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 looking for.

Legislators:
Sections II though IX focus on particular traffic safety sub-areas (alcohol, seat belts, crashes involving motorcycles, pedestrians, etc.). 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 10-year history outlining the 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 as a whole 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 ages 1 to 34. *Crash Facts* contains many tables that show age and gender of drivers and victims as well as 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:
County-specific information is in Table 1.24; city-specific statistics may be listed in Table 1.25. You may request additional information on traffic crashes in your county or city by contacting the Office of Traffic Safety at the address below.

Data availability:
Although this report presents a wide spectrum of information in more than 100 tables and figures, it may not answer every question. You may request additional data from the Office of Traffic Safety by submitting a formal request to the address below. Keep in mind that depending on the complexity of the data requested, it may take up to two weeks to receive a response back.

Requests should be directed to:

Minnesota Department of Public Safety
Office of Traffic Safety
444 Cedar Street, Suite 150
St. Paul, MN 55101-5150
(651) 201-7076

MINNESOTA MOTOR VEHICLE CRASH FACTS 2007

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:
Minnesota Department of Public Safety
444 Cedar Street, Suite 150
St. Paul, MN 55101-5150
(651) 201-7076
[TTY (651) 282-6555]
www.dps.state.mn.us/ots

For additional copies contact:
Office of Communications
Phone (651) 201-7575

Acknowledgements:
Many thanks to the Crash Records Section of the Driver and Vehicle Services Division at the Department of Public Safety for their excellent data quality control work. Thanks also to the State Patrol, the Bureau of Criminal Apprehension, Sheriffs, Police Chiefs, and Medical Examiners for their assistance regarding alcohol-related crashes. And many thanks to all of the Minnesota officers and troopers who were on the scene of these traffic crashes. Their hard work and data reporting make this book a valuable document to traffic safety researchers, legislators, the media, and the public.

On the cover:
The red "Xs" on the cover represent locations of fatal traffic crashes from 2007.
Maps plotting the fatal and serious injury crashes by Minnesota region are available to view online at the Office of Traffic Safety website: www.dps.state.mn.us/ots/. Click on "Crash Data and Reports" at the top of the page. This site also includes archived *Crash Facts* data from 1999 to 2007.

Office of the Commissioner

445 Minnesota Street • Suite 1000 • Saint Paul, Minnesota 55101-5100
Phone: 651.201.7160 • Fax: 651.297.5728 • TTY: 651.282.6555
www.dps.state.mn.us

August 2008

Alcohol and Gambling Enforcement

Bureau of Criminal Apprehension

Driver and Vehicle Services

Emergency Communication Networks

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

Office of Justice Programs

Office of Traffic Safety

State Fire Marshal

Minnesota Motor Vehicle *Crash Facts* is a compilation and analysis of crashes that occurred on Minnesota roads in 2007. This annual report is an expression of the Department of Public Safety's (DPS) commitment to programs that promote traffic safety and its support for vigorous enforcement of traffic safety laws.

Crash Facts dissects the violent occurrences on Minnesota's traffic corridors to breakdown where, when and why these crashes occur and who they impact. The publication is a valuable resource for DPS and our partners to understand traffic trends and help us better direct enforcement and education efforts.

There were 510 motorists killed on state roads in 2007. Among those killed include four teenagers whose vehicle was broadsided by a semitrailer in Princeton prior to the 4th of July. Another fatality was a young man driving in Faribault County who lost control of his vehicle, crossed the median, struck a telephone pole and was ejected. He was not wearing a seat belt. The 2007 deaths also include 12 motorists who perished when the I-35W bridge collapsed in August. Not to be ignored are the 35,000 people that suffered injuries as a result of a traffic incident.

DPS is charged to promote traffic safety, and we take that charge seriously. Our partners — law enforcement agencies, engineers, emergency technicians and traffic safety stakeholders — have seen the harsh results of crashes and work hard to prevent them. But they can't do it alone. Preventing crashes and limiting deaths is the role of every Minnesota motorist.

The good news is traffic fatalities have dropped in recent years. The fatality rate per 100 million vehicle miles traveled (VMT) has decreased to less than one person (0.89) — among the lowest in the nation. Still, preventable deaths related to impaired driving resulted in 190 deaths; and another 195 victims killed were not wearing seat belts.

Crash Facts is a book of data. Behind this data are the stories of people whose lives ended in a horrific fashion. The information provided here is a call-to-action for every motorist to recommit to save driving behaviors and keep Minnesota roads safe. Always buckle up, drive at safe speeds, pay attention, and never get behind the wheel after drinking.

Michael Campion, Commissioner

Minnesota Traffic Crashes in 2007
OVERVIEW

This edition of *Minnesota Motor Vehicle Crash Facts* summarizes the crashes, deaths, and injuries that occurred on Minnesota roadways during 2007. The information provided in this book will assist you in traveling our roadways safely.

In 2007

- 81,505 traffic crashes were reported to the Minnesota Department of Public Safety (DPS)
- 150,941 motor vehicles and 204,989 people were involved in these crashes
- 510 people died and 35,318 people were injured
- Estimated economic cost to Minnesota: $1,653,929,800

On an average day in 2007

- 224 crashes
- 1.4 deaths and 97 injuries
- Average daily cost: $4,531,315

2007 crashes that were known to be alcohol involved

- 4,386 crashes
- 190 deaths and 3,252 injuries
- Estimated economic cost: $314,125,400

Highlights from the 2007 *Crash Facts* edition

- **Traffic fatalities increase slightly.**
  In 2007, Minnesota experienced an increase in traffic fatalities of 3.2 percent from the previous year. The 12 fatalities from the 35W bridge collapse were classified as traffic deaths and contributed to this increase. 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 88 percent.**
  An observational study in 2007 showed that belt use by front seat drivers and passengers was 88%. This use rate may have been inflated as the survey was taken directly after the 35W bridge collapse. It is a known fact that seat belts save lives. While there is no 'primary' seat belt law in Minnesota – meaning officers cannot directly pull over a motorist for seat belt non-use – 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 2007 is 0.89. This is a slight increase from 2006 when the fatality rate was 0.87. The VMT fatality rate has shown dramatic improvement in the last four decades. In 1970 had a rate of 4.41, 1980 had a rate of 3.03, 1990 had a rate of 1.47, and 2000 had a rate of 1.19. This means that as more drivers travel more miles each year, the number of people killed in proportion to the number of miles driven has decreased.

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 2007. 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.

Definitions:
The definitions section at the end of the book attempts to succinctly define key terms.

TABLE OF CONTENTS

INTRODUCTION

At the end of the 2007 calendar year, 3,907,974 people held Minnesota driver licenses and 4,818,690 motor vehicles were registered in the state. Vehicles traveled over 57 billion miles on public roadways in the state. There were 81,505 traffic crashes; 510 people died and 35,318 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 the National Safety 'Council's economic cost figures, the most recent of which are based on 2006 data. Based on those, the total economic loss from 2007 traffic crashes in Minnesota was $1,653,929,800, a figure that is calculated as follows:

Cost of Motor Vehicle Crashes in 2007

510	deaths	@	$1,210,000	=$617,100,000
1,736	severe injuries	@	$62,500	=$108,500,000
9,365	moderate injuries	@	$20,300	=$190,109,500
24,217	minor injuries	@	$11,500	=$278,495,500
56,064	property damage crashes	@	$8,200	=$459,724,800
		Total	=	$1,653,929,800

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. Public policy cannot address the infinite number of individual causes imaginable.

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. Motorcyclists and bicyclists should wear helmets. Vehicle occupants should use safety belts. Infants and toddlers should always be placed in child safety seats, and booster seats should be used for older children.

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 signing.

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 a reverse 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 eight teenage drivers are involved in crashes each year. The involvement rate drops off for successive age groups. For example, it is about 1 in 25 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 2007, there were 41,059 traffic fatalities throughout the country and 510 in Minnesota. The respective rates per hundred million miles of travel were 1.37 and 0.89. 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 nine sections. The first present's information on the aggregate of all crashes reported to the state during the preceding calendar year. The remaining eight 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 five sections focus on crashes that involved motorcycles (section IV), trucks (section V), pedestrians (section VI), bicycles (section VII), and school buses (section VIII). The final section (IX) summarizes information on collisions between motor vehicles and trains.

FIGURE 1
Vehicles, Drivers, and Fatality Rate, 1962-2007

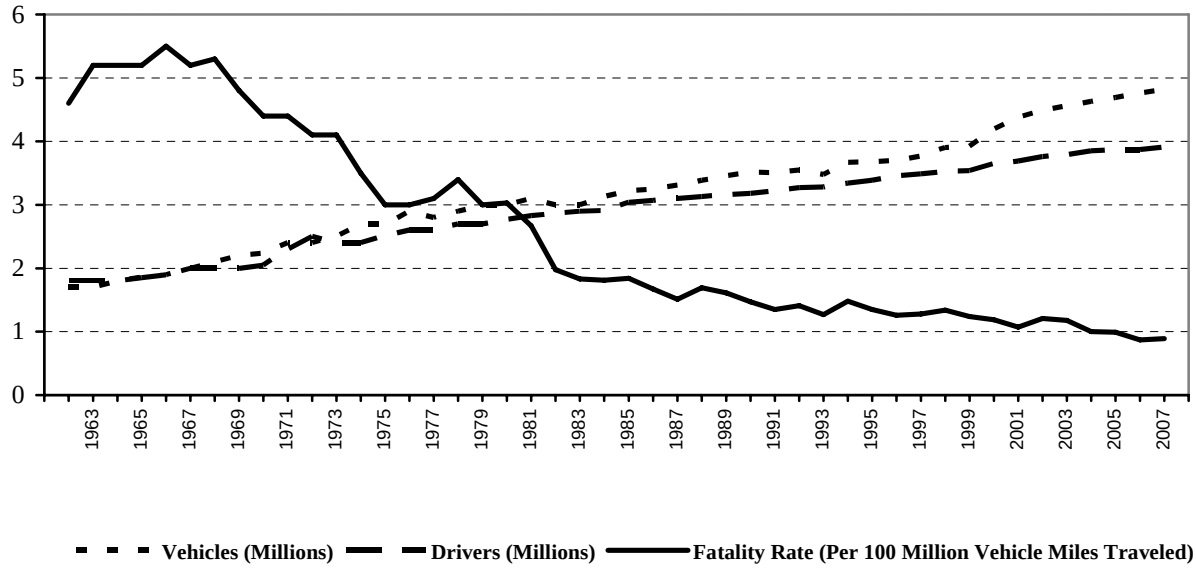

TABLE 1
Minnesota Traffic Fatalities, 1910 – 2007
Since 1961: Vehicle Miles Traveled (Billions) and Fatality Rates (Per 100 Million VMT)

YEAR (1)	Fatalities (2)	YEAR (3)	Fatalities (4)	YEAR (5)	Fatalities (6)	YEAR (7)	Fatalities (8)	Vehicle Miles (9)	Fatal Rate (10)	YEAR (11)	Fatalities (12)	Vehicle Miles (13)	Fatal Rate (14)	YEAR (15)	Fatalities (16)	Vehicle Miles (17)	Fatal Rate (18)
1910	23	**1927**	369	**1944**	356	**1961**	724	14.5	4.99	**1978**	980	28.8	3.40	**1995**	597	44.1	1.35
1911	26	**1928**	435	**1945**	449	**1962**	692	15.1	4.58	**1979**	881	29.0	3.04	**1996**	576	45.9	1.26
1912	39	**1929**	505	**1946**	536	**1963**	798	15.3	5.22	**1980**	863	28.5	3.03	**1997**	600	46.9	1.28
1913	46	**1930**	561	**1947**	572	**1964**	841	16.2	5.19	**1981**	763	28.6	2.67	**1998**	650	48.5	1.34
1914	88	**1931**	622	**1948**	552	**1965**	875	16.8	5.21	**1982**	581	29.2	1.98	**1999**	626	50.7	1.24
1915	85	**1932**	486	**1949**	540	**1966**	977	17.7	5.52	**1983**	558	30.5	1.83	**2000**	625	52.4	1.19
1916	143	**1933**	525	**1950**	532	**1967**	965	18.7	5.16	**1984**	584	32.2	1.81	**2001**	568	53.2	1.07
1917	161	**1934**	641	**1951**	610	**1968**	1,060	19.9	5.33	**1985**	610	33.1	1.84	**2002**	657	54.4	1.21
1918	183	**1935**	596	**1952**	534	**1969**	988	20.8	4.75	**1986**	572	34.2	1.67	**2003**	655	55.4	1.18
1919	171	**1936**	649	**1953**	637	**1970**	987	22.4	4.41	**1987**	530	35.1	1.51	**2004**	567	56.5	1.00
1920	178	**1937**	630	**1954**	639	**1971**	1,024	23.4	4.38	**1988**	615	36.4	1.69	**2005**	559	56.5	0.99
1921	216	**1938**	609	**1955**	577	**1972**	1,031	24.9	4.14	**1989**	605	37.6	1.61	**2006**	494	56.6	0.87
1922	260	**1939**	576	**1956**	637	**1973**	1,024	25.2	4.06	**1990**	568	38.8	1.47	**2007**	510	57.4	0.89
1923	328	**1940**	577	**1957**	684	**1974**	852	24.6	3.46	**1991**	531	39.3	1.35				
1924	366	**1941**	626	**1958**	708	**1975**	777	25.6	3.04	**1992**	581	41.3	1.41				
1925	361	**1942**	439	**1959**	662	**1976**	809	27.0	3.00	**1993**	538	42.3	1.27				
1926	326	**1943**	274	**1960**	724	**1977**	856	28.1	3.05	**1994**	644	43.4	1.48				

FIGURE 2
Minnesota Traffic Fatalities, 1910 - 2007
Since 1961: Miles Traveled (in Ten Billions) and Fatality Rates (per 100 Million VMT)

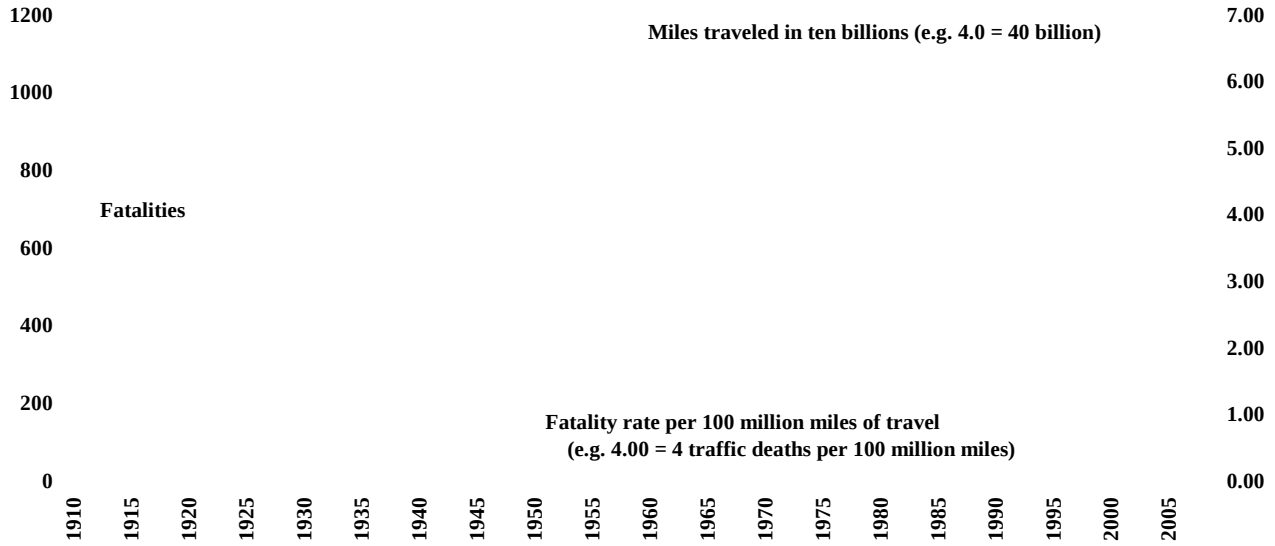

TABLE 2

DRIVER LICENSE* SUMMARY BY AGE, 2002 - 2007

Age	2002	2003	2004	2005	2006	2007
15	28,880	29,800	31,638	31,161	26,360	26,029
16	55,286	55,614	55,812	55,398	53,520	51,499
17	63,011	61,329	61,286	61,431	60,695	59,766
18	66,876	67,491	66,397	65,440	64,617	64,910
19	68,609	69,792	71,026	68,842	67,917	67,664
20	70,985	69,385	71,513	71,780	68,826	69,091
Under 21	353,647	353,411	357,672	354,052	341,935	338,959
15 – 19	282,662	284,026	286,159	282,272	273,109	269,868
20 – 24	352,022	352,818	361,589	361,839	353,949	351,877
25 – 29	320,420	326,355	339,712	348,538	353,241	360,944
30 – 34	343,933	333,363	330,480	319,537	311,685	316,410
35 – 39	366,661	354,509	350,988	349,515	342,520	336,604
40 – 44	411,413	408,428	403,774	390,439	372,638	358,091
45 – 49	379,702	386,086	395,178	400,876	401,715	401,496
50 – 54	325,664	335,331	345,855	355,524	361,197	369,195
55 – 59	252,631	264,204	280,193	296,390	306,185	314,238
60 – 64	192,074	200,322	208,133	212,324	226,262	239,650
65 – 69	149,272	154,103	158,035	163,125	168,693	178,918
70 – 74	132,368	131,255	131,277	131,383	132,725	136,026
75 – 79	113,370	114,350	114,333	114,220	114,750	114,678
80 – 84	80,361	82,681	84,761	85,056	86,274	88,606
85 & Older	54,940	60,348	61,389	61,055	66,217	71,373
Total	3,757,493	3,788,179	3,851,856	3,872,093	3,871,160	3,907,974

* 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, 2002 - 2007

Type of Vehicle*	2002	2003	2004	2005	2006	2007
Passenger Cars	3,156,906	3,196,960	3,239,418	3,288,446	3,353,858	3,406,848
Pickups	890,648	895,409	902,941	894,230	883,623	872,057
Trucks	194,695	197,952	206,419	211,577	215,542	217,059
Recreational Vehicles	39,584	39,828	39,853	39,032	37,978	37,399
Motorcycles	149,360	161,793	174,195	185,087	197,735	209,591
Motorized Bicycles	6,500	7,493	8,670	9,432	10,726	12,343
School Buses	5,938	5,979	5,989	6,093	6,257	6,399
Buses	5,001	5,058	5,059	5,018	5,235	5,312
Van Pool	246	219	201	193	197	199
Tax Exempt Vehicles	41,271	44,316	47,919	49,845	49,721	51,483
Motor Vehicle Subtotal	4,490,149	4,555,007	4,630,664	4,688,953	4,760,872	4,818,690
Trailers	875,677	1,357,019	1,388,642	1,448,877	1,445,556	1,508,157
Classic Motor Vehicles	132,964	139,784	146,541	153,383	153,594	160,195
Classic Motorcycles	4,599	5,110	5,703	6,266	6,855	7,511
Total Registrations	5,503,389	6,056,920	6,171,550	6,297,479	6,366,877	6,494,553

* 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 cars include vans, except for "van pools." A van pool 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.
- 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 past two decades, approximately 90,000 traffic crashes each year have been reported to the Minnesota Department of Public Safety. This is a very large number that is commensurate with the critical dependence we have placed upon motor vehicles for all sorts of transportation needs. Preventing the number of traffic crashes remains a challenge each year for public safety officials because; by the end of the calendar year 2007:

- The population of Minnesota approached 5.3 million.
- More than 4.8 million motor vehicles were registered.
- There were more than 3.9 million licensed drivers.
- More than 57 *billion* miles were driven.

These numbers increase steadily. And, as more and more roads are constructed, the citizens of Minnesota face an extreme challenge in reducing this dependence on the motor vehicle, and with it, the high number and severity of traffic crashes.

35W Bridge Crash Affects 2007 Statistics

There were 81,505 traffic crashes reported to Public Safety in 2007, an increase of 3.5% from 2006. And, there were 510 deaths on Minnesota roads, a 3.2% increase from the previous year. Contributing to this increase was the 35W bridge collapse. Twelve of the 13 fatalities were counted as traffic deaths (the other was a construction worker). Thus, the bridge crash inflated the 2007 crash results. In addition to the 12 deaths, another 134 people were counted as traffic injuries. The bridge crash was also classified as 'alcohol-related', as four killed drivers tested positive for alcohol. As a result, all of the people involved in the bridge crash are also classified as 'alcohol-related'.

Traffic Crashes in 2007

The following facts give an overall picture of 2007 traffic crashes; In addition to the 510 killed…

- 35,318 were injured.
- 1,736 of these were severe injuries.
- 9,365 of these were moderate injuries.
- 24,217 of these were minor injuries.

- In all crashes, 204,989 people were involved.
- In all crashes, 148,798 motor vehicles were involved.
- There were 1,020 crashes that involved at least 1 bicyclist.
- There were 957 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 pop.).
- In all, 7,786 crashes were "hit-and-run".
- The economic loss to Minnesota was almost $1.7 billion.

WHO was involved?

Among drivers, young people and males are over represented in traffic crashes in Minnesota. There are 3,907,974 licensed drivers in the state. People aged 15-24 make up 16% of the licensed drivers, yet they accounted for 27% of the crash-involved drivers. Teenage drivers are the worst, from this perspective. In 2007, they represented 7% of the licensed drivers, but 13% of the crash-involved drivers. By contrast drivers over 65 made up 15% of the driving population, but accounted for just 7% of the crash-involved drivers in 2007. Crash-involved drivers are also more likely to be males: 74% of drivers in fatal crashes were male; 57% of drivers in all crashes were male.

Traffic crashes are the leading cause of death to young people. In the state last year, 172 people under age 30 died in crashes, representing 34% 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 7% of all traffic crashes in 2007 but accounted for 20% of the traffic fatalities.

Among people injured, young people especially pay the price. There were 16,039 people under age 30 who were injured, representing 45% of the total number of people injured. People aged 65 and over accounted for just 8% of all traffic injuries.

WHY they happened

Because defective equipment (such as a flat tire) may be a contributing factor in a particular traffic crash, an officer at the scene will list 0, 1, or 2 contributing factors for each 'vehicle' involved. Thus, the 'cause' of a crash is sometimes not entirely clear as multiple vehicular factors in a crash may be listed along side multiple human factors. However, vehicular factors are not cited as often as human factors. Human behavior factors usually give us a clear indication of why a traffic crash occurs.

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 younger drivers. For older drivers, driver inattention or distraction is cited most often. Driver Inexperience is the second most cited factor for drivers aged 15-19. 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. For the under-65 drivers, two additional contributing factors are also frequently cited; following too closely and illegal or unsafe speed.

WHAT the conditions were

Victims of traffic crashes are mostly car, pickup, sport utility vehicle (SUV) or van occupants. Of the 510 traffic fatalities, 392 (77%) were from these 4 vehicle types. There were also 33 pedestrians, 61 motorcyclists, and 4 bicyclists who died in traffic crashes. There were no deaths among school bus occupants, and only 8 fatalities among commercial truck occupants. There is a similar pattern among people who were injured: of the 35,318 injured, 87% were car, van, SUV, or pickup occupants, and the remainder were from several categories, mainly motorcycle riders, pedestrians, and bicyclists.

A collision with another vehicle is the leading crash type. Almost half (49%) of the fatal crashes and two-thirds (66%) 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 (13% of the total), collision with a parked motor vehicle (9% of the total), and collision with deer (5% of the total).

Most crashes occur in good driving conditions. Over half (55%) of fatal crashes, and 67% of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half (63%) of fatal crashes, and 58% of nonfatal crashes occurred during "clear" weather. Road surface conditions where crashes occurred were usually good. For fatal crashes, 79% were on dry roads, 8% were on wet roads, and 11% were on snowy or icy roads. For nonfatal crashes, 65% were on dry roads, 13% on wet roads, and 19% 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. In the year 2007, 326 (70%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. And, 155 (33%) of all fatal crashes occurred on county state aid highways, and 115 of those were in rural areas. Injury and property damage crashes are more common in urban areas. Over two-thirds of them happened inside cities of 5,000 or more population. The seven county metro area, with over half the state's population, accounted for only 30% of the fatal crashes, but 56% of all crashes.

WHEN they occurred

In the year 2007, fatal crashes occurred most often in the 5-6 p.m. time period (33) and the 2-3 p.m. time period (32). In fact, a fatal traffic crash is most likely to occur during afternoon rush-hour time periods. This observable fact has changed since the early 1990's when most fatal crashes occurred during the time period of 10 p.m.-2 a.m. at night. This phenomenon may be explained by the smarter deployment of law enforcement, and the public's awareness of the dangers of drinking and driving. Similarly, total crashes were also concentrated in the late afternoon: Almost 30% occurred in the four hours from 3-7 p.m. This event has not changed over the years, as most crashes have always occurred during the afternoon rush hour period. Fridays and Saturdays had the most fatal crashes (together accounting for 34%). Total crashes are more evenly distributed across days of the week, though 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 2007 followed this axiom. Because of severe weather, December had the most crashes reported (over 10,000) of any month. Warmer weather produces more fatalities. August had the most with 60. As mentioned earlier, though, other factors are involved than strictly the weather. These include speeding, drinking and driving, not wearing a safety restraint, and not paying attention while driving.

Can traffic crashes be prevented?

Each year over the past two decades, approximately 600 people are killed and 45,000 people are injured on our roadways. We must acknowledge the fact that Minnesota is still experiencing an "epidemic" concerning traffic crashes. 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 engineering 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 and never drive impaired.

