

Suggestions for Using *Crash Facts*

Crash Facts is designed to meet the needs of different audiences. If you are unfamiliar with this report, here are some suggestions that may make it easier for you to find the information you are seeking.

Legislators:

Section II through IX focus on particular traffic safety sub-areas (alcohol, seat belts, crashes involving motorcycles, pedestrians, and so on). Each section begins with a narrative that provides background, mentions highlights for the years, and discusses some legislative history (where appropriate). The first table in each section gives a ten-year history outlining key parameters of the problem.

Students studying traffic safety issues:

Of all age groups, teenagers and young adults pay the heaviest price in traffic safety (in terms of deaths and injuries). Each section contains tables focusing on age of drivers and victims in crashes.

Law enforcement community:

There are over 500 city, county, and state law enforcement agencies in Minnesota. Each agency has access to its own reports on traffic crashes, but the data are brought together here. Table 1.24 shows statistical information arranged by county. Table 1.25 reports on the traffic crash experience of almost 200 cities with populations over 2,500.

Public health:

Traffic crashes cause deaths and injuries; they are the leading cause of death to people from age 1 to 34 (people generally thought of as “too young to die”). *Crash Facts* contains many tables that show age and gender of drivers and victims, and many tables focus on the contributing factors in crashes. Section II contains tables relevant to chemical dependency issues, in particular, alcohol use and crash involvement.

City and county government agencies:

Information about your county will be found in Tables 1.24; your city’s statistics may be listed in Table 1.25. The Office of Traffic Safety can provide additional information on traffic crashes in your county or city; just contact us at the address shown below.

Data availability:

This report presents a wide spectrum of information in more than 100 tables and figures, but it may not answer every question. You may request additional data. Each response usually requires from one day to two weeks, depending on the complexity of the request.

Such requests should be directed to:

Department of Public Safety
Office of Traffic Safety
445 Minnesota Street, Suite 150
St. Paul, MN 55101-5150
(651) 201-7081

MINNESOTA MOTOR VEHICLE CRASH FACTS 2013

A summary of crashes occurring on Minnesota roadways based on crash reports submitted to the Minnesota Department of Public Safety by investigating police officers and drivers.

Produced by:
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For additional copies contact:
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Note:

The Minnesota Department of Public Safety is working to create an accessible electronic version of this document that meets the State of Minnesota Accessibility Standard and Minnesota State Statutes Section 16E.03. The most up-to-date version of this document is posted on the Minnesota Department of Public Safety Website:

<https://dps.mn.gov/divisions/ots/>

Click on the “Reports and Statistics” tab.

This site also includes yearly archived Crash Facts reports back to 2004.



Alcohol
and Gambling
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June 2014

This edition of *Minnesota Motor Vehicle Crash Facts* contains statistics and information that will be used by our traffic safety partners, legislators, media and the motoring public. It is derived from law enforcement reports and describes how and why crashes happened, where they occurred in our state and who was involved.

These numbers represent people.

In 2013, there were 387 traffic fatalities, compared to 395 in 2012. While we recognize the decline last year and the downward trend during the last decade, we can't overlook the fact that far too many of our friends, neighbors and loved ones were involved in crashes that resulted in death or life-altering injuries last year.

As we've seen in past years, the four top contributing factors were:

- Speed – 76 deaths were attributed to illegal/unsafe speed.
- Distractions – 68 fatalities were caused by inattention.
- Impaired driving – 95 traffic deaths were attributed to drunk driving.
- Not buckling up - 94 motor vehicle occupants who were killed weren't belted.

The Minnesota Department of Public Safety (DPS) will use this information to determine future traffic safety initiatives that will lead to safer roads, more efficient safety programs and changed driver behavior.

We are making progress, but we have work to do. It starts with our own behavior – slow down, pay attention, don't drink and drive and always buckle up. Then it drives us to work steadily, strategically and steadfastly to keep every person on our roads safe.

Sincerely,

A handwritten signature in cursive script that reads "Ramona L. Dohman".

Mona Dohman
Commissioner, Department of Public Safety

Minnesota Traffic Crashes in 2013

OVERVIEW

This edition of *Minnesota Motor Vehicle Crash Facts* summarizes the crashes, deaths, and injuries that occurred on Minnesota roadways during 2013. The information provided in this book will assist you in traveling our roadways safely.

In 2013:

- 77,707 traffic crashes were reported to the Minnesota Department of Public Safety (DPS)
- 140,769 motor vehicles and 186,854 people were involved in these crashes
- 387 people died and 30,653 people were injured
- Estimated economic cost to Minnesota: \$1,588,124,400

On an average day in 2013:

- 213 crashes
- 1 death and 84 injuries
- Average daily cost: \$4,351,026

2013 known alcohol-related statistics:

- 3,669 crashes
- 117 deaths and 2,300 injuries
- Estimated economic cost: \$235,411,700

Highlights from the 2013 *Crash Facts* edition

- **Traffic fatalities decrease**
In 2013, Minnesota experienced a total of 387 traffic fatalities, a two percent decrease from the previous year. This low percentage decrease is disappointing considering the fact that traffic fatalities in Minnesota have decreased sharply during the past decade. It indicates that traffic fatalities in Minnesota remain at epidemic levels - serving as a call-to-action for all motorists to buckle up, drive at safe speeds, pay attention, and never drive impaired.
- **Safety belt use in Minnesota is 95 percent**
An observational study in June, 2013 showed that belt use by front seat drivers and passengers was 95%. Seat belts save lives. All motor vehicle occupants are urged to buckle up, every seat, and every ride.
- **The fatality rate in Minnesota per 100 million vehicle miles traveled (VMT) remains low**
The VMT-based fatality rate for 2013 is 0.68, one of the lowest in the nation. The VMT fatality rate has shown dramatic improvement in the last five decades (it was 5.52 in 1966).

CRASH FACTS ORGANIZATION

Crash Facts has a wealth of statistical information about traffic crashes in Minnesota. Follow this basic user's guide to navigate the book.

Introduction

Beginning on page 1, you will find introductory information including the history, societal costs, and general cause of crashes. You can use this information to find:

- How crash costs are estimated
- Contributing factors in crashes
- Historical analysis of traffic deaths over the last 35 to 40 years
- Licensed drivers by age (Table 2)
- Registered motor vehicles by category (Table 3)

Section I: All Crashes

Beginning on page 7, you will find the aggregate of all traffic crashes that occurred in Minnesota in 2013. Information provided includes:

- Historical information dating back to 1965 (Table 1.01)
- Contributing factors to crashes (Tables 1.09, 1.10 and 1.17)
- Holiday crashes, deaths and injuries (Table 1.28)

Section II: Alcohol-Related Crashes

Beginning on page 38, you will find data about impaired driving and traffic crashes. This section focuses on crashes involving alcohol and spells out answers to commonly-raised questions, including:

- Historical overview since 1980 (Table 2.01)
- DWI arrest statistics (Tables 2.02, 2.03, and 2.04)
- Persons killed and injured in alcohol-related crashes by age (Table 2.05)

Section III: Safety Equipment Use by Vehicle Occupants in Crashes

Beginning on page 51, you will find information on belt use by people in cars and trucks.

- This section includes a table showing observational seat belt use rates since 1986 (Table 3.01)

Section IV: Motorcycle Crashes

Beginning on page 60, you will find information on crashes involving motorcycles.

- Crashes involving all-terrain vehicles or mopeds are not included in this section

Section V: Truck Crashes

Beginning on page 69, you will find information on crashes that involved a heavy commercial vehicle.

- Crashes involving pickup trucks are not included in this section

Section VI: Pedestrian Crashes

Beginning on page 77, you will find information on motor-vehicle/pedestrian crashes.

- Crashes involving a pedestrian/train or pedestrian/bicycle are not included in this section

Section VII: Bicycle Crashes

Beginning on page 86, you will find information on motor-vehicle/bicycle crashes.

- Bicycle crashes not on public highways and roadways are not included in this section
- Bicycle crashes not involving a motor vehicle are not included in this section

Section VIII: School Bus Crashes

Beginning on page 91, you will find information pertaining to school bus crashes.

- This section focuses on crashes that involved a school bus as a “contact vehicle”
- Crashes where a school bus was indirectly involved are not included in this section (Note: this data collection began in 2003; please see narrative for discussion)

Section IX: Motor Vehicle/Train Crashes

Beginning on page 96, you will find information pertaining to train crashes.

- Crashes that do not involve a motor vehicle are not included in this section

Section X: Motor Vehicle Teen Crashes

Beginning on page 100, you will find information pertaining to teen-involved traffic crashes.

- This section focuses on drivers aged 15 through 19

Section XI: Motor Vehicle Senior Crashes

Beginning on page 105, you will find information pertaining to senior-involved traffic crashes.

- This section focuses on drivers aged 65 and older

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Introduction

At the end of the 2013 calendar year, 4,079,256 people held Minnesota driver licenses and 5,088,124 motor vehicles were registered in the state. Vehicles traveled over 57 billion miles on public roadways. There were 77,707 traffic crashes; 387 people died and 30,653 people were injured in those crashes. This report provides a statistical summary of those crashes.

The purpose of *Crash Facts* is to provide summary statistical information about the crashes reported to the state each year. The term “crash” is used in preference to “accident”. The latter term suggests there is a random, unavoidable quality about the events in question. In fact, the experience of the last three decades strongly demonstrates that advances in engineering and technology, coupled with changes in public policy and individual human behavior, can dramatically reduce the number and severity of traffic crashes.

Cost of traffic crashes

The necessity of getting from one place to another and the efficiency of motor vehicles for this purpose result in significant costs to society. The National Safety Council reports that crashes (from all causes) are the leading cause of death among persons aged 1 to 34 and the fifth leading cause of death among all persons (*Injury Facts, 2005-2006 Edition*, p. 10-11).

It is possible to estimate economic costs of traffic crashes, although the results can vary depending on definitions and estimating procedures. Many states use cost figures released by the National Safety Council, the most recent of which use 2011 data. Based upon those, the total economic loss from 2013 traffic crashes in Minnesota was \$1,588,124,400, a figure that is calculated as follows:

Cost of Motor Vehicle Crashes in 2013:

387	deaths	@	\$1,410,000 = \$	545,670,000
1,216	severe injuries	@	\$72,700 = \$	88,403,200
7,109	moderate injuries	@	\$23,400 = \$	166,350,600
22,328	minor injuries	@	\$13,200 = \$	294,729,600
55,390	PDO crashes	@	\$8,900 = \$	492,971,000
Total:				\$ 1,588,124,400

Factors affecting traffic crashes

Many factors may contribute to even a single crash. Cell phone use or playing with the radio may lead to driver distraction, which together with wet, slippery pavement and high traffic congestion at an intersection causes a traffic crash.

There are a more limited number of factors that significantly affect the aggregate of traffic crashes. These can be organized into logical groups, such as human behavior factors or vehicle safety factors. The following paragraphs outline some of the factors most frequently thought to affect crash incidence and severity.

Vehicle Safety Factors: Engineering and design standards for vehicle performance can help prevent crashes from occurring. When there is a crash, vehicles designed for safety can increase survivability. For example, the design of windshield glass and the location and durability of gas tanks can increase safety. The “passenger packaging” inside a vehicle can reduce injury severity through means such as padded dashboards and collapsible steering wheel columns. Passenger protection systems in vehicles (airbags, safety belts, etc.), if used, can eliminate injuries or reduce their severity.

Behavior factors: For all crashes, the driver behaviors police cite most often as contributing factors are, in order of frequency: driver inattention or distraction, failure to yield right of way, and illegal or unsafe speed. In fatal crashes, illegal or unsafe speed is cited most often, followed by driver inattention or distraction. Reducing these behaviors would reduce crashes. Further, when there is a crash, using safety equipment will reduce severity.

Roadway characteristics: Limited access highways carry about a fifth of the traffic volume in Minnesota, yet account for only about a twelfth of fatal accidents. They are built to high roadway engineering standards and are very safe, relatively speaking. In general, roadway characteristics conducive to safety include wide lanes, clearly visible striping, flared guardrails, wide shoulders of good quality, shoulders and roadsides free of obstacles, well-located crash attenuation devices, well-planned use of traffic signals, and effective communication to roadway users through clear and visible signage.

Environmental factors: Weather conditions affect crash incidence and severity. Clear dry roads are conducive to high speeds; consequently, fatal crashes have a pronounced seasonal variation, peaking in the warm summer months and falling in the winter months. The total number of crashes is driven by the incidence of the less serious property damage crashes, which tend to have the opposite seasonal variation, peaking in the winter months.

Volume of traffic, or vehicle miles traveled (VMT), is a predictor of crash incidence. All other things being equal, as VMT increases, so will traffic crashes. The relationship may not be simple, however; after a point, increasing congestion leads to reduced speeds, changing the proportion of crashes that occur at different severity levels.

The quality and availability of emergency medical services might be classified as an environmental factor. The first hour after a traumatic episode, such as a traffic crash, has been called the “golden hour”. Victims who receive emergency services within that time have markedly improved chances of survival.

The age structure of the population has a strong effect on crash incidence, although it is not generally thought about since demographic

changes are so gradual. In Minnesota, about one in 18 teenage drivers are involved in crashes each year. The involvement rate drops off for successive age groups. For example, it is about 1 in 36 for drivers in their 40s. The aging of the ‘baby boom’ has reduced crash incidence, however, their children who are now driving may cause an increase.

Historical perspective

In 1966, there were 53,041 traffic fatalities in the country, or 5.7 for every hundred million miles of travel. In Minnesota in 1968, there were 1,060 traffic fatalities, or 5.3 per hundred million miles of travel. Those were the worst years. Since then, both the rate and the number of fatalities have declined in a fairly steady pattern. In 2013, there were about 33,500 traffic fatalities throughout the country and 387 in Minnesota. The respective fatality rates per hundred million miles of travel were 1.11 and 0.68. A dramatic benefit has been achieved.

The benefit is in large part the result of conscious decision-making on traffic safety issues. The National Highway Traffic Safety Administration (originally called the National Highway Safety Bureau) was established in the US Department of Transportation in 1967. Since then it has promoted, and Congress has passed, legislation mandating the manufacture of safer cars. At the same time, the federal interstate highway system has expanded, contributing to a safer roadway environment.

Simultaneously there has been an effort to change human behavior factors. Minnesota was a leader among the states in the development of innovative drunk driving countermeasures. The Legislature made significant amendments to the DWI law in 1971, 1976, 1978, and in almost every year of the 1980s. It also passed the child passenger protection law in 1981 and the secondary seat belt law in 1986. It subsequently amended those laws, closing loopholes, broadening their scope, and strengthening penalties. The benefits of action in these areas are clear. The graph shown in Figure 1 is one illustration. It shows a steady increase in the number of drivers and vehicles, but a steady decrease in the fatality rate per hundred million miles of travel.

Legislative requirement

Minnesota Motor Vehicle Crash Facts is produced annually by the Minnesota Department of Public

Safety Office of Traffic Safety, in accordance with state law. Minnesota Statutes, Section 169.10, requires that traffic crashes be reported to the Department. Section 169.10 then requires the Department to "...tabulate all crash reports and publish annually statistical information based thereon as to the number and circumstances of traffic crashes..."

Section 169.09 specifies that a driver involved in a crash that results in injury to or death of any person or total property damage of \$1,000 or more must submit a report within ten days of the crash. The law enforcement officer who investigates the crash must also submit a report within ten days. The minimum dollar amount for crashes involving only property damage has changed over the years. The first minimum was set at \$50 in 1939. It was

raised to \$100 in 1965, to \$300 on August 1, 1977, and then to \$500 on August 1, 1981. The current minimum of \$1,000 took effect August 1, 1994.

Crash Facts is divided into eleven sections. The first section presents information on the aggregate of all crashes reported to the state during the preceding calendar year. The remaining ten sections focus on specific areas of interest to policy makers and the public. Section II deals with alcohol-related crashes. Section III is about the use of safety equipment by occupants of vehicles required to be equipped with passenger protection systems, including child safety seats and safety belts. The following six sections focus on crashes that involved motorcycles (section IV), trucks (section V), pedestrians (section VI), bicycles (section VII), school buses (section VIII), and trains (section IX). Sections X and XI summarize info on crashes involving teen and senior drivers.

FIGURE 1
VEHICLES, DRIVERS AND FATALITY RATE, 1970-2013

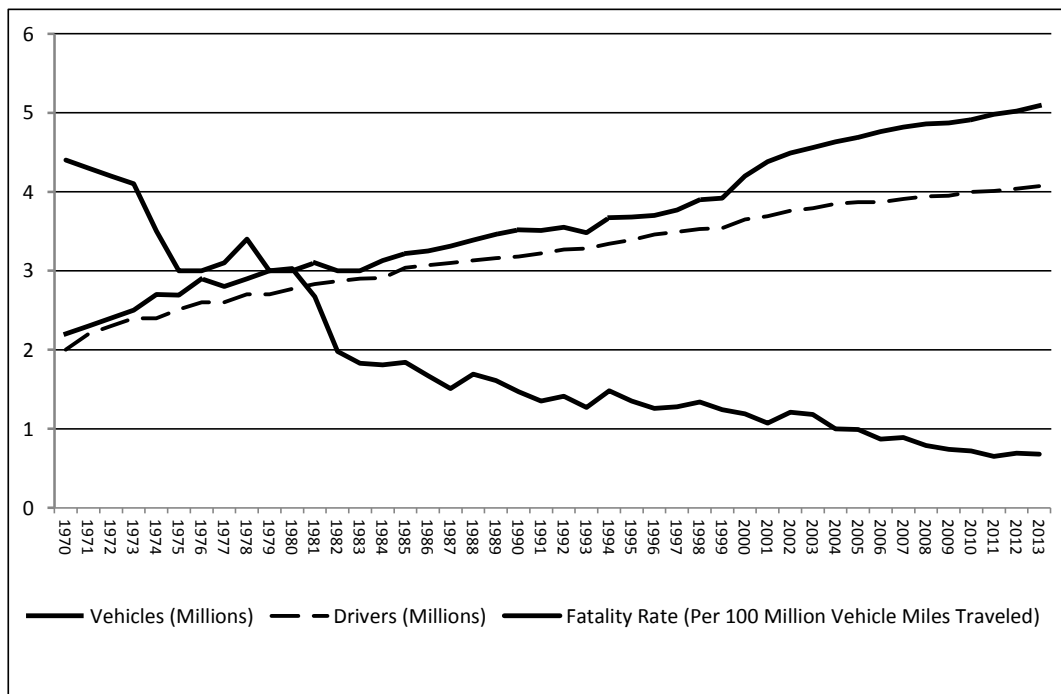


TABLE 1

MINNESOTA TRAFFIC FATALITIES, 1910 – 2013
Since 1961: Vehicle Miles Traveled (Billions) and Fatality Rates (Per 100 Million VMT)

YEAR (1)	Fatal- ities (2)	YEAR (3)	Fatal- ities (4)	YEAR (5)	Fatal- ities (6)	YEAR (7)	Fatal- ities (8)	Vehicle Miles (9)	Fatal Rate (10)	YEAR (11)	Fatal- ities (12)	Vehicle Miles (13)	Fatal Rate (14)	YEAR (15)	Fatal- ities (16)	Vehicle Miles (17)	Fatal Rate (18)
1910	23	1928	435	1946	536	1964	841	16.2	5.19	1982	581	29.2	1.98	2000	625	52.4	1.19
1911	26	1929	505	1947	572	1965	875	16.8	5.21	1983	558	30.5	1.83	2001	568	53.2	1.07
1912	39	1930	561	1948	552	1966	977	17.7	5.52	1984	584	32.2	1.81	2002	657	54.4	1.21
1913	46	1931	622	1949	540	1967	965	18.7	5.16	1985	610	33.1	1.84	2003	655	55.4	1.18
1914	88	1932	486	1950	532	1968	1,060	19.9	5.33	1986	572	34.2	1.67	2004	567	56.5	1.00
1915	85	1933	525	1951	610	1969	988	20.8	4.75	1987	530	35.1	1.51	2005	559	56.5	0.99
1916	143	1934	641	1952	534	1970	987	22.4	4.41	1988	615	36.4	1.69	2006	494	56.6	0.87
1917	161	1935	596	1953	637	1971	1,024	23.4	4.38	1989	605	37.6	1.61	2007	510	57.4	0.89
1918	183	1936	649	1954	639	1972	1,031	24.9	4.14	1990	568	38.8	1.47	2008	455	57.3	0.79
1919	171	1937	630	1955	577	1973	1,024	25.2	4.06	1991	531	39.3	1.35	2009	421	56.9	0.74
1920	178	1938	609	1956	637	1974	852	24.6	3.46	1992	581	41.3	1.41	2010	411	56.8	0.72
1921	216	1939	576	1957	684	1975	777	25.6	3.04	1993	538	42.3	1.27	2011	368	56.7	0.65
1922	260	1940	577	1958	708	1976	809	27.0	3.00	1994	644	43.4	1.48	2012	395	57.0	0.69
1923	328	1941	626	1959	662	1977	856	28.1	3.05	1995	597	44.1	1.35	2013	387	57.0	0.68
1924	366	1942	439	1960	724	1978	980	28.8	3.40	1996	576	45.9	1.26				
1925	361	1943	274	1961	724	1979	881	29.0	3.04	1997	600	46.9	1.28				
1926	326	1944	356	1962	692	1980	863	28.5	3.03	1998	650	48.5	1.34				
1927	369	1945	449	1963	798	1981	763	28.6	2.67	1999	626	50.7	1.24				

FIGURE 2

MINNESOTA TRAFFIC FATALITIES, 1910-2013

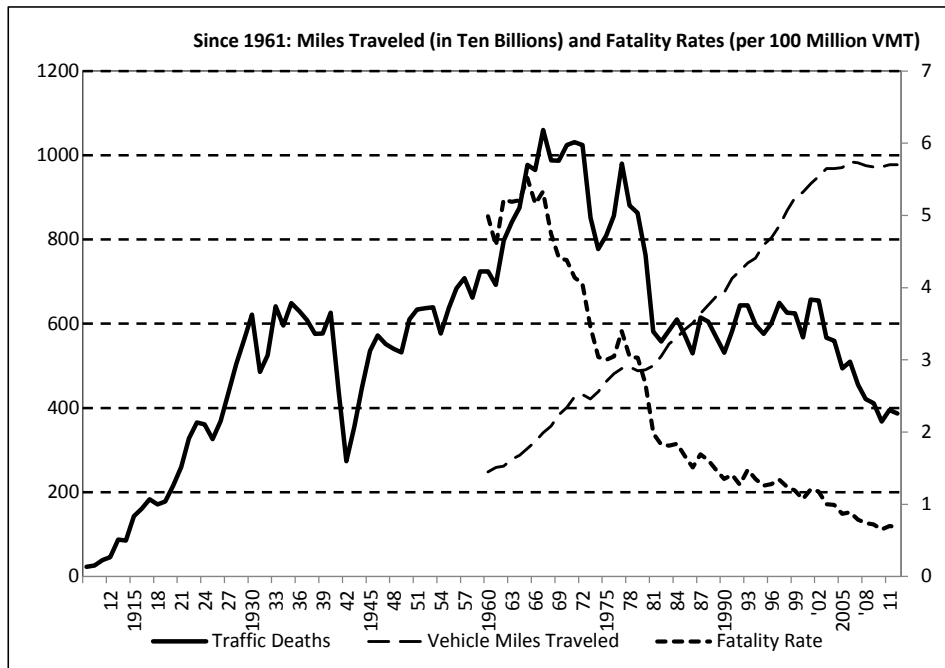


TABLE 2

DRIVER LICENSE* SUMMARY BY AGE, 2008 - 2013

Age	2008	2009	2010	2011	2012	2013
15	26,141	28,126	28,020	25,422	25,946	25,324
16	49,801	49,884	49,634	48,260	47,801	48,013
17	57,875	56,554	55,885	54,781	54,489	53,744
18	64,337	62,707	61,526	59,722	59,220	58,706
19	68,050	67,701	66,272	63,997	63,212	62,642
20	68,920	69,074	69,495	67,176	65,539	64,972
Under 21	335,124	334,046	330,832	319,358	316,207	313,401
15 – 19	266,204	264,972	261,337	252,182	250,668	248,429
20 – 24	350,535	347,193	348,937	343,942	341,891	340,074
25 – 29	365,501	364,228	366,813	358,738	356,653	358,005
30 – 34	324,694	330,073	342,756	351,489	359,718	365,101
35 – 39	327,911	319,456	311,858	306,985	312,377	320,919
40 – 44	347,387	339,999	340,906	336,514	330,720	331,868
45 – 49	399,215	391,392	380,685	365,193	351,004	340,791
50 – 54	376,096	382,435	389,685	392,410	392,344	390,177
55 – 59	324,589	332,705	343,840	350,359	358,458	365,577
60 – 64	251,756	265,450	282,820	293,833	301,734	311,683
65 – 69	187,347	193,513	198,777	213,587	226,107	237,444
70 – 74	140,879	143,738	149,002	155,347	164,699	172,320
75 – 79	113,740	113,517	114,320	116,871	119,643	123,927
80 – 84	89,045	87,672	88,821	90,620	90,268	90,333
85 & Older	73,502	71,997	74,678	79,683	82,434	82,608
Total	3,938,401	3,948,340	3,995,235	4,007,753	4,038,718	4,069,256

* This information is provided by the Department of Public Safety, Driver and Vehicle Services Division (DVS). Counts of licensed drivers include drivers who only hold learner's permits.

TABLE 3

MOTOR VEHICLE REGISTRATIONS, 2008 - 2013

Type of Vehicle*	2008	2009	2010	2011	2012	2013
Passenger Vehicles	3,455,451	3,478,218	3,527,503	3,579,033	3,621,291	3,630,245
Pickup Trucks	849,627	833,329	828,305	832,463	829,965	882,136
Commercial Trucks	215,107	213,489	214,680	216,532	220,623	225,201
Recreational Vehicles	34,998	35,042	34,797	33,070	32,511	31,349
Motorcycles	224,625	226,675	229,912	232,274	237,278	235,909
Motorized Bicycles	15,601	15,559	15,682	16,016	16,378	16,035
School Buses	6,766	6,810	6,940	6,951	7,120	7,220
Other Buses	5,076	4,996	5,067	5,161	5,105	5,188
Van Pool	205	165	174	226	210	159
Tax Exempt Vehicles	51,045	52,480	52,061	53,420	53,175	54,682
Motor Vehicle Subtotal	4,858,501	4,866,763	4,915,121	4,975,146	5,023,656	5,088,124
Other Registrations*						
Trailers	1,564,054	1,610,989	1,665,491	1,715,404	1,773,595	1,830,458
Classic Motor Vehicles	166,472	172,858	179,771	186,586	192,649	198,716
Classic Motorcycles	8,124	8,778	9,487	10,489	11,070	11,993
Other Subtotal	1,738,650	1,792,625	1,854,749	1,912,479	1,977,314	2,041,167
Total Registrations	6,597,151	6,659,388	6,769,870	6,887,625	7,000,970	7,129,291

* Information provided by Department of Public Safety, Driver and Vehicle Services Division.

Minnesota license plates on a vehicle signify that it has been registered with the state and that the owner has paid the registration fee. The vehicle classification used for registration purposes is similar, but not identical, to the vehicle classification (shown in Tables 1.11 and 1.12) police use in reporting accidents. Following are some notes on the registration categories shown above:

- Passenger Vehicles include cars, SUV's, and Vans (except for a "Van Pool," which is a Van used exclusively for car pooling purposes)
- Pickup Trucks are rated three-fourths ton or less
- Motorcycles have engines exceeding 50 cc; otherwise the vehicle is classified as a Motorized Bicycle (Moped)
- Tax exempt Vehicles are vehicles owned by city, county, or state offices. They have license plates but no registration fees are paid on them. (Police and fire department vehicles are tax exempt but are not included since they do not have state license plates and are not registered.)
- Trailers (such as utility trailers pulled by cars, or semi or twin trailers pulled by trucks) are pulled by motorized vehicles and do not themselves have motors
- Classic Motor Vehicles and Classic Motorcycles must be at least 20 years old and cannot be used for normal transportation purposes. They can only be driven, for example, to car shows.

I. ALL CRASHES

Overview of Traffic Crashes in Minnesota

If a traffic crash in Minnesota meets certain criteria, the law states that data concerning that crash must be reported to the Department of Public Safety. In the recent past, about 70,000 traffic crashes each year have been reported. Preventing the number of traffic crashes remains a challenge each year for public safety officials. By the end of calendar year 2013:

- The population of Minnesota increased to 5.40 million
- Over 5 million motor vehicles were registered
- There were 4 million licensed drivers
- Over 57 billion miles were driven in Minnesota

As these numbers steadily increase, the citizens of Minnesota face an extreme challenge in reducing the number and severity of traffic crashes.

Crashes increase, fatalities decrease in 2013

There were 77,707 traffic crashes reported to Public Safety in 2013, an increase of 10.9% from 2012. However, there were 387 deaths on Minnesota roads, a 2.0% decrease from the previous year. In reality, traffic deaths in Minnesota have decreased dramatically in the past decade. There are many factors for the continued improvement in traffic safety, but much can be credited to strengthened traffic safety laws, enhanced enforcement, education and outreach, engineering and emergency trauma care. These elements are all part of the state's *Toward Zero Deaths (TZD)* initiative — a multidisciplinary program addressing traffic issues at the local level.

Traffic Crashes in 2013

The following facts give an overall picture of 2013 traffic crashes. In addition to the 387 killed:

- 30,653 were injured
- 1,216 of these were severe injuries
- 7,109 of these were moderate injuries
- 22,328 of these were minor injuries
- 186,854 people were involved in crashes
- 140,769 motor vehicles were involved in crashes
- There were 862 crashes that involved at least 1 bicyclist
- There were 868 crashes that involved at least 1 pedestrian
- One-third of all crashes involved just one vehicle
- One-fourth of all fatalities were less than 25 years of age
- 2 of 3 fatalities occurred in rural areas (< 5,000 population)
- 2,263 crashes were classified as “hit-and-run”
- The economic loss to Minnesota was almost \$1.6 billion

WHO was involved

Among drivers, young people and males are over-represented in traffic crashes in Minnesota. There are 4,079,256 licensed drivers in the state. People aged 15- 24 make up 14.4% of the licensed drivers, yet they accounted for 23.4% of the crash-involved drivers. Drivers aged 20-24 are the worst, from this perspective. In 2013, they represented just 8.3% of the licensed drivers, but 13.6% of all crash-involved drivers. By contrast drivers over 65 made up 17.2% of the driving population, but accounted for just 8.4% of the crash-involved drivers. Crash-involved drivers are also more likely to be males: 73.2% of drivers in fatal crashes were male; 54.6% of drivers in all crashes were male.

Traffic crashes are the leading cause of death to young people. In the state last year, 124 people under age 30 died in crashes, representing 32% of all traffic deaths. As mentioned previously, people over 65 are safe drivers as a general rule, but are more likely to be killed if they are involved in a traffic crash. Senior citizen drivers were involved in only 8.4% of all traffic crashes in 2013 but accounted for 15% of the traffic fatalities.

Among people injured, young people especially pay the price. There were 12,262 people under age 30 who were injured, representing 40% of the total number of people injured. People aged 65 and over accounted for just 9% of all traffic injuries.

WHY they happened

An officer at the scene will list 0, 1, or 2 contributing factors for each ‘vehicle’ involved in a crash. The ‘cause’ of a crash is sometimes not entirely clear as vehicular factors in a crash may be listed alongside human factors. However, vehicular factors are not cited as often as human factors.

About one-third of all crashes involve only one vehicle and about two-thirds involve two or more vehicles. Single-vehicle and multiple-vehicle crashes have different characteristics. In single-vehicle crashes, illegal or unsafe speed is the contributing factor cited most often for all drivers less than 65 years old. For them, driver inattention or distraction is the most cited factor. In multiple-vehicle crashes, for drivers through age 64, driver inattention or distraction is cited most often, and failure to yield right of way is cited second most often. After age 65, the pattern reverses: failing to yield is most common, and inattention or distraction is second most common.

WHAT the conditions were

Victims of traffic crashes are mostly car, pickup, sport utility vehicle (SUV) or van occupants. Of the 387 traffic fatalities, 259 (67%) were from these 4 vehicle types. There were also 35 pedestrians, 60 motorcyclists, and 6 bicyclists who died in traffic crashes. There were 7 deaths to ATV riders, 5 deaths among farm equipment and 2 fatalities among snowmobiles. Other vehicle types (e.g., larger trucks and road maintenance vehicles) accounted for 13 fatalities.

A collision with another vehicle is the leading crash type. About 47% of the fatal crashes and 65% of all crashes involve one vehicle colliding with another vehicle. In fatal and injury crashes, collisions with fixed objects and overturns are also common. For property damage crashes, the other leading crash types are collision with fixed object, and collision with a parked motor vehicle.

Most crashes occur in good driving conditions. Over half of fatal crashes, and two-thirds of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half of all crashes occur during “clear” weather. Road surface conditions where crashes occurred were usually good. For fatal crashes, 76% were on dry roads, 10% were on wet roads, and 12% were on snowy or icy roads.

WHERE they happened

Fatal crashes tend to occur on roads in rural areas that permit high speeds and do not have interstate-type safety designs. Last year, 239 (67%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. Additionally, 131 (37%) of all fatal crashes occurred on county state aid highways, and 85 of those were in rural areas. Injury and property damage crashes are more common in urban areas. Over two-thirds happened inside cities of 5,000 or more population. The seven county metro area, with over half the state's population, accounted for only 26% of the fatal crashes, but 61% of all crashes.

WHEN they occurred

A fatal traffic crash is most likely to occur during the morning and afternoon rush-hour time periods (6:00-9:00 a.m. and 3:00-6:00 p.m.). This has changed since the early 1990s when most fatal crashes occurred at night during the time period of 10:00 p.m.-2:00 a.m. This phenomenon may be explained by the smarter deployment of law enforcement, increased seat belt usage, and the public's awareness of the dangers of drinking and

driving. As for total crashes, the six hour time period of 12:00-6:00 p.m. had the most. In that time frame, 43% of all crashes occurred. This has not changed over the years. Indeed, Figure 1.03 on page 36 shows that the afternoon time period is truly a dangerous time to be driving.

Fridays, Saturdays, and Sundays accounted for 167 of the 357 fatal crashes (47%). Total crashes are more evenly distributed across days of the week, although Fridays had the most (16%) and Sundays had the least (10%).

As a general rule, harsh winter weather results in more traffic crashes. In other words, there are more ‘fender-benders’ during icy and snowy conditions. December of 2013 followed this axiom. Because of severe weather, December had the most crashes reported of any month (11,548). As a general rule, warmer weather produces more fatalities. July and September had the most with 49 and 46 respectively. As mentioned earlier, though, factors other than the weather are also involved. These include speeding, drinking and driving, not wearing a seat belt, and not paying attention while driving.

Can traffic crashes be prevented?

On average over the past decade, about 500 people have been killed and 30,000 injured every year on our roadways. Minnesota is still experiencing a number of traffic crashes that is cause for concern. In a public health sense, epidemics that kill and injure fewer people are usually attacked vigorously until they are no longer a threat to public safety.

The Department of Public Safety (DPS) uses the term “crash” instead of “accident.” This is because a traffic crash can be prevented. Coupled with enforcement, education, engineering, and emergency trauma solutions, changes in the behavior of all drivers will surely help attack the public threat of tragic roadway fatalities and injuries.

DPS implores the reader to spread the word: Driving is a privilege; aggressive driving is not. Buckle up. Drive at safe speeds. Pay attention. Never drive impaired.

