,010	10	222	778	13	304
MAY	1,353	7	288	1,058	10	356
JUNE	1,442	8	356	1,078	8	473
JULY	1,401	12	381	1,008	13	524
AUGUST	1,426	14	435	977	16	603
SEPTEMBER	1,368	9	309	1,050	10	428
OCTOBER	1,666	16	298	1,352	17	434
NOVEMBER	2,104	7	297	1,800	8	407
DECEMBER	1,749	3	356	1,390	3	479
Total	**17,512**	**103**	**3,831**	**13,578**	**116**	**5,174**

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

TABLE 3-14
CRASHES BY DAY OF WEEK
2016

Day	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
SUNDAY	1,839	17	425	1,397	18	579
MONDAY	2,527	11	538	1,978	11	721
TUESDAY	2,559	14	562	1,983	16	728
WEDNESDAY	2,599	16	542	2,041	16	747
THURSDAY	2,576	12	567	1,997	16	749
FRIDAY	2,993	15	649	2,329	17	916
SATURDAY	2,419	18	548	1,853	22	734
Total	**17,512**	**103**	**3,831**	**13,578**	**116**	**5,174**

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

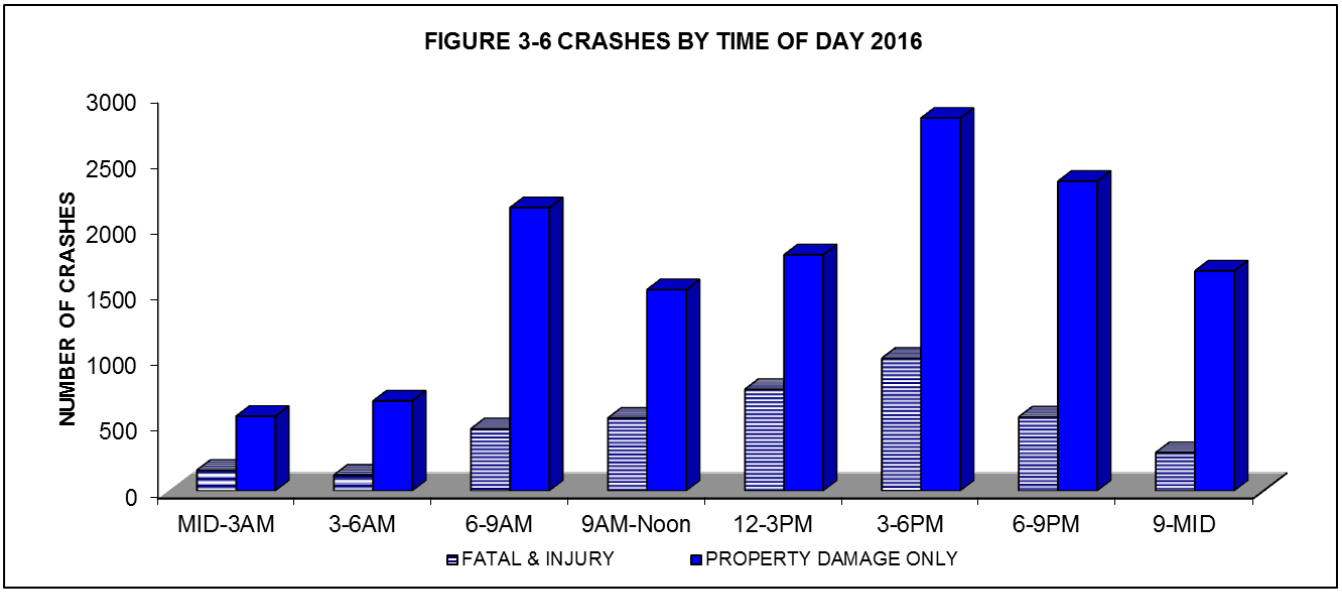


FIGURE 3-6 CRASHES BY TIME OF DAY 2016
NUMBER OF CRASHES
3000
2500
2000
1500
1000
500
0
MID-3AM
3-6AM
6-9AM
9AM-Noon
12-3PM
3-6PM
6-9PM
9-MID
FATAL & INJURY
PROPERTY DAMAGE ONLY