TABLE 1.01

TRAFFIC SAFETY STATISTICS SUMMARY, 1965 - 2007

Year	Total Crashes	Persons		Licensed Drivers (million)	Motor Vehicles (MV) (million)	State Population (million)	Vehicle Miles Traveled (VMT) (billion)	Crash Rates			Fatality Rates		
								Per 100,000 MV	Per 100,000 Population	Per 100 Mil VMT	Per 100,000 MV	Per 100,000 Population	Per 100 Mil VMT
		Killed	Injured										
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
1965	83,329	875	50,847	1.85	1.86	3.57	16.8	4,480	2,334	496	47.0	24.5	5.2
1970	99,404	987	38,538	2.05	2.24	3.80	22.4	4,438	2,616	444	44.1	26.0	4.4
1975	123,206	777	41,931	2.51	2.69	3.92	25.6	4,580	3,143	481	28.9	19.8	3.0
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

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) Estimates for 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
2002 - 2007

	2002	2003	2004	2005	2006	2007	Record High	
Fatal Crashes	**590**	**583**	**520**	**500**	**456**	**463**	**878**	**(1973)**
Injury Crashes	**28,140**	**N/A**	**28,066**	**26,618**	**24,663**	**24,978**	**33,686**	**(1978)**
Severe	2,226	N/A	1,937	1,660	1,528	1,441	5,109	(1984)[1]
Moderate	10,460	N/A	9,257	7,958	7,111	7,099	12,326	(1985)[1]
Minor	15,454	N/A	16,872	17,000	16,024	16,438	18,578	(1996)[1]
PDO Crashes	**66,239**	**N/A**	**62,688**	**60,695**	**53,626**	**56,064**	**94,810**	**(1975)**
Total Crashes	**94,969**	**N/A**	**91,274**	**87,813**	**78,745**	**81,505**	**123,106**	**(1975)**
Total Injuries	**40,677**	**N/A**	**40,073**	**37,686**	**35,025**	**35,318**	**50,332**	**(1978)**
Severe	2,807	N/A	2,424	2,019	1,844	1,736	6,573	(1984)[1]
Moderate	14,485	N/A	12,416	10,453	9,323	9,365	17,670	(1985)[1]
Minor	23,385	N/A	25,233	25,214	23,858	24,217	28,631	(1996)[1]
Total Fatalities	**657**	**655**	**567**	**559**	**494**	**510**	**1,060**	**(1968)**
Motor Vehicle Occupants	544	526	461	440	373	399	544	(2002)[1]
Motorcycle	47	62	50	59	70	61	121	(1980)
Pedestrian	50	52	37	44	38	33	157	(1971)
Bicycle	7	6	10	7	8	4	24	(1977)
All Terrain Vehicle	1	4	4	7	2	4	9	(1986)
Snowmobile	2	2	1	2	3	3	9	(1984)
Farm Equipment	0	0	2	0	0	3	N/A	N/A
Other Vehicle Type	6	3	2	0	0	3	N/A	N/A
Minnesota Fatality Rate[3]	1.21	1.18	1.00	0.99	0.87	0.89	23.6	(1934)
U.S. Fatality Rate[3]	1.51	1.48	1.44	1.46	1.41	1.37	18.0	(1925)
Minnesota Economic Loss (millions)	$1,712	N/A	$1,769	$1,666	$1,529	$1,654	$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

2007 FATALITIES BY TRAFFIC ROLE, GENDER, AND AGE

Type of Vehicle	Position in Vehicle	Gender	Age 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70 & Older	Total
Car	Driver	Male	0	17	37	17	10	9	3	18	111
		Female	0	7	12	4	12	6	8	14	63
	Passenger	Male	2	1	5	1	0	1	2	2	14
		Female	2	5	4	5	2	1	3	5	27
Pickup	Driver	Male	0	4	15	4	10	7	6	10	56
		Female	0	0	0	3	5	0	1	0	9
	Passenger	Male	0	0	7	0	0	1	2	0	10
		Female	0	2	1	3	2	0	4	0	12
SUV	Driver	Male	0	2	5	4	9	4	2	5	31
		Female	0	1	1	3	1	1	1	1	9
	Passenger	Male	0	0	4	0	0	0	1	1	6
		Female	1	4	2	1	2	0	1	3	14
Van	Driver	Male	0	0	2	4	4	0	3	6	19
		Female	0	1	0	2	0	1	0	2	6
	Passenger	Male	0	2	1	0	0	0	0	0	3
		Female	0	1	0	0	1	0	0	0	2
Truck	Driver	Male	0	0	1	1	3	2	0	1	8
		Female	0	0	0	0	0	0	0	0	0
Motorcycle	Driver	Male	0	2	7	6	15	18	8	1	57
		Female	0	0	0	0	1	0	0	0	1
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	2	0	1	0	0	3
Other Motor	Driver	Male	0	2	2	0	0	0	2	3	9
		Female	0	0	0	1	0	0	1	0	2
Vehicle	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	1	0	0	0	1
Bicyclist		Male	0	0	0	1	0	2	0	0	3
		Female	0	0	0	0	0	1	0	0	1
Pedestrian		Male	3	2	3	1	2	3	3	5	22
		Female	0	1	1	1	4	1	1	2	11
Total Fatalities		Male	5	32	89	39	53	47	32	52	349
		Female	3	22	21	25	31	12	20	27	161
		Total	8	54	110	64	84	59	52	79	510

Note: The vehicle types for the 12 fatalities in the 'Other Motor Vehicle' category consisted of:
Three snowmobiles, four ATV's, one motorhome, three farm implements, and one commercial bus.

TABLE 1.04

AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2007 CRASHES

	Persons Killed			Persons Injured			
Age Group	**Male**	**Female**	**Total**	**Male**	**Female**	**Unknown**	**Total**
00 - 03	1	2	3	200	209	11	420
04 - 10	4	1	5	513	494	7	1,014
11 - 14	3	3	6	415	426	5	846
Total Under 15:	8	6	14	1,128	1,129	23	2,280
15	4	3	7	224	250	8	482
16	5	4	9	454	580	3	1,037
17	5	6	11	602	686	6	1,294
18	9	4	13	578	651	6	1,235
19	6	2	8	602	572	3	1,177
20	12	3	15	501	507	9	1,017
Total 15-20:	41	22	63	2,961	3,246	35	6,242
Total Under 21:	49	28	77	4,089	4,375	58	8,522
00 – 04	2	2	4	262	252	13	527
05 – 09	3	1	4	374	351	5	730
10 – 14	3	3	6	492	526	5	1,023
15 – 19	29	19	48	2,460	2,739	26	5,225
20 – 24	55	16	71	2,425	2,401	26	4,852
25 – 29	34	5	39	1,712	1,959	11	3,682
30 – 34	17	10	27	1,243	1,278	4	2,525
35 – 39	22	15	37	1,236	1,276	7	2,519
40 – 44	24	18	42	1,206	1,341	6	2,553
45 – 49	29	13	42	1,349	1,425	5	2,779
50 – 54	17	6	23	1,063	1,155	2	2,220
55 – 59	30	6	36	853	953	3	1,809
60 – 64	17	12	29	542	601	1	1,144
65 – 69	15	8	23	379	400	0	779
70 – 74	21	8	29	287	339	2	628
75 – 79	10	9	19	250	328	0	578
80 – 84	12	5	17	195	235	1	431
85 & Older	9	5	14	137	164	0	301
Not Stated	0	0	0	294	389	330	1,013
Total:	349	161	510	16,759	18,112	447	35,318

See Figure 1.01 on page 12 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 2007 CRASHES

	Drivers in Fatal Crashes				Drivers in All Crashes			
Age Group	**Male**	**Female**	**Not Stated**	**Total**	**Male**	**Female**	**Not Stated**	**Total**
14 & Younger	0	0	0	0	60	29	5	94
15	2	0	0	2	157	95	0	252
16	9	4	0	13	1,989	1,928	4	3,921
17	12	4	0	16	2,521	2,305	3	4,829
18	13	5	0	18	2,652	2,182	12	4,846
19	14	3	0	17	2,575	2,063	12	4,650
20	16	6	0	22	2,333	1,854	24	4,211
Total Under 21	66	22	0	88	12,287	10,456	60	22,803
00 – 04	0	0	0	0	12	2	5	19
05 – 09	0	0	0	0	8	3	0	11
10 – 14	0	0	0	0	40	24	0	64
15 – 19	50	16	0	66	9,894	8,573	31	18,498
20 – 24	79	32	0	111	11,246	9,078	86	20,410
25 – 29	57	22	0	79	8,888	7,159	53	16,100
30 – 34	44	20	0	64	6,719	4,990	30	11,739
35 – 39	44	15	0	59	6,698	5,031	28	11,757
40 – 44	63	16	0	79	6,717	5,118	11	11,846
45 – 49	63	20	0	83	6,960	4,908	13	11,881
50 – 54	43	13	0	56	5,730	3,987	9	9,726
55 – 59	48	13	0	61	4,666	3,175	8	7,849
60 – 64	31	9	0	40	3,165	2,021	8	5,194
65 – 69	13	9	0	22	1,939	1,299	3	3,241
70 – 74	28	6	0	34	1,402	994	0	2,396
75 - 79	13	5	0	18	1,184	887	0	2,071
80 - 84	12	3	0	15	848	657	0	1,505
85 & Older	7	5	0	12	546	393	1	940
Not Stated	0	0	4	4	564	269	5,863	6,696
Total	595	204	4	803	77,226	58,568	6,149	141,943

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 shown in this table.)

TABLE 1.06

LICENSED VS. CRASH-INVOLVED DRIVERS BY AGE, 2007

Age Group	Percentage of All Licensed Drivers	Percentage of Drivers in Fatal Crashes	Injury Crashes	Property Damage Crashes	All Crashes
14 & Younger	0.0%	0.0%	0.1%	0.1%	0.1%
15	0.7	0.2	0.2	0.1	0.2
16	1.3	1.6	2.7	2.8	2.8
17	1.5	2.0	3.5	3.4	3.4
18	1.7	2.2	3.4	3.4	3.4
19	1.7	2.1	3.3	3.3	3.3
20	1.8	2.7	3.1	2.9	3.0
Total Under 21	8.7%	11.0%	16.2%	16.1%	16.1%
15 - 19	6.9%	8.3%	13.0%	13.1%	13.0%
20 - 24	9.0	13.8	14.5	14.4	14.4
25 - 29	9.2	9.7	11.4	11.3	11.3
30 - 34	8.1	8.0	8.2	8.3	8.3
35 - 39	8.6	7.4	8.6	8.2	8.3
40 - 44	9.2	9.8	8.7	8.2	8.4
45 - 49	10.3	10.3	8.8	8.2	8.4
50 - 54	9.4	7.0	7.1	6.7	6.8
55 - 59	8.0	7.6	5.8	5.4	5.5
60 - 64	6.1	5.0	3.6	3.7	3.7
65 - 69	4.6	2.7	2.4	2.2	2.3
70 - 74	3.5	4.2	1.8	1.6	1.7
75 - 79	2.9	2.2	1.6	1.4	1.5
80 - 84	2.3	1.9	1.2	1.0	1.1
85 & Older	1.8	1.5	0.7	0.6	0.7
Age Not Stated	0.0	0.5	2.6	5.7	4.7
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number	3,907,974				

See Figure 1.02 on page 12 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, 2007

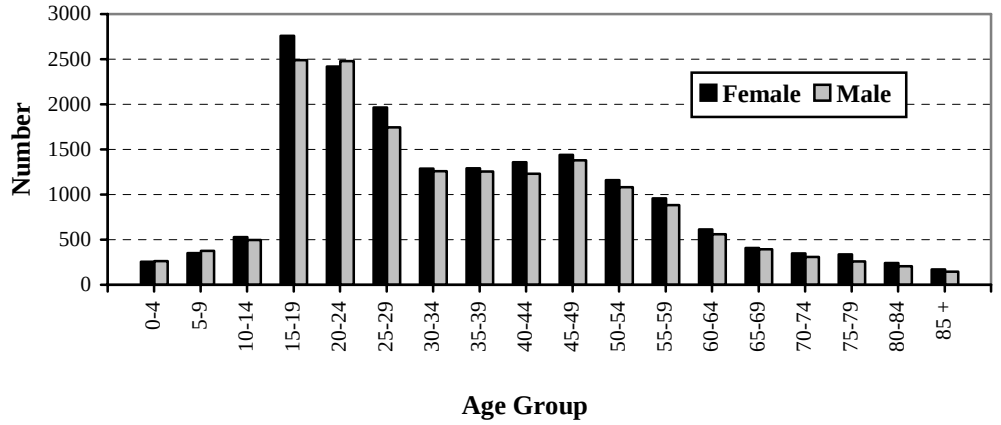

FIGURE 1.02
Licensed vs Crash-Involved Drivers by Age, 2007

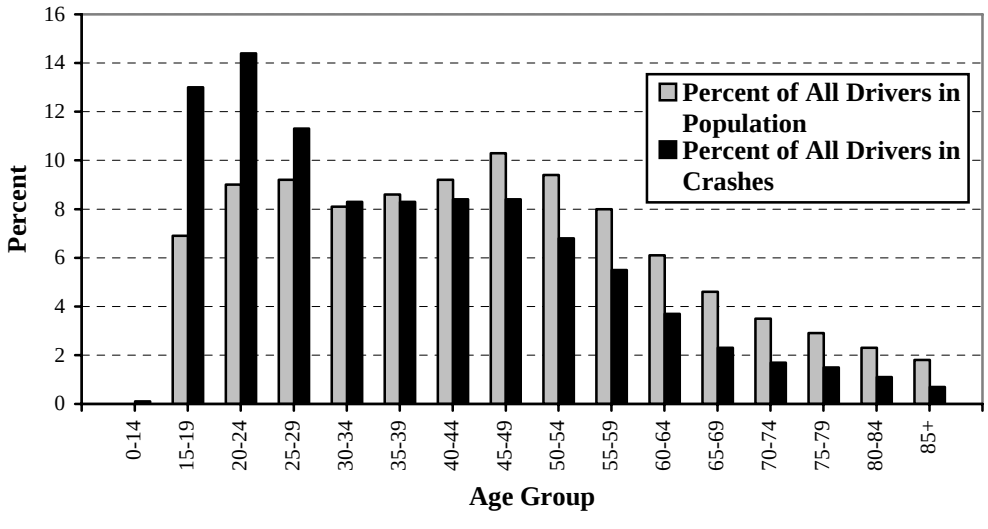

TABLE 1.07

PERCENTAGE OF DRIVERS IN 2007 CRASHES BY AGE AND FIRST HARMFUL EVENT

	Age Group							All
First Harmful Event	**15-19**	**20-24**	**25-29**	**30-34**	**35-64**	**65-79**	**80 +**	**Ages**
Collision With:								
Other Motor Vehicle	75.9%	77.9%	80.2%	81.7%	82.1%	82.1%	83.1%	79.2%
Parked Motor Vehicle	3.4	3.4	3.1	2.9	2.7	3.1	5.8	4.3
Bicycle	0.4	0.4	0.6	0.6	0.8	1.0	0.8	0.7
Pedestrian	0.5	0.6	0.5	0.6	0.6	0.7	0.7	0.6
Deer	1.2	1.7	2.0	2.3	3.0	2.7	1.0	2.2
Other Animal	0.2	0.2	0.2	0.2	0.2	0.4	0.1	0.2
Railroad Train	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Fixed Object	11.7	10.1	8.2	7.2	6.1	6.1	5.4	8.6
Other Object	0.3	0.4	0.5	0.4	0.4	0.5	0.4	0.4
Non-Collision:								
Overturn	5.1	3.8	3.2	2.6	2.4	1.8	1.2	3.0
Other Non-Collision	0.4	0.4	0.4	0.4	0.5	0.4	0.2	0.4
Other or Unknown	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.1
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Drivers	18,498	20,410	16,100	11,739	58,253	7,708	2,455	141,943

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 2007 CRASHES BY PHYSICAL CONDITION*

Physical Condition	**Drivers in Fatal Crashes**	**Drivers in Injury Crashes**	**Drivers in Property Damage Crashes**	**Drivers in All Crashes**
Normal	386	35,659	74,866	110,911
Under the Influence	59	1,484	1,513	3,056
Had Been Drinking	35	625	539	1,199
Commercial Driver > .04	0	6	13	19
Had Been Using Drugs	4	82	41	127
Aggressive	0	13	40	53
Fatigued/Asleep	7	208	208	423
Ill	2	97	50	149
Physical Disability	0	50	41	91
Other	6	172	134	312
Unknown	304	5,597	19,702	25,603
Total	803	43,993	97,147	141,943

* 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, 2007

	Age Group							All
Contributing Factor	**15-19**	**20-24**	**25-29**	**30-34**	**35-64**	**65-79**	**80+**	**Ages**
Human Factors								
Illegal/Unsafe Speed	25.7%	29.4%	27.9%	25.8%	21.5%	16.1%	10.0%	25.1%
Driver Inattention/Distraction	13.6	12.6	12.7	12.3	14.1	19.0	21.2	13.5
Chemical Impairment	4.7	12.0	12.0	10.9	8.4	2.5	0.0	8.6
Overcorrecting	9.7	8.5	7.1	6.7	6.7	6.6	6.9	7.7
Driver Inexperience	16.0	3.5	2.8	2.3	1.7	0.6	0.5	5.4
Improper/Unsafe Lane Use	1.7	2.6	3.0	2.5	2.8	3.6	4.2	2.7
Improper Turn	0.9	0.8	0.9	0.8	1.5	1.3	3.2	1.2
Driving Left of Center--Not Passing	0.5	0.5	0.7	0.4	0.6	1.0	2.1	0.6
Disregard for Traffic Control Device	0.4	0.6	0.2	0.5	0.6	1.1	2.6	0.6
Vision Obscured	0.3	0.3	0.4	0.6	0.6	1.0	4.2	0.5
Following Too Closely	0.2	0.4	0.5	0.4	0.5	0.1	1.1	0.4
Unsafe Backing	0.2	0.2	0.2	0.5	0.4	1.1	1.1	0.4
Improper Passing/Overtaking	0.4	0.5	0.3	0.2	0.3	0.1	0.0	0.4
Failure to Yield Right of Way	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2
Improper Parking/Starting/Stopping	0.2	0.1	0.2	0.3	0.1	0.8	2.1	0.2
Driver on Cell Phone or CB Radio	0.3	0.2	0.4	0.2	0.2	0.1	0.0	0.2
Other Human Factors	3.6	4.2	3.4	4.3	5.7	14.7	19.6	4.9
Vehicular Factors								
Skidding	7.3	7.0	8.2	9.0	9.6	9.2	5.3	8.2
Defective Equipment	1.1	1.4	0.9	1.8	1.4	1.5	0.5	1.3
Other Vehicular Factor	0.6	0.9	0.6	1.4	1.5	1.7	1.6	1.0
Miscellaneous Factors								
Weather	8.4	9.9	12.3	13.2	14.0	9.4	6.9	11.3
Other	4.1	4.2	5.1	5.7	7.3	8.0	6.9	5.5
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	4,608	4,066	2,588	1,573	6,668	714	189	20,845
Drivers for Whom There Was "No Clear Contributing Factor"	309	382	356	260	1,464	171	30	2,999
Total Number of Drivers	3,452	3,315	2,265	1,479	7,084	865	197	19,518

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, 2007

	Age Group							All
Contributing Factor	**15-19**	**20-24**	**25-29**	**30-34**	**35-64**	**65-79**	**80 +**	**Ages**
Human Factors								
Driver Inattention or Distraction	25.2%	24.3%	25.0%	24.5%	24.4%	22.6%	22.2%	24.1%
Failure to Yield Right of Way	19.0	16.4	15.6	15.7	18.1	29.6	36.2	18.5
Following Too Closely	11.8	13.0	13.0	13.0	11.6	6.0	4.3	11.5
Illegal or Unsafe Speed	8.1	10.1	9.8	8.3	6.4	3.4	2.2	7.8
Improper or Unsafe Lane Use	3.7	4.4	5.9	5.2	5.5	6.0	5.0	5.4
Disregard of Traffic Control Device	3.5	4.7	4.6	5.4	4.5	6.5	7.4	4.7
Improper Turn	2.0	2.0	2.0	2.1	2.5	3.4	4.0	2.4
Vision Obscured	2.3	2.1	1.9	2.3	2.5	3.6	3.7	2.3
Chemical Impairment	0.8	2.9	3.2	2.4	2.6	0.6	0.2	2.1
Driver Inexperience	7.5	1.8	1.3	1.0	0.5	0.1	0.0	2.1
Unsafe Backing	1.2	1.2	1.1	1.5	2.0	2.1	2.0	1.7
Improper Passing or Overtaking	1.1	1.4	1.5	1.3	1.7	1.3	1.0	1.6
Improper Parking, Starting, or Stopping	0.8	1.0	1.2	1.2	1.3	1.6	1.3	1.2
Driving Left of Center (Not Passing)	0.6	0.7	0.7	0.6	0.8	1.1	1.1	0.8
Overcorrecting	0.7	0.9	0.8	0.7	0.6	0.4	0.3	0.7
Improper or No Signal	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2
Impeding Traffic	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.2
Driver on Cell Phone or CB Radio	0.2	0.3	0.3	0.3	0.2	0.0	0.0	0.2
Failure To Use Lights	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1
Other Human Factors	1.0	1.3	1.6	1.7	2.1	3.0	3.5	1.7
Vehicular Factors								
Skidding	3.3	3.0	2.8	3.1	2.9	1.8	1.1	2.8
Defective Equipment	0.6	0.7	0.6	0.7	0.6	0.5	0.2	0.6
Other Vehicular Factor	0.4	0.5	0.4	0.6	0.6	0.4	0.5	0.5
Miscellaneous Factors								
Weather	4.2	4.4	4.0	5.0	4.5	3.0	1.8	4.1
Other	1.6	2.3	2.6	2.9	3.4	2.0	1.7	2.6
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	13,878	12,826	8,646	6,008	26,675	4,224	1,858	77,407
Drivers for Whom There Was "No Clear Contributing Factor"	4,158	6,202	5,974	4,686	25,128	2,802	622	49,965
Total Number of Drivers	15,026	17,077	13,820	10,246	51,108	6,836	2,256	122,577

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, 2007

Vehicle Type	Killed	Injured				Not Injured	Total Persons
		Severe	Moderate	Minor	Total		
Automobile	215	716	4,701	13,713	19,130	87,075	106,420
Pickup Truck	87	175	896	2,187	3,258	19,648	22,993
Sport Utility Vehicle	60	204	1,253	3,618	5,075	27,019	32,154
Van	30	108	661	2,332	3,101	16,802	19,933
Motorhome/Camper	1	1	5	5	11	94	106
Taxi Cab	0	6	27	96	129	583	712
Police Vehicle	0	3	23	85	111	500	611
Fire Department Vehicle	0	0	0	1	1	60	61
School Bus	0	7	62	97	166	4,036	4,202
Other Bus	1	0	24	100	124	1,467	1,592
Ambulance	0	0	4	13	17	103	120
Military Vehicle	0	0	1	0	1	28	29
Snowmobile	3	3	14	14	31	12	46
All Terrain Vehicle	4	9	21	15	45	15	64
Farm Tractor or Equipment	3	3	6	15	24	138	165
Motorcycle*	58	247	693	488	1,428	278	1,764
Motor Scooter/Motorbike*	3	12	30	24	66	6	75
Motorized Bicycle (Moped)*	0	5	13	10	28	4	32
Hit and Run Vehicle	0	1	29	69	99	3,314	3,413
Road Maintenance Vehicle	0	3	9	34	46	627	673
Other Public Owned Vehicle	0	0	6	23	29	214	243
Single Truck (2-axle, 6-tire)	0	3	16	65	84	939	1,023
Single Truck (3 or more axles)	0	1	9	21	31	383	414
Single Truck with Trailer	0	1	9	9	19	252	271
Truck Tractor with No Trailer	0	0	2	7	9	87	96
Truck Tractor with Semi Trailer	8	11	70	115	196	2,251	2,455
Truck Tractor with Double Trailers	0	0	2	2	4	30	34
Other or Unknown Truck Type	0	0	7	4	11	307	318
Other Vehicle Type	0	2	7	24	33	428	461
Unknown Vehicle Type	0	4	9	48	61	2,307	2,368
Bicycle	4	78	378	520	976	47	1,027
Pedestrian	33	133	378	463	974	107	1,114
Total	510	1,736	9,365	24,217	35,318	169,161	204,989

* 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 2007 CRASHES

Motor Vehicle Type*	Fatal Crashes	Injury Crashes	Vehicles in Property Damage Crashes	All Crashes
Automobile	320	24,547	56,107	80,974
Pickup Truck	157	5,279	12,657	18,093
Sport Utility Vehicle	111	6,850	15,558	22,519
Van	61	3,885	8,316	12,262
Motorhome/Camper	1	21	61	83
Taxicab	2	183	291	476
Police Vehicle	1	151	421	573
Fire Department Vehicle	0	7	29	36
School Bus	9	130	552	691
Other Bus	3	105	264	372
Ambulance	0	17	43	60
Military Vehicle	0	3	15	18
Snowmobile*	3	31	10	44
All Terrain Vehicle*	4	41	12	57
Farm Tractor or Equipment	5	54	80	139
Motorcycle**	57	1,352	197	1,606
Motor scooter/Motorbike**	3	62	4	69
Motorized Bicycle (Moped)**	0	28	6	34
Hit and Run Vehicle	2	463	2,607	3,072
Road Maintenance Vehicle	2	146	496	644
Other Public Owned Vehicle	2	58	136	196
Single Truck (2-axle, 6-tire)	12	249	630	891
Single Truck (3 or more axles)	9	93	294	396
Single Truck with Trailer	6	53	177	236
Truck Tractor with No Trailer	2	25	67	94
Truck Tractor with Semi Trailer	50	612	1,697	2,359
Truck Tractor with Double Trailers	0	10	23	33
Other or Unknown Truck Type	0	61	241	302
Other Vehicle Type	3	91	290	384
Unknown Vehicle Type	0	359	1,731	2,090
Total***	825	44,966	103,012	148,803