TABLE 1.01

TRAFFIC SAFETY STATISTICS SUMMARY, 1965 - 2013

Year (a)	Total Crashes (b)	Persons Killed (c)	Persons Injured (d)	Licensed Drivers (million) (e)	Motor Vehicles (MV) (million) (f)	State Popu- lation (million) (g)	Vehicle Miles Traveled (VMT) (billion) (h)	Crash Rates Per 100,000 MV (i)	Crash	Crash	Fatality	Fatality	Fatality
									Rates Per 100,000 Popu- lation (j)	Rates Per 100 Mil VMT (k)	Rates Per 100,000 MV (l)	Rates Per 100,000 Popu- lation (m)	Rates Per 100 Mil VMT (n)
1965	83,329	875	50,847	1.85	1.86	3.57	16.8	4,480	2,334	496	47.0	24.5	5.20
1970	99,404	987	38,538	2.05	2.24	3.80	22.4	4,438	2,616	444	44.1	26.0	4.40
1975	123,206	777	41,931	2.51	2.69	3.92	25.6	4,580	3,143	481	28.9	19.8	3.00
1980	103,612	863	45,227	2.77	3.01	4.08	28.5	3,446	2,546	364	28.7	21.2	3.03
1981	97,879	763	43,739	2.83	3.09	4.10	28.6	3,163	2,387	342	24.7	18.6	2.67
1982	89,443	581	38,692	2.87	3.01	4.13	29.2	2,972	2,181	304	19.3	14.2	1.98
1983	97,371	558	41,086	2.90	3.03	4.15	30.5	3,214	2,356	319	18.4	13.5	1.83
1984	93,741	584	41,808	2.91	3.13	4.16	32.2	2,995	2,262	291	18.7	14.1	1.81
1985	99,168	610	44,316	3.04	3.22	4.19	33.1	3,080	2,380	300	18.9	14.7	1.84
1986	95,460	572	42,130	3.07	3.25	4.21	34.2	2,937	2,266	279	17.6	13.6	1.67
1987	94,095	530	42,091	3.10	3.31	4.25	35.1	2,840	2,233	268	16.0	12.6	1.51
1988	102,094	615	44,415	3.13	3.39	4.31	36.4	3,012	2,371	280	18.1	14.3	1.69
1989	105,996	605	45,404	3.16	3.46	4.35	37.6	3,060	2,435	282	17.5	13.9	1.61
1990	99,236	568	44,634	3.18	3.52	4.38	38.8	2,817	2,268	256	16.1	13.0	1.47
1991	101,419	531	42,748	3.22	3.51	4.43	39.3	2,890	2,288	258	15.1	12.0	1.35
1992	96,808	581	43,249	3.27	3.55	4.48	41.3	2,730	2,161	235	16.4	13.0	1.41
1993	100,907	538	44,987	3.28	3.48	4.52	42.3	2,899	2,234	239	15.5	11.9	1.27
1994	99,701	644	46,403	3.34	3.67	4.57	43.4	2,720	2,183	230	17.6	14.1	1.48
1995	96,022	597	47,161	3.39	3.68	4.61	44.1	2,606	2,083	218	16.2	13.0	1.35
1996	105,332	576	48,963	3.46	3.70	4.66	45.9	2,845	2,261	230	15.6	12.4	1.26
1997	98,625	600	46,064	3.49	3.77	4.69	46.9	2,065	2,105	210	12.6	12.8	1.28
1998	92,926	650	45,115	3.53	3.90	4.74	48.5	2,380	1,962	192	16.6	13.7	1.34
1999	96,813	626	44,538	3.54	3.92	4.78	50.7	2,470	2,027	191	16.0	13.1	1.24
2000	103,591	625	44,740	3.65	4.20	4.92	52.4	2,469	2,106	198	14.9	12.7	1.19
2001	98,984	568	42,223	3.69	4.38	4.97	53.2	2,262	1,991	186	13.0	11.4	1.07
2002	94,969	657	40,677	3.76	4.49	5.02	54.4	2,115	1,892	175	14.6	13.1	1.21
2003	N/A	655	N/A	3.79	4.56	5.09	55.4	N/A	N/A	N/A	14.4	12.9	1.18
2004	91,274	567	40,073	3.85	4.63	5.14	56.5	1,971	1,774	162	12.2	11.0	1.00
2005	87,813	559	37,686	3.87	4.69	5.21	56.5	1,873	1,687	155	11.9	10.7	0.99
2006	78,745	494	35,025	3.87	4.76	5.23	56.6	1,654	1,505	139	10.4	9.4	0.87
2007	81,505	510	35,318	3.91	4.82	5.26	57.4	1,691	1,548	142	10.6	9.7	0.89
2008	79,095	455	33,379	3.94	4.86	5.29	57.3	1,628	1,494	138	9.4	8.6	0.79
2009	73,498	421	31,074	3.95	4.87	5.30	57.0	1,510	1,387	129	8.7	7.9	0.74
2010	74,073	411	31,176	4.00	4.92	5.30	56.8	1,507	1,397	130	8.4	7.5	0.72
2011	72,117	368	30,295	4.01	4.98	5.33	56.7	1,450	1,352	127	7.4	6.9	0.65
2012	69,236	395	29,314	4.04	5.02	5.37	57.0	1,378	1,290	122	7.9	7.4	0.69
2013	77,707	387	30,653	4.07	5.09	5.40	57.0	1,527	1,439	136	7.6	7.2	0.68

Note:

- (1) By State statute, information on traffic crashes must be reported to the Department of Public Safety if the crashes involve motor vehicles in transport on Minnesota roadways, and have at least \$1,000 in property damage, or a motor vehicle occupant, pedestrian, or bicyclist is injured or killed.
- (2) The numbers shown for licensed drivers includes those who have only permits.
- (3) Vehicle miles traveled are provided by Minnesota Department of Transportation.
- (4) Numbers of licensed drivers and registered motor vehicles are provided by the Driver and Vehicle Services Division, Minnesota Department of Public Safety.

TABLE 1.02

**TRAFFIC CRASH TRENDS
2008 - 2013**

	2008	2009	2010	2011	2012	2013	Record High	
Fatal Crashes	420	371	364	334	349	357	878	(1973)
Injury Crashes	23,914	22,159	22,013	21,662	20,972	21,960	33,686	(1978)
Severe	1,248	1,036	974	954	1,044	981	5,109	(1984) ¹
Moderate	6,493	5,942	5,792	5,581	5,423	5,563	12,326	(1985) ¹
Minor	16,173	15,181	15,247	15,127	14,505	15,416	18,578	(1996) ¹
PDO Crashes	54,761	50,968	51,696	50,121	47,915	55,390	94,810	(1975)
Total Crashes	79,095	73,498	74,073	72,117	69,236	77,707	123,106	(1975)
Total Injuries	33,379	31,074	31,176	30,295	29,314	30,653	50,332	(1978)
Severe	1,553	1,271	1,191	1,159	1,268	1,216	6,573	(1984) ¹
Moderate	8,334	7,714	7,445	7,110	6,902	7,109	17,670	(1985) ¹
Minor	23,492	22,089	22,540	22,026	21,144	22,328	28,631	(1996) ¹
Total Fatalities	455	421	411	368	395	387	1,060	(1968)
Motor Vehicle Occupant	325	302	305	271	276	269	544	(2002) ¹
Motorcycle	72	53	45	42	55	60	121	(1980)
Pedestrian	25	41	36	40	40	35	157	(1971)
Bicycle	13	10	9	5	7	6	24	(1977)
All Terrain Vehicle	10	9	8	8	9	7	10	(2008)
Snowmobile	1	0	3	0	1	2	9	(1984)
Farm Equipment	0	3	2	2	2	5	N/A	N/A
Other Vehicle Type	9	3	3	0	5	3	N/A	N/A
Minnesota Fatality Rate³	0.79	0.74	0.72	0.65	0.69	0.68	23.6	(1934)
U.S. Fatality Rate³	1.26	1.15	1.11	1.10	1.14	1.11	18.0	(1925)
Minnesota Economic Loss (millions)	\$1,480	\$1,496	\$1,477	\$1,481	\$1,514	\$1,588	\$1,769	(2004) ⁴

¹ The available records on which these categories "record highs" are based only go back to 1984.

² Fatalities occurring in motor vehicle/train crashes are included in other categories as well.

³ Rate is based on 100 million vehicle miles of travel.

⁴ Economic cost estimates are based upon wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employers' uninsured costs, among other factors.

TABLE 1.03

2013 FATALITIES BY TRAFFIC ROLE, GENDER, AND AGE

Type of Vehicle	Position in Vehicle	Gender	Age								Age 70 and Older	Total
			0-9	10-19	20-29	30-39	40-49	50-59	60-69			
Car	Driver	Male	0	4	19	14	6	7	8	12	70	
		Female	0	7	6	2	4	5	9	6	39	
	Passenger	Male	2	3	7	0	2	1	0	1	16	
		Female	1	4	3	3	3	1	1	13	29	
Pickup	Driver	Male	0	0	5	4	7	6	2	3	27	
		Female	0	1	1	0	0	0	0	0	2	
	Passenger	Male	1	2	1	0	0	1	0	0	5	
		Female	2	1	1	0	0	2	0	0	6	
SUV	Driver	Male	0	2	5	5	1	3	4	4	24	
		Female	0	0	3	3	0	2	1	1	10	
	Passenger	Male	1	0	2	1	1	0	0	1	6	
		Female	0	3	0	0	0	0	0	0	3	
Van	Driver	Male	0	0	0	1	0	1	2	2	6	
		Female	0	0	0	0	0	0	1	3	4	
	Passenger	Male	0	1	0	1	0	0	2	0	4	
		Female	1	1	1	0	1	0	1	3	8	
Truck	Driver	Male	0	0	1	0	1	3	2	2	9	
		Female	0	0	0	0	0	0	0	0	0	
	Passenger	Male	0	0	0	0	0	0	0	0	0	
		Female	0	0	0	0	0	0	0	0	0	
Motorcycle	Driver	Male	0	1	10	8	5	15	6	5	50	
		Female	0	0	0	0	1	1	1	0	3	
	Passenger	Male	0	0	0	0	0	0	0	0	0	
		Female	0	0	0	0	2	3	2	0	7	
Other Motor Vehicle	Driver	Male	0	0	3	0	1	5	3	1	13	
		Female	0	1	0	1	0	0	0	0	2	
	Passenger	Male	1	0	0	0	0	0	0	0	1	
		Female	0	0	1	0	0	1	0	0	2	
Bicyclist	Male	1	1	0	0	0	1	0	1	4		
	Female	0	0	2	0	0	0	0	0	2		
Pedestrian	Male	3	2	6	3	4	2	3	2	25		
	Female	0	0	0	0	2	3	2	3	10		
Total Fatalities		Male	9	16	59	37	28	45	32	34	260	
		Female	4	18	18	9	13	18	18	29	127	
		Total	13	34	77	46	41	63	50	63	387	

Note: The vehicle types for the 18 fatalities in the 'Other Motor Vehicle' category consisted of: Seven ATVs, 5 farm equipment, 2 snowmobiles, 1 moped, 1 motorhome, 1 roadway maintenance vehicle, and 1 unknown vehicle type.

TABLE 1.04

AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2013 CRASHES

Age Group	Males Killed	Females Killed	Total Killed	Males Injured	Females Injured	Unknown Injured	Total Injured
00 - 03	2	2	4	183	135	4	322
04 - 10	7	2	9	424	423	5	852
11 - 14	2	3	5	319	354	6	679
Total < 15:	11	7	18	926	912	15	1,853
15	2	1	3	109	148	4	261
16	4	4	8	261	391	3	655
17	1	1	2	352	389	3	744
18	1	6	7	405	395	2	802
19	6	3	9	390	428	2	820
20	5	0	5	399	396	3	798
Total 15-20:	19	15	34	1,916	2,147	17	4,080
Total < 21:	26	26	52	2,842	3,059	32	5,933
00 - 04	2	2	4	244	171	4	419
05 - 09	7	2	9	308	320	5	633
10 - 14	2	3	5	374	421	6	801
15 - 19	14	15	29	1,517	1,751	14	3,282
20 - 24	33	9	42	1,865	2,008	9	3,882
25 - 29	26	9	35	1,519	1,724	2	3,245
30 - 34	20	3	23	1,346	1,474	6	2,826
35 - 39	17	6	23	1,059	1,147	2	2,208
40 - 44	14	3	17	1,010	1,134	3	2,147
45 - 49	14	10	24	1,007	1,130	4	2,141
50 - 54	23	9	32	1,075	1,219	3	2,297
55 - 59	22	9	31	934	998	2	1,934
60 - 64	18	9	27	735	753	3	1,491
65 - 69	14	9	23	408	505	2	915
70 - 74	9	5	14	284	388	1	673
75 - 79	9	8	17	231	268	1	500
80 - 84	8	10	18	148	189	1	338
85 & Older	8	5	13	141	143	0	284
Not Stated	0	1	1	151	212	274	637
Total:	260	127	387	14,356	15,955	342	30,653

See Figure 1.01 on page 15 for a graphical depiction of how many persons were killed and injured by age and gender groups.

TABLE 1.05

AGE AND GENDER OF DRIVERS IN 2013 CRASHES

Age Group	Male Drivers in Fatal Crashes	Female Drivers in Fatal Crashes	Drivers Gender Not Stated in Fatal Crashes	Total in Fatal Crashes	Male Drivers in All Crashes	Female Drivers in All Crashes	All Crashes Where Drivers Gender is Not Stated	Total in All Crashes
<15	0	0	0	0	36	13	2	51
15	0	1	0	1	81	77	2	160
16	6	7	0	13	1,432	1,350	3	2,785
17	2	1	0	3	1,711	1,563	3	3,277
18	9	5	0	14	1,870	1,580	10	3,460
19	4	3	0	7	1,964	1,602	10	3,576
20	10	1	0	11	1,998	1,715	8	3,721
All <21	31	18	0	49	9,092	7,900	38	17,030
00 – 04	0	0	0	0	1	0	0	1
05 – 09	0	0	0	0	7	0	0	7
10 – 14	0	0	0	0	28	13	2	43
15 – 19	21	17	0	38	7,058	6,172	28	13,258
20 – 24	45	16	0	61	9,724	8,526	69	18,319
25 – 29	36	14	0	50	8,323	7,048	82	15,453
30 – 34	36	8	0	44	7,688	5,892	60	13,640
35 – 39	33	8	0	41	6,227	4,715	56	10,998
40 – 44	27	10	0	37	6,080	4,357	31	10,468
45 – 49	34	11	0	45	5,865	4,273	37	10,175
50 – 54	43	11	0	54	6,152	4,185	36	10,373
55 – 59	47	11	0	58	5,291	3,486	21	8,798
60 – 64	32	10	0	42	3,996	2,632	23	6,651
65 – 69	21	12	0	33	2,452	1,700	10	4,162
70 – 74	12	4	0	16	1,600	1,099	8	2,707
75 – 79	11	4	0	15	1,090	859	7	1,956
80 – 84	9	4	0	13	812	579	4	1,395
85+	8	3	0	11	624	446	1	1,071
Unk	1	0	9	10	535	252	4,432	5,219
Total	416	143	9	568	73,553	56,234	4,907	134,694

Most crashes involve more than one driver, causing the total number of drivers to exceed the total number of crashes. (Pedestrians and bicyclists are not counted in this table.)

TABLE 1.06

LICENSED VS. CRASH-INVOLVED DRIVERS BY AGE, 2013

Age Group	Percentage of All Licensed Drivers	Percentage of Drivers in Fatal Crashes	Percentage of Drivers in Injury Crashes	Percentage of Drivers in Property Damage Crashes	Percentage of Drivers in All Crashes
14 & Younger	0.0%	0.0%	0.1%	0.0%	0.0%
15	0.6	0.2	0.1	0.1	0.1
16	1.2	2.3	2.0	2.1	2.1
17	1.3	0.5	2.4	2.5	2.4
18	1.4	2.5	2.5	2.6	2.6
19	1.5	1.2	2.7	2.7	2.7
20	1.6	1.9	2.8	2.8	2.8
Total < 21	7.7%	8.6%	12.5%	12.7%	12.7%
15 - 19	6.1%	6.7%	9.6%	10.0%	9.9%
20 - 24	8.3	10.7	13.3	13.8	13.6
25 - 29	8.8	8.8	11.4	11.6	11.5
30 - 34	9.0	7.7	10.4	10.1	10.2
35 - 39	7.9	7.2	8.5	8.1	8.2
40 - 44	8.1	6.5	7.9	7.8	7.8
45 - 49	8.4	7.9	7.9	7.5	7.6
50 - 54	9.6	9.5	8.0	7.6	7.7
55 - 59	9.0	10.2	6.8	6.4	6.6
60 - 64	7.6	7.4	5.4	4.8	5.0
65 - 69	5.8	5.8	3.2	3.0	3.1
70 - 74	4.2	2.8	2.2	2.0	2.0
75 - 79	3.0	2.6	1.6	1.4	1.5
80 - 84	2.2	2.3	1.1	1.0	1.0
85 & Older	2.0	1.9	0.9	0.8	0.8
Age Not Stated	0.0	1.8	1.9	4.7	3.9
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number	4,079,256				

See Figure 1.02 on page 15 for a graphical depiction of crash-involved drivers compared to licensed drivers by age group.

FIGURE 1.01
AGE AND GENDER OF PERSONS KILLED OR INJURED, 2013

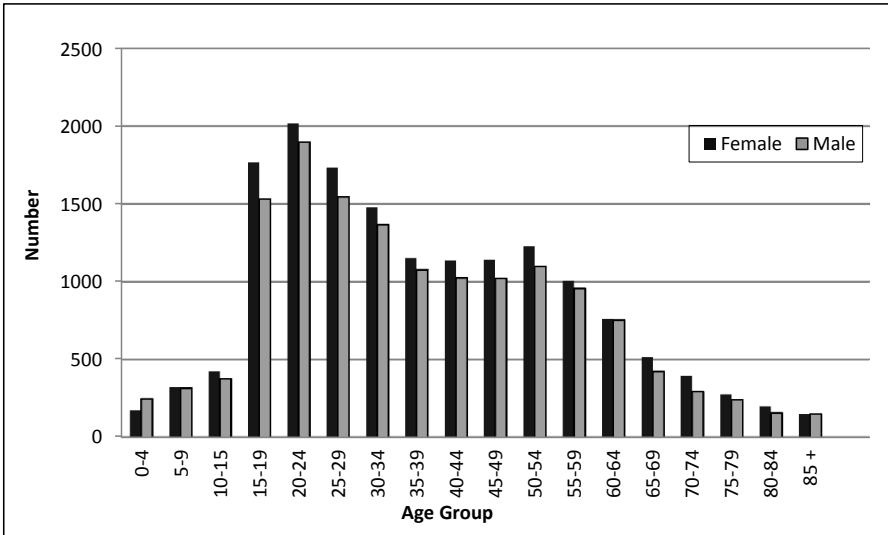


FIGURE 1.02
LICENSED VS CRASH-INVOLVED DRIVERS BY AGE, 2013

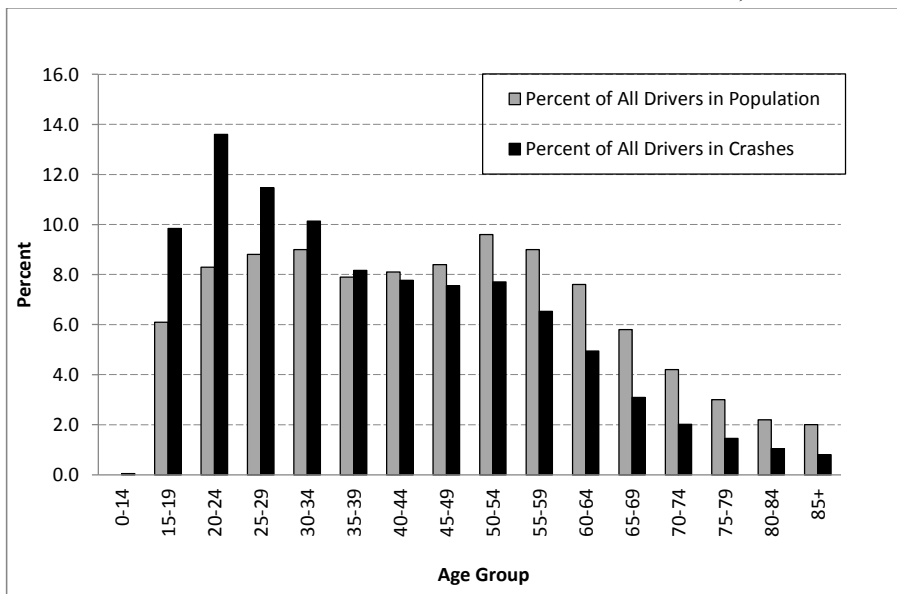


TABLE 1.07

**PERCENTAGE OF DRIVERS IN 2013 CRASHES
BY AGE AND FIRST HARMFUL EVENT**

First Harmful Event	Age Group 15-19	Age Group 20-24	Age Group 25-29	Age Group 30-34	Age Group 35-64	Age Group 65-79	Age Group 80 +	All Ages
Collision With:								
Other Motor Vehicle	73.6%	76.0%	79.1%	80.3%	81.8%	82.5%	83.7%	79.7%
Parked Motor Vehicle	3.7	3.4	3.3	3.3	2.8	3.2	3.8	4.3
Bicycle	0.3	0.4	0.5	0.6	0.6	0.9	1.5	0.6
Pedestrian	0.3	0.6	0.5	0.6	0.6	0.8	0.9	0.6
Deer	0.7	1.0	1.2	1.5	2.2	2.0	0.7	1.6
Other Animal	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2
Railroad Train	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Fixed Object	14.4	13.1	10.7	9.5	7.8	7.3	6.4	9.7
Other Object	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3
Non-Collision:								
Overtake	5.4	3.8	3.3	2.8	2.4	2.1	1.7	2.9
Other Non-Collision	0.2	0.4	0.4	0.4	0.5	0.3	0.2	0.4
Other or Unknown	0.9	0.8	0.7	0.6	0.8	0.8	0.8	0.8
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Drivers	13,258	18,319	15,453	13,640	57,463	8,825	2,472	134,694

Percentages are based on the number of crash-involved drivers in each age group (some driver ages are not available). Bicyclists and pedestrians are not counted as drivers in this table.

TABLE 1.08

DRIVERS IN 2013 CRASHES BY PHYSICAL CONDITION*

Physical Condition	Drivers in Fatal Crashes	Drivers in Injury Crashes	Drivers in Property Damage Crashes	Drivers in All Crashes
Normal	362	33,543	78,957	112,862
Under the Influence	30	1,086	1,511	2,627
Had Been Drinking	29	451	433	913
Commercial Driver .04+	0	2	7	9
Had Been Using Drugs	3	75	58	136
Aggressive	1	22	20	43
Fatigued/Asleep	5	166	224	395
Physical Disability	0	38	38	76
Ill	2	81	59	142
Other	9	199	135	343
Unknown	127	3,405	13,616	17,148
Total	568	39,068	95,058	134,694

* As noted by police officer on accident report. Note that in the absence of alcohol or drug test results (not usually available at the time the crash report is completed); officers are conservative in reporting impairment. Compare these figures with those from Section II. Pedestrians and bicyclists are excluded from this table.

TABLE 1.09

**SINGLE-VEHICLE CRASHES:
CONTRIBUTING FACTORS, BY PERCENT, WITHIN DRIVER AGE GROUPS, 2013**

Contributing Factor	Age Group 15-19	Age Group 20-24	Age Group 25-29	Age Group 30-34	Age Group 35-64	Age Group 65-79	Age Group 80+	All Ages
Human Factors								
Illegal/Unsafe Speed	24.8%	30.4%	28.9%	27.5%	24.4%	20.0%	15.7%	26.3%
Driver Inattention/Distraction	12.1	11.3	10.7	10.8	11.1	17.0	21.6	11.6
Overcorrecting	9.3	7.6	7.7	6.1	5.8	5.4	4.7	6.9
Chemical Impairment	2.8	9.0	9.2	8.9	6.7	2.1	1.3	6.7
Driver Inexperience	13.5	3.8	1.9	1.7	1.4	0.4	0.0	4.0
Improper/Unsafe Lane Use	1.7	2.1	2.6	2.5	2.6	2.3	5.1	2.5
Improper Turn	0.8	0.4	0.5	0.5	1.3	0.9	1.7	0.9
Disregard for Traffic Control Device	0.4	0.4	0.6	0.5	0.6	0.9	1.7	0.6
Following Too Closely	0.4	0.3	0.6	0.5	0.7	0.9	0.0	0.5
Vision Obscured	0.4	0.4	0.4	0.3	0.6	0.8	1.3	0.5
Driving Left of Center-Not Passing	0.4	0.3	0.3	0.4	0.3	1.0	1.7	0.4
Unsafe Backing	0.2	0.3	0.1	0.3	0.3	0.5	0.9	0.3
Improper Passing/Overtaking	0.2	0.2	0.2	0.4	0.2	0.4	0.0	0.2
Failure to Yield Right of Way	0.1	0.2	0.1	0.2	0.3	0.9	0.0	0.2
Driver on Cell Phone or CB Radio	0.3	0.1	0.2	0.1	0.1	0.2	0.0	0.2
Improper Parking, Starting, Stopping	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.1
Impeding Traffic	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other Human Factor	3.8	3.1	3.4	3.2	4.8	9.7	15.7	4.3
Vehicular Factors								
Skidding	8.7	8.1	8.9	9.8	10.0	10.0	8.1	9.2
Defective Equipment	0.9	0.9	1.3	1.2	1.8	1.2	0.0	1.3
Other Vehicular Factor	0.6	0.9	0.8	0.7	1.0	0.8	1.7	0.8
Miscellaneous Factors								
Weather	15.7	15.9	16.8	19.2	19.3	18.6	14.1	17.4
Other	2.7	4.0	4.7	5.3	6.7	6.0	4.2	5.0
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	3,870	4,360	2,937	2,287	7,831	1,056	236	22,875
Drivers for Whom There Was "No Clear Contributing Factor"								
	195	306	280	245	1,282	135	24	2,501
Total Number of Drivers	2,788	3,375	2,415	1,939	7,432	1,027	223	20,045

Percentages are based on all contributing factors cited within each age group (some driver ages are not available). Zero, one, or two contributing factors may be associated with each driver. The percentages may not sum to 100% due to rounding. Contributing factors for bicyclists and pedestrians are excluded.

For contributing factors in multiple-vehicle crashes, see Table 1.10. For contributing factors in crashes at different levels of severity, see Table 1.17.

TABLE 1.10

**MULTIPLE-VEHICLE CRASHES:
CONTRIBUTING FACTORS, BY PERCENT, WITHIN DRIVER AGE GROUPS, 2013**

Contributing Factor	Age Group 15-19	Age Group 20-24	Age Group 25-29	Age Group 30-34	Age Group 35-64	Age Group 65-79	Age Group 80 +	All Ages
Human Factors								
Driver Inattention or Distraction	23.8%	24.2%	22.5%	22.2%	21.0%	20.6%	16.6%	21.8%
Failure to Yield Right of Way	18.1	16.0	15.4	15.5	18.1	28.4	38.1	18.4
Improper or Unsafe Lane Use	3.3	4.4	5.0	5.1	5.7	6.4	5.4	5.4
Following Too Closely	12.7	14.8	14.5	14.5	12.5	6.5	5.7	12.7
Illegal or Unsafe Speed	8.1	9.5	8.9	8.3	6.8	3.9	2.9	7.6
Improper Passing or Overtaking	0.9	1.2	1.3	1.4	1.5	1.3	1.9	1.5
Disregard for Traffic Control Device	4.0	4.2	4.7	4.6	4.5	6.3	6.6	4.7
Improper Turn	2.0	1.7	1.9	1.6	2.4	3.2	3.9	2.2
Vision Obscured	1.9	1.5	1.7	1.8	1.9	2.7	2.2	1.8
Chemical Impairment	0.6	1.9	2.8	2.6	1.9	0.5	0.1	1.7
Unsafe Backing	1.1	0.9	1.0	1.6	2.0	2.5	2.3	1.7
Driver Inexperience	7.0	1.6	1.0	0.8	0.5	0.2	0.1	1.6
Improper Parking, Starting, Stopping	1.0	0.8	1.0	1.2	1.2	1.3	1.3	1.1
Overcorrecting	0.8	1.0	0.9	0.6	0.7	0.5	0.3	0.7
Driving Left of Center-Not Passing	0.5	0.6	0.5	0.5	0.8	0.8	0.6	0.6
Impeding Traffic	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.2
Improper or No Signal	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2
Driver on Cell Phone or CB Radio	0.2	0.2	0.1	0.2	0.1	0.0	0.9	0.1
Failure to Use Lights	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1
Other Human Factor	1.3	1.8	1.8	2.0	2.4	2.7	3.9	2.1
Vehicular Factors								
Skidding	3.7	3.7	3.6	3.9	3.8	2.5	1.4	3.5
Defective Equipment	0.7	0.8	0.7	0.8	0.6	0.3	0.2	0.6
Other Vehicular Factor	0.4	0.4	0.4	0.6	0.7	0.6	0.6	0.5
Miscellaneous Factors								
Weather	5.7	6.2	6.7	6.4	6.8	4.7	2.5	6.1
Other	2.0	2.4	3.2	3.4	2.8	3.5	2.6	3.2
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	9,617	11,608	8,506	6,783	26,196	4,737	1,807	71,669
Drivers for Whom There Was "No Clear Contributing Factor"								
	3,006	5,362	5,783	5,727	26,233	3,477	675	50,735
Total Number of Drivers	10,469	14,942	13,033	11,689	49,998	7,796	2,249	114,967

Percentages are based on all contributing factors cited within each age group (some driver ages are not available). Zero, one, or two contributing factors may be associated with each driver. The percentages may not sum to 100% due to rounding. Contributing factors for bicyclists and pedestrians are excluded.

For contributing factors in single-vehicle crashes, see Table 1.09. For contributing factors in crashes at different levels of severity, see Table 1.17.

TABLE 1.11

**PERSONS INVOLVED IN CRASHES BY TYPE OF
VEHICLE OCCUPIED AND INJURY SEVERITY, 2013**

Vehicle Type	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total Injured	Not Injured	Total Persons
Automobile	154	491	3,333	12,003	15,827	78,837	94,818
Pickup Truck	39	113	674	1,786	2,573	16,197	18,809
Sport Utility Vehicle	43	170	1,163	4,349	5,682	31,287	37,012
Van	22	83	543	1,946	2,572	13,721	16,315
Motor Home/Camper	1	0	1	9	10	115	126
Limousine	0	0	0	7	7	74	81
Taxi Cab	0	0	26	154	180	704	884
Police Vehicle	0	1	27	76	104	381	485
Fire Department Vehicle	0	0	0	1	1	57	58
School Bus	0	2	9	95	106	3,826	3,932
Other Bus	0	0	13	139	152	1,162	1,314
Ambulance	0	0	0	12	12	107	119
Military Vehicle	0	0	1	1	2	11	13
Snowmobile	2	4	7	8	19	11	32
All-Terrain Vehicle	7	8	17	16	41	14	62
Farm Tractor of Equipment	5	2	6	12	20	115	140
Motorcycle	58	166	533	398	1,097	198	1,353
Motor Scooter/Motorbike*	2	6	19	20	45	5	52
Motorized Bicycle (Moped)	1	5	32	21	58	3	62
Hit and Run Vehicle	0	2	12	45	59	2,293	2,352
Road Maintenance Vehicle	2	1	11	30	42	752	796
Other Public Owned Vehicle	0	0	2	21	23	200	223
Single Truck (2-axle, 6 tire)	2	1	13	41	55	774	831
Single Truck (3 or more axles)	0	2	17	19	38	376	414
Single Truck with Trailer	1	2	10	18	30	368	399
Truck Tractor with No Trailer	0	0	1	2	3	77	80
Truck Tractor with Semi Trailer	6	8	61	88	157	2,393	2,556
Truck Tractor with Double Trailers	0	0	1	4	5	48	53
Truck Tractor with Triple Trailers	0	0	0	0	0	1	1
Other or Unknown Truck Type	0	0	3	4	7	282	289
Other Vehicle Type	0	2	7	12	21	213	234
Unknown Vehicle Type	1	1	7	9	17	1,146	1,164
Bicycle	6	50	256	515	821	42	869
Pedestrian	35	96	304	467	867	24	926
Total	387	1,216	7,109	22,328	30,653	155,814	186,854

* On the accident report form, police may show that a vehicle is a "motorcycle," a "motor scooter/motorbike," or a "moped or motorized bicycle." Since 1986, however, the law recognizes just two categories. If the vehicle has an engine capacity of more than 50 cc, it is classified as a motorcycle; if it has 50 cc or smaller engine capacity, it is classified as a motorized bicycle. The term moped is short for motorized pedal cycle, which is the same as motorized bicycle. (Section 4 of this book now combines "motorcycle" and "motor scooter/motorbike").

TABLE 1.12
TYPES OF MOTOR VEHICLES IN 2013 CRASHES

Motor Vehicle Type*	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in Property Damage Crashes	Vehicles in All Crashes
Automobile	204	21,145	53,744	75,093
Pickup Truck	82	4,091	10,986	15,159
Sport Utility Vehicle	95	7,767	19,104	26,966
Van	43	3,177	7,195	10,415
Motor Home/Camper	1	17	45	63
Limousine	0	10	54	64
Taxi Cab	0	233	423	656
Police Vehicle	1	125	333	459
Fire Department Vehicle	0	3	28	31
School Bus	3	132	601	736
Other Bus	3	131	442	576
Ambulance	0	12	40	52
Military Vehicle	0	4	5	9
Snowmobile	2	18	8	28
All-Terrain Vehicle*	7	36	10	53
Farm Tractor or Equipment	6	58	76	140
Motorcycle	57	1,025	158	1,240
Motor scooter/Motorbike**	2	44	8	54
Motorized Bicycle (Moped)	1	57	4	62
Hit and Run Vehicle	3	334	1,926	2,263
Road Maintenance Vehicle	6	130	624	760
Other Public Owned Vehicle	0	39	139	178
Single Truck (2-axle, 6-tire)	5	180	562	747
Single Truck (3 or more axles)	8	106	286	400
Single Truck with Trailer	5	80	257	342
Truck Tractor with No Trailer	1	15	64	80
Truck Tractor with Semi Trailer	43	549	1,854	2,446
Truck Tractor with Double Trailers	0	10	39	49
Truck Tractor with Triple Trailers	0	0	1	1
Other or Unknown Truck Type	0	53	210	263
Other Vehicle Type	1	49	166	216
Unknown Vehicle Type	2	96	1,070	1,168
Total***	581	39,726	100,462	140,769

* Snowmobiles and ATV's in crashes are not counted in this table unless the crash occurred on a public roadway.

** On the accident report form, police may show that a vehicle is a "motorcycle," a "motor scooter/motorbike," or a "moped or motorized bicycle." Since 1986, however, the law recognizes just two categories. If the vehicle has an engine capacity of more than 50 cc, it is classified as a motorcycle; if it has 50 cc or smaller engine capacity, it is classified as a motorized bicycle. The term moped is short for motorized pedal cycle, which is the same as motorized bicycle. (Section 4 of this book now combines "motorcycle" and "motor scooter/motorbike").

*** Most crashes involve more than one vehicle, causing total vehicles to exceed total crashes. Bicyclists and pedestrians are excluded from this table.

TABLE 1.13
2013 CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured	Fatality Rate Per 1,000 Crashes
Collision With:							
Another Motor Vehicle	168	14,099	35,974	50,241	189	21,207	3.8
Parked Motor Vehicle	7	502	4,669	5,178	9	670	1.7
Bicycle	7	813	32	852	7	829	8.2
Pedestrian	34	806	8	848	35	861	41.3
Deer	8	250	1,838	2,096	8	302	3.8
Other Animal	0	45	155	200	0	58	0.0
Railroad Train	5	17	29	51	5	20	98.0
Fixed Object	55	2,988	9,766	12,809	58	3,587	4.5
Non-Fixed Object	0	59	232	291	0	68	0.0
Other Collision Type	2	153	232	387	2	186	5.2
Unk Collision Type	0	6	7	13	0	10	0.0
Runaway Car	0	2	13	15	0	2	0.0
Non-Collision:							
Overturn	59	1,909	1,946	3,914	60	2,491	15.3
Submersion	6	11	37	54	7	17	129.6
Fire/Explosion	0	0	30	30	0	0	0.0
Other Non-Collision	4	140	233	377	5	154	13.3
Unknown Crash Type:	2	160	189	351	2	191	5.7
Total	357	21,960	55,390	77,707	387	30,653	5.0

TABLE 1.14
2013 "HIT-AND-RUN" CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	2	649	2,719	3,370	2	882
Parked Motor Vehicle	0	57	1,999	2,056	0	69
Bicycle	3	100	3	106	3	102
Pedestrian	6	164	3	173	6	172
Deer	0	0	3	3	0	0
Other Animal	0	0	0	0	0	0
Railroad Train	0	0	2	2	0	0
Fixed Object	0	129	851	980	0	154
Non-Fixed Object	0	3	15	18	0	7
Other Collision Type	0	12	29	41	0	16
Unk Collision Type	0	1	1	2	0	2
Non-Collision:						
Overturn	1	14	13	28	1	28
Submersion	0	1	2	3	0	1
Other Non-Collision	0	3	3	6	0	5
Unknown Crash Type	0	11	18	29	0	15
Total	12	1,144	5,661	6,817	12	1,453

TABLE 1.15

2013 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Traffic Signal	32	5,763	12,136	17,931	35	8,264
Overhead Flashers	0	15	39	54	0	20
Stop Sign-All Approaches	5	420	1,174	1,599	6	558
Other Stop Sign	58	3,112	6,614	9,784	62	4,676
Yield Sign	5	332	836	1,173	5	496
Flagman, Officer, School Patrol	0	24	44	68	0	40
School Bus Stop Arm	0	14	23	37	0	20
School Zone Sign	0	6	15	21	0	14
No Passing Zone	8	98	169	275	11	149
RR Crossing Gate	0	8	33	41	0	12
RR Flashing Lights	0	6	14	20	0	10
RR Crossing Stop Sign	2	6	5	13	2	6
RR Overhead Flashing Lights	0	2	1	3	0	4
RR Overhead Lights and Gate	2	8	26	36	2	8
RR Crossbuck	0	1	14	15	0	1
Other Device	1	181	579	761	1	254
Not Applicable	241	11,876	33,330	45,447	260	16,004
Unknown	3	88	338	429	3	117
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.16

2013 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	215	12,948	29,894	43,057	235	18,139
Cloudy	95	5,177	12,931	18,203	99	7,226
Rain	11	1,028	2,320	3,359	14	1,477
Snow	16	1,879	7,155	9,050	18	2,588
Sleet/Hail/Freezing Rain	1	415	1,257	1,673	1	552
Fog/Smog/Smoke	2	79	155	236	2	112
Blowing Sand/Dust/Snow	7	253	750	1,010	8	337
Severe Crosswinds	1	17	81	99	1	21
Other	1	36	113	150	1	43
Not Stated/Unknown	8	128	734	870	8	158
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.17
CONTRIBUTING FACTORS IN 2013 CRASHES

Contributing Factors	Percent of Factors Cited in Crashes by Severity of Crash			Number of Crashes in which the Factor was Cited			Number of People Affected	
	Fatal Crashes	Injury Crashes	Property Damage Crashes	Fatal Crashes	Injury Crashes	Property Damage Crashes	Killed	Injured
Human Factors								
Driver Inattention/Distracted	13.2	20.0	18.8	63	5,618	11,900	68	8,034
Failure to Yield Right of Way	14.9	15.8	13.2	70	4,379	8,204	75	6,640
Illegal/Unsafe Speed	15.3	11.4	12.3	71	3,227	7,892	76	4,549
Following Too Closely	1.0	8.6	10.1	4	2,264	6,159	5	3,127
Improper/Unsafe Lane Use	3.1	3.2	5.4	15	919	3,411	19	1,305
Disregard Traffic Cntl Device	5.4	5.4	3.0	26	1,514	1,889	27	2,446
Chemical Impairment	7.2	4.0	2.4	35	1,148	1,513	36	1,658
Improper Turn	1.4	1.3	2.2	7	379	1,376	7	550
Driver Inexperience	3.5	2.1	2.2	17	612	1,412	20	908
Overcorrecting	6.0	2.7	2.0	29	775	1,286	30	1,025
Unsafe Backing	0.2	0.3	1.8	1	84	1,075	1	109
Vision Obscured	0.2	1.7	1.4	1	451	857	1	605
Improper Passing/Overtaking	0.6	0.7	1.3	3	212	854	3	314
Improper Park/Start/Stop	0.2	0.9	1.0	1	243	631	1	327
Driving Left of Ctr(Not Passing)	6.4	0.8	0.4	30	229	284	38	415
Impeding Traffic	0.6	0.2	0.2	3	53	121	3	74
Improper/No Signal	0.0	0.1	0.1	0	31	85	0	45
Driver on Phone/CB Radio	0.4	0.2	0.1	2	48	64	2	56
Failure to Use Lights	0.0	0.1	0.1	0	39	28	0	44
Non-Motorist Error	1.4	0.7	0.0	7	200	7	7	207
Other Human Factor	5.0	3.3	2.4	24	911	1,443	25	1,238
Vehicular Factors								
Skidding	1.9	3.9	5.3	9	1,082	3,273	12	1,435
Defective Equipment	0.6	0.7	0.7	3	202	444	4	287
Other Vehicular Factor	0.6	0.6	0.8	3	165	480	4	218
Miscellaneous Factors								
Weather	4.7	7.2	9.5	19	1,788	5,493	19	2,403
Other	6.2	4.0	3.7	26	1,008	2,064	28	1,384
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	485	29,299	66,213					
Vehicles Where There Was "No Clear Contributing Factor"	255	17,552	39,891					
Total Number of Vehicles	623	41,426	100,511					

Zero, one, or two contributing factors may be associated with a vehicle, causing the number of factors cited to vary from the number of crashes, vehicles, and persons affected by the factors. Note that in the absence of alcohol or drug test results (not usually available at the time the crash report is completed); officers are conservative in reporting impairment. Compare these figures with those from Section II. Bicyclists and pedestrians are considered as vehicles in this table, and factors associated with them are included. For contributing factors by age of drivers, see tables 1.09 and 1.10.

