Suggestions for Using *Crash Facts*

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

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

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

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

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

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

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

Such requests should be directed to:

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

MINNESOTA

MOTOR VEHICLE

CRASH FACTS

2006

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

Produced by:
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Minnesota Department of Public Safety
Phone (651) 201-7575

Acknowledgements:

Many thanks go to our Crash Records Section in the Driver and Vehicle Services Division of the Department of Public Safety for their excellent data quality control work. Thanks also to the State Patrol, the Bureau of Criminal Apprehension, Sheriff's, Police Chiefs, and Medical Examiner's for their assistance regarding alcohol-related crashes. And, of course, many thanks go out to all of the troopers and officers around Minnesota who were at the scene of traffic crashes. Their hard work and data reporting skills make this book a valuable document to traffic safety researchers, legislators, the media, and the public.

Alcohol and Gambling Enforcement

ARMER/911 Program

Bureau of Criminal Apprehension

Driver and Vehicle Services

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

Office of Justice Programs

Office of Traffic Safety

State Fire Marshal and Pipeline Safety

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

July 2007

Nearly 500 people were killed in traffic crashes last year in Minnesota. With an annual death toll of hundreds as well as thousands injured, many with life-long injuries, the reality is unacceptable to the Department of Public Safety — and should be to all Minnesotans.

To reverse the epidemic, the Department of Public Safety works with state agencies, organizations and stakeholders to find local solutions based in education, enforcement, engineering and emergency care — and drive Minnesota *Toward Zero Deaths*. There is real progress, and continued challenges, from last year to report.

- The 494 deaths in 2006 were the lowest number of traffic fatalities on our roads since 1945, and represents 65 fewer deaths than the 559 killed in 2005 (a reduction of nearly 12 percent).
- Traffic fatalities have been reduced consecutively the last three years, from 655 in 2003 to 494 last year — a nearly 25 percent reduction.
- The fatality rate per 100 million vehicle miles traveled (VMT) has decreased to less than one person (0.87) — among the lowest in the nation — down from a rate of 5.52 in 1966. This is significant as the number of drivers, vehicles and VMT have increased with population.
- There were 166 alcohol-related traffic deaths — the lowest number since 1984. However, impairment is a factor in fully one-third of all our road deaths.
- Motorcycles represented 4 percent of registered vehicles in the state, but the 70 rider deaths comprised 14 percent of the state's traffic fatalities — continuing a disturbing 10-year rise. Older and returning riders figure prominently among those killed.

While the Department of Public Safety and many road safety partners continue existing programs and to explore new approaches in reducing traffic crashes, every motorist also has a role. All drivers and passengers are responsible for their behavior and can demonstrate that understanding through the following:

- Always wear a seat belt.
- Drive at safe speeds.
- Drive sober.
- Pay attention.

All Minnesotans can mitigate the likelihood of a crash and death to themselves, family and friends with these four simple actions. United in purpose, commitment and action, we can drive Minnesota *Toward Zero Deaths*.

Michael Campion, Commissioner

Minnesota Traffic Crashes in 2006
OVERVIEW

Driving may be the most dangerous thing you do. This edition of *Minnesota Motor Vehicle Crash Facts* summarizes the crashes, deaths, and injuries that occurred in Minnesota during 2006. We hope that the information contained within this book will help you and others use our roadways more safely.

In 2006,

- 78,745 traffic crashes were reported to the Department of Public Safety
- 144,522 motor vehicles were involved
- 198,027 people were involved
- 494 people died
- 35,025 people were injured
- $1,529,411,600 estimated economic cost to Minnesota

On an average day in 2006,

- 216 crashes
- 1.4 deaths
- 96 people injured
- $4,190,169 average daily cost

2006 crashes that involved alcohol

- 4,688 crashes
- 166 deaths
- 3,501 people injured
- $277,672,100 estimated economic cost

Highlights from the 2006 *Crash Facts* edition

- **Traffic fatalities decrease for third year in a row.**
  In 2006, Minnesota experienced a decrease in traffic fatalities of 11.6% from the previous year. Despite this decrease, traffic fatalities in Minnesota remain at epidemic levels. We urge all drivers to pay attention while driving, to drive at legal speeds, and to always be sober when driving.

- **Safety belt use in Minnesota is 83%.**
  It is a known fact that seat belts save lives. Observational studies in 2006 show that belt use by front seat drivers and passengers was 83%. Minnesota can do better. Because there is no 'primary' seat belt law in Minnesota, we urge all motor vehicle occupants to buckle up!

- **The fatality rate in Minnesota per 100 million vehicle miles traveled (VMT) decreased.**
  Because of the decrease in traffic deaths, the VMT-based fatality rate for 2006 is 0.87. This is a decrease from 2005 when the fatality rate was 0.99. The VMT fatality rate has shown dramatic improvement in the last three decades. For example, 1990 had a rate of 1.47, 1980 had a rate of 3.03, and 1970 had a rate of 4.41. 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 as a general rule.

CRASH FACTS ORGANIZATION

Crash Facts has a wealth of statistical information about traffic crashes in Minnesota. To help you find your way around the book, we've prepared this basic user's guide.