* 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

2007 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	225	15,896	37,451	53,572	253	24,042	4.7
Parked Motor Vehicle	8	599	4,841	5,448	19	910	3.5
Bicycle	4	950	39	993	4	964	4.0
Pedestrian	33	861	19	913	33	948	36.1
Deer	6	336	2,802	3,144	6	382	1.9
Other Animal	0	71	210	281	0	83	0.0
Railroad Train	2	16	38	56	2	20	35.7
Fixed Object	81	3,291	7,519	10,891	83	4,070	7.6
Non-Fixed Object	2	92	316	410	2	104	4.9
Other Collision Type	1	215	290	506	1	260	2.0
Unkn Collision Type	0	10	23	33	0	11	0.0
Non-Collision:							
Overturn	95	2,259	1,787	4,141	101	3,072	24.4
Fire/Explosion	1	5	80	86	1	5	11.6
Submersion	1	10	42	53	1	12	18.9
Other Non-Collision	2	145	238	385	2	161	5.2
Unknown Crash Type	2	222	369	593	2	274	3.4
Total	463	24,978	56,064	81,505	510	35,318	6.3

TABLE 1.14

2007 "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	3	792	2,831	3,626	3	1,076
Parked Motor Vehicle	1	93	2,338	2,432	1	118
Bicycle	2	124	2	128	2	125
Pedestrian	4	160	5	169	4	170
Deer	0	2	3	5	0	2
Other Animal	0	0	1	1	0	0
Railroad Train	0	0	2	2	0	0
Fixed Object	0	189	984	1,173	0	219
Non-Fixed Object	0	5	30	35	0	5
Other Collision Type	1	12	35	48	1	13
Unkn Collision Type	0	0	10	10	0	0
Non-Collision:						
Overturn	1	43	33	77	1	49
Other Non-Collision	0	2	10	12	0	2
Unknown Crash Type	0	15	53	68	0	17
Total	12	1,437	6,337	7,786	12	1,796

TABLE 1.15

2007 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Not Applicable	315	13,098	32,617	46,030	349	17,997
Traffic Signal	29	6,373	11,922	18,324	29	9,120
Overhead Flashers	2	17	59	78	2	26
Stop Sign-All Approaches	2	493	1,192	1,687	2	660
Other Stop Sign	77	3,675	6,924	10,676	86	5,614
Yield Sign	16	472	921	1,409	17	722
Flagman, Officer, or School Patrol	1	28	40	69	1	39
School Bus Stop Arm	2	17	32	51	2	30
School Zone Sign	0	14	22	36	0	22
No Passing Zone	11	149	198	358	13	231
RR Crossing Gate	0	15	32	47	0	21
RR Flashing Lights	0	12	27	39	0	23
RR Crossing Stop Sign	0	4	9	13	0	4
RR Overhead Flashing Lights	0	2	2	4	0	2
RR Overhead Lights and Gate	0	11	21	32	0	15
RR Crossbuck	0	6	19	25	0	7
Other Device	6	279	808	1,093	7	395
Unknown	2	313	1,219	1,534	2	390
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.16

2007 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	292	15,448	31,821	47,561	324	21,871
Cloudy	122	6,062	13,603	19,787	133	8,633
Rain	11	1,165	2,670	3,846	14	1,636
Snow	21	1,530	5,416	6,967	22	2,150
Sleet/Hail/Freezing Rain	7	198	509	714	7	278
Fog/Smog/Smoke	5	111	212	328	5	151
Blowing Sand/Dust/Snow	1	178	548	727	1	238
Severe Crosswinds	2	22	36	60	2	26
Other	0	41	149	190	0	51
Not Stated/Unknown	2	223	1,100	1,325	2	284
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.17

CONTRIBUTING FACTORS IN 2007 CRASHES

	Percent of Factors Cited in Crashes by Severity of Crash			Number of Crashes in which the Factor was Cited				
							Number of People Affected	
Contributing Factors	**Fatal Crashes**	**Injury Crashes**	**Property Damage Crashes**	**Fatal Crashes**	**Injury Crashes**	**Property Damage Crashes**	**Killed**	**Injured**
Human Factors								
Driver Inattention/Distraction	8.9%	21.9%	21.5%	61	7,027	13,404	67	10,087
Failure to Yield Right of Way	14.2	16.2	13.8	95	5,206	8,712	106	8,035
Illegal/Unsafe Speed	15.4	11.5	11.2	106	3,727	7,085	115	5,403
Following Too Closely	0.9	7.5	9.9	5	2,291	5,981	5	3,229
Improper/Unsafe Lane Use	5.2	3.4	5.6	35	1,132	3,520	37	1,625
Disregard Traf Contr Device	4.4	5.2	3.2	31	1,701	2,033	37	2,763
Driver Inexperience	1.7	2.8	2.7	12	941	1,748	12	1,342
Chemical Impairment	10.6	5.0	2.6	68	1,613	1,671	71	2,272
Improper Turn	1.4	1.6	2.4	10	521	1,577	10	785
Vision Obscured	1.3	1.9	1.9	9	581	1,162	10	796
Unsafe Backing	0.1	0.3	2.0	1	103	1,224	1	129
Improper Passing/Overtaking	1.6	0.9	1.6	11	283	991	13	398
Overcorrecting	5.9	2.8	1.8	41	924	1,147	43	1,315
Improper Park/Start/Stop	0.6	0.8	1.2	4	281	759	4	399
Driving Left of Center (Not Passing)	6.0	1.0	0.6	40	331	352	43	605
Improper or No Signal	0.1	0.1	0.2	1	33	122	1	48
Impeding Traffic	0.1	0.2	0.2	1	75	120	1	108
Driver on Phone or CB Radio	0.4	0.2	0.2	3	82	110	3	123
Failure to Use Lights	0.3	0.1	0.1	2	33	40	2	49
Non-Motorist Error	1.4	0.9	0.2	9	270	125	9	294
Other Human Factor	5.2	3.2	2.1	34	1,023	1,300	37	1,344
Vehicular Factors								
Skidding	4.6	3.2	4.2	30	1,051	2,615	32	1,438
Defective Equipment	0.9	0.7	0.7	5	229	437	5	352
Other Vehicular Factor	0.6	0.6	0.8	3	192	473	3	258
Miscellaneous Factors								
Weather	4.2	4.4	6.3	24	1,264	3,540	25	1,707
Other	4.2	3.6	3.3	29	1,029	1,824	32	1,396
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	699	33,649	65,763					
Vehicles Where There Was "No Clear Contributing Factor"	370	18,402	37,534					
Total Number of Vehicles	877	46,921	103,143					

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

2007 CRASHES BY LIGHT CONDITION

Light Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Daylight	255	17,485	37,669	55,409	288	24,913
Dawn (Morning)	15	522	1,296	1,833	15	687
Dusk (Evening)	8	664	1,527	2,199	9	924
Dark/Street Lights On	52	3,835	9,647	13,534	55	5,331
Dark/No Street Lights	128	2,315	4,860	7,303	138	3,256
Other/Unknown	5	157	1,065	1,227	5	207
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.19

2007 CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	365	17,807	35,170	53,342	401	25,384
Wet	39	3,228	7,551	10,818	48	4,551
Snow/Slush	17	1,573	5,914	7,504	18	2,132
Ice or Packed Snow	34	1,955	6,234	8,223	35	2,713
Other	7	282	516	805	7	361
Not Stated/Unknown	1	133	679	813	1	177
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.20

2007 CRASHES BY ROAD DESIGN

Road Design	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Freeway (Including Ramps)	52	3,441	9,349	12,842	71	4,829
Other Divided Highway	59	3,761	6,698	10,518	64	5,629
One-Way Street	3	612	1,185	1,800	3	826
4-6 Lanes Undivided	33	4,361	8,655	13,049	34	6,125
3 Lanes Undivided	5	270	534	809	5	394
2-Lane--2-Way	297	9,631	19,576	29,504	319	13,606
Alley/Driveway	2	99	316	417	2	117
Other Road Design	12	779	1,804	2,595	12	1,053
Not Stated/Unknown	0	2,024	7,947	9,971	0	2,739
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.21

2007 CRASHES BY DIAGRAM

Diagram	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Rear End	27	7,184	16,412	23,623	29	10,163
Sideswipe Passing	8	1,008	6,960	7,976	8	1,301
Left Turn -- Oncoming Traffic	7	1,456	2,814	4,277	7	2,107
Ran Off Road - Left	75	2,039	3,225	5,339	77	2,669
Right Angle	120	5,519	9,601	15,240	132	8,459
Right Turn -- Cross Street Traffic	0	256	741	997	0	319
Ran Off Road - Right	78	2,597	4,207	6,882	82	3,353
Head On	93	1,374	2,638	4,105	103	2,181
Sideswipe Opposing	6	501	1,417	1,924	6	691
Other Diagram	37	2,081	4,682	6,800	54	2,857
Not Applicable	11	629	1,681	2,321	11	776
Unknown / Incomplete	1	334	1,686	2,021	1	442
Total	463	24,978	56,064	81,505	510	35,318

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

2007 CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
100,000 & Over	28	4,604	12,951	17,583	40	6,295
50,000 - 99,999	24	4,298	9,274	13,596	24	5,909
25,000 - 49,999	25	3,213	7,348	10,586	30	4,392
10,000 - 24,999	47	3,952	8,883	12,882	51	5,551
5,000 - 9,999	13	1,602	3,712	5,327	13	2,310
2,500 - 4,999	9	919	2,510	3,438	9	1,326
1,000 - 2,499	11	442	1,173	1,626	12	600
Under 1,000	306	5,948	10,213	16,467	331	8,935
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.23

2007 CRASHES BY TYPE OF ROADWAY

Type of Roadway	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	18	2,142	6,392	8,552	32	3,045
US Trunk Highway	24	1,662	3,504	5,190	26	2,386
MN Trunk Highway	23	2,652	5,713	8,388	24	3,816
County State Aid Highway	40	5,172	10,082	15,294	43	7,216
County Road	1	144	262	407	1	200
Township Road	0	4	9	13	0	4
Local Street	29	5,816	15,918	21,763	30	7,694
Other Road	2	77	288	367	2	96
Urban Total	137	17,669	42,168	59,974	158	24,457
Rural						
Interstate	23	657	1,572	2,252	26	960
US Trunk Highway	57	1,295	2,442	3,794	62	2,027
MN Trunk Highway	86	1,929	3,338	5,353	95	3,012
County State Aid Highway	115	2,258	3,862	6,235	124	3,274
County Road	14	348	525	887	14	459
Township Road	25	489	749	1,263	25	696
Local Street	5	306	1,232	1,543	5	394
Other Road	1	27	176	204	1	39
Rural Total	326	7,309	13,896	21,531	352	10,861
All Roadways						
Interstate	41	2,799	7,964	10,804	58	4,005
US Trunk Highway	81	2,957	5,946	8,984	88	4,413
MN Trunk Highway	109	4,581	9,051	13,741	119	6,828
County State Aid Highway	155	7,430	13,944	21,529	167	10,490
County Road	15	492	787	1,294	15	659
Township Road	25	493	758	1,276	25	700
Local Street	34	6,122	17,150	23,306	35	8,088
Other Road	3	104	464	571	3	135
Total	463	24,978	56,064	81,505	510	35,318

("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

2007 COUNTY CRASH REPORT

	2007 Crashes				Total	Number	Number	Number	Number
County	Fatal	Injury	Property Damage	Total	Crashes 2006	Killed 2007	Killed 2006	Injured 2007	Injured 2006
Aitkin	2	79	114	195	211	2	2	96	116
Anoka	17	1,410	2,586	4,013	3,931	17	29	2,063	2,031
Becker	5	120	169	294	359	5	4	203	243
Beltrami	4	159	365	528	615	4	8	250	252
Benton	4	200	418	622	563	4	4	313	288
Big Stone	1	18	43	62	55	1	1	33	19
Blue Earth	3	380	980	1,363	1,325	3	5	493	478
Brown	3	107	210	320	320	3	3	147	159
Carlton	3	135	196	334	340	3	9	191	223
Carver	11	353	877	1,241	1,167	13	8	497	516
Cass	6	123	218	347	345	7	4	185	199
Chippewa	1	45	72	118	176	2	5	68	78
Chisago	8	250	407	665	703	8	13	366	420
Clay	5	221	562	788	822	6	8	292	309
Clearwater	1	29	56	86	79	1	3	39	29
Cook	2	24	64	90	129	2	2	36	48
Cottonwood	3	34	76	113	124	3	1	56	65
Crow Wing	11	286	472	769	973	11	8	443	485
Dakota	25	1,571	3,358	4,954	4,548	26	20	2,152	2,150
Dodge	2	65	151	218	189	2	2	107	117
Douglas	8	205	450	663	689	9	8	275	263
Faribault	5	59	129	193	194	5	3	93	97
Fillmore	0	73	163	236	259	0	6	92	121
Freeborn	3	140	388	531	550	4	2	185	215
Goodhue	10	209	574	793	856	12	7	315	401
Grant	1	23	38	62	99	1	1	35	48
Hennepin	38	6,937	15,362	22,337	20,897	52	40	9,510	9,078
Houston	0	65	210	275	312	0	0	91	119
Hubbard	3	91	94	188	225	3	5	132	140
Isanti	5	170	255	430	494	8	9	251	230
Itasca	10	226	338	574	581	10	5	355	334
Jackson	1	49	97	147	174	1	1	65	81
Kanabec	2	87	107	196	171	2	0	127	105
Kandiyohi	4	241	431	676	644	4	8	397	309

TABLE 1.24 CONTINUED

2007 COUNTY CRASH REPORT

County	2007 Crashes Fatal	Injury	Property Damage	Total	Total Crashes 2006	Number Killed 2007	Number Killed 2006	Number Injured 2007	Number Injured 2006
Kittson	2	10	25	37	38	2	0	14	24
Koochiching	2	50	94	146	143	2	1	64	73
Lac Qui Parle	0	17	37	54	57	0	2	22	29
Lake	3	45	92	140	179	3	3	63	83
Lake of the Woods	1	12	22	35	25	1	1	16	17
Le Sueur	1	131	276	408	420	3	3	193	183
Lincoln	3	18	70	91	75	3	0	29	40
Lyon	2	103	228	333	315	2	6	157	150
McLeod	2	150	399	551	582	2	7	210	235
Mahnomen	2	19	19	40	63	3	2	29	39
Marshall	1	31	36	68	76	1	2	44	44
Martin	4	110	232	346	308	4	2	174	133
Meeker	1	86	142	229	244	1	3	130	142
Mille Lacs	4	89	163	256	329	6	10	136	218
Morrison	4	132	225	361	354	4	5	186	193
Mower	2	156	391	549	561	2	5	204	217
Murray	3	28	43	74	109	3	1	41	66
Nicollet	4	133	327	464	428	4	6	180	170
Nobles	3	103	213	319	357	4	2	159	154
Norman	1	26	30	57	74	1	0	40	34
Olmsted	13	692	1,482	2,187	1,925	14	15	997	888
Otter Tail	7	192	469	668	805	7	4	275	389
Pennington	1	74	104	179	156	1	0	98	101
Pine	6	151	150	307	351	6	4	237	194
Pipestone	4	49	86	139	110	4	2	69	51
Polk	7	101	227	335	359	7	6	152	109
Pope	2	39	75	116	120	2	4	59	71
Ramsey	20	2,773	8,958	11,751	10,822	21	20	3,818	3,649
Red Lake	2	5	13	20	29	2	2	7	27
Redwood	4	69	81	154	192	4	3	116	115
Renville	4	60	81	145	159	4	4	98	118
Rice	4	233	403	640	843	4	13	336	420
Rock	4	41	106	151	173	4	1	65	65

TABLE 1.24 CONTINUED

2007 COUNTY CRASH REPORT

County	2007 Crashes Fatal	Injury	Property Damage	Total	Total Crashes 2006	Number Killed 2007	Number Killed 2006	Number Injured 2007	Number Injured 2006
Roseau	2	39	61	102	110	2	0	62	44
St. Louis	23	992	2,441	3,456	2,856	23	21	1,409	1,279
Scott	14	495	882	1,391	1,249	19	8	717	709
Sherburne	10	308	804	1,122	1,172	10	9	452	508
Sibley	1	47	102	150	144	1	2	61	63
Stearns	10	843	1,697	2,550	2,319	10	15	1,176	1,129
Steele	7	158	328	493	514	7	5	227	219
Stevens	2	30	60	92	132	3	2	41	49
Swift	3	31	51	85	86	3	0	41	62
Todd	3	72	140	215	257	3	3	110	131
Traverse	0	15	19	34	27	0	1	16	10
Wabasha	2	99	169	270	278	2	7	145	145
Wadena	1	49	84	134	144	1	3	69	71
Waseca	4	77	145	226	238	4	3	119	111
Washington	16	862	1,976	2,854	2,757	20	16	1,218	1,175
Watonwan	3	42	101	146	139	3	4	64	50
Wilkin	6	24	63	93	126	6	1	36	51
Winona	5	250	619	874	834	6	7	355	300
Wright	19	403	939	1,361	1,334	20	11	583	658
Yellow Medicine	2	30	51	83	128	2	3	46	54
Unknown	0	0	3	3	1	0	0	0	0
Minnesota Totals	463	24,978	56,064	81,505	78,745	510	494	35,318	35,025

TABLE 1.25

2007 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

	Crashes				Persons	
City	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Afton	0	8	21	29	0	9
Albert Lea	1	66	196	263	1	89
Albertville	1	30	89	120	1	43
Alexandria	2	85	217	304	2	113
Andover	0	76	100	176	0	115
Annandale	1	7	11	19	1	9
Anoka	2	147	365	514	2	224
Apple Valley	3	190	380	573	3	240
Arden Hills	1	117	368	486	1	152
Aurora	0	1	7	8	0	1
Austin	0	90	271	361	0	108
Baxter	0	61	63	124	0	104
Bayport	0	7	15	22	0	11
Baytown Township	0	6	15	21	0	7
Becker	0	11	47	58	0	30
Belle Plaine	0	15	43	58	0	28
Bemidji	1	65	202	268	1	108
Benson	0	4	19	23	0	4
Big Lake	1	23	40	64	1	31
Blaine	2	228	337	567	2	320
Bloomington	3	617	1320	1940	3	835
Blue Earth	0	16	36	52	0	29
Brainerd	1	80	185	266	1	115
Breckenridge	0	7	35	42	0	10
Brooklyn Center	1	253	498	752	2	356
Brooklyn Park	2	387	250	639	2	581
Buffalo	0	37	89	126	0	54
Burnsville	3	300	586	889	3	416
Byron	0	6	23	29	0	8
Caledonia	0	7	25	32	0	10
Cambridge	0	49	111	160	0	71
Cannon Falls	0	15	43	58	0	21
Centerville	0	6	9	15	0	6
Champlin	2	69	97	168	2	101
Chanhassen	0	100	282	382	0	131
Chaska	0	74	185	259	0	107
Chisago City	0	8	22	30	0	12
Chisholm	0	4	30	34	0	8
Circle Pines	0	8	23	31	0	11
Cloquet	0	39	57	96	0	59
Cokato	0	3	14	17	0	5
Cold Spring	0	21	39	60	0	27
Columbia Heights	0	68	113	181	0	98
Columbus	0	25	56	81	0	47
Coon Rapids	0	362	720	1082	0	515
Corcoran	0	25	43	68	0	35
Cottage Grove	3	77	229	309	3	120

TABLE 1.25

2007 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

	Crashes				Persons	
City	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Crookston	0	18	63	81	0	24
Crystal	0	106	146	252	0	148
Dayton	0	23	65	88	0	33
Deephaven	0	4	10	14	0	7
Delano	0	10	18	28	0	11
Denmark Township	3	12	23	38	4	24
Detroit Lakes	0	35	62	97	0	63
Dilworth	0	11	21	32	0	12
Duluth	6	501	1,486	1,993	6	662
Eagan	1	259	666	926	1	338
East Bethel	3	33	33	69	3	65
East Grand Forks	0	18	69	87	0	26
Eden Prairie	1	212	528	741	1	271
Edina	1	164	398	563	2	217
Elko/New Market	0	3	8	11	0	6
Elk River	2	108	230	340	2	135
Ely	0	9	20	29	0	10
Eveleth	0	13	51	64	0	20
Fairmont	1	53	137	191	1	76
Falcon Heights	0	29	51	80	0	58
Faribault	0	74	83	157	0	106
Farmington	1	36	86	123	1	53
Fergus Falls	0	49	152	201	0	66
Forest Lake	1	110	211	322	2	168
Fridley	1	142	304	447	1	186
Gilbert	0	9	11	20	0	14
Glencoe	0	12	46	58	0	19
Glenwood	0	8	23	31	0	13
Golden Valley	1	155	305	461	1	216
Goodview	0	11	25	36	0	14
Grand Rapids	0	78	152	230	0	129
Granite Falls	0	5	11	16	0	8
Grant	0	19	28	47	0	31
Greenfield	2	9	26	37	2	12
Ham Lake	0	50	69	119	0	84
Hastings	1	76	205	282	1	99
Hermantown	0	40	82	122	0	66
Hibbing	1	84	209	294	1	103
Hopkins	0	62	178	240	0	87
Hugo	0	28	42	70	0	41
Hutchinson	0	50	176	226	0	68
Independence	0	17	35	52	0	21
International Falls	0	27	58	85	0	31
Inver Grove Heights	3	131	237	371	4	183
Jackson	0	6	24	30	0	7
Jordan	0	7	25	32	0	14

TABLE 1.25

2007 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

	Crashes				Persons	
City	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Kasson	0	6	29	35	0	12
La Crescent	0	17	56	73	0	22
Lake City	0	13	35	48	0	18
Lake Elmo	0	71	102	173	0	108
Lakeville	4	129	140	273	4	181
Le Sueur	0	10	38	48	0	13
Lindstrom	1	11	52	64	1	18
Lino Lakes	2	54	187	243	2	76
Litchfield	0	24	46	70	0	29
Little Canada	1	94	273	368	1	135
Little Falls	0	25	77	102	0	32
Long Prairie	0	3	16	19	0	3
Luverne	0	7	31	38	0	10
Mahtomedi	0	9	23	32	0	19
Mankato	1	259	716	976	1	326
Maple Grove	1	260	643	904	1	341
Maplewood	1	282	704	987	2	424
Marshall	1	44	135	180	1	65
May Township	1	8	29	38	2	10
Medina	1	24	80	105	1	35
Melrose	0	12	37	49	0	17
Mendota Heights	2	71	174	247	2	96
Minneapolis	17	3,224	7,436	10,677	29	4,439
Minnetonka	2	170	348	520	2	229
Minnetrista	1	14	52	67	1	24
Montevideo	0	16	48	64	0	22
Monticello	0	44	125	169	0	63
Moorhead	0	136	366	502	0	178
Mora	0	13	30	43	0	21
Morris	0	10	38	48	0	12
Mound	0	12	37	49	0	15
Mounds View	1	48	84	133	1	65
Mountain Iron	0	20	29	49	0	29
New Brighton	0	77	202	279	0	96
New Hope	0	57	92	149	0	84
Newport	0	32	113	145	0	35
New Prague	0	19	26	45	0	26
New Ulm	2	63	135	200	2	82
North Branch	2	47	85	134	2	58
Northfield	0	36	83	119	0	50
North Mankato	0	45	99	144	0	57
North Oaks	0	15	18	33	0	18
North St. Paul	1	58	93	152	1	82
Oakdale	0	91	205	296	0	116

TABLE 1.25

2007 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

	Crashes				Persons	
City	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Oak Park Heights	0	21	56	77	0	31
Olivia	0	2	5	7	0	5
Orono	1	31	88	120	1	40
Osseo	1	17	59	77	1	23
Otsego	1	46	101	148	1	66
Owatonna	3	78	159	240	3	109
Park Rapids	0	15	13	28	0	20
Pine City	0	15	13	28	0	23
Pipestone	0	20	32	52	0	27
Plainview	0	5	12	17	0	9
Plymouth	1	237	579	817	1	325
Princeton	0	11	41	52	0	15
Prior Lake	0	46	34	80	0	67
Proctor	1	7	28	36	1	12
Ramsey	2	87	134	223	2	142
Red Wing	0	68	243	311	0	99
Redwood Falls	0	21	35	56	0	29
Richfield	0	204	553	757	0	286
Robbinsdale	0	83	130	213	0	101
Rochester	4	512	1,090	1,606	4	737
Rockford	0	12	13	25	0	19
Rogers	0	68	178	246	0	79
Roseau	0	1	14	15	0	1
Rosemount	2	65	159	226	2	95
Roseville	0	216	601	817	0	301
St. Anthony	0	21	55	76	0	31
St. Augusta	1	41	70	112	1	70
St. Charles	0	5	22	27	0	6
St. Cloud	0	481	1,058	1,539	0	659
St. Francis	0	17	25	42	0	28
St. James	0	7	24	31	0	8
St. Joseph	0	8	33	41	0	13
St. Louis Park	0	233	622	855	0	290
St. Michael	2	21	61	84	3	34
St. Paul	11	1,380	5,515	6,906	11	1,856
St. Paul Park	1	14	34	49	1	18
St. Peter	0	29	92	121	0	37
Sartell	0	31	33	64	0	39
Sauk Centre	0	16	51	67	0	26
Sauk Rapids	0	27	54	81	0	49
Savage	0	107	226	333	0	139
Scandia	0	22	38	60	0	30
Shakopee	6	156	340	502	8	209
Shoreview	1	89	224	314	1	122
Shorewood	0	21	76	97	0	36
Sleepy Eye	0	4	23	27	0	8