TABLE 1.18
2013 CRASHES BY LIGHT CONDITION

Light Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Daylight	214	15,524	38,105	53,843	232	21,757
Dawn (Morning)	11	487	1,465	1,963	11	647
Dusk (Evening)	13	577	1,388	1,978	13	823
Dark/Street Lights On	37	3,545	9,710	13,292	41	4,896
Dark/No Street Lights	76	1,742	4,092	5,910	84	2,421
Other/Unknown	6	85	630	721	6	109
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.19
2013 CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	272	14,370	31,189	45,831	294	20,328
Wet	34	2,801	6,732	9,567	36	3,923
Snow/Slush	14	1,854	7,335	9,203	16	2,502
Ice or Packed Snow	29	2,703	9,449	12,181	33	3,601
Other	3	168	307	478	3	226
Not Stated/Unknown	5	64	378	447	5	73
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.20
2013 CRASHES BY ROAD DESIGN

Road Design	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Freeway (Including Ramps)	31	3,906	11,797	15,734	37	5,312
Other Divided Highway	46	3,244	6,700	9,990	48	4,720
One-Way Street	3	486	1,373	1,862	3	663
4-6 Lanes Undivided	26	4,155	9,425	13,606	27	5,883
3 Lanes Undivided	3	270	489	762	3	397
2 Lane—1 Each Way	234	8,155	19,368	27,757	255	11,391
Alley	0	61	283	344	0	69
Other Road Design	9	773	1,772	2,554	9	1,039
Not Stated/Unknown	5	910	4,183	5,098	5	1,179
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.21

2013 CRASHES BY DIAGRAM

Diagram	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Rear End	24	6,660	16,209	22,893	27	9,397
Sideswipe Passing	7	944	7,740	8,691	7	1,237
Left Turn – Oncoming Traffic	11	1,116	2,396	3,523	11	1,627
Ran Off Road – Left	47	1,797	4,427	6,271	51	2,270
Right Angle	80	4,545	8,479	13,104	85	6,924
Right Turn – Cross Street Traffic	1	236	679	916	1	308
Ran Off Road – Right	59	2,285	5,104	7,448	60	2,783
Head On	68	1,386	2,466	3,920	79	2,194
Sideswipe Opposing	8	395	1,262	1,665	9	571
Other Diagram	34	2,001	4,479	6,514	38	2,625
Not Applicable	5	459	1,371	1,835	5	541
Unknown / Incomplete	13	136	778	927	14	176
Total	357	21,960	55,390	77,707	387	30,653

Note: It is known that there is significant error in the “diagram” field on the Police Accident Report. Two specific types of error are most common: First, the field is often left blank. Second, a large proportion (estimated by some traffic engineers to be as high as one-half) of crashes coded as “right-angle” are not right angle crashes, but are some other type of crash--most frequently “left turn into oncoming traffic.”

TABLE 1.22

2013 CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
250,000 & Over	21	4,331	12,900	17,252	25	5,957
100,000-249,999	3	436	973	1,412	3	606
50,000 - 99,999	22	3,922	10,032	13,976	23	5,297
25,000 - 49,999	23	2,820	7,119	9,962	25	3,879
10,000 - 24,999	31	3,261	8,712	12,004	32	4,561
5,000 - 9,999	18	1,193	3,185	4,396	18	1,644
2,500 - 4,999	8	711	1,923	2,642	8	997
1,000 - 2,499	8	395	1,025	1,428	9	577
Under 1,000	223	4,891	9,521	14,635	244	7,135
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.23

2013 CRASHES BY TYPE OF ROADWAY

Type of Roadway	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	8	2,494	7,324	9,826	10	3,367
US Trunk Hwy	13	1,383	3,652	5,048	13	1,966
MN Trunk Hwy	26	2,383	5,775	8,184	28	3,327
County State Aid Hwy	46	4,560	9,926	14,532	50	6,493
County Road	0	89	226	315	0	132
Township Road	0	1	4	5	0	1
Municipal State Aid Hwy	14	3,602	9,638	13,254	14	4,823
Municipal Street	10	1,407	6,067	7,484	10	1,781
Other Road	1	44	309	354	1	54
Urban Total	118	15,963	42,921	59,002	126	21,944
Rural						
Interstate	12	552	1,919	2,483	15	791
US Trunk Hwy	43	1,174	2,546	3,763	47	1,785
MN Trunk Hwy	72	1,478	2,676	4,226	80	2,264
County State Aid Hwy	85	1,867	3,224	5,176	91	2,586
County Road	10	249	423	682	10	339
Township Road	17	407	576	1,000	18	582
Municipal State Aid Hwy	0	1	6	7	0	1
Municipal Street	0	250	980	1,230	0	338
Other Road	0	19	119	138	0	23
Rural Total	239	5,997	12,469	18,705	261	8,709
All Roadways						
Interstate	20	3,046	9,243	12,309	25	4,158
US Trunk Hwy	56	2,557	6,198	8,811	60	3,751
MN Trunk Hwy	98	3,861	8,451	12,410	108	5,591
County State Aid Hwy	131	6,427	13,150	19,708	141	9,079
County Road	10	338	649	997	10	471
Township Road	17	408	580	1,005	18	583
Municipal State Aid Hwy	14	3,603	9,644	13,261	14	4,824
Municipal Street	10	1,657	7,047	8,714	10	2,119
Other Road	1	63	428	492	1	77
Total	357	21,960	55,390	77,707	387	30,653

("Urban" refers to an area having a population of 5,000 or more; "rural" refers to an area of less than 5,000.)

TABLE 1.24

2013 COUNTY CRASH REPORT

County	2013					Number Killed 2013	Number Killed 2012	Number Injured 2013	Number Injured 2012
	Crashes Fatal	Crashes Injury	Crashes Property Damage	Crashes Total	Total Crashes 2012				
Aitkin	2	69	97	168	189	2	3	96	90
Anoka	11	1,143	2,101	3,255	2,874	12	25	1,634	1,536
Becker	3	119	165	287	283	3	4	174	166
Beltrami	6	128	331	465	443	6	7	189	199
Benton	8	144	415	567	523	8	8	207	207
Big Stone	2	10	41	53	64	2	1	11	32
Blue Earth	4	285	787	1,076	1,014	4	5	395	408
Brown	2	92	202	296	244	2	1	117	106
Carlton	3	120	279	402	304	3	4	185	170
Carver	6	289	789	1,084	933	6	1	424	352
Cass	3	104	188	295	256	5	6	140	166
Chippewa	4	55	88	147	114	4	4	94	72
Chisago	6	228	372	606	484	6	6	357	308
Clay	5	187	648	840	642	6	4	247	282
Clearwater	1	24	35	60	69	1	0	33	47
Cook	1	20	38	59	60	1	0	38	42
Cottonwood	4	21	60	85	93	4	2	34	72
Crow Wing	8	274	522	804	748	9	10	401	427
Dakota	18	1,465	3,891	5,374	4,491	19	19	2,044	1,877
Dodge	0	58	141	199	188	0	5	72	102
Douglas	1	162	359	522	525	1	8	201	262
Faribault	3	35	98	136	128	3	4	45	55
Fillmore	1	57	137	195	168	1	2	89	90
Freeborn	2	119	362	483	406	2	3	182	190
Goodhue	6	191	530	727	649	7	7	271	278
Grant	0	27	50	77	64	0	1	30	28
Hennepin	37	6,394	15,903	22,334	19,816	42	33	8,735	8,205
Houston	2	48	170	220	228	2	1	62	69
Hubbard	4	72	132	208	140	4	1	104	112
Isanti	5	106	231	342	306	5	2	147	162
Itasca	6	177	390	573	536	6	8	271	255
Jackson	4	39	86	129	124	5	3	58	60
Kanabec	0	38	53	91	115	0	0	62	58
Kandiyohi	2	188	436	626	546	2	11	259	285

TABLE 1.24 CONTINUED

2013 COUNTY CRASH REPORT

County	2013					Number Killed 2013	Number Killed 2012	Number Injured 2013	Number Injured 2012
	Crashes Fatal	Crashes Injury	Crashes Property Damage	Crashes Total	Total Crashes 2012				
Kittson	1	7	11	19	10	2	1	12	5
Koochiching	1	35	48	84	84	1	2	59	38
Lac Qui Parle	0	23	32	55	37	0	0	27	24
Lake	4	37	89	130	92	4	1	52	61
Lake of the Woods	0	1	9	10	21	0	0	1	9
Le Sueur	3	102	232	337	317	6	2	146	139
Lincoln	2	11	43	56	81	2	2	13	25
Lyon	2	78	183	263	284	2	4	110	108
McLeod	4	120	294	418	431	4	6	194	167
Mahnomen	1	16	30	47	45	1	2	27	29
Marshall	1	14	14	29	59	1	2	20	50
Martin	3	75	176	254	204	3	1	106	97
Meeker	5	80	166	251	209	5	2	117	104
Mille Lacs	4	97	145	246	231	4	3	151	183
Morrison	5	97	187	289	284	5	5	135	162
Mower	3	132	312	447	353	3	6	189	121
Murray	0	23	40	63	76	0	2	27	60
Nicollet	2	116	299	417	358	2	3	162	132
Nobles	4	82	224	310	343	5	7	144	114
Norman	2	19	32	53	51	3	0	28	28
Olmsted	11	620	1,299	1,930	1,764	12	2	882	757
Otter Tail	7	191	491	689	639	8	10	272	294
Pennington	0	51	62	113	114	0	2	66	81
Pine	6	143	229	378	361	7	14	197	189
Pipestone	1	30	41	72	87	1	2	52	48
Polk	5	92	279	376	324	5	7	117	131
Pope	2	31	82	115	96	2	3	58	73
Ramsey	11	2,465	8,734	11,210	10,419	12	19	3,310	3,363
Red Lake	0	4	14	18	22	0	1	4	9
Redwood	3	42	76	121	134	3	6	73	71
Renville	3	51	92	146	139	4	1	74	63
Rice	5	185	452	642	627	5	4	281	302
Rock	1	39	86	126	110	1	4	52	43

TABLE 1.24 CONTINUED

2013 COUNTY CRASH REPORT

County	2013					Number Killed 2013	Number Killed 2012	Number Injured 2013	Number Injured 2012
	2013 Crashes Fatal	2013 Crashes Injury	Crashes Property Damage	2013 Crashes Total	Total Crashes 2012				
Roseau	1	32	45	78	81	1	2	49	44
St. Louis	17	819	2,649	3,485	2,898	19	11	1,091	979
Scott	11	434	831	1,276	1,079	11	4	624	554
Sherburne	4	330	848	1,182	1,011	4	8	482	371
Sibley	2	48	84	134	124	2	2	72	52
Stearns	6	782	1,782	2,570	2,242	6	7	1,104	922
Steele	1	134	330	465	413	1	2	185	178
Stevens	1	39	100	140	80	1	1	49	32
Swift	1	22	61	84	78	1	0	32	35
Todd	5	84	149	238	203	6	1	147	112
Traverse	1	10	15	26	15	1	0	10	13
Wabasha	4	61	146	211	184	4	2	80	90
Wadena	1	45	67	113	100	1	1	66	53
Waseca	2	45	128	175	185	2	3	59	85
Washington	10	844	1,916	2,770	2,368	10	8	1,145	1,062
Watsonwan	1	38	54	93	85	1	0	61	35
Wilkin	0	33	111	144	99	0	0	40	38
Winona	2	189	441	632	581	2	5	245	257
Wright	13	347	952	1,312	1,148	16	12	503	513
Yellow Medicine	2	27	51	80	86	2	1	43	39
Unknown	0	0	0	0	3	0	0	0	0
Minnesota Totals	357	21,960	55,390	77,707	69,236	387	395	30,653	29,314

TABLE 1.25

2013 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Persons Killed	Persons Injured
Afton	0	14	35	49	0	16
Albany	0	9	31	40	0	16
Albert Lea	1	58	200	259	1	82
Albertville	0	21	88	109	0	25
Alexandria	0	76	171	247	0	93
Andover	1	66	64	131	1	105
Annandale	0	4	5	9	0	4
Anoka	0	109	300	409	0	157
Apple Valley	1	158	366	525	1	233
Arden Hills	0	106	402	508	0	129
Austin	0	80	235	315	0	112
Barnesville	0	1	12	13	0	1
Baxter	0	41	133	174	0	53
Bayport	0	3	23	26	0	4
Becker	0	12	34	46	0	15
Belle Plaine	0	11	29	40	0	13
Bemidji	2	44	140	186	2	65
Benson	0	3	25	28	0	3
Big Lake	0	14	49	63	0	18
Blaine	2	186	277	465	2	275
Bloomington	0	548	1,273	1,821	0	728
Blue Earth	0	3	33	36	0	3
Brainerd	1	74	203	278	1	96
Breckenridge	0	8	38	46	0	10
Brooklyn Center	2	293	545	840	2	420
Brooklyn Park	2	295	524	821	2	415
Buffalo	0	52	101	153	0	81
Burnsville	0	315	827	1,142	0	439
Byron	0	8	17	25	0	13
Caledonia	1	3	22	26	1	3
Cambridge	1	26	84	111	1	36
Cannon Falls	1	12	52	65	1	20
Carver	0	3	8	11	0	5
Centerville	0	1	9	10	0	2
Champlin	0	31	65	96	0	50
Chanhassen	1	95	241	337	1	153
Chaska	1	55	157	213	1	73
Chatfield	0	4	16	20	0	6
Chisago City	1	23	28	52	1	50
Chisholm	0	12	33	45	0	18
Circle Pines	1	10	12	23	1	15
Cloquet	0	39	84	123	0	65
Cohasset	0	7	7	14	0	11
Cokato	0	3	8	11	0	3
Cold Spring	0	10	29	39	0	12
Columbia Heights	0	75	105	180	0	102
Columbus	0	27	52	79	0	41
Coon Rapids	2	284	609	895	2	378
Corcoran	1	19	49	69	1	23
Cottage Grove	2	89	268	359	2	114

TABLE 1.25 CONTINUED

2013 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Persons Killed	Persons Injured
Crookston	1	19	86	106	1	25
Crystal	0	77	17	249	0	102
Dayton	1	24	48	73	1	35
Deephaven	0	3	16	19	0	7
Delano	0	5	16	21	0	7
Detroit Lakes	0	40	52	92	0	63
Dilworth	0	8	26	34	0	10
Dodge Center	0	3	12	15	0	4
Duluth	1	407	1,704	2,112	2	522
Eagan	4	243	680	927	4	322
Eagle Lake	0	2	6	8	0	2
East Bethel	0	33	26	59	0	47
East Grand Forks	1	20	96	117	1	22
Eden Prairie	2	171	531	704	2	239
Edina	1	167	483	651	1	211
Elko/New Market	0	3	3	6	0	3
Elk River	2	121	305	428	2	181
Ely	0	5	14	19	0	6
Eveleth	0	7	47	54	0	8
Fairmont	0	30	103	133	0	38
Falcon Heights	0	12	57	69	0	16
Faribault	0	60	152	212	0	84
Farmington	0	24	70	94	0	35
Fergus Falls	0	48	155	203	0	65
Foley	0	4	13	17	0	7
Forest Lake	0	85	183	268	0	120
Fridley	0	132	218	350	0	183
Glencoe	1	8	36	45	1	16
Glenwood	0	1	23	24	0	1
Golden Valley	2	156	410	568	2	219
Goodview	0	3	20	23	0	4
Grand Rapids	0	47	176	223	0	77
Granite Falls	0	8	17	25	0	12
Grant	0	13	29	42	0	19
Greenfield	0	10	23	33	0	10
Ham Lake	2	38	37	77	3	64
Hanover	0	4	9	13	0	4
Hastings	0	53	185	238	0	68
Hermantown	0	46	77	123	0	66
Hibbing	1	71	211	283	1	93
Hopkins	0	75	163	238	0	93
Hugo	0	19	55	74	0	25
Hutchinson	1	46	126	173	1	71
Independence	0	23	37	60	0	35
International Falls	0	19	24	43	0	29
Inver Grove Heights	1	115	280	396	1	162
Isanti	0	16	26	42	0	20
Jackson	0	8	19	27	0	11
Jordan	1	10	38	49	1	13
Kasson	0	4	34	38	0	4

TABLE 1.25 CONTINUED

2013 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Persons Killed	Persons Injured
La Crescent	0	11	31	42	0	14
Lake City	0	5	43	48	0	5
Lake Crystal	0	6	10	16	0	7
Lake Elmo	2	48	66	116	2	68
Lakeville	3	168	419	590	3	245
Le Center	0	3	6	9	0	3
Le Sueur	1	7	31	39	1	8
Lindstrom	0	7	30	37	0	13
Lino Lakes	1	43	171	215	1	63
Litchfield	0	21	43	64	0	28
Little Canada	0	91	200	291	0	114
Little Falls	0	12	41	53	0	16
Long Prairie	0	3	15	18	0	3
Lonsdale	0	3	2	5	0	4
Luverne	0	9	23	32	0	9
Mahtomedi	0	8	28	36	0	14
Mankato	1	214	565	780	1	294
Maple Grove	2	226	583	811	2	292
Maplewood	3	250	570	823	3	355
Marshall	0	32	98	130	0	42
Medina	1	17	80	98	1	28
Melrose	0	5	22	27	0	7
Mendota Heights	2	47	171	220	2	59
Milaca	0	8	18	26	0	11
Minneapolis	16	3,021	7,489	10,526	19	4,208
Minnetonka	1	175	383	559	1	230
Minnetrista	0	9	39	48	0	12
Montevideo	0	13	35	48	0	24
Montgomery	0	5	12	17	0	5
Monticello	1	33	146	180	1	50
Montrose	0	2	8	10	0	3
Moorhead	0	99	380	479	0	128
Moose Lake	0	2	7	9	0	5
Mora	0	9	19	28	0	12
Morris	1	15	62	78	1	19
Mound	0	13	36	49	0	19
Mounds View	0	40	119	159	0	56
Mountain Iron	0	15	15	30	0	24
New Brighton	0	77	260	337	0	107
New Hope	0	41	85	126	0	58
Newport	0	34	108	142	0	42
New Prague	0	15	24	39	0	20
New Ulm	0	50	120	170	0	62
North Branch	4	46	95	145	4	66
Northfield	1	32	55	88	1	50
North Mankato	0	24	98	122	0	33
North Oaks	0	7	16	23	0	11
North St. Paul	1	36	74	111	1	41
Norwood	0	6	24	30	0	6
Nowthen	1	12	9	22	1	16

TABLE 1.25 CONTINUED

2013 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Persons Killed	Persons Injured
Oakdale	1	103	205	309	1	126
Oak Grove	1	24	25	50	1	39
Oak Park Heights	0	34	77	111	0	46
Orono	0	37	65	102	0	46
Otsego	3	26	66	95	3	38
Owatonna	1	70	192	263	1	101
Park Rapids	0	14	25	39	0	15
Perham	0	6	19	25	0	10
Pine City	0	14	18	32	0	23
Pine Island	0	3	15	18	0	4
Pipestone	0	8	11	19	0	11
Plainview	0	3	13	16	0	3
Plymouth	1	199	546	746	1	242
Princeton	0	13	33	46	0	18
Prior Lake	1	48	24	73	1	65
Proctor	0	8	22	30	0	12
Ramsey	0	55	113	168	0	76
Red Wing	1	63	215	279	1	85
Redwood Falls	0	14	33	47	0	32
Richfield	2	233	600	835	3	316
Robbinsdale	0	42	132	174	0	55
Rochester	3	436	973	1,412	3	606
Rockford	0	7	14	21	0	21
Rogers	1	61	207	269	1	79
Roseau	0	4	16	20	0	5
Rosemount	0	50	148	198	0	67
Roseville	1	194	736	931	1	265
Rush City	0	4	12	16	0	7
St. Anthony	1	20	58	79	1	25
St. Augusta	0	12	19	31	0	13
St. Charles	0	4	11	15	0	5
St. Cloud	1	429	964	1,394	1	587
St. Francis	0	5	9	14	0	5
St. James	0	6	18	24	0	8
St. Joseph	0	12	35	47	0	16
St. Louis Park	1	252	634	887	2	328
St. Michael	0	20	117	137	0	27
St. Paul	5	1,310	5,411	6,726	6	1,749
St. Paul Park	0	10	25	35	0	12
St. Peter	0	31	63	94	0	41
Sandstone	0	3	6	9	0	5
Sartell	0	37	86	123	0	56
Sauk Center	1	11	56	68	1	19
Sauk Rapids	0	22	80	102	0	25
Savage	1	71	202	274	1	100

TABLE 1.25 CONTINUED

2013 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Persons Killed	Persons Injured
Scandia	1	16	14	31	1	25
Shakopee	3	154	391	548	3	223
Shoreview	1	78	244	323	1	105
Shorewood	0	11	54	65	0	13
Sleepy Eye	0	8	24	32	0	8
South St. Paul	0	65	211	276	0	94
Spring Lake Park	0	35	53	88	0	58
Staples	0	7	15	22	0	10
Stewartville	0	8	16	24	0	9
Stillwater	1	46	112	159	1	61
Thief River Falls	0	36	49	85	0	49
Two Harbors	0	12	35	47	0	17
Vadnais Heights	0	71	189	260	0	95
Victoria	0	16	58	74	0	22
Virginia	1	42	130	173	1	52
Wabasha	0	8	17	25	0	9
Waconia	0	32	74	106	0	43
Wadena	0	22	30	52	0	34
Waite Park	2	65	152	219	2	99
Waseca	0	20	34	54	0	26
Watertown	0	3	13	16	0	4
Wayzata	0	35	117	152	0	42
West St. Paul	1	78	210	289	1	99
White Bear Lake	0	159	351	510	0	215
Willmar	0	88	286	374	0	120
Windom	0	9	24	33	0	13
Winona	0	82	176	258	0	110
Woodbury	1	221	483	705	1	307
Worthington	0	42	163	205	0	83
Wyoming	1	46	64	111	1	69
Zimmerman	0	11	32	43	0	20
Zumbrota	0	4	14	18	0	4

TABLE 1.26

2013 CRASHES BY TIME AND DAY

Hour	All Days	All Days	Sun. Total	Sun. Fatal	Mon. Total	Mon. Fatal	Tues. Total	Tues. Fatal	Wed. Total	Wed. Fatal	Thurs. Total	Thurs. Fatal	Fri. Total	Fri. Fatal	Sat. Total	Sat. Fatal
Beginning	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal
Midnight	1,179	8	236	4	113	1	159	0	118	0	122	0	161	1	270	2
1 am	1,012	10	251	6	99	1	104	0	90	0	105	1	120	1	243	1
2 am	931	16	220	2	87	2	95	1	72	1	90	1	126	1	241	8
3 am	607	6	133	1	54	0	74	1	58	1	55	1	63	0	170	2
4 am	608	6	97	3	78	2	74	0	94	0	66	0	96	0	103	1
5 am	1,104	12	84	2	172	0	202	1	176	3	163	3	163	2	144	1
6 am	2,435	12	120	0	429	1	460	3	450	1	425	2	364	2	187	3
7 am	5,030	23	143	1	877	5	1,049	5	995	0	840	3	826	5	300	4
8 am	4,576	16	179	2	757	2	935	3	843	2	738	3	755	1	369	3
9 am	3,726	9	277	1	671	1	658	1	569	1	529	2	588	0	434	3
10 am	3,556	15	439	1	573	0	514	2	536	4	506	2	506	4	482	2
11 am	4,030	17	495	0	663	2	554	2	583	4	570	2	569	5	596	2
Noon	4,614	16	553	1	708	3	646	3	689	2	682	2	691	1	645	4
1 pm	4,401	13	549	1	688	1	570	3	635	2	609	1	735	3	615	2
2 pm	5,201	32	593	5	839	4	713	4	803	7	712	4	895	5	646	3
3 pm	6,179	22	536	3	1,023	4	926	2	961	2	1,057	5	1,051	5	625	1
4 pm	6,417	14	547	1	1,080	5	1,016	0	1,017	1	1,081	5	1,073	2	603	0
5 pm	6,581	26	459	0	1,109	3	1,062	4	1,169	4	1,126	5	1,089	5	567	5
6 pm	4,351	26	451	6	633	0	721	3	654	2	711	6	707	6	474	3
7 pm	2,933	16	368	2	428	3	388	1	440	1	411	4	520	2	378	3
8 pm	2,414	12	289	2	347	0	336	2	342	0	350	2	412	4	338	2
9 pm	2,295	11	271	1	315	2	292	1	261	0	338	2	460	4	358	1
10 pm	1,904	10	220	1	246	4	222	1	200	1	262	1	435	2	319	0
11 pm	1,442	9	156	0	179	0	154	0	143	1	207	4	351	2	252	2
Unk	181	0	26	0	22	0	32	0	21	0	36	0	29	0	15	0
Total	77,707	357	7,692	46	12,190	46	11,956	43	11,919	40	11,791	61	12,785	63	9,374	58

FIGURE 1.03

TOTAL CRASHES VS FATAL CRASHES, BY TIME, 2013

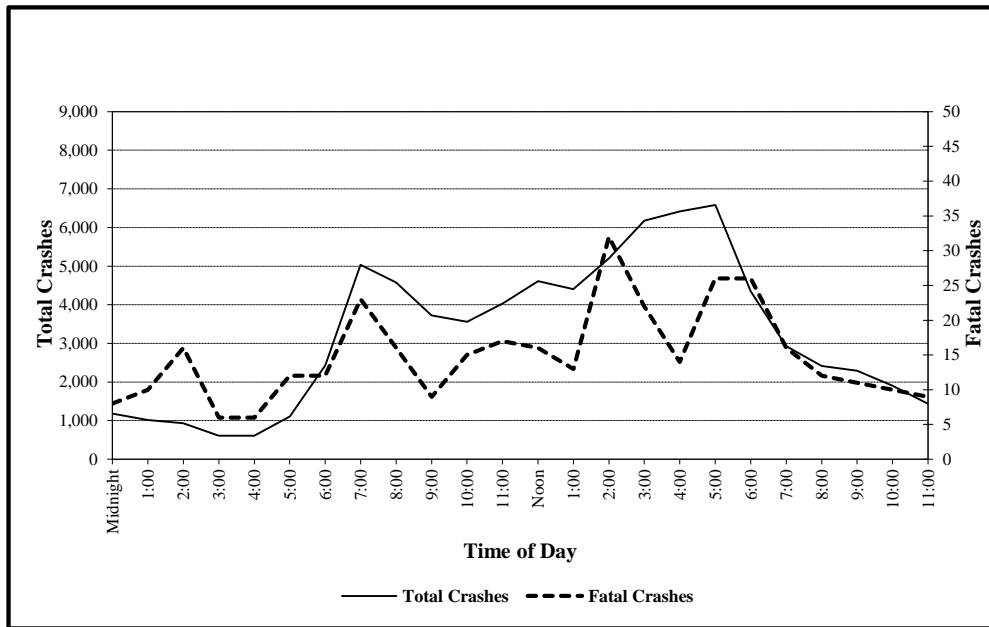


TABLE 1.27

2013 CRASHES, FATALITIES, AND INJURIES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	14	1,700	4,922	6,636	16	2,336
February	24	1,686	5,278	6,988	27	2,341
March	21	1,687	5,096	6,804	22	2,336
April	23	1,621	4,126	5,770	27	2,303
May	31	1,615	3,521	5,167	31	2,251
June	29	1,869	3,734	5,632	33	2,675
July	49	1,918	3,554	5,521	54	2,694
August	33	1,984	3,657	5,674	34	2,735
September	46	1,835	3,806	5,687	52	2,581
October	27	1,803	4,276	6,106	27	2,563
November	37	1,773	4,364	6,174	40	2,488
December	23	2,469	9,056	11,548	24	3,350
Total	357	21,960	55,390	77,707	387	30,653

TABLE 1.28
HOLIDAY CRASH SUMMARY, 2008 - 2013

Holiday Period	Year	Hours*	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Memorial Day	2008	78	2	168	275	445	2	243
(In 2013, the holiday	2009	78	9	168	259	436	13	254
period was 6 pm Fri,	2010	78	8	167	244	419	9	245
May 24- midnight	2011	78	0	130	258	388	0	189
Monday, May 27)	2012	78	3	170	278	451	4	239
	2013	78	5	111	250	366	5	154
July 4th	2008	78	8	188	247	443	8	290
(In 2013, the holiday	2009	78	7	191	263	461	10	303
period was 6pm	2010	78	4	165	268	437	5	246
Wednesday,	2011	78	4	170	268	442	6	255
July 3-midnight	2012	30	0	79	80	159	0	119
Sunday, July 7)	2013	102	6	222	334	562	7	332
Labor Day	2008	78	4	197	252	453	4	286
(In 2013, the holiday	2009	78	2	150	218	370	3	197
period was 6 pm Fri,	2010	78	5	143	265	413	5	228
Aug 30-midnight	2011	78	6	138	209	353	6	207
Monday, Sept 2)	2012	78	5	145	241	391	6	221
	2013	78	4	159	248	411	4	231
Thanksgiving	2008	102	7	251	700	958	7	400
(In 2013, the holiday	2009	102	5	168	397	570	5	263
period was 6pm Wed	2010	102	4	201	589	794	4	281
Nov 27- midnight	2011	102	2	161	334	497	2	232
Sunday, Dec 1)	2012	102	1	191	599	791	1	269
	2013	102	3	195	366	564	3	297
Christmas	2008	102	3	197	485	685	3	279
(In 2013, the holiday	2009	78	1	168	669	838	1	261
period was	2010	78	0	135	555	690	0	197
6 pm Tue,	2011	78	3	125	206	334	3	186
Dec 24-midnight	2012	102	1	115	436	552	1	180
Wed, Dec 25)	2013	30	0	70	309	379	0	102
New Year's	2008/09	102	3	305	989	1,297	3	467
(In 2013, the	2009/10	78	3	133	495	631	4	197
holiday period was	2010/11	78	1	221	671	893	1	308
6 pm Tue, Dec 31 --	2011/12	78	3	153	478	634	4	212
Midnight Wed,	2012/13	102	5	165	489	659	7	240
January 1, 2014)	2013/14	30	0	61	179	240	0	76

* Holiday period hours vary depending on the day of the week on which the holiday falls.

II: ALCOHOL-RELATED CRASHES

BACKGROUND AND DEFINITIONS

1. Impaired driving incidents.

As used here, an “impaired driving incident” is one where there was an arrest for driving while under the influence of alcohol or drugs and a violation from that incident was subsequently entered on the person’s driving record. In prior years, tables in this section reported “DWI Arrests.” “DWI” is an older term that usually connotes intoxication by alcohol. “Impaired driving” is a broader and thus more descriptive term, and it conforms better to current Minnesota law. Law enforcement agencies and courts report violations to Driver Licensing, making driver license records the most complete centralized source of data for statistics on impaired driving. Additionally, since it is almost impossible for a person, once arrested, to evade all of the criminal charges and administrative actions the law calls for, the number of impaired driving incidents on record is almost the same as the number of arrests.

(2) Alcohol-related crashes

While the term “impaired driving” covers many possible types of impairment, the term “alcohol-related” is restrictive: *only* alcohol-related crashes are counted. For example, if a driver tests positive for cocaine, but negative for alcohol, the crash will not be counted in this section. A crash is classified as “alcohol-related” if any driver, pedestrian, or bicyclist is shown by a chemical test to be positive for alcohol. Thus, alcohol at the .01-or-higher level or higher makes the crash alcohol-related. In the absence of test data, if the officer reports that he or she believes the person had been drinking, or was under the influence, the crash is also classified as alcohol-related. Though rare, an officer sometimes reports he or she believed a person had been drinking or was under the influence, but the alcohol test is negative. In these cases, the test result takes priority over the officer’s perception, and the crash is not classified as alcohol-related.

Alcohol-related fatalities and injuries

Once a crash is so classified, no matter whether it was a driver, pedestrian, or bicyclist that was drinking, then every fatality and injury in the crash is classified as alcohol-related.

Officers’ reported perceptions are conservative

Officers are conservative in reporting drinking and driving. However, officers’ cautiousness is less a factor in fatal crashes, because every effort is made to obtain alcohol test results. For less severe crashes, though, the officer’s judgment is all that is available. Therefore, alcohol-related non-fatal crashes are almost certain to be considerably underestimated.

Important caveats to the definition

Not all alcohol-related traffic fatalities are due to driving while intoxicated. If a drinking pedestrian or bicyclist is in a crash, and then he or she (or anyone in the crash) dies, the death is an alcohol-related traffic death. For example, in 2013, 15 drinking pedestrians died after colliding with a vehicle driven by a non-drinking driver. Additionally, the definition given above makes an assumption that the person drinking caused, or contributed significantly to the crash. Experts who study fatal traffic crashes in detail confirm that this is almost always true, but it is important to recognize that the assumption is not invariably true. There will be exceptions to the rule. Sometimes a crash is alcohol-related, but is not classified as such due to inadequate data. For example, a drunk driver may die in a fiery crash and the body may be incinerated. In this case, there may be no evidence remaining that the crash involved alcohol. Or a driver may die and lose all his or her blood from wounds received in the crash, which likewise prevents alcohol tests from being performed.

“Known” versus “estimated” alcohol-related deaths.

Testing drivers for alcohol is the key to accurately classifying crashes. Minnesota is much better at testing than most states. Because many drivers are still not tested, the National Highway Traffic Safety Administration (NHTSA) developed a sophisticated statistical procedure that estimates how many fatalities really were alcohol-related. The idea that a computerized statistical procedure can accurately make such estimates initially invites skepticism. However, NHTSA developed the procedure with the greatest care over many years. (This procedure was once again improved in 2002). Tests of the procedure, performed by having it make estimates for datasets from which critical data was removed and then comparing the estimates against the true parameters (putting back in the data that has been removed), show that the procedure is accurate to within about plus or minus one percentage point. Tables 2.01 and 2.07 show alcohol-related fatalities for Minnesota using the two procedures (NHTSA’s estimating procedure and the state’s procedure based on known data). NHTSA’s estimate of the true percentage of alcohol-related fatalities is always higher than, but very close to, the state’s numbers. The reason the two numbers are so close is that Minnesota does a good job of collecting test results on drivers, pedestrians, and bicyclists in fatal crashes.