Introduction

Starting on page 1, the introduction discusses the history, societal costs, and general cause of crashes. Use it to find the following information:

- 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
This section starts on page 7, and it describes the aggregate of all traffic crashes in the state last year. 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
Starting on page 38, you'll 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 since 1990 (Tables 2.02, 2.03, and 2.04)
- Persons killed and injured in alcohol-related crashes by age (2.05)

Section III: Safety Equipment Use by Vehicle Occupants in 2006 Crashes
Seat belt and related information can be found starting on page 51. This section focuses on safety belt use by people in cars and trucks, and includes a table showing seat belt use rates since 1986.

Section IV: Motorcycle Crashes
The motorcycle section starts on page 60; it focuses on crashes involving a motorcycle.

- This section does not include all-terrain vehicles or mopeds.

Section V: Truck Crashes
This section, which starts on page 69, focuses on crashes that involved a truck, normally a "heavy commercial vehicle."

- Crashes involving pickup trucks are not included in this section.

Section VI: Pedestrian Crashes
Pedestrian crash information starts on page 77. The section does not include crashes unless a motor vehicle was involved (so there are no data from pedestrian/train crashes or pedestrian/bicycle crashes).

Section VII: Bicycle Crashes
This section focuses on motor-vehicle/bicycle crashes, and it starts on page 86.

- Does not include bicycle crashes not on public highways and roadways.
- Does not include bicycle crashes unless a motor vehicle was involved.

Section VIII: School Bus Crashes

- School bus crash information starts on page 91. This section focuses on crashes that involved a school bus as a "contact vehicle."
- Does not include crashes where a school bus was indirectly involved. (This data collected beginning 2003)

Section IX: Motor Vehicle/Train Crashes
Information about train crashes starts on page 96. Crashes that do not involve a motor vehicle (that is, a crash between a pedestrian or a bicyclist and a train) 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 2006 calendar year, 3,871,160 people held Minnesota driver licenses and 4,760,872 motor vehicles were registered in the state. Vehicles traveled almost fifty-seven billion miles on public roadways in the state. There were 78,745 traffic crashes; 494 people died and 35,025 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 2005 data. Based on those, the total economic loss from 2006 traffic crashes in Minnesota was $1,529,411,600, a figure that is calculated as follows:

Cost of Motor Vehicle Crashes in 2006

494	deaths	@	$1,150,000	=$568,100,000
1,844	severe injuries	@	$60,500	=$111,562,000
9,323	moderate injuries	@	$19,600	=$182,730,800
23,858	minor injuries	@	$11,100	=$264,823,800
53,626	property damage crashes	@	$7,500	=$402,195,000
		Total	=	$1,529,411,600

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 forties. The aging of the ‘baby boom’ has reduced crash incidence, however, their children who are now reaching driving age 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 2006, there were 43,300 traffic fatalities throughout the country and 494 in Minnesota. The respective rates per hundred million miles of travel were 1.44 and 0.87. 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 mandatory 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 Office of Traffic Safety, Minnesota Department of Public 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, 1962-2006

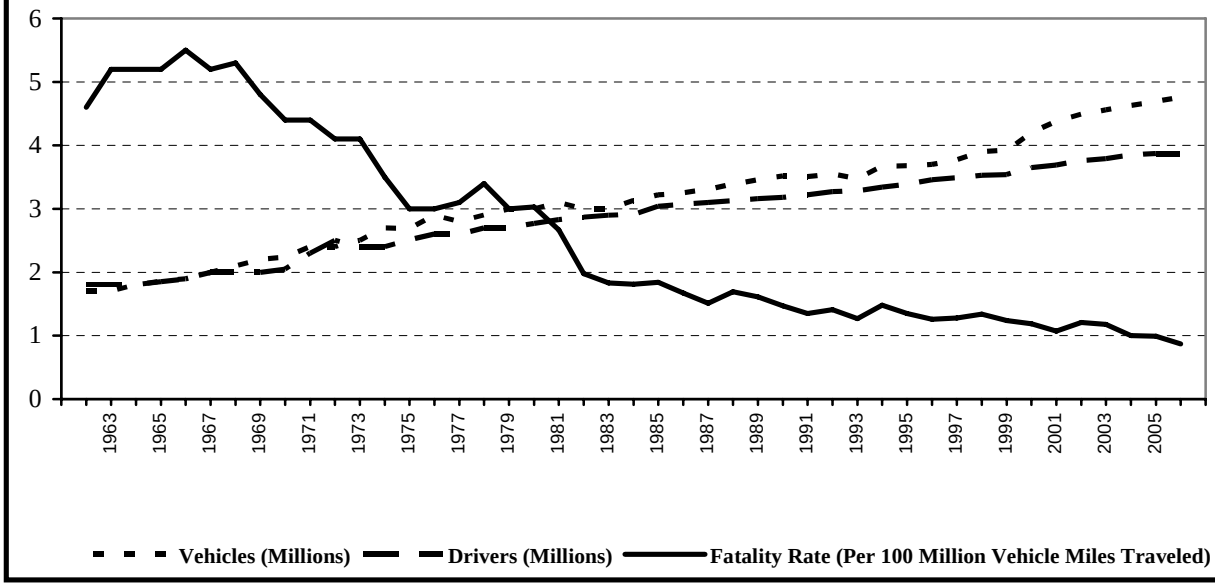

TABLE 1
Minnesota Traffic Fatalities, 1910 – 2006
Since 1961: Vehicle Miles Traveled (Billions) and Fatality Rates (Per 100 Million VMT)