TABLE 1.25

2007 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

	Crashes				Persons	
City	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
South St. Paul	0	82	286	368	0	111
Spring Lake Park	1	35	51	87	1	46
Spring Valley	0	7	21	28	0	8
Staples	0	5	39	44	0	6
Stewartville	0	8	26	34	0	11
Stillwater	0	59	192	251	0	70
Stillwater Township	2	8	33	43	2	15
Thief River Falls	0	54	79	133	0	73
Two Harbors	0	11	35	46	0	14
Vadnais Heights	1	112	290	403	1	154
Victoria	0	22	80	102	0	31
Virginia	0	38	117	155	0	56
Waconia	0	22	61	83	0	30
Wadena	0	14	28	42	0	21
Waite Park	0	61	142	203	0	92
Waseca	0	28	57	85	0	49
Watertown	0	7	12	19	0	8
Wayzata	0	54	127	181	0	69
W. Lakeland Twnsp	1	10	20	31	1	15
West St. Paul	1	111	164	276	1	146
White Bear Lake	2	195	403	600	2	278
White Bear Twnsp	0	19	43	62	0	25
Willmar	1	134	309	444	1	210
Windom	0	14	32	46	0	25
Winona	2	102	315	419	2	146
Woodbury	2	211	419	632	3	285
Worthington	0	56	120	176	0	78
Wyoming	0	16	30	46	0	26
Zimmerman	0	16	55	71	0	23

TABLE 1.26

2007 CRASHES BY TIME AND DAY

Hour Begin-Ning	All Days		Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal
Midnight	1,363	14	317	4	147	0	123	1	150	0	158	0	165	5	303	4
1:00	1,380	24	334	11	159	1	116	0	144	0	168	0	166	5	293	7
2:00	1,457	17	335	3	142	2	123	0	131	0	138	1	214	7	374	4
3:00	996	14	207	5	123	1	91	2	104	2	116	1	141	2	214	1
4:00	861	7	175	1	132	1	78	0	94	0	111	2	111	1	160	2
5:00	1,350	9	141	1	216	2	174	1	224	1	211	0	186	2	198	2
6:00	2,341	13	169	1	362	2	401	1	429	2	418	3	341	1	221	3
7:00	4,847	23	204	2	785	1	910	6	1,000	4	916	2	729	3	303	5
8:00	4,576	16	243	0	707	2	898	1	902	4	808	5	646	3	372	1
9:00	3,570	22	331	2	531	5	640	7	522	2	558	3	491	1	497	2
10:00	3,609	13	423	1	518	4	575	2	467	0	476	4	523	1	627	1
11:00	4,066	15	484	3	560	2	615	0	484	0	576	2	648	3	699	5
Noon	4,868	16	601	1	662	0	738	4	651	1	667	3	732	3	817	4
1:00	4,443	18	498	1	579	4	663	4	595	3	634	2	735	2	739	2
2:00	5,322	32	554	2	726	3	811	10	781	4	796	7	920	2	734	4
3:00	6,204	29	543	3	882	3	984	7	919	4	966	2	1,170	6	740	4
4:00	6,526	26	538	4	930	5	1,060	1	1,069	3	1,054	4	1,182	3	693	6
5:00	6,609	33	518	7	945	3	1,077	8	1,114	3	1,122	2	1,187	8	646	2
6:00	4,562	26	427	4	603	4	687	2	754	10	683	0	827	4	581	2
7:00	3,174	27	378	2	377	1	479	2	446	5	485	8	558	3	451	6
8:00	2,516	22	330	2	319	3	360	2	404	5	339	5	401	3	363	2
9:00	2,589	18	284	1	289	2	415	1	366	5	358	4	463	3	414	2
10:00	2,104	18	267	2	232	1	276	2	289	2	274	0	403	6	363	5
11:00	1,480	11	185	2	152	1	174	0	193	4	180	0	307	1	289	3
Unknown	692	0	70	0	83	0	99	0	115	0	94	0	118	0	113	0
Total	81,505	463	8,556	65	11,161	53	12,567	64	12,347	64	12,306	60	13,364	78	11,204	79

FIGURE 1.03
Total Crashes vs Fatal Crashes, by Time, 2007

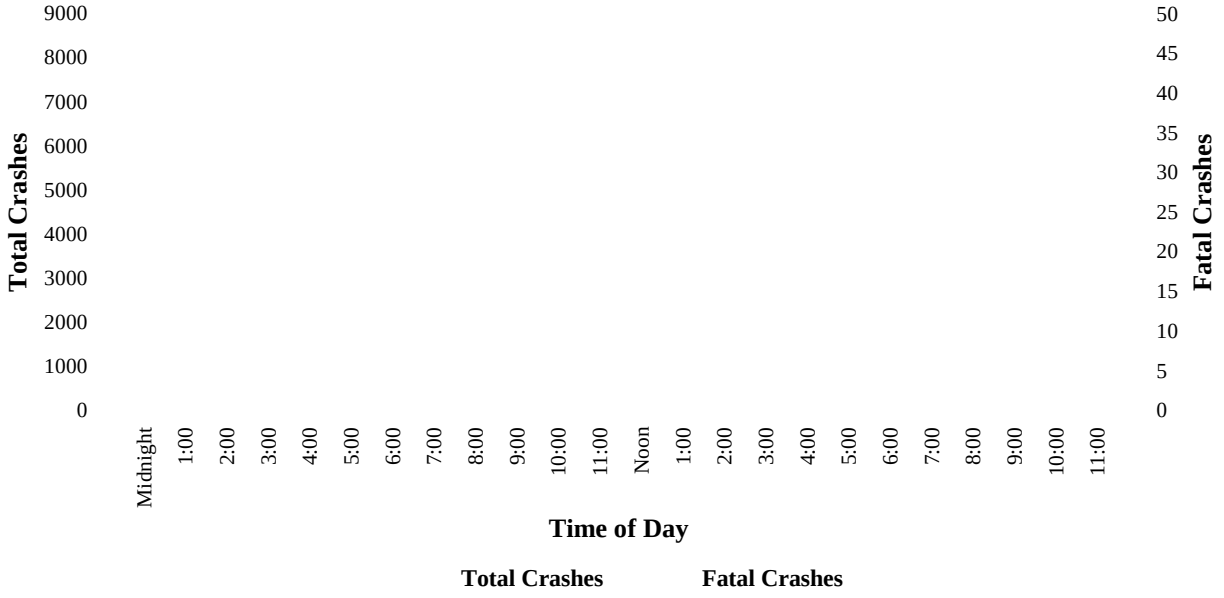

TABLE 1.27

2007 CRASHES, FATALITIES, AND INJURIES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	37	1,915	5,557	7,509	38	2,641
February	29	2,090	6,016	8,135	31	2,901
March	25	1,737	4,478	6,240	26	2,382
April	28	1,816	3,701	5,545	29	2,585
May	42	2,064	3,870	5,976	48	2,921
June	51	2,304	4,080	6,435	57	3,347
July	43	2,325	3,704	6,072	49	3,274
August	48	2,207	4,069	6,324	60	3,352
September	41	2,159	3,983	6,183	43	3,051
October	39	2,046	4,486	6,571	44	2,795
November	37	1,887	4,523	6,447	39	2,634
December	43	2,428	7,597	10,068	46	3,435
Total	463	24,978	56,064	81,505	510	35,318

TABLE 1.28

HOLIDAY CRASH SUMMARY, 2002 - 2007

Holiday Period	Year	Hours*	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Memorial Day	2002	78	6	208	387	601	7	297
(For 2007, the holiday	2003	78	6	NA	NA	NA	6	NA
period was 6 PM Fri.,	2004	78	6	194	362	562	9	283
May 25 -- midnight	2005	78	8	177	342	527	9	295
Monday, May 28.)	2006	78	3	188	344	535	4	287
	2007	78	5	167	259	431	5	243
July 4th	2002	102	6	342	606	954	6	541
(For 2007, the holiday	2003	78	3	NA	NA	NA	3	NA
period was 6 PM Tue,	2004	78	9	235	420	664	9	379
July 3 -- midnight	2005	78	7	207	336	550	9	332
Wednesday, July 4.)	2006	102	5	266	389	660	5	377
	2007	30	0	73	134	207	0	103
Labor Day	2002	78	7	233	389	629	7	377
(For 2007, the holiday	2003	78	7	NA	NA	NA	9	NA
period was 6 PM Fri.,	2004	78	4	213	357	574	4	358
August 31 -- midnight	2005	78	8	187	315	510	8	289
Monday, Sept 3.)	2006	78	1	182	325	508	1	272
	2007	78	6	204	320	530	6	300
Thanksgiving	2002	102	8	232	593	833	8	357
(For 2007, the holiday	2003	102	5	NA	NA	NA	6	NA
period was 6 PM Wed.,	2004	102	10	419	981	1,410	13	646
Nov 21 -- midnight	2005	102	8	390	1,066	1,464	11	592
Sunday, Nov 25.)	2006	102	8	200	469	677	8	299
	2007	102	4	203	561	768	4	298
Christmas	2002	30	1	37	84	122	1	56
(For 2007, the holiday	2003	102	4	NA	NA	NA	4	NA
period was 6 PM Fri,	2004	78	9	178	511	698	9	284
Dec 21-- midnight	2005	78	1	153	325	479	1	227
Tuesday, Dec 25.)	2006	78	0	150	333	483	0	214
	2007	102	10	456	1,480	1,946	11	682
New Year's	2002/03	30	5	56	112	173	5	84
(For 2007, the	2003/04	102	7	NA	NA	NA	10	NA
holiday period was	2004/05	78	3	219	598	820	3	333
6 PM Fri, Dec. 28 --	2005/06	78	6	134	422	562	8	211
Midnight Tuesday,	2006/07	78	8	286	735	1,029	9	451
January 1, 2008.)	2007/08	102	4	174	525	703	4	263

* 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. In 2007, five drinking pedestrians died after colliding with a vehicle driven by a non-drinking driver. (Four more drinking pedestrians died after colliding with drinking drivers). 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 2007

Drinking and driving remains a serious problem in Minnesota and across the nation. For 2007, the National

Safety Council has made a conservative estimate of $314 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, 7% of minor injures, 13% of moderate injuries, 22% of severe injuries, and 37% of deaths were alcohol-related. In all, 190 known people died and 3,252 known people were injured in crashes classified as alcohol-related. (NHTSA estimates will be higher).

Impaired driving incidents (DWIs) decrease
There were 38,635 impaired driving incidents last year in Minnesota. This number represents an 8% decrease from the previous year. There would surely be more impaired driving arrests each year if staffing levels of state troopers and police officers in Minnesota had not remained static over the past 20 years. These low staffing levels are inconsistent with the fact that the population and the number of roads continue to rise, and the fact that the number of licensed drivers in Minnesota is now quickly approaching 4 million people.

Males and young people
Males made up 68% of the DWI offenders last year, however, females are getting arrested more often. In 2007, they accounted for 23% of the incidents. (10 years ago, they were 18% 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 9%.

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 36% of all traffic deaths, and for fully 45% 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, 138 (73%) of the 190 people who died in alcohol-related crashes were themselves the people whose drinking behavior caused the crash to be classified as alcohol-related. In short, drinking drivers, pedestrians, and bicyclists mostly kill and injure themselves. The remaining 52 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 41% of all traffic crashes, but 60% of the alcohol-related crashes. The late night hours 9 p.m.-3 a.m. accounted for 13% of all crashes, but 50% of the alcohol crashes.

Fatal alcohol crashes usually involve just one vehicle
Of the 170 alcohol-related fatal crashes in 2007, 118 (69%) involved just one motor vehicle in transport. Of the 118 single vehicle alcohol-related fatal crashes, 46 involved a single vehicle colliding with a fixed object, and 50 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 2007, there were 381 motor vehicle drivers who were killed. (Note that this total does not include pedestrians or bicyclists). Of the 381 killed drivers, the Department of Public Safety was able to get alcohol test results for 336 (88%). Of the 336 tested, 207 (62%) tested negative, 15 (4%) tested between .01 and .07, 7 (2%) tested between .08 and .09, and 107 (32%) tested .10 or greater.

Majority of alcohol-related fatalities test above the legal limit
The 190 alcohol-related fatalities in 2007 consisted of 126 car or truck drivers, 24 car or truck passengers, 23 motorcycle drivers, two motorcycle passengers, two ATV drivers, 12 pedestrians, and one bicyclist. Of the 190, the Department of Public Safety was able to get alcohol test results for 144. Of these, 126 (88%) 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 35% 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. The implementation of the .08 legal limit law in mid-2005 will also help this downward trend continue.

TABLE 2.01

ALCOHOL-RELATED FATAL CRASH SUMMARY, 1980 - 2007

	Alcohol Concentration Test Results on Fatally Injured Drivers Only										All Traffic Fatalities				
	Drivers Killed			Results on Drivers Tested								Alcohol-Related Fatalities			
	Total	Tested for Alcohol		Negative for Alcohol		.01 to 09 Alcohol				.10 or Higher Alcohol		Total	Known *		Estimated **	
Year		number	% of total	number	% of tested	number	% of tested			number	% of tested		number	% of total	number	% 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
						.01 to .07		.08 to 09								
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	NA	NA

* 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, 1991 - 2007

		Gender						Area of State			
		Male		Female		Not Stated		Metro		Non-Metro	
Year	Total	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1991	32,466	25,830	79.6	5,438	16.8	1,198	3.7	17,597	54.2	14,869	45.8
1992	30,834	24,760	80.3	5,581	18.1	493	1.6	16,311	52.9	14,523	47.1
1993	30,111	24,149	80.2	5,480	18.2	482	1.6	15,597	51.8	14,514	48.2
1994	29,739	23,182	77.9	5,296	17.8	1,261	4.2	15,477	52.0	14,262	48.0
1995	30,255	23,217	76.7	5,425	17.9	1,613	5.3	15,678	51.8	14,577	48.2
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

* 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, 1991 - 2007

		Age										
Year	Total	0-14	15	16	17	18	19	20	Total Under 21	21-34	35-49	50 & Older
1991	32,466	9	13	143	328	747	1,033	1,252	3,525	19,062	7,854	2,025
1992	30,834	3	12	111	290	594	830	1,036	2,876	18,055	7,887	2,016
1993	30,111	2	8	89	254	500	744	837	2,434	17,299	8,379	1,999
1994	29,739	5	7	108	233	545	644	761	2,303	16,481	8,871	2,084
1995	30,255	1	20	111	243	519	723	799	2,416	16,368	9,302	2,169
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

FIGURE 2.01

PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs")
COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990 - 2007

TABLE 2.04

IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1991 - 2007

Age Group

Year	0-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
1991	9	2,264	7,167	7,051	6,096	3,985	2,580	1,289	815	482	355	216	92	49	13	3	32,466
1992	3	1,837	6,940	6,284	5,867	3,916	2,498	1,473	828	510	357	173	100	35	9	4	30,834
1993	2	1,595	6,377	5,944	5,815	4,295	2,577	1,507	870	512	296	184	94	35	5	3	30,111
1994	5	1,537	5,819	5,608	5,815	4,224	2,891	1,756	849	567	339	188	81	44	12	4	29,739
1995	1	1,616	5,850	5,517	5,800	4,536	3,034	1,732	957	550	324	185	93	43	17	0	30,255
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

TABLE 2.05

AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES AND IN ALCOHOL - RELATED CRASHES, 2007

	Persons Killed		Persons Injured by Severity						Total Persons Injured	
			Severe		Moderate		Minor			
Age Group	All	Alcohol-Related[1]	All	Alcohol-Related[2]	All	Alcohol-Related[2]	All	Alcohol-Related[2]	All	Alcohol-Related[2]
00 - 04	4	1	10	0	92	10	425	16	527	26
05 - 09	4	0	39	3	178	28	513	26	730	57
10 - 14	6	2	50	3	283	25	690	24	1,023	52
15	7	0	32	2	143	9	307	16	482	27
16	9	3	51	8	280	19	706	30	1,037	57
17	11	2	52	4	385	32	857	43	1,294	79
18	13	3	42	17	365	40	828	62	1,235	119
19	8	2	71	26	317	47	789	90	1,177	163
20	15	7	48	20	274	56	695	47	1,017	123
Total Under 21:	77	20	395	83	2,317	266	5,810	354	8,522	703
00 - 14	14	3	99	6	553	63	1,628	66	2,280	135
15 - 19	48	10	248	57	1,490	147	3,487	241	5,225	445
20 - 24	71	40	248	93	1,386	289	3,218	367	4,852	749
25 - 29	39	24	161	49	1,025	181	2,496	244	3,682	474
30 - 34	27	12	113	31	643	104	1,769	139	2,525	274
35 - 39	37	21	109	34	640	80	1,770	128	2,519	242
40 - 44	42	27	137	33	642	103	1,774	119	2,553	255
45 - 49	42	16	161	31	714	88	1,904	125	2,779	244
50 - 54	23	10	107	13	574	60	1,539	78	2,220	151
55 - 59	36	14	121	17	457	36	1,231	50	1,809	103
60 - 64	29	5	53	4	297	13	794	27	1,144	44
65 - 69	23	3	39	5	202	10	538	15	779	30
70 - 74	29	3	33	2	189	8	406	10	628	20
75 - 79	19	1	35	3	161	5	382	6	578	14
80 - 84	17	0	22	0	128	2	281	4	431	6
85 & Older	14	1	23	0	79	1	199	7	301	8
Not Stated	0	0	27	4	185	10	801	44	1,013	58
Total	510	190	1,736	382	9,365	1,200	24,217	1,670	35,318	3,252

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 190 alcohol-related traffic deaths in the year 2007. Twelve of those deaths were to pedestrians, and 9 of those 12 pedestrians were drinking. In 4 of the 9 fatal crashes involving drinking pedestrians, the motor vehicle driver had also been drinking. Additionally, one bicyclist was among the 190 alcohol-related deaths. In that crash, the bicyclist was not drinking but the motor vehicle driver was.

TABLE 2.06

2007 ALCOHOL - RELATED FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY TRAFFIC ROLE

Traffic Role	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
Car or Truck Driver	126	120	11	11	6	92
Car or Truck Passenger	24	7	2	1	0	4
Motorcycle Driver	23	22	4	3	1	14
Motorcycle Passenger	2	1	0	1	0	0
Snowmobile Driver	0	0	0	0	0	0
ATV Driver	2	2	0	1	0	1
Pedestrian	12	10	1	1	0	8
Bicyclist	1	0	0	0	0	0
Total	190	162	18	18	7	119

TABLE 2.07

PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES DETERMINED TO BE ALCOHOL - RELATED, 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Deaths* (Known)	42%	31%	39%	37%	36%	39%	31%	35%	34%	37%
(Estimated)	44%	33%	41%	40%	39%	41%	32%	36%	37%	NA
Injuries**	11%	10%	10%	10%	10%	NA	9%	9%	10%	9%
PDO Crashes**	4%	4%	4%	4%	4%	NA	3%	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, 2007

	All Fatal Crashes		Alcohol-Related Fatal Crashes *	
First Harmful Event	Number	Percent	Number	Percent
Collision with:				
Another Motor Vehicle	225	48.6%	52	30.6%
Parked Motor Vehicle	8	1.7	3	1.8
Railroad Train	2	0.4	1	0.6
Bicycle	4	0.9	1	0.6
Pedestrian	33	7.1	12	7.1
Deer	6	1.3	2	1.2
Fixed Object	81	17.5	46	27.1
Other Collision Type	3	0.6	0	0.0
Non-Collision:				
Overturn	95	20.5	50	29.4
Submersion	1	0.2	1	0.6
Other Type Non-Collision	3	0.6	1	0.6
Other/Unknown	2	0.4	1	0.6
Total	463	100.0%	170	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, 1998 - 2007

Year	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
1998	406	369	218 (59%)	23 (6%)	6 (2%)	122 (33%)
1999	426	370	254 (69%)	9 (2%)	7 (2%)	100 (27%)
2000	403	375	226 (60%)	16 (4%)	6 (2%)	127 (34%)
2001	361	322	198 (61%)	17 (5%)	6 (2%)	101 (31%)
2002	430	365	223 (61%)	21 (6%)	3 (1%)	118 (32%)
2003	435	376	219 (58%)	18 (5%)	5 (1%)	134 (36%)
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%)

* Percents based on drivers tested.

TABLE 2.10

DRIVERS KILLED WHO TESTED .01 OR HIGHER, 1998 - 2007 ("Any Alcohol")

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
1998	151	126	(83%)	25	(17%)	41	(27%)	26	(17%)
1999	116	98	(84%)	16	(16%)	30	(26%)	16	(14%)
2000	149	125	(84%)	24	(16%)	47	(32%)	15	(10%)
2001	124	104	(84%)	20	(16%)	37	(30%)	17	(14%)
2002	142	124	(87%)	18	(13%)	41	(29%)	23	(16%)
2003	157	135	(86%)	22	(14%)	42	(27%)	14	(9%)
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%)

TABLE 2.11

DRIVERS KILLED WHO TESTED OVER THE LEGAL LIMIT, 1998 - 2007 (The legal limit in Minnesota was lowered to .08 in mid-2005)

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
1998	122	104	(85%)	18	(15%)	36	(30%)	19	(16%)
1999	100	87	(87%)	13	(13%)	26	(26%)	14	(14%)
2000	127	105	(83%)	22	(17%)	43	(34%)	14	(11%)
2001	101	86	(85%)	15	(15%)	31	(31%)	15	(15%)
2002	118	102	(86%)	16	(14%)	34	(29%)	16	(14%)
2003	134	115	(86%)	19	(14%)	39	(29%)	9	(7%)
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%)

FIGURE 2.02

Killed Drivers Tested for Alcohol: 1975 - 2007
Percent Over .01 Alcohol Level and Percent Over Legal Limit
(The legal limit in Minnesota was lowered to .08 in 2005)

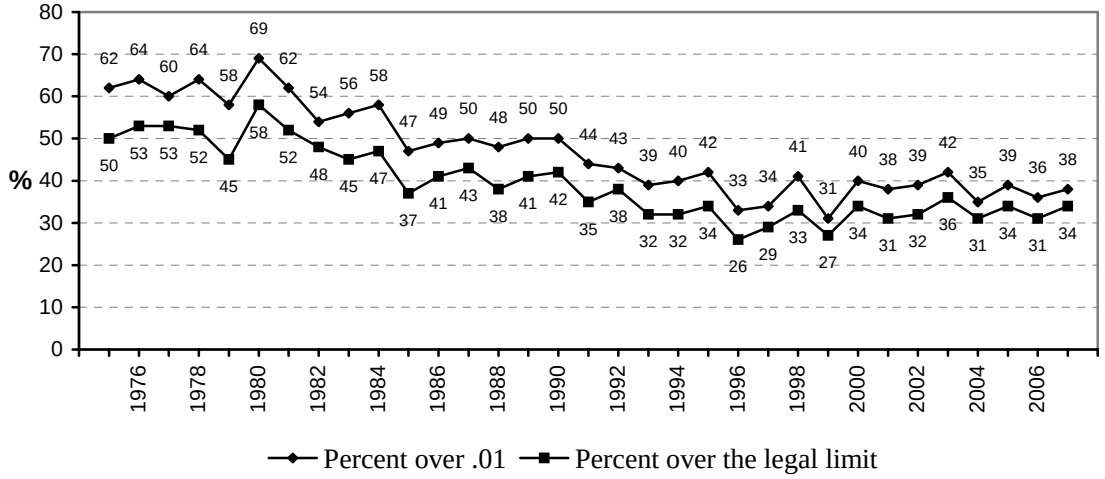

FIGURE 2.03

Percent of Drivers Killed Who Had Been Drinking, by Age, 2007

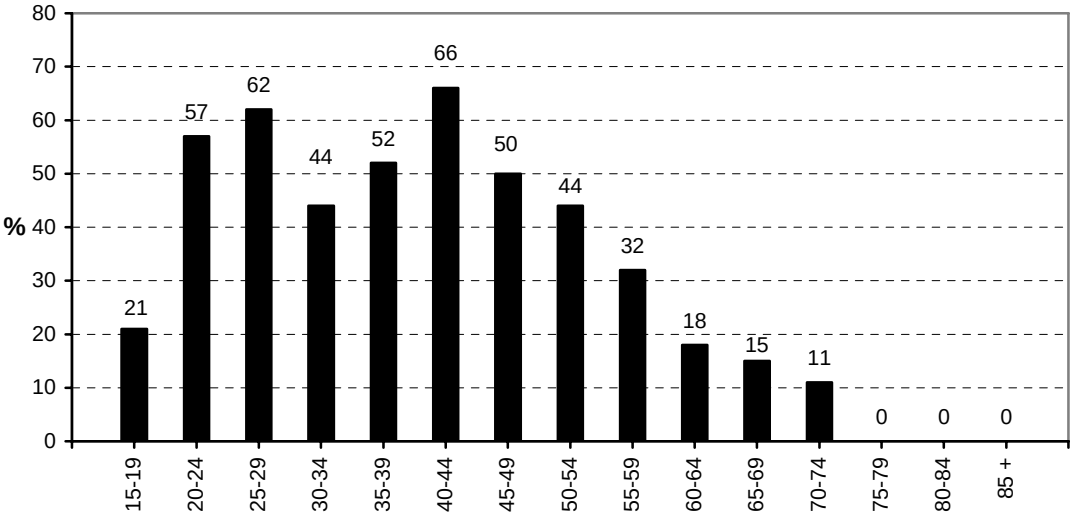

TABLE 2.12

2007 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

			Alcohol Concentration														
			.00		.01 - .07		.08 - .09		.10 +		Alcohol Concentration						
Age	Killed	Tested	number	percent	number	percent	number	percent	number	percent	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-.24	.25 +
00 - 14	0	0	0		0		0		0		0	0	0	0	0	0	0
15	2	2	2		0		0		0		2	0	0	0	0	0	0
16	7	7	5		0		0		2		5	0	0	2	0	0	0
17	8	7	6		0		0		1		6	0	0	0	0	1	0
18	11	10	8		1		0		1		8	1	0	0	1	0	0
19	8	8	6		0		0		2		6	0	0	1	0	0	1
20	11	9	5		0		2		2		5	0	2	0	1	1	0
Under 21	47	43	32		1		2		8		32	1	2	3	2	2	1
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	36	34	27	79.4	1	2.9	0	0.0	6	17.6	27	1	0	3	1	1	1
20 - 24	51	42	18	42.9	1	2.4	3	7.1	20	47.6	18	0	4	1	5	12	2
25 - 29	31	29	11	37.9	0	0.0	2	6.9	16	55.2	11	0	2	3	7	2	4
30 - 34	19	18	10	55.6	2	11.1	0	0.0	6	33.3	10	2	0	1	2	0	3
35 - 39	30	27	13	48.2	1	3.7	0	0.0	13	48.2	13	0	1	4	2	4	3
40 - 44	34	32	11	34.4	2	6.2	2	6.2	17	53.1	11	0	4	1	5	4	7
45 - 49	36	30	15	50.0	3	10.0	0	0.0	12	40.0	15	2	1	0	5	5	2
50 - 54	19	16	9	56.2	2	12.5	0	0.0	5	31.2	9	1	1	0	1	2	2
55 - 59	29	25	17	68.0	0	0.0	0	0.0	8	32.0	17	0	0	1	2	2	3
60 - 64	21	17	14	82.4	2	11.8	0	0.0	1	5.9	14	1	1	0	0	1	0
65 - 69	14	13	11	84.6	0	0.0	0	0.0	2	15.4	11	0	0	0	1	1	0
70 - 74	24	18	16	88.9	1	5.6	0	0.0	1	5.6	16	0	1	0	0	1	0
75 - 79	14	13	13	100.0	0	0.0	0	0.0	0	0.0	13	0	0	0	0	0	0
80 - 84	12	11	11	100.0	0	0.0	0	0.0	0	0.0	11	0	0	0	0	0	0
85 +	11	11	11	100.0	0	0.0	0	0.0	0	0.0	11	0	0	0	0	0	0
Total	381	336	207	61.6	15	4.5	7	2.1	107	31.8	207	7	15	14	31	35	27