Alcohol-related crashes in Minnesota 2013

Drinking and driving remains a serious problem in Minnesota and across the nation. For 2013, the National Safety Council has made a conservative estimate of \$235 million as the cost of alcohol-related crashes in Minnesota. Predictably, there is a strong positive relationship between alcohol use and crash severity. That is, as crash severity increases, alcohol is more likely to have been a factor in the crash. Last year, 6% of minor injuries, 11% of moderate injuries, 20% of severe injuries, and 30% of deaths were alcohol-related. In all, 117 known people died and 2,300 known people were injured in crashes classified as alcohol-related. (NHTSA estimates will be higher).

Impaired driving incidents (DWIs) decrease

In 2013, there were 25,719 impaired driving incidents in Minnesota. This number represents a 9% decrease from the previous year. Anecdotal evidence suggests many enforcement agencies have had problems filling vacancies due to retirements. This could explain the decrease in arrests.

Males and young people

When gender is stated, males made up 67% of the DWI offenders last year, however, females are making up a growing percentage of arrests. In 2013, they accounted for 25% of the offenders. (10 years ago, they were 20% of the offenders.) Impaired driving is especially a problem among young adults. A person can legally buy alcohol at age 21 (raised from 19 in 1986), and drinking and driving too often follows that. Last year, 21-to-34 year-olds committed fully 53% of the incidents on record. Drivers under age 21 accounted for 6%.

Drinking drivers themselves pay the price

Young people may have better reflexes than their elders, but as drivers they take more risks and have less experience than older people. They pay a clear price for this. Motorists aged 15-34 accounted for 33% of all traffic deaths, and for fully 51% of the alcohol-related deaths. It is also the drinkers themselves who are more likely to pay the price for their dangerous behavior. Last year, 97 (83%) of the 117 people who died in alcohol-related crashes were themselves the people whose drinking behavior was a main factor which led to the crash to be classified as alcohol-related. In short, drinking drivers, pedestrians, and bicyclists mostly kill and injure themselves. The remaining 20 people who died in the alcohol crashes were non-drinking drivers, pedestrians, or bicyclists, or were drinking or non-drinking vehicle passengers.

When the crashes occur: weekends, late night

Most alcohol-related crashes occur on Fridays, Saturdays, and Sundays. Combined, these three days accounted for 38% of all traffic crashes, but 59% of the alcohol-related crashes. The late night hours 9 p.m.-3 a.m. accounted for 11% of all crashes, but 47% of the alcohol-related crashes.

Fatal alcohol crashes usually involve just one vehicle

Of the 107 alcohol-related fatal crashes in 2013, 81 (76%) involved just one motor vehicle in transport. Of the 81 single vehicle alcohol-related fatal crashes, 29 involved a single vehicle colliding with a fixed object, and 26 involved a single vehicle losing control and overturning.

Test results for killed drivers

Minnesota is consistently at or near the top among the states in the proportion of drivers in fatal crashes who are tested for alcohol. Also, NHTSA developed a procedure (explained on page 38) that compensates for missing data. In 2013, there were 259 motor vehicle drivers who were killed. (Note that this total does not include pedestrians or bicyclists). Of the 259 killed drivers, the Department of Public Safety was able to get alcohol test results for 219 (85%). Of the 219 tested, 151 (69%) tested negative, 10 (5%) tested between .01 and .07, 3 (1%) tested between .08 and .09, and 55 (25%) tested .10 or greater.

Majority of alcohol-related fatalities test above the legal limit

The 117 alcohol-related fatalities in 2013 consisted of 53 car or truck drivers, 20 car or truck passengers, 17 motorcycle drivers, two motorcycle passengers, two snowmobile drivers, three ATV drivers, 16 pedestrians, and two bicyclists. Of the 117, the Department of Public Safety was able to get alcohol test results for 103. Of these, 79 (77%) had a result above the legal limit of .08.

Success story in Minnesota

In reality, the percentage of alcohol-related traffic fatalities in Minnesota has steadily decreased in the past half century. In the 1960's, around 60% of all traffic deaths per year were alcohol-related. Today, this percentage hovers around 33% per year. This is a great success story for Minnesota and the nation as a whole. It is also proof that as drivers change their behavior, less tragedy occurs on our roadways.

TABLE 2.01

ALCOHOL-RELATED FATAL CRASH SUMMARY, 1980 - 1989

Year	Alcohol Test Results on Killed Drivers								All Traffic Fatalities			
	Drivers Killed			Results on Drivers Tested						Alcohol-Related Fatalities		
	Tested for Alcohol			Negative for Alcohol		.01 to .09 Alcohol		.10 or Higher Alcohol		Known *		
	Total	N	% of Total	N	% of Tested	N	% of Tested	N	% of Tested	Total	N	% of Total
1980	519	337	65	103	31	37	11	197	58	863		
1981	437	288	66	110	38	28	10	150	52	763		
1982	321	232	72	106	46	14	6	112	48	581		322 56
1983	345	258	75	113	44	28	11	117	45	558		314 56
1984	383	318	83	133	42	36	11	149	47	584	305	52 332 57
1985	372	295	79	156	53	31	10	108	37	610	261	43 287 47
1986	347	281	81	143	51	24	8	114	41	572	264	46 284 50
1987	297	265	89	132	50	18	7	115	43	530	224	42 248 47
1988	361	313	87	163	52	32	10	118	38	615	277	45 294 48
1989	368	313	85	158	51	26	8	129	41	605	275	45 289 48

ALCOHOL-RELATED FATAL CRASH SUMMARY, 1990 – 2013

Year	Alcohol Test Results on Killed Drivers										All Traffic Fatalities						
	Drivers Killed				Results on Drivers Tested						Alcohol-Related Fatalities						
	Tested for Alcohol			Negative for Alcohol		.01 to .07 Alcohol		.08 to .09 Alcohol		.10 or Higher Alcohol		Known *			Estimated **		
	Total	N	% of Total	N	% of Tested	N	% of Tested	N	% of Tested	N	% of Tested	Total	N	% of Total	N	% of Total	
1990	334	260	78	129	50	19	7	4	2	108	41	568	235	41	258	46	
1991	327	242	74	135	56	20	8	2	1	85	35	531	212	40	233	44	
1992	344	237	69	135	57	9	3	6	2	89	38	581	229	39	240	41	
1993	355	283	80	174	61	14	5	5	2	90	32	538	196	36	216	40	
1994	377	303	80	183	60	16	5	7	3	97	32	644	226	35	250	39	
1995	383	343	90	198	58	22	7	8	2	115	34	597	246	41	269	45	
1996	359	314	87	209	67	16	5	6	2	83	26	576	205	36	222	38	
1997	384	345	90	226	66	15	5	4	1	100	29	600	178	30	197	33	
1998	406	369	91	218	59	23	6	6	2	122	33	650	273	42	285	44	
1999	426	370	87	254	69	9	2	7	2	100	27	626	195	31	206	33	
2000	403	375	93	226	60	16	4	6	2	127	34	625	245	39	258	41	
2001	361	322	89	198	62	17	5	6	2	101	31	568	211	37	226	40	
2002	430	365	85	223	61	21	6	3	1	118	32	657	239	36	255	39	
2003	435	376	86	219	58	18	5	5	1	134	36	655	255	39	267	41	
2004	389	337	87	219	65	11	3	4	1	103	31	567	177	31	184	32	
2005	379	348	92	213	61	17	5	5	1	113	33	559	197	35	201	36	
2006	346	321	93	207	64	15	5	5	2	94	29	494	166	34	183	37	
2007	381	336	88	207	62	15	4	7	2	107	32	510	190	37	198	39	
2008	316	286	90	176	62	15	5	6	2	89	31	455	163	36	168	38	
2009	266	236	89	160	68	13	5	4	2	59	25	421	141	34	152	36	
2010	270	237	88	156	66	6	3	2	1	73	31	411	131	32	146	36	
2011	243	220	91	137	62	11	5	6	3	66	30	368	136	37	146	40	
2012	262	206	79	130	63	5	2	2	1	69	34	395	131	33	148	37	
2013	259	219	85	151	69	10	5	3	1	55	25	387	117	30	n/a	n/a	

* For explanation of the difference between “known” and “estimated” alcohol-related fatalities, see page 38.

** NHTSA recently improved its method of estimating the true percentage of alcohol-related fatalities for each year. The above table reflects these changes back to the year 1982.

TABLE 2.02
IMPAIRED DRIVING INCIDENTS (“DWIs”) BY GENDER
AND BY AREA OF STATE WHERE ARREST WAS MADE, 1996 - 2013

Year	Total	Male	Male %	Female	Female %	Not Stated	Not Stated %	Area: Metro	Area: Metro %	Area: Non-Metro	Area: Non-Metro %
1996	30,515	23,588	77.3	5,371	17.6	1,556	5.1	15,774	51.7	14,741	48.3
1997	30,905	23,636	76.5	5,733	18.6	1,536	5.0	15,954	51.6	14,951	48.4
1998	32,001	24,193	75.6	6,048	18.9	1,760	5.5	16,537	51.7	15,464	48.3
1999	34,529	25,938	75.1	6,505	18.8	2,086	6.0	17,126	49.6	17,403	50.4
2000	34,803	27,741	74.0	6,755	19.4	2,307	6.6	16,739	48.1	18,064	51.9
2001	33,305	24,479	73.5	6,494	19.5	2,331	7.0	16,284	48.9	17,021	51.1
2002	32,948	23,887	72.5	6,557	19.9	2,504	7.6	16,147	49.0	16,801	51.0
2003	32,193	23,082	71.7	6,535	20.3	2,575	8.0	15,972	49.6	16,221	50.4
2004	34,199	24,199	70.8	7,165	21.0	2,835	8.3	16,762	49.0	17,437	51.0
2005	36,870	25,712	69.7	7,989	21.7	3,169	8.6	17,837	48.4	19,033	51.6
2006	41,842	28,665	68.6	9,293	22.2	3,884	9.3	20,496	49.0	21,346	51.0
2007	38,635	26,365	68.2	8,809	22.8	3,461	9.0	18,764	48.6	19,871	51.4
2008	35,736	24,142	67.6	8,444	23.6	3,150	8.8	17,781	49.8	17,995	50.2
2009	32,756	22,078	67.4	7,906	24.1	2,772	8.5	16,253	49.6	16,503	50.4
2010	29,918	19,982	66.8	7,410	24.8	2,526	8.4	15,146	50.6	14,772	49.4
2011	29,257	19,851	67.8	7,280	24.9	2,126	7.3	14,888	50.9	14,369	49.1
2012	28,418	19,035	67.0	7,156	25.2	2,227	7.8	14,660	51.6	13,758	48.4
2013	25,719	17,130	66.6	6,497	25.3	2,092	8.1	13,341	51.9	12,378	48.1

* Note: The table above creates the impression that the proportion of violators with gender “not stated” is increasing over time. This is *not* so. If a person arrested for impaired driving does not have a Minnesota driver’s license, then a record is created, but the new record does *not* show the person’s gender. As years pass, many of these violators do eventually get a Minnesota driver’s license, which does record gender. Thus, as time passes, the gender of more and more past violators becomes known. The table above merely uses current information that was not available at the time of the original violation.

TABLE 2.03
IMPAIRED DRIVING INCIDENTS (“DWIs”) FOR SELECTED AGE GROUPS, 1996 - 2013

Year	Total	Age 0-14	Age 15	Age 16	Age 17	Age 18	Age 19	Age 20	Total < 21	Age 21-34	Age 35-49	Age 50+
1996	30,515	2	10	135	300	608	791	826	2,672	15,815	9,762	2,266
1997	30,905	5	17	102	273	627	751	886	2,661	15,495	10,283	2,466
1998	32,001	2	17	102	297	675	888	911	2,892	15,624	10,973	2,512
1999	34,529	4	18	114	285	740	1,004	1,032	3,197	17,100	11,479	2,753
2000	34,803	5	10	124	330	691	984	1,104	3,248	17,245	11,472	2,838
2001	33,305	2	14	118	277	636	911	1,030	2,988	16,791	10,740	2,786
2002	32,948	6	13	122	298	655	849	1,086	3,029	16,594	10,379	2,946
2003	32,193	3	21	117	279	689	904	1,064	3,077	16,518	9,732	2,866
2004	34,199	3	13	105	300	679	889	1,012	3,001	17,382	10,185	3,181
2005	36,870	5	16	118	335	705	1,028	1,236	3,443	19,505	10,557	3,365
2006	41,842	6	24	135	394	854	1,274	1,346	4,035	22,465	11,487	3,855
2007	38,635	4	11	126	325	712	1,064	1,209	3,451	20,518	10,743	3,922
2008	35,736	6	14	102	266	630	887	1,046	2,951	18,933	9,851	4,001
2009	32,756	6	6	75	197	524	801	896	2,505	17,165	9,196	3,889
2010	29,918	4	9	54	139	425	667	804	2,102	15,727	8,154	3,935
2011	29,257	1	5	55	154	362	578	748	1,903	15,489	7,842	4,020
2012	28,418	4	10	42	112	332	621	662	1,783	15,122	7,504	4,009
2013	25,719	1	9	43	99	285	432	609	1,478	13,658	6,782	3,801

FIGURE 2.01

PERCENT OF IMPAIRED DRIVING INCIDENTS (“DWIs”) COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990-2013

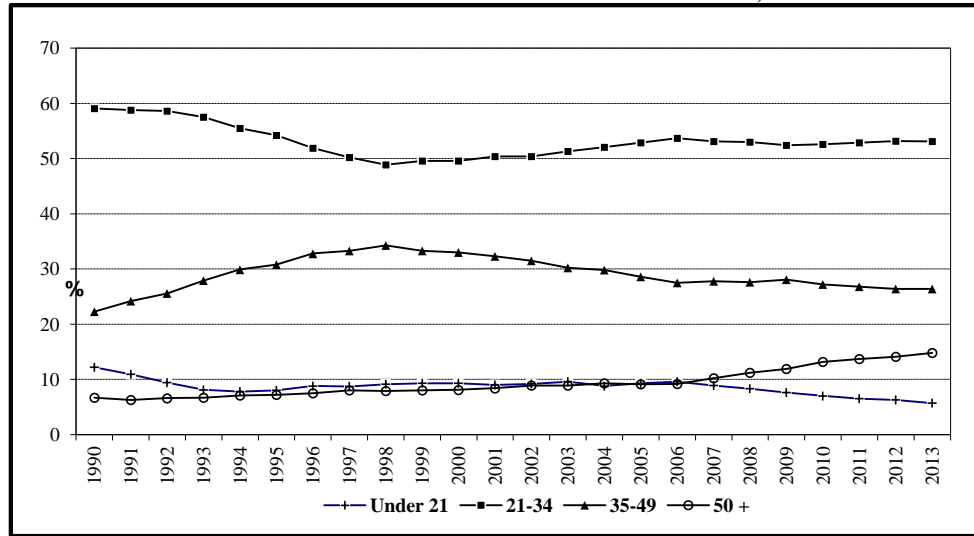


TABLE 2.04

IMPAIRED DRIVING INCIDENTS (“DWIs”) BY AGE-GROUP, 1996 - 2013

Year of Incident	Age 0-14	Age 15-19	Age 20-24	Age 25-29	Age 30-34	Age 35-39	Age 40-44	Age 45-49	Age 50-54	Age 55-59	Age 60-64	Age 65-69	Age 70-74	Age 75-79	Age 80-84	Age 85+	Total
1996	2	1,844	5,731	5,507	5,403	4,719	3,144	1,899	991	589	317	213	96	43	16	1	30,515
1997	5	1,770	5,733	5,651	4,997	4,888	3,295	2,100	1,154	615	335	204	96	46	14	2	30,905
1998	2	1,979	6,176	5,513	4,846	5,160	3,591	2,222	1,137	671	333	192	102	57	18	2	32,001
1999	4	2,161	7,389	5,843	4,900	5,267	3,844	2,368	1,330	670	405	190	98	45	12	3	34,529
2000	5	2,139	7,725	5,819	4,805	5,071	3,922	2,479	1,396	692	368	191	118	55	18	0	34,803
2001	2	1,956	7,839	5,437	4,545	4,408	3,887	2,445	1,450	649	333	194	99	43	14	4	33,305
2002	6	1,937	8,080	5,255	4,345	4,030	3,849	2,500	1,451	754	355	198	105	60	18	5	32,948
2003	3	2,010	8,195	5,394	3,993	3,621	3,646	2,465	1,380	753	381	188	97	47	19	1	32,193
2004	3	1,986	8,689	5,895	4,260	3,660	3,817	2,708	1,641	789	425	166	93	38	26	3	34,199
2005	5	2,202	9,594	6,790	4,360	3,778	3,850	2,929	1,664	920	410	213	92	48	10	5	36,870
2006	6	2,681	11,021	8,043	4,749	4,134	4,011	3,342	1,985	1,030	447	225	107	39	18	4	41,842
2007	4	2,238	9,856	7,398	4,473	3,948	3,624	3,171	1,911	1,100	491	262	93	50	13	2	38,635
2008	6	1,899	8,609	6,868	4,502	3,579	3,278	2,994	1,937	1,114	554	229	101	47	13	6	35,736
2009	6	1,603	7,570	6,394	4,097	3,386	2,937	2,873	1,893	1,055	541	225	119	37	12	7	32,756
2010	4	1,294	6,821	5,776	3,934	2,918	2,671	2,565	1,914	1,086	543	234	98	41	17	2	29,918
2011	1	1,154	6,505	5,837	3,895	2,778	2,671	2,393	1,904	1,084	608	231	120	46	22	5	29,257
2012	4	1,117	6,413	5,421	3,950	2,627	2,665	2,212	1,839	1,090	613	271	135	39	16	6	28,418
2013	1	868	5,478	5,023	3,766	2,596	2,236	1,950	1,779	1,041	557	245	110	42	23	4	25,719

TABLE 2.05

**AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES
AND IN ALCOHOL-RELATED CRASHES, 2013**

Age Group	Killed	Alcohol Related ¹	Severe Injuries	Alcohol Related ²	Moderate Injuries	Alcohol Related ²	Minor Injuries	Alcohol Related ²	Total Injured	Alcohol Related ²
00 - 04	4	0	12	4	65	5	342	11	419	20
05 - 09	9	2	18	4	115	9	500	16	633	29
10 - 14	5	2	40	3	170	11	591	29	801	43
15	3	0	19	3	66	3	176	5	261	11
16	8	1	18	2	147	7	490	16	655	25
17	2	0	24	5	184	15	536	26	744	46
18	7	3	40	8	194	21	568	18	802	47
19	9	2	37	6	189	23	594	47	820	76
20	5	3	32	11	180	19	586	37	798	67
< 21:	52	13	240	46	1,310	113	4,383	205	5,933	364
00 - 14	18	4	70	11	350	25	1,433	56	1,853	92
15 - 19	29	6	138	24	780	69	2,364	112	3,282	205
20 - 24	42	25	153	49	898	147	2,831	255	3,882	451
25 - 29	35	16	135	42	752	124	2,358	182	3,245	348
30 - 34	23	13	98	24	633	89	2,095	155	2,826	268
35 - 39	23	10	84	22	521	68	1,603	106	2,208	196
40 - 44	17	7	88	17	504	50	1,555	70	2,147	137
45 - 49	24	5	70	12	506	64	1,565	93	2,141	169
50 - 54	32	14	89	16	566	58	1,642	80	2,297	154
55 - 59	31	6	93	14	461	36	1,380	55	1,934	105
60 - 64	27	7	73	11	341	36	1,077	29	1,491	76
65 - 69	23	2	35	0	239	17	641	24	915	41
70 - 74	14	1	27	1	182	6	464	6	673	13
75 - 79	17	0	24	2	135	2	341	7	500	11
80 - 84	18	0	11	1	96	1	231	3	338	5
85 +	13	1	22	0	84	0	178	3	284	3
Unk	1	0	6	1	61	4	570	21	637	26
Total	387	117	1,216	247	7,109	796	22,328	1,257	30,653	2,300

¹ Based on alcohol test results plus officer's perception of possible alcohol involvement as noted on crash report.

² Based only on officer's perception of possible alcohol involvement as noted on crash report.

* As shown, there were 117 alcohol-related traffic fatalities in the year 2013. Sixteen of those deaths were to pedestrians, and all of them were drinking. In the 15 fatal crashes involving the 16 drinking pedestrians who were killed, only one of the motor vehicle drivers involved was drinking. Two bicyclists were also among the alcohol related fatalities in 2013. One of the two bicyclists was drinking.

TABLE 2.06
2013 ALCOHOL-RELATED FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY TRAFFIC ROLE

Traffic Role	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
Car or Truck Driver	53	52	5	6	1	40
Car or Truck Passenger	20	10	1	2	0	7
Motorcycle Driver	17	16	0	2	2	12
Motorcycle Passenger	2	2	2	0	0	0
ATV Driver	3	3	0	0	0	3
Snowmobile Driver	2	1	0	1	0	0
Pedestrian	16	16	0	3	0	13
Bicyclist	2	2	1	0	0	1
Other Vehicle	2	1	0	1	0	0
Total	117	103	9	15	3	76

TABLE 2.07
PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES
DETERMINED TO BE ALCOHOL-RELATED, 2004 - 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Deaths* (Known)	31%	35%	34%	37%	36%	34%	32%	37%	33%	30%
(Estimated)	32%	36%	37%	39%	38%	36%	36%	40%	37%	n/a
Injuries**	9%	9%	10%	9%	9%	8%	8%	8%	9%	8%
PDO Crashes**	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%

* Based on alcohol test results plus officer's perception of possible alcohol involvement as noted on crash report.

** Based only on police officer's perception of possible alcohol involvement. (PDO = Property Damage Only).

TABLE 2.08
FIRST HARMFUL EVENT IN ALCOHOL-RELATED
FATAL CRASHES AND ALL FATAL CRASHES, 2013

First Harmful Event	All Fatal Crashes	% of Fatal Crashes	Number of Alcohol Related Fatal Crashes	% of Alcohol Related Fatal Crashes
Collision with:				
Another Motor Vehicle	168	47.1%	26	24.3%
Parked Motor Vehicle	7	2.0	3	2.8
Train	5	1.4	0	0.0
Bicyclist	7	2.0	2	1.9
Pedestrian	34	9.5	15	14.0
Deer/Other Animal	8	2.2	1	0.9
Fixed Object	55	15.4	29	27.1
Other Collision Type	2	0.6	0	0.0
Non-Collision:				
Overtake	59	16.5	26	24.3
Submersion	6	1.7	4	3.7
Other Type Non-Collision	4	1.1	1	0.9
Unknown	2	0.6	0	0.0
Total	357	100.0%	107	100.0%

* Based on alcohol test results plus officer's perception of possible alcohol involvement as noted on crash report.

TABLE 2.09
TEST RESULTS OF DRIVERS KILLED, 2004 - 2013

Year	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
2004	389	337	219 (65%)	11 (3%)	4 (1%)	103 (31%)
2005	379	348	213 (61%)	17 (5%)	5 (1%)	113 (33%)
2006	346	321	207 (64%)	15 (5%)	5 (2%)	94 (29%)
2007	381	336	207 (62%)	15 (4%)	7 (2%)	107 (32%)
2008	316	286	176 (62%)	15 (5%)	6 (2%)	89 (31%)
2009	266	236	160 (68%)	13 (5%)	4 (2%)	59 (25%)
2010	270	237	156 (66%)	6 (3%)	2 (1%)	73 (31%)
2011	243	220	137 (62%)	11 (5%)	6 (3%)	66 (30%)
2012	262	206	130 (63%)	5 (2%)	2 (1%)	69 (34%)
2013	259	219	151 (69%)	10 (5%)	3 (1%)	55 (25%)

* Percents based on drivers tested.

TABLE 2.10
DRIVERS KILLED WHO TESTED .01 OR HIGHER, 2004 - 2013
("Any Alcohol")

Year	Total	Male	Female	Occurred Between Midnight - 3 AM	Under Legal Age
2004	118	101 (86%)	17 (14%)	35 (30%)	19 (16%)
2005	135	120 (89%)	15 (11%)	34 (25%)	11 (8%)
2006	114	95 (83%)	19 (17%)	34 (30%)	14 (12%)
2007	129	110 (85%)	19 (15%)	28 (22%)	11 (9%)
2008	110	91 (83%)	19 (17%)	31 (28%)	9 (8%)
2009	76	63 (83%)	13 (17%)	12 (16%)	7 (9%)
2010	81	63 (78%)	18 (22%)	12 (15%)	7 (9%)
2011	83	70 (84%)	13 (16%)	24 (29%)	9 (11%)
2012	76	66 (87%)	10 (13%)	13 (17%)	6 (8%)
2013	68	59 (87%)	9 (13%)	20 (29%)	3 (4%)

TABLE 2.11
DRIVERS KILLED WHO TESTED OVER THE LEGAL LIMIT, 2004 - 2013
(The legal limit in Minnesota was lowered to .08 in mid-2005)

Year	Total	Male	Female	Occurred Between Midnight - 3 AM	Under Legal Age
2004	103	90 (87%)	13 (13%)	34 (33%)	16 (16%)
2005	118	105 (89%)	13 (11%)	33 (28%)	9 (8%)
2006	99	84 (85%)	15 (15%)	32 (32%)	13 (13%)
2007	114	98 (86%)	16 (14%)	27 (24%)	10 (9%)
2008	95	81 (85%)	14 (15%)	31 (33%)	8 (8%)
2009	63	53 (84%)	10 (16%)	11 (17%)	6 (10%)
2010	75	58 (77%)	17 (23%)	12 (16%)	6 (8%)
2011	72	62 (86%)	10 (14%)	21 (29%)	8 (11%)
2012	71	62 (87%)	9 (13%)	12 (29%)	8 (11%)
2013	58	49 (85%)	9 (16%)	18 (31%)	2 (4%)

FIGURE 2.02

KILLED DRIVERS TESTED FOR ALCOHOL: 1980-2013
Percent Over .01 Alcohol Level and Percent Over Legal Limit
 (The legal limit in Minnesota was lowered to .08 in 2005)

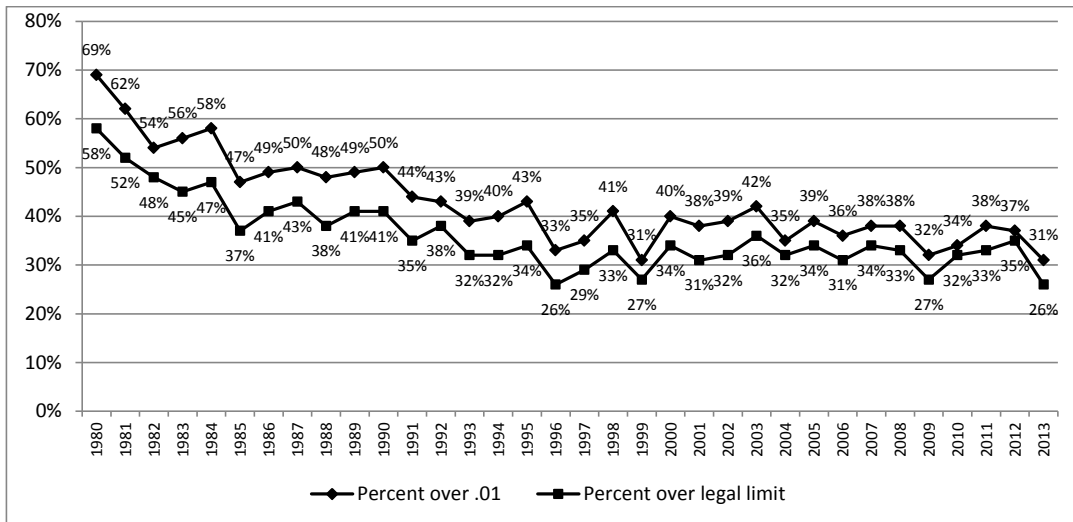


FIGURE 2.03

PERCENT OF DRIVERS KILLED WHO HAD BEEN DRINKING, BY AGE, 2013

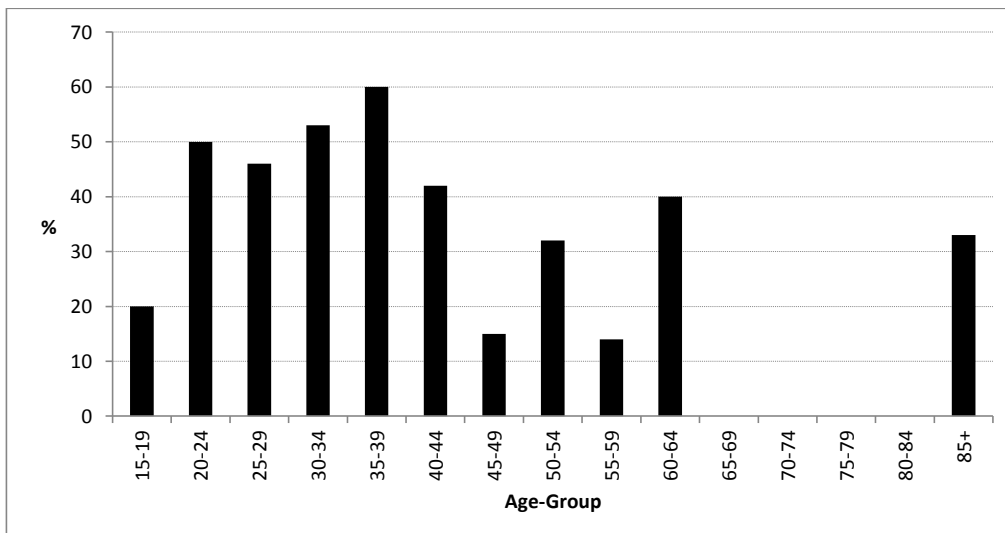


TABLE 2.12

2013 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration								Alcohol Concentration									
			.00		.01 - .07		.08 - .09		.10 +		.01-		.05-		.10-		.15-		.20-	
			num- ber	per- cent	num- ber	per- cent	num- ber	per- cent	num- ber	per- cent	.00	.04	.09	.14	.19	.24	.25 +			
00 - 14	0	0	0		0		0		0		0	0	0	0	0	0	0			
15	1	0	0		0		0		0		0	0	0	0	0	0	0			
16	7	7	6		1		0		0		6	1	0	0	0	0	0			
17	1	1	1		0		0		0		1	0.	0	0	0	0	0			
18	2	2	0		0		0		2		0	0	0	0	2	0	0			
19	5	5	5		0		0		0		5	0	0	0	0	0	0			
20	4	2	2		0		0		0		2	0	0	0	0	0	0			
< 21	20	17	14		1		0		2		14	1	0	0	2	0	0			
00 - 14	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0	0			
15 - 19	16	15	12	80.0	1	6.7	0	0.0	2	13.3	12	1	0	0	2	0	0			
20 - 24	29	24	12	50.0	2	8.3	1	4.2	9	37.5	12	1	2	1	2	4	2			
25 - 29	24	22	12	54.6	1	4.5	0	0.0	9	40.9	12	1	0	1	4	2	2			
30 - 34	20	19	9	47.4	1	5.3	1	5.3	8	42.1	9	1	1	0	3	1	4			
35 - 39	18	15	6	40.0	2	13.3	0	0.0	7	46.7	6	1	1	1	2	1	3			
40 - 44	12	12	7	58.3	1	8.3	0	0.0	4	33.3	7	1	0	0	2	2	0			
45 - 49	14	13	11	84.6	0	0.0	0	0.0	2	15.4	11	0	0	0	2	0	0			
50 - 54	24	22	15	68.2	2	9.1	0	0.0	5	22.7	15	2	0	0	1	2	2			
55 - 59	24	21	18	85.7	0	0.0	1	4.8	2	9.5	18	0	1	0	0	1	1			
60 - 64	22	15	9	60.0	0	0.0	0	0.0	6	40.0	9	0	0	0	2	0	3			
65 - 69	17	16	16	100.0	0	0.0	0	0.0	0	0.0	16	0	0	0	0	0	0			
70 - 74	10	8	8	100.0	0	0.0	0	0.0	0	0.0	8	0	0	0	0	0	0			
75 - 79	11	7	7	100.0	0	0.0	0	0.0	0	0.0	7	0	0	0	0	0	0			
80 - 84	11	7	7	100.0	0	0.0	0	0.0	0	0.0	7	0	0	0	0	0	0			
85+	7	3	2	66.7	0	0.0	0	0.0	1	33.3	2	0	0	1	0	0	0			
Unk Age	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0	0			
Total	259	219	151	68.9	10	4.6	3	1.4	55	25.0	151	8	5	6	18	16	15			

* Percents, based on drivers tested, may not add to 100.0% due to rounding.

TABLE 2.13

2013 ALCOHOL-RELATED CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage	Total Crashes	Killed	Injured
January	2	107	182	291	2	153
February	9	115	192	316	10	163
March	10	113	172	295	11	168
April	1	123	142	266	1	162
May	8	125	149	282	8	164
June	10	139	135	284	11	227
July	11	152	128	291	12	203
August	15	170	147	332	16	225
September	14	161	151	326	17	245
October	7	147	175	329	7	204
November	17	149	164	330	19	215
December	3	121	203	327	3	171
Total	107	1,622	1,940	3,669	117	2,300

TABLE 2.14

2013 ALCOHOL-RELATED CRASHES BY ROADWAY TYPE

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban Interstate	1	139	271	411	1	205
Rural Interstate	2	23	36	61	2	31
Urban US Trunk Hwy	3	88	118	209	3	132
Rural US Trunk Hwy	10	79	86	175	10	112
Urban MN Trunk Hwy	7	130	181	318	8	193
Rural MN Trunk Hwy	16	140	127	283	19	221
County State Aid Hwy	47	511	415	973	52	724
County Road	6	43	24	73	6	59
Township Road	4	74	31	109	5	112
Mun State Aid Hwy	5	210	315	530	5	273
Municipal Street	6	178	323	507	6	230
Other	0	7	13	20	0	8
Total	107	1,622	1,940	3,669	117	2,300

FIGURE 2.04

2013 ALCOHOL-RELATED CRASHES BY TIME OF DAY

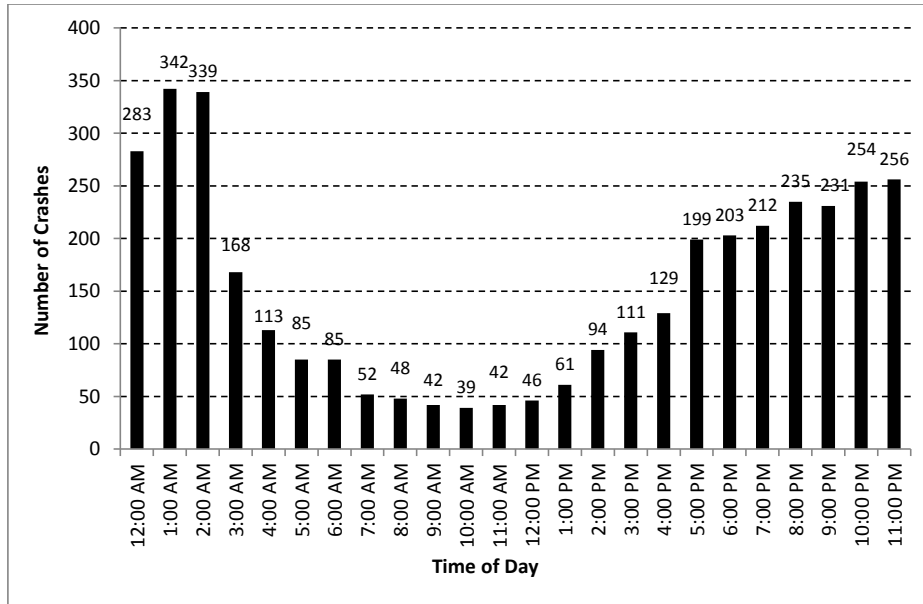


FIGURE 2.05

2013 ALCOHOL-RELATED CRASHES BY DAY OF WEEK

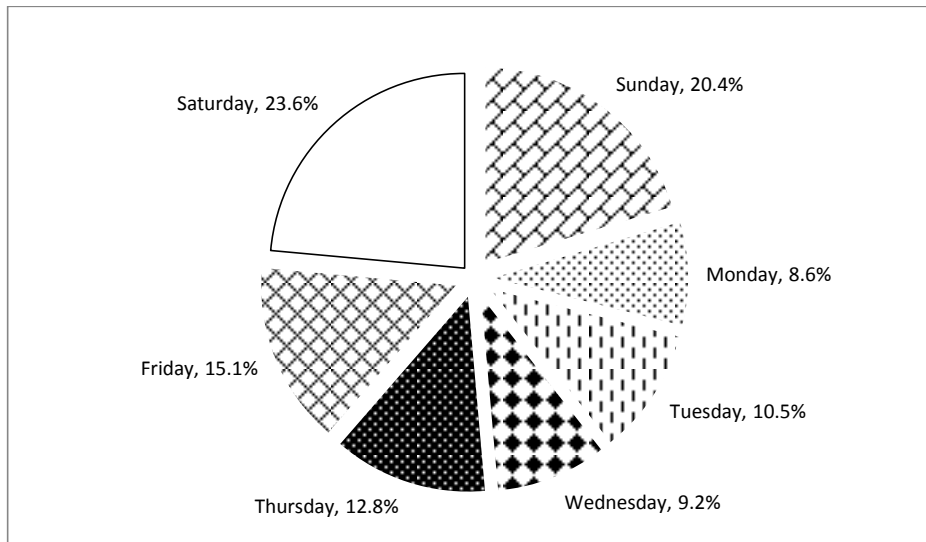


TABLE 2.15

2013 ALCOHOL-RELATED CRASHES BY TIME OF DAY AND DAY OF WEEK

Hour Beginning	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total Crashes	Total Killed	Total Injured
Midnight	74	18	30	17	30	44	70	283	6	162
1:00 AM	106	23	26	23	35	36	93	342	11	191
2:00 AM	95	23	26	16	37	43	99	339	14	210
3:00 AM	56	11	12	7	13	11	58	168	4	93
4:00 AM	33	4	8	10	7	14	37	113	3	58
5:00 AM	25	8	5	6	11	6	24	85	6	56
6:00 AM	31	8	12	4	11	6	13	85	0	49
7:00 AM	12	6	7	2	2	4	19	52	4	24
8:00 AM	11	2	9	4	2	7	13	48	3	23
9:00 AM	11	4	1	6	4	5	11	42	2	26
10:00 AM	7	5	6	3	6	3	9	39	1	30
11:00 AM	11	5	6	7	4	4	5	42	0	32
Noon	8	4	5	6	9	6	8	46	0	38
1:00 PM	6	7	6	6	7	13	16	61	0	37
2:00 PM	13	8	11	12	16	14	20	94	7	76
3:00 PM	19	10	16	15	13	15	23	111	3	81
4:00 PM	16	12	21	14	17	24	25	129	2	99
5:00 PM	26	23	19	24	29	26	52	199	9	142
6:00 PM	33	16	30	23	33	33	35	203	9	115
7:00 PM	36	30	22	24	27	36	37	212	11	158
8:00 PM	35	19	28	32	34	48	39	235	2	166
9:00 PM	25	17	29	22	38	50	50	231	6	153
10:00 PM	33	31	22	31	36	47	54	254	8	133
11:00 PM	25	20	27	22	48	58	56	256	6	148
Unknown	0	0	0	0	0	0	0	0	0	0
Total	747	314	384	336	469	553	866	3,669	117	2,300

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2013 CRASHES

A brief history of restraint legislation

Studies estimate that using safety restraint devices reduces the risk of death and serious injury by 40% to 60%. In view of this, the Minnesota Legislature enacted laws mandating safety equipment use. The Child Passenger Protection Act took effect in 1982, and was amended in 1983 and 1987. It requires children under the age of four to be properly restrained in a federally approved child car seat. The state's safety belt law went into effect in 1986 and was amended in 1988 and 1991. The law requires all front seat occupants (and children ages four through ten, regardless of seating position) to be restrained. The 1986 belt law was 'Secondary' in nature. Thus, an officer could not issue a citation for non-belt use unless there was another moving violation. In 2009 the law was updated to 'Primary'. In addition, children aged 4 through 7 must now be properly restrained in a 'booster seat'.