YEAR	Fatal-ities	YEAR	Fatal-ities	YEAR	Fatal-ities	YEAR	Fatal-ities	Vehicle Miles	Fatal Rate	YEAR	Fatal-ities	Vehicle Miles	Fatal Rate	YEAR	Fatal-ities	Vehicle Miles	Fatal Rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(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				
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 - 2006
Since 1961: Miles Traveled (in Ten Billions) and Fatality Rates (per 100 Million VMT)

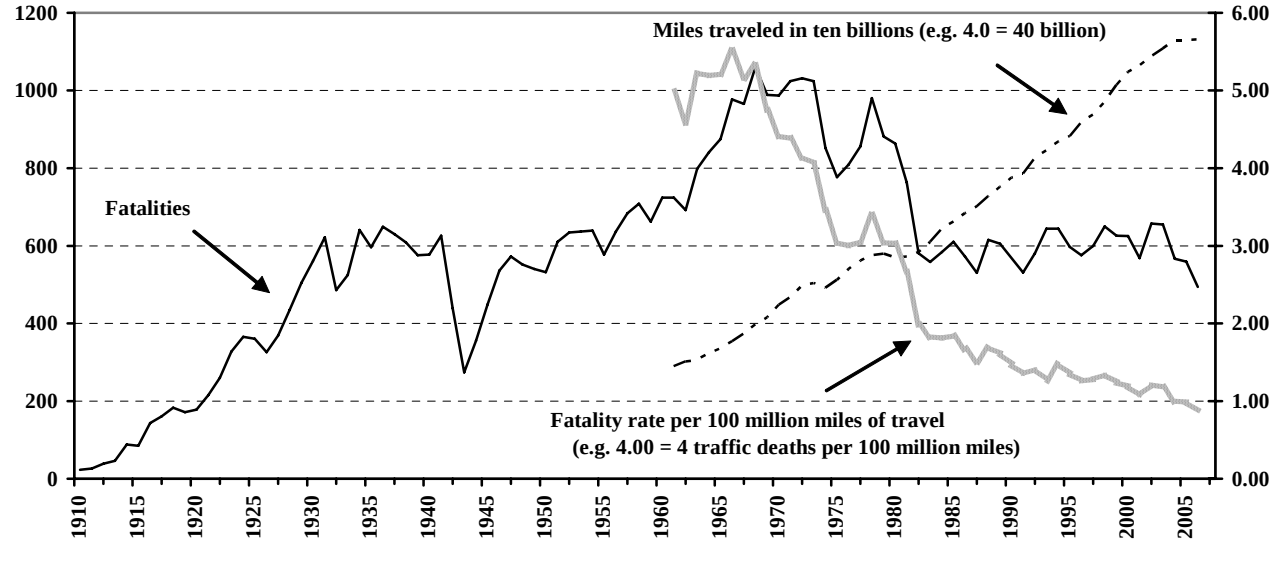

TABLE 2

DRIVER LICENSE* SUMMARY BY AGE, 2001 - 2006

Age	2001	2002	2003	2004	2005	2006
15	27,878	28,880	29,800	31,638	31,161	26,360
16	56,361	55,286	55,614	55,812	55,398	53,520
17	62,068	63,011	61,329	61,286	61,431	60,695
18	64,963	66,876	67,491	66,397	65,440	64,617
19	69,232	68,609	69,792	71,026	68,842	67,917
20	70,351	70,985	69,385	71,513	71,780	68,826
Under 21	350,853	353,647	353,411	357,672	354,052	341,935
15 – 19	280,502	282,662	284,026	286,159	282,272	273,109
20 – 24	339,486	352,022	352,818	361,589	361,839	353,949
25 – 29	309,079	320,420	326,355	339,712	348,538	353,241
30 – 34	344,952	343,933	333,363	330,480	319,537	311,685
35 – 39	377,905	366,661	354,509	350,988	349,515	342,520
40 – 44	408,621	411,413	408,428	403,774	390,439	372,638
45 – 49	368,930	379,702	386,086	395,178	400,876	401,715
50 – 54	316,321	325,664	335,331	345,855	355,524	361,197
55 – 59	238,022	252,631	264,204	280,193	296,390	306,185
60 – 64	180,723	192,074	200,322	208,133	212,324	226,262
65 – 69	146,107	149,272	154,103	158,035	163,125	168,693
70 – 74	133,205	132,368	131,255	131,277	131,383	132,725
75 – 79	111,876	113,370	114,350	114,333	114,220	114,750
80 – 84	78,351	80,361	82,681	84,761	85,056	86,274
85 & Older	51,419	54,940	60,348	61,389	61,055	66,217
Total	3,685,499	3,757,493	3,788,179	3,851,856	3,872,093	3,871,160