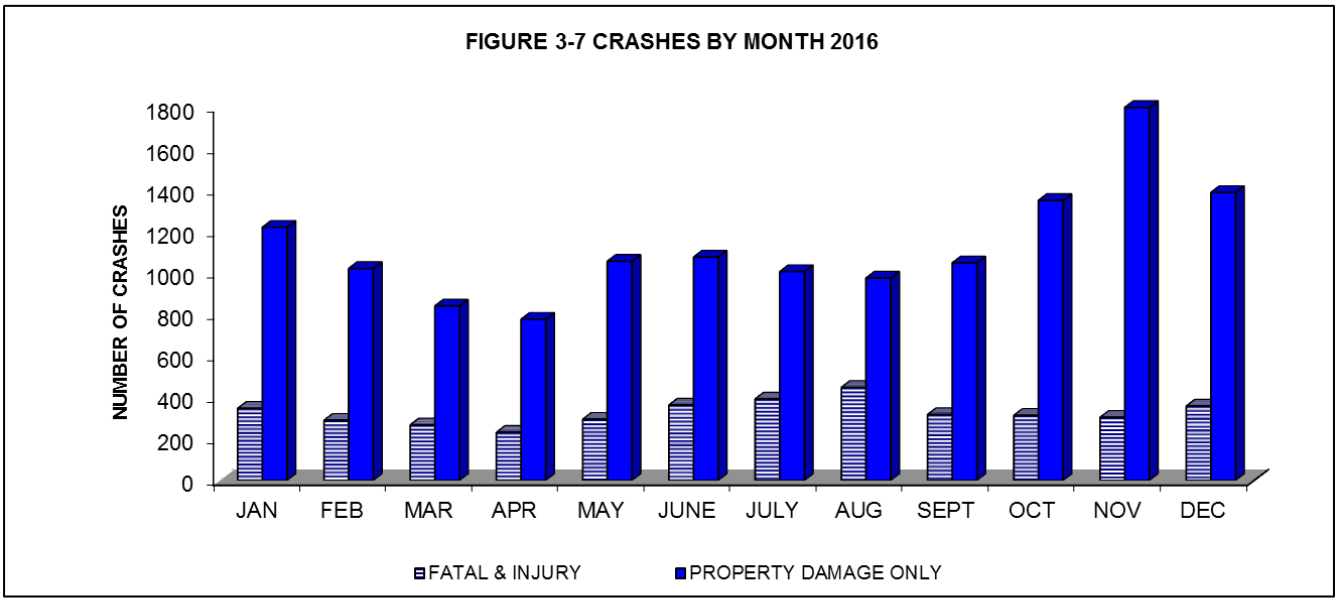


FIGURE 3-7 CRASHES BY MONTH 2016
NUMBER OF CRASHES
1800
1600
1400
1200
1000
800
600
400
200
0
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEPT
OCT
NOV
DEC
FATAL & INJURY
PROPERTY DAMAGE ONLY

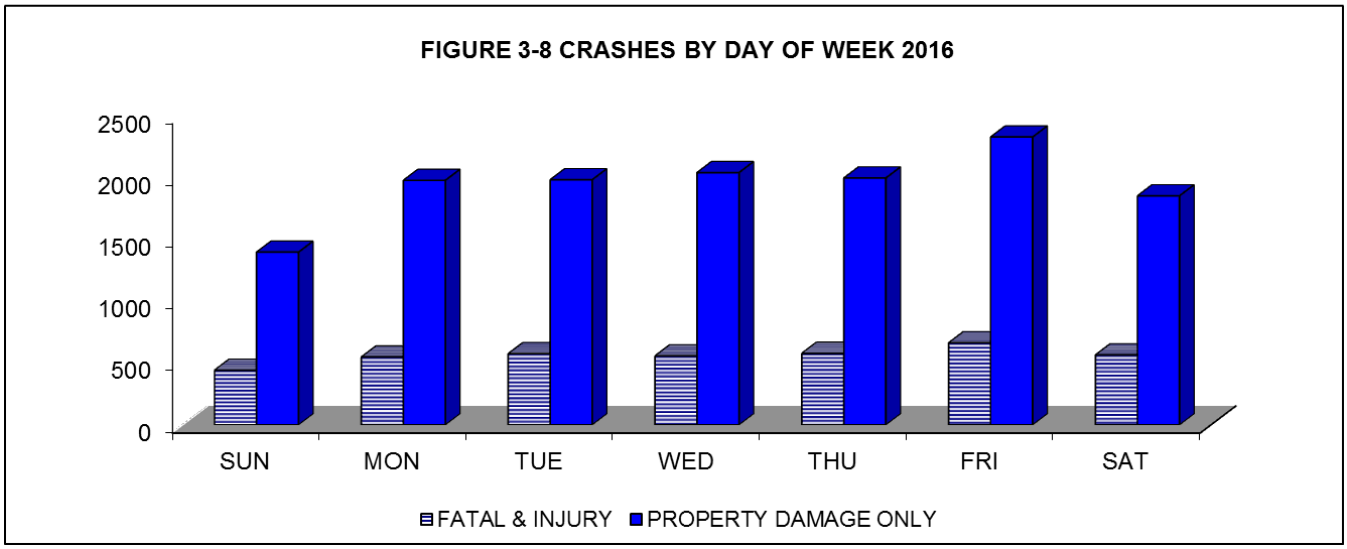


FIGURE 3-8 CRASHES BY DAY OF WEEK 2016
2500
2000
1500
1000
500
0
SUN
MON
TUE
WED
THU
FRI
SAT
FATAL & INJURY
PROPERTY DAMAGE ONLY

Drivers

In the 17,512 reported motor vehicle crashes there were 25,791 motor vehicle drivers involved, including 138 drivers in fatal crashes and 6,387 drivers in injury crashes. Of these drivers 86 were killed, which is 74.1 percent of all persons killed in motor vehicle crashes and 75.3 percent or 3,896 of the 5,174 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, 26.2 percent of the drivers were under 25 years of age and 45.6 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 24.6 percent of the drivers involved in fatal crashes and 26.9 percent of the drivers in injury crashes. Drivers under the age of 35 make up 46.4 percent of the drivers in fatal crashes and 46.4 percent of the drivers in injury crashes. Forty-four or 31.9 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
2016

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	12	0.0	0	0.0	7	0.1	5	0.0
14 - 15	626	2.4	3	2.2	172	2.7	451	2.3
16 - 17	1,343	5.2	7	5.1	322	5.0	1,014	5.3
18	789	3.1	4	2.9	216	3.4	569	3.0
19	718	2.8	5	3.6	174	2.7	539	2.8
20	702	2.7	1	0.7	192	3.0	509	2.6
21 - 24	2,577	10.0	14	10.1	633	9.9	1,930	10.0
25 - 34	4,986	19.3	30	21.7	1,250	19.6	3,706	19.2
35 - 44	3,807	14.8	21	15.2	951	14.9	2,835	14.7
45 - 54	3,445	13.4	16	11.6	863	13.5	2,566	13.3
55 - 64	3,314	12.8	14	10.1	799	12.5	2,501	13.0
65 - Over	2,964	11.5	23	16.7	742	11.6	2,199	11.4
Unknown	508	2.0	0	0.0	66	1.0	442	2.3
Total	**25,791**	**100**	**138**	**100**	**6,387**	**100**	**19,266**	**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 940 drinking drivers in all crashes which is 3.6 percent of all drivers in crashes. Forty-five or 32.6 percent of drivers in fatal crashes had been drinking while 386 or 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 26.7 percent of the drinking drivers in fatal crashes and 29.3 percent of the drinking drivers in injury crashes. Those drivers under 35 years of age accounted for 60 percent of the drinking drivers in fatal crashes and 57.8 percent of the drinking drivers in all crashes.

TABLE 3-16
AGE OF DRINKING DRIVERS IN CRASHES
2016

Age	Drivers In All Crashes No.	%	Drivers In Fatal Crashes No.	%	Drivers In Injury Crashes No.	%	Drivers In PDO Crashes No.	%
6 – 13	0	0.0	0	0.0	0	0.0	0	0.0
14 - 15	7	0.7	0	0.0	4	1.0	3	0.6
16 - 17	27	2.9	3	6.7	13	3.4	11	2.2
18	27	2.9	1	2.2	11	2.8	15	2.9
19	23	2.4	2	4.4	6	1.6	15	2.9
20	23	2.4	1	2.2	12	3.1	10	2.0
21 - 24	174	18.5	5	11.1	67	17.4	102	20.0
25 - 34	265	28.2	15	33.3	110	28.5	140	27.5
35 - 44	158	16.8	7	15.6	66	17.1	85	16.7
45 - 54	123	13.1	6	13.3	55	14.2	62	12.2
55 - 64	74	7.9	0	0.0	27	7.0	47	9.2
65 - Over	37	3.9	5	11.1	15	3.9	17	3.3
Unknown	2	0.2	0	0.0	0	0.0	2	0.4
Total	**940**	**100**	**45**	**100**	**386**	**100**	**509**	**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 percent of the total licensed drivers, 29 percent of the drinking drivers in fatal and injury crashes and 41.9 percent of the speeding drivers in fatal and injury crashes. Drivers under 35 years of age constitute 31.6 percent of all licensed drivers, with 58 percent of the drinking drivers and 65.6 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
2016

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	0	0.0	2	0.4
14 - 15	1.7	175	2.7	4	0.9	13	2.6
16 - 17	2.6	329	5.0	16	3.7	42	8.5
18	1.4	220	3.4	12	2.8	34	6.9
19	1.5	179	2.7	8	1.9	22	4.5
20	1.5	193	3.0	13	3.0	22	4.5
21 - 24	6.3	647	9.9	72	16.7	71	14.4
25 - 34	16.6	1,280	19.6	125	29.0	117	23.8
35 - 44	14.7	972	14.9	73	16.9	63	12.8
45 - 54	15.0	879	13.5	61	14.2	44	8.9
55 - 64	17.7	813	12.5	27	6.3	27	5.5
65 - Over	20.8	765	11.7	20	4.6	32	6.5
Unknown	0.0	66	1.0	0	0.0	3	0.6
TOTAL	**100**	**6,525**	**100**	**431**	**100**	**492**	**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 2016
Fatal and Injury Crash Involved Drivers

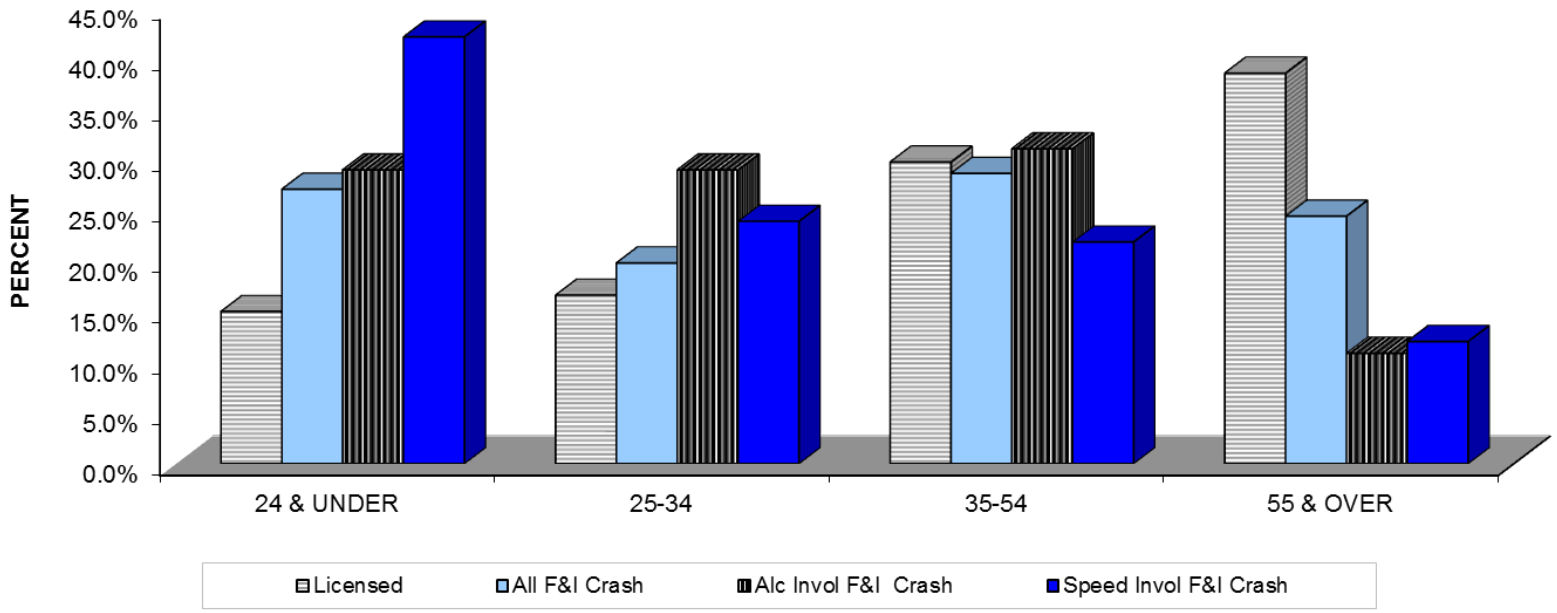
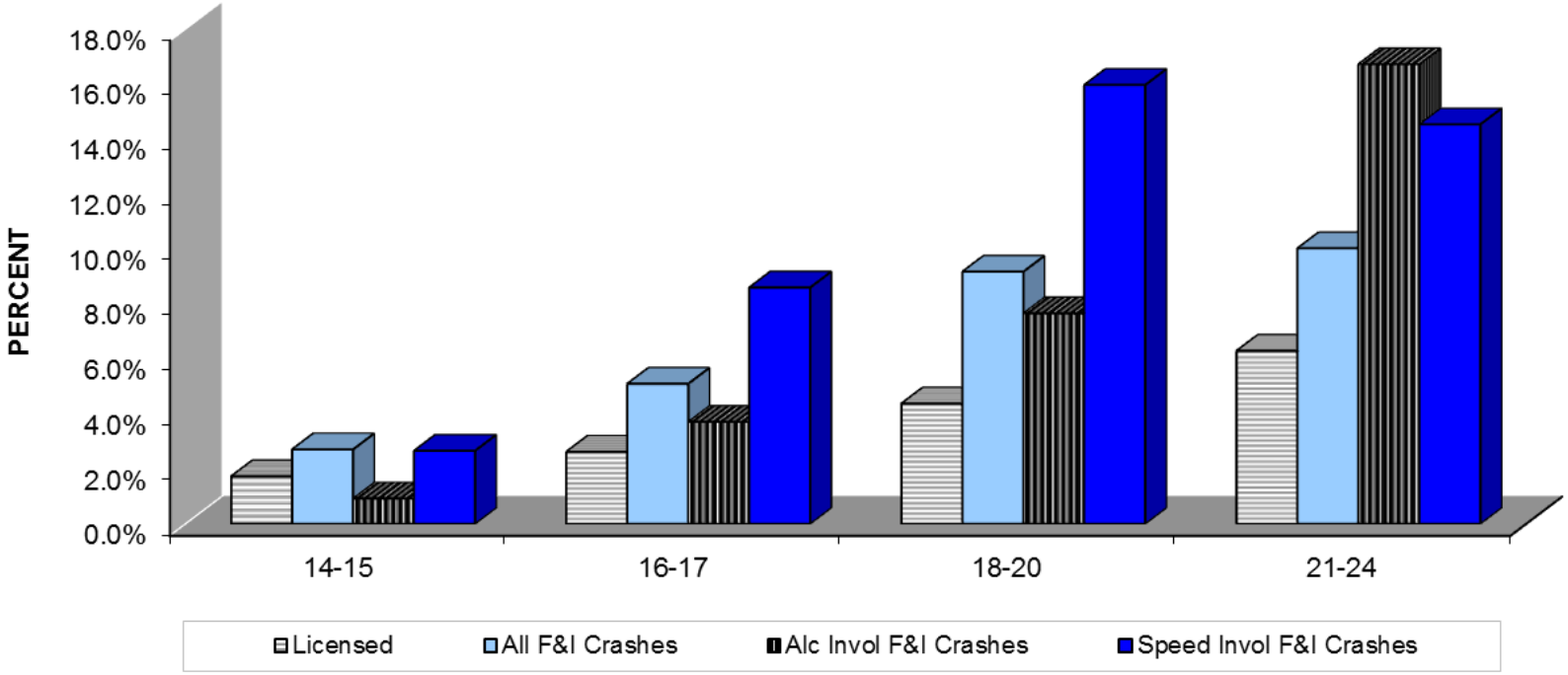


FIGURE 3-10 YOUNG DRIVERS 2016
Fatal & Injury Crash Involved Drivers



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 3.7 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 15.6 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 and Exceeding the Speed Limit were leading driver contributing circumstances in fatal crashes during 2018. Twenty-eight or 20.3 percent of the drivers in fatal crashes reported Drinking as a contributing factor in the crash, with 28 or 20.3 percent reporting Exceeding the Speed Limit as a contributing factor. Failing to Yield to Another Vehicle was the leading contributing circumstance in injury crashes. Driving too Fast for Conditions, Running off Road, Following Too Close and Distracted Driving were other leading driver contributing circumstances in injury crashes (see TABLE 3-18).

TABLE 3-18
MOTOR VEHICLE DRIVER CONTRIBUTING CIRCUMSTANCES
2016

	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	827	3.2	7	5.1	341	5.3	479	2.5
Distracted*	1,010	3.9	7	5.1	325	5.1	678	3.5
Drinking	484	1.9	28	20.3	199	3.1	257	1.3
Driving Too Fast for Condition	1,521	5.9	8	5.8	409	6.4	1,104	5.7
Exceeded Speed Limit	342	1.3	28	20.3	174	2.7	140	0.7
Fail to Yield to Vehicle	2,870	11.1	11	8.0	882	13.8	1,977	10.3
Failure to Keep in Proper Lane	583	2.3	14	10.1	176	2.8	393	2.0
Fatigued/Fell Asleep	215	0.8	2	1.4	94	1.5	119	0.6
Following Too Closely	1,487	5.8	3	2.2	407	6.4	1,077	5.6
Improper Backing	381	1.5	0	0.0	19	0.3	362	1.9
Improper Passing	110	0.4	0	0.0	36	0.6	74	0.4
Improper Turn	321	1.2	0	0.0	60	0.9	261	1.4
Not Stated***	4,505	17.5	0	0.0	10	0.2	4,495	23.3
Other**	1,140	4.4	4	2.9	334	5.2	802	4.2
Over-correcting/Over-steering	332	1.3	13	9.4	154	2.4	165	0.9
Running Off Road	1,019	4.0	25	18.1	401	6.3	593	3.1
Swerving or Avoiding due to: *wind, slippery surface, vehicle, object, non-motorist, etc.*	315	1.2	1	0.7	100	1.6	214	1.1
Unknown	1,113	4.3	4	2.9	215	3.4	894	4.6
Wrong Side of Road	119	0.5	7	5.1	52	0.8	60	0.3
Total Drivers	**25,791**		**138**		**6,387**		**19,266**	

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.

*Distracted includes cell phones, distracted driving and other electronic devices.

**Other includes 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, physical impairment and other driver contributing factors.

***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

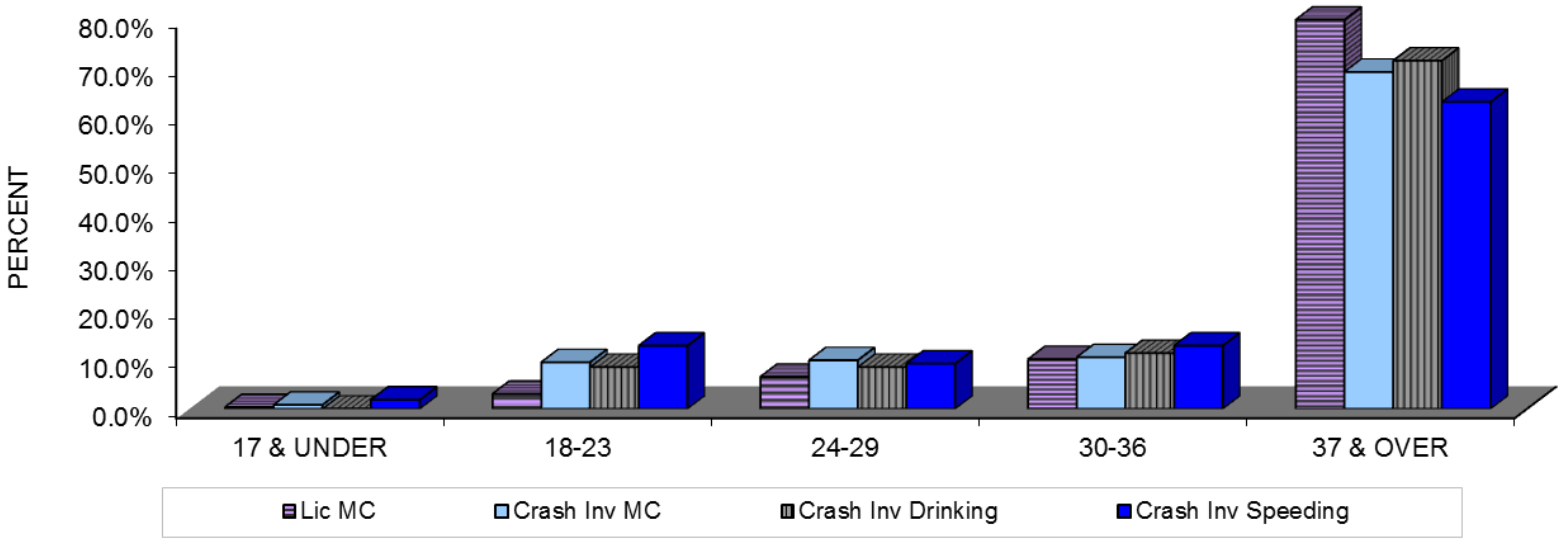
Motorcycle crashes constitute 2.7 percent of all crashes, 21.4 percent of all fatal crashes, and 10.1 percent of all injury crashes. There were 22 people killed and 387 injured on motorcycles in the 475 reported motorcycle crashes during 2016 (see TABLE 2-7). The young motorcycle driver is over represented in crashes when compared to their portion of licensed motorcycle operators. The licensed drivers under 20 years of age represent 0.9 percent of the licensed motorcycle drivers, 2.8 percent of drivers involved in motorcycle crashes, and 5.6 percent of the speeding drivers involved in motorcycle crashes (see TABLE 3-19 and FIGURE 3-11).

TABLE 3-19
MOTORCYCLISTS BY AGE GROUP
2016

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	52	0.1	2	0.4	0	0.0	0	0.0
16 - 17	244	0.3	1	0.2	0	0.0	1	1.9
18 - 19	512	0.6	10	2.0	0	0.0	2	3.7
20 - 21	894	1.0	21	4.2	1	2.9	4	7.4
22 - 23	1,276	1.5	17	3.4	2	5.7	1	1.9
24 - 25	1,671	1.9	25	5.0	2	5.7	1	1.9
26 - 27	1,908	2.2	13	2.6	1	2.9	4	7.4
28 - 29	2,139	2.5	12	2.4	0	0.0	0	0.0
30 - 31	2,392	2.7	18	3.6	0	0.0	2	3.7
32 - 36	6,466	7.4	35	7.0	4	11.4	5	9.3
37 - 41	6,582	7.6	31	6.2	4	11.4	3	5.6
42 - 51	16,271	18.7	98	19.5	8	22.9	7	13.0
52 - Over	46,620	53.6	218	43.3	13	37.1	24	44.4
Unknown	0	0.0	1	0.2	0	0.0	0	0.0
Total	**87,027**	**100**	**503**	**100**	**35**	**100**	**54**	**100**

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

FIGURE 3-11 MOTORCYCLISTS 2016
Crash Involved Motorcycle & Moped Drivers



Helmets were used by 161 or 35.5 percent of the motorcycle drivers in crashes while 292 or 64.5 percent did not wear a helmet (see TABLE 3-20). Twenty-one motorcycle drivers and one motorcycle passenger were killed in 2016. Two drivers wore helmet only, four drivers wore helmet and eye protection, seven drivers and one passenger wore eye protection only, seven drivers did not use safety equipment and one driver with helmet use unknown.

TABLE 3-20
HELMET USE BY MOTORCYCLE DRIVERS IN CRASHES
2016

	Helmet Used		Helmet Not Used	
Age	No.	%	No.	%
6 - 13	1	0.0	0	0.0
14 - 15	2	100.0	0	0.0
16 - 17	1	100.0	0	0.0
18 - 20	6	37.5	10	62.5
21 - 24	16	47.1	18	52.9
25 - 34	31	41.3	44	58.7
35 - 44	10	18.9	43	81.1
45 - Over	94	34.7	177	65.3
Unknown	0	0.0	0	0.0
Total	**161**	**35.5**	**292**	**64.5**

Note: Percentages are row percents. Excludes unknown, not stated and other helmet usage.
Helmet only and helmet & 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 six pedestrian deaths and 93 injuries in motor vehicle crashes during 2016 (see TABLE 3-21). The youngest pedestrian killed was two years old, while the oldest was fifty-three years old. Of the injured pedestrians, 14 percent were between the ages of 5-13. Cities accounted for 86 percent of the pedestrian injuries, while 66.7 percent of the fatalities were rural (see TABLE 3-23). All six pedestrians killed were male. Of the 93 pedestrians injured, 54 were male and 39 female.

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

TABLE 3-21
AGE OF PEDESTRIANS IN TRAFFIC CRASHES
2016

	Fatalities		Injuries	
Age	No.	%	No.	%
0 - 4	2	33.3	4	4.3
5 - 13	1	16.7	13	14.0
14 - 19	1	16.7	10	10.8
20 - 24	1	16.7	4	4.3
25 - 34	0	0.0	13	14.0
35 - 44	0	0.0	14	15.1
45 - 54	1	16.7	13	14.0
55 - 64	0	0.0	10	10.8
65 - Over	0	0.0	12	12.9
Total	**6**	**100**	**93**	**100**

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

TABLE 3-22
ALCOHOL INVOLVEMENT BY PEDESTRIANS
2016

Alcohol Involvement	Fatalities No.	Fatalities %	Injuries No.	Injuries %
Alcohol or Drugs	3	50.0	23	24.7
No Alcohol	3	50.0	70	75.3
Unknown	0	0.0	0	0.0
Total	**6**	**100**	**93**	**100**

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

TABLE 3-23
RURAL vs. CITY PEDESTRIAN CRASHES
2016

	Fatalities	%	Injuries	%
Rural	4	66.7	13	14.0
City	2	33.3	80	86.0
Total	**6**	**100**	**93**	**100**

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

Bicycles

During 2016 there were no bicyclist killed (see TABLE 2-9). There were 73 bicycle drivers injured in reported motor vehicle crashes during 2016 (see TABLE 3-24). The leading factor in bicycle-involved crashes was improper crossing which was reported for 26 percent of the injured bicycle drivers. Twenty-five of the injured bicycle drivers in crashes had no contributing circumstances. The yearly 1996-2016 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

TABLE 3-24
AGE OF BICYCLE DRIVERS IN TRAFFIC CRASHES
2016

Age	Fatalities Number	Injuries Number	%
0 - 4	0	1	1.4
5 - 13	0	16	21.9
14 - 19	0	14	19.2
20 - 24	0	6	8.2
25 - 34	0	8	11.0
35 - 44	0	8	11.0
45 - 54	0	11	15.1
55 - 64	0	7	9.6
65 - Over	0	2	2.7
Total	**0**	**73**	**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 was raised to 65 miles per hour.

April 1, 1988 - Drinking age was 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.

April 1, 2015 - Speed limit on rural interstate was raised to 80 miles per hour.

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, 2015, 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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