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

TABLE 2.13

2007 ALCOHOL - RELATED CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	14	148	188	350	14	191
February	8	148	195	351	8	214
March	13	165	164	342	14	235
April	10	165	150	325	10	241
May	13	213	130	356	14	282
June	25	207	167	399	27	323
July	13	227	129	369	15	348
August	21	219	173	413	32	454
September	14	197	178	389	14	286
October	12	185	152	349	13	255
November	14	159	201	374	15	236
December	13	136	220	369	14	187
Total	170	2,169	2,047	4,386	190	3,252

TABLE 2.14

2007 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban Interstate	7	169	242	418	18	382
Rural Interstate	3	32	33	68	3	44
Urban US Trunk Hwy	4	101	101	206	5	145
Rural US Trunk Hwy	17	107	81	205	18	147
Urban MN Trunk Hwy	7	175	167	349	8	269
Rural MN Trunk Hwy	30	224	109	363	32	336
County State Aid Hwy	68	672	490	1230	71	977
County Road	7	86	51	144	7	110
Township Road	14	101	54	169	14	162
Local Street	13	495	705	1213	14	670
Other	0	7	14	21	0	10
Total	170	2,169	2,047	4,386	190	3,252

FIGURE 2.04

2007 Alcohol-Related Crashes by Time of Day

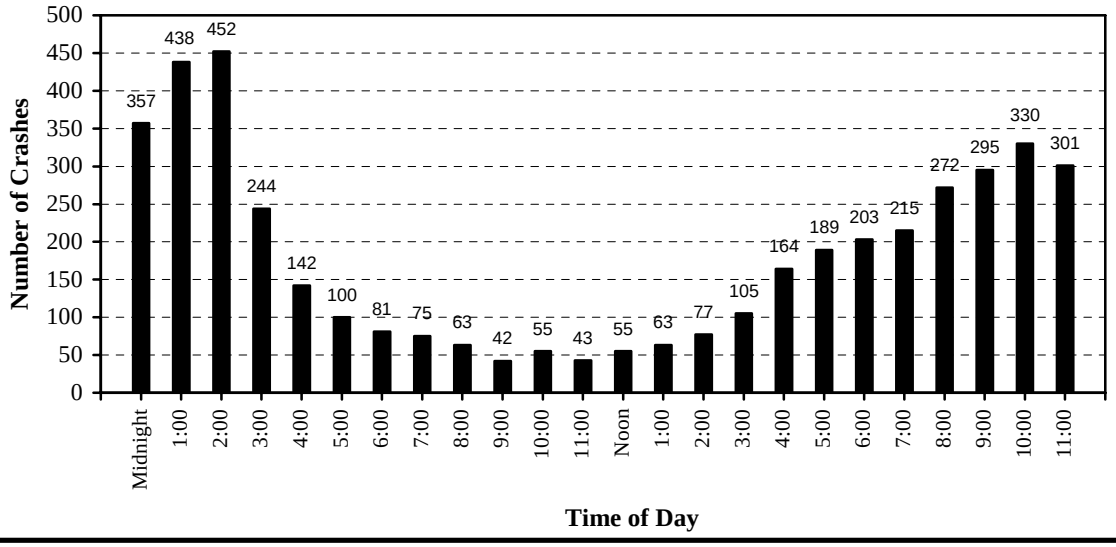

FIGURE 2.05

2007 Alcohol-Related Crashes by Day of Week

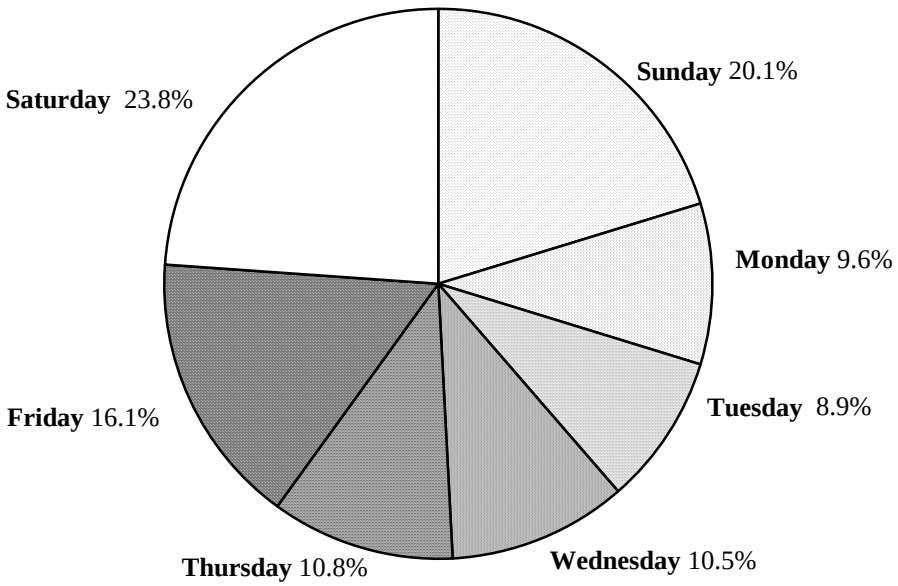

TABLE 2.15

2007 ALCOHOL-RELATED CRASHES BY TIME OF DAY AND DAY OF WEEK

Hour Beginning	Sun-day	Mon-day	Tues-day	Wednes-day	Thurs-day	Fri-day	Satur-day	Total Crashes	Total Killed	Total Injured
Midnight	95	31	25	33	33	61	79	357	14	244
1:00 AM	116	37	33	36	46	51	119	438	23	256
2:00 AM	122	28	27	29	50	59	137	452	11	322
3:00 AM	71	22	13	20	16	34	68	244	13	162
4:00 AM	49	15	8	10	11	11	38	142	5	97
5:00 AM	23	10	4	8	4	12	39	100	7	71
6:00 AM	26	4	4	9	11	5	22	81	4	50
7:00 AM	24	7	5	8	2	10	19	75	6	49
8:00 AM	8	6	7	3	9	12	18	63	2	35
9:00 AM	14	4	2	4	4	6	8	42	2	25
10:00 AM	18	6	9	1	3	10	8	55	3	32
11:00 AM	13	5	2	1	7	6	9	43	0	33
Noon	13	4	8	7	8	5	10	55	5	41
1:00 PM	12	3	6	7	9	10	16	63	3	48
2:00 PM	13	13	5	10	8	9	19	77	3	59
3:00 PM	19	14	10	12	11	12	27	105	5	78
4:00 PM	29	14	21	15	24	30	31	164	5	126
5:00 PM	27	21	19	28	19	38	37	189	11	155
6:00 PM	34	25	23	30	20	35	36	203	16	300
7:00 PM	25	28	22	25	33	40	42	215	9	153
8:00 PM	35	35	24	39	34	49	56	272	11	218
9:00 PM	26	26	49	40	31	64	59	295	12	233
10:00 PM	29	30	35	47	36	76	77	330	12	254
11:00 PM	39	31	30	37	42	59	63	301	8	200
Unknown	3	4	1	3	3	4	7	25	0	11
Total	883	423	392	462	474	708	1,044	4,386	190	3,252

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2007 CRASHES

Safety benefits and 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. In 1993, the Legislature increased the fine for not using a child car seat from $25 to $50. The state's safety belt law went into effect in 1986 and was amended in 1988 and 1991. It requires all front seat occupants (and children ages four through ten, regardless of seating position) to wear safety belts.

Tables in this section focus on the use of safety equipment by people in crashes who were occupants of vehicles normally equipped with safety equipment (e.g., passenger cars and trucks rather than motorcycles). The data pose a problem in that safety equipment use was reported as "unknown" for 9.8% of the persons killed and 11.6% of the persons injured in 2007. However, these percentages of 'unknowns' have been decreasing over the past few years as data collection improves.

Safety belt 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 vehicle occupants used belts. The use rate jumped to 33% after the 1986 law took effect, to 47% after a $10 fine was added in 1988, and to 53% after the fine was increased to $25 in 1991. Educational and special traffic enforcement strategies also have benefits. After the introduction of *Safe & Sober* (an intensive traffic safety enforcement and public information campaign), the use rate jumped from about 57% in 1994 to 65% in 1995. Other states--especially those with primary seat belt laws--have still higher rates.

Occupant fatalities increase in 2007

In 2007, 399 motor vehicle occupants died in crashes, a 7% increase from the previous year. (The twelve 35W bridge deaths were motor vehicle occupants). Vehicle occupants injured (31,356) decreased 1% from 2006. This figure conceals a beneficial trend that started in the mid-1980s. Specifically, 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 2007, that number decreased to 1,233. 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 severe and permanent brain damage and dismemberment.

Seat belt use in Minnesota jumps

According to the August 2007 observational survey, belt use among front-seat occupants averaged 88% across Minnesota. The usage percent in 2006 was 83%. However, the 2007 survey was conducted after the 35W bridge collapse. This likely inflated the 2007 result.

Northwest region/Township roads

Among the motor vehicle occupants that were killed or injured in the southwest region of Minnesota, 21% were not using a restraint. This is the highest rate of non-use of any region. The northwest region was second highest: 20%. The seven-county metro area had the lowest rate of non-use: just 7%. Concerning types of roadway, 'Township Roads' had the highest percentage of non-seat belt use (30%).

Airbag update: always wear your seat belt

In 2007, airbag deployment was reported 14,298 times when the occupant was also wearing a seat belt. 53 percent of these incidents resulted in no apparent injury. Airbags deployed 1,292 times when occupants were not wearing seat belts. Only 28% of these cases resulted in no apparent injury.

TABLE 3.01

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

Date of Survey	Overall	Area of State		Class of Roadway	
		Metro	Non-Metro	Major Roads	Local Roads
June 1986	20%	30%	15%	23%	17%
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%	82%	79%	83%	69%	76%	83%
August 2004	82	83	87	87	71	78	88
August 2005	84	86	87	83	75	80	89
August 2006	83	83	87	88	76	79	88
August 2007**	88	89	90	90	81	84	92

* 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, 2007

	Killed		Severe Injury		Moderate Injury		Minor Injury		Total Persons Killed or Injured	
Ejection Status	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Not Ejected	279	0.9	1,005	3.4	7,130	24.3	20,940	71.3	29,354	100.0%
Partly Ejected	22	23.2	19	20.0	31	32.6	23	24.2	95	100.0
Ejected	92	16.3	143	25.3	183	32.4	147	26.0	565	100.0
Not Stated	6	0.3	66	3.8	386	22.2	1,283	73.7	1,741	100.0
Total	399	1.3	1,233	3.9	7,730	24.3	22,393	70.5	31,755	100.0%

TABLE 3.03

MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2007

		Injured			
Age Group	**Killed**	**Severe**	**Moderate**	**Minor**	**Total**
00 - 04	4	8	69	403	480
05 - 09	1	24	102	408	534
10 - 14	4	23	164	530	717
15 - 19	42	198	1,301	3,281	4,780
20 - 24	62	200	1,169	2,985	4,354
25 - 29	35	118	863	2,352	3,333
30 - 34	20	79	550	1,648	2,277
35 - 39	31	70	536	1,663	2,269
40 - 44	33	97	516	1,645	2,258
45 - 49	28	103	569	1,745	2,417
50 - 54	14	69	432	1,406	1,907
55 - 59	19	65	357	1,148	1,570
60 - 64	21	37	247	745	1,029
65 - 69	17	28	178	499	705
70 - 74	27	29	176	387	592
75 - 79	14	28	151	371	550
80 - 84	15	18	122	274	414
85 & Older	12	20	75	192	287
Not Stated	0	19	153	711	883
Total	399	1,233	7,730	22,393	31,356

FIGURE 3.01
Safety Equipment Use Among Motor Vehicle Occupants Killed or Injured, by Age, 2007

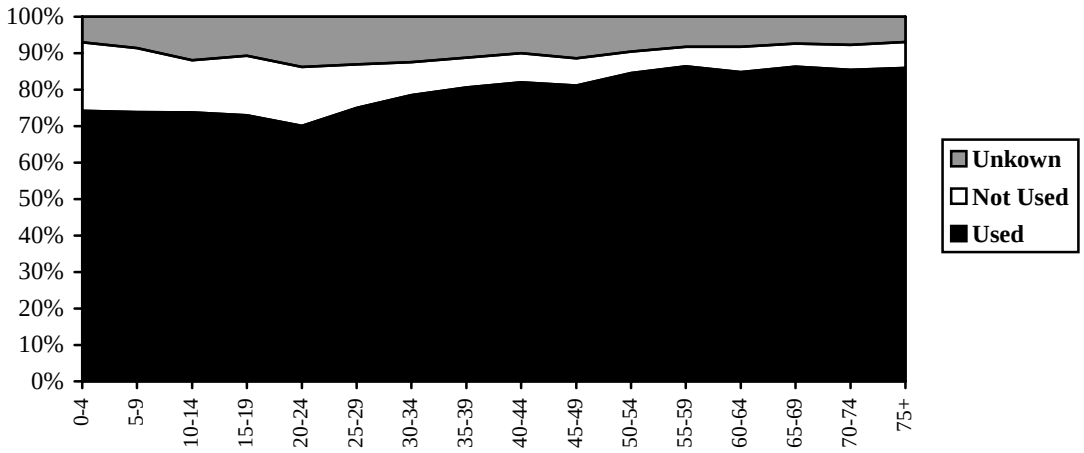

TABLE 3.04

SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS, BY GENDER AND INJURY SEVERITY, 2007

	Killed			Injured						
				Severe		Moderate		Minor		
	Female	Male	Total	Female	Male	Female	Male	Female	Male	Total
Used	79	86	165	362	278	3,055	2,441	10,597	7,560	24,454
Not Used	51	144	195	126	261	493	690	749	936	3,276
Unknown	11	28	39	70	125	422	562	1,085	1,166	3,626
Total	141	258	399	558	664	3,970	3,693	12,431	9,662	31,356

Note: Gender was not reported for 378 persons injured (mostly those with minor injuries), causing the "Total" to be 378 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, 2007

Age Group	Restraint Use	Killed		Injured							
				Severe		Moderate		Minor		Total	
		#	%	#	%	#	%	#	%	#	%
00 - 03	Used	3	100.0	4	57.1	36	65.4	241	73.7	281	72.2
Years	Not Used	0	0.0	2	28.6	15	27.3	62	19.0	79	20.3
	Unknown	0	0.0	1	14.3	4	7.3	24	7.3	29	7.5
	Subtotal	3	100.0	7	100.0	55	100.0	327	100.0	389	100.0
04 - 10	Used	2	100.0	17	63.0	96	65.3	445	77.8	558	74.8
Years	Not Used	0	0.0	6	22.2	35	23.8	84	14.7	125	16.8
	Unknown	0	0.0	4	14.8	16	10.9	43	7.5	63	8.4
	Subtotal	2	100.0	27	100.0	147	100.0	572	100.0	746	100.0
Total	Used	5	100.0	21	61.8	132	65.4	686	76.3	839	73.9
00 - 10	Not Used	0	0.0	8	23.5	50	24.8	146	16.2	204	18.0
Years	Unknown	0	0.0	5	14.7	20	9.9	67	7.4	92	8.1
	Subtotal	5	100.0	34	100.0	202	100.0	899	100.0	1,135	100.0
00 - 04	Used	4	100.0	4	50.0	44	63.8	307	76.2	355	74.0
Years	Not Used	0	0.0	3	37.5	20	29.0	68	16.9	91	19.0
	Unknown	0	0.0	1	12.5	5	7.2	28	7.0	34	7.1
	Subtotal	4	100.0	8	100.0	69	100.0	403	100.0	480	100.0
05 - 09	Used	1	100.0	15	62.5	68	66.7	311	76.2	394	73.8
Years	Not Used	0	0.0	5	20.8	23	22.6	66	16.2	94	17.6
	Unknown	0	0.0	4	16.7	11	10.8	31	7.6	46	8.6
	Subtotal	1	100.0	24	100.0	102	100.0	408	100.0	534	100.0
10 - 14	Used	0	0.0	10	43.5	103	62.8	419	79.1	532	74.2
Years	Not Used	3	75.0	11	47.8	30	18.3	59	11.1	100	14.0
	Unknown	1	25.0	2	8.7	31	18.9	52	9.8	85	11.8
	Subtotal	4	100.0	23	100.0	164	100.0	530	100.0	717	100.0
15 - 19	Used	18	42.9	76	38.4	864	66.4	2,562	78.1	3,502	73.3
Years	Not Used	20	47.6	90	45.4	283	21.8	391	11.9	764	16.0
	Unknown	4	9.5	32	16.2	154	11.8	328	10.0	514	10.8
	Subtotal	42	100.0	198	100.0	1,301	100.0	3,281	100.0	4,780	100.0
20 - 24	Used	12	19.4	75	37.5	738	63.1	2,272	76.1	3,085	70.8
Years	Not Used	39	62.9	88	44.0	255	21.8	330	11.1	673	15.5
	Unknown	11	17.7	37	18.5	176	15.1	383	12.8	596	13.7
	Subtotal	62	100.0	200	100.0	1,169	100.0	2,985	100.0	4,354	100.0
25 - 29	Used	11	31.4	53	44.9	581	67.3	1,882	80.0	2,516	75.5
Years	Not Used	23	65.7	40	33.9	151	15.5	186	7.9	377	11.3
	Unknown	1	2.9	25	21.2	131	15.2	284	12.1	440	13.2
	Subtotal	35	100.0	118	100.0	863	100.0	2,352	100.0	3,333	100.0
30 - 34	Used	4	20.0	40	50.6	388	70.6	1,372	83.2	1,800	79.0
Years	Not Used	13	65.0	25	31.6	71	12.9	98	6.0	194	8.5
	Unknown	3	15.0	14	17.7	91	16.6	178	10.8	283	12.4
	Subtotal	20	100.0	79	100.0	550	100.0	1,648	100.0	2,277	100.0
35 - 39	Used	12	38.7	32	45.7	396	73.9	1,415	85.1	1,843	81.2
Years	Not Used	16	51.6	25	35.7	65	12.1	80	4.8	170	7.5
	Unknown	3	9.7	13	18.6	75	14.0	168	10.1	256	11.3
	Subtotal	31	100.0	70	100.0	536	100.0	1,663	100.0	2,269	100.0

TABLE 3.05 CONTINUED

SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2007

Age Group	Restraint Use	Killed		Injured: Severe		Injured: Moderate		Injured: Minor		Injured: Total	
		#	%	#	%	#	%	#	%	#	%
40 - 44	Used	10	30.3	58	59.8	387	75.0	1,425	86.6	1,870	82.8
Years	Not Used	20	60.6	19	19.6	62	12.0	80	4.9	161	7.1
	Unknown	3	9.1	20	20.6	67	13.0	140	8.5	227	10.0
	Subtotal	33	100.0	97	100.0	516	100.0	1,645	100.0	2,258	100.0
45 - 49	Used	14	50.0	53	51.5	437	76.8	1,480	84.8	1,970	81.5
Years	Not Used	13	46.4	30	29.1	56	9.8	84	4.8	170	7.0
	Unknown	1	3.6	20	19.4	76	13.4	181	10.4	277	11.5
	Subtotal	28	100.0	103	100.0	569	100.0	1,745	100.0	2,417	100.0
50 - 54	Used	8	57.1	49	71.0	343	79.4	1,224	87.1	1,616	84.7
Years	Not Used	6	42.9	12	17.4	45	10.4	50	3.6	107	5.6
	Unknown	0	0.0	8	11.6	44	10.2	132	9.4	184	9.6
	Subtotal	14	100.0	69	100.0	432	100.0	1,406	100.0	1,907	100.0
55 - 59	Used	7	36.8	50	76.9	304	85.2	1,012	88.2	1,366	87.0
Years	Not Used	9	47.4	10	15.4	25	7.0	41	3.6	76	4.8
	Unknown	3	15.8	5	7.7	28	7.8	95	8.3	128	8.2
	Subtotal	19	100.0	65	100.0	357	100.0	1,148	100.0	1,570	100.0
60 - 64	Used	14	66.7	28	75.7	201	81.4	648	87.0	877	85.2
Years	Not Used	6	28.6	6	16.2	26	10.5	34	4.6	66	6.4
	Unknown	1	4.8	3	8.1	20	8.1	63	8.5	86	8.4
	Subtotal	21	100.0	37	100.0	247	100.0	745	100.0	1,029	100.0
65 - 69	Used	5	29.4	22	78.6	145	81.5	451	90.4	618	87.7
Years	Not Used	10	58.8	1	3.6	18	10.1	17	3.4	36	5.1
	Unknown	2	11.8	5	17.9	15	8.4	31	6.2	51	7.2
	Subtotal	17	100.0	28	100.0	178	100.0	499	100.0	705	100.0
70 - 74	Used	17	63.0	18	62.1	151	85.8	343	88.6	512	86.5
Years	Not Used	5	18.5	8	27.6	9	5.1	20	5.2	37	6.2
	Unknown	5	18.5	3	10.3	16	9.1	24	6.2	43	7.3
	Subtotal	27	100.0	29	100.0	176	100.0	387	100.0	592	100.0
75 &	Used	28	68.3	53	80.3	294	84.0	738	87.6	1,085	82.9
Older	Not Used	12	29.3	9	13.6	32	9.1	39	4.6	80	6.4
	Unknown	1	2.4	4	6.1	24	6.9	65	7.7	93	7.4
	Subtotal	41	100.0	66	100.0	350	100.0	842	100.0	1,258	100.0
Age	Used	0	0.0	8	42.1	89	58.9	416	58.9	513	58.6
Not	Not Used	0	0.0	7	36.8	17	11.3	56	7.9	80	9.1
Stated	Unknown	0	0.0	4	21.0	45	29.8	234	33.1	283	32.3
	Subtotal	0	0.0	19	100.0	151	100.0	706	100.0	876	100.0
All	Used	165	41.4	644	52.2	5,533	71.6	18,277	81.6	24,454	78.0
Ages	Not Used	195	48.9	389	31.6	1,188	15.4	1,699	7.6	3,276	10.4
	Unknown	39	9.8	200	16.2	1,009	13.0	2,417	10.8	3,626	11.6
	Subtotal	399	100.0	1,233	100.0	7,730	100.0	22,393	100.0	31,356	100.0

(Persons aged 0 through 3 and 4 through 10 years old are categorized in separate groups because Minnesota law makes special provisions for these age groups. Percentages may not sum to 100.0% due to rounding.)