* 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, 2001 - 2006

Type of Vehicle*	2001	2002	2003	2004	2005	2006
Passenger Cars	3,072,081	3,156,906	3,196,960	3,239,418	3,288,446	3,353,858
Pickups	866,434	890,648	895,409	902,941	894,230	883,623
Trucks	190,314	194,695	197,952	206,419	211,577	215,542
Recreational Vehicles	39,649	39,584	39,828	39,853	39,032	37,978
Motorcycles	142,822	149,360	161,793	174,195	185,087	197,735
Motorized Bicycles	6,277	6,500	7,493	8,670	9,432	10,726
School Buses	5,926	5,938	5,979	5,989	6,093	6,257
Buses	5,037	5,001	5,058	5,059	5,018	5,235
Van Pool	267	246	219	201	193	197
Tax Exempt Vehicles	48,008	41,271	44,316	47,919	49,845	49,721
Motor Vehicle Subtotal	4,376,815	4,490,149	4,555,007	4,630,664	4,688,953	4,760,872
Trailers	1,052,751	875,677	1,357,019	1,388,642	1,448,877	1,445,556
Classic Motor Vehicles	127,239	132,964	139,784	146,541	153,383	153,594
Classic Motorcycles	4,077	4,599	5,110	5,703	6,266	6,855
Total Registrations	5,560,882	5,503,389	6,056,920	6,171,550	6,297,479	6,366,877

* 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 2006:

- The population of Minnesota approached 5.3 million.
- Over 4.7 million motor vehicles were registered.
- There were almost 3.9 million licensed drivers.
- Almost 57 *billion* miles were driven.

These numbers increase steadily. And, as more and more roads are constructed, the reader can see that 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.

Traffic Crashes in 2006

There were 78,745 traffic crashes in 2006. This amount is actually the lowest number of crashes reported in Minnesota since the early 1960's.

There were 494 deaths on Minnesota roads in 2006, a decrease for the third year in a row. In actuality, the number of traffic deaths has been very high in the recent past. In the last 10 years, Minnesota has averaged 600 traffic deaths per year. The warmer weather in winters may be a cause for this, but many other factors contribute to the crash death epidemic. Among them; speed, failure to wear seat belts, drinking and driving, driver inattention, and inexperienced younger drivers.

The following facts will help to give an overall picture of 2006 traffic crashes; In addition to the 494 killed…

- 35,025 were injured.
- 1,844 of these were severe injuries.
- 9,323 of these were moderate injuries.
- 23,858 of these were minor injuries.

- In all crashes, 198,027 people were involved.
- In all crashes, 144,522 motor vehicles were involved.
- There were 944 crashes that involved at least 1 bicyclist.
- There were 915 crashes that involved at least 1 pedestrian.

- One-third of all crashes involved just one vehicle.
- One-third of all fatalities were less than 25 years of age.
- 2 of 3 fatalities occurred in rural areas (< 5,000 pop.).
- In all, 7,590 crashes were "hit-and-run".
- The economic loss to Minnesota was almost $1.6 billion.

WHO was involved?

Among drivers, young people and males are over represented in traffic crashes in Minnesota. There are 3,871,160 licensed drivers in the state. Fifteen to 24 year olds make up 16% of the licensed drivers, yet they accounted for 28% of the crash-involved drivers. Teenage drivers are the worst, from this perspective. In 2006, they represented 7% of the licensed drivers, but 14% 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 2006. Crash-involved drivers are also more likely to be males: 72% of drivers in fatal crashes were male; 55% of drivers in all crashes were male.

Traffic crashes are the leading cause of death to young people. In the state last year, 196 people under age 30 died in crashes. That represents 40% 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 2006 but accounted for 17% of the traffic fatalities.

Among people injured, young people especially pay the price. There were 16,289 people under age 30 who were injured; that represents 47% of the total number of people injured. People aged 65 and over accounted for just 7% 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. "Chemical impairment" (typically meaning alcohol impairment) is the second most cited factor for drivers aged 20-29. 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. These are "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 494 traffic fatalities, 357 (72%) were from these 4 vehicle types. There were also 38 pedestrians, 70 motorcyclists, and 8 bicyclists who died in traffic crashes. There were no deaths among school bus occupants, and only 11 fatalities among commercial truck occupants. There is a similar pattern among people who were injured: of the 35,025 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 (42%) of the fatal crashes and two-thirds (64%) 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 (7% of the total), and collision with deer (5% of the total).

Most crashes occur in good driving conditions. Over half (53%) of fatal crashes, and 65% of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half (61%) of fatal crashes, and 58% of nonfatal crashes occurred during "clear" weather. Road surface conditions where crashes occurred were usually good. For fatal crashes, 76% were on dry roads, 11% were on wet roads, and 9% were on snowy or icy roads. For nonfatal crashes, 72% were on dry roads, 13% on wet roads, and 12% 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 2006, 308 (68%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. And, 145 (32%) of all fatal crashes occurred on county state aid highways, and 107 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 29% of the fatal crashes, but 58% of all crashes.

WHEN they occurred

In the year 2006, fatal crashes occurred most often in the 5:00-6:00pm time period (35) and the 7:00-8:00am time period (28). In fact, a fatal traffic crash is most likely to occur during morning and 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 10:00pm-2:00am 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 3:00 to 7:00 PM. 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 30%). Total crashes are more evenly distributed across days of the week, though Fridays had the most (17%) and Sundays had the least (11%).

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. The year 2006 followed this axiom in the sense that there was *not* a lot of harsh winter weather, thus, helping to reduce the number of crashes reported about 10% from the previous year. 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?

In the past two decades, approximately 600 people have been killed and 45,000 people have been injured on our roadways each and every year. 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 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.

The Office of Traffic Safety implores the reader to spread the word: Driving is a privilege; aggressive driving is not. Do not drink and drive! Wear your seat belt! Slow down! Pay attention!

TABLE 1.01

TRAFFIC SAFETY STATISTICS SUMMARY, 1965 - 2006

		Persons					Vehicle	Crash Rates			Fatality Rates		
Year	Total Crashes	Killed	Injured	Licensed Drivers (million)	Motor Vehicles (MV) (million)	State Population (million)	Miles Traveled (VMT) (billion)	Per 100,000 MV	Per 100,000 Population	Per 100 Mil VMT	Per 100,000 MV	Per 100,000 Population	Per 100 Mil VMT
(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	5.26	56.6	1,654	1,496	139	10.4	9.4	0.87

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
2001 - 2006

	2001	2002	2003	2004	2005	2006	Record High	
Fatal Crashes	**508**	**590**	**583**	**520**	**500**	**456**	**878**	**(1973)**
Injury Crashes	**29,273**	**28,140**	**N/A**	**28,066**	**26,618**	**24,663**	**33,686**	**(1978)**
Severe	2,274	2,226	N/A	1,937	1,660	1,528	5,109	(1984)[1]
Moderate	10,851	10,460	N/A	9,257	7,958	7,111	12,326	(1985)[1]
Minor	16,148	15,454	N/A	16,872	17,000	16,024	18,578	(1996)[1]
PDO Crashes	**69,203**	**66,239**	**N/A**	**62,688**	**60,695**	**53,626**	**94,810**	**(1975)**
Total Crashes	**98,984**	**94,969**	**N/A**	**91,274**	**87,813**	**78,745**	**123,106**	**(1975)**
Total Injuries	**42,223**	**40,677**	**N/A**	**40,073**	**37,686**	**35,025**	**50,332**	**(1978)**
Severe	2,949	2,807	N/A	2,424	2,019	1,844	6,573	(1984)[1]
Moderate	14,861	14,485	N/A	12,416	10,453	9,323	17,670	(1985)[1]
Minor	24,413	23,385	N/A	25,233	25,214	23,858	28,631	(1996)[1]
Total Fatalities	**568**	**657**	**655**	**567**	**559**	**494**	**1,060**	**(1968)**
Motor Vehicle Occupants	460	544	526	461	440	373	544	(2002)[1]
Motorcycle	42	47	62	50	59	70	121	(1980)
Pedestrian	46	50	52	37	44	38	157	(1971)
Bicycle	7	7	6	10	7	8	24	(1977)
All Terrain Vehicle	4	1	4	4	7	2	9	(1986)
Snowmobile	3	2	2	1	2	3	9	(1984)
Minnesota Fatality Rate[3]	1.07	1.21	1.18	1.00	0.99	0.87	23.6	(1934)
U.S. Fatality Rate[3]	1.51	1.51	1.48	1.44	1.45	1.44	18.0	(1925)
Minnesota Economic Loss (millions)	$1,619	$1,712	N/A	$1,769	$1,666	$1,529	$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

2006 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	15	25	11	15	7	7	17	97
		Female	0	12	7	7	11	10	7	10	64
	Passenger	Male	0	14	15	4	1	3	0	5	42
		Female	0	8	7	2	1	3	0	7	28
Pickup	Driver	Male	0	3	14	7	7	8	4	1	44
		Female	0	2	1	0	0	2	0	1	6
	Passenger	Male	1	1	0	0	1	1	0	1	5
		Female	1	2	2	0	1	1	0	0	7
SUV	Driver	Male	0	1	5	3	5	1	2	3	20
		Female	0	0	2	4	2	5	2	1	16
	Passenger	Male	0	1	0	0	0	0	1	1	3
		Female	1	1	1	0	1	0	0	0	4
Van	Driver	Male	0	1	1	0	2	3	0	3	10
		Female	0	1	0	2	0	1	0	1	5
	Passenger	Male	0	1	1	0	0	0	0	0	2
		Female	0	0	0	1	0	0	0	3	4
Truck	Driver	Male	0	0	1	3	2	2	1	0	9
		Female	0	0	0	0	2	0	0	0	2
Motorcycle	Driver	Male	0	1	19	8	19	12	2	1	62
		Female	0	0	0	1	2	0	0	1	4
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	1	1	0	2	0	0	4
Other Motor	Driver	Male	0	3	1	0	0	0	2	1	7
		Female	0	0	0	0	0	0	0	0	0
Vehicle	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	1	1	0	0	0	0	1	3
Bicyclist		Male	1	3	1	0	0	0	0	1	6
		Female	1	0	1	0	0	0	0	0	2
Pedestrian		Male	0	5	3	2	4	3	0	3	20
		Female	0	3	3	1	4	2	1	4	18
Total Fatalities		Male	2	49	86	38	56	40	19	37	327
		Female	3	30	26	19	24	26	10	29	167
		Total	5	79	112	57	80	66	29	66	494

Note: The vehicle types for the 10 fatalities in the 'Other Motor Vehicle' category consisted of: three snowmobiles, two ATV's, two hit-and-run vehicles, one motorhome, one taxicab, and one roadway maintenance vehicle.