Tables in this section focus on restraint use by people in crashes who were occupants of motor vehicles normally equipped with seat belts. The data pose one problem in that restraint use was reported as "unknown" for 11.2% of the persons killed and 10.1% of the persons injured in 2013.

Restraint use responds to legislation

Observational surveys of safety belt use conducted annually at random sites around Minnesota show that legislation affects safety belt wearing behavior, thus, saving lives and preventing injuries. In June 1986, before the first safety belt law took effect, 20% of front seat vehicle occupants used belts. The usage rate jumped to 33% after the 1986 law took effect; to 47% after a \$10 fine was added in 1988; and to 55% after the fine was increased to \$25 in 1991. In 1993 the fine for a child safety seat violation was raised to \$50 which also helped increase the overall seat belt usage rate. Minnesota's 'Primary' seat belt law took effect on June 9th, 2009. In June, 2013, the observational seat belt study revealed a 94.8% usage rate.

Occupant fatalities in 2013

In 2013, 269 motor vehicle occupants were killed in traffic crashes which represents a 3% decrease from the previous year. However, the number of vehicle occupants injured (27,362) increased slightly (6%) from 2012. These figures actually reveal a beneficial trend that started in the mid-1980s. Specifically, fatalities and severe injuries have been "trading off" with moderate and minor injuries. They are steadily declining due to the seat belt legislation of the mid-1980s. In 1987, 4,176 motor vehicle occupants suffered severe injuries. In 2013, that number decreased to 874. This is encouraging news. By definition, minor (or "possible") and moderate (or "non-incapacitating") injuries do not produce long-term and severe suffering, while severe injuries often cause such suffering, including consequences such as permanent brain damage and dismemberment.

Northwest region/Township roads

Among the motor vehicle occupants that were killed or injured in the Northwest region of Minnesota, only 76% were known to be using a restraint. This is the lowest rate of use of any region, however, it is an increase from 67% in 2012. The Southwest and West Central regions were second lowest: 80%. Concerning types of roadway, 'Township Roads' had the lowest percentage of seat belt use (67%).

Ejection update: always wear your seat belt

Of the 269 occupants killed in 2013, almost one-third were ejected or partially ejected from the vehicles they were riding in. And, 90% of these ejected fatalities were not wearing a seat belt.

Airbag deployment update

In 2013, airbag deployment was reported 16,445 times when the occupant was also wearing a seat belt. Fifty-five percent of these incidents resulted in no apparent injury. Airbags deployed 782 times when occupants were not wearing seat belts. Only 29% of these cases resulted in no apparent injury. The message is clear, always wear your seat belt.

TABLE 3.01

**PERCENT OF FRONT SEAT OCCUPANTS WEARING SAFETY BELTS,
BY DATE OF OBSERVATION STUDY**

Date of Survey	Area of State			Class of Roadway	
	Overall	Metro	Non-Metro	Major Roads	Local Roads
August 1986	33%	43%	26%	35%	31%
August 1987	32	40	28	35	29
August 1988	47	51	45	48	46
August 1989	44	52	40	44	45
August 1990	47	54	42	49	46
August 1991	53	62	47	53	52
August 1992	51	62	46	55	48
August 1993	55	59	52	57	53
August 1994*	57	58	54	65	54
August 1995	65	68	56	68	64
August 1996	64	67	58	68	62
August 1997	65	67	59	69	63
August 1998	64	67	56	68	63
August 1999	72	73	68	72	68
August 2000	73	74	69	75	71
August 2001	74	75	72	75	69
August 2002	80	83	72	81	76

Date of Survey	Overall	Vehicle Type				Gender	
		Car	SUV	Van	Pickup	Male	Female
August 2003	79.4%	82%	79%	83%	69%	76%	83%
August 2004	82.1	83	87	87	71	78	88
August 2005	83.9	86	87	83	75	80	89
August 2006	83.3	83	87	88	76	79	88
August 2007**	87.8	89	90	90	81	84	92
August 2008	86.7	88	92	88	76	83	92
August 2009	90.2	91	91	95	84	89	92
August 2010	92.3	94	94	95	83	89	96
August 2011	92.7	94	92	96	88	90	95
August 2012	93.6	94	96	93	87	92	96
August 2013	94.8	96	97	97	87	93	98

* A new survey design was initiated in August 1994. In 2003 the survey was completely redesigned and collected more information on vehicle occupants.

** The 2007 observational study was conducted after the 35W bridge crash

TABLE 3.02

**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED
BY EJECTION STATUS AND INJURY SEVERITY, 2013**

Ejection Status	Killed	Row %	Severe Injury	Row %	Moderate Injury	Row %	Minor Injury	Row %	Total Killed or Injured	Total %
Not Ejected	203	0.8	730	2.8	5,661	21.6	19,657	74.9	26,251	100%
Partly Ejected	7	14.9	17	36.2	12	25.5	11	23.4	47	100%
Ejected	51	16.5	92	29.8	75	24.3	91	29.5	309	100%
Not Stated	8	0.8	35	3.4	148	14.5	833	81.4	1,024	100%
Total	269	1.0%	874	3.2%	5,896	21.3%	20,592	74.5%	27,631	100%

TABLE 3.03

**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED,
BY AGE AND INJURY SEVERITY, 2013**

Age Group	Killed	Severe Injury	Moderate Injury	Minor Injury	Total Injuries
00 - 04	3	10	54	325	389
05 - 09	5	12	86	425	523
10 - 14	4	24	119	475	618
15 - 19	25	114	677	2,194	2,985
20 - 24	27	119	760	2,597	3,476
25 - 29	29	103	617	2,160	2,880
30 - 34	16	77	532	1,973	2,582
35 - 39	18	56	438	1,495	1,989
40 - 44	11	56	408	1,450	1,914
45 - 49	15	48	417	1,450	1,915
50 - 54	17	55	443	1,507	2,005
55 - 59	15	52	365	1,273	1,690
60 - 64	16	50	282	1,002	1,334
65 - 69	17	27	202	605	834
70 - 74	12	19	156	438	613
75 - 79	12	22	117	330	469
80 - 84	16	9	92	227	328
85 & Older	11	17	78	172	267
Not Stated	0	4	53	494	551
Total	269	874	5,896	20,592	27,362

FIGURE 3.01

**SAFETY EQUIPMENT USE AMONG MOTOR VEHICLE
OCCUPANTS KILLED OR INJURED, BY AGE, 2013**

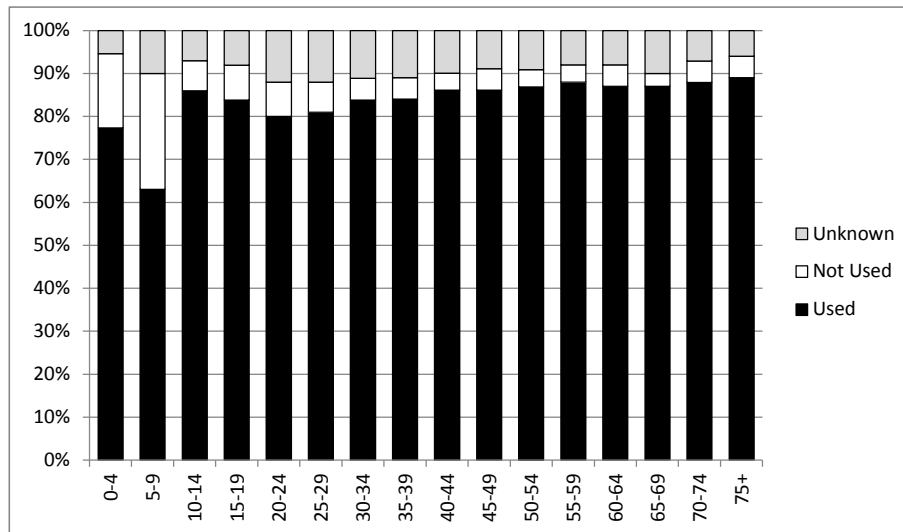


TABLE 3.04

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS,
BY GENDER AND INJURY SEVERITY, 2013**

	Females Killed	Males Killed	Total Killed	Females Severely Injured	Males Severely Injured	Females Moderately Injured	Males Moderately Injured	Females- Minor Injuries	Males- Minor Injuries	Total Injuries
Used	68	77	145	233	266	2,629	2,131	10,183	7,335	22,945
Not Used	29	65	94	85	160	212	357	384	454	1,668
Unknown	5	25	30	53	75	220	316	977	1,005	2,749
Total	102	167	269	371	501	3,061	2,804	11,544	8,794	27,362

Note: Gender was not reported for 287 persons injured (mostly those with minor injuries), causing the "Total" to be 287 greater than the sum of the "severe," "moderate," and "minor" injury columns.

TABLE 3.05

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED
OR INJURED, BY AGE AND INJURY SEVERITY, 2013**

Age Group	Restraint Use	Killed	%	Severe Injuries	%	Moderate Injuries	%	Minor Injuries	%	Total Injured	%
00 - 03 Years	Used	3	100.0	4	66.7	28	77.8	211	81.5	243	80.7
	Not Used	0	0.0	1	16.7	6	16.7	37	14.3	44	14.6
	Unknown	<u>0</u>	<u>0.0</u>	<u>1</u>	<u>16.7</u>	<u>2</u>	<u>5.6</u>	<u>11</u>	<u>4.3</u>	<u>14</u>	<u>4.7</u>
	Subtotal	3	100.0	6	100.0	36	100.0	259	100.0	301	100.0
04 - 07 Years	Used	1	25.0	0	0.0	33	50.0	172	54.4	205	52.4
	Not Used	2	50.0	6	66.7	30	45.5	109	34.5	145	37.1
	Unknown	<u>1</u>	<u>25.0</u>	<u>3</u>	<u>33.3</u>	<u>3</u>	<u>4.6</u>	<u>35</u>	<u>11.1</u>	<u>41</u>	<u>10.5</u>
	Subtotal	4	100.0	9	100.0	66	100.0	316	100.0	391	100.0
00 - 07 Years	Used	4	57.1	4	26.7	61	59.8	383	66.6	448	64.7
	Not Used	2	28.6	7	46.7	36	35.3	146	25.4	189	27.3
	Unknown	<u>1</u>	<u>14.3</u>	<u>4</u>	<u>26.7</u>	<u>5</u>	<u>4.9</u>	<u>46</u>	<u>8.0</u>	<u>55</u>	<u>8.0</u>
	Subtotal	7	100.0	15	100.0	102	100.0	575	100.0	692	100.0
00 - 04 Years	Used	3	100.0	4	40.0	38	70.4	258	79.4	300	77.1
	Not Used	0	0.0	5	50.0	13	24.1	50	15.4	68	17.5
	Unknown	<u>0</u>	<u>0.0</u>	<u>1</u>	<u>10.0</u>	<u>3</u>	<u>5.6</u>	<u>17</u>	<u>5.2</u>	<u>21</u>	<u>5.4</u>
	Subtotal	3	100.0	10	100.0	54	100.0	325	100.0	389	100.0
05 - 09 Years	Used	2	40.0	5	41.7	52	60.5	272	64.0	329	62.9
	Not Used	2	40.0	4	33.3	27	31.4	110	25.9	141	27.0
	Unknown	<u>1</u>	<u>20.0</u>	<u>3</u>	<u>25.0</u>	<u>7</u>	<u>8.1</u>	<u>43</u>	<u>10.1</u>	<u>53</u>	<u>10.1</u>
	Subtotal	5	100.0	12	100.0	86	100.0	425	100.0	523	100.0
10 - 14 Years	Used	1	25.0	18	75.0	94	79.0	423	89.1	535	86.6
	Not Used	2	50.0	6	25.0	15	12.6	18	3.8	39	6.3
	Unknown	<u>1</u>	<u>25.0</u>	<u>0</u>	<u>0.0</u>	<u>10</u>	<u>8.4</u>	<u>34</u>	<u>7.2</u>	<u>44</u>	<u>7.1</u>
	Subtotal	4	100.0	24	100.0	119	100.0	475	100.0	618	100.0
15 - 19 Years	Used	13	52.0	64	56.1	522	77.1	1,908	87.0	2,494	83.6
	Not Used	11	44.0	35	30.7	92	13.6	111	5.1	238	8.0
	Unknown	<u>1</u>	<u>4.0</u>	<u>15</u>	<u>13.2</u>	<u>63</u>	<u>9.3</u>	<u>175</u>	<u>8.0</u>	<u>253</u>	<u>8.5</u>
	Subtotal	25	100.0	114	100.0	677	100.0	2,194	100.0	2,985	100.0
20 - 24 Years	Used	13	48.2	54	45.4	576	75.8	2,166	83.4	2,796	80.4
	Not Used	11	40.7	47	39.5	87	11.5	122	4.7	256	7.4
	Unknown	<u>3</u>	<u>11.1</u>	<u>18</u>	<u>15.1</u>	<u>97</u>	<u>12.8</u>	<u>309</u>	<u>11.9</u>	<u>424</u>	<u>12.2</u>
	Subtotal	27	100.0	119	100.0	760	100.0	2,597	100.0	3,476	100.0
25 - 29 Years	Used	11	37.9	49	47.6	484	78.4	1,806	83.6	2,339	81.2
	Not Used	13	44.8	33	32.0	73	11.8	83	3.8	189	6.6
	Unknown	<u>5</u>	<u>17.2</u>	<u>21</u>	<u>20.4</u>	<u>60</u>	<u>9.7</u>	<u>271</u>	<u>12.6</u>	<u>352</u>	<u>12.2</u>
	Subtotal	29	100.0	103	100.0	617	100.0	2,160	100.0	2,880	100.0
30 - 34 Years	Used	9	56.3	43	55.8	419	78.8	1,693	85.8	2,155	83.5
	Not Used	5	31.3	19	24.7	60	11.3	60	3.0	139	5.4
	Unknown	<u>2</u>	<u>12.5</u>	<u>15</u>	<u>19.5</u>	<u>53</u>	<u>10.0</u>	<u>220</u>	<u>11.2</u>	<u>288</u>	<u>11.2</u>
	Subtotal	16	100.0	77	100.0	532	100.0	1,973	100.0	2,582	100.0
35 - 39 Years	Used	8	44.4	29	51.8	364	83.1	1,286	86.0	1,679	84.4
	Not Used	7	38.9	19	33.9	33	7.5	47	3.1	99	5.0
	Unknown	<u>3</u>	<u>16.7</u>	<u>8</u>	<u>14.3</u>	<u>41</u>	<u>9.4</u>	<u>162</u>	<u>10.8</u>	<u>211</u>	<u>10.6</u>
	Subtotal	18	100.0	56	100.0	438	100.0	1,495	100.0	1,989	100.0

TABLE 3.05 CONTINUED

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED
OR INJURED, BY AGE AND INJURY SEVERITY, 2013**

Age Group	Restraint Use	Killed	%	Severe Injuries	%	Moderate Injuries	%	Minor Injuries	%	Total Injured	%
40 - 44 Years	Used	6	54.6	37	66.1	347	85.1	1,279	88.2	1,663	86.9
	Not Used	3	27.3	11	19.6	27	6.6	33	2.3	71	3.7
	Unknown	<u>2</u>	<u>18.2</u>	<u>8</u>	<u>14.3</u>	<u>34</u>	<u>8.3</u>	<u>138</u>	<u>9.5</u>	<u>180</u>	<u>9.4</u>
	Subtotal	11	100.0	56	100.0	408	100.0	1,450	100.0	1,914	100.0
45 - 49 Years	Used	11	73.3	29	60.4	351	84.2	1,282	88.4	1,662	86.8
	Not Used	3	20.0	13	27.1	37	8.9	39	2.7	89	4.7
	Unknown	<u>1</u>	<u>6.7</u>	<u>6</u>	<u>12.5</u>	<u>29</u>	<u>7.0</u>	<u>129</u>	<u>8.9</u>	<u>164</u>	<u>8.6</u>
	Subtotal	15	100.0	48	100.0	417	100.0	1,450	100.0	1,915	100.0
50 - 54 Years	Used	9	52.9	31	56.4	381	86.0	1,327	88.1	1,739	86.7
	Not Used	6	35.3	19	34.6	18	4.1	47	3.1	84	4.2
	Unknown	<u>2</u>	<u>11.8</u>	<u>5</u>	<u>9.1</u>	<u>44</u>	<u>9.9</u>	<u>133</u>	<u>8.8</u>	<u>182</u>	<u>9.1</u>
	Subtotal	17	100.0	55	100.0	443	100.0	1,507	100.0	2,005	100.0
55 - 59 Years	Used	9	60.0	35	67.3	315	86.3	1,142	89.7	1,492	88.3
	Not Used	5	33.3	8	15.4	23	6.3	33	2.6	64	3.8
	Unknown	<u>1</u>	<u>6.7</u>	<u>2</u>	<u>17.3</u>	<u>27</u>	<u>7.4</u>	<u>98</u>	<u>7.7</u>	<u>134</u>	<u>7.9</u>
	Subtotal	15	100.0	52	100.0	365	100.0	1,273	100.0	1,690	100.0
60 - 64 Years	Used	7	43.8	35	70.0	238	84.4	898	89.6	1,171	87.8
	Not Used	7	43.8	9	18.0	23	8.2	31	3.1	63	4.7
	Unknown	<u>2</u>	<u>12.5</u>	<u>6</u>	<u>12.0</u>	<u>21</u>	<u>7.5</u>	<u>73</u>	<u>7.3</u>	<u>100</u>	<u>7.5</u>
	Subtotal	16	100.0	50	100.0	282	100.0	1,002	100.0	1,334	100.0
65 - 69 Years	Used	12	70.6	20	74.1	176	87.1	534	88.3	730	87.5
	Not Used	3	17.7	4	14.8	6	3.0	12	2.0	22	2.6
	Unknown	<u>2</u>	<u>11.8</u>	<u>3</u>	<u>11.1</u>	<u>20</u>	<u>9.9</u>	<u>59</u>	<u>9.8</u>	<u>82</u>	<u>9.8</u>
	Subtotal	17	100.0	27	100.0	202	100.0	605	100.0	834	100.0
70 - 74 Years	Used	4	33.3	12	63.2	136	87.2	393	89.7	541	88.3
	Not Used	7	58.3	5	26.3	14	9.0	8	1.8	27	4.4
	Unknown	<u>1</u>	<u>8.3</u>	<u>2</u>	<u>10.5</u>	<u>6</u>	<u>3.9</u>	<u>37</u>	<u>8.5</u>	<u>45</u>	<u>7.3</u>
	Subtotal	12	100.0	19	100.0	156	100.0	438	100.0	613	100.0
75 & Older	Used	27	69.2	33	68.8	250	87.1	669	91.6	952	89.4
	Not Used	9	23.1	8	16.7	19	6.6	20	2.7	47	4.4
	Unknown	<u>3</u>	<u>7.7</u>	<u>7</u>	<u>14.6</u>	<u>18</u>	<u>6.3</u>	<u>41</u>	<u>5.6</u>	<u>66</u>	<u>6.2</u>
	Subtotal	39	100.0	48	100.0	287	100.0	730	100.0	1,065	100.0
Age Not Stated	Used	0	0.0	2	50.0	34	64.2	332	67.3	368	66.9
	Not Used	0	0.0	0	0.0	4	7.8	28	5.7	32	5.8
	Unknown	<u>0</u>	<u>0.0</u>	<u>2</u>	<u>50.0</u>	<u>15</u>	<u>28.3</u>	<u>133</u>	<u>27.0</u>	<u>150</u>	<u>27.3</u>
	Subtotal	0	0.0	4	100.0	53	100.0	493	100.0	550	100.0
All Ages	Used	145	53.9	500	57.2	4,777	81.0	17,668	85.8	22,945	83.9
	Not Used	94	34.9	245	28.0	571	9.7	852	4.1	1,668	6.1
	Unknown	<u>30</u>	<u>11.2</u>	<u>129</u>	<u>14.8</u>	<u>548</u>	<u>9.3</u>	<u>2,072</u>	<u>10.1</u>	<u>2,749</u>	<u>10.1</u>
	Subtotal	269	100.0	874	100.0	5,896	100.0	20,592	100.0	27,362	100.0

Percentages may not sum to 100.0% due to rounding. Persons aged 0 through 3 and 4 through 7 years old are categorized separately because Minnesota law makes special provisions for these age groups.

TABLE 3.06

**PERCENT OF KILLED OR INJURED MOTOR VEHICLE OCCUPANTS WHO
USED SAFETY EQUIPMENT, BY INJURY SEVERITY AND YEAR, 2004 - 2013**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Killed										
Used	39.5	40.2	40.0	41.4	45.2	42.4	48.5	46.5	46.7	53.9
Not Used	51.8	51.2	52.0	48.9	46.2	43.7	41.0	44.3	42.0	34.9
Unknown	8.7	8.6	8.0	9.8	8.6	13.9	10.5	9.2	11.2	11.2
Injured										
Severe Injuries										
Used	49.3	49.6	49.9	52.2	51.4	55.2	58.3	59.2	57.8	57.2
Not Used	32.8	30.8	32.8	31.6	29.8	27.9	27.2	29.0	25.8	28.0
Unknown	17.9	19.6	17.3	16.2	18.8	16.9	14.5	11.8	16.3	14.8
Moderate Injuries										
Used	70.3	70.9	69.0	71.6	72.4	74.6	79.1	79.1	79.4	81.0
Not Used	17.4	15.9	16.8	15.4	14.8	12.8	10.8	10.4	10.1	9.7
Unknown	12.4	13.2	14.2	13.0	12.8	12.6	10.1	10.5	10.6	9.3
Minor Injuries										
Used	78.8	80.6	80.2	81.6	81.8	83.0	84.7	85.4	85.1	85.8
Not Used	9.7	8.8	8.6	7.6	7.4	6.5	5.5	5.1	5.1	4.1
Unknown	11.4	10.6	11.3	10.8	10.8	10.4	9.8	9.5	9.9	10.1
Total Injured										
Used	74.8	76.6	76.1	78.0	78.5	80.1	82.7	83.3	82.9	83.9
Not Used	13.2	11.7	11.6	10.4	10.0	8.7	7.3	7.0	6.8	6.1
Unknown	12.0	11.7	12.3	11.6	11.6	11.2	10.0	9.7	10.2	10.0

TABLE 3.07

**SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS
KILLED OR INJURED, BY ROADWAY TYPE, 2013**

Roadway Type	Used	%	Not Used	%	Unknown	%	Total	%
Interstate	3,674	90.9	194	4.8	174	4.3	4,042	100.0%
US Trunk Hwy	3,193	89.4	196	5.5	183	5.1	3,572	100.0%
MN Trunk Hwy	4,519	86.4	338	6.5	375	7.2	5,232	100.0%
CSAH	6,557	81.3	556	6.9	952	11.8	8,065	100.0%
County Road	314	73.5	54	12.7	59	13.8	427	100.0%
Township Road	372	67.0	106	19.1	77	13.9	555	100.0%
MSAH	3,228	80.5	181	4.5	599	15.0	4,008	100.0%
Municipal Street	1,193	71.2	129	7.7	353	21.1	1,675	100.0%
Other Road	40	72.3	8	14.6	7	12.7	55	100.0%
Total	23,090	83.6	1,762	6.4	2,779	10.1	27,631	100.0%

CSAH = County State Aid Highway. MSAH = Municipal State Aid Highway

TABLE 3.08

**SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS
KILLED OR INJURED, BY REGION OF THE STATE, 2013**

EMS Region	Percent Used	Percent Not Used	Percent Unknown	Number of People
Metropolitan	84.0	4.4	11.6	15,832
Central	85.0	8.0	7.0	3,815
Northeast	82.5	8.2	9.3	1,646
Northwest	75.9	11.2	12.9	606
South Central	81.7	9.7	8.6	1,058
Southeast	85.7	7.4	7.0	2,315
Southwest	79.6	12.6	7.9	1,347
West Central	79.6	11.9	8.5	1,012
Statewide	83.6	6.4	10.1	27,631

*The regions of the state are shown in the map at right.

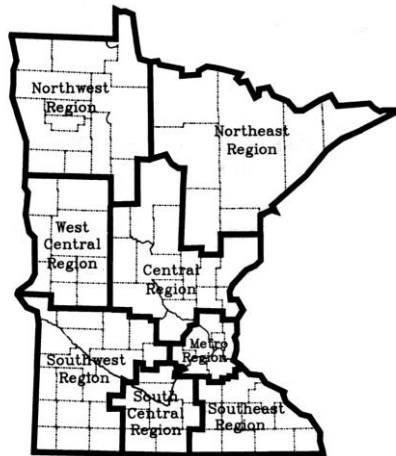


TABLE 3.09
AIRBAG DEPLOYMENTS, 2006 - 2013

Year	Injury Severity	Airbag Deployed Belt Used	Airbag Deployed Belt Not Used	Deployment Not Indicated Belt Used	Deployment Not Indicated Belt Not Used	Belt Use Unknown	Total
2006	Killed	80	63	69	131	30	373
	Severe Injury	265	142	398	293	230	1,328
	Moderate Injury	1,917	323	3,491	993	1,114	7,838
	Minor Injury	4,067	351	13,747	1,552	2,504	22,221
	No Apparent Injury	<u>7,130</u>	<u>375</u>	<u>96,018</u>	<u>3,779</u>	<u>44,881</u>	<u>152,183</u>
	Total	13,459	1,254	113,723	6,748	48,759	183,943
2007	Killed	89	76	76	119	39	399
	Severe Injury	294	152	350	237	200	1,233
	Moderate Injury	2,044	338	3,489	850	1,009	7,730
	Minor Injury	4,336	365	13,941	1,334	2,417	22,393
	No Apparent Injury	<u>7,535</u>	<u>361</u>	<u>104,297</u>	<u>3,783</u>	<u>43,270</u>	<u>159,246</u>
	Total	14,298	1,292	122,153	6,323	46,935	191,001
2008	Killed	81	46	66	104	28	325
	Severe Injury	278	113	290	216	207	1,104
	Moderate Injury	1,851	297	3,128	718	879	6,873
	Minor Injury	4,233	341	13,504	1,267	2,345	21,690
	No Apparent Injury	<u>7,594</u>	<u>323</u>	<u>102,417</u>	<u>3,345</u>	<u>36,239</u>	<u>149,918</u>
	Total	14,037	1,120	119,405	5,650	39,698	179,910
2009	Killed	73	57	55	75	42	302
	Severe Injury	251	96	255	160	155	917
	Moderate Injury	1,767	271	3,023	553	809	6,423
	Minor Injury	4,076	272	12,702	1,045	2,111	20,206
	No Apparent Injury	<u>7,318</u>	<u>270</u>	<u>98,055</u>	<u>3,308</u>	<u>31,781</u>	<u>140,732</u>
	Total	13,485	966	114,090	5,141	34,898	168,580
2010	Killed	95	46	53	79	32	305
	Severe Injury	248	76	240	152	121	837
	Moderate Injury	1,807	176	3,096	492	624	6,195
	Minor Injury	4,241	226	13,347	917	2,027	20,758
	No Apparent Injury	<u>7,620</u>	<u>210</u>	<u>101,735</u>	<u>3,055</u>	<u>30,979</u>	<u>143,599</u>
	Total	14,011	734	118,471	4,695	33,783	171,694
2011	Killed	83	51	43	69	25	271
	Severe Injury	268	100	203	131	94	796
	Moderate Injury	1,763	190	2,855	416	613	5,837
	Minor Injury	4,332	234	12,978	799	1,915	20,258
	No Apparent Injury	<u>7,860</u>	<u>243</u>	<u>99,608</u>	<u>2,716</u>	<u>28,078</u>	<u>138,505</u>
	Total	14,306	818	115,687	4,131	30,725	165,667
2012	Killed	80	50	49	66	31	276
	Severe Injury	297	91	202	132	141	863
	Moderate Injury	1,869	201	2,581	364	592	5,607
	Minor Injury	4,637	256	11,761	721	1,904	19,279
	No Apparent Injury	<u>8,093</u>	<u>229</u>	<u>94,519</u>	<u>2,390</u>	<u>27,092</u>	<u>132,323</u>
	Total	14,976	827	109,112	3,673	29,760	158,348
2013	Killed	92	39	53	55	30	269
	Severe Injury	287	100	213	145	129	874
	Moderate Injury	2,003	189	2,774	382	548	5,896
	Minor Injury	4,988	228	12,680	624	2,072	20,592
	No Apparent Injury	<u>9,075</u>	<u>226</u>	<u>106,392</u>	<u>2,586</u>	<u>30,084</u>	<u>148,363</u>
	Total	16,445	782	122,112	3,792	32,863	175,994

Note: "Belt use" is used as a shorthand term for safety restraint use. Safety restraint devices are normally lap and shoulder belts, but they can also be child safety seats or booster seats.

IV: MOTORCYCLE CRASHES

2013 motorcycle crash summary

In the past decade many older people have returned to motorcycling. By the end of the calendar year 2013, the number of licensed motorcycle operators in Minnesota had reached the highest level in history. As a result, motorcyclist crash involvement remains very worrisome to traffic safety officials. However, in 2013 there were 1,266 crashes that involved at least one motorcycle. This represents a 19% decrease from the previous year.

On the other hand, motorcyclist fatalities in 2013 increased 9% from 2012 (from 55 to 60). Of the 60 killed, 53 were drivers and 7 were passengers. Injuries to motorcyclists decreased 21% though (from 1,454 to 1,143). Sixty-eight percent of all motorcyclists killed or injured in 2013 were people aged 40 and over.

Alcohol use among drivers remains high

State law requires that drivers who die in traffic crashes be tested for blood alcohol level. In 2013, 53 motorcycle drivers were killed and 43 of them were tested. Sixteen (37%) of the 43 drivers tested positive for alcohol, and 14 of the 43 (33%) tested at .08 or greater.

Greater crash severity

When a motorcycle is involved in a traffic crash, the chances for a fatality are greatly increased. In fact, 4.7 out of every 100 motorcycle crashes in 2013 was a fatal crash. For all crashes in Minnesota, only 0.5 out of every 100 crashes is a fatal crash.

Helmet use

Currently, Minnesota does not have a mandatory helmet use law for motorcyclists 18 or older. Laws may be debated, but the benefits helmets offer are clear, they protect the head in the event of a crash. In 2013, only 14 (23%) of the 60 motorcycle riders killed were known to be wearing a helmet. Of the 1,143 motorcyclists injured, only 389 (34%) were known to be wearing a helmet.

Operator training is essential

In addition to the newly endorsed younger drivers each year, a large number of middle-aged people are returning to motorcycling. The crash data indicates that proper operator training is a must. In 2013, 55% of all motorcycle crashes were single vehicle crashes. A majority of these single vehicle crashes were collisions with fixed objects or simply the motorcycle overturning. In addition, 2013 data indicate that one out of every five motorcycle operators that were involved in a fatal crash did not have a valid endorsement to drive a motorcycle. These facts surely indicate that further training is needed for a large segment of the motorcycle driver population.

Males are most often victims

The motorcycle crash experience in Minnesota remains largely a male one. In 2013, 50 of the 60 motorcyclists killed, and 948 of the 1,143 injured, were male. Males account for 83% of all motorcyclists killed or injured.

Contributing factors for motorcyclists

As noted, over half of motorcycle crashes are single-vehicle crashes. In these crashes, the factors that reporting officers list most often are illegal or unsafe speed (17%), driver inexperience (12%), and driver inattention or distraction (10%). In crashes that involve another motor vehicle, the reporting officers list following too closely (19%) and driver inattention or distraction most often for the motorcyclists (17%).

Contributing factors for the other drivers

In motorcycle crashes that involve another vehicle, the reporting officers more often associate contributing factors with the other driver than with the motorcyclist. For the other drivers, failure to yield right of way (39%), and driver inattention or distraction (21%) are listed most frequently. This demonstrates the need for programming to help motor vehicle drivers and motorcyclists share the road safely.

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1981 – 2013

Year	Motorcycle Crashes				Killed		Injured		Licensed Operators	Registered Motorcycles	Mcy Deaths per 10,000 Reg. Mcy	Fatal Crash Rate Per 100 Crashes	
	Fatal	Injury	PDO*	Total	Mcy	Other	Mcy	Other				For Mcy	For All Crashes
1981	92	2,516	455	3,063	96	0	2,874	196	238,926	166,151	5.8	3.0	0.7
1982	72	2,115	331	2,518	70	6	2,381	189	264,134	159,345	4.4	2.9	0.6
1983	70	2,377	364	2,811	73	0	2,678	191	252,808	155,502	4.7	2.5	0.5
1984	59	2,302	407	2,768	62	1	2,590	207	256,836	153,851	4.0	2.2	0.5
1985	75	2,238	435	2,748	77	1	2,500	204	272,317	151,449	5.1	2.7	0.5
1986	63	1,891	364	2,318	66	0	2,152	142	282,087	141,261	4.7	2.7	0.5
1987	51	1,692	378	2,121	51	3	1,853	145	288,424	134,590	3.8	2.4	0.5
1988	57	1,628	284	1,969	58	4	1,817	126	293,347	128,956	4.5	2.9	0.5
1989	37	1,463	248	1,748	37	0	1,617	104	290,000	123,308	3.0	2.1	0.5
1990	46	1,446	243	1,735	50	2	1,605	126	292,074	120,081	4.2	2.7	0.5
1991	38	1,198	225	1,461	40	0	1,357	104	296,624	117,492	3.4	2.6	0.5
1992	29	1,133	199	1,361	28	3	1,288	60	290,722	116,124	2.4	2.1	0.5
1993	33	1,022	190	1,245	34	3	1,151	104	291,756	114,548	3.0	2.7	0.5
1994	41	1,151	189	1,381	43	0	1,324	66	293,164	113,337	3.8	3.0	0.6
1995	32	941	153	1,126	35	2	1,063	76	295,849	113,981	3.1	2.8	0.5
1996	39	934	158	1,131	42	0	1,046	71	297,102	112,551	3.7	3.4	0.5
1997	23	821	127	971	24	1	916	65	298,863	113,443	2.1	2.4	0.5
1998	41	883	141	1,065	40	1	987	69	301,992	118,275	3.4	3.8	0.6
1999	30	867	127	1,024	29	2	991	64	307,009	122,676	2.4	2.9	0.6
2000	34	935	166	1,135	35	1	1,039	45	311,825	132,352	2.6	3.0	0.5
2001	41	997	175	1,213	42	1	1,094	54	317,421	142,882	2.9	3.4	0.5
2002	47	943	178	1,168	47	0	1,071	46	327,604	149,360	3.1	4.0	0.6
2003	58	NA	NA	NA	62	1	NA	NA	335,862	161,793	3.8	NA	NA
2004	50	1,112	182	1,344	50	1	1,251	67	346,169	174,195	2.9	3.7	0.6
2005	61	1,201	169	1,431	59	4	1,319	72	353,460	185,087	3.2	4.3	0.6
2006	70	1,279	147	1,496	70	0	1,413	79	360,143	197,735	3.5	4.7	0.6
2007	60	1,368	195	1,623	61	0	1,498	67	369,623	209,591	2.9	3.7	0.6
2008	71	1,350	212	1,633	72	0	1,505	62	380,232	224,625	3.2	4.3	0.5
2009	47	1,089	193	1,329	53	0	1,200	53	387,159	226,675	2.3	3.5	0.5
2010	44	1,168	165	1,377	45	2	1,296	58	394,083	229,912	2.0	3.2	0.5
2011	43	1,130	136	1,309	42	2	1,248	45	398,092	232,274	1.8	3.3	0.5
2012	51	1,320	192	1,563	55	0	1,454	68	404,967	237,278	2.3	3.3	0.5
2013	59	1,047	160	1,266	60	2	1,143	52	409,943	235,909	2.5	4.7	0.5
Record High*	112	2,728	537	3,308	121	9	3,359	207	409,943	237,278	7.7	4.7	0.8
(year)	(1980)	(1980)	(1976)	(1980)	(1980)	(1975)	(1980)	(1984)	(2013)	(2012)	(1980)	(2013)	(1970)

* Notes: The abbreviation PDO stands for “property damage only” -- a crash in which no one is killed or injured. The abbreviation Mcy stands for “motorcyclists” or for “motorcycle.” The record high shown is for the period of time back to year 1970. For registered classic motorcycles, see Table 3 on page 6.

TABLE 4.02

2013 MOTORCYCLE CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
Collision With:						
Other Motor Vehicle	26	445	100	571	28	489
Parked Vehicle	0	11	24	35	0	11
Bicyclist	2	4	0	6	1	2
Pedestrian	1	2	0	3	0	3
Deer	7	72	5	84	7	88
Other Animal	0	6	2	8	0	8
Fixed Object	15	131	9	155	15	145
Non-Collision:						
Overturn/Rollover	6	152	8	166	6	160
Other / Unknown	2	224	12	238	3	237
Total	59	1,047	160	1,266	60	1,143

TABLE 4.03

2013 MOTORCYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
250,000 and Over	4	122	45	171	4	130
100,000 - 249,999	3	18	1	22	3	19
50,000 - 99,999	6	172	23	201	6	188
25,000 - 49,999	3	127	18	148	3	135
10,000 - 24,999	4	162	28	194	4	173
5,000 - 9,999	4	64	4	72	3	69
2,500 - 4,999	2	40	15	57	2	43
1,000 - 2,499	2	25	1	28	2	26
Under 1,000	31	317	25	373	33	360
Total	59	1,047	160	1,266	60	1,143

TABLE 4.04

2013 MOTORCYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
January	0	0	0	0	0	0
February	0	0	0	0	0	0
March	0	9	1	10	0	9
April	3	51	2	56	3	55
May	8	100	14	122	8	109
June	10	182	23	215	11	193
July	17	200	28	245	19	233
August	10	248	42	300	9	266
September	11	174	33	218	10	191
October	0	71	16	87	0	74
November	0	11	1	12	0	12
December	0	1	0	1	0	1
Total	59	1,047	160	1,266	60	1,143

FIGURE 4.01

2013 MOTORCYCLE CRASHES BY TIME OF DAY

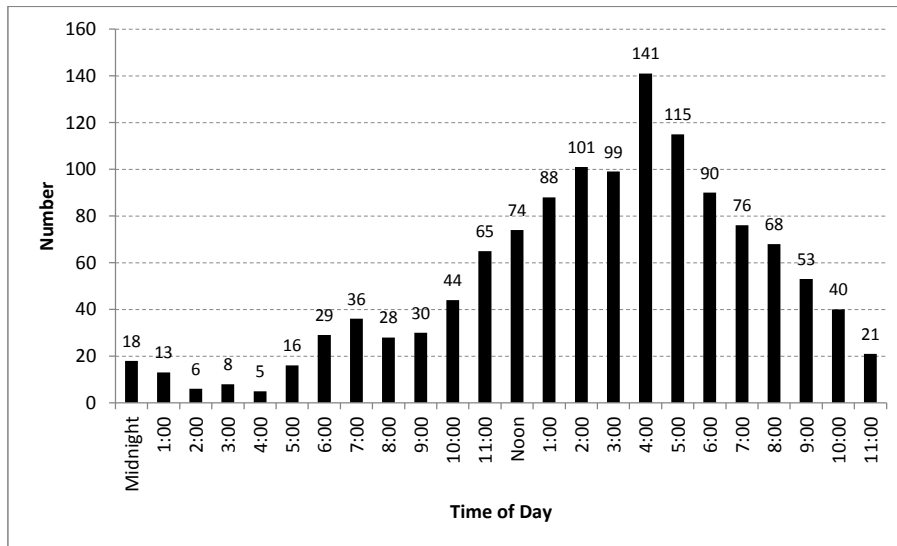


TABLE 4.05

2013 MOTORCYCLE CRASHES BY TIME AND DAY

Hour Begin- ing	Total Crashes	Fatal Crashes	Sun. All	Sun. Fatal	Mon. All	Mon. Fatal	Tues. All	Tues. Fatal	Wed. All	Wed. Fatal	Thur. All	Thur. Fatal	Fri. All	Fri. Fatal	Sat. All	Sat. Fatal
12 am	18	2	5	1	2	0	1	0	0	0	3	0	3	0	4	1
1:00	13	1	6	0	2	0	1	0	0	0	2	1	0	0	2	0
2:00	6	0	2	0	0	0	2	0	0	0	0	0	0	0	2	0
3:00	8	2	3	1	0	0	1	1	1	0	1	0	1	0	1	0
4:00	5	0	0	0	0	0	1	0	2	0	1	0	1	0	0	0
5:00	16	2	0	0	2	0	4	0	3	1	3	0	4	1	0	0
6:00	29	0	0	0	2	0	3	0	9	0	8	0	4	0	3	0
7:00	36	3	0	0	2	1	6	0	5	0	6	0	11	1	6	1
8:00	28	2	1	0	3	0	10	0	5	0	5	2	4	0	0	0
9:00	30	1	7	1	2	0	3	0	2	0	5	0	4	0	7	0
10:00	44	3	9	1	1	0	4	0	7	2	5	0	8	0	10	0
11:00	65	4	9	0	6	1	10	1	8	0	10	1	10	0	12	1
Noon	74	3	12	1	7	0	8	0	7	0	14	1	11	0	15	1
1:00	88	1	18	0	16	0	7	0	11	1	8	0	14	0	14	0
2:00	101	7	20	2	11	2	8	1	14	2	9	0	19	0	20	0
3:00	99	2	15	0	14	1	16	0	12	0	17	0	9	1	16	0
4:00	141	3	24	0	13	0	20	0	20	0	25	2	23	1	16	0
5:00	115	5	15	0	17	0	17	1	19	3	16	0	19	1	12	0
6:00	90	6	14	3	8	0	13	0	11	0	19	1	10	0	15	2
7:00	76	3	11	0	4	0	14	0	6	0	16	1	14	0	11	2
8:00	68	2	13	1	5	0	6	1	17	0	10	0	7	0	10	0
9:00	53	3	4	0	13	1	6	1	6	0	7	0	9	0	8	1
10:00	40	2	11	0	6	1	6	1	1	0	3	0	4	0	9	0
11:00	21	2	1	0	4	0	2	0	1	0	8	2	3	0	2	0
Unk	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Total	1,266	59	200	11	140	7	169	7	167	9	201	11	194	5	195	9

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2013

Age Group	Killed			Injured									Total Injured		
	M	F	Total	Severe			Moderate			Minor			M	F	Total
				M	F	Total	M	F	Total	M	F	Total			
00 – 04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05 – 09	0	0	0	0	0	0	1	0	1	2	0	2	3	0	3
10 – 14	0	0	0	0	0	0	1	1	2	4	1	5	5	2	7
15 – 19	1	0	1	3	2	5	26	0	26	11	3	14	40	5	45
20 – 24	7	0	7	14	5	19	50	7	57	51	4	55	115	16	131
25 – 29	3	0	3	13	1	14	43	8	51	45	6	51	101	15	116
30 – 34	6	0	6	9	0	9	39	10	49	31	4	35	79	14	93
35 – 39	2	0	2	17	2	19	40	6	46	25	8	33	82	16	98
40 – 44	2	1	3	16	4	20	48	11	59	28	6	34	92	21	113
45 – 49	3	2	5	7	1	8	40	17	57	30	5	35	77	23	100
50 – 54	6	4	10	18	7	25	58	21	79	33	10	43	109	38	147
55 – 59	9	0	9	25	7	32	46	7	53	39	10	49	110	24	134
60 – 64	4	3	7	11	2	13	29	7	36	30	8	38	70	17	87
65 – 69	2	0	2	5	0	5	18	2	20	11	0	11	34	2	36
70 & Older	5	0	5	2	0	2	15	0	15	12	0	12	29	0	29
Not Stated	0	0	0	1	0	1	1	0	1	0	2	2	2	2	4
Total	50	10	60	141	31	172	455	97	552	352	67	419	948	195	1,143

FIGURE 4.02

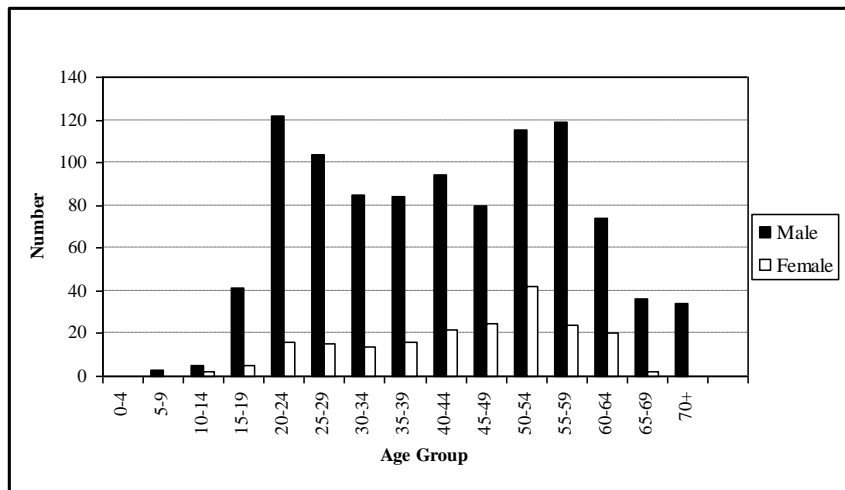
MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2013

TABLE 4.07
HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 2004 - 2013

	Year	Helmet Used		Helmet Not Used		Unknown Helmet Use		Total	
			%		%		%		%
Killed	2004	14	28.0	29	58.0	7	14.0	50	100.0
	2005	18	30.5	34	57.6	7	11.9	59	100.0
	2006	15	21.4	53	75.7	2	2.9	70	100.0
	2007	11	18.0	45	73.8	5	8.2	61	100.0
	2008	12	16.7	53	73.6	7	9.7	72	100.0
	2009	11	20.8	37	69.8	5	9.4	53	100.0
	2010	12	26.7	26	57.8	7	15.6	45	100.0
	2011	13	31.0	23	54.8	6	14.3	42	100.0
	2012	11	20.0	38	69.1	6	10.9	55	100.0
	2013	14	23.3	34	56.7	12	20.0	60	100.0

	Year	Helmet Used		Helmet Not Used		Unknown Helmet Use		Total	
			%		%		%		%
Injured	2004	418	33.4	477	38.1	356	28.5	1,251	100.0
	2005	412	31.2	530	40.2	377	28.6	1,319	100.0
	2006	481	34.0	544	38.5	388	27.5	1,413	100.0
	2007	554	37.0	520	34.7	424	28.3	1,498	100.0
	2008	539	35.8	569	37.8	397	26.4	1,505	100.0
	2009	452	37.7	432	36.0	316	26.3	1,200	100.0
	2010	483	37.3	468	36.1	345	26.6	1,296	100.0
	2011	488	39.1	447	35.8	313	25.1	1,248	100.0
	2012	523	36.0	549	37.8	382	26.3	1,454	100.0
	2013	389	34.0	424	37.1	330	28.9	1,143	100.0

TABLE 4.08
ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 2004 - 2013

Year	Valid Endorsement		Permit Only		Canceled, Suspended, Revoked		No Endorsement		Total** for Year	
	N	%	N	%	N	%	N	%	N	%
2004	45	83.3	1	1.9	0	0.0	8	14.8	54	100.0
2005	51	81.0	2	3.2	5	7.9	4	6.3	63	100.0
2006	59	83.1	1	1.4	3	4.2	4	5.6	71	100.0
2007	49	81.7	0	0.0	4	6.7	5	8.3	60	100.0
2008	57	79.2	0	0.0	5	6.9	8	11.1	72	100.0
2009	39	79.6	0	0.0	1	2.0	8	16.3	49	100.0
2010	38	77.6	0	0.0	5	10.2	5	10.2	49	100.0
2011	38	84.4	0	0.0	3	6.7	4	8.9	45	100.0
2012	41	78.8	0	0.0	0	0.0	10	19.2	52	100.0
2013	41	69.5	0	0.0	0	0.0	10	16.9	59	100.0

* A valid endorsement means that the driver's license has been "endorsed" to permit operation of a motorcycle.

** Rows may not add to total due to the unknown status of some motorcycle operators.

TABLE 4.09

ALCOHOL USE BY KILLED MOTORCYCLE DRIVERS, 2004 – 2013

Year	Killed	Tested	Alcohol Concentration (.00)	Alcohol Concentration (.01 - .07)	Alcohol Concentration (.08 – .09)	Alcohol Concentration (.10 or more)
2004	46	37	27 (73%)	3 (8%)	0 (0%)	7 (19%)
2005	55	51	28 (55%)	8 (16%)	1 (2%)	14 (27%)
2006	66	61	42 (69%)	1 (2%)	1 (2%)	17 (28%)
2007	58	52	34 (65%)	3 (6%)	1 (2%)	14 (27%)
2008	65	59	31 (53%)	3 (5%)	2 (3%)	23 (39%)
2009	45	42	25 (60%)	6 (14%)	2 (5%)	9 (21%)
2010	42	40	25 (63%)	1 (2%)	1 (2%)	13 (32%)
2011	34	29	21 (72%)	2 (7%)	1 (3%)	5 (17%)
2012	47	38	26 (68%)	2 (5%)	1 (3%)	9 (24%)
2013	53	43	27 (63%)	2 (5%)	2 (5%)	12 (28%)

Percentages are based on those motorcycle drivers tested.

TABLE 4.10

2013 MOTORCYCLE DRIVER FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration										.25 and Over
			.01-.07	.08-.09	.10+	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-24		
14 & Younger	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0
19	1	1	0	0	0	0	0	0	0	0	0	0	0
20	2	0	0	0	0	0	0	0	0	0	0	0	0
Under 21	3	1	0	0	0	0	0	0	0	0	0	0	0
14 & Younger	0	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	1	1	0	0	0	1	0	0	0	0	0	0	0
20 – 24	7	5	0	1	1	3	0	1	0	0	1	0	0
25 – 29	3	3	1	0	1	1	1	0	0	1	0	0	0
30 – 34	6	6	0	0	3	3	0	0	0	2	0	1	1
35 – 39	2	1	0	0	1	0	0	0	0	1	0	0	0
40 – 44	2	2	0	0	1	1	0	0	0	1	0	0	0
45 – 49	4	4	0	0	2	2	0	0	0	2	0	0	0
50 – 54	7	7	1	0	2	4	1	0	0	1	0	1	1
55 – 59	9	7	0	1	0	6	0	1	0	0	0	0	0
60 & Older	12	7	0	0	1	6	0	0	1	0	0	0	0
Unk Age	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	53	43	2	2	12	27	2	2	1	8	1	2	2

TABLE 4.11
CONTRIBUTING FACTORS IN 2013 MOTORCYCLE CRASHES

Contributing Factors	<i>Single Vehicle Crashes</i>		<i>Multi-Vehicle Crashes</i>			
	Attributed to Motorcycle Drivers		Attributed to Motorcycle Drivers		Attributed to Other Drivers	
	N	%	N	%	N	%
Human Factors:						
Illegal/Unsafe Speed	101	16.9%	37	12.7%	7	1.5%
Driver Inexperience	73	12.2	16	5.5	7	1.5
Driver Inattention/Distracted	62	10.4	50	17.1	97	20.9
Chemical Impairment	60	10.1	9	3.1	8	1.7
Overcorrecting	33	5.5	2	0.7	0	0.0
Following Too Closely	24	4.0	55	18.8	27	5.8
Improper/Unsafe Lane Use	23	3.9	8	2.7	32	6.9
Improper Park/Start/Stop	9	1.5	2	0.7	6	1.3
Failure To Yield Right of Way	5	0.8	38	13.0	180	38.7
Disregard Traf Control Device	5	0.8	6	2.1	23	4.9
Improper Passing/Overtaking	4	0.7	13	4.5	8	1.7
Other Vision Related Factor	4	0.7	2	0.7	7	1.5
Driving Left of Center	3	0.5	6	2.1	3	0.6
Improper Turn	2	0.3	2	0.7	29	6.2
Vision Obscured—Sunlight	2	0.3	3	1.0	3	0.6
Impeding Traffic	1	0.2	1	0.3	0	0.0
Unsafe Backing	0	0.0	1	0.3	7	1.5
Improper/No Signal	0	0.0	0	0.0	1	0.2
Failure To Use Lights	0	0.0	0	0.0	1	0.2
Driver on Phone/CB/Radio	0	0.0	0	0.0	1	0.2
Other Human Factor	25	4.2	13	4.5	9	1.9
Vehicular Factors:						
Skidding	59	9.9	6	2.1	0	0.0
Defective Tires	4	0.7	0	0.0	0	0.0
Defective Brakes	0	0.0	0	0.0	1	0.2
Other Vehicular Factors	7	1.2	5	1.7	1	0.2
Miscellaneous Factors:						
Weather Conditions	17	2.8	5	1.7	3	0.6
Other	74	12.4	12	4.1	4	0.9
Total	597	100.0%	292	100.0%	465	100.0%
Vehicles for Which There Was “No Clear Cont. Factor”	216		335		206	
Total Number of Drivers	707		589		577	

Zero, one, or two contributing factors may be attributed to a single driver. This may cause the sum of the factors cited to differ from the number of drivers. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding.

V. TRUCK CRASHES

This section summarizes data on crashes involving trucks, also known as commercial motor vehicles (CMVs). On the crash report form, commercial motor vehicles are identified as any of the following eight types of trucks: (1) two-axle, six-tire single unit truck or stepvan, (2) three-or-more-axle single unit truck, (3) single-unit truck with trailer, (4) truck tractor with no trailer, (5) truck tractor with semi-trailer, (6) truck tractor with double trailers, (7) truck tractor with triple trailers, (8) heavy truck of other or unknown type. A crash involving any of these vehicles is classified as a truck crash. Pickup trucks and vans are not counted as trucks in this section.

Truck crashes increase

In 2013, there were 4,741 truck-involved traffic crashes reported to the Department of Public Safety. This represents a 25% increase from the previous year. There were 62 fatal truck crashes, killing a total of 67 people. In addition, there were 1,425 people injured in truck-related crashes.

Fatalities and injuries are mostly in other vehicles

In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only nine of the 67 people killed in truck-involved crashes were in trucks. The other 58 deaths included three motorcyclists, one bicyclist, one person riding an ATV, one roadway maintenance vehicle and 52 persons in cars, SUVs, pickups, or vans. Of the 1,425 people injured, only 295 (21%) were truck occupants.

Contributing factors in truck crashes

Table 5.03 in this Section reveals that contributing factors listed by officers are very similar for truck and non-truck drivers. For example, driver inattention or distraction was most frequently cited for truck

drivers (18% of the time) as well as for non-truck drivers (17% of the time). However, non-truck drivers drive too fast and fail to yield more often than truck drivers. Illegal or unsafe speed was reported for 14% of the other vehicles but only 10% of the trucks. And, failure to yield was reported for 14% of the other vehicles but only 9% of the trucks. For the other motorists, and even more so for the truck drivers, it is quite rare that officers report the presence of any type of chemical impairment such as the use of alcohol or drugs. Less than 1% of the truckers and 2% of the drivers of other vehicles were reported as having some such impairment.

Truck crashes are workday occurrences

Truck crashes are strongly tied to the workday. In 2013, only 440 (9%) of truck crashes occurred on either a Saturday or Sunday. And, Figure 5.01 in this Section reveals that a vast majority of truck crashes occur during daytime work hours.

Driving conditions

Driving conditions can vary from day to day in Minnesota, but most truck crashes occurred on dry roads in clear weather. However, 31% of the fatal crashes and 35% of the injury crashes occurred on road surfaces reported to be wet, or to be covered with snow or slush, or with ice or packed snow.

Crash severity increases in rural areas.

For this report, “rural” is defined as an area that has less than 5,000 population. Probably because high speeds are more often possible in the rural open countryside, crashes there are more severe. 84% of fatal and 43% of truck-related injury crashes occurred in the rural areas of Minnesota.

TABLE 5.01

TRUCK CRASH SUMMARY, 2004 - 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Crashes	5,521	5,313	4,558	4,631	4,344	3,653	4,181	4,025	3,789	4,741
Fatal Crashes	70	66	62	71	64	47	77	48	50	62
Persons Killed	79	78	65	90	74	58	93	51	56	67
Injury Crashes	1,401	1,315	1,156	1,144	1,056	889	1,005	916	870	1,042
Severe	107	96	89	83	72	68	71	59	70	55
Moderate	443	377	323	334	295	288	270	265	273	315
Minor	851	842	744	727	689	533	664	592	527	672
Persons Injured	1,935	1,753	1,544	1,745	1,425	1,162	1,385	1,219	1,178	1,425
Severe	131	116	104	130	89	88	90	70	86	80
Moderate	585	481	415	508	388	359	358	323	355	419
Minor	1,219	1,156	1,025	1,107	948	715	937	826	737	926
PDO Crashes	4,050	3,932	3,340	3,416	3,224	2,717	3,099	3,061	2,869	3,637

TABLE 5.02

PERSONS KILLED OR INJURED IN 2013 TRUCK CRASHES
BY VEHICLE OCCUPIED

Vehicle Type	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total Injured
Automobile	27	23	180	436	639
Pickup Truck	9	11	29	81	121
SUV	12	12	49	116	177
Van	4	12	25	61	98
Pedestrian	0	2	7	6	15
Bicycle	1	3	3	5	11
Motorcycle	3	2	4	1	7
Motorscooter/Motorbike	0	0	0	1	1
Snowmobile	0	0	0	1	1
ATV	1	1	0	1	2
Ambulance	0	0	0	7	7
Police/Fire Vehicle	0	0	1	0	1
Roadway Maintenance Vehicle	1	1	6	11	18
Other Public Owned Vehicle	0	0	0	1	1
Farm Equipment	0	0	2	0	2
Motorhome/Camper	0	0	0	1	1
Taxicab	0	0	4	5	9
School Bus	0	0	1	2	3
Bus-Non School	0	0	1	13	14
Hit and Run	0	0	1	0	1
Two-Axle, Six-Tire, Single Unit Truck	2	1	13	41	55
Three or More Axle Single Unit Truck	0	2	17	19	38
Single Unit Truck with Trailer	1	2	10	18	30
Truck Tractor with No Trailer	0	0	1	2	3
Truck Tractor with Semi Trailer	6	8	61	88	157
Truck Tractor with Twin Trailers	0	0	1	4	5
Heavy Truck—Other or Unknown Type	0	0	3	4	7
Other or Unknown Vehicle Type	0	0	0	1	1
Total	67	80	419	926	1,425

TABLE 5.03

CONTRIBUTING FACTORS IN 2013 TRUCK CRASHES

Contributing Factors	Number Attributed to Truck Vehicles	Percent Attributed to Truck Vehicles	Number Attributed to Non- Truck Vehicles	Percent Attributed to Non- Truck Vehicles
Human Factors				
Driver Inattention/Distracted	584	17.8%	516	17.2%
Illegal/Unsafe Speed	313	9.5	430	14.3
Failure to Yield Right of Way	307	9.3	432	14.4
Improper or Unsafe Lane Use	295	9.0	284	9.5
Following Too Closely	255	7.8	192	6.4
Improper Turn	192	5.8	52	1.7
Unsafe Backing	146	4.4	25	0.8
Vision Obscured-Windshield	67	2.0	58	1.9
Improper Passing or Overtaking	61	1.9	112	3.7
Disregarding Traffic Control Device	54	1.6	88	2.9
Driver Inexperience	40	1.2	50	1.7
Overcorrecting	38	1.2	45	1.5
Improper Parking, Starting, or Stopping	29	0.9	31	1.0
Driving Left of Center	22	0.7	40	1.3
Chemical Impairment	10	0.3	52	1.7
Improper/No Signal	9	0.3	4	0.1
Impeding Traffic	7	0.2	12	0.4
Driver on Phone/CB/2-Way Radio	2	0.1	2	0.1
Failure to Use Lights	1	0.0	7	0.2
Non-Motorist Error	0	0.0	2	0.1
Other Human Factors	89	2.7	61	2.0
Vehicular Factors				
Skidding	124	3.8	116	3.9
Defective Brakes	54	1.6	18	0.6
Oversize/Overweight Vehicle	52	1.6	1	0.0
Other Vehicular Factor	57	1.7	19	0.6
Miscellaneous Factors				
Weather	304	9.3	239	8.0
Other	174	5.3	117	3.9
Total Contributing Factors Cited	3,286	100.0%	3,005	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	2,193		1,818	
Total Number of Vehicles	4,956		4,232	

Zero, one, or two contributing factors may be associated with each vehicle. This may result in the sum of the factors cited to differ from the number of vehicles. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding. Bicyclists and pedestrians are included in the "non-truck vehicles" columns in this table. Human factors with a frequency of less than one-tenth of one percent are merged into the category "other human factors."

TABLE 5.04

AGE OF TRUCK DRIVERS IN 2013 CRASHES

Driver Age	Truck or Tractor	Truck with Semi- Trailer	Truck with Twin Trailer	Truck with Other Trailer	Total
05 - 09	2	0	0	0	2
10 - 14	0	0	0	0	0
15 - 19	24	8	0	10	42
20 - 24	120	89	1	14	224
25 - 29	185	166	2	37	390
30 - 34	219	220	3	28	470
35 - 39	197	238	5	43	483
40 - 44	222	268	7	46	543
45 - 49	252	323	7	35	617
50 - 54	245	346	9	49	649
55 - 59	221	345	6	40	612
60 - 64	111	224	6	32	373
65 & Older	53	163	1	14	231
Not Stated	59	101	2	5	167
Total*	1,910	2,491	49	353	4,803

* There were 4,956 trucks involved in 2013 crashes. Table 5.04 tabulates the ages of drivers for the remaining 4,803 trucks where it was possible to identify a driver.

TABLE 5.05

DRIVERS IN 2013 TRUCK CRASHES
BY PHYSICAL CONDITION*

Physical Condition	Truck Drivers	Percent of Truck Drivers	Number of Other Drivers	Percent of Other Drivers
Normal	4,434	92.3%	3,592	91.2%
Under the Influence	7	0.2	42	1.1
Had Been Drinking	1	0.0	16	0.4
Commercial Driver > .04 BAC	3	0.1	0	0.0
Had Been Using Drugs	3	0.1	7	0.2
Fatigued/Asleep	9	0.2	13	0.3
Physical Disability	0	0	2	0.1
Ill	3	0.1	1	0.0
Other	4	0.1	14	0.4
Unknown	339	7.1	253	6.4
Total **	4,803	100.0%	3,940	100.0%

* As noted by police officer on accident report.

** There were 4,956 trucks involved in 2013 crashes. This table tabulates the apparent physical condition of drivers for the remaining 4,803 trucks where it was possible to identify a driver. Similarly, there were 4,204 non-truck motor vehicles involved in 2013 truck crashes. The condition of the identifiable 3,940 non-truck drivers is presented here.

TABLE 5.06

2013 TRUCK CRASHES BY FIRST HARMFUL EVENT

First Harmful Event Collision With:	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Other Motor Vehicle	54	828	2,596	3,478	59	1,177
Parked Motor Vehicle	1	32	302	335	1	44
Train	3	5	7	15	3	5
Bicycle	1	11	0	12	1	11
Pedestrian	0	7	0	7	0	10
Deer	0	0	13	13	0	0
Other Animal	0	1	12	13	0	1
Runaway Car	0	0	5	5	0	0
Fixed Object	0	39	398	437	0	42
Non-Collision:						
Overturn	3	89	114	206	3	99
Fire or Explosion	0	0	5	5	0	0
Jackknife	0	8	105	113	0	9
Other Non-Collision	0	10	15	25	0	13
Other/Unknown	0	12	65	77	0	14
Total	62	1,042	3,637	4,741	67	1,425

TABLE 5.07

2013 TRUCK CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	2	78	269	349	2	108
February	4	76	334	414	5	104
March	3	79	356	438	3	102
April	4	90	290	384	5	123
May	9	69	240	318	9	96
June	3	76	274	353	4	108
July	10	103	274	387	11	143
August	1	92	264	357	1	121
September	7	83	261	351	8	116
October	5	98	310	413	5	134
November	8	77	224	309	8	107
December	6	121	541	668	6	163
Total	62	1,042	3,637	4,741	67	1,425

TABLE 5.08

2013 TRUCK CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	9	10	23	15	16	19	14	106
3:00 - 5:59 AM	8	29	41	28	23	34	15	178
6:00 - 8:59 AM	14	178	167	142	182	162	37	882
9:00 - 11:59 AM	52	223	213	192	217	187	49	1,133
Noon - 2:59 PM	35	229	197	191	181	167	50	1,050
3:00 - 5:59 PM	35	173	147	156	138	148	49	846
6:00 - 8:59 PM	24	72	52	56	63	55	12	334
9:00 - 11:59 PM	17	40	32	31	40	31	20	211
Unknown	0	0	0	0	1	0	0	1
Total	194	954	872	811	861	803	246	4,741

FIGURE 5.01

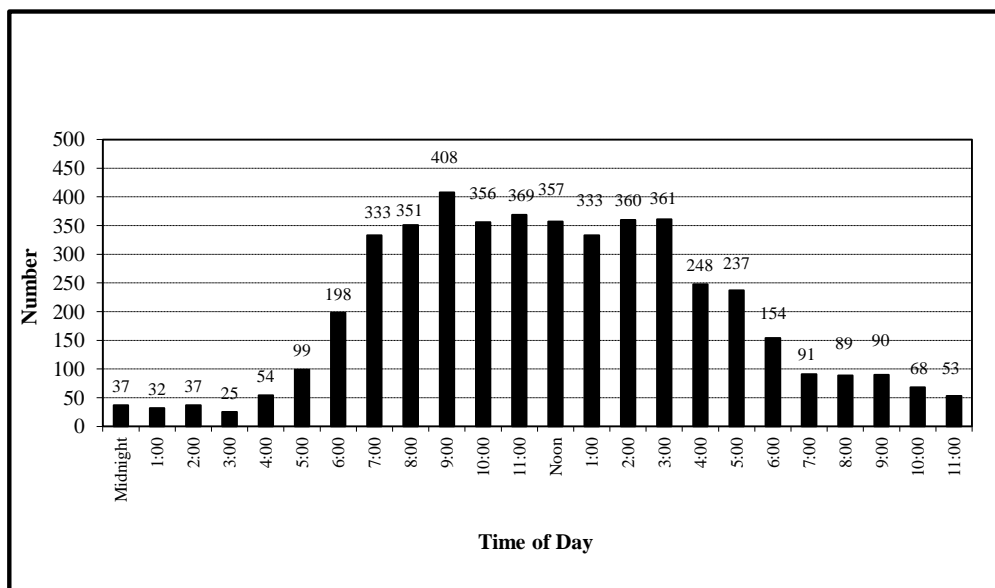
2013 TRUCK CRASHES BY TIME OF DAY

TABLE 5.09

2013 TRUCK CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	43	674	2,124	2,841	46	931
Wet	3	107	388	498	3	144
Snow	5	68	394	467	6	92
Slush	2	28	107	137	3	36
Ice or Packed Snow	9	157	596	762	9	212
Muddy	0	2	4	6	0	2
Debris	0	0	1	1	0	0
Other	0	3	14	17	0	5
Unknown	0	3	9	12	0	3
Total	62	1,042	3,637	4,741	67	1,425

TABLE 5.10

2013 TRUCK CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	35	573	1,927	2,535	37	788
Cloudy	15	255	875	1,145	16	347
Rain	0	39	138	177	0	52
Snow	9	117	462	588	11	163
Sleet/Hail/Freezing Rain	1	25	102	128	1	31
Fog/Smog/Smoke	0	6	18	24	0	8
Blowing Sand/Dust/Snow	2	22	87	111	2	30
Severe Cross Winds	0	1	11	12	0	1
Other	0	1	4	5	0	1
Unknown	0	3	13	16	0	4
Total	62	1,042	3,637	4,741	67	1,425

TABLE 5.11

2013 TRUCK CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
250,000 & Over	0	132	741	873	0	168
100,000 – 249,999	0	11	42	53	0	12
50,000 - 99,999	2	165	593	760	3	218
25,000 - 49,999	4	119	382	505	4	157
10,000 - 24,999	2	114	480	596	2	160
5,000 - 9,999	2	53	208	263	2	75
2,500 - 4,999	1	41	164	206	1	60
1,000 - 2,499	1	22	92	115	1	30
Under 1,000	50	385	935	1,370	54	545
Total	62	1,042	3,637	4,741	67	1,425

TABLE 5.12

2013 TRUCK CRASHES BY TYPE OF ROADWAY

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Interstate Highway	6	274	1,046	1,326	7	382
US Trunk Highway	12	171	498	681	12	239
State Trunk Highway	24	212	565	801	25	315
County State-Aid Highway	15	240	662	917	18	308
County Road	1	13	27	41	1	18
Township Road	4	23	34	61	4	27
Local Street	0	109	790	899	0	136
Other Road	0	0	15	15	0	0
Total	62	1,042	3,637	4,741	67	1,425

VI: PEDESTRIAN CRASHES

This section deals with motor vehicle crashes that injure or kill pedestrians. Prior to 1984, a crash was defined as a pedestrian crash only if the pedestrian was the first "object" struck by a motor vehicle. Since 1984, a pedestrian crash is defined as any crash where a pedestrian is struck and injured or killed.

Overall, pedestrian crashes decrease

In 2013, there were 868 crashes in which at least one pedestrian was injured or killed by a motor vehicle. This represents a 1.1 percent decrease from the previous year.

Deaths and injuries decrease

In 2013, 35 pedestrians were killed, five fewer than in 2012. In addition, 867 pedestrians were injured, a 0.8 percent decrease from the previous year. Four percent of all pedestrian crashes resulted in a death, compared to one-half of 1% of all traffic crashes resulting in a death.

Males at greater risk

In 2013, persons less than 25 years of age accounted for 29% of the pedestrians killed and 40% of pedestrians injured. Male pedestrians were more likely than females to be killed or injured: males accounted for 71% of all pedestrian fatalities and 52% of all pedestrian injuries.

Urban/rural areas and time of day

In 2013, 93% of pedestrian crashes occurred in urban areas (defined as areas with populations over 5,000). One-third (32%) of pedestrian crashes occurred during the weekday rush hour driving time periods - the rush hour driving time period is defined as Monday through Friday 6:00-9:00 a.m. and 3:00-6:00 p.m. More than one out of every four (27%) pedestrian fatal crashes occurred during the evening hours 9:00 p.m.-3:00 a.m.

Prior actions of vehicles

Nearly half (48%) of all motor vehicles involved in pedestrian crashes and over four out of five (82%) involved in fatal pedestrian crashes in 2013 were going straight ahead on the roadway prior to the crash. One-third (32%) of all motor vehicles involved in pedestrian crashes were making a right or left turn.

Prior actions of pedestrians

Twenty-three percent of pedestrians killed and 24% of pedestrians injured were trying to cross a road at an area with no crosswalk and no signal. However, 15% of pedestrians injured were crossing the road at a signaled intersection and were crossing with the signal.

Contributing factors

For 35% of all motor vehicle drivers in all pedestrian crashes, the reporting officer indicated that driver failure to yield right of way was a contributing factor. The second most cited contributing factor was driver inattention or distraction (21%). Obscured vision was a factor in 9% of all pedestrian crashes.

Drinking pedestrian fatalities

Of the 35 pedestrians killed, 31 were tested for the presence of alcohol in their blood system. Of those tested, over half (52%) tested positive for alcohol. Sixty-nine percent of killed pedestrians with BACs .10 or higher were 30 years old or above. Eight (62%) out of the 13 pedestrians killed with BACs of .10 or higher were killed from 9:00pm-6:00am.

TABLE 6.01

PEDESTRIAN CRASH SUMMARY, 2004 - 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Pedestrian Crashes	963	938	915	957	860	883	808	857	878	868
Pedestrians Killed	37	44	38	33	25	41	36	40	40	35
Pedestrians Injured	976	936	906	975	867	880	824	859	874	867

TABLE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2013

Age Group	Killed			Severe Injuries			Moderate Injuries			Minor Injuries			Total Injuries		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total*
00 - 04	1	0	1	1	0	1	5	3	8	8	2	10	14	5	19
05 - 09	2	0	2	1	3	4	5	12	17	24	16	40	30	31	61
10 - 14	0	0	0	5	5	10	12	9	21	16	15	31	33	29	62
15 - 19	2	0	2	7	1	8	20	17	37	29	21	50	56	39	95
20 - 24	5	0	5	3	3	6	21	19	40	28	35	63	52	57	109
25 - 29	1	0	1	4	2	6	14	21	35	19	21	40	37	44	81
30 - 34	1	0	1	4	4	8	11	11	22	15	17	32	30	32	62
35 - 39	2	0	2	3	1	4	8	6	14	20	17	37	31	24	55
40 - 44	2	0	2	4	2	6	9	5	14	16	11	27	29	18	47
45 - 49	2	2	4	3	7	10	6	6	12	16	14	30	25	27	52
50 - 54	1	1	2	2	2	4	12	7	19	24	10	34	38	19	57
55 - 59	1	2	3	2	3	5	11	11	22	12	7	19	25	21	46
60 - 64	2	0	2	6	2	8	5	5	10	6	6	12	17	13	30
65 - 69	1	2	3	3	0	3	3	6	9	4	8	12	10	14	24
70 - 74	1	0	1	0	5	5	4	8	12	4	7	11	8	20	28
75 - 79	0	1	1	2	0	2	3	4	7	2	1	3	7	5	12
80 - 84	0	1	1	1	1	2	0	2	2	1	0	1	2	3	5
85 & Older	1	0	1	1	3	4	1	2	3	1	2	3	3	7	10
Not Stated	0	1	1	0	0	0	0	0	0	6	2	12	6	2	12
Total	25	10	35	52	44	96	150	154	304	251	212	467	453	410	867

* Within column categories, where rows do not add across, gender was not stated on crash report.

FIGURE 6.01

PEDESTRIAN FATALITIES BY AGE GROUP, 2004-2013 COMBINED

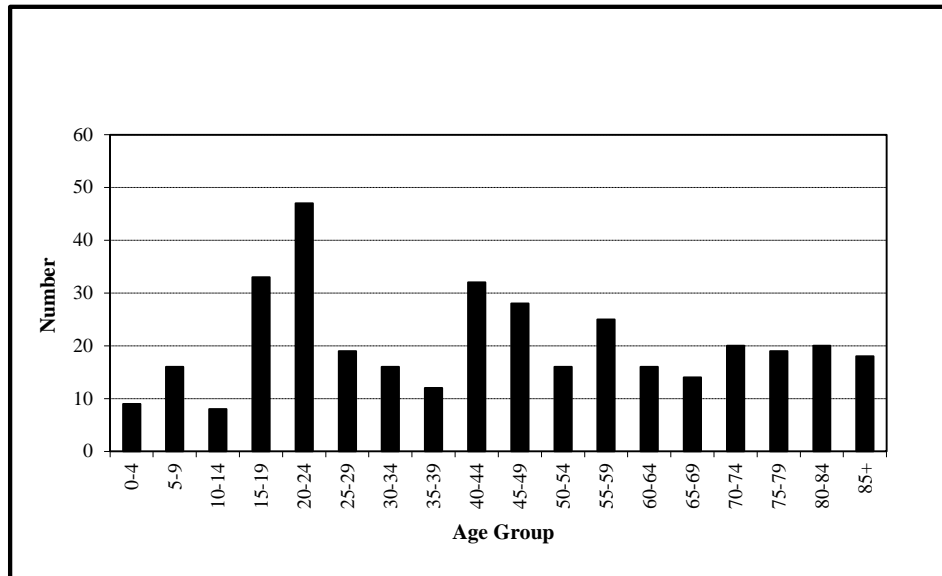


FIGURE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER 2013

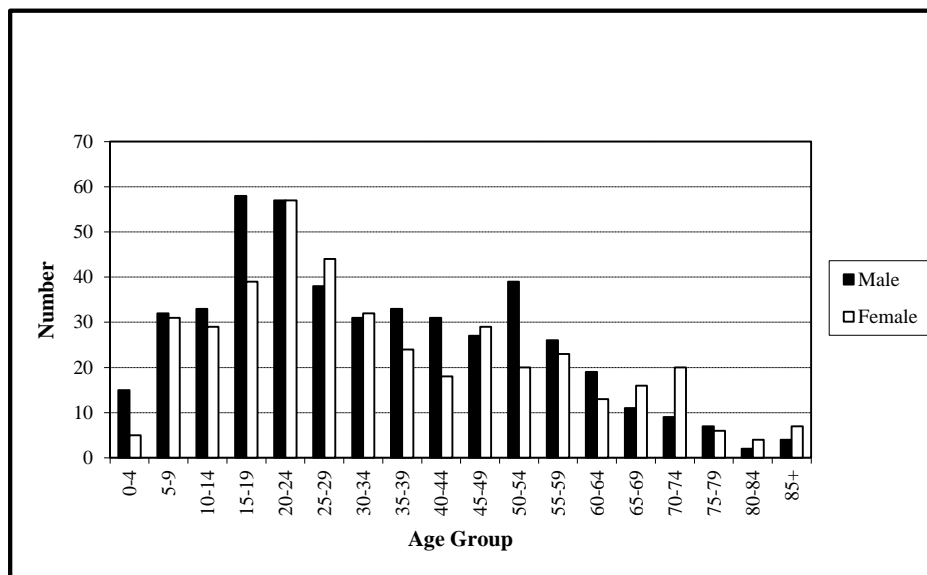


TABLE 6.03

2013 PEDESTRIAN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
January	0	83	83	0	86
February	0	48	48	0	51
March	3	48	51	3	50
April	1	52	53	1	51
May	2	64	66	2	64
June	1	69	70	1	72
July	3	59	62	3	62
August	4	67	71	4	70
September	7	84	91	7	86
October	4	101	105	4	108
November	7	89	96	8	97
December	2	70	72	2	70
Total	34	834	868	35	867

TABLE 6.04

2013 PEDESTRIAN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
250,000 and Over	7	451	458	7	466
100,000 - 249,999	0	13	13	0	13
50,000 - 99,999	2	105	107	2	111
25,000 - 49,999	5	81	86	6	85
10,000 - 24,999	5	99	104	5	105
5,000 - 9,999	2	34	36	2	36
2,500 - 4,999	1	20	21	1	20
1,000 - 2,499	0	11	11	0	11
Under 1,000	12	20	32	12	20
Total	34	834	868	35	867

TABLE 6.05

2013 PEDESTRIAN CRASHES BY TIME AND DAY

Time of Day	Fatal Crashes	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Mid - 2:59 AM	2	13	1	4	1	2	4	17	42
3:00 - 5:59 AM	5	4	1	6	3	3	1	4	22
6:00 - 8:59 AM	1	1	17	21	23	22	18	6	108
9:00 - 11:59 AM	2	7	19	15	13	10	13	14	91
Noon - 2:59 PM	3	17	16	33	16	16	22	17	137
3:00 - 5:59 PM	4	5	32	38	25	40	39	18	197
6:00 - 8:59 PM	10	12	22	29	24	27	25	22	161
9:00 - 11:59 PM	7	11	7	15	15	18	33	11	110
Total	34	70	115	161	120	138	155	109	868

FIGURE 6.03

2013 PEDESTRIAN CRASHES BY TIME OF DAY

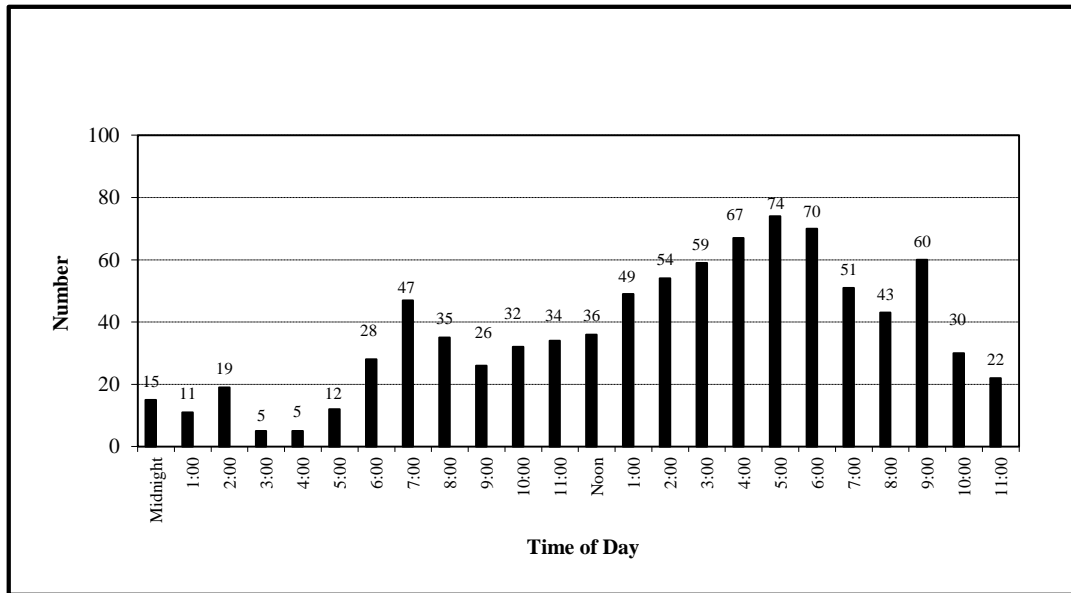


TABLE 6.06

PRIOR ACTION OF VEHICLES IN 2013 PEDESTRIAN CRASHES

Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes
Going Straight	32	407	439
Turning Right on Red	0	24	24
Turning Right	0	67	67
Turning Left	2	226	228
Making U Turn	0	1	1
Starting From Parked	0	13	13
Starting in Traffic	0	9	9
Slowing in Traffic	0	4	4
Parking	0	2	2
Avoiding Object in Road	1	9	10
Passing	0	1	1
Backing	2	23	25
All Others	1	65	66
Unknown	1	25	26
Total	39	876	915

* The number of vehicles in total crashes exceeds the number of crashes because some crashes involved more than one vehicle.

TABLE 6.07

PRIOR ACTION OF PEDESTRIANS KILLED OR INJURED IN 2013

Action	Number Pedestrians Killed	Percent Pedestrians Killed	Number Pedestrians Injured	Percent Pedestrians Injured
Crossing Road (No Crosswalk and No Signal)	8	22.9%	204	23.5%
Crossing Against Signal	2	5.7	39	4.5
Crossing With Signal	1	2.9	128	14.8
Crossing In Crosswalk (No Signal)	2	5.7	139	16.0
Walking In Road With Traffic	4	11.4	48	5.5
Walking In Road Against Traffic	2	5.7	12	1.4
Standing In Road	5	14.3	41	4.7
Emerging Front/Behind Parked Vehicle	0	0.0	8	0.9
Pushing/Working on Vehicle	0	0.0	6	0.7
Working In Road	0	0.0	7	0.8
Getting On/Off Vehicle	0	0.0	4	0.5
Playing In Road	1	2.9	1	0.1
Not In Road	0	0.0	23	2.7
Other Pedestrian Action	3	8.6	44	5.1
Unknown	7	20.0	163	18.8
Total*	35	100.0%	867	100.0%

* Percent totals may not sum to 100% due to rounding.

TABLE 6.08

CONTRIBUTING FACTORS IN 2013 PEDESTRIAN CRASHES

Contributing Factors	Number Attributed to Motor Vehicle Drivers	Percent Attributed to Motor Vehicle Drivers
Human Factors		
Failure to Yield Right of Way	232	35.3%
Driver Inattention / Distraction	137	20.8
Vision Obscured	58	8.8
Illegal or Unsafe Speed	20	3.0
Improper / Unsafe Lane Use	20	3.0
Disregard of Traffic Control	19	2.9
Chemical Impairment	19	2.9
Unsafe Backing	13	2.0
Improper Turn	11	1.7
Driver Inexperience	7	1.1
Improper Parking/Starting/Stopping	4	0.6
Improper Passing / Overtaking	3	0.5
Driver on Phone/CB/Radio	3	0.5
Following Too Closely	2	0.3
Impeding Traffic	2	0.3
Driving Left of Center	1	0.2
Failure to Use Lights	1	0.2
Other Human Factors	24	3.6
Vehicular Factors		
Skidding	9	1.4
Defective Brakes	1	0.2
Other Vehicular Factors	3	0.5
Miscellaneous Factors		
Weather Conditions	39	5.9
Other	30	4.6
<hr/>		
Total Contributing Factors Cited	658	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	44	
	915	
Total Number of Drivers		

Zero, one, or two contributing factors may be attributed to a single driver. This may cause the sum of the factors cited to differ from the number of drivers. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding.

TABLE 6.09

**PEDESTRIAN FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION, 2003 - 2013**

Year	Killed	Tested	Alcohol Concentration* (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 - .09)	Alcohol Concentration* (.10 or more)
2003	52	36	23 (64%)	0 (0%)	0 (0%)	10 (28%)
2004	37	35	23 (66%)	0 (0%)	2 (6%)	10 (28%)
2005	44	34	18 (53%)	1 (3%)	2 (6%)	13 (38%)
2006	38	31	22 (71%)	1 (3%)	0 (0%)	8 (26%)
2007	33	18	9 (50%)	1 (6%)	0 (0%)	8 (44%)
2008	25	20	11 (55%)	0 (0%)	0 (0%)	9 (45%)
2009	41	33	22 (67%)	0 (0%)	1 (3%)	10 (30%)
2010	36	29	19 (66%)	0 (0%)	0 (0%)	10 (34%)
2011	40	33	21 (64%)	3 (9%)	0 (0%)	9 (27%)
2012	40	22	16 (73%)	0 (0%)	0 (0%)	6 (27%)
2013	35	31	15 (48%)	3 (10%)	0 (0%)	13 (42%)

* The percentage figures shown are based on the number of fatally injured pedestrians who were tested for alcohol concentration. (The law requires testing of all drivers and pedestrians, 16 years of age or older, who die within four hours as a result of a motor vehicle crash.)

TABLE 6.10

**2013 PEDESTRIAN FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY AGE**

Age Group	Killed	Tested	Alcohol Concentration* (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 - .09)	Alcohol Concentration* (.10 or more)
< 15	3	3	3	0	0	0
15 - 19	2	2	2	0	0	0
20 - 24	5	3	0	0	0	3
25 - 29	1	1	0	0	0	1
30 - 34	1	1	0	0	0	1
35 - 39	2	2	1	0	0	1
40 - 44	2	2	1	0	0	1
45 - 49	4	4	1	0	0	3
50 - 54	2	2	0	1	0	1
55 - 59	3	3	2	0	0	1
60 - 64	2	2	1	1	0	0
65 - 69	3	3	2	0	0	1
70 - 74	1	1	0	1	0	0
75 - 79	1	0	0	0	0	0
80 - 84	1	1	1	0	0	0
85 & Older	2	1	1	0	0	0
Total	35	31	15	3	0	13

TABLE 6.11

**2013 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL
CONCENTRATION BY TIME OF DAY**

Time of Day	Killed	Tested	Alcohol Concentration * (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 - .09)	Alcohol Concentration* (.10 or more)
Mid-2:59 AM	2	2	1	0	0	1
3:00-5:59 AM	5	5	1	0	0	4
6:00-8:59 AM	1	0	0	0	0	0
9:00-11:59 AM	2	2	2	0	0	0
Noon-2:59 PM	3	2	2	0	0	0
3:00-5:59 PM	4	4	2	0	0	2
6:00-8:59 PM	11	10	4	3	0	3
9:00-11:59 PM	7	6	3	0	0	3
Total	35	31	15	3	0	13

VII: BICYCLE CRASHES

Bicycles are subject to the same traffic laws as motor vehicles, but bicycle crashes are reported to the Minnesota Department of Public Safety only if they involve collision with a motor vehicle. Therefore, this section represents only a portion of the total number of bicycle crashes.

Bicycle crashes decrease

In 2013, there was a 6.3% decrease in bicycle crashes from the previous year - there were 862 bicycle crashes in 2013, compared to 920 bicycle crashes in 2012.

Fatalities and Injuries decrease

In 2013, 822 bicyclists were injured compared to 875 injured bicyclists in 2012, a 6.1% decrease. There were six bicyclist fatalities in 2013 compared to seven fatalities in 2012, a 14.3% decrease.

Warm weather

Bicycle crashes are mostly a warm weather occurrence. In 2013, two of the six fatalities (33.3%), and 670 of the 822 injuries (81.5%) occurred during the six-month period April-September.

Time of day

One-third (32.1%) of all weekday bicycle crashes occurred during the afternoon rush hours 3:00-6:00pm. Almost one out of three (31.1%) of weekend bicycle crashes occurred during the same period.

Big cities

Generally, traffic crashes involving a bicycle and a motor vehicle tend to occur in areas with larger populations. Over nine out of ten (93.7%) bicycle crashes and over half (57.1%) of fatal bicycle crashes occurred in cities where the population was over 5,000 people.

Males killed and injured most often

In 2013, four of the six killed bicyclists were male. And, males were nearly three times more likely than females to be injured in a bicycle crash. In 2013, 596 male bicyclists (72.0%) were injured compared to 223 female bicyclists (27.0%).

Age

Of the 822 bicyclists injured in 2013, nearly half (45.9%) were less than 25 years of age.

Prior action of bicyclists

Almost half (46.6%) of all bicyclists in all crashes were riding with traffic. Only 6.7% of all crash involved bicyclists were riding against traffic.

Contributing factors

Failure to yield the right of way was listed most often by officers for both the bicyclists and other motor vehicle drivers. Failure to yield right of way was attributed to (27.8%) of the bicyclists and (42.7%) of the other drivers. For bicyclists, non-motorist error (a violation committed by the bicyclist separate from those listed), and disregard for traffic control device and were listed the next most often. Driver inattention or distraction was the second contributing factor cited most often for other drivers.

TABLE 7.01
BICYCLE CRASH SUMMARY, 2004 - 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bicycle Crashes	985	965	944	1,020	981	957	898	963	920	862
Bicyclists Killed	10	7	8	4	13	10	9	5	7	6
Bicyclists Injured	937	952	908	979	942	963	882	937	875	822

TABLE 7.02
2013 BICYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	14	1	15	0	14
February	0	6	0	6	0	5
March	1	15	0	16	1	15
April	0	23	1	24	0	23
May	1	76	1	78	0	78
June	0	124	7	131	0	123
July	1	156	7	164	1	156
August	0	151	6	157	0	152
September	1	138	5	144	1	138
October	2	85	3	90	2	85
November	1	29	2	32	1	28
December	0	5	0	5	0	5
Total	7	822	33	862	6	822

FIGURE 7.01
2013 BICYCLE CRASHES BY TIME OF DAY

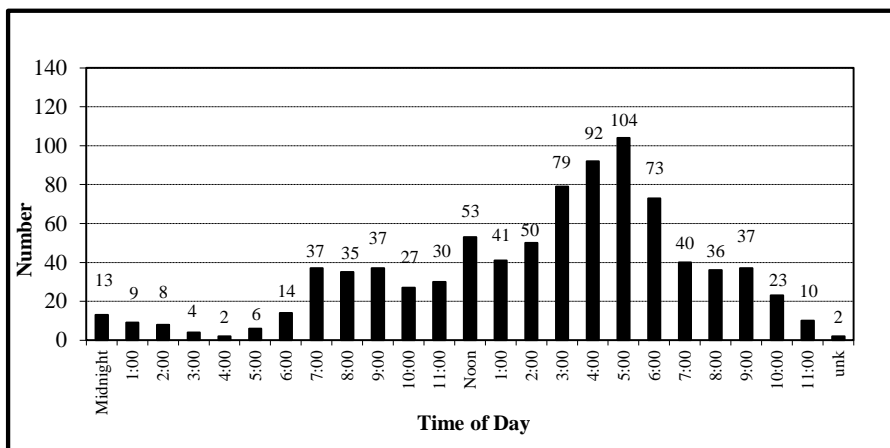


TABLE 7.03
2013 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday*	Friday	Saturday**	Total
Mid - 2:59 AM	6	1	3	2	5	5	8	30
3:00 - 5:59 AM	0	2	3	1	1	1	4	12
6:00 - 8:59 AM	1	19	14	18	15	17	2	86
9:00 - 11:59 AM	9	19	17	20	10	11	8	94
Noon - 2:59 PM	6	23	23	26	28	18	20	144
3:00 - 5:59 PM	24	36	44	50	56	39	26	275
6:00 - 8:59 PM	15	20	39	14	25	21	15	149
9:00 - 11:59 PM	4	11	11	10	10	12	12	70
Unknown	0	0	0	0	1	0	1	2
Total	65	131	154	141	151	124	96	862

TABLE 7.04
2013 BICYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
250,000 and Over	2	375	23	400	2	373
100,000 - 249,999	0	16	0	16	0	17
50,000 - 99,999	0	120	4	124	0	119
25,000 - 49,999	0	103	3	106	0	103
10,000 - 24,999	0	130	2	132	0	130
5,000 - 9,999	2	27	1	30	2	27
2,500 - 4,999	0	19	0	19	0	19
1,000 - 2,499	0	9	0	9	0	10
Under 1,000	3	23	0	26	2	24
Total	7	822	33	862	6	822

FIGURE 7.02
BICYCLISTS KILLED OR INJURED BY AGE AND GENDER 2013

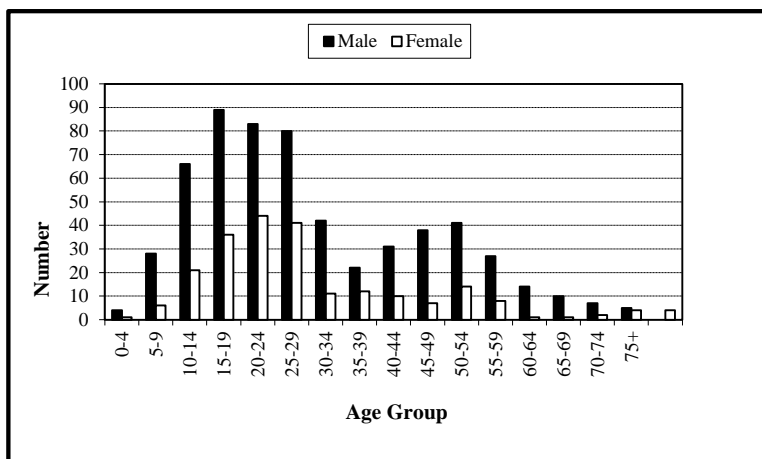


TABLE 7.05

BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2013

Age Group	Killed			Severe Injuries			Moderate Injuries			Minor Injuries			Total Injuries		
	M	F	Total	M	F	Total*	M	F	Total*	M	F	Total*	M	F	Total*
00 – 04	0	0	0	0	0	0	0	1	1	4	0	4	4	1	5
05 – 09	1	0	1	2	0	2	9	0	9	16	6	22	28	6	34
10 – 14	1	0	1	5	0	5	19	7	26	41	14	55	66	21	87
15 – 19	0	0	0	5	3	9	24	7	31	60	26	86	89	36	126
20 – 24	0	1	1	3	2	5	25	9	34	55	32	87	83	44	127
25 – 29	0	1	1	7	3	10	28	11	39	45	26	71	80	41	121
30 – 34	0	0	0	2	0	2	15	5	20	25	6	32	42	11	54
35 – 39	0	0	0	1	1	2	8	4	12	13	7	20	22	12	34
40 – 44	0	0	0	2	0	2	14	4	18	15	6	21	31	10	41
45 – 49	0	0	0	4	0	4	12	3	15	22	4	26	38	7	45
50 – 54	0	0	0	3	0	3	12	3	15	26	11	37	41	14	55
55 – 59	1	0	1	1	0	1	13	3	16	12	5	17	27	8	35
60 – 64	0	0	0	2	0	2	5	0	5	7	1	8	14	1	15
65 – 69	0	0	0	0	0	0	3	0	3	7	1	8	10	1	11
70 – 74	0	0	0	1	1	2	3	0	3	3	1	4	7	2	9
75 & Older	1	0	1	0	0	0	2	2	4	2	2	4	5	4	9
Not Stated	0	0	0	0	1	1	2	2	5	7	1	14	9	4	20
Total	4	2	6	38	11	50	194	61	256	360	149	516	596	223	828

* Within columns, where numbers do not add across to total, gender was not stated on the accident report.

TABLE 7.06

PRIOR ACTION OF BICYCLISTS INVOLVED IN 2013 CRASHES

Prior Action	Bicyclists in Fatal Crashes	Bicyclists in Injury Crashes	Bicyclists in Property Damage Crashes	Bicyclists in All Crashes
Riding With Traffic	4	382	19	405
Riding Against Traffic	0	53	5	58
Making Right Turn	0	5	0	5
Making Left Turn	1	19	1	21
Making U Turn	0	1	0	1
Riding Across Road	1	57	1	59
Slowing/Stopping/Starting	0	7	1	8
Other/Unknown	0	298	15	313
Total	6	822	42	870

* The total number of bicyclist actions may exceed the number of bicycle crashes because some crashes involved more than one bicycle.

TABLE 7.07

CONTRIBUTING FACTORS IN 2013 BICYCLE CRASHES

Contributing Factors	Number Attributed to Bicyclists	Percent Attributed to Bicyclists	Number Attributed to Motor Vehicle Drivers	Percent Attributed to Motor Vehicle Drivers
Human Factors				
Failure to Yield Right of Way	141	27.8	214	42.7
Non-Motorist Error	86	16.9	0	0.0
Disregard Traffic Control Device	84	16.5	12	2.4
Improper/Unsafe Lane Use	35	6.9	14	2.8
Driver Inattention/Distracted	33	6.5	110	22.0
Failure to Use Lights	18	3.5	0	0.0
Driver Inexperience	10	2.0	6	1.2
Illegal/Unsafe Speed	9	1.8	4	0.8
Chemical Impairment	7	1.4	12	2.4
Vision Obscured	6	1.2	45	9.0
Improper Park/Start/Stop	3	0.6	11	2.2
Improper Passing/Overtaking	2	0.4	3	0.6
Improper Turn	2	0.4	9	1.8
Improper/No Signal	2	0.4	0	0.0
Driving Left of Center	1	0.2	2	0.4
Impeding Traffic	1	0.2	1	0.2
Following Too Closely	0	0.0	3	0.6
Unsafe Backing	0	0.0	2	0.4
Driver On Phone/CB	0	0.0	1	0.2
Oversized/Overweight Vehicle	0	0.0	1	0.2
Other Human Factors	14	2.8	19	3.8
Vehicular Factors				
Defective Brakes	9	1.8	0	0.0
Skidding	3	0.6	0	0.0
Other Vehicular Factor	1	0.2	1	0.2
Miscellaneous Factors				
Weather Conditions	4	0.8	4	0.8
Other	37	7.3	27	5.4
Total	508	100.0%	501	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	380		367	
Total Number of Bicyclists/Drivers	867		863	

Zero, one, or two contributing factors may be attributed to a single driver or bicyclist. This may cause the sum of the factors cited to differ from the number of drivers or bicyclists. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding.

VIII: SCHOOL BUS CRASHES

As a general rule, school bus travel is very safe. The school bus is a large and heavy vehicle that provides good protection for its occupants. However, since buses can carry many passengers, serious crashes could potentially cause many injuries.

Crashes included in this section are those in which at least one school bus was physically involved. Note that in some cases, a crash could be seen as involving a school bus (albeit indirectly), yet not be counted as a school bus crash. For example, one such case would be a crash in which a person gets off the bus, crosses a street, and is struck by another vehicle. Such a case could be called an indirect school bus crash.

Indirect bus crashes

Changes in the crash reporting system in 2003 now make it possible to identify crashes in which a school bus was indirectly involved. In 2013, there were 158 crashes resulting in 75 injuries in which a school bus was indirectly involved.

Number of crashes increase

In 2013, school bus crashes increased by 32%. There were 732 traffic crashes directly involving at least one school bus, compared to 553 crashes in 2012.

Three deaths in 2013

In 2013, there were three fatal school bus crashes resulting in three deaths. None of the fatalities were people riding in the school buses. Two drivers and one passenger from the other motor vehicles were killed.

Morning and afternoon rush hours

Two out of three (68%) school bus crashes and seven out of ten school bus crash injuries (67%) in 2013 occurred during the time periods of 6-9 a.m. and 3-6 p.m. Over nine out of ten (92%) of school bus crashes occurred during school year months September through May.

School bus stop arm

Less than 2% of all school bus crashes occurred when the school bus stop arm was deployed. Only two injuries occurred in school bus crashes where the school bus stop arm was in use.

Contributing factors

In 2013, there were 732 traffic crashes where at least one school bus was involved. In all there were 736 school buses directly involved in these crashes. For 50% of the school bus drivers, officer reports showed there was “no clear contributing factor.” The two contributing factors cited most often were driver inattention or distraction (16%) or failure to yield right of way (13%). The third most frequently cited contributing factor was improper turn (11%). The most commonly cited contributing factors attributed to drivers of other vehicles in school bus crashes were driver inattention or distraction (17%), failure to yield right of way (15%), and following too closely (10%).

TABLE 8.01

SCHOOL BUS CRASH SUMMARY, 2004 - 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Crashes	702	717	625	680	663	670	611	615	553	732
Fatal Crashes	3	7	1	7	1	4	4	1	4	3
Persons Killed	3	7	1	8	4	4	4	1	7	3
Injury Crashes	150	140	137	126	107	144	116	112	113	132
Persons Injured	266	250	241	243	188	233	215	214	211	237
Property Damage Crashes	549	570	487	547	555	522	491	502	436	597
School Buses Directly Involved	708	724	631	690	670	675	615	621	554	736

TABLE 8.02

2013 SCHOOL BUS CRASHES BY TIME OF DAY

Time of Day	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Midnight-2:59 AM	0	0	2	2	0	0
3:00 - 5:59 AM	0	0	1	1	0	0
6:00 - 8:59 AM	0	45	209	254	0	98
9:00 - 11:59 AM	1	13	77	91	1	19
Noon - 2:59 PM	0	27	95	122	0	50
3:00 - 5:59 PM	2	44	198	244	2	67
6:00 - 8:59 PM	0	1	12	13	0	1
9:00 - 11:59 PM	0	2	0	2	0	2
Unknown	0	0	3	3	0	0
Total	3	132	597	732	3	237

TABLE 8.03

2013 SCHOOL BUS CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	15	70	85	0	22
February	1	14	74	89	1	20
March	0	13	63	76	0	15
April	1	15	57	73	1	25
May	0	14	42	56	0	21
June	0	2	23	25	0	2
July	0	5	14	19	0	6
August	0	3	8	11	0	4
September	0	16	37	53	0	45
October	1	9	44	54	1	33
November	0	11	35	46	0	20
December	0	15	130	145	0	24
Total	3	132	597	732	3	237

TABLE 8.04

**AGE AND GENDER OF PERSONS INJURED
IN 2013 SCHOOL BUS CRASHES**

Age Group	In Bus	Pedestrian	In Other Vehicle	Male	Female	Total*
00 - 04	1	0	5	3	3	6
05 - 09	9	0	1	5	4	10
10 - 14	21	1	1	11	12	23
15 - 19	6	2	18	12	13	26
20 - 24	2	2	12	5	11	16
25 - 29	2	0	9	2	9	11
30 - 34	1	2	14	10	7	17
35 - 39	3	0	8	6	5	11
40 - 44	2	0	14	10	5	16
45 - 49	7	1	13	8	13	21
50 - 54	3	0	6	3	6	9
55 - 59	5	0	6	1	10	11
60 - 64	5	0	6	7	4	11
65 & Older	8	0	9	10	7	17
Unknown	31	0	1	0	3	32
Total	106	8	123	93	112	237

*There were 32 cases where the gender of the person was not recorded on the crash form.

TABLE 8.05

**PERSONS KILLED OR INJURED
IN 2013 SCHOOL BUS CRASHES BY POPULATION OF AREA**

Population of City or Township	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total
250,000 and Over	0	0	10	42	52
100,000 - 249,999	0	0	3	3	6
50,000 - 99,999	0	2	7	26	35
25,000 - 49,999	0	0	5	57	62
10,000 - 24,999	1	2	7	15	24
5,000 - 9,999	0	0	0	6	6
2,500 - 4,999	0	0	2	14	16
1,000 - 2,499	0	0	2	0	2
Under 1,000	2	5	10	19	34
Total	3	9	46	182	237

TABLE 8.06

2013 SCHOOL BUS CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	3	114	445	562	3	216
Parked Motor Vehicle	0	1	127	128	0	1
Bicycle	0	5	0	5	0	5
Pedestrian	0	7	0	7	0	8
Deer	0	0	1	1	0	0
Other Animal	0	0	1	1	0	0
Fixed Object	0	4	19	23	0	6
Overturn	0	1	0	1	0	1
Other/Unknown	0	0	4	4	0	0
Total	3	132	597	732	3	237

TABLE 8.07

2013 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes*	Total Crashes	Killed	Injured
Traffic Signal	0	40	135	175	0	57
Overhead Flashers	0	0	1	1	0	0
Stop Sign—All Approaches	0	5	25	30	0	6
Stop Sign—Not All Approaches	0	26	126	152	0	69
Yield Sign	0	0	7	7	0	0
School Bus Stop Arm	0	2	9	11	0	2
School Zone Sign	0	1	1	2	0	4
Railroad Crossing Stop Sign	0	1	14	15	0	1
Other	0	3	8	11	0	6
Not Applicable	3	54	266	323	3	92
Unknown	0	0	3	3	0	0
Total	3	132	597	732	3	237

*This field left blank on crash report for two school bus crashes

TABLE 8.08

CONTRIBUTING FACTORS IN 2013 SCHOOL BUS CRASHES

Contributing Factors	Number Attributed to School Bus Drivers	Percent Attributed to School Bus Drivers	Number Attributed to Drivers of Other Vehicles	Percent Attributed to Drivers of Other Vehicles
Human Factors				
Driver Inattention/Distracted	57	15.7%	91	17.3%
Failure to Yield Right of Way	47	12.9	76	14.5
Improper Turn	39	10.7	14	2.7
Improper/Unsafe Lane Use	23	6.3	18	3.4
Following Too Closely	19	5.2	51	9.7
Unsafe Backing	13	3.6	6	1.1
Illegal/Unsafe Speed	8	2.2	41	7.8
Improper Passing/Overtaking	8	2.2	6	1.1
Driver Inexperience	8	2.2	13	2.5
Disregard of Traffic Control Device	7	1.9	21	4.0
Improper Park/Start/Stop	6	1.7	10	1.9
Vision Obscured	5	1.4	13	2.5
Driving Left of Center	1	0.3	4	0.8
Improper/No Signal	1	0.3	2	0.4
Overcorrecting	0	0.0	3	0.6
Impeding Traffic	0	0.0	3	0.6
Chemical Impairment	0	0.0	3	0.6
Driver on Phone/CB Radio	0	0.0	1	0.2
Other Human Factors	7	1.9	7	1.3
Vehicular Factors				
Skidding	29	8.0	56	10.7
Defective Brakes	1	0.3	3	0.6
Other Vehicular Factors	0	0.0	1	0.2
Miscellaneous Factors				
Weather Conditions	56	15.4	68	13.0
Other	28	7.7	14	2.7
Total	363	100.0%	525	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	367		283	
Total Number of Drivers	740		752	

Zero, one, or two contributing factors may be attributed to a single driver. This may cause the sum of the factors cited to differ from the number of drivers. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding. Bicyclists and pedestrians are included as other drivers in this table.

IX: MOTOR VEHICLE/TRAIN CRASHES

Each crash reported in this section involves a motor vehicle and a train. Train collisions with pedestrians or bicyclists are not counted as traffic crashes in this publication.

Statewide, slightly more than one-half of one percent of all motor vehicle crashes result in a fatality. Generally, motor-vehicle/train crashes are few in number, but they are more likely to be serious. In 2013, there were five motor vehicle/train crashes that resulted in a fatality, representing 10% of all motor-vehicle/train crashes in Minnesota.

Number of train crashes jump in 2013

In the past decade, the number of motor-vehicle/train crashes in Minnesota has been declining. However, in 2013 there were 51 vehicle/train crashes, 26 more crashes than were reported in the previous year.

Fatalities and Injuries increase

Both fatalities and injuries in motor vehicle/train crashes increased. Five people were killed in 2013 compared to three in 2012. Twenty people were injured in 2013 compared to 15 in 2012.

Railroad crossings with flashing lights or gates

Railroad crossings without some type of flashing lights or gates are very dangerous. Four fatalities occurred at a railroad crossing without flashing lights or gates. Only seven crashes occurred where there was a railroad crossing gate present.

Most crashes occurred in rural areas

Motor vehicle crashes involving a train are a predominantly rural phenomenon, defined as an area with less than 5,000 population. In 2013, 32 of the 51 total crashes and four of the fatalities occurred in rural areas.

Contributing factors

For motor vehicle drivers involved in train crashes, failure to yield right of way, driver inattention or distraction and disregard of traffic control device were the three contributing factors listed most often by officers.

TABLE 9.01

MOTOR VEHICLE / TRAIN CRASH SUMMARY, 2004 – 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Crashes	72	52	51	56	40	37	33	48	25	51
Fatal Crashes	12	5	8	2	3	4	1	4	3	5
Persons Killed	13	6	9	2	4	5	1	4	3	5
Injury Crashes	21	22	10	16	17	11	17	16	12	17
Persons Injured	27	29	15	20	20	15	21	18	15	20
Property Damage Crashes	39	25	33	38	20	22	15	28	10	29

TABLE 9.02

2013 MOTOR VEHICLE / TRAIN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total	Killed	Injured
January	0	2	1	3	0	2
February	1	3	3	7	1	3
March	0	1	3	4	0	1
April	0	2	5	7	0	2
May	1	0	2	3	1	0
June	0	0	2	2	0	0
July	1	1	2	4	1	1
August	0	0	2	2	0	0
September	0	0	1	1	0	0
October	0	3	3	6	0	5
November	0	2	0	2	0	3
December	2	3	5	10	2	3
Total	5	17	29	51	5	20

TABLE 9.03

2013 MOTOR VEHICLE / TRAIN CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight-2:59 AM	1	0	0	0	0	1	0	2
3:00 - 5:59 AM	0	0	0	0	0	1	0	1
6:00 - 8:59 AM	0	1	2	2	0	5	1	11
9:00 - 11:59 AM	0	2	3	1	1	1	1	9
Noon - 2:59 PM	0	3	1	2	2	2	0	10
3:00 - 5:59 PM	0	3	1	2	0	1	3	10
6:00 - 8:59 PM	0	1	1	0	2	2	0	6
9:00 - 11:59 PM	0	0	1	0	0	0	1	2
Total	1	10	9	7	5	13	6	51

TABLE 9.04

**2013 MOTOR VEHICLE / TRAIN CRASHES
BY TRAFFIC CONTROL DEVICE**

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Stop Sign All Approaches	2	4	2	8	2	5
RR Crossing Gate	0	0	4	4	0	0
RR Crossing Flashing Lights	0	2	3	5	0	2
RR Crossing Stop Sign	2	6	4	12	2	6
RR Overhead Flashing Lights	0	1	0	1	0	3
RR Overhead Lights/Gate	1	0	2	3	1	0
RR Crossbuck	0	1	4	5	0	1
Other Device	0	1	7	8	0	1
Unknown	0	2	3	5	0	2
Total	5	17	29	51	5	20

TABLE 9.05

**2013 MOTOR VEHICLE / TRAIN CRASHES
AGE OF PERSONS KILLED OR INJURED**

Age Group	Killed	Severe Injuries	Moderate Injuries	Minor Injuries	Total Injuries
00 - 04	0	0	0	2	2
05 - 09	0	0	0	0	0
10 - 14	0	0	0	0	0
15 - 19	0	0	0	2	2
20 - 24	0	1	2	2	5
25 - 29	1	0	0	2	2
30 - 34	0	0	0	1	1
35 - 39	0	0	0	2	2
40 - 44	0	1	1	0	2
45 - 49	1	0	0	1	1
50 - 54	1	0	0	1	1
55 - 59	1	0	1	0	1
60 - 64	0	0	0	0	0
65 - 69	0	0	0	0	0
70 - 74	1	0	0	1	1
75 - 79	0	0	0	0	0
80 & Older	0	0	0	0	0
Not Stated	0	0	0	0	0
Total	5	2	4	14	20

TABLE 9.06

2013 MOTOR VEHICLE / TRAIN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
250,000 and Over	0	1	6	7	0	1
100,000 - 249,999	0	0	0	0	0	0
50,000 - 99,999	0	1	6	7	0	1
25,000 - 49,999	0	1	1	2	0	1
10,000 - 24,999	0	0	1	1	0	0
5,000 - 9,999	1	1	0	2	1	1
2,500 - 4,999	0	2	5	7	0	2
1,000 - 2,499	0	1	0	1	0	1
Under 1,000	4	10	10	24	4	13
Total	5	17	29	51	5	20

TABLE 9.07

**2013 MOTOR VEHICLE / TRAIN CRASHES
MOTOR VEHICLE DRIVER CONTRIBUTING FACTORS**

Contributing Factor	Number	Percent
Human Factors		
Failure to Yield Right of Way	21	29.6%
Driver Inattention/Distracted	13	18.3
Disregard of Traffic Control	10	14.1
Illegal/Unsafe Speed	7	9.9
Improper Turn	3	4.2
Chemical Impairment	3	4.2
Improper Parking/Starting/Stopping	2	2.8
Driver Inexperience	2	2.8
Improper/Unsafe Lane Use	1	1.4
Vehicular Factors		
Skidding	5	7.0
Defective Brakes	2	2.8
Other		
Weather	1	1.4
Other Contributing Factor	1	1.4

Total	71	100.0%
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Vehicles for Which There Was "No Clear Contributing Factor"	5
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Number of Drivers	55
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Zero, one, or two contributing factors may be attributed to a single driver. This may cause the sum of the factors cited to differ from the number of drivers. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding. No contributing factors are cited for train operators.

X: CRASHES INVOLVING TEEN DRIVERS

Minnesota teen drivers continue to be overrepresented in traffic crashes due to driver inexperience, distractions, speeding/risk-taking, and seat belt non-use. The greatest crash risk occurs during the first months of independent driving. The good news is that progress has been made. Laws such as no cell phone use, no texting, primary seat belt, and nighttime and passenger limitations have helped reduce teen traffic deaths and injuries.

Parents play a vital role in developing safe teen drivers. Teens need to gain experience in a variety of road types and environments — day, night, city, rural, rain, snow — while supervised by an experienced licensed driver. Even after a teen is licensed, they continue to need training and monitoring. Programming is available through driver educators to assist parents in learning more about graduated driver licensing, as well as tips for helping their teens become safer drivers.

Teen involvement in traffic crashes

This Section provides a short summary regarding teen drivers (ages 15-19) who were involved in crashes. However, more information concerning teens can be found in other Sections of this Crash Facts report:

- Table 1.04: Age/Gender of teens killed or injured
- Table 1.05: Age/Gender of teen drivers involved
- Table 1.06: Licensed vs. Crash involved drivers
- Table 1.07: Teen driver crash type
- Table 1.09: Single-vehicle crash contributing factors
- Table 1.10: Multi-vehicle crash contributing factors
- Table 2.03: DWI's issued to underage drivers
- Table 2.05: Alcohol related teens killed or injured
- Table 2.12: Teen driver alcohol concentration
- Table 3.03: Teen vehicle occupants killed or injured
- Table 3.05: Teen occupant seat belt use
- Table 4.06: Teen motorcyclists killed or injured
- Table 6.02: Teen pedestrians killed or injured
- Table 7.05: Teen bicyclists killed or injured
- Table 8.04: Teen school bus riders killed or injured

Improvement seen in the past decade

Table 10.01 indicates that the numbers of teen-involved traffic crashes have been decreasing. The definition of a teen-involved crash used here is any crash with at least one teen driver (ages 15-19) of any motor vehicle involved (no teen pedestrians or bicyclists used). In 2004, 22.7% of all traffic crashes

in Minnesota were teen-related. In 2013, that percentage has dropped to 15.9%.

Teen (ages 13-19) fatalities have also decreased. In 2004, 15.5% of all traffic fatalities in Minnesota were teens. In 2013, that percentage has dropped to 8.5%.

Teen (ages 13-19) injuries have also decreased. In 2004, 17.6% of all traffic injuries in Minnesota were teens. In 2013, that percentage has dropped to 11.9%.

Rate per licensed teen driver decreasing

Table 10.02 indicates that the number of teen MVO drivers (ages 15-19) who were involved in crashes has also been decreasing. MVO stands for 'motor vehicle occupant'. That is, only teens that were driving vehicles normally equipped with seat belts are counted in this table. In 2004, 79 teen MVO drivers were involved in crashes for every 1,000 licensed teen drivers. In 2013, that rate has dropped to 53.

Colder weather

Teen involved crashes are rather evenly distributed throughout the year; however, there is an uptick during the colder months. In 2013, one out of every four (23%) teen-involved crashes occurred during the months of January and December.

Afternoons are dangerous

As can be seen from Table 10.05 and Figure 10.01, a large number of teen-involved crashes happen during the afternoon period of 2:00 – 6:00 p.m. During that four-hour time period in 2013, 43% of all teen-involved crashes occurred. On the other hand, only 4% of all teen involved crashes occurred during the five-hour nighttime period of 12:00 a.m. – 5:00 a.m.

Contributing factors

For teen drivers of any vehicle who were involved in crashes, driver distraction was listed most often (21%) by officers at the scene. Next was failure to yield the right of way (13%), and then illegal or unsafe speed (13%). For the 'other' motor vehicle drivers involved, failure to yield the right of way was listed most often (21%), next was driver distraction (19%). Only 5% of the 'other' drivers were listed as illegal or unsafe speed.

TABLE 10.01

TEEN CRASH SUMMARY, 2007 - 2013

Category	2007	2008	2009	2010	2011	2012	2013
Crashes with at least one Teen (15-19) Driver*	17,011	15,475	14,142	13,611	12,139	11,804	12,384
All Traffic Crashes in Minnesota	81,505	79,095	73,498	74,073	72,117	69,236	77,707
-Teen (15-19) Driver* Crash %	20.9%	19.6%	19.2%	18.4%	16.8%	17.0%	15.9%
Teen (13-19) Traffic Fatalities	53	37	40	47	39	40	33
All Traffic Fatalities in Minnesota	510	455	421	411	368	395	387
-Teen (13-19) Fatality %	10.4%	8.1%	9.5%	11.4%	10.6%	10.1%	8.5%
Teen (13-19) Traffic Injuries	5,723	5,079	4,648	4,391	3,921	3,844	3,662
All Traffic Injuries in Minnesota	35,318	33,379	31,074	31,176	30,295	29,314	30,653
-Teen (13-19) Injury %	16.2%	15.2%	15.0%	14.1%	12.9%	13.1%	11.9%

*Driver of any motor vehicle.

TABLE 10.02

TEEN 'MOTOR VEHICLE OCCUPANT' DRIVER CRASH INVOLVEMENT, 2007 - 2013

Age of Teen MVO* Driver	2007	2008	2009	2010	2011	2012	2013
Age 15 MVO* Drivers involved in Crashes	236	195	159	187	181	156	152
Age 15 Licensed Drivers**	26,029	26,141	28,126	28,020	25,422	25,946	25,324
-Rate per 1,000 Licensed Drivers:	9.1	7.5	5.7	6.7	7.1	6.0	6.0
Age 16 MVO* Drivers involved in Crashes	3,889	3,496	3,160	2,897	2,567	2,645	2,772
Age 16 Licensed Drivers**	51,499	49,801	49,884	49,634	48,260	47,801	48,013
-Rate per 1,000 Licensed Drivers:	75.5	70.2	63.3	58.4	53.2	55.3	57.7
Age 17 MVO* Drivers involved in Crashes	4,793	4,227	3,888	3,580	3,251	3,205	3,268
Age 17 Licensed Drivers**	59,766	57,875	56,554	55,885	54,781	54,489	53,744
-Rate per 1,000 Licensed Drivers:	80.2	73.0	68.7	64.1	59.3	58.8	60.8
Age 18 MVO* Drivers involved in Crashes	4,780	4,527	4,024	4,014	3,504	3,364	3,430
Age 18 Licensed Drivers**	64,910	64,337	62,707	61,526	59,722	59,220	58,706
-Rate per 1,000 Licensed Drivers:	73.6	70.4	64.2	65.2	58.7	56.8	58.4
Age 19 MVO* Drivers involved in Crashes	4,581	4,153	3,971	3,900	3,450	3,261	3,532
Age 19 Licensed Drivers**	67,664	68,050	67,701	66,272	63,997	63,212	62,642
-Rate per 1,000 Licensed Drivers:	67.7	61.0	58.7	58.8	53.9	51.6	56.4
All 15-19 MVO* Drivers involved in Crashes	18,279	16,598	15,202	14,578	12,953	12,631	13,154
All 15-19 Licensed Drivers**	269,868	266,204	264,972	261,337	252,182	250,668	248,429
-Rate per 1,000 Licensed Drivers:	67.7	62.4	57.4	55.8	51.4	50.4	52.9

*MVO = Motor Vehicle Occupant.
Only teen drivers in vehicles equipped with
Seat-Belts are included in Table 10.02.

**Licensed Driver totals include Permits.

TABLE 10.03

2013 TEEN-INVOLVED CRASHES* BY MONTH(*Crashes involving at least one Teen Driver (15-19) of any vehicle)

Month	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
January	2	10	57	234	815	1,118
February	4	13	71	198	823	1,109
March	2	9	53	201	753	1,018
April	3	6	50	170	644	873
May	5	7	56	192	592	852
June	2	11	85	223	638	959
July	5	18	77	228	615	943
August	5	19	87	215	620	946
September	1	12	82	214	596	905
October	4	10	66	235	637	952
November	3	10	77	224	689	1,003
December	2	8	68	266	1,362	1,706
Total	38	133	829	2,600	8,784	12,384

TABLE 10.04

2013 TEEN-INVOLVED CRASHES BY DAY OF WEEK(*Crashes involving at least one Teen Driver (15-19) of any vehicle)

Day	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
Sunday	4	23	111	264	867	1,269
Monday	5	18	112	394	1,374	1,903
Tuesday	5	23	116	380	1,319	1,843
Wednesday	8	9	107	410	1,363	1,897
Thursday	7	20	113	390	1,342	1,872
Friday	5	24	144	433	1,512	2,118
Saturday	4	16	126	329	1,007	1,482
Total	38	133	829	2,600	8,784	12,384

TABLE 10.05
2013 TEEN-INVOLVED CRASHES BY TIME OF DAY
 (*Crashes involving at least one Teen Driver (15-19) of any vehicle)

Hour	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
Midnight	1	0	6	23	115	145
1:00	0	2	11	21	69	103
2:00	3	3	9	20	51	86
3:00	0	3	11	14	37	65
4:00	0	2	7	14	30	53
5:00	1	1	7	13	42	64
6:00	1	4	12	37	134	188
7:00	3	3	46	178	678	908
8:00	0	5	39	122	456	622
9:00	1	4	23	85	321	434
10:00	2	4	26	77	300	409
11:00	3	4	38	104	370	519
Noon	1	10	40	144	433	628
1:00	1	4	62	146	415	628
2:00	2	11	69	179	654	915
3:00	4	16	73	267	916	1,276
4:00	3	9	77	254	847	1,190
5:00	2	15	69	247	845	1,178
6:00	0	9	51	194	559	813
7:00	2	3	45	120	405	575
8:00	2	7	35	107	320	471
9:00	3	5	32	91	311	442
10:00	2	6	20	86	281	395
11:00	1	2	21	56	184	264
Unknown	0	1	0	1	11	13
Total	38	133	829	2,600	8,784	12,384

FIGURE 10.01
TOTAL TEEN-INVOLVED CRASHES, BY TIME, 2013

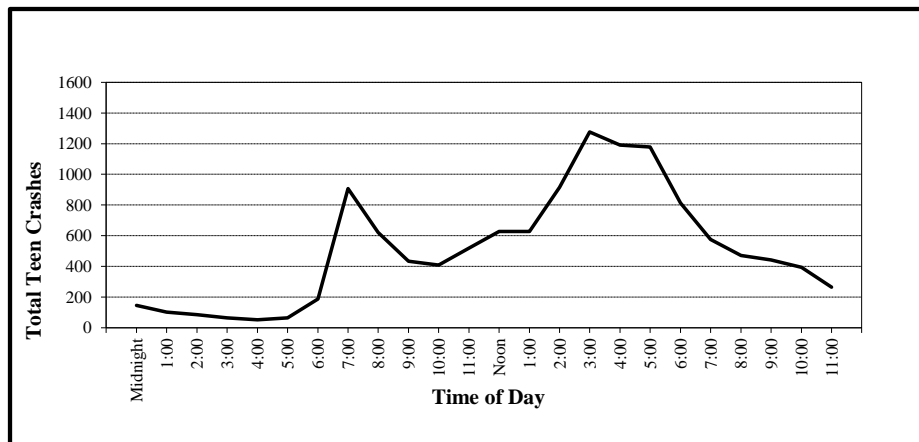


TABLE 10.06
CONTRIBUTING FACTORS IN 2013 TEEN-INVOLVED CRASHES

Contributing Factors	Number Attributed to Teen Drivers*	Percent Attributed to Teen Drivers*	Number Attributed to Other Vehicle Drivers*	Percent Attributed to Other Vehicle Drivers*
Human Factors				
Driver Inattention/Distracted	2,760	20.5%	714	19.3%
Failure to Yield Right of Way	1,742	12.9	791	21.4
Illegal/Unsafe Speed	1,737	12.9	199	5.4
Following Too Closely	1,237	9.2	520	14.1
Driver Inexperience	1,196	8.9	24	0.7
Overcorrecting	442	3.3	14	0.4
Disregard Traffic Control Device	404	3.0	180	4.9
Improper/Unsafe Lane Use	380	2.8	161	4.4
Other Human Factor	274	2.0	88	2.4
Improper Turn	220	1.6	78	2.1
Vision Obscured	204	1.5	67	1.8
Chemical Impairment	160	1.2	50	1.4
Unsafe Backing	115	0.9	46	1.2
Improper Park/Start/Stop	103	0.8	35	0.9
Improper Passing/Overtaking	93	0.7	43	1.2
Driving Left of Center	62	0.5	20	0.5
Driver On Phone/CB	24	0.2	1	0.0
Improper/No Signal	10	0.1	12	0.3
Impeding Traffic	10	0.1	15	0.4
Failure to Use Lights	5	0.0	3	0.1
Non-Motorist Error	0	0.0	12	0.3
Vehicular Factors				
Skidding	692	5.1	136	3.7
Defective Brakes	98	0.7	19	0.5
Oversize/Overweight Vehicle	1	0.0	1	0.0
Other Vehicular Factor	62	0.5	32	0.9
Miscellaneous Factors				
Weather Conditions	1,157	8.6	289	7.8
Other	299	2.2	142	3.8
Total Contributing Factors	13,487	100.0%	3,692	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	3,202		6,313	
Total Number of Drivers	13,258		9,789	

*The term 'Drivers' refers to a driver of any motor vehicle.
Contributing factor data for the 'Other Vehicle Drivers' includes pedestrians and bicyclists.
Pedestrians and bicyclists are not included in the 'Teen Driver' data.

Zero, one, or two contributing factors may be attributed to each vehicle, pedestrian, or bicyclist involved in a crash. This may cause the sum of the factors cited to differ from the number of drivers, pedestrians, or bicyclists. Percentages are based on all contributing factors listed. They may not sum to 100 due to rounding.

XI: CRASHES INVOLVING SENIOR DRIVERS

Between 2013 and 2020, the population of Minnesotans aged 65 and older will increase over 28 percent. Age alone does not determine a person's ability to drive safely; each of us ages differently. There are safe and unsafe drivers at every age. National research suggests that crash rates for older drivers are actually decreasing due to better health, vehicles with helpful technologies, more driving experience, and safer roadways. As people get older, their driving schedules change due to retirement, different activities, and fewer required trips. Older drivers generally drive fewer miles than younger ones. In addition, many older drivers self-regulate by avoiding driving at night or on particularly challenging roadways. While the average driver is older than in the past, this has not caused the large increase in crashes and deaths on our roadways that was initially predicted.

Senior involvement in traffic crashes

This Section provides a short summary regarding senior drivers (ages 65 and above) who were involved in crashes. However, more information concerning seniors can be found in other Sections of this Crash Facts report:

- Table 1.04: Age/Gender of seniors killed or injured
- Table 1.05: Age/Gender of senior drivers involved
- Table 1.06: Licensed vs. Crash involved drivers
- Table 1.07: Senior driver crash type
- Table 1.09: Single-vehicle crash contributing factors
- Table 1.10: Multi-vehicle crash contributing factors
- Table 2.05: Alcohol related seniors killed or injured
- Table 2.12: Senior driver alcohol concentration
- Table 3.03: Senior vehicle occupants killed or injured
- Table 3.05: Senior occupant seat belt use
- Table 4.06: Senior motorcyclists killed or injured
- Table 6.02: Senior pedestrians killed or injured
- Table 7.05: Senior bicyclists killed or injured

Senior crash involvement remains steady

Table 11.01 indicates that the number of senior-involved traffic crashes has increased only slightly in the past few years. The definition of a senior-involved crash used here is any crash with at least one senior driver (ages 65 and above) of any motor vehicle (no senior pedestrians or bicyclists used). In 2007, 11.8% of all traffic crashes in Minnesota were senior-related. In 2013, that percentage has risen to 13.7%.

As the senior population in Minnesota increases, senior traffic fatalities are expected to increase. In 2007, 20.0% of all traffic fatalities in Minnesota were seniors. In 2013, that percentage has risen to 22.2%.

Senior (ages 65 and older) injuries have also increased. In 2007, 7.7% of all traffic injuries in Minnesota were seniors. In 2013, that percentage has risen to 8.8%.

MVO rate per licensed senior driver also steady

Table 11.02 indicates that the number of senior MVO drivers who were involved in crashes has decreased slightly. MVO stands for 'motor vehicle occupant'. That is, only seniors that were driving vehicles normally equipped with seat belts are counted in this table. In 2007, 16.7 senior MVO drivers were involved in crashes for every 1,000 licensed senior drivers. In 2013, that rate has dropped to 15.5.

Colder weather

Senior-involved crashes are rather evenly distributed throughout the year; however, there is an uptick during the colder months. In 2013, one out of every five (21%) senior involved crashes occurred during the months of January and December.

Afternoons are dangerous

As can be seen from Table 11.05 and Figure 11.01, a large number of senior involved crashes happen during the afternoon period of noon – 5:00 p.m. During that five-hour time-period in 2013, 47% of all senior involved crashes occurred. On the other hand, only 1% of all senior involved crashes occurred during the five-hour nighttime period of 12:00 a.m. – 5:00 a.m.

Contributing factors

For senior drivers of any vehicle who were involved in crashes, failure to yield right of way was listed most often (26%) by officers at the scene. Next was driver inattention/distraction (19%), and then illegal or unsafe speed (6%). For the other motor vehicle drivers involved, driver inattention/distraction was listed most often (23%), next was failure to yield right of way (19%) and following too closely (14%). Only 7% of the other drivers were listed as illegal or unsafe speed.

TABLE 11.01

SENIOR CRASH SUMMARY, 2007 - 2013

Category	2007	2008	2009	2010	2011	2012	2013
Crashes with at least one Senior (65+) Driver*	9,639	9,646	9,453	9,657	9,511	9,687	10,630
All Traffic Crashes in Minnesota	81,505	79,095	73,498	74,073	72,117	69,236	77,707
-Senior (65+) Driver* Crash %	11.8%	12.2%	12.9%	13.0%	13.2%	14.0%	13.7%
Senior (65+) Traffic Fatalities	102	87	84	72	76	81	86
All Traffic Fatalities in Minnesota	510	455	421	411	368	395	387
-Senior (65+) Fatality %	20.0%	19.1%	20.0%	17.5%	20.7%	20.5%	22.2%
Senior (65+) Traffic Injuries	2,724	2,503	2,477	2,523	2,496	2,654	2,712
All Traffic Injuries in Minnesota	35,318	33,379	31,074	31,176	30,295	29,314	30,653
-Senior (65+) Injury %	7.7%	7.5%	8.0%	8.1%	8.2%	9.1%	8.8%

*Driver of any motor vehicle.

TABLE 11.02

SENIOR 'MOTOR VEHICLE OCCUPANT' DRIVER CRASH INVOLVEMENT, 2007 - 2013

Age of Senior MVO* Driver	2007	2008	2009	2010	2011	2012	2013
Age 65-69 MVO* Drivers involved in Crashes	3,085	3,388	3,345	3,511	3,451	3,630	3,980
Age 65-69 Licensed Drivers	178,918	187,347	193,513	198,777	213,587	226,107	237,444
-Rate per 1,000 Licensed Drivers:	17.2	18.1	17.3	17.7	16.2	16.1	16.8
Age 70-74 MVO* Drivers involved in Crashes	2,307	2,215	2,210	2,326	2,332	2,311	2,616
Age 70-74 Licensed Drivers	136,026	140,879	143,738	149,002	155,347	164,699	172,320
-Rate per 1,000 Licensed Drivers:	17.0	15.7	15.4	15.6	15.0	14.0	15.2
Age 75-79 MVO* Drivers involved in Crashes	2,017	1,929	1,828	1,791	1,743	1,744	1,912
Age 75-79 Licensed Drivers	114,678	113,740	113,517	114,320	116,871	119,643	123,927
-Rate per 1,000 Licensed Drivers:	17.6	17.0	16.1	15.7	14.9	14.6	15.4
Age 80-84 MVO* Drivers involved in Crashes	1,493	1,475	1,389	1,382	1,327	1,392	1,382
Age 80-84 Licensed Drivers	88,606	89,045	87,672	88,821	90,620	90,268	90,333
-Rate per 1,000 Licensed Drivers:	16.8	16.6	15.8	15.6	14.6	15.4	15.3
Age 85+ MVO* Drivers involved in Crashes	941	889	931	967	955	955	1,069
Age 85+ Licensed Drivers	71,373	73,502	71,997	74,678	79,683	82,434	82,608
-Rate per 1,000 Licensed Drivers:	13.2	12.1	12.9	12.9	12.0	11.6	12.9
All 65+ MVO* Drivers involved in Crashes	9,843	9,896	9,703	9,977	9,808	10,032	10,959
All 65+ Licensed Drivers	589,601	604,513	610,437	625,598	656,108	683,151	706,632
-Rate per 1,000 Licensed Drivers:	16.7	16.4	15.9	15.9	14.9	14.7	15.5

*MVO = Motor Vehicle Occupant.
Only senior drivers in vehicles equipped with
Seat-Belts are included in Table 11.02.

TABLE 11.03

2013 SENIOR-INVOLVED CRASHES* BY MONTH(*Crashes involving at least one Senior Driver (65+) of any vehicle)

Month	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
January	2	8	69	145	577	801
February	3	9	50	138	594	794
March	5	8	50	152	564	779
April	4	6	62	185	441	698
May	10	10	75	189	534	818
June	10	14	85	190	560	859
July	12	17	99	191	575	894
August	4	16	90	206	574	890
September	11	20	70	189	566	856
October	7	12	91	201	604	915
November	8	10	59	208	597	882
December	5	9	74	254	1,102	1,444
Total	81	139	874	2,248	7,288	10,630

TABLE 11.04

2013 SENIOR-INVOLVED CRASHES BY DAY OF WEEK(*Crashes involving at least one Senior (65+) of any vehicle)

Day	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
Sunday	5	17	77	188	554	841
Monday	13	14	115	364	1,140	1,646
Tuesday	11	23	136	357	1,203	1,730
Wednesday	10	25	141	348	1,150	1,674
Thursday	13	14	136	354	1,230	1,747
Friday	17	25	155	372	1,246	1,815
Saturday	12	21	114	265	765	1,177
Total	81	139	874	2,248	7,288	10,630

TABLE 11.05
2013 SENIOR-INVOLVED CRASHES BY TIME OF DAY
 (*Crashes involving at least one Senior Driver (65+) of any vehicle)

Hour	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
Midnight	0	0	2	1	18	21
1:00	0	0	1	2	18	21
2:00	0	0	1	0	10	11
3:00	0	0	1	3	7	11
4:00	0	0	3	4	9	16
5:00	1	0	6	10	36	53
6:00	2	2	14	33	95	146
7:00	6	3	28	85	269	391
8:00	6	12	36	102	338	494
9:00	5	5	53	129	483	675
10:00	9	9	64	162	574	818
11:00	6	12	83	192	642	935
Noon	9	19	80	219	692	1,019
1:00	4	12	80	186	652	934
2:00	11	9	76	207	665	968
3:00	5	10	82	212	691	1,000
4:00	2	11	74	218	636	941
5:00	4	6	62	194	559	825
6:00	5	6	47	124	353	535
7:00	1	7	26	51	190	275
8:00	2	10	21	46	125	204
9:00	2	3	25	31	100	161
10:00	0	2	6	19	61	88
11:00	1	1	2	13	38	55
Unknown	0	0	1	5	27	33
Total	81	139	874	2,248	7,288	10,630

FIGURE 11.01
TOTAL SENIOR-INVOLVED CRASHES, BY TIME, 2013

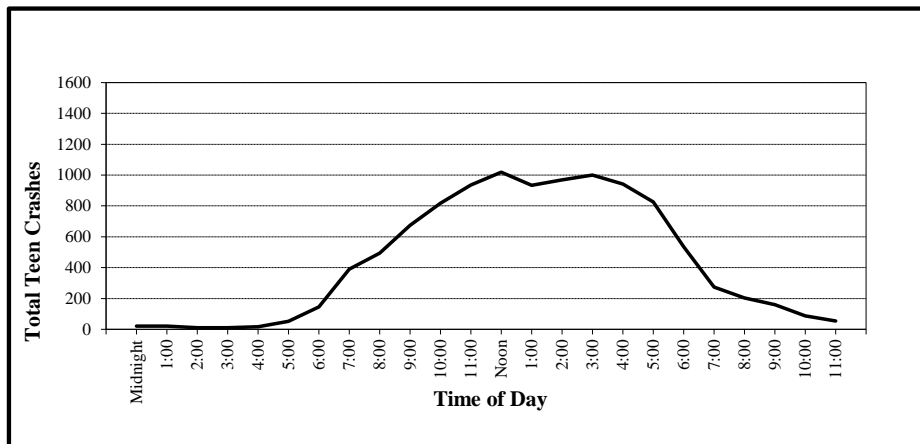


TABLE 11.06
CONTRIBUTING FACTORS IN 2013 SENIOR-INVOLVED CRASHES

Contributing Factors	Number Attributed to Senior Drivers*	Percent Attributed to Senior Drivers*	Number Attributed to Other Vehicle Drivers*	Percent Attributed to Other Vehicle Drivers*
Human Factors				
Failure to Yield Right of Way	2,044	26.1%	1,002	18.7%
Driver Inattention/Distracted	1,504	19.2	1,219	22.7
Illegal/Unsafe Speed	486	6.2	361	6.7
Improper/Unsafe Lane Use	436	5.6	239	4.5
Disregard Traffic Control Device	429	5.5	324	6.0
Following Too Closely	419	5.3	724	13.5
Other Human Factor	338	4.3	100	1.9
Improper Turn	234	3.0	93	1.7
Vision Obscured	177	2.3	96	1.8
Unsafe Backing	164	2.1	76	1.4
Improper Passing/Overtaking	101	1.3	78	1.5
Overcorrecting	98	1.3	29	0.5
Improper Park/Start/Stop	92	1.2	50	0.9
Driving Left of Center	64	0.8	37	0.7
Chemical Impairment	52	0.7	50	0.9
Impeding Traffic	22	0.3	14	0.3
Improper/No Signal	18	0.2	9	0.2
Driver Inexperience	17	0.2	80	1.5
Failure to Use Lights	4	0.1	10	0.2
Driver On Phone/CB	2	0.0	9	0.2
Non-Motorist Error	0	0.0	36	0.7
Vehicular Factors				
Skidding	271	3.5	171	3.2
Defective Brakes	24	0.3	44	0.8
Oversize/Overweight Vehicle	4	0.1	6	0.1
Other Vehicular Factor	53	0.7	39	0.7
Miscellaneous Factors				
Weather Conditions	499	6.4	291	5.4
Other	286	3.6	177	3.3
Total Contributing Factors	7,838	100.0%	5,364	100.0%
Vehicles for Which There Was “No Clear Contributing Factor”	4,312		4,730	
Total Number of Drivers	11,297		9,668	

*The term ‘Drivers’ refers to a driver of any motor vehicle.
Contributing factor data for the ‘Other Vehicle Drivers’ includes pedestrians and bicyclists. Pedestrians and bicyclists are not included in the ‘Senior Driver’ data.

Zero, one, or two contributing factors may be attributed to each vehicle, pedestrian, or bicyclist involved in a crash. This may cause the sum of the factors cited to differ from the number of drivers, pedestrians, or bicyclists. Percentages are based on all contributing factors listed. They may not sum to 100 due to rounding.

DEFINITIONS

Accident -- See motor vehicle crash.

Alcohol Concentration -- The level of alcohol in a person's body as measured by blood, breath, or urine.

Alcohol-Related Fatal Crash -- A crash that results in one or more deaths and in which the investigating officer suspected alcohol involvement or in which the results of an alcohol concentration test were positive for any driver, pedestrian, or bicyclist involved in the crash.

Alcohol-Related Fatality -- A death resulting from an alcohol-related crash.

Alcohol-Related Injury Crash -- A non-fatal crash in which one or more persons are injured and in which the investigating officer suspected alcohol involvement for any driver, pedestrian, or bicyclist involved in the crash. (Since only the officer's perception is used in this definition, alcohol-related injury crashes and injuries are probably underestimated.)

Alcohol-Related Injury -- A non-fatal injury resulting from an alcohol-related crash.

Alcohol-Related Property Damage Crash -- A crash in which no one is killed or injured and the investigating officer suspected alcohol involvement for any driver, pedestrian, or bicyclist involved in the crash.

Bicycle Crash -- A motor vehicle crash involving one or more bicycles.

Child Safety Seats -- Safety devices designed to fit in motor vehicles that keep children securely in place. The seats are required by law for children less than four years of age.

Crash -- See motor vehicle crash.

Driver -- The occupant of a motor vehicle who is in actual physical control of the vehicle in transit or, for an out-of-control vehicle, the occupant who was in control before control was lost.

Economic Loss -- An approximation of the costs associated with crashes, based upon current National Safety Council estimates of the loss to society for each fatality, injury, and property damage crash.

Fatal Crash -- A motor vehicle crash on a public traffic-way in which at least one person dies unintentionally as a result of the crash. The death must occur within 30 days of the crash.

First Harmful Event -- The first event during a crash that caused injury or property damage.

Injury Severity

Fatal Injury -- An injury that results in an unintentional death within 30 days of the crash.

Severe or Incapacitating Injury -- An injury (other than fatal) that prevents the injured person from walking, driving or normally continuing the activities he or she was capable of performing before the injury occurred. Includes severe lacerations, broken or distorted limbs, skull fracture, crushed chest, internal injuries, unconsciousness, etc. Hospitalization is usually required.

Moderate/Non-Incapacitating injury -- An injury (other than fatal or severe) that is evident to the officer at the scene of the crash. Includes abrasions, minor lacerations, bleeding, etc. May require medical treatment, but hospitalization is usually not required.

Minor or Possible Injury -- An injury (other than fatal, severe, or moderate) that is reported by a person involved in the crash. Includes complaint of physical pain when no cause is evident, momentary unconsciousness, limping, nausea, hysteria, etc.

Motorcycle -- A two-wheeled or three-wheeled motor vehicle having one or more riding saddles and having an engine of more than 50 cc. If it has a 50 cc or smaller engine, it is classified as a motorized bicycle or motor scooter/motorbike.

Motorcycle Crash -- A motor vehicle crash involving one or more motorcycles.

Motor Vehicle -- A self-propelled vehicle, including attached trailers and semi trailers designed for use with such vehicles.

Motor Vehicle Crash -- A crash that involves a motor vehicle in transport on a public traffic-way in Minnesota and results in injury, death, or at least \$1,000.00 in property damage.

Occupant -- Any person who is in or on a vehicle, including the driver, passenger, and persons riding on the outside of the vehicle.

Occupant Restraints -- Protective devices used in motor vehicles to keep the driver and passengers in their seats and prevent them from being ejected from the motor vehicle in a crash. Restraint devices include lap belts, lap/shoulder harness combinations, air bags, and child safety seats.

Passenger -- Any occupant of a motor vehicle other than the driver.

Pedestrian -- Any person not in or on a motor vehicle or other vehicle (e.g., a bicycle).

Pedestrian Crash -- A motor vehicle crash involving one or more pedestrians.

Restraint Usage -- An occupant's use of available vehicle restraints including lap belt, lap/shoulder combination harness, or child safety seats.

Rural -- Having a population of fewer than 5,000.

School Bus Crash -- A crash involving one or more school buses. The school bus must collide with another vehicle, or pedestrian, or object, for the crash to be classified as a school bus crash.

Trafficway -- Any land way open to the public as a matter of right or custom for moving persons or property from one place to another.

Train/Motor Vehicle Crash -- A motor vehicle crash involving a motor vehicle in transport and a railway train. Presently, the only crashes classified as train crashes are those in which the first harmful event is collision with a train.

Truck Crash -- A motor vehicle crash involving one or more vehicles of the following types: (1) 2-axle, 6-tire single unit truck or step van, (2) 3-or-more-axle single unit truck, (3) single-unit truck with trailer, (4) truck tractor with no trailer, (5) truck tractor with semi-trailer, (6) truck tractor with double trailers, (7) truck tractor with triple trailers, (8) heavy truck of other or unknown type. Pickup trucks and vans are not counted as trucks.

Urban -- Having a population of 5,000 or more.