TABLE 3.06

PERCENT OF INJURED OR KILLED MOTOR VEHICLE OCCUPANTS WHO USED SAFETY EQUIPMENT, BY INJURY SEVERITY AND YEAR, 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Killed										
Used	30.3	31.6	29.4	31.1	37.9	39.4	39.5	40.2	40.0	41.4
Not Used	48.7	50.0	54.4	54.8	55.0	48.9	51.8	51.2	52.0	48.9
Unknown	21.0	18.4	16.2	14.1	7.2	11.8	8.7	8.6	8.0	9.8
Injured										
Severe Injuries										
Used	43.8	44.9	45.7	47.1	46.0	NA	49.3	49.6	49.9	52.2
Not Used	36.0	34.2	33.5	34.4	34.5	NA	32.8	30.8	32.8	31.6
Unknown	20.1	20.9	20.8	18.5	19.5	NA	17.9	19.6	17.3	16.2
Moderate Injuries										
Used	59.3	61.0	63.1	65.3	65.1	NA	70.3	70.9	69.0	71.6
Not Used	26.0	24.6	22.9	21.1	21.1	NA	17.4	15.9	16.8	15.4
Unknown	14.7	14.4	14.0	13.5	13.8	NA	12.4	13.2	14.2	13.0
Minor Injuries										
Used	69.9	71.1	72.6	73.6	73.7	NA	78.8	80.6	80.2	81.6
Not Used	13.4	12.7	11.9	11.2	10.6	NA	9.7	8.8	8.6	7.6
Unknown	16.7	16.2	15.5	15.2	15.7	NA	11.4	10.6	11.3	10.8
Total Injured										
Used	64.4	65.7	67.6	69.2	69.0	NA	74.8	76.6	76.1	78.0
Not Used	19.4	18.4	17.1	16.0	15.7	NA	13.2	11.7	11.6	10.4
Unknown	16.2	15.9	15.3	14.8	15.3	NA	12.0	11.7	12.3	11.6

TABLE 3.07

SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED AND INJURED, BY ROADWAY TYPE, 2007

	Used		Not Used		Unknown		Total	
Roadway Type	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Interstate	3,315	86.1	299	7.8	235	6.1	3,849	100.0%
US Trunk Hwy	3,419	81.3	467	11.1	318	7.6	4,204	100.0%
MN Trunk Hwy	5,085	80.0	738	11.6	529	8.3	6,352	100.0%
CSAH	7,113	76.1	981	10.5	1,251	13.4	9,345	100.0%
County Road	372	65.4	113	19.9	84	14.8	569	100.0%
Township Road	375	55.6	204	30.3	95	14.1	674	100.0%
Local Street	4,885	73.2	646	9.7	1,140	17.1	6,671	100.0%
Other Road	55	60.4	23	25.3	13	14.3	91	100.0%
Total	24,619	77.5	3,471	10.9	3,665	11.5	31,755	100.0%

CSAH = County State Aid Highway

TABLE 3.08

SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED AND INJURED, BY REGION OF THE STATE, 2007

EMS Region	Percent Used	Percent Not Used	Percent Unknown	Number of People
Metropolitan	80.2	7.2	12.6	17,576
Central	77.1	12.8	10.1	4,301
Northeast	75.0	14.9	10.2	2,025
Northwest	67.7	19.7	12.6	852
South Central	71.9	15.6	12.6	1,386
Southeast	76.4	15.3	8.3	2,771
Southwest	68.4	21.4	10.2	1,693
West Central	72.9	15.6	11.5	1,151
Statewide	77.5	10.9	11.5	31,755

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

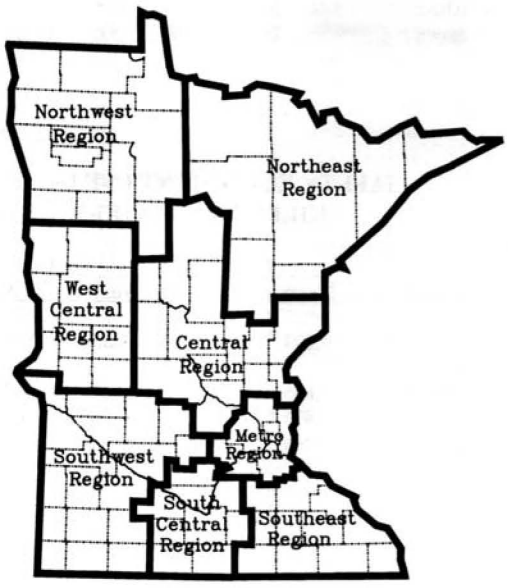

TABLE 3.09

AIRBAG DEPLOYMENTS, 2000 - 2007

		Airbag Deployed		Deployment Not Indicated			
Year	Injury Severity	Belt Used	Belt Not Used	Belt Used	Belt Not Used	Belt Use Unknown	Total
2000	Killed	28	27	125	256	84	520
	Severe Injury	132	38	1,022	809	524	2,525
	Moderate Injury	850	147	7,995	3,067	1,957	14,016
	Minor Injury	936	84	16,320	2,732	3,681	23,753
	No Apparent Injury	2,106	107	111,072	6,275	87,803	207,363
	Total	4,052	403	136,534	13,139	94,049	248,177
2001	Killed	22	23	121	229	65	460
	Severe Injury	149	51	960	760	436	2,356
	Moderate Injury	915	119	7,563	2,624	1,756	12,977
	Minor Injury	976	102	15,664	2,421	3,433	22,596
	No Apparent Injury	2,141	105	105,404	5,519	82,566	195,735
	Total	4,203	400	129,712	11,553	88,256	234,124
2002	Killed	41	28	165	271	39	544
	Severe Injury	140	57	882	710	433	2,222
	Moderate Injury	955	180	7,332	2,508	1,757	12,732
	Minor Injury	1,198	114	14,707	2,173	3,389	21,581
	No Apparent Injury	2,441	130	101,861	5,022	79,687	189,141
	Total	4,775	509	124,947	10,684	85,305	226,220
2003	Killed	86	67	121	190	62	526
	Severe Injury	NA	NA	NA	NA	NA	NA
	Moderate Injury	NA	NA	NA	NA	NA	NA
	Minor Injury	NA	NA	NA	NA	NA	NA
	No Apparent Injury	NA	NA	NA	NA	NA	NA
	Total	NA	NA	NA	NA	NA	NA
2004	Killed	85	66	97	173	40	461
	Severe Injury	381	181	560	444	342	1,908
	Moderate Injury	2,526	428	5,073	1,448	1,337	10,812
	Minor Injury	3,801	407	14,878	1,897	2,705	23,688
	No Apparent Injury	7,480	419	110,451	5,523	57,101	180,974
	Total	14,273	1,501	131,059	9,485	61,525	217,843
2005	Killed	74	75	103	150	38	440
	Severe Injury	308	147	457	328	302	1,542
	Moderate Injury	2,172	367	4,117	1,045	1,174	8,875
	Minor Injury	4,195	375	14,846	1,706	2,504	23,626
	No Apparent Injury	7,529	390	109,215	4,714	50,655	172,503
	Total	14,278	1,354	128,738	7,943	54,673	206,986
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	7,130	375	96,018	3,779	44,881	152,183
	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	7,535	361	104,297	3,783	43,270	159,246
	Total	14,298	1,292	122,153	6,323	46,935	191,001

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

Motorcycle crashes skyrocket
In 2007, there were 1,623 crashes that involved at least one motorcycle. This is the highest number of motorcycle crashes observed in Minnesota in the past seventeen years. In 1990, there were 1,735 motorcycle crashes, but then the number of crashes decreased throughout the decade.

In 2007, 1,498 motorcyclists were injured. This is also the highest number of motorcyclist injuries since 1990 when 1,605 motorcyclists were injured.

Fatalities decrease
Motorcyclist fatalities decreased in 2007. There were 61 killed motorcyclists recorded. This number is a 13% decrease from the previous year. Of the 61 killed motorcyclists, 58 were drivers and 3 were passengers. The decrease in motorcyclist deaths is good news but in reality, the number of overall motorcyclist crashes, fatalities, and injuries have been rapidly increasing this decade. There is some evidence for the increase in motorcycle crashes; the number of registered motorcycles has almost doubled since 1996 with older people returning to motorcycling. In fact, 72% of the killed and 52% of the injured motorcyclists in 2007 were 40 years or older.

Alcohol use among fatals increase
State law requires that drivers who die in traffic crashes be tested for blood alcohol level. In 2007, 58 motorcycle drivers were killed and 52 of them were tested. Eighteen (35%) of the 52 drivers tested positive for alcohol, and almost one-third (29%) tested at .08 or greater.

Greater crash severity
When a motorcycle is involved in a traffic crash, the chances of severe injury are greatly increased. In fact, 3.7 of every 100 motorcycle crashes in 2007 were fatal and nearly one out of every five motorcyclists injured was injured severely.

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 collision. In 2007, only 11 (18%) of the 61 motorcycle riders killed were known to be wearing a helmet. Of the 1,498 motorcyclists injured, only 554 (37%) were recorded as wearing a helmet.

Operator training is essential
A large number of middle-aged people are returning to motorcycling, and evidently, they are returning without proper operator training. In 2007, 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. This surely indicates 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 2007, 57 of the 61 motorcyclists killed, and 1,250 of the 1,498 injured, were male. Males account for 83% of all motorcyclists killed or injured.

Contributing factors:
Speeding motorcyclists and failing to yield by other vehicles
As noted, over half of motorcycle crashes are single-vehicle crashes. In these crashes, the factors that reporting officers cite most often are illegal or unsafe speed (22%), driver inexperience (15%), and driver inattention (12%). In crashes that do involve another motor vehicle, the reporting officers more often associate contributing factors with the other driver than with the motorcyclist. For other drivers, failure to yield right of way (37%) and driver inattention or distraction (20%) are cited most frequently.

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1980 - 2007

	Motorcycle Crashes				Killed		Injured				Mcy Deaths per 10,000	Fatal Crash Rate Per 100 Crashes	
Year	Fatal	Injury	PDO*	Total	Mcy	Other	Mcy	Other	Licensed Operators	Registered Motorcycles	Reg. Mcy	For Mcy	For all crashes
1980	112	2,728	468	3,308	121	1	3,359	34	222,330	157,815	7.7	3.4	0.7
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
Record High*	112	2,728	537	3,308	121	9	3,359	207	369,623	209,591	7.7	4.7	0.8
(year)	(1980)	(1980)	(1976)	(1980)	(1980)	(1975)	(1980)	(1984)	(2007)	(2007)	(1980)	(2006)	(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

2007 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	30	572	131	733	31	626
Parked Motor Vehicle	1	21	18	40	1	19
Bicycle	0	2	0	2	0	2
Pedestrian	0	5	0	5	0	3
Deer	6	99	4	109	6	112
Other Animal	0	13	2	15	0	13
Train	0	0	0	0	0	0
Fixed Object	13	193	10	216	13	214
Non-Collision:						
Overturn/Rollover	9	219	3	231	9	241
Fire/Explosion	0	1	1	2	0	1
Submersion	0	0	2	2	0	0
Other / Unknown	1	243	24	268	1	267
Total	60	1,368	195	1,623	61	1,498

TABLE 4.03

2007 MOTORCYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
100,000 and Over	1	170	58	229	1	176
50,000 - 99,999	2	170	25	197	2	189
25,000 - 49,999	1	160	12	173	1	170
10,000 - 24,999	9	236	31	276	9	251
5,000 - 9,999	2	89	6	97	2	93
2,500 - 4,999	2	69	12	83	2	74
1,000 - 2,499	2	26	3	31	2	25
Under 1,000	41	448	48	537	42	520
Total	60	1,368	195	1,623	61	1,498

TABLE 4.04

2007 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	1	0	1	0	1
March	1	35	9	45	1	36
April	5	118	16	139	5	134
May	8	174	29	211	8	187
June	7	260	26	293	8	287
July	13	294	39	346	13	331
August	9	182	29	220	9	196
September	10	178	26	214	10	189
October	6	101	18	125	6	111
November	1	24	3	28	1	25
December	0	1	0	1	0	1
Total	60	1,368	195	1,623	61	1,498

FIGURE 4.01
2007 Motorcycle Crashes by Time of Day

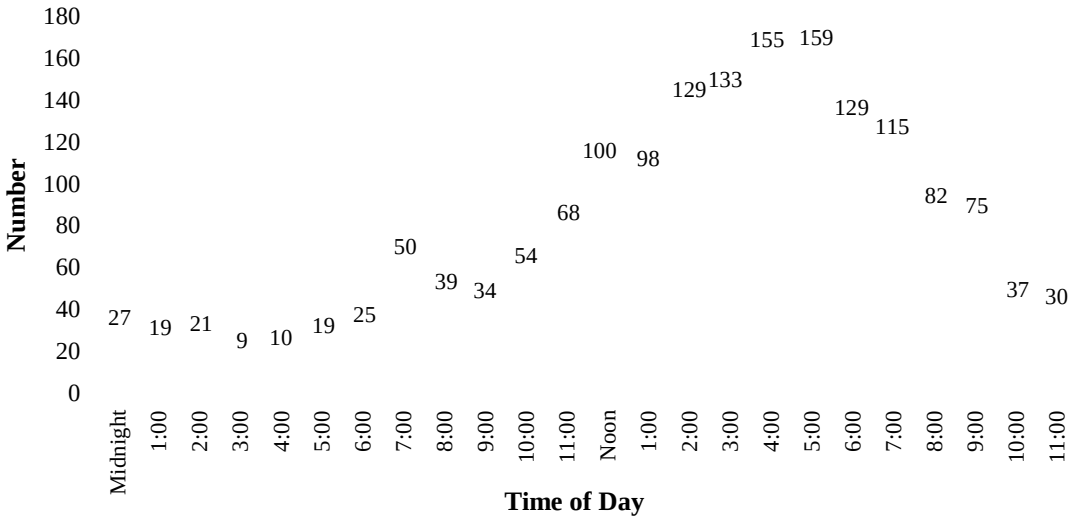

TABLE 4.05

2007 MOTORCYCLE CRASHES BY TIME AND DAY

Hour Beginning	Total Crashes	Fatal Crashes	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
			All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal	All	Fatal
Midnight	27	2	8	2	5	0	1	0	2	0	2	0	4	0	5	0
1:00	19	0	5	0	0	0	2	0	2	0	1	0	0	0	9	0
2:00	21	0	7	0	0	0	1	0	2	0	1	0	2	0	8	0
3:00	9	0	5	0	1	0	0	0	0	0	3	0	0	0	0	0
4:00	10	2	1	1	2	1	0	0	3	0	2	0	1	0	1	0
5:00	19	3	1	0	2	0	5	1	2	0	2	0	3	1	4	1
6:00	25	0	1	0	2	0	0	0	5	0	7	0	7	0	3	0
7:00	50	2	2	0	4	0	15	1	5	0	10	1	10	0	4	0
8:00	39	2	4	0	1	0	4	0	10	0	7	1	10	1	3	0
9:00	34	0	1	0	6	0	3	0	4	0	4	0	8	0	8	0
10:00	54	1	11	0	4	0	5	0	6	0	4	0	5	0	19	1
11:00	68	3	22	2	7	0	7	0	3	0	6	0	6	1	17	0
Noon	100	4	16	0	10	0	8	2	19	0	9	0	12	1	26	1
1:00	98	1	18	0	10	0	9	0	8	0	10	1	22	0	21	0
2:00	129	1	23	0	12	0	10	0	11	0	18	0	15	0	40	1
3:00	133	5	23	1	9	1	7	0	16	2	18	0	23	1	37	0
4:00	155	7	25	1	14	1	13	0	16	0	23	1	35	1	29	3
5:00	159	6	26	3	16	0	14	0	19	0	25	0	28	2	31	1
6:00	129	6	17	2	12	0	10	0	15	1	14	0	38	2	23	1
7:00	115	6	14	0	12	0	10	0	17	2	19	2	15	0	28	2
8:00	82	3	9	1	6	0	9	0	10	0	15	1	15	1	18	0
9:00	75	3	5	0	10	0	9	0	9	2	15	0	14	1	13	0
10:00	37	2	5	1	3	0	4	0	6	0	6	0	5	0	8	1
11:00	30	1	1	0	4	0	5	0	3	1	5	0	4	0	8	0
Unknown	6	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
Total	1,623	60	250	14	152	3	151	4	193	8	226	7	285	12	366	12

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2007

	Killed			Injured											
				Severe			Moderate			Minor			Total		
Age Group	M	F	Total	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	0	1	1	3	1	4	3	2	5
10 - 14	0	0	0	0	0	0	2	1	3	2	0	2	4	1	5
15 - 19	2	0	2	13	4	17	48	6	54	27	5	33	88	15	104
20 - 24	4	0	4	25	4	29	84	14	98	79	6	85	188	24	212
25 - 29	3	0	3	15	3	18	72	9	82	40	4	44	127	16	144
30 - 34	1	2	3	17	2	19	45	10	55	31	9	40	93	21	114
35 - 39	5	0	5	24	4	28	49	8	57	40	4	44	113	16	129
40 - 44	6	0	6	22	6	28	65	17	82	38	16	54	125	39	164
45 - 49	9	1	10	30	5	35	71	20	91	56	17	73	157	42	199
50 - 54	7	0	7	20	8	28	81	17	98	54	10	64	155	35	190
55 - 59	11	1	12	34	6	40	47	9	56	27	7	34	108	22	130
60 - 64	6	0	6	8	1	9	22	3	25	14	3	17	44	7	51
65 - 69	2	0	2	4	0	4	13	2	15	12	0	12	29	2	31
70 & Older	1	0	1	4	0	4	7	0	7	5	0	5	16	0	16
Not Stated	0	0	0	0	0	0	0	0	0	0	2	4	0	2	4
Total	57	4	61	216	43	259	606	117	724	428	84	515	1,250	244	1,498

* Within injury severity, where rows do not add across to total, gender was not reported on the accident report form.

FIGURE 4.02
Motorcyclists Killed or Injured by Age and Gender, 2007

TABLE 4.07

HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 1998 - 2007

		Helmet Used		Helmet Not Used		Helmet Use Unknown		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Killed									
	1998	3	7.5	27	67.5	10	25.0	40	100.0
	1999	8	27.6	18	62.1	3	10.3	29	100.0
	2000	6	17.1	27	77.1	2	5.7	35	100.0
	2001	9	21.4	30	71.4	3	7.1	42	100.0
	2002	6	12.8	30	63.8	11	23.4	47	100.0
	2003	18	29.0	36	58.1	8	12.9	62	100.0
	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
Injured									
	1998	310	31.4	483	48.9	194	19.7	987	100.0
	1999	282	28.4	533	53.8	176	17.8	991	100.0
	2000	317	30.5	519	50.0	203	19.5	1,039	100.0
	2001	379	34.6	541	49.4	174	15.9	1,094	100.0
	2002	350	32.7	534	49.9	187	17.5	1,071	100.0
	2003	NA	NA	NA	NA	NA	NA	NA	NA
	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

TABLE 4.08

ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 1998 - 2007

	Valid Endorsement*		Permit Only		Canceled, Suspended, Revoked		No Endorsement		Total** For Year	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1998	34	75.6	1	2.2	4	8.9	6	13.3	45	100.0
1999	28	90.3	0	0.0	0	0.0	3	9.7	31	100.0
2000	30	83.3	0	0.0	2	5.6	4	11.1	36	100.0
2001	32	78.0	0	0.0	4	9.8	5	12.2	41	100.0
2002	38	79.2	0	0.0	5	10.4	5	10.4	48	100.0
2003	45	73.8	2	3.3	5	8.2	9	14.8	61	100.0
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

* 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 MOTORCYCLE DRIVERS, 1998 – 2007

			Alcohol Concentration*			
Year	**Killed**	**Tested**	**(.00)**	**(.01 - .07)**	**(.08-.09)**	**(.10 or more)**
1998	36	35	15 (43%)	1 (3%)	1 (3%)	18 (51%)
1999	28	22	12 (55%)	0 (0%)	2 (9%)	8 (36%)
2000	32	32	22 (69%)	1 (3%)	0 (0%)	9 (28%)
2001	36	31	17 (55%)	5 (16%)	1 (3%)	8 (26%)
2002	41	40	24 (60%)	2 (5%)	1 (3%)	13 (32%)
2003	53	46	27 (59%)	4 (9%)	2 (4%)	13 (28%)
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%)

*Percentages are based on those motorcycle drivers tested.

TABLE 4.10

2007 MOTORCYCLE DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

			Alcohol Concentration*			Alcohol Concentration					
Age	**Killed**	**Tested**	**(.01 - .07)**	**(.08-.09)**	**(.10 +)**	**.00**	**.01-.04**	**.05-.09**	**.10-.14**	**.15-.19**	**.20-.24**	**.25 & Over**
14 & Younger	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
16	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
18	0	0	0	0	0	0	0	0	0	0	0	0
19	2	2	0	0	0	2	0	0	0	0	0	0
20	1	1	0	0	0	1	0	0	0	0	0	0
Under 21	3	3	0	0	0	3	0	0	0	0	0	0
14 & Younger	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	2	2	0	0	0	2	0	0	0	0	0	0
20 – 24	4	3	0	0	2	1	0	0	0	1	1	0
25 – 29	3	3	0	1	0	2	0	1	0	0	0	0
30 – 34	1	1	0	0	0	1	0	0	0	0	0	0
35 – 39	5	5	0	0	2	3	0	0	1	0	1	0
40 – 44	6	6	1	0	3	2	0	1	1	1	1	0
45 – 49	10	9	1	0	3	5	0	1	0	1	1	1
50 – 54	7	5	0	0	3	2	0	0	0	1	1	1
55 – 59	11	9	0	0	1	8	0	0	0	0	0	1
60 & Older	9	9	1	0	0	8	0	1	0	0	0	0
Total	58	52	3	1	14	34	0	4	2	4	5	3

* Percentages are based on those motorcycle drivers tested.

TABLE 4.11

CONTRIBUTING FACTORS IN 2007 MOTORCYCLE CRASHES

	Single Vehicle Crashes		*Multi-Vehicle Crashes*			
	Attributed to Motorcycle Drivers		**Attributed to Motorcycle Drivers**		**Attributed to Other Drivers**	
Contributing Factors	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Human Factors:						
Illegal/Unsafe Speed	182	21.6%	73	16.8%	19	3.0%
Driver Inexperience	124	14.7	19	4.4	7	1.1
Driver Inattention/Distraction	97	11.5	77	17.7	128	20.5
Chemical Impairment	66	7.8	18	4.1	24	3.9
Overcorrecting	52	6.2	5	1.1	1	0.2
Improper/Unsafe Lane Use	28	3.3	20	4.6	33	5.3
Following Too Closely	13	1.5	66	15.2	42	6.7
Improper Turn	11	1.3	8	1.8	40	6.4
Improper Passing/Overtaking	6	0.7	22	5.1	9	1.4
Improper Park/Start/Stop	4	0.5	7	1.6	8	1.3
Vision Obscured	3	0.3	1	0.2	24	3.8
Disregard Traffic Cntrl Device	2	0.2	12	2.8	17	2.7
Driving Left of Center	3	0.4	8	1.8	6	1.0
Failure To Yield Right of Way	1	0.1	35	8.0	228	36.6
Impeding Traffic	1	0.1	2	0.5	1	0.2
Improper/No Signal	0	0.0	4	0.9	2	0.3
Driver on Phone/CB	1	0.1	0	0.0	0	0.0
Unsafe Backing	0	0.0	1	0.2	4	0.6
Other Human Factor	28	3.3	19	4.4	8	1.3
Vehicular Factors:						
Skidding	75	8.9	15	3.4	2	0.3
Defective Tires	12	1.4	0	0.0	0	0.0
Defective Brakes	4	0.5	1	0.2	0	0.0
Defective Lights	0	0.0	0	0.0	1	0.2
Other Vehicular Factors	15	1.8	7	1.6	5	0.8
Miscellaneous Factors:						
Weather Conditions	14	1.7	2	0.5	2	0.3
Other	100	11.9	13	3.0	12	1.9
Total	842	100.0%	435	100.0%	623	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	253		411		268	
Total Number Drivers	905		776		747	

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 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
There were 4,631 truck-involved traffic crashes in 2007; 73 more truck-involved crashes than the previous year.

***35W bridge collapse**
There was one truck on the 35W bridge when it collapsed August 2007. The truck driver was killed. By definition the bridge collapse was therefore a truck related crash. It should be noted that 12 of the fatalities and 134 of the injuries reported in the Section V tables were due to the 35W bridge collapse.

Fatalities and injuries
In 2007, there were 71 fatal truck crashes, killing 90 people. There were 1,745 persons injured in truck-related crashes in 2007.

Persons killed or injured are usually in other vehicles
In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only eight of the 90 people killed in truck-involved crashes were in trucks. The other 82 included one pedestrian, seven motorcyclists, and 73 persons in cars, SUVs, pickups, or vans. Of the 1,745 people injured, only 375 (22%) were truck occupants.

Contributing factors for truck drivers
Reporting officers indicated there was no clear contributing factor for 42% of the truck drivers and for 43% of the drivers of other vehicles. Moreover, most contributing factors cited by officers are more similar for truck and non-truck drivers than they are different. For example, driver inattention or distraction was most frequently cited for truck drivers (22% of the time) as well as for non-truck drivers (20% of the time). Illegal or unsafe speed was reported for 8% of the trucks and for 12% of the other vehicles.

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 2007, only 456 (10%) of truck crashes occurred on either a Saturday or Sunday.

Driving conditions
Driving conditions can vary from day to day in Minnesota, but most truck crashes occurred on dry roads in clear weather. However, 18% of the fatal crashes and 28% 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. 70% of fatal and 43% of truck-related injury crashes occurred in the rural areas of Minnesota.

TABLE 5.01

TRUCK CRASH SUMMARY, 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Crashes	**4,761**	**5,156**	**5,306**	**4,976**	**4,409**	**NA**	**5,521**	**5,313**	**4,558**	**4,631**
Fatal Crashes	85	84	73	61	76	71	70	66	62	71
Persons Killed	97	94	90	67	87	78	79	78	65	90
Injury Crashes	1,408	1,400	1,371	1,287	1,179	NA	1,401	1,315	1,156	1,144
Severe	180	150	134	127	82	NA	107	96	89	83
Moderate	492	567	490	479	449	NA	443	377	323	334
Minor	736	683	747	681	648	NA	851	842	744	727
Persons Injured	2,031	2,026	1,903	1,785	1,674	NA	1,935	1,753	1,544	1,745
Severe	219	212	173	157	115	NA	131	116	104	130
Moderate	700	782	659	632	597	NA	585	481	415	508
Minor	1,112	1,032	1,071	996	962	NA	1,219	1,156	1,025	1,107
Property Damage Crashes	3,268	3,672	3,862	3,628	3,154	NA	4,050	3,932	3,340	3,416

TABLE 5.02

PERSONS KILLED OR INJURED IN 2007 TRUCK CRASHES BY VEHICLE OCCUPIED

		Injured			
Vehicle Type	**Killed**	**Severe**	**Moderate**	**Minor**	**Total**
Automobile	40	66	197	509	772
Pickup Truck	13	6	54	88	148
SUV	15	14	44	130	188
Pedestrian	1	1	1	3	5
Bicycle	0	1	3	5	9
Van	5	16	40	94	150
Ambulance	0	0	0	2	2
Police/Fire Vehicle	0	1	0	9	10
School Bus	0	5	41	10	56
Motorcycle	7	3	7	2	12
Snowmobile	1	0	0	0	0
Roadway Maintenance Vehicle	0	1	4	13	18
Two-Axle, Six-Tire, Single Unit Truck or Stepvan	0	3	16	65	84
Three or More Axle Single Unit Truck	0	1	9	21	31
Single Unit Truck with Trailer	0	1	9	9	19
Truck Tractor with No Trailer	0	0	2	7	9
Truck Tractor with Semi Trailer	8	11	70	115	196
Truck Tractor with Twin Trailers	0	0	2	2	4
Heavy Truck--Other or Unknown Type	0	0	7	4	11
Other or Unknown Vehicle Type	0	0	2	19	21
Total	90	130	508	1,107	1,745

TABLE 5.03

CONTRIBUTING FACTORS IN 2007 TRUCK CRASHES

Contributing Factors	Attributed to Truck Vehicles Number	Attributed to Truck Vehicles Percent	Attributed to Non-Truck Vehicles Number	Attributed to Non-Truck Vehicles Percent
Human Factors				
Driver Inattention/Distraction	735	21.9%	624	20.0%
Improper or Unsafe Lane Use	325	9.7	341	10.9
Illegal/Unsafe Speed	286	8.5	359	11.5
Failure to Yield Right of Way	276	8.2	409	13.1
Following Too Closely	248	7.4	220	7.1
Improper Turn	204	6.1	56	1.8
Unsafe Backing	153	4.6	31	1.0
Vision Obscured-Windshield	104	3.1	76	2.4
Improper Passing or Overtaking	74	2.2	129	4.1
Disregarding Traffic Control Device	67	2.0	96	3.1
Improper Parking, Starting, or Stopping	58	1.7	41	1.3
Driver Inexperience	50	1.5	73	2.3
Driving Left of Center (Not Passing)	27	0.8	64	2.1
Overcorrecting	26	0.8	47	1.5
Improper/No Signal	11	0.3	8	0.3
Chemical Impairment	9	0.3	62	2.0
Impeding Traffic	7	0.2	6	0.2
Driver on Phone/CB/2-Way Radio	7	0.2	5	0.2
Failure to Use Lights	0	0.0	1	0.0
Non-Motorist Error	0	0.0	7	0.2
Other Human Factors	90	2.7	74	2.4
Vehicular Factors				
Skidding	77	2.3	95	3.0
Defective Brakes	56	1.7	21	0.7
Oversize/Overweight Vehicle	31	0.9	1	0.0
Other Vehicular Factor	73	2.2	19	0.6
Miscellaneous Factors				
Weather	167	5.0	162	5.2
Other	189	5.6	89	2.9
Total Contributing Factors Cited	3,350	100.0%	3,116	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	2,019		1,871	
Total Number of Vehicles	4,812		4,364	

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 2007 CRASHES

Driver Age	Truck or Truck Tractor	Truck with Semi-Trailer	Truck with Twin Trailer	Truck with Other Trailer	Total
10 - 14	1	0	0	0	1
15 - 19	27	11	0	4	42
20 - 24	179	113	0	28	320
25 - 29	260	205	3	28	496
30 - 34	209	227	2	19	457
35 - 39	233	250	5	21	509
40 - 44	235	316	3	30	584
45 - 49	288	349	5	40	682
50 - 54	225	308	6	26	565
55 - 59	143	249	4	24	420
60 - 64	92	135	1	8	236
65 & Older	56	122	2	14	194
Not Stated	57	83	3	10	153
Total*	2,005	2,368	34	252	4,659

* There were 4,812 trucks in crashes in 2007. However, 153 of these trucks were parked vehicles. Table 5.04 tabulates the ages of drivers for the remaining 4,659 trucks where it was possible to identify a driver.

TABLE 5.05

DRIVERS IN 2007 TRUCK CRASHES BY PHYSICAL CONDITION*

	Truck Driver		Other Driver	
Physical Condition	Number	Percent	Number	Percent
Normal	4,220	90.6%	3,574	87.1%
Under the Influence	6	0.1	61	1.5
Had Been Drinking	2	0.0	23	0.6
Driver >.04 BAC	6	0.1	0	0.0
Had Been Using Drugs	1	0.0	3	0.1
Fatigued/Asleep	20	0.4	16	0.4
Physical Disability	1	0.0	4	0.1
Ill	1	0.0	2	0.0
Other	7	0.2	14	0.3
Unknown	395	8.5	408	9.9
Total **	4,659	100.0%	4,105	100.0%

* As noted by police officer on accident report.

** There were 4,812 trucks in crashes in 2007. However, 153 were parked. This table tabulates the apparent physical condition of drivers for the remaining 4,659 trucks where it was possible to identify a driver. Also, there were 4,343 non-truck motor vehicles in 2007 truck crashes. However, 238 of them were parked, leaving 4,105 for which an apparent physical condition was recorded.

TABLE 5.06

2007 TRUCK CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	61	889	2,500	3,450	69	1,318
Parked Motor Vehicle	5	45	276	326	16	195
Bicycle	0	9	0	9	0	9
Pedestrian	1	5	0	6	1	5
Deer	0	1	15	16	0	1
Other Animal	0	2	20	22	0	2
Fixed Object	1	54	293	348	1	62
Train	1	5	10	16	1	7
Non-Collision:						
Overturn	1	98	116	215	1	105
Jackknife	0	4	65	69	0	4
Fire or Explosion	0	0	10	10	0	0
Submersion	0	0	2	2	0	0
Other	1	32	109	142	1	37
Total	71	1,144	3,416	4,631	90	1,745

TABLE 5.07

2007 TRUCK CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	8	66	268	342	8	97
February	4	108	329	441	5	140
March	4	81	282	367	4	108
April	3	84	208	295	3	119
May	8	92	231	331	9	127
June	7	96	275	378	7	138
July	9	105	261	375	12	152
August	6	105	272	383	17	301
September	7	107	279	393	8	150
October	6	98	298	402	8	119
November	4	74	264	342	4	108
December	5	128	449	582	5	186
Total	71	1,144	3,416	4,631	90	1,745

TABLE 5.08

2007 TRUCK CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	9	24	22	20	16	19	16	126
3:00 - 5:59 AM	6	26	18	28	30	32	11	151
6:00 - 8:59 AM	20	129	184	141	172	135	41	822
9:00 - 11:59 AM	26	181	234	182	193	174	68	1,058
Noon - 2:59 PM	36	188	208	194	221	185	75	1,107
3:00 - 5:59 PM	36	156	159	172	155	139	37	854
6:00 - 8:59 PM	23	46	64	64	53	46	22	318
9:00 - 11:59 PM	18	21	40	30	28	26	12	175
Unknown	0	5	3	6	3	3	0	20
Total	174	776	932	837	871	759	282	4,631

FIGURE 5.01
2007 Truck Crashes by Time of Day

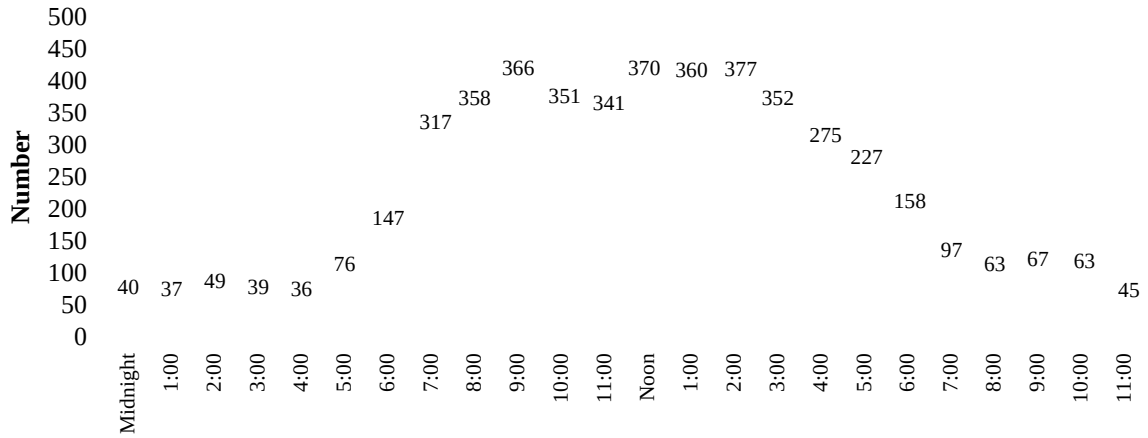

TABLE 5.09

2007 TRUCK CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	57	814	2,304	3,175	70	1,284
Wet	8	132	395	535	14	190
Snow or Slush	2	85	334	421	2	121
Ice or Packed Snow	3	104	327	434	3	138
Water Standing/Moving	0	0	3	3	0	0
Muddy	0	1	7	8	0	1
Oily	0	1	2	3	0	1
Other	1	6	22	29	1	9
Unknown	0	1	22	23	0	1
Total	71	1,144	3,416	4,631	90	1,745

TABLE 5.10

2007 TRUCK CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	43	673	1,896	2,612	56	1,084
Cloudy	19	264	931	1,214	22	387
Rain	3	60	133	196	6	73
Snow	1	110	322	433	1	147
Sleet/Hail/Freezing Rain	2	9	29	40	2	11
Fog/Smog/Smoke	2	9	14	25	2	14
Blowing Sand/Dust/Snow	0	16	42	58	0	24
Severe Cross Winds	0	2	4	6	0	2
Other	0	0	5	5	0	0
Unknown	1	1	40	42	1	3
Total	71	1,144	3,416	4,631	90	1,745

TABLE 5.11

2007 TRUCK CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
100,000 & Over	2	131	664	797	13	321
50,000 - 99,999	3	180	511	694	3	253
25,000 - 49,999	5	129	380	514	6	176
10,000 - 24,999	7	140	532	679	7	191
5,000 - 9,999	4	70	259	333	4	89
2,500 - 4,999	4	48	178	230	4	76
1,000 - 2,499	0	28	70	98	0	33
Under 1,000	46	418	822	1,286	53	606
Total	71	1,144	3,416	4,631	90	1,745

TABLE 5.12

2007 TRUCK CRASHES BY TYPE OF ROADWAY

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Interstate Highway	12	291	877	1,180	26	536
US Trunk Highway	17	230	459	706	17	356
State Trunk Highway	18	222	612	852	21	310
County State-Aid Highway	18	249	630	897	20	348
County Road	1	9	39	49	1	12
Township Road	1	14	40	55	1	18
Local Street	3	129	732	864	3	165
Other Road	1	0	27	28	1	0
						0
Total	71	1,144	3,416	4,631	90	1,745

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.

Pedestrian crashes increase
In 2007, there were 957 crashes in which a pedestrian was injured or killed by a motor vehicle. This is the highest number of pedestrian crashes over the last three years.

Deaths and injuries
In 2007, 33 pedestrians were killed and 975 pedestrians were injured. Nearly 4% of pedestrian crashes resulted in a death, compared to about one-half of 1% for all traffic crashes.

Young people and males at greater risk
Persons less than 25 years of age accounted for 27% of the persons killed and 42% of those injured. Male pedestrians were more likely than females to be killed: Males accounted for 67% of all pedestrian fatalities.

Urban areas and rush-hours
In 2007, 47% of pedestrian crashes occurred in areas with populations over 100,000. However, 11 of the 33 (33%) fatalities occurred in rural areas (defined as less than 5,000 population.) In 2007, nearly one-third (32%) of all pedestrian crashes occurred during the weekday rush hour driving time periods. The rush hour driving time period is defined as Monday through Friday 6-9 a.m. and 3-6 p.m.

Prior actions of vehicles and pedestrians
Half of the motor vehicles involved in pedestrian crashes in 2007 were going straight ahead on the roadway prior to the crash. Nearly one-third (31%) of the motor vehicles involved in pedestrian crashes were making a right or left turn. More than one out of four (27%) pedestrians killed or injured were trying to cross a road with no crosswalk and no signal.

Contributing factors
For 30% of motor vehicle drivers in pedestrian crashes, the reporting officer indicated that failure to yield right of way was a contributing factor. The second most cited contributing factor was driver inattention or distraction (24%).

Drinking pedestrian fatalities
Of the 33 pedestrians killed, 18 were tested for alcohol. Of those tested, half had concentrations over .01, and 44% had concentrations over .10.

TABLE 6.01

PEDESTRIAN CRASH SUMMARY, 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Pedestrian Crashes	1,400	1,329	1,253	1,175	1,151	NA	963	938	915	957
Pedestrians Killed	56	51	41	46	50	52	37	44	38	33
Pedestrians Injured	1,410	1,330	1,269	1,184	1,149	NA	976	936	906	975

TABLE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2007

				Injured											
Age	Killed			Severe			Moderate			Minor			Total		
Group	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total*
00 - 04	0	0	0	1	1	2	8	5	14	12	4	17	21	10	33
05 - 09	3	0	3	4	4	8	13	12	26	19	15	34	36	31	68
10 - 14	1	0	1	4	6	10	10	22	32	14	18	32	28	46	74
15 - 19	1	1	2	4	11	16	22	19	42	31	27	59	57	57	117
20 - 24	2	1	3	5	5	10	27	23	50	30	22	52	62	50	112
25 - 29	1	0	1	10	4	14	16	18	35	18	25	44	44	47	93
30 - 34	1	0	1	6	3	9	12	6	18	12	19	31	30	28	58
35 - 39	0	1	1	3	1	4	11	9	20	15	7	22	29	17	46
40 - 44	1	2	3	4	5	9	13	5	18	14	4	19	31	14	46
45 - 49	1	2	3	9	2	11	7	16	23	22	14	36	38	32	70
50 - 54	0	0	0	0	3	3	13	13	26	14	12	26	27	28	55
55 - 59	3	1	4	2	7	9	17	12	29	10	16	26	29	35	64
60 - 64	1	1	2	4	2	6	4	7	11	6	12	18	14	21	35
65 - 69	2	0	2	1	4	5	2	3	5	9	2	11	12	9	21
70 - 74	1	0	1	1	1	2	5	1	6	4	3	7	10	5	15
75 - 79	1	1	2	1	3	4	4	1	5	3	2	5	8	6	14
80 - 84	1	1	2	1	3	4	2	2	4	2	3	5	5	8	13
85 & Older	2	0	2	0	3	3	1	2	3	1	2	3	2	7	9
Not Stated	0	0	0	1	0	4	4	2	12	2	6	16	7	8	32
Total	22	11	33	61	68	133	191	178	379	238	213	463	490	459	975

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

FIGURE 6.01
Pedestrian Fatalities by Age Group, 1998-2007 Combined

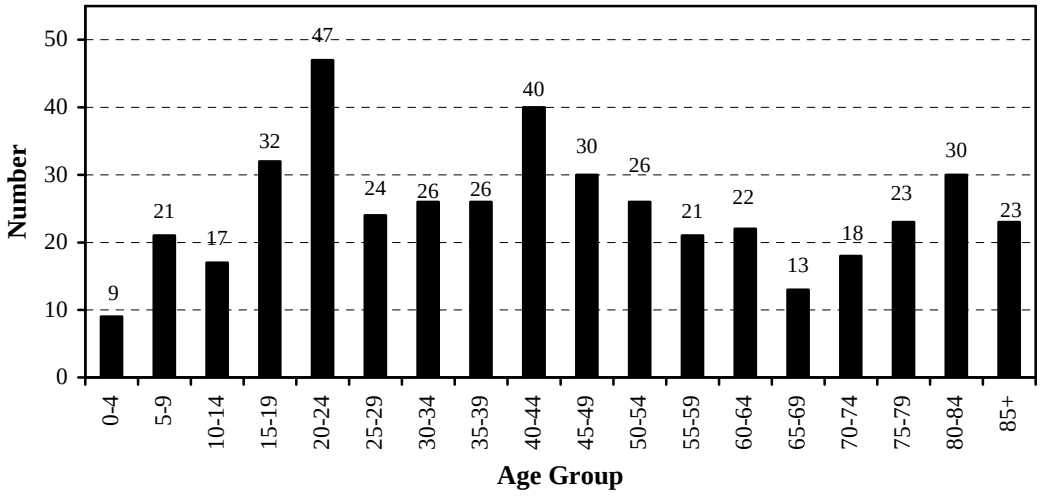

FIGURE 6.02
Pedestrians Killed or Injured by Age and Gender, 2007

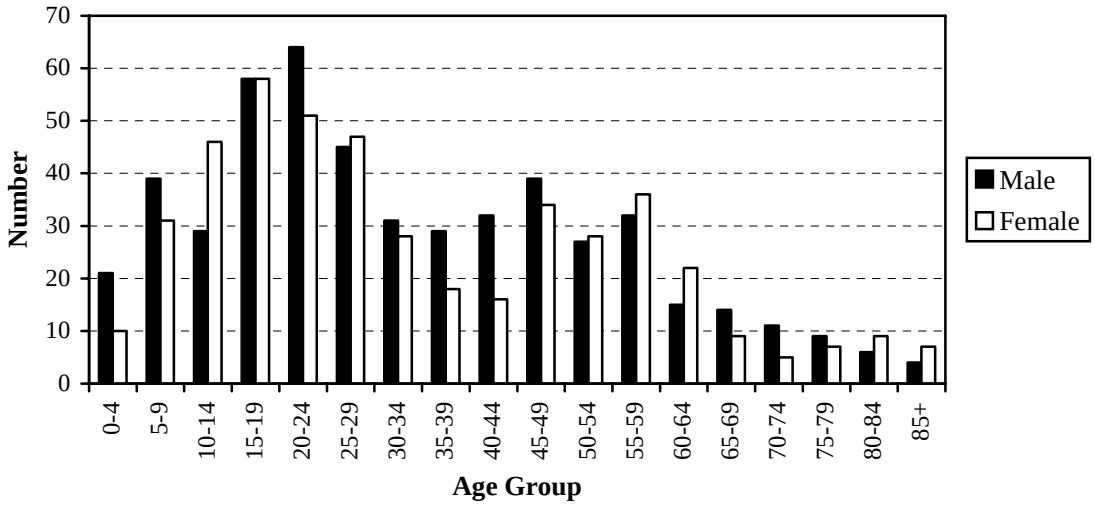

TABLE 6.03

2007 PEDESTRIAN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
January	6	84	90	6	89
February	1	74	75	1	74
March	1	70	71	1	72
April	2	59	61	2	60
May	5	87	92	5	89
June	2	79	81	2	79
July	1	72	73	1	77
August	3	67	70	3	79
September	1	91	92	1	98
October	3	100	103	3	107
November	5	68	73	5	71
December	3	73	76	3	80
Total	33	924	957	33	975

TABLE 6.04

2007 PEDESTRIAN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Bicyclists Injured
100,000 and Over	7	444	451	7	475
50,000 - 99,999	5	113	118	5	116
25,000 - 49,999	2	101	103	2	109
10,000 - 24,999	5	125	130	5	132
5,000 - 9,999	3	40	43	3	41
2,500 - 4,999	1	31	32	1	34
1,000 - 2,499	0	31	31	0	32
Under 1,000	10	39	49	10	36
Total	33	924	957	33	975

TABLE 6.05

2007 PEDESTRIAN CRASHES BY TIME AND DAY

Time of Day	Fatal Crashes	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	6	20	3	4	4	5	6	16	58
3:00 - 5:59 AM	0	3	6	1	3	3	4	8	28
6:00 - 8:59 AM	0	4	18	32	25	20	22	3	124
9:00 - 11:59 AM	4	12	17	13	14	18	11	16	101
Noon - 2:59 PM	2	11	22	17	24	23	21	16	134
3:00 - 5:59 PM	6	16	33	36	39	48	30	18	220
6:00 - 8:59 PM	10	16	18	37	29	37	33	23	193
9:00 - 11:59 PM	5	14	11	6	11	8	18	20	88
Unknown	0	1	2	1	0	4	1	2	11
Total	33	97	130	147	149	166	146	122	957

FIGURE 6.03
2007 Pedestrian Crashes by Time of Day

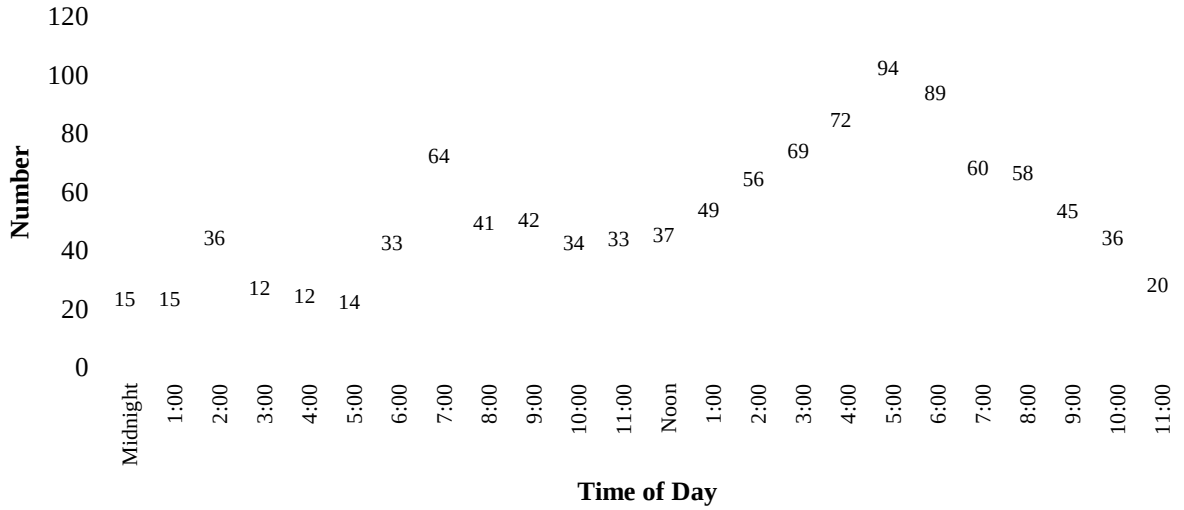

TABLE 6.06

PRIOR ACTION OF VEHICLES IN 2007 PEDESTRIAN CRASHES

Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes*
Going Straight	26	476	502
Wrong Way Opposing Traffic	1	6	7
Turning Right on Red	0	27	27
Turning Left on Red	0	1	1
Turning Right	1	84	85
Turning Left	1	198	199
Making U Turn	0	1	1
Starting From Parked	1	13	14
Starting in Traffic	0	10	10
Slowing in Traffic	0	10	10
Parking	0	3	3
Avoiding Object in Road	1	5	6
Changing Lanes	0	4	4
Passing	0	3	3
Backing	0	31	31
All Others	3	79	82
Unknown	1	13	14
Total	35	964	999

* 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 2007

	Pedestrians Killed		Pedestrians Injured	
Action	Number	Percent	Number	Percent
Crossing Road (No Crosswalk and No Signal)	9	27.3%	265	27.2%
Crossing Against Signal	2	6.1	42	4.3
Crossing With Signal	0	0.0	139	14.3
Crossing In Crosswalk (No Signal)	2	6.1	141	14.5
Walking In Road With Traffic	2	6.1	43	4.4
Walking In Road Against Traffic	1	3.0	32	3.3
Standing In Road	6	18.2	29	3.0
Emerging From Front/Behind Parked Vehicle	0	0.0	6	0.6
Child Getting On/Off School Bus	0	0.0	2	0.2
Pushing/Working On Vehicle	0	0.0	3	0.3
Working In Road	0	0.0	8	0.8
Getting On/Off Vehicle	0	0.0	9	0.9
Playing In Road	0	0.0	2	0.2
Not In Road	1	3.0	36	3.7
Other Pedestrian Action	5	15.2	47	4.8
Unknown	5	15.2	171	17.5
Total*	33	100.0%	975	100.0%

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

TABLE 6.08

CONTRIBUTING FACTORS IN 2007 PEDESTRIAN CRASHES

Contributing Factors	Attributed to Motor Vehicle Drivers Number	Percent
Human Factors		
Failure to Yield Right of Way	244	30.4%
Driver Inattention / Distraction	189	23.6
Vision Obscured	84	10.5
Illegal or Unsafe Speed	33	4.1
Chemical Impairment	25	3.1
Improper / Unsafe Lane Use	23	2.9
Disregard for Traffic Control Device	23	2.9
Driver Inexperience	18	2.2
Unsafe Backing	15	1.9
Improper Turn	11	1.4
Driver on Phone/CB	7	0.9
Improper Passing / Overtaking	6	0.7
Improper Parking/Starting/Stopping	6	0.7
Following Too Closely	5	0.6
Driving Left of Center	3	0.4
Overcorrecting	2	0.2
Failure To Use Lights	1	0.1
Impeding Traffic	1	0.1
Other Human Factors	31	3.9
Vehicular Factors		
Skidding	12	1.5
Defective Brakes	3	0.4
Other Vehicular Factors	2	0.2
Miscellaneous Factors		
Weather Conditions	22	2.7
Other	36	4.5
Total Contributing Factors Cited	802	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	74	
Total Number of Drivers	999	

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, 1998 - 2007

			Alcohol Concentration*			
Year	**Killed**	**Tested**	**(.00)**	**(.01 - .07)**	**(.08 - .09)**	**(.10 or more)**
1998	56	43	21 (49%)	2 (5%)	0 (0%)	20 (47%)
1999	51	37	23 (62%)	3 (8%)	0 (0%)	11 (30%)
2000	41	27	16 (59%)	1 (4%)	0 (0%)	10 (37%)
2001	46	35	25 (71%)	1 (3%)	0 (0%)	9 (26%)
2002	50	31	20 (65%)	0 (0%)	0 (0%)	11 (35%)
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%)

* 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

2007 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

			Alcohol Concentration			
Age Group	**Killed**	**Tested**	**(.00)**	**(.01 - .07)**	**(.08 - .09)**	**(.10 or more)**
14 & Younger	4	0	0	0	0	0
15 – 19	2	0	0	0	0	0
20 – 24	3	2	0	1	0	1
25 – 29	1	1	0	0	0	1
30 – 34	1	1	1	0	0	0
35 – 39	1	1	0	0	0	1
40 – 44	3	3	0	0	0	3
45 – 49	3	3	3	0	0	0
50 – 54	0	0	0	0	0	0
55 – 59	4	3	1	0	0	2
60 – 64	2	0	0	0	0	0
65 – 69	2	0	0	0	0	0
70 – 74	1	1	1	0	0	0
75 – 79	2	1	1	0	0	0
80 – 84	2	0	0	0	0	0
85 & Older	2	2	2	0	0	0
Total	33	18	9	1	0	8

TABLE 6.11

2007 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY TIME OF DAY

			Alcohol Concentration			
Time of Day	**Killed**	**Tested**	**(.00)**	**(.01 - .07)**	**(.08 - .09)**	**(.10 or more)**
Midnight - 2:59 AM	6	5	0	1	0	4
3:00 - 5:59 AM	0	0	0	0	0	0
6:00 - 8:59 AM	0	0	0	0	0	0
9:00 - 11:59 AM	4	2	2	0	0	0
Noon - 2:59 PM	2	1	1	0	0	0
3:00 - 5:59 PM	6	2	1	0	0	1
6:00 - 8:59 PM	10	5	4	0	0	1
9:00 - 11:59 PM	5	3	1	0	0	2
Total	33	18	9	1	0	8

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.

Number of bicycle crashes increases
In 2007, there were 1,020 bicycle crashes. This number represents an 8% increase from the previous year.

Injuries increase, fatalities decrease
The number of bicyclists injured increased in 2007. There were 979 injuries reported, an 8% increase from 2006. In addition, there were four bicyclist fatalities in 2007, four less than the previous year.

Warm weather
Bicycle crashes are mostly a warm weather occurrence. In 2007, three of the four fatalities, 61% of the crashes, and 61% of the injuries occurred during the four-month period June-September.

Afternoon rush hour
Bicycle crashes in 2007 were most prevalent in the three-hour period of 3-6:00 p.m. One-third (33%) of all bicycle crashes occurred during this period.

Big cities
Generally, traffic crashes involving a bicycle and a motor vehicle tend to occur in areas with larger populations. Three out of five (60%) bicycle crashes occurred in cities where the population was over 50,000 people. Only 7% of bicycle crashes occurred in rural (defined as less than 5,000 people) areas.

Young people at risk
Of the bicyclists injured in 2007, more than half (56%) were ages 25 and younger.

Males injured and killed most often
Males were nearly three times more likely than females to be injured in bicycle crashes. In 2007, three of the four bicyclists killed and 73% of the bicyclists injured were male.

Contributing factors
Failure to yield the right of way was cited most often for both the bicyclists and other motor vehicle drivers. For bicyclists, two other factors were often cited: disregard for traffic control device and non-motorist error (a violation committed by the bicyclist separate from those listed).

TABLE 7.01

BICYCLE CRASH SUMMARY, 1998- 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Bicycle Crashes	1,363	1,106	1,137	1,016	909	NA	985	965	944	1,020
Bicyclists Killed	9	8	14	7	7	6	10	7	8	4
Bicyclists Injured	1,310	1,060	1,080	960	860	NA	937	952	908	979

TABLE 7.02

2007 BICYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	9	1	10	0	9
February	0	11	1	12	0	11
March	0	35	1	36	0	35
April	0	66	1	67	0	66
May	0	121	1	122	0	121
June	0	142	8	150	0	142
July	2	176	5	183	2	176
August	0	143	6	149	0	146
September	1	135	6	142	1	134
October	0	92	7	99	0	92
November	0	35	2	37	0	35
December	1	12	0	13	1	12
Total	4	977	39	1,020	4	979

FIGURE 7.01
2007 Bicycle Crashes by Time of Day

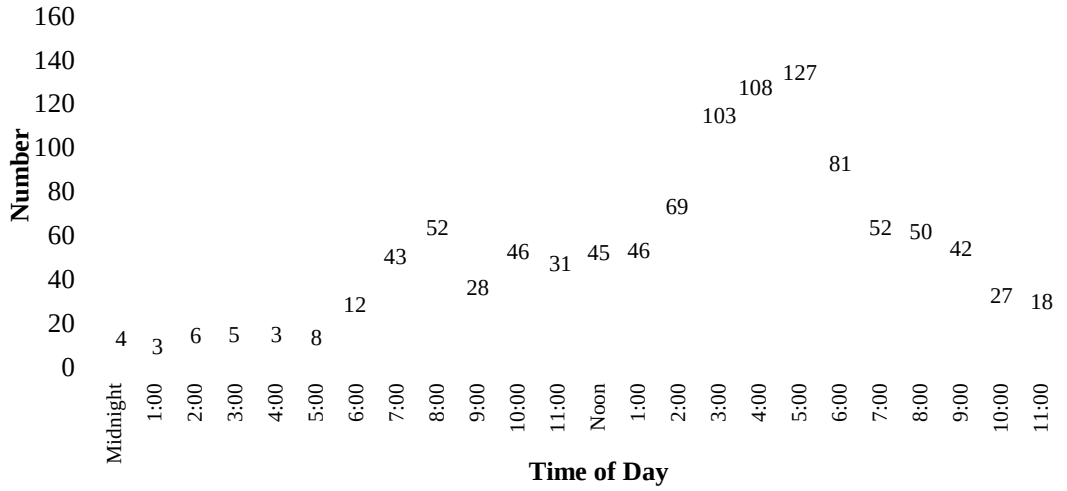

TABLE 7.03

2007 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	4	1	1	0	3	1	3	13
3:00 - 5:59 AM	0	2	1	2	4	4	3	16
6:00 - 8:59 AM	2	24	18	22	17	21	3	107
9:00 - 11:59 AM	9	9	19	10	16	17	25	105
Noon - 2:59 PM	18	23	33	21	23	25	17	160
3:00 - 5:59 PM	25	51	53	47	54	74	34	338
6:00 - 8:59 PM	15	28	23	29	41	31	16	183
9:00 - 11:59 PM	9	10	17	10	13	14	14	87
Unknown	2	1	0	3	1	0	4	11
Total	84	149	165	144	172	187	119	1,020

TABLE 7.04

2007 BICYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
100,000 and Over	2	412	21	435	2	414
50,000 - 99,999	0	171	5	176	0	171
25,000 - 49,999	0	126	1	127	0	126
10,000 - 24,999	1	157	6	164	1	156
5,000 - 9,999	0	44	2	46	0	44
2,500 - 4,999	0	20	1	21	0	20
1,000 - 2,499	0	13	0	13	0	13
Under 1,000	1	34	3	38	1	35
Total	4	977	39	1,020	4	979

FIGURE 7.02
Bicyclists Killed and Injured by Age and Gender, 2007

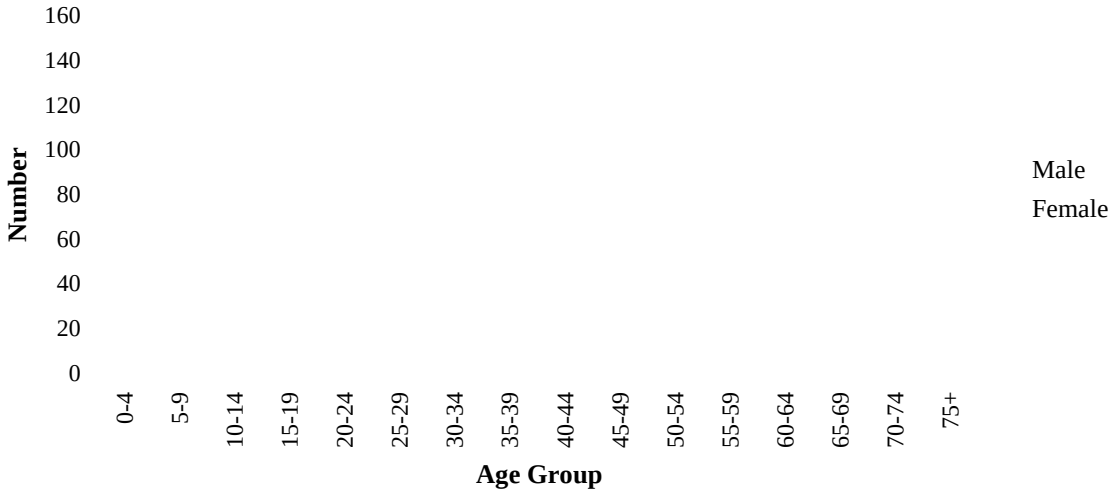

TABLE 7.05

BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2007

	Killed			Injured											
				Severe			Moderate			Minor			Total		
Age Group	**M**	**F**	**Total**	**M**	**F**	**Total***	**M**	**F**	**Total***	**M**	**F**	**Total***	**M**	**F**	**Total***
00 – 04	0	0	0	0	0	0	2	1	3	2	0	2	4	1	5
05 – 09	0	0	0	4	2	6	21	8	29	28	8	37	53	18	72
10 – 14	0	0	0	10	3	13	40	22	62	85	21	106	135	46	181
15 – 19	0	0	0	10	1	11	58	14	72	60	15	77	128	30	160
20 – 24	0	0	0	5	3	8	35	19	56	37	31	70	77	53	134
25 – 29	0	0	0	2	5	7	24	11	35	26	14	41	52	30	83
30 – 34	1	0	1	2	0	2	14	2	16	26	9	36	42	11	54
35 – 39	0	0	0	4	0	4	14	6	20	18	2	21	36	8	45
40 – 44	0	0	0	1	0	1	13	2	15	22	5	27	36	7	43
45 – 49	0	0	0	8	2	10	19	4	23	26	6	32	53	12	65
50 – 54	2	0	2	6	1	7	13	1	14	20	4	25	39	6	46
55 – 59	0	1	1	4	0	4	4	3	7	8	2	10	16	5	21
60 – 64	0	0	0	1	0	1	7	1	8	2	1	3	10	2	12
65 – 69	0	0	0	1	0	1	2	0	2	6	2	8	9	2	11
70 – 74	0	0	0	0	0	0	1	0	1	2	0	2	3	0	3
75 & Older	0	0	0	1	0	1	2	1	3	3	0	3	6	1	7
Not Stated	0	0	0	2	0	2	9	1	13	3	6	22	14	7	37
Total	3	1	4	61	17	78	278	96	379	374	126	522	713	239	979

* 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 2007 CRASHES

Prior Action	**Bicyclists in Fatal Crashes**	**Bicyclists in Injury Crashes**	**Bicyclists in Property Damage Crashes**	**Bicyclists in All Crashes***
Riding With Traffic	3	350	14	367
Riding Against Traffic	0	64	3	67
Making Left Turn	0	8	0	8
Making Right Turn	0	19	1	20
Making U-Turn	0	2	0	2
Riding Across Road	0	128	6	134
Slowing/Stopping/Starting	0	12	1	13
Other/Unknown	1	396	22	419
Total	4	979	47	1,030

* 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 2007 BICYCLE CRASHES

Contributing Factors	Attributed to Bicyclists Number	Attributed to Bicyclists Percent	Attributed to Motor Vehicle Drivers Number	Attributed to Motor Vehicle Drivers Percent
Human Factors				
Failure to Yield Right of Way	157	29.0%	225	37.6%
Non-Motorist Error	95	17.6	0	0.0
Disregard Traffic Control Device	73	13.5	24	4.0
Driver Inattention/Distraction	49	9.1	163	27.2
Improper/Unsafe Lane Use	40	7.4	20	3.3
Illegal or Unsafe Speed	11	2.0	10	1.7
Driver Inexperience	10	1.8	7	1.2
Vision Obscured	9	1.7	40	6.7
Chemical Impairment	8	1.5	5	0.8
Failure to use Lights	8	1.5	0	0.0
Driving Left of Center	7	1.3	2	0.3
Improper Passing/Overtaking	3	0.6	10	1.7
Impeding Traffic	2	0.4	2	0.3
Following Too Closely	2	0.4	1	0.2
Improper Turn	2	0.4	21	3.5
Improper Park/Start/Stop	0	0.0	12	2.0
Unsafe Backing	0	0.0	8	1.3
Driver On Phone/CB	0	0.0	1	0.2
Overcorrecting	1	0.2	3	0.5
Other Human Factors	17	3.1	10	1.7
Vehicular Factors				
Defective Brakes	9	1.7	2	0.3
Other Vehicular Factors	2	0.4	1	0.2
Miscellaneous Factors				
Weather Conditions	4	0.7	7	1.2
Other	32	5.9	25	4.2
Total	541	100.0%	599	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	325		457	
Total Number of Bicyclists/Drivers	1,026		1,031	

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 2007, there were 212 crashes resulting in 2 fatalities and 110 injuries in which a school bus was indirectly involved. One of the fatalities was a motorcyclist and the other a passenger in another vehicle.

***35W bridge collapse**
There was one school bus on the 35W bridge when it collapsed August 2007. There were no fatalities on the school bus 56 people on the bus were injured, five of them severely. This occurrence was not a typical school bus crash; therefore these data were not included in the Section VIII tables.

Number of crashes increases
School bus crashes have increased. In 2007, there were 680 traffic crashes directly involving at least one school bus. That total is a 9% increase from the previous year.

Eight deaths in 2007
In 2007, there was seven fatal school bus crashes resulting in eight deaths. Six of the fatalities were in other vehicles. Two of the fatalities were pedestrians. One of the pedestrians was a 5-year-old that fell off the curb and was struck by the bus.

Morning and afternoon rush hours
As would be expected, nearly two out of three (63%) school bus crashes in 2007 occurred during the time periods of 6-9 a.m. and 3-6 p.m. In addition, nearly three out of four (67%) of school bus crash injuries occurred during these two time periods. Very few crashes (11% of the total) occurred during the summer months of June, July, and August.

School bus stop arm
Only 2% of the crashes occurred when the school bus stop arm was deployed. However, eight injuries occurred in crashes where the school bus stop arm was in use.

Contributing factors
Although there were 680 school bus crashes in 2007, a few involved more than one school bus. In all there were 693 school buses in crashes. For 48% 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 (21%), and failure to yield right of way (16%). The third most frequently cited contributing factor was illegal or improper speed (8%).

TABLE 8.01

SCHOOL BUS CRASH SUMMARY, 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Crashes	782	782	890	852	719	NA	702	717	625	680
Fatal Crashes	3	5	2	4	3	3	3	7	1	7
Persons Killed	3	5	2	4	5	3	3	7	1	8
Injury Crashes	197	172	203	182	144	NA	150	140	137	126
Persons Injured	371	328	388	355	299	NA	266	250	241	243
Property Damage Crashes	582	605	685	666	572	NA	549	570	487	547
School Buses Directly Involved	790	789	903	857	731	NA	708	724	631	690

TABLE 8.02

2007 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	3	4	7	0	5
3:00 - 5:59 AM	0	0	6	6	0	0
6:00 - 8:59 AM	1	40	179	220	1	81
9:00 - 11:59 AM	1	13	66	80	1	27
Noon - 2:59 PM	2	29	99	130	3	45
3:00 - 5:59 PM	3	37	171	211	3	81
6:00 - 8:59 PM	0	3	11	14	0	3
9:00 - 11:59 PM	0	1	5	6	0	1
Unknown	0	0	6	6	0	0
Total	7	126	547	680	8	243

TABLE 8.03

2007 SCHOOL BUS CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	1	9	50	60	1	18
February	0	16	71	87	0	34
March	0	8	76	84	0	13
April	0	13	35	48	0	18
May	3	15	55	73	4	38
June	0	9	30	39	0	14
July	0	4	17	21	0	8
August	0	1	14	15	0	2
September	1	13	37	51	1	20
October	1	13	54	68	1	40
November	0	9	42	51	0	20
December	1	16	66	83	1	18
Total	7	126	547	680	8	243

TABLE 8.04

AGE AND GENDER OF PERSONS INJURED IN 2007 SCHOOL BUS CRASHES

Age Group	In Bus	Pedestrian	In Other Vehicle	Male	Female	Total*
00 - 04	3	0	5	2	6	8
05 - 09	16	1	1	6	12	18
10 - 14	17	1	3	8	13	21
15 - 19	11	0	18	12	17	29
20 - 24	8	0	14	9	13	22
25 - 29	2	1	11	7	7	14
30 - 34	1	0	11	4	8	12
35 - 39	2	1	13	9	7	16
40 - 44	2	0	6	1	7	8
45 - 49	7	0	13	13	7	20
50 - 54	3	0	7	7	3	10
55 - 59	8	0	4	4	8	12
60 - 64	4	0	3	5	2	7
65 & Older	3	0	13	7	9	16
Unknown	23	1	6	17	12	29
Total	110	5	128	111	131	242

* There was one case where the gender of the person was not reported on crash form.

TABLE 8.05

PERSONS KILLED OR INJURED IN 2007 SCHOOL BUS CRASHES BY POPULATION OF AREA

Population of City or Township	Killed	Injured			
		Severe	Moderate	Minor	Total
100,000 and Over	3	5	16	53	74
50,000 - 99,999	0	2	7	24	33
25,000 - 49,999	0	3	12	22	37
10,000 - 24,999	0	1	7	26	34
5,000 - 9,999	0	0	1	15	16
2,500 - 4,999	0	0	0	5	5
1,000 - 2,499	0	0	2	4	6
Under 1,000	5	1	12	25	38
Total	8	12	57	174	243

TABLE 8.06

2007 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	4	108	435	547	5	216
Parked Motor Vehicle	0	7	81	88	0	10
Bicycle	1	3	0	4	1	3
Pedestrian	2	5	0	7	2	5
Deer	0	0	1	1	0	0
Other Animal	0	0	3	3	0	0
Fixed Object	0	2	12	14	0	4
Non-collision:						
Overturn	0	1	0	1	0	5
Other/Unknown	0	0	15	15	0	0
Total	7	126	547	680	8	243

TABLE 8.07

2007 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes*	Killed	Injured
Traffic Signal	1	41	121	163	1	83
Overhead Flashers	0	2	0	2	0	6
Stop Sign--All Approaches	0	5	24	29	0	7
Other Stop Sign	0	25	126	151	0	50
Yield Sign	1	4	13	18	1	14
Officer/Flagperson	1	0	0	1	1	0
School Bus Stop Arm	1	5	9	15	1	8
School Zone Sign	0	0	1	1	0	0
Railroad Crossing Device	0	1	8	9	0	1
Not Applicable	3	41	219	263	4	72
Other	0	2	13	15	0	2
Unknown	0	0	2	2	0	0
Total	7	126	536	669	8	243

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

TABLE 8.08

CONTRIBUTING FACTORS IN 2007 SCHOOL BUS CRASHES

Contributing Factors	Attributed to School Bus Drivers Number	Attributed to School Bus Drivers Percent	Attributed to Drivers of Other Vehicles Number	Attributed to Drivers of Other Vehicles Percent
Human Factors				
Driver Inattention/Distraction	59	18.3%	106	21.0%
Failure to Yield Right of Way	58	18.0	83	16.5
Improper Turn	31	9.6	15	3.0
Improper/Unsafe Lane Use	26	8.1	28	5.6
Following Too Closely	19	5.9	32	6.3
Illegal/Unsafe Speed	15	4.7	42	8.3
Vision Obscured	14	4.3	16	3.2
Unsafe Backing	10	3.1	6	1.2
Improper Passing/Overtaking	9	2.8	9	1.8
Improper Parking/Starting/Stopping	6	1.9	12	2.4
Disregard of Traffic Control Device	4	1.2	33	6.5
Driver Inexperience	4	1.2	9	1.8
Driving Left of Center	2	0.6	5	1.0
Overcorrecting	1	0.3	3	0.6
Impeding Traffic	1	0.3	2	0.4
Non-Motorist Error	0	0.0	4	0.8
Chemical Impairment	0	0.0	3	0.6
Other Human Factors	10	3.1	10	2.0
Vehicular Factors				
Skidding	11	3.4	31	6.2
Defective Brakes	2	0.6	1	0.2
Other Vehicular Factors	1	0.3	1	0.2
Miscellaneous Factors				
Weather Conditions	22	6.8	39	7.7
Other	17	5.3	14	2.8
Total	322	100.0%	504	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	333		221	
Total Number of Drivers	693		702	

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. In 2007, 4% of all motor-vehicle/train crashes in Minnesota resulted in a fatality. Motor vehicle/train crashes may be few in number, but they are more likely to be serious.

Number of train crashes increases
In recent years, the number of motor-vehicle/train crashes in Minnesota had been declining. In 2007, there were 56 motor vehicle/train crashes, five more crashes than were reported the previous year.

Number of fatalities lowest in recent history
Although vehicle/train crashes increased, the number of crash fatalities decreased: two persons were killed in 2007 compared to nine in 2006. This is the lowest number of vehicle/train crash fatalities since these data have been collected.

Railroad crossings with flashing lights or gates
Railroad crossings without some type of flashing lights or gates are very dangerous. Thirty-six (64 percent) of the 56 motor-vehicle/train crashes, including all of the fatal crashes, occurred at a railroad crossing without flashing lights or gates. Only two 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 2007, 52 percent of the total crashes, 55 percent of injuries, and all 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 for traffic control device were the three contributing factors cited most often by officers.

TABLE 9.01

MOTOR VEHICLE / TRAIN CRASH SUMMARY, 1998 - 2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Crashes	108	84	79	70	77	NA	72	52	51	56
Fatal Crashes	9	8	3	5	6	5	12	5	8	2
Persons Killed	11	10	4	6	9	8	13	6	9	2
Injury Crashes	47	32	32	22	27	NA	21	22	10	16
Persons Injured	64	50	43	28	37	NA	27	29	15	20
Property Damage Crashes	52	44	44	43	44	NA	39	25	33	38

TABLE 9.02

2007 MOTOR VEHICLE / TRAIN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total	Killed	Injured
January	0	3	2	5	0	4
February	0	1	8	9	0	1
March	1	0	2	3	1	1
April	0	1	0	1	0	1
May	0	1	0	1	0	1
June	0	1	1	2	0	1
July	1	0	3	4	1	0
August	0	2	4	6	0	4
September	0	5	5	10	0	5
October	0	1	5	6	0	1
November	0	1	2	3	0	1
December	0	0	6	6	0	0
Total	2	16	38	56	2	20

TABLE 9.03

2007 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	1	1	1	4
3:00 - 5:59 AM	0	1	0	1	0	0	2	4
6:00 - 8:59 AM	0	2	1	0	1	2	1	7
9:00 - 11:59 AM	0	2	1	0	2	3	2	10
Noon - 2:59 PM	1	1	3	5	1	2	1	14
3:00 - 5:59 PM	1	1	2	1	4	1	2	12
6:00 - 8:59 PM	0	0	0	0	1	0	0	1
9:00 - 11:59 PM	0	1	1	0	1	1	0	4
Unknown	0	0	0	0	0	0	0	0
Total	4	8	8	7	12	11	10	56

TABLE 9.04

2007 MOTOR VEHICLE / TRAIN CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Stop Sign	1	1	9	11	1	1
RR Flashing Lights	0	4	4	8	0	6
RR Crossing Stop Sign	0	3	6	9	0	3
RR Overhead Lights	0	1	1	2	0	1
RR Overhead Lights/Gate	0	1	1	2	0	1
RR Crossbuck	0	3	8	11	0	4
Other Device	1	0	4	5	1	1
Not Applicable	0	3	4	7	0	3
Unknown	0	0	1	1	0	0
Total	2	16	38	56	2	20

TABLE 9.05

AGE OF PERSONS KILLED OR INJURED IN 2007 MOTOR VEHICLE / TRAIN CRASHES

		Injured			
Age Group	Killed	Severe	Moderate	Minor	Total
00 - 04	0	0	0	0	0
05 - 09	0	0	0	0	0
10 - 14	0	0	1	1	2
15 - 19	0	0	0	0	0
20 - 24	0	0	1	0	1
25 - 29	0	1	2	1	4
30 - 34	0	0	2	0	2
35 - 39	0	0	1	1	2
40 - 44	1	1	0	1	2
45 - 49	0	0	0	0	0
50 - 54	0	0	0	0	0
55 - 59	1	1	2	1	4
60 - 64	0	0	0	1	1
65 - 69	0	0	0	0	0
70 - 74	0	0	0	0	0
75 - 79	0	0	1	1	2
80 & Older	0	0	0	0	0
Not Stated	0	0	0	0	0
Total	2	3	10	7	20

TABLE 9.06

2007 MOTOR VEHICLE / TRAIN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
100,000 and Over	0	1	8	9	0	1
50,000 - 99,999	0	2	1	3	0	2
25,000 - 49,999	0	1	6	7	0	1
10,000 - 24,999	0	2	4	6	0	4
5,000 - 9,999	0	1	1	2	0	1
2,500 - 4,999	0	1	0	1	0	1
1,000 - 2,499	0	0	0	0	0	0
Under 1,000	2	8	18	28	2	10
Total	2	16	38	56	2	20

TABLE 9.07

CONTRIBUTING FACTORS IN 2007 MOTOR VEHICLE / TRAIN CRASHES

Contributing Factor	Number	Percent
Human Factors		
Failure to Yield Right of Way	20	24.7%
Driver Inattention/Distraction	17	21.0
Disregard for Traffic Control Device	12	14.8
Improper Turn	4	4.9
Chemical Impairment	4	4.9
Illegal/Unsafe Speed	3	3.7
Improper/Park/Start/Stop	2	2.5
Driver Inexperience	2	2.5
Improper/Unsafe Lane Usage	1	1.2
Vision Obscured – Windshield	1	1.2
Other Human Factor	1	1.2
Vehicular Factors		
Skidding	4	4.9
Other Vehicular Factor	1	1.2
Other		
Weather	6	7.4
Other Contributing Factor	3	3.7
Total	81	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	27	
Number of Drivers	89	

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.

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.