TABLE 1.04

AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2006 CRASHES

	Persons Killed			Persons Injured			
Age Group	**Male**	**Female**	**Total**	**Male**	**Female**	**Unknown**	**Total**
00 - 03	1	2	3	201	199	2	402
04 - 10	3	1	4	516	546	6	1,068
11 - 14	3	4	7	455	420	4	879
Total Under 15	7	7	14	1,172	1,165	12	2,349
15	4	1	5	209	252	2	463
16	8	11	19	532	718	4	1,254
17	8	4	12	566	758	3	1,327
18	12	6	18	647	634	3	1,284
19	12	4	16	600	605	3	1,208
20	8	6	14	529	550	12	1,091
Total 15 - 20	52	32	84	3,083	3,517	27	6,627
Total Under 21	59	39	98	4,255	4,682	39	8,976
00 - 04	1	2	3	258	265	5	528
05 - 09	1	1	2	391	397	3	791
10 - 14	5	4	9	523	503	4	1,030
15 - 19	44	26	70	2,554	2,967	15	5,536
20 - 24	49	17	66	2,521	2,375	24	4,920
25 - 29	37	9	46	1,708	1,770	6	3,484
30 - 34	23	13	36	1,225	1,317	5	2,547
35 - 39	15	6	21	1,154	1,361	2	2,517
40 - 44	27	13	40	1,257	1,367	6	2,630
45 - 49	29	11	40	1,249	1,329	1	2,579
50 - 54	18	15	33	997	1,169	1	2,167
55 - 59	22	11	33	803	874	3	1,680
60 - 64	6	4	10	515	579	1	1,095
65 - 69	13	6	19	337	413	2	752
70 - 74	9	6	15	284	306	2	592
75 - 79	12	4	16	214	289	0	503
80 - 84	9	10	19	165	214	0	379
85 & Older	7	9	16	121	132	0	253
Not Stated	0	0	0	264	412	366	1,042
Total	327	167	494	16,540	18,039	446	35,025

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 2006 CRASHES

	Drivers in Fatal Crashes				Drivers in All Crashes			
Age Group	Male	Female	Not Stated	Total	Male	Female	Not Stated	Total
14 & Younger	1	0	0	1	77	25	6	108
15	2	2	0	4	159	107	1	267
16	8	9	0	17	2,193	2,198	1	4,392
17	14	13	0	27	2,532	2,321	2	4,855
18	17	8	0	25	2,665	2,055	7	4,727
19	13	4	0	17	2,471	1,861	7	4,339
20	14	3	0	17	2,357	1,884	18	4,259
Total Under 21	69	39	0	108	12,454	10,451	42	22,947
00 - 04	0	0	0	0	14	3	6	23
05 - 09	0	0	0	0	7	3	0	10
10 - 14	1	0	0	1	56	19	0	75
15 - 19	54	36	0	90	10,020	8,542	18	18,580
20 - 24	68	13	0	81	10,918	8,611	58	19,587
25 - 29	56	17	0	73	8,355	6,146	25	14,526
30 - 34	38	13	0	51	6,627	4,796	18	11,441
35 - 39	34	13	0	47	6,492	4,852	6	11,350
40 - 44	43	19	0	62	6,606	4,962	7	11,575
45 - 49	54	16	0	70	6,411	4,600	9	11,020
50 - 54	25	15	0	40	5,313	3,766	1	9,080
55 - 59	43	10	0	53	4,276	2,966	6	7,248
60 - 64	20	11	0	31	2,797	1,785	1	4,583
65 - 69	17	8	0	25	1,851	1,236	0	3,087
70 - 74	10	5	0	15	1,376	944	1	2,321
75 - 79	14	3	0	17	1,085	884	0	1,969
80 - 84	11	7	0	18	837	640	0	1,477
85 & Older	5	4	0	9	494	396	0	890
Not Stated	0	0	9	9	549	267	6,178	6,994
Total	493	190	9	692	74,084	55,418	6,334	135,836

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, 2006

Age Group	Percentage of All Licensed Drivers	Percentage of Drivers in Fatal Crashes	Injury Crashes	Property Damage Crashes	All Crashes
14 & Younger	0.0%	0.1%	0.1%	0.1%	0.1%
15	0.7	0.6	0.2	0.2	0.2
16	1.4	2.5	3.3	3.2	3.2
17	1.6	3.9	3.6	3.6	3.6
18	1.7	3.6	3.6	3.4	3.5
19	1.8	2.5	3.4	3.1	3.2
20	1.8	2.5	3.1	3.2	3.1
Total Under 21	8.8%	15.6%	17.3%	16.7%	16.9%
15 - 19	7.1%	13.0%	14.1%	13.5%	13.7%
20 - 24	9.1	11.7	14.5	14.4	14.4
25 - 29	9.1	10.6	11.0	10.6	10.7
30 - 34	8.1	7.4	8.5	8.4	8.4
35 - 39	8.8	6.8	8.7	8.2	8.4
40 - 44	9.6	9.0	8.9	8.3	8.5
45 - 49	10.4	10.1	8.6	7.9	8.1
50 - 54	9.3	5.8	6.8	6.6	6.7
55 - 59	7.9	7.7	5.2	5.4	5.3
60 - 64	5.8	4.5	3.4	3.3	3.4
65 - 69	4.4	3.6	2.4	2.2	2.3
70 - 74	3.4	2.2	1.7	1.7	1.7
75 - 79	3.0	2.5	1.5	1.4	1.4
80 - 84	2.2	2.6	1.1	1.1	1.1
85 & Older	1.7	1.3	0.7	0.6	0.7
Age Not Stated	0.0	1.3	2.8	6.3	5.2
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number	3,871,160				

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, 2006

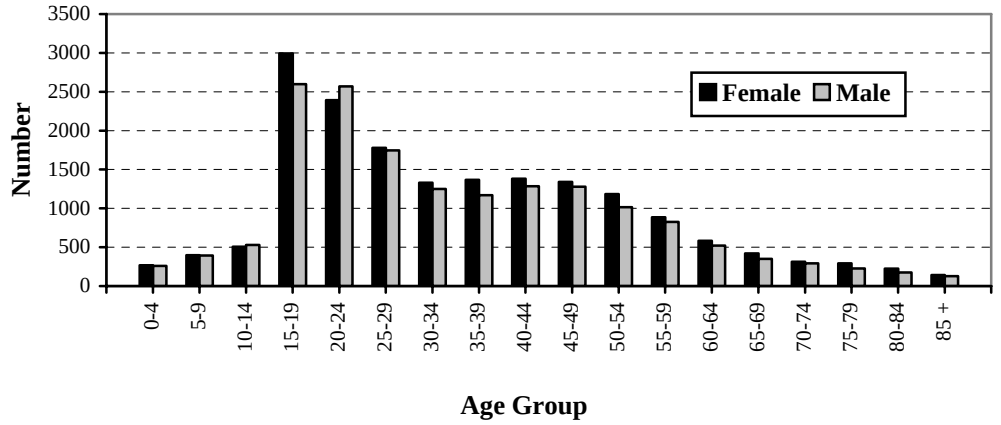

FIGURE 1.02
Licensed vs Crash-Involved Drivers by Age, 2006

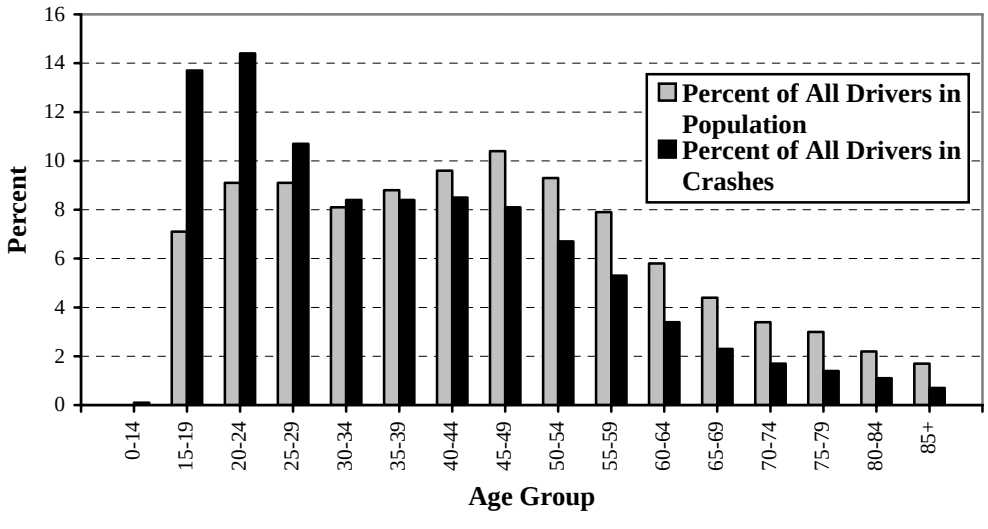

TABLE 1.07

PERCENTAGE OF DRIVERS IN 2006 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	74.8%	76.7%	79.7%	79.8%	80.8%	82.1%	83.0%	78.0%
Parked Motor Vehicle	3.5	3.2	3.2	3.0	2.6	3.4	5.1	4.2
Bicycle	0.4	0.6	0.7	0.6	0.7	0.6	1.0	0.7
Pedestrian	0.5	0.6	0.6	0.6	0.6	0.6	1.0	0.6
Deer	1.5	2.3	2.8	3.1	4.3	3.4	1.2	3.1
Other Animal	0.2	0.2	0.2	0.4	0.3	0.2	0.1	0.2
Railroad Train	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1
Fixed Object	11.4	9.9	8.2	7.3	5.7	5.8	6.2	7.7
Other Object	0.3	0.4	0.3	0.5	0.5	0.6	0.3	0.4
Non-Collision:								
Overturn	5.9	4.3	3.7	3.1	2.8	1.9	0.7	3.4
Other Non-Collision	0.4	0.5	0.4	0.6	0.6	0.3	0.2	0.5
Other or Unknown	1.2	1.1	1.0	1.1	1.1	1.1	1.1	1.2
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Drivers	18,580	19,587	14,526	11,441	54,856	7,377	2,372	135,836

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 2006 CRASHES BY PHYSICAL CONDITION*

Physical Condition	**Drivers in Fatal Crashes**	**Drivers in Injury Crashes**	**Drivers in Property Damage Crashes**	**Drivers in All Crashes**
Normal	382	34,116	69,249	103,747
Under the Influence	47	1,675	1,562	3,284
Had Been Drinking	45	737	520	1,302
Commercial Driver > .04	0	3	7	10
Had Been Using Drugs	1	70	46	117
Aggressive	0	21	47	68
Fatigued/Asleep	1	297	251	549
Ill	0	82	49	131
Physical Disability	1	47	41	89
Other	6	177	124	307
Unknown	209	5,789	20,233	26,231
Total	692	43,014	92,129	135,835

* 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, 2006

	Age Group							All
Contributing Factor	**15-19**	**20-24**	**25-29**	**30-34**	**35-64**	**65-79**	**80+**	**Ages**
Human Factors								
Illegal/Unsafe Speed	24.7%	26.7%	25.8%	22.1%	20.6%	13.2%	8.0%	23.5%
Driver Inattention/Distraction	13.9	12.5	12.9	13.1	13.4	19.0	20.1	13.5
Chemical Impairment	5.3	14.4	14.0	11.4	9.4	3.2	1.0	9.7
Overcorrecting	9.8	6.7	6.7	7.6	6.1	6.5	3.5	7.2
Driver Inexperience	14.8	3.0	3.1	2.2	1.7	0.9	0.0	5.3
Improper/Unsafe Lane Use	1.8	3.3	2.2	2.9	3.2	2.8	3.5	2.9
Improper Turn	1.0	1.2	0.9	1.2	1.1	1.3	1.0	1.2
Driving Left of Center--Not Passing	0.6	0.6	0.7	0.6	0.7	1.5	1.0	0.7
Disregard for Traffic Control Device	0.6	0.8	0.6	0.8	0.6	0.7	1.0	0.7
Vision Obscured	0.3	0.4	0.3	0.4	0.6	1.2	4.5	0.5
Following Too Closely	0.3	0.6	0.3	0.3	0.4	0.4	0.0	0.4
Unsafe Backing	0.2	0.3	0.2	0.4	0.5	0.9	1.5	0.4
Improper Passing/Overtaking	0.3	0.3	0.3	0.4	0.3	0.0	0.0	0.3
Failure to Yield Right of Way	0.2	0.2	0.2	0.1	0.2	0.4	0.5	0.2
Improper Parking/Starting/Stopping	0.1	0.2	0.1	0.2	0.1	0.2	3.0	0.2
Driver on Cell Phone or CB Radio	0.2	0.2	0.4	0.1	0.1	0.2	0.0	0.2
Other Human Factors	3.9	4.1	3.6	4.4	5.7	16.3	21.6	5.0
Vehicular Factors								
Skidding	7.3	7.2	8.1	9.1	9.9	7.1	7.5	8.2
Defective Equipment	1.2	1.4	1.6	1.6	1.6	1.9	0.5	1.4
Other Vehicular Factor	1.1	1.0	1.1	1.2	1.2	1.2	1.0	1.1
Miscellaneous Factors								
Weather	8.5	10.5	11.6	13.9	15.4	13.4	9.0	11.8
Other	3.8	4.4	5.1	6.1	7.0	7.8	11.6	5.5
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	4,878	4,115	2,406	1,700	6,306	680	199	20,742
Drivers for Whom There Was "No Clear Contributing Factor"	383	497	427	369	2,038	204	28	3,975
Total Number of Drivers	3,667	3,412	2,221	1,647	7,405	849	205	20,236

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, 2006

	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	27.1%	26.4%	25.5%	25.1%	25.6%	24.7%	20.4%	25.3%
Failure to Yield Right of Way	19.2	16.4	16.3	16.5	18.5	27.7	36.2	18.8
Following Too Closely	11.3	14.0	14.0	13.3	12.1	7.5	4.1	11.9
Illegal or Unsafe Speed	7.6	9.0	8.4	7.7	5.9	3.0	1.8	7.1
Improper or Unsafe Lane Use	3.6	4.6	5.8	5.7	5.7	6.0	5.6	5.5
Disregard of Traffic Control Device	3.8	4.9	4.6	4.8	4.8	6.0	7.7	4.9
Improper Turