

2017
South Dakota
**Motor Vehicle
Traffic Crash
Summary**



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

Dennis Daugaard
Governor



TABLE OF CONTENTS

I.	<u>INTRODUCTION</u>	1
	South Dakota Statistical Summary.....	2
II.	<u>HISTORICAL TRENDS</u>	3
	Motor Vehicle Crashes	3
	Alcohol Involvement	6
	Restraint Usage	10
	Cycle and Pedestrian Crashes.....	13
	Holiday Counts	16
	Severity of Injuries	18
	Sex of Drivers	20
III.	<u>MOTOR VEHICLE CRASH PROFILE</u>	21
	Introduction	21
	First Harmful Event.....	26
	Manner of Collision.....	27
	Highway System	28
	County Summary	32
	City Summary	34
	Roadway Surface Conditions.....	35
	Crashes by Time of Day, Month, and Day of Week.....	36
	Drivers.....	39
	Contributing Circumstances	44
	Motorcycles.....	46
	Pedestrians	49
	Bicycles	51
IV.	<u>IMPORTANT EVENTS AND DATES</u>	52
V.	<u>GLOSSARY OF TERMS</u>	53

LIST OF TABLES

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

LIST OF FIGURES

2-1	Fatality Rate Comparison.....	3
2-2	Traffic Fatalities - Alcohol Related vs. Non-Alcohol Related	7
2-3	Traffic Injuries - Alcohol Related vs. Non-Alcohol Related	7
2-4	Fatal and Injury Crashes and DWIs.....	9
2-5	Fatal Crashes... ..	9
2-6	Safety Equipment Usage Killed Occupants.....	11
2-7	Safety Equipment Usage Injured Occupants.....	11
3-1	Fatalities by Travel Mode	23
3-2	Injuries by Travel Mode	23
3-3	Traffic Crashes by Highway System Type.....	29
3-4	Fatal Traffic Crashes by Highway System Type	29
3-5	Rural Fatal and Injury Crashes/Vehicle Miles Traveled	33
3-6	Crashes by Time of Day	38
3-7	Crashes by Month.....	38
3-8	Crashes by Day of Week.....	38
3-9	Drivers by Age Group - Fatal and Injury Crash-Involved Drivers	42
3-10	Young Drivers - Fatal and Injury Crash-Involved Drivers.....	43
3-11	Motorcyclists - Crash-Involved Motorcycle and Moped Drivers	47

I. INTRODUCTION

The Motor Vehicle Traffic Crash Summary is divided into two main sections, Historical Trends and 2017 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 2017 Traffic Crash Profile section details the crash picture for 2017 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://safesd.gov/yearly-crash-data.html>

NOTE! Data Extracted on 05/10/2018. This report reflects a one day picture of CY2017 data collected, any data received after this date would not be included in this report.

**SOUTH DAKOTA TRAFFIC STATISTICAL SUMMARY
2016-2017**

	<u>2016</u>	<u>2017</u>
➤ NUMBER OF REPORTED MOTOR VEHICLE TRAFFIC CRASHES-----	17,512	18,379
➤ AMOUNT OF MOTOR VEHICLE TRAFFIC CRASH PROPERTY DAMAGE-----	\$103 MILLION	\$111 MILLION
➤ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH INJURIES-----	5,174	5,319
➤ NUMBER OF MOTOR VEHICLE TRAFFIC CRASH FATALITIES-----	116	129
➤ FATALITY RATE PER 100,000,000 MILES OF TRAVEL -----	1.23	1.34
➤ PERCENT OF DRIVERS IN FATAL CRASHES WHO HAD BEEN DRINKING-----	32.6%	25.3%
➤ NUMBER KILLED IN ALCOHOL-RELATED CRASHES -----	55	49
➤ NUMBER INJURED IN ALCOHOL-RELATED CRASHES-----	589	635
➤ NUMBER OF PEDESTRIANS KILLED-----	6	10
➤ NUMBER OF MOTORCYCLISTS KILLED -----	22	16
➤ NUMBER OF BICYCLISTS KILLED-----	0	0
➤ PERCENT OF LICENSED DRIVERS UNDER 25-----	15.0%	15.0%
➤ PERCENT OF CRASH-INVOLVED SPEEDING DRIVERS UNDER 25-----	45.4%	44.7%
➤ PERCENT OF CRASH-INVOLVED DRINKING DRIVERS UNDER 25 -----	29.9%	26.2%
➤ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES ----- (EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)	83	101
➤ NUMBER OF OCCUPANTS KILLED IN MOTOR VEHICLES WHO WERE WEARING A SAFETY RESTRAINT ----- (EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)	21	24
➤ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE IN MOTOR VEHICLE CRASHES WHO WERE KILLED-----	0	1
WHO WERE INJURED-----	9	10
(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)		
➤ NUMBER OF UNRESTRAINED OCCUPANTS UNDER 5 YEARS OF AGE WITH CHILD RESTRAINT NOT USED PROPERLY WHO WERE KILLED-----	0	0
WHO WERE INJURED-----	0	2
(EXCLUDES MOPED, MOTORCYCLE, ATV & SNOWMOBILE OCCUPANTS)		
➤ ECONOMIC LOSS FROM MOTOR VEHICLE TRAFFIC CRASHES -----	\$413 MILLION	\$438 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 2007-2016 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
2007-2016**

<u>State</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
South Dakota	1.7	1.4	1.5	1.6	1.2	1.5	1.5	1.5	1.4	1.2
Iowa	1.4	1.3	1.2	1.2	1.2	1.2	1.0	1.0	0.9	1.2
Minnesota	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7
Montana	2.4	2.1	2.0	1.7	1.8	1.7	1.9	1.6	1.8	1.4
Nebraska	1.3	1.1	1.0	0.9	0.9	1.1	1.1	1.2	1.2	1.1
North Dakota	1.4	1.3	1.7	1.3	1.6	1.7	1.5	1.3	1.3	1.1
Wyoming	1.6	1.7	1.4	1.7	1.5	1.3	0.9	1.6	1.5	1.2
National	1.3	1.3	1.2	1.1	1.1	1.2	1.1	1.1	1.2	1.2

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)

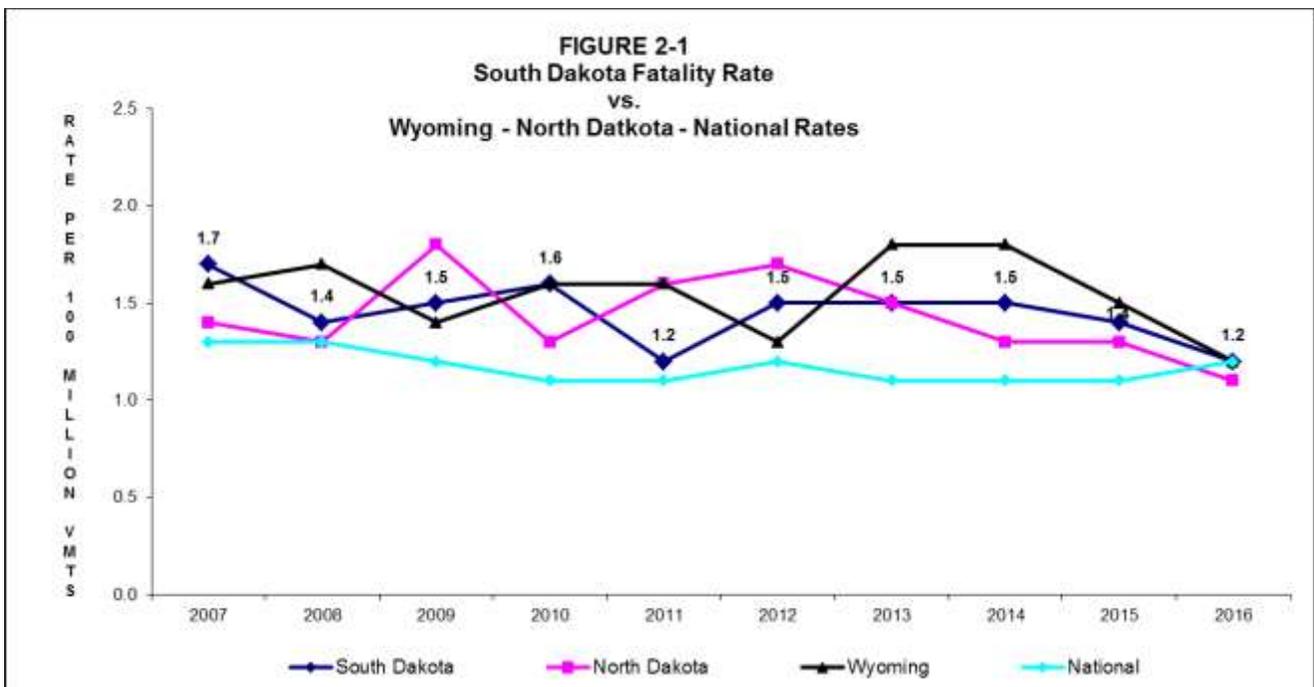


TABLE 2-2 provides a yearly comparison of South Dakota's motor vehicle traffic crashes from 1988 through 2017. Any comparison of motor vehicle crashes must be made with caution due to the changes in the definition of a reportable crash. For example, in the late 1970's the definition of a fatality caused 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 2017 death rate increased to 1.34, a 9.4% increase from the 2016 death rate of 1.23. The 5,319 people injured in crashes are a 2.8% increase from the 5,174 in 2016 (see TABLE 2-2).

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

<u>Year</u>	<u>Deaths</u>	<u>Death Rate¹</u>	<u>Injuries</u>	<u>Total Crashes</u>	<u>Total Crashes Rate⁴</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>PDO² Crashes</u>	<u>Miles³ Traveled + (000,000)</u>	<u>Registered Motor Vehicles⁵ + (000)</u>
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
2017	129	1.34	5,319	18,379	190.99	111	3,943	14,325	9,623	1,135

FOOTNOTES

¹Number of deaths per 100 million vehicle miles traveled.

²July 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.

³Miles 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.

⁴Number of crashes per 100 million vehicle miles traveled.

⁵Based 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 129 traffic fatalities during 2017, 49 or 38.0% 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
2011-2017**

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Crashes	5.7% (992)	6.1% (988)	5.9% (986)	5.8% (1002)	6.1% (1086)	5.5% (962)	5.6% (1032)
Fatal Crashes	29.7% (30)	38.1% (45)	30.6% (37)	35.2% (44)	36.2% (42)	45.6% (47)	40.5% (45)
Injury Crashes	11.5% (457)	12.5% (486)	11.6% (454)	11.2% (426)	12.3% (492)	10.7% (411)	11.8% (467)
PDO Crashes	3.8% (505)	3.7% (457)	3.9% (495)	4.0% (532)	4.0% (552)	3.7% (504)	3.6% (520)
Fatalities	33.3% (37)	39.8% (53)	31.1% (42)	34.6% (47)	36.6% (49)	47.4% (55)	38.0% (49)
Injuries	11.8% (633)	13.3% (721)	11.7% (639)	11.5% (583)	13.0% (721)	11.4% (589)	11.9% (635)

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
2011-2017**

<u>AGE</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
0 – 5	0	2	0	1	0	1	1
6 - 12	1	2	0	0	0	0	0
13 - 19	7	4	0	4	3	8	3
20	0	3	1	2	1	1	0
21 - 29	8	14	17	12	9	21	16
30 - 39	9	10	8	11	11	11	11
40 - 49	5	7	9	6	6	5	6
50 - 59	5	8	6	8	13	4	7
60 & OLDER	2	3	1	3	5	4	5
Unknown/Not Stated	0	0	0	0	0	0	0
TOTAL	37	53	42	47	48	55	49

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

FIGURE 2-2 2017 CRASH FATALITIES
Alcohol Related vs Non Alcohol Related

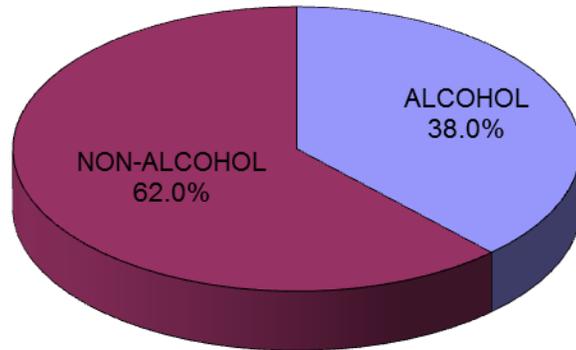
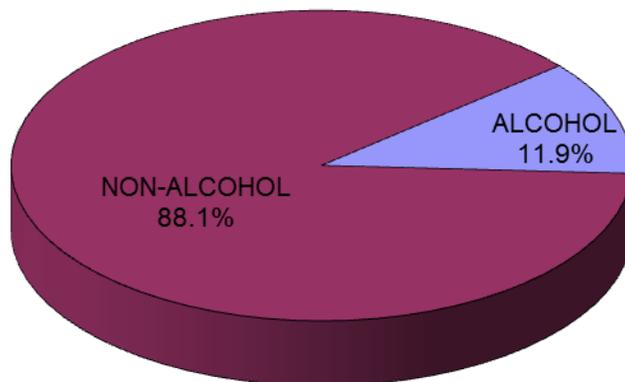


FIGURE 2-3 2017 CRASH INJURIES
Alcohol Related vs Non Alcohol Related



The following crash and arrest data is presented to monitor changes in alcohol-related fatal and injury crashes and to compare changes with non-alcohol related crash experiences (see TABLE 2-4). Alcohol-related fatal and injury crashes increased by 11.8% while non-alcohol related fatal and injury crashes increased by 1.9% from the 2016 totals. **The number of DWI arrests increased by 3.4% from 2016.**

**TABLE 2-4
CRASH AND ARREST ACTIVITY
2008- 2017**

	FATAL CRASHES		FATAL & INJURY CRASHES		DWI ¹ ARRESTS	DWI ¹ CONVICTIONS
	ALCOHOL RELATED	NONALCOHOL RELATED	ALCOHOL RELATED	NONALCOHOL RELATED		
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
2017	45	66	512	3,542	10,514	7,544

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.

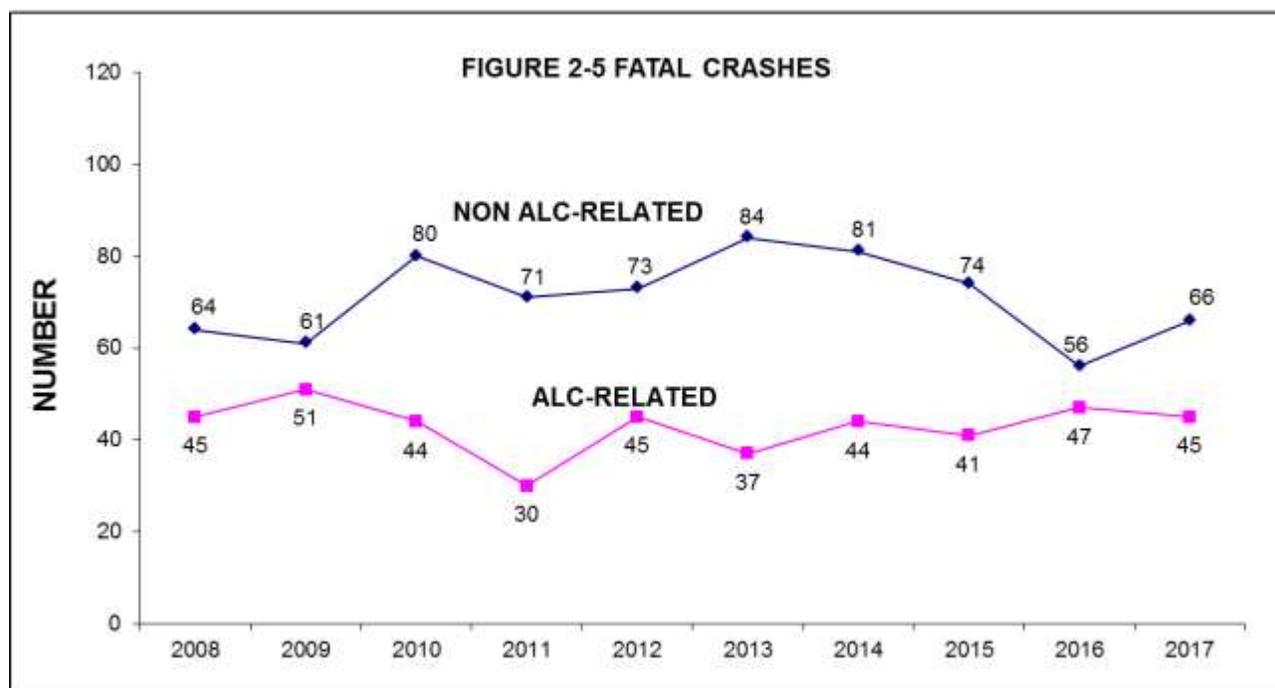
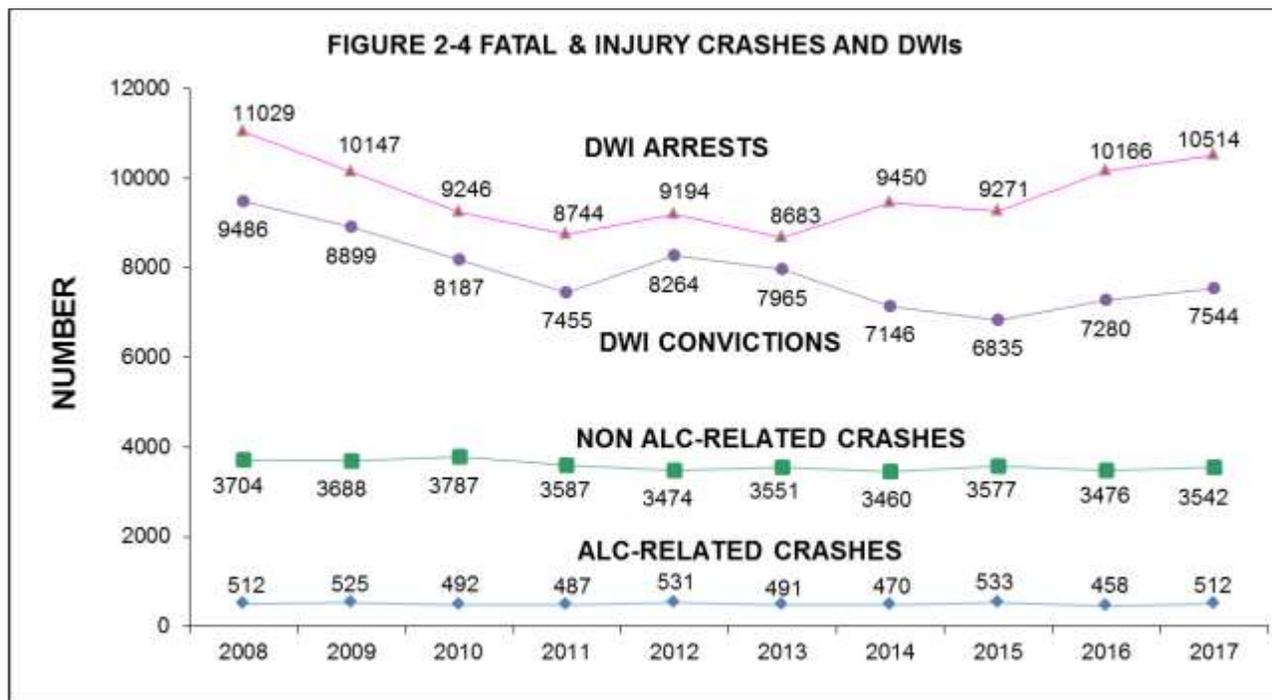
FIGURE 2-4 presents the annual counts of DWI arrests, alcohol related fatal and injury crashes, and non-alcohol related fatal and injury crashes from 2008 through 2017.

FIGURE 2-5 presents the alcohol related and non-alcohol related fatal crash experience for the years of 2008 through 2017.

There were 45 alcohol related fatal crashes during 2017, which compares to 47 in 2016. The previous three-year average was 44 for the years of 2014-2016.

There were 512 alcohol related fatal and injury crashes during 2017, which compares to 458 in 2016. The previous three-year average was 487 or a 5.1 percent increase in 2017. Non-alcohol related fatal and injury crashes in 2017 increased (1.9%) when compared to 2016 and increased 1.1 percent from the previous three-year average (2014-2016).

There were 10,514 DWI arrests in fiscal year 2017. This level has gone up 9.2% from the previous three-year average (2014-2016). There were 7,544 DWI convictions in fiscal year 2017. This level has gone up 6.4% from the previous 3-year average (2014-2016).



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

Forty (39.6%) 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

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
No Safety Equipment	65	61	72	60	58	67
Lap Belt Only	0	1	2	1	2	1
Shoulder Harness Only	0	0	0	1	1	0
Lap Belt & Shoulder Harness	28	33	28	26	18	22
Child Restraint Used Properly	1	0	0	0	0	1
Child Restraint Not Properly Used	0	0	0	0	0	0
Other, Not Stated or Unknown	8	8	4	7	4	10
TOTAL	102	103	106	95	83	101

TABLE 2-5A SAFETY RESTRAINT USAGE – INJURED OCCUPANTS

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
No Safety Equipment	899	884	712	825	728	693
Lap Belt Only	39	39	35	52	39	42
Shoulder Harness Only	21	21	22	23	18	16
Lap Belt & Shoulder Harness	3,319	3,476	3,309	3,442	3,410	3,547
Child Restraint Used Properly	62	60	48	51	53	51
Child Restraint Not Properly Used	3	2	3	2	1	3
Other, Not Stated or Unknown	290	243	250	278	248	299
TOTAL	4,633	4,725	4,379	4,673	4,497	4,651

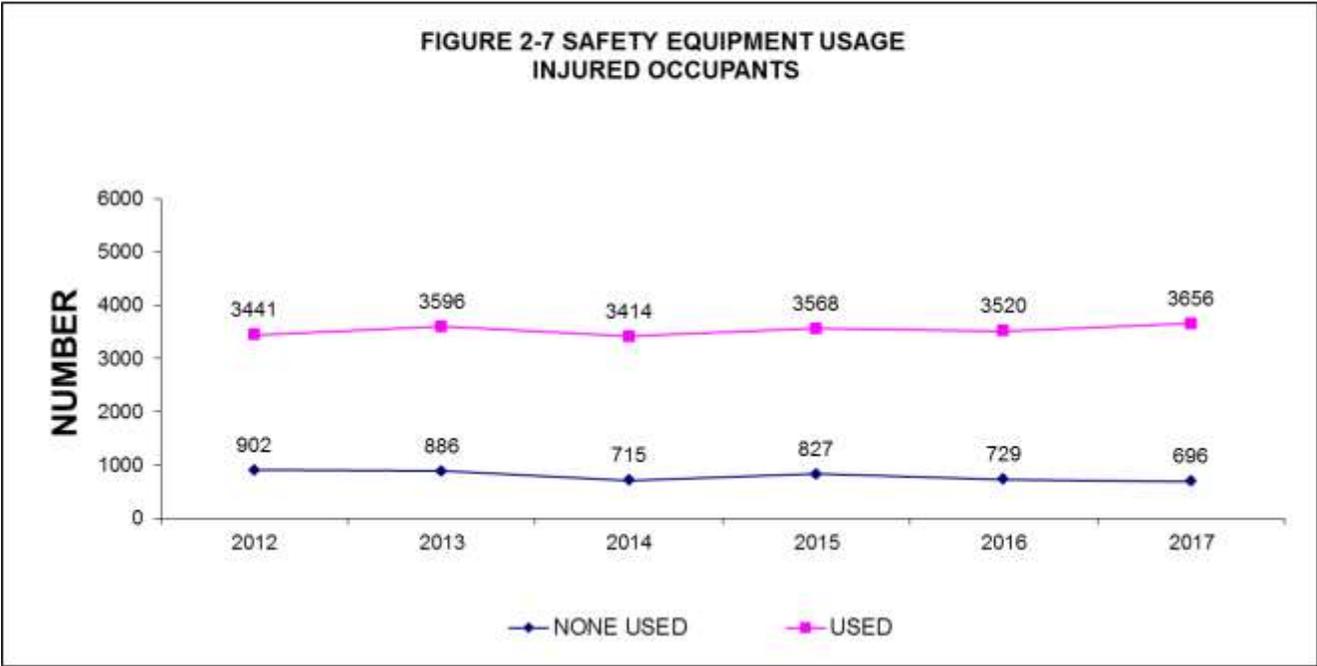
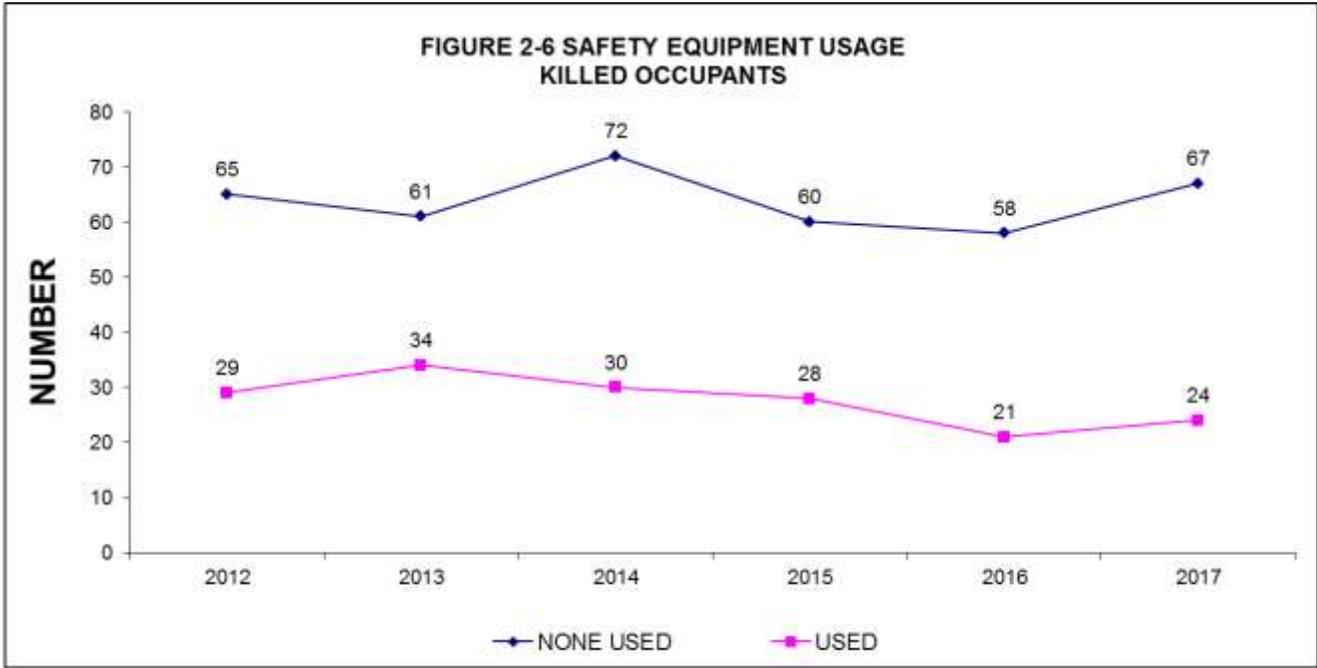
NOTE: Motor vehicle drivers and passengers are considered occupants.

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					
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Not Ejected	46	61	65	57	40	60	4,501	4,613	4,287	4,552	4,373	4,539
Partial Ejection	9	6	5	3	7	9	10	14	16	20	14	15
Total Ejection	47	35	36	34	36	31	114	89	67	84	91	70
Unknown Ejection	0	1	0	1	0	1	7	9	9	16	17	27
Not Applicable	0	0	0	0	0	0	1	0	0	1	2	0
TOTAL	102	103	106	95	83	101	4,633	4,725	4,379	4,673	4,497	4,651

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



The Child Passenger Restraint System (SDCL 32-37) law took effect on July 1, 1984 - since that time there have been 70 deaths to occupants of this age group. Of these deaths only eight 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 were two reported fatal injury to a motor vehicle occupant from birth through four years of age during 2017, which compares to one fatality during 2016 (see TABLE 2-6).

There were 53 children (birth through 4 years old) injured in 2017, which compares to 63 for 2016. Forty-two of the 53 injured children were restrained by either 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**

<u>YEAR</u>	<u>FATALITIES</u>	<u>SERIOUS INJURY</u>	<u>SLIGHT INJURY</u>	<u>TOTAL NONFATAL INJURIES</u>
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
2017	2	22	31	53

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 - 2017**

	<u>Fatalities</u>	<u>Injuries</u>
No Safety Equipment Used	1	8
Lap Belt Only	0	0
Shoulder Harness Only	0	0
Lap Belt & Shoulder Harness	0	7
Child Restraint Used Properly	1	35
Child Restraint Not Used Properly	0	2
Other, Not Stated or Unknown	0	1
TOTAL	2	53

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 504 and 22 deaths per year. Licensed motorcyclists increased 1.3 percent during 2017 while fatalities decreased by six to 16 (see Table 2-7). Moped crashes are included with motorcycle crashes. There were two moped fatalities during 2017. Over the years there have been five 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
1997 - 2017**

<u>Year</u>	<u>Motorcycle Crashes</u>			<u>Motorcyclists</u>		<u>Registered Motorcycles</u>	<u>Licensed Motorcyclists</u>
	<u>Total</u>	<u>Fatal</u>	<u>Injury</u>	<u>Fatalities</u>	<u>Injuries</u>		
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	91,452	85,513
2016	475	22	387	22	450	94,696	87,027
2017	433	16	351	16	408	96,653	88,168

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

THIS PAGE INTENTIONALLY LEFT BLANK

**TABLE 2-8
PEDESTRIAN FATALITIES AND INJURIES
1997 - 2017**

<u>Year</u>	<u>Fatalities</u>	<u>Injuries</u>
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
2017	10	123

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

**TABLE 2-9
BICYCLE FATALITIES AND INJURIES
1997 - 2017**

<u>Year</u>	<u>Fatalities</u>	<u>Injuries</u>
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
2017	0	69

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
2008- 2017**

<u>Holiday</u>	<u>Total Hours</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
<u>MEMORIAL DAY</u>						
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
2017	78	128	2	22	6	30
<u>FOURTH OF JULY</u>						
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
2017	102	198	2	49	3	70
<u>LABOR DAY</u>						
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
2017	78	133	1	22	1	32

<u>Holiday</u>	<u>Total Hours</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
<u>THANKSGIVING</u>						
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
2017	102	262	2	31	3	38
<u>CHRISTMAS</u>						
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
2017	78	129	2	19	2	30
<u>NEW YEARS</u>						
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
2017-18	78	211	0	26	0	35

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 2008 through 2017. 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		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
2017	649	12.2	1,850	34.8	2,820	53.0	5,319	129

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		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
2017	454	11.4	1,313	33.0	2,214	55.6	3,981	91

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

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
2017	154	13.5	439	38.6	544	47.8	1,137	28

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

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
2017	6	8.7	34	49.3	29	42.0	69	0

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

Year	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Injuries	Total Killed
	No.	%	No.	%	No.	%		
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
2017	34	27.6	59	48.0	30	24.4	123	10

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.

	CRASH INVOLVED DRIVERS				LICENSED DRIVERS			
	MALE		FEMALE		MALE		FEMALE	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
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
2017	15,537	58.0	11,274	42.0	323,027	50.5	316,963	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. 2017 MOTOR VEHICLE CRASH PROFILE

Introduction

This section profiles the reported motor vehicle traffic crashes for 2017. 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 2017, there were 18,379 reported motor vehicle traffic crashes, the majority of crashes being property damage only 14,325 (77.9%). Injury crashes accounted for 3,943 (21.5%) of the crashes, while 111 (0.6%) were fatal crashes. There were 5,319 persons injured and 129 persons killed in crashes during 2017 (see TABLE 3-1).

**TABLE 3-1
FATALITIES AND SEVERITY OF INJURIES OF DRIVERS,
PASSENGERS, PEDESTRIANS, AND BICYCLE DRIVERS
2017**

	Incapacitating Injuries		Non-Incapacitating Injuries		Possible Injuries		Total Nonfatal Injuries		Total Fatalities	
	No.	%	No.	%	No.	%	No.	%	No.	%
Drivers	454	70.0	1,313	71.0	2,214	78.5	3,981	74.8	91	70.5
Passengers	154	23.7	439	23.7	544	19.3	1,137	21.4	28	21.7
Pedestrians	6	0.9	34	1.8	29	1.0	69	1.3	0	0.0
Bicycle Drv	34	5.2	59	3.2	30	1.1	123	2.3	10	7.8
Other*	1	0.2	5	0.3	3	0.1	9	0.2	0	0.0
TOTAL	649	100	1,850	100	2,820	100	5,319	100	129	100

*Other – 9 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 2017, 32.6 percent of the fatalities and 45.4 percent of the injuries occurred to occupants of passenger cars and mini-vans. Occupants of pickups and cargo vans accounted for 20.2 percent of the fatalities and 15 percent of the injuries. Additionally, in 2017 fourteen motorcyclists and ten pedestrians were killed. (See Table 3-2).

**TABLE 3-2
FATALITIES AND INJURIES BY MODE OF TRANSPORTATION
2017**

	Fatalities		Injuries	
	No.	%	No.	%
Passenger Cars, Mini-vans	42	32.6	2,415	45.4
Pickups, Cargo Vans***	26	20.2	797	15.0
SUV's (Sports Utility Vehicles)	27	20.9	1,287	24.2
Trucks (All)*	6	4.7	139	2.6
Motorcycle	14	10.9	390	7.3
Moped	2	1.6	19	0.4
ATV's / 4-Wheelers	2	1.6	42	0.8
Bus	0	0.0	19	0.4
Farm Machinery, Heavy Equipment	0	0.0	4	0.1
Motor Home	0	0.0	2	0.0
Snowmobile	0	0.0	3	0.1
Bicycle	0	0.0	69	1.3
Pedestrians	10	7.8	123	2.3
Other**	0	0.0	10	0.2
Unknown	0	0.0	0	0.0
TOTAL	129	100	5,319	100

*Trucks Specifics:

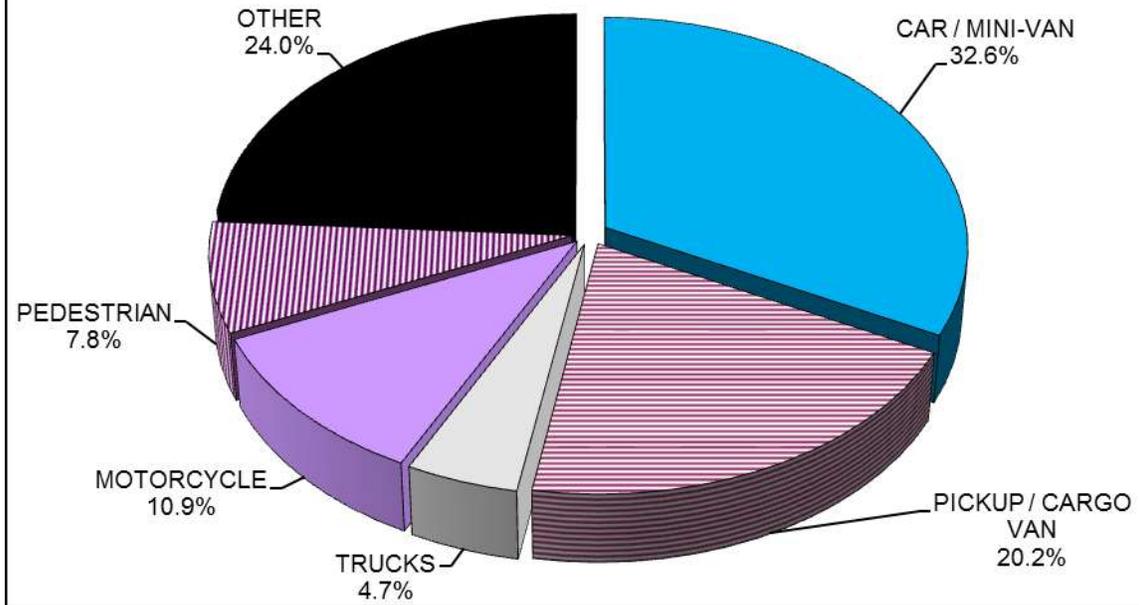
	<u>Fatalities</u>	<u>Injuries</u>
Straight Truck	2	32
Straight Truck with Trailer	0	12
Truck Tractor Only	1	2
Truck Tractor with Single Semi Trailer	2	87
Truck Tractor with Two or More Trailers	1	6
TOTAL	6	139

Note: **Other -- includes Train, Animal Drawn Vehicle and Other Types of Motor Vehicles.

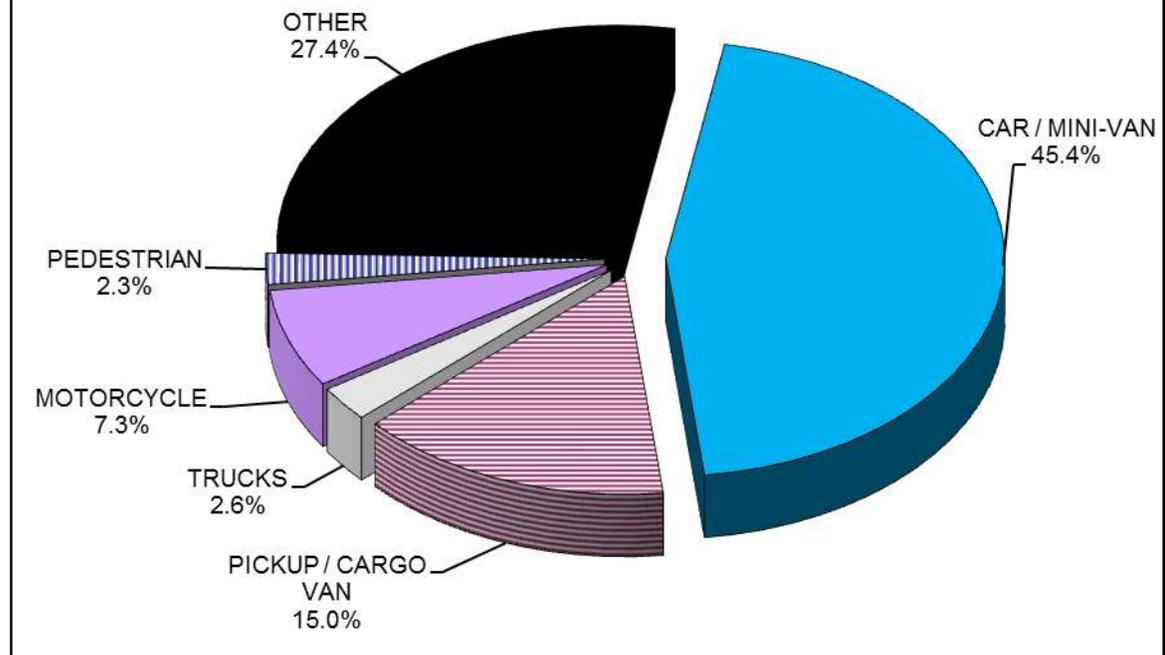
***Cargo Vans are defined as large van-based light trucks used to transport cargo or large vans used to transport people with seating for 9 or more people, including the driver.

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

**FIGURE 3-1 FATALITIES BY TRAVEL MODE
2017**



**FIGURE 3-2 INJURIES BY TRAVEL MODE
2017**



** 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 29.6 percent of the vehicles involved in fatal crashes and 46.2 percent of those involved in injury crashes. Pickups and vans made up 26.4 percent of the vehicles involved in fatal crashes.

VEHICLE TYPES INVOLVED IN CRASHES
2017
TABLE 3-3

	All Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Passenger Cars / Mini-vans	13,521	47.2	47	29.6	3,098	46.2	10,376	47.7
Pickups, Cargo Vans	5,570	19.4	42	26.4	1,220	18.2	4,308	19.8
SUV's (Sports Utility Vehicles)	7,548	26.4	32	20.1	1,674	25.0	5,842	26.8
Trucks (All)*	1,129	3.9	16	10.1	246	3.7	867	4.0
Motorcycle	444	1.6	16	10.1	358	5.3	70	0.3
Moped	24	0.1	3	1.9	18	0.3	3	0.0
ATV's / 4-wheelers	46	0.2	2	1.3	37	0.6	7	0.0
Bus	112	0.4	1	0.6	20	0.3	91	0.4
Farm Machinery / Heavy Equip.	41	0.1	0	0.0	11	0.2	30	0.1
Motor Home	29	0.1	0	0.0	5	0.1	24	0.1
Snowmobile	2	0.0	0	0.0	2	0.0	0	0.0
Other	15	0.1	0	0.0	7	0.1	8	0.0
Unknown	158	0.6	0	0.0	10	0.1	148	0.7
TOTAL	28,639	100	159	100	6,706	100	21,774	100

* Trucks Specifics:	All Crashes	Fatal Crashes	Injury Crashes	PDO Crashes
Straight Truck	314	4	61	249
Straight Truck with Trailer	53	0	11	42
Truck Tractor Only	34	1	7	26
Truck Tractor with Single Semi Trailer	676	10	157	509
Truck Tractor with Two or More Trailers	52	1	10	41
TOTAL	1,129	16	246	867

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 16 people or (12.4%) of the persons killed were under 20 years of age and a total of 992 or (18.7%) of the persons injured were between 25 and 34 years of age. Three children age 0-5 were killed during 2017(see Table 3-4).

**TABLE 3-4
FATALITIES AND INJURIES BY AGE GROUP
2017**

	Fatalities		Injuries	
	No.	%	No.	%
0 - 5	3	2.3	77	1.4
6 - 13	5	3.9	227	4.3
14 - 15	2	1.6	186	3.5
16 - 17	2	1.6	304	5.7
18	4	3.1	181	3.4
19	0	0.0	129	2.4
20	0	0.0	129	2.4
21 - 24	10	7.8	449	8.4
25 - 34	23	17.8	992	18.7
35 - 44	19	14.7	712	13.4
45 - 54	18	14.0	671	12.6
55 - 64	18	14.0	650	12.2
65 - Over	25	19.4	601	11.3
Unknown	0	0.0	11	0.2
Total	129	100	5,319	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 36.9 percent of the fatal crashes and only 7.3 percent of the total crashes, while 36.9 percent of the fatal crashes and 45.8 percent of all crashes represented a collision between two or more vehicles (see TABLE 3-5).

**TABLE 3-5
FIRST HARMFUL EVENT
2017**

<u>First Harmful Event</u>	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Motor Vehicle Collision With:								
MV in Transport	8,414	45.8	41	36.9	2,301	58.4	6,072	42.4
A Fixed or Other Object	2,478	13.5	16	14.4	631	16.0	1,831	12.8
An Animal	4,866	26.5	3	2.7	86	2.2	4,777	33.3
A Pedestrian	127	0.7	10	9.0	116	2.9	1	0.0
A Bicyclist	73	0.4	0	0.0	70	1.8	3	0.0
A Parked Motor Vehicle	1,017	5.5	0	0.0	95	2.4	922	6.4
A Railroad Vehicle	16	0.1	0	0.0	7	0.2	9	0.1
Equipment in Roadway	38	0.2	0	0.0	9	0.2	29	0.2
Non-Collision (Overturning or Other)	1,350	7.3	41	36.9	628	15.9	681	4.8
Total	18,379	100	111	100	3,943	100	14,325	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 48.8 percent of the fatal crashes, 49.1 percent of the injury crashes and 46.4 percent of the property damage only crashes. Angle collisions are the most prevalent for severe crashes, accounting for 48.8 percent of the fatal crashes and 47.2 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
2017**

<u>Manner of Collision</u>	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Rear-End	3,432	40.8	4	9.8	1,004	43.6	2,424	39.9
Head-On	92	1.1	15	36.6	47	2.0	30	0.5
Angle	3,969	47.2	20	48.8	1,130	49.1	2,819	46.4
Sideswipe-Same Direction	817	9.7	1	2.4	89	3.9	727	12.0
Sideswipe-Opposite Dir.	103	1.2	1	2.4	31	1.3	71	1.2
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	8,414	100	41	100	2,301	100	6,072	100
No Collision Between 2 or more MV	9,965		70		1,642		8,253	
Total Crashes	18,379		111		3,943		14,325	

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 40.5 percent of the PDO crashes and 46 percent of the injury crashes while accounting for 9.9 percent of the fatal crashes.

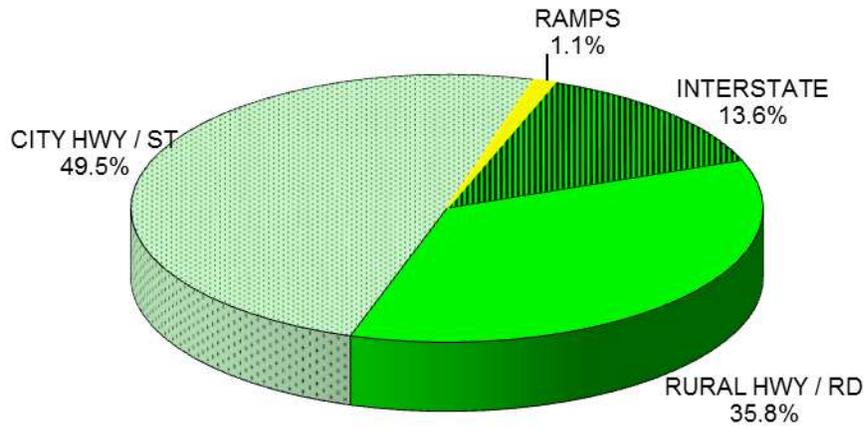
Non-interstate rural roads tallied 71.2 percent of the fatal crashes. The Interstate system experienced 2,504 (13.6%) of the total crashes while accounting for an estimated 29.5 percent of the vehicle miles traveled in 2017. Fourteen or 12.6 percent of the fatal crashes happened on the interstate system. (See FIGURES 3-3 and 3-4)

**TABLE 3-7
CRASHES BY TYPE OF HIGHWAY
2017**

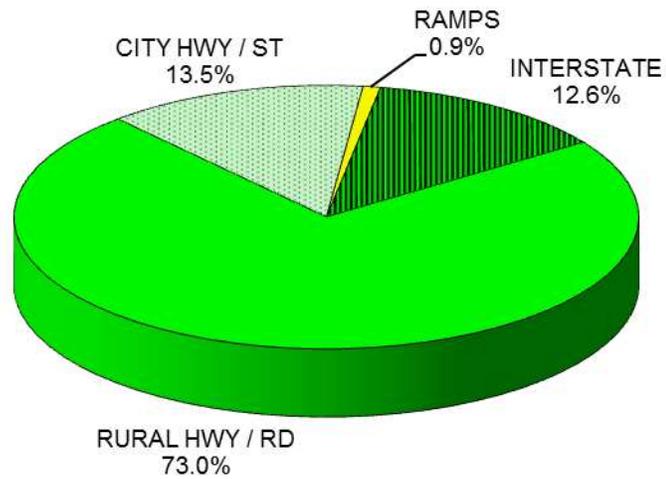
Type of Highway	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes		No. Killed	No. Injured
	Number	%	Number	%	Number	%	Number	%		
Interstate - Rural	1,830	10.0	10	9.0	296	7.5%	1,524	10.6	13	433
US/State Hwys-Rural	3,820	20.8	44	39.6	612	15.5%	3,164	22.1	53	899
Co./Local Rds.-Rural	2,617	14.2	35	31.5	586	14.9%	1,996	13.9	41	775
Interstate - City	674	3.7	4	3.6	115	2.9%	555	3.9	4	160
US/State Hwys-City	1,601	8.7	6	5.4	479	12.1%	1,116	7.8	6	680
City Streets/Alleys	7,633	41.5	11	9.9	1,815	46.0%	5,807	40.5	11	2,318
Ramps	204	1.1	1	0.9	40	1.0%	163	1.1	1	54
Unknown/Not Reported	0	0.0	0	0.0	0	0.0%	0	0.0	0	0
Total	18,379	100	111	100	3,943	100	14,325	100	129	5,319

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

**FIGURE 3-3 2017
TRAFFIC CRASHES
BY SYSTEM TYPE**



**FIGURE 3-4 2017
FATAL TRAFFIC CRASHES
BY SYSTEM TYPE**



**TABLE 3-8
MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2017**

County	Total Crashes	Fatal Crashes	Injury Crashes	PDO Crashes	Fatalities	Injuries
AURORA	99	0	16	83	0	26
BEADLE	185	2	52	131	2	70
BENNETT	31	0	11	20	0	15
BON HOMME	72	0	24	48	0	37
BROOKINGS	483	3	100	380	3	130
BROWN	751	1	145	605	1	194
BRULE	95	0	22	73	0	31
BUFFALO	25	0	5	20	0	8
BUTTE	259	2	42	215	3	56
CAMPBELL	29	0	8	21	0	10
CHARLES MIX	111	3	32	76	3	52
CLARK	106	0	8	98	0	14
CLAY	213	0	36	177	0	50
CODINGTON	596	2	141	453	2	184
CORSON	35	2	10	23	2	14
CUSTER	265	1	67	197	1	94
DAVISON	427	1	78	348	1	97
DAY	74	1	20	53	1	25
DEUEL	121	0	28	93	0	37
DEWEY	27	1	4	22	1	4
DOUGLAS	24	0	7	17	0	9
EDMUNDS	87	1	9	77	2	10
FALL RIVER	124	2	33	89	2	51
FAULK	76	0	7	69	0	7
GRANT	83	3	22	58	3	31
GREGORY	19	0	6	13	0	10
HAAKON	12	0	4	8	0	4
HAMLIN	188	0	8	180	0	12
HAND	81	0	21	60	0	24
HANSON	79	1	18	60	1	30
HARDING	30	2	7	21	2	10
HUGHES	219	3	63	153	3	84
HUTCHINSON	101	0	21	80	0	29
HYDE	9	0	2	7	0	4
JACKSON	104	2	17	85	6	23
JERAULD	52	1	7	44	2	11
JONES	69	1	13	55	2	23
KINGSBURY	135	2	9	124	2	11
LAKE	199	2	34	163	2	50
LAWRENCE	692	8	152	532	8	192
LINCOLN	964	4	210	750	6	278
LYMAN	149	0	22	127	0	26
MARSHALL	79	1	5	73	1	9
MC COOK	170	2	16	152	2	26
MC PHERSON	42	0	7	35	0	9
MEADE	513	3	125	385	3	169
MELLETTE	12	0	5	7	0	6
MINER	85	0	6	79	0	8
MINNEHAHA	5,591	11	1,231	4,349	12	1,626
MOODY	201	1	34	166	1	39
OGLALA LAKOTA	56	5	29	22	11	55
PENNINGTON	2,503	17	681	1,805	17	924
PERKINS	46	1	5	40	1	6
POTTER	50	1	6	43	1	6
ROBERTS	213	4	34	175	5	51
SANBORN	56	1	8	47	1	13
SPINK	236	2	21	213	2	39
STANLEY	86	0	13	73	0	23
SULLY	33	1	0	32	1	0
TODD	2	1	0	1	1	0
TRIPP	146	0	17	129	0	25
TURNER	117	2	11	104	2	14
UNION	225	1	51	173	1	58
WALWORTH	61	0	16	45	0	21
YANKTON	331	6	79	246	6	113
ZIEBACH	25	0	2	23	0	2
Total:	18,379	111	3,943	14,325	129	5,319

**TABLE 3-8A
ALCOHOL INVOLVED MOTOR VEHICLE TRAFFIC CRASHES BY SD COUNTIES
2017**

<u>County</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>PDO Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
AURORA	3	0	2	1	0	2
BEADLE	15	1	5	9	1	10
BENNETT	4	0	4	0	0	6
BON HOMME	4	0	3	1	0	4
BROOKINGS	27	0	13	14	0	16
BROWN	41	0	21	20	0	26
BRULE	5	0	5	0	0	6
BUFFALO	1	0	1	0	0	1
BUTTE	15	1	5	9	2	6
CAMPBELL	2	0	1	1	0	1
CHARLES MIX	22	1	13	8	1	21
CLARK	3	0	2	1	0	2
CLAY	8	0	4	4	0	5
CODINGTON	41	1	12	28	1	14
CORSON	4	2	1	1	2	2
CUSTER	11	1	5	5	1	9
DAVISON	25	1	8	16	1	11
DAY	10	1	5	4	1	8
DEUEL	5	0	1	4	0	1
DEWEY	2	0	1	1	0	1
DOUGLAS	1	0	0	1	0	0
EDMUNDS	3	0	2	1	0	2
FALL RIVER	6	1	4	1	1	7
FAULK	1	0	0	1	0	0
GRANT	10	0	4	6	0	4
GREGORY	1	0	1	0	0	3
HAAKON	2	0	2	0	0	2
HAMLIN	1	0	1	0	0	2
HAND	5	0	5	0	0	5
HANSON	5	1	3	1	1	3
HARDING	0	0	0	0	0	0
HUGHES	17	1	10	6	1	12
HUTCHINSON	5	0	3	2	0	4
HYDE	0	0	0	0	0	0
JACKSON	2	0	2	0	0	2
JERAULD	2	0	2	0	0	3
JONES	6	0	1	5	0	1
KINGSBURY	3	1	2	0	1	3
LAKE	11	0	3	8	0	6
LAWRENCE	43	3	24	16	3	36
LINCOLN	61	2	23	36	2	30
LYMAN	5	0	2	3	0	3
MARSHALL	4	0	1	3	0	1
MCCOOK	1	0	0	1	0	0
MCPHERSON	3	0	2	1	0	2
MEADE	40	1	23	16	1	29
MELLETTE	3	0	2	1	0	2
MINER	3	0	1	2	0	1
MINNEHAHA	274	5	98	171	6	135
MOODY	14	0	7	7	0	7
OGLALA LAKOTA	12	4	8	0	6	20
PENNINGTON	158	8	82	68	8	108
PERKINS	1	1	0	0	1	0
POTTER	1	0	1	0	0	1
ROBERTS	16	1	7	8	1	10
SANBORN	3	1	2	0	1	2
SPINK	7	1	1	5	1	1
STANLEY	7	0	3	4	0	4
SULLY	1	0	0	1	0	0
TODD	1	1	0	0	1	0
TRIPP	3	0	3	0	0	3
TURNER	2	0	0	2	0	0
UNION	12	0	6	6	0	7
WALWORTH	3	0	2	1	0	2
YANKTON	25	4	12	9	4	20
ZIEBACH	0	0	0	0	0	0
Total:	1,032	45	467	520	49	635

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 53.1 percent of rural fatal and injury crashes and 73.7 percent of all fatal and injury crashes in South Dakota. Pennington County has 11.2 percent of all rural fatal and injury crashes with Minnehaha County accounting for 8.7 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.

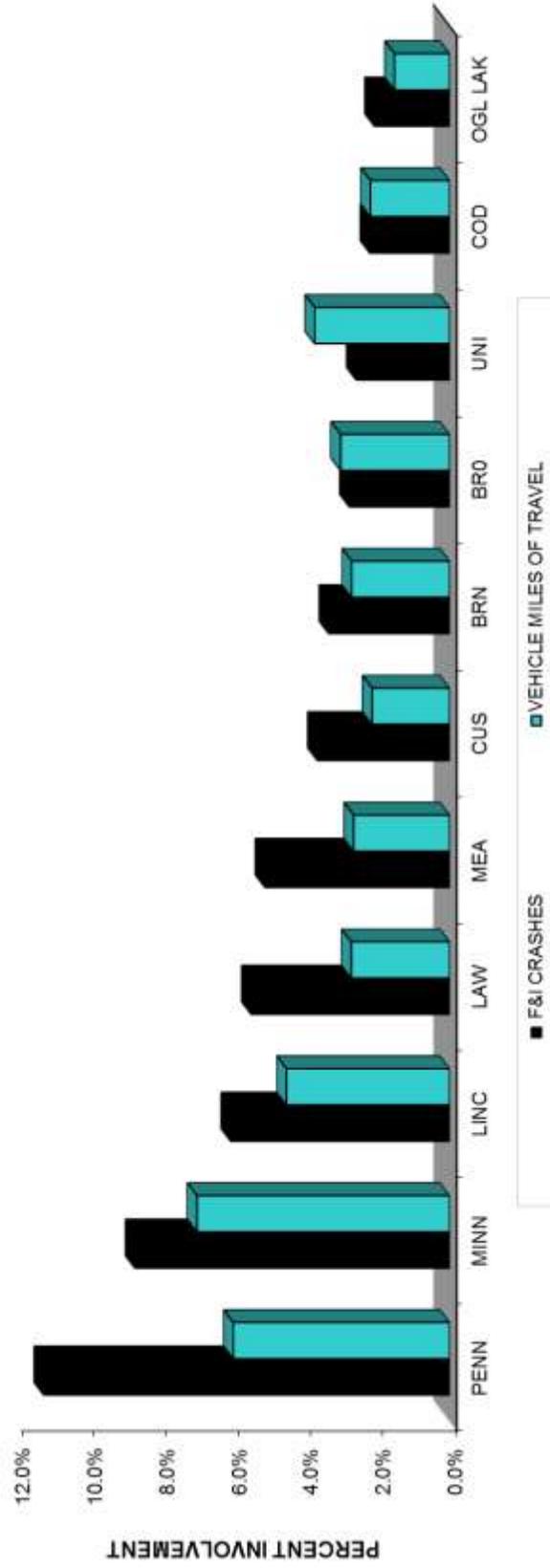
**TABLE 3-9
COUNTIES HAVING MORE THAN TWO PERCENT OF THE
RURAL FATAL & INJURY CRASHES
2017**

<u>County</u>	<u>Rural Fatal & Injury Crashes</u>	<u>Percent of All Rural Fatal & Injury Crashes</u>	<u>Percent of Rural VMTS</u>
PENNINGTON	178	11.2%	6.0%
MINNEHAHA	138	8.7%	7.0%
LINCOLN	96	6.0%	4.5%
LAWRENCE	87	5.5%	2.7%
MEADE	81	5.1%	2.7%
CUSTER	58	3.7%	2.1%
BROWN	53	3.3%	2.7%
BROOKINGS	44	2.8%	3.0%
UNION	41	2.6%	3.7%
CODINGTON	35	2.2%	2.2%
OGLALA LAKOTA	33	2.1%	1.5%

Note: Total Rural Fatal and Injury Crashes: 1,588
S.D. Vehicle Miles of Travel Report (2017 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 - 2017



City Summary

Reported traffic crashes within South Dakota cities (population of 2,500 and more) are presented in TABLE 3-10. These cities reported 58.7 percent of the statewide injury crashes and 17.1 percent of the fatal crashes. The two largest cities (Sioux Falls, Rapid City) accounted for 71.6 percent of fatal and injury crashes occurring in cities and 71.7 percent of the property damage only crashes.

**TABLE 3-10
TRAFFIC CRASHES SOUTH DAKOTA CITIES
POPULATION 2500 AND OVER
2017**

<u>City</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>PDO Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
Aberdeen	383	0	90	293	0	116
Belle Fourche	74	0	17	57	0	22
Box Elder	78	0	25	53	0	35
Brandon	60	0	9	51	0	11
Brookings	218	0	57	161	0	69
Canton	26	0	5	21	0	7
Dell Rapids	43	0	2	41	0	2
Harrisburg	8	0	0	8	0	0
Hartford	31	0	2	29	0	4
Hot Springs	14	0	5	9	0	12
Huron	104	0	39	65	0	45
Lead	21	0	4	17	0	5
Madison	52	0	11	41	0	15
Milbank	9	0	2	7	0	2
Mitchell	272	0	53	219	0	62
Mobridge	15	0	6	9	0	8
N. Sioux City	35	1	7	27	1	10
Pierre	130	1	50	79	1	65
Rapid City	1,636	6	481	1,149	6	647
Redfield	19	0	3	16	0	4
Sioux Falls	5,056	7	1,177	3,872	7	1,531
Sisseton	37	1	7	29	1	11
Spearfish	241	2	44	195	2	54
Sturgis	88	0	39	49	0	52
Tea	12	0	4	8	0	4
Vermillion	84	0	18	66	0	26
Watertown	372	0	105	267	0	138
Winner	11	0	2	9	0	2
Yankton	211	1	51	159	1	77
City Totals	9,340	19	2,315	7,006	19	3,036
Statewide Totals	18,379	111	3,3943	14,325	129	5319

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 14.1 percent of all reported property damage only crashes and 11.1 percent of all fatal and injury crashes. Dry roads were reported in 78.2 percent of all fatal and injury crashes.

**TABLE 3-11
ROADWAY SURFACE CONDITIONS
2017**

	Total Crashes		Fatal Crashes		Injury Crashes		PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
Dry	14,143	77.0	93	83.8	3,078	78.1	10,972	76.6
Wet	1,466	8.0	8	7.2	346	8.8	1,112	7.8
Snow	1,323	7.2	2	1.8	207	5.2	1,114	7.8
Slush	161	0.9	1	0.9	34	0.9	126	0.9
Ice	916	5.0	5	4.5	176	4.5	735	5.1
Frost	71	0.4	0	0.0	27	0.7	44	0.3
Water	8	0.0	0	0.0	2	0.1	6	0.0
Sand, mud, dirt, gravel	202	1.1	1	0.9	62	1.6	139	1.0
Oil	8	0.0	0	0.0	3	0.1	5	0.0
Other / Not applicable	10	0.1	0	0.0	2	0.1	8	0.1
Unknown / Not reported	71	0.4	1	0.9	6	0.2	64	0.4
Total	18,379	100	111	100	3,943	100	14,325	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 3:00-5:59 p.m. Twenty-eight or 25.2 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 1,047 (26.6%) of the injury crashes occurred. The peak three hour period for property damage only crashes was 4:00-6:59 p.m. with 3,241 (22.6%) of the property damage only crashes occurred (see TABLE 3-12).

Sixteen fatal crashes or 14.4 percent and 491 (12.5%) of the injury crashes occurred during the month of August in 2017. The month of November shows 1,778 property damage only crashes which represents 12.4 percent of the property damage only crashes for 2017 (see TABLE 3-13).

The day of the week Friday accounts for 3,110 of the total crashes or 16.9 percent, with 2,443 (17.1%) of property damage only crashes and 653 (16.6%) of injury crashes. Tuesday accounted for 19 fatal crashes or 17.1 percent of the total crashes for 2017 (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
2017**

<u>Time</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>PDO Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
Midnight	259	2	48	209	2	61
1:00 AM	222	2	42	178	2	51
2:00 AM	202	3	44	155	4	59
3:00 AM	160	3	39	118	3	51
4:00 AM	221	4	39	178	4	45
5:00 AM	435	3	61	371	3	78
6:00 AM	656	3	84	569	3	105
7:00 AM	1,190	5	202	983	7	279
8:00 AM	758	2	173	583	2	216
9:00 AM	581	5	136	440	5	180
10:00 AM	669	4	172	493	4	235
11:00 AM	828	8	237	583	11	328
12:00 PM	895	4	222	669	6	294
1:00 PM	917	5	280	632	5	377
2:00 PM	925	4	251	670	4	360
3:00 PM	1,275	7	329	939	8	458
4:00 PM	1,273	10	334	929	10	451
5:00 PM	1,691	11	384	1,296	16	512
6:00 PM	1,245	1	228	1,016	1	307
7:00 PM	951	4	176	771	4	240
8:00 PM	939	9	146	784	9	199
9:00 PM	931	5	123	803	9	169
10:00 PM	667	5	105	557	5	147
11:00 PM	412	2	80	330	2	106
Unknown	77	0	8	69	0	11
Total	18,379	111	3,943	14,325	129	5,319

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

**TABLE 3-13
CRASHES BY MONTH
2017**

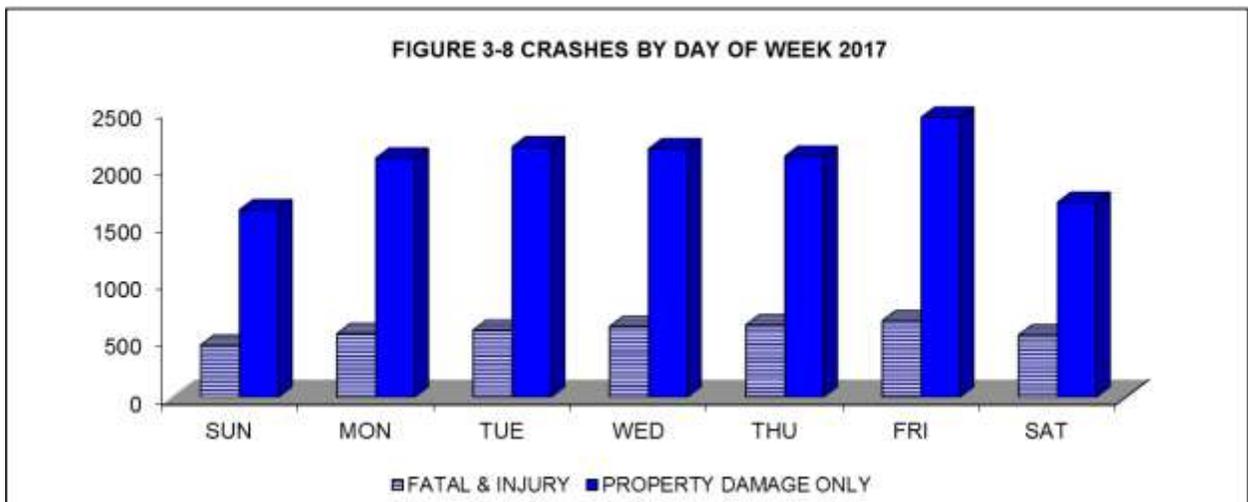
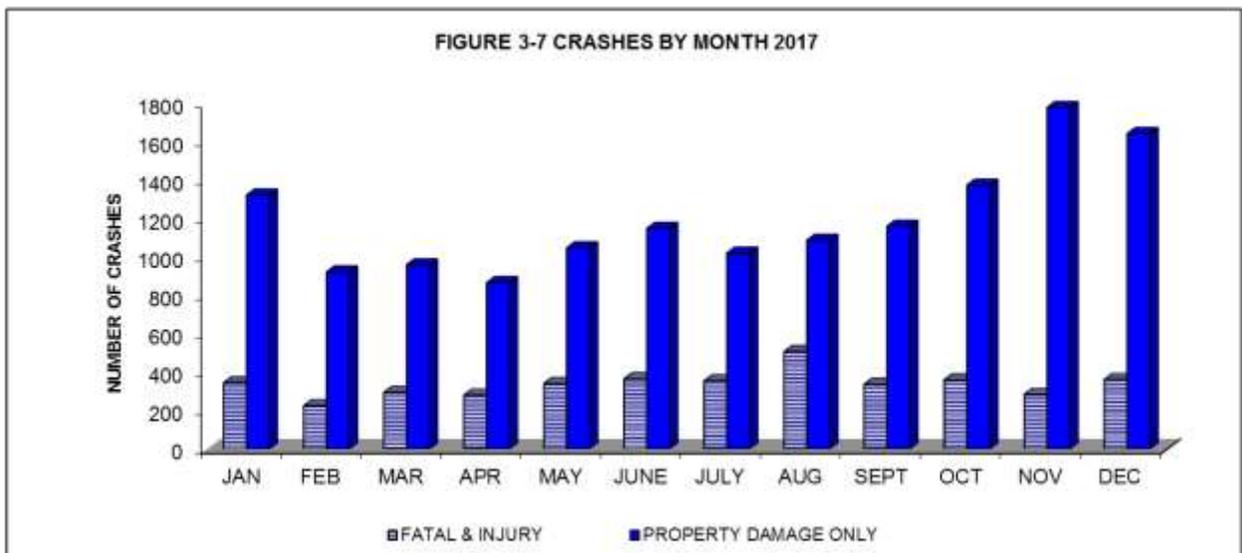
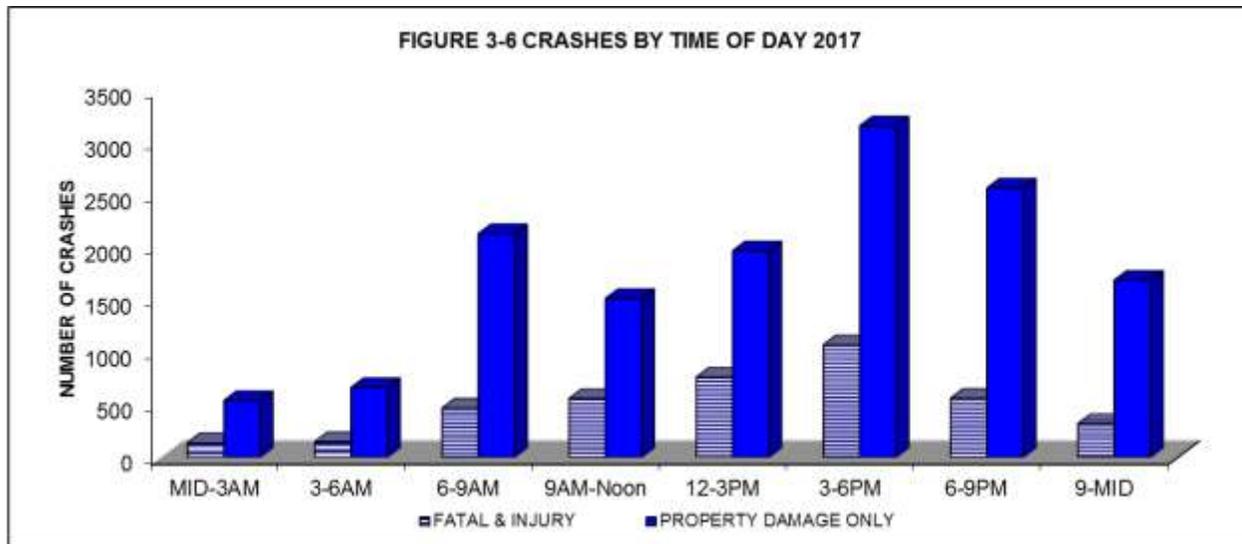
<u>Month</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>PDO Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
JANUARY	1,667	6	339	1322	6	443
FEBRUARY	1,147	1	224	922	1	318
MARCH	1,253	8	286	959	8	379
APRIL	1,146	3	277	866	4	364
MAY	1,388	10	331	1,047	14	437
JUNE	1,513	5	360	1,148	5	481
JULY	1,374	11	343	1,020	17	488
AUGUST	1,594	16	491	1,087	16	688
SEPTEMBER	1,497	14	323	1,160	16	435
OCTOBER	1,734	13	347	1,374	14	455
NOVEMBER	2,062	15	269	1,778	18	355
DECEMBER	2,004	9	353	1,642	10	476
Total	18,379	111	3,943	14,325	129	5,319

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

**TABLE 3-14
CRASHES BY DAY OF WEEK
2017**

<u>Day</u>	<u>Total Crashes</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>PDO Crashes</u>	<u>Fatalities</u>	<u>Injuries</u>
SUNDAY	2,090	16	438	1,636	19	615
MONDAY	2,642	16	539	2,087	16	718
TUESDAY	2,773	19	568	2,186	19	746
WEDNESDAY	2,785	12	605	2,168	12	831
THURSDAY	2,735	16	615	2,104	19	836
FRIDAY	3,110	14	653	2,443	15	866
SATURDAY	2,244	18	525	1,701	29	707
Total	18,379	111	3,943	14,325	129	5,319

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



Drivers

In the 18,379 reported motor vehicle crashes there were 27,402 motor vehicle drivers involved, including 158 drivers in fatal crashes and 6,548 drivers in injury crashes. Of these drivers 91 were killed, which is 70.5 percent of all persons killed in motor vehicle crashes and 74.8 percent or 3981 of the 5,319 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, 25.8 percent of the drivers were under 25 years of age and 45.2 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 17.1 percent of the drivers involved in fatal crashes and 26.1 percent of the drivers in injury crashes. Drivers under the age of 35 make up 36.1 percent of the drivers in fatal crashes and 46.1 percent of the drivers in injury crashes. Forty-seven or 29.7 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
2017**

Age	Drivers In All Crashes		Drivers In Fatal Crashes		Drivers In Injury Crashes		Drivers In PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
0 - 5	0	0.0	0	0.0	0	0.0	0	0.0
6 - 13	15	0.1	0	0.0	10	0.2	5	0.0
14 - 15	686	2.5	2	1.3	166	2.5	518	2.5
16 - 17	1,475	5.4	3	1.9	353	5.4	1,119	5.4
18	870	3.2	3	1.9	226	3.5	641	3.1
19	733	2.7	1	0.6	163	2.5	569	2.7
20	716	2.6	1	0.6	179	2.7	536	2.6
21 - 24	2,584	9.4	17	10.8	615	9.4	1,952	9.4
25 - 34	5,315	19.4	30	19.0	1,307	20.0	3,978	19.2
35 - 44	4,107	15.0	25	15.8	948	14.5	3,134	15.1
45 - 54	3,534	12.9	25	15.8	863	13.2	2,646	12.8
55 - 64	3,545	12.9	23	14.6	836	12.8	2,686	13.0
65 - Over	3,194	11.7	28	17.7	775	11.8	2,391	11.6
Unknown	628	2.3	0	0.0	107	1.6	521	2.5
Total	27,402	100	158	100	6,548	100	20,696	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 1,013 drinking drivers in all crashes which is 3.7 percent of all drivers in crashes. Forty or 25.3 percent of drivers in fatal crashes had been drinking while 454 or 6.9 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 20 percent of the drinking drivers in fatal crashes and 24.7 percent of the drinking drivers in injury crashes. Those drivers under 35 years of age accounted for 57.5 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
2017**

Age	Drivers In All Crashes		Drivers In Fatal Crashes		Drivers In Injury Crashes		Drivers In PDO Crashes	
	No.	%	No.	%	No.	%	No.	%
6 – 13	0	0.0	0	0.0	0	0.0	0	0.0
14 - 15	4	0.4	0	0.0	4	0.9	0	0.0
16 - 17	24	2.4	1	2.5	11	2.4	12	2.3
18	23	2.3	0	0.0	14	3.1	9	1.7
19	23	2.3	0	0.0	9	2.0	14	2.7
20	27	2.7	0	0.0	12	2.6	15	2.9
21 - 24	164	16.2	7	17.5	62	13.7	95	18.3
25 - 34	321	31.7	15	37.5	145	31.9	161	31.0
35 - 44	171	16.9	6	15.0	84	18.5	81	15.6
45 - 54	134	13.2	6	15.0	58	12.8	70	13.5
55 - 64	87	8.6	4	10.0	36	7.9	47	9.1
65 - Over	34	3.4	1	2.5	18	4.0	15	2.9
Unknown	1	0.1	0	0.0	1	0.2	0	0.0
Total	1,013	100	40	100	454	100	519	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, 25.9 percent of the drinking drivers in fatal and injury crashes and 41.2 percent of the speeding drivers in fatal and injury crashes. Drivers under 35 years of age constitute 31.4 percent of all licensed drivers, with 56.7 percent of the drinking drivers and 64.6 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
2017**

Age	Licensed Drivers %	Drivers In Fatal & Injury Crashes		Drinking Drivers In Fatal & Injury Crashes		Speeding Drivers In Fatal & Injury Crashes	
		No.	%	No.	%	No.	%
0 - 13	0.0	10	0.1	0	0.0	2	0.4
14 - 15	1.8	168	2.5	4	0.8	27	5.2
16 - 17	2.6	356	5.3	12	2.4	44	8.4
18	1.5	229	3.4	14	2.8	28	5.4
19	1.5	164	2.4	9	1.8	22	4.2
20	1.5	180	2.7	12	2.4	18	3.4
21 - 24	6.1	632	9.4	69	14.0	74	14.2
25 - 34	16.5	1,337	19.9	160	32.4	122	23.4
35 - 44	15.0	973	14.5	90	18.2	65	12.5
45 - 54	14.5	888	13.2	64	13.0	41	7.9
55 - 64	17.7	859	12.8	40	8.1	45	8.6
65 - Over	21.4	803	12.0	19	3.8	31	5.9
Unknown	0.0	107	1.6	1	0.2	3	0.6
TOTAL	100	6,706	100	494	100	522	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 2017
Fatal and Injury Crash Involved Drivers

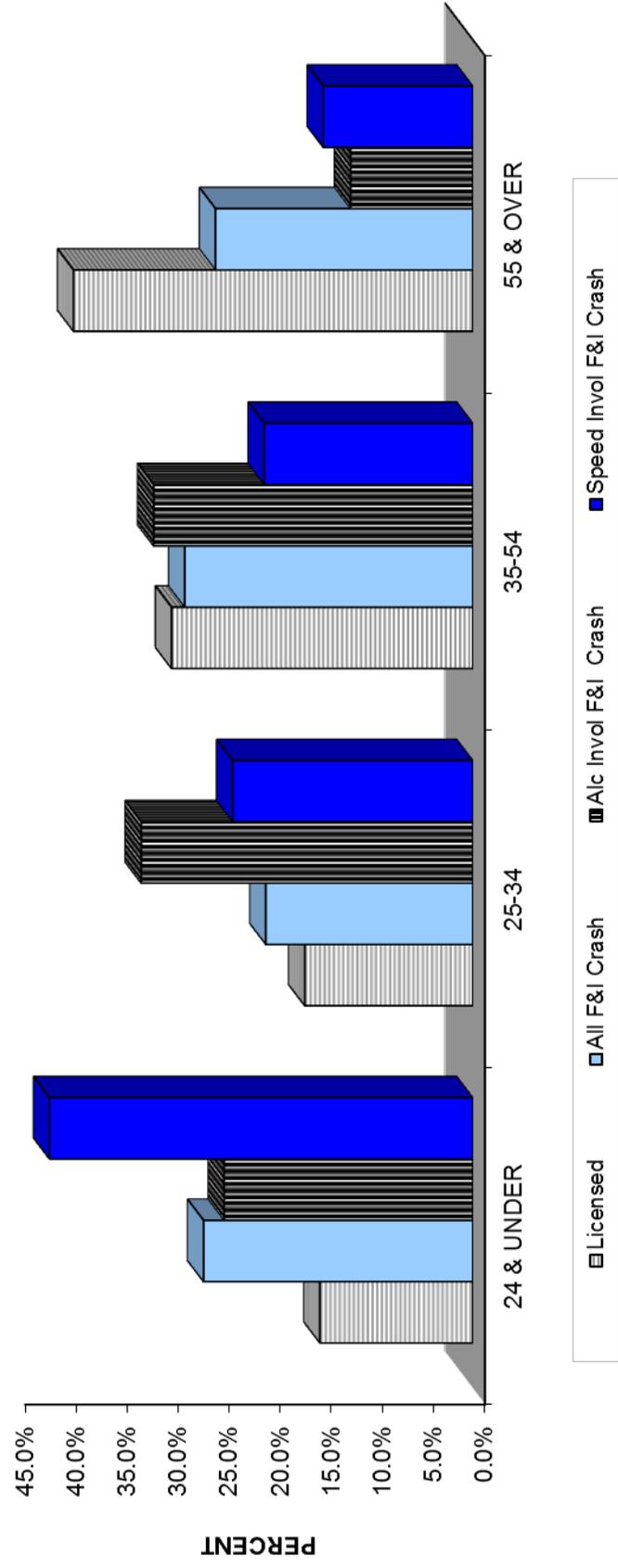
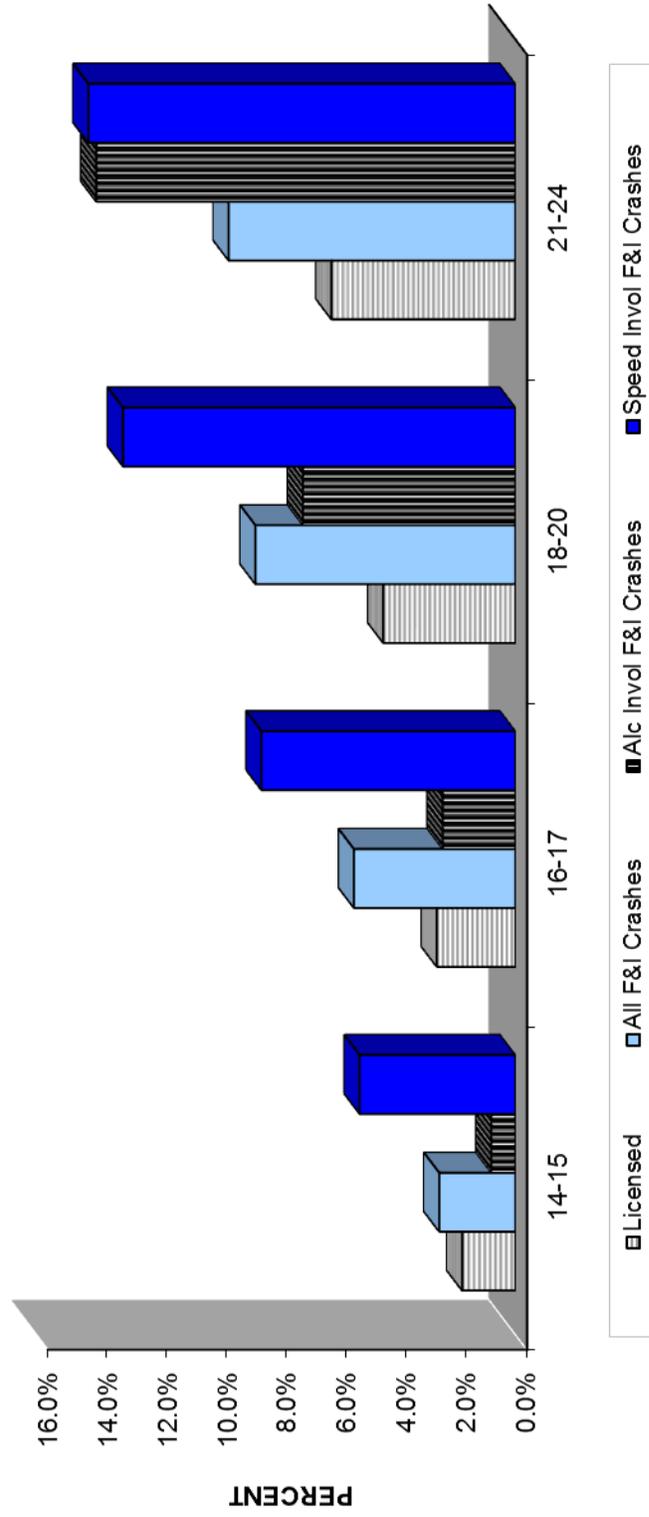


FIGURE 3-10 YOUNG DRIVERS 2017
Fatal & Injury Crash Involved Drivers



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 three 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 animal in roadway, and it was reported as a factor in 27 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. Failure to Keep in Proper Lane and Running Off Road were leading driver contributing circumstances in fatal crashes during 2017. Twenty-three or 14.6 percent of the drivers in fatal crashes reported Running Off Road as a contributing factor in the crash. While 24 or 15.2 percent reported Failure to Keep in Proper Lane 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
2017**

	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	766	2.8	3	1.9	289	4.4	474	2.3
Distracted*	1,073	3.9	5	3.2	378	5.8	690	3.3
Drinking	548	2.0	18	11.4	259	4.0	271	1.3
Driving Too Fast for Condition	1,489	5.4	8	5.1	360	5.5	1,121	5.4
Exceeded Speed Limit	306	1.1	15	9.5	177	2.7	114	0.6
Fail to Yield to Vehicle	2,875	10.5	9	5.7	870	13.3	1,996	9.6
Failure to Keep in Proper Lane	672	2.5	24	15.2	202	3.1	446	2.2
Fatigued/Fell Asleep	225	0.8	2	1.3	93	1.4	130	0.6
Following Too Closely	1,898	6.9	2	1.3	506	7.7	1,390	6.7
Improper Backing	447	1.6	0	0.0	11	0.2	436	2.1
Improper Passing	116	0.4	3	1.9	26	0.4	87	0.4
Improper Turn	363	1.3	0	0.0	78	1.2	285	1.4
Not Stated***	4,559	16.6	0	0.0	6	0.1	4,553	22.0
Other**	1,312	4.8	7	4.4	349	5.3	956	4.6
Over-correcting/Over-steering	376	1.4	12	7.6	180	2.7	184	0.9
Running Off Road	954	3.5	23	14.6	406	6.2	525	2.5
Swerving or Avoiding due to: <i>wind, slippery surface, vehicle, object, non-motorist, etc.</i>	260	0.9	3	1.9	87	1.3	170	0.8
Unknown	1,671	6.1	18	11.4	303	4.6	1,350	6.5
Wrong Side of Road	108	0.4	11	7.0	36	0.5	61	0.3
Total Drivers	27,402		158		6,548		20,696	

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

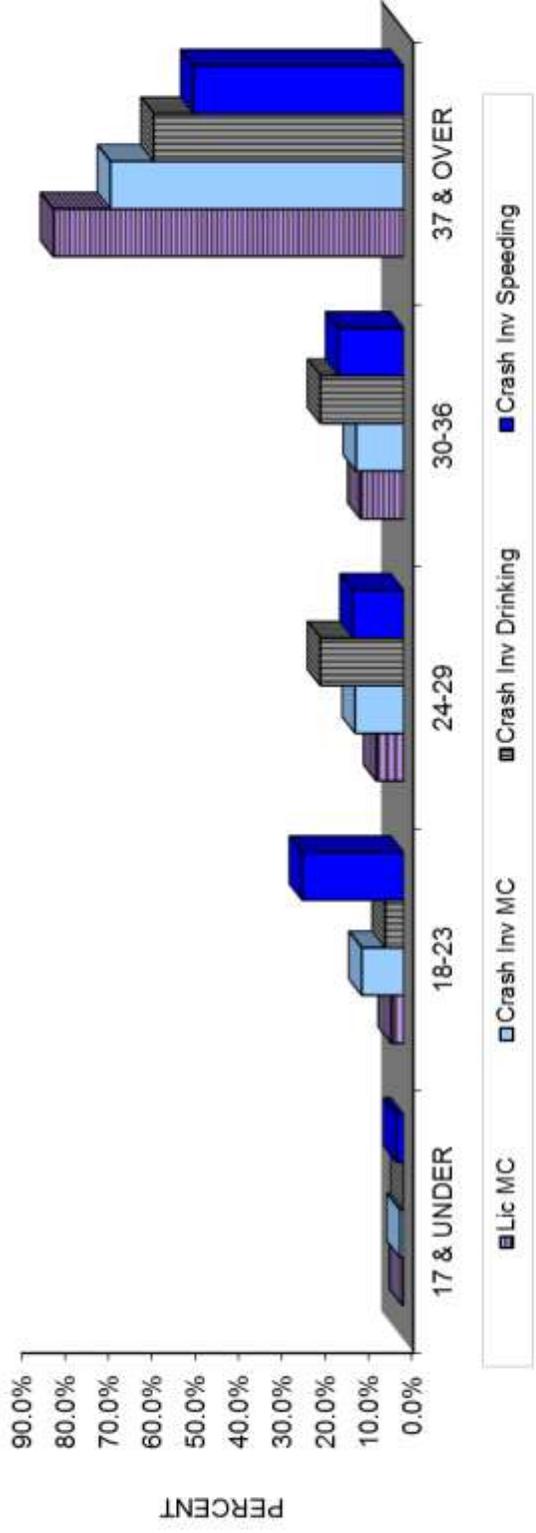
Motorcycle crashes constitute 2.4 percent of all crashes, 14.4 percent of all fatal crashes, and 8.9 percent of all injury crashes. There were 16 people killed and 408 injured on motorcycles in the 433 reported motorcycle crashes during 2017 (see TABLE 2-7). The young motorcycle driver is over represented 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, 3 percent of drivers involved in motorcycle crashes, and 8.3 percent of the speeding drivers involved in motorcycle crashes (see TABLE 3-19 and FIGURE 3-11).

**TABLE 3-19
MOTORCYCLISTS BY AGE GROUP
2017**

Age Group	Licensed Motorcyclists		Motorcycle Drivers In Crashes		Drinking Motorcycle Drivers In Crashes		Speeding Motorcycle Drivers In Crashes	
	No.	%	No.	%	No.	%	No.	%
0 - 13	0	0.0	0	0.0	0	0.0	0	0.0
14 - 15	40	0.0	1	0.2	0	0.0	0	0.0
16 - 17	236	0.3	3	0.7	0	0.0	1	1.7
18 - 19	511	0.6	10	2.2	0	0.0	4	6.7
20 - 21	841	1.0	19	4.1	2	4.3	5	8.3
22 - 23	1,200	1.4	15	3.3	0	0.0	5	8.3
24 - 25	1,588	1.8	22	4.8	3	6.4	3	5.0
26 - 27	1,839	2.1	15	3.3	4	8.5	2	3.3
28 - 29	2,130	2.4	14	3.0	2	4.3	2	3.3
30 - 31	2,254	2.6	19	4.1	3	6.4	4	6.7
32 - 36	6,520	7.4	31	6.7	6	12.8	5	8.3
37 - 41	6,650	7.5	33	7.2	5	10.6	4	6.7
42 - 51	15,863	18.0	79	17.1	8	17.0	6	10.0
52 - Over	48,496	55.0	196	42.5	14	29.8	19	31.7
Unknown	0	0.0	4	0.9	0	0.0	0	0.0
Total	88,168	100	461	100	47	100	60	100

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

FIGURE 3-11 MOTORCYCLISTS 2017
Crash Involved Motorcycle & Moped Drivers



Helmets were used by 182 or 42.6 percent of the motorcycle drivers in crashes while 248 or 57.7 percent did not wear a helmet (see TABLE 3-20). Sixteen motorcycle drivers were killed in 2017. Seven drivers wore helmet and eye protection, four drivers wore eye protection only, and five drivers reported no safety equipment used.

**TABLE 3-20
HELMET USE BY MOTORCYCLE DRIVERS IN CRASHES
2017**

<u>Age</u>	Helmet Used		Helmet Not Used	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
6 - 13	0	0.0	0	0.0
14 - 15	0	0.0	1	100.0
16 - 17	3	100.0	0	0.0
18 - 20	10	62.5	6	37.5
21 - 24	17	45.9	20	54.1
25 - 34	27	36.5	47	63.5
35 - 44	22	34.9	41	65.1
45 - Over	103	43.8	132	56.2
Unknown	0	0.0	1	0.0
Total	182	42.3	248	57.7

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 10 pedestrian killed and 123 injured in motor vehicle crashes during 2017 (see TABLE 3-21). The youngest pedestrian killed was eighteen years old, while the oldest was seventy-two years old. Of the injured pedestrians, 16.3 percent were between the ages of 5-13. Cities accounted for 90.2 percent of the pedestrian injuries and 70 percent of the pedestrian fatalities (see TABLE 3-23). Of the ten pedestrians killed six were male and four were female. And of the 123 pedestrians injured, 78 were male and 45 were female.

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

**TABLE 3-21
AGE OF PEDESTRIANS IN TRAFFIC CRASHES
2017**

<u>Age</u>	<u>Fatalities No.</u>	<u>%</u>	<u>Injuries No.</u>	<u>%</u>
0 - 4	0	0.0	3	2.4
5 - 13	0	0.0	20	16.3
14 - 19	1	10.0	14	11.4
20 - 24	0	0.0	10	8.1
25 - 34	2	20.0	18	14.6
35 - 44	2	20.0	21	17.1
45 - 54	2	20.0	20	16.3
55 - 64	2	20.0	11	8.9
65 - Over	1	10.0	6	4.9
Total	10	100	123	100

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

**TABLE 3-22
ALCOHOL INVOLVEMENT BY PEDESTRIANS
2017**

<u>Alcohol Involvement</u>	<u>Fatalities</u>		<u>Injuries</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Alcohol or Drugs	7	70.0	19	15.4
No Alcohol	3	30.0	104	84.6
Unknown	0	0.0	0	0.0
Total	10	100	123	100

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

**TABLE 3-23
RURAL vs. CITY PEDESTRIAN CRASHES
2017**

	<u>Fatalities</u>		<u>Injuries</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Rural	3	30.0	12	9.8
City	7	70.0	111	90.2
Total	10	100	123	100

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

Bicycles

During 2017 there were no bicyclist killed (see TABLE 2-9). There were 69 bicycle drivers injured in reported motor vehicle crashes during 2017 (see TABLE 3-24). The leading factor in bicycle-involved crashes was improper crossing which was reported for 26.1 percent of the injured bicycle drivers. Thirty of the injured bicycle drivers in crashes had no contributing circumstances. The yearly 1997-2017 trend of bicycle fatalities and injuries is provided in TABLE 2-9.

**TABLE 3-24
AGE OF BICYCLE DRIVERS IN TRAFFIC CRASHES
2017**

<u>Age</u>	<u>Fatalities Number</u>	<u>Injuries Number</u>	<u>%</u>
0 - 4	0	1	1.4
5 - 13	0	17	24.6
14 - 19	0	10	14.5
20 - 24	0	4	5.8
25 - 34	0	13	18.8
35 - 44	0	8	11.6
45 - 54	0	6	8.7
55 - 64	0	5	7.2
65 - Over	0	5	7.2
Total	0	69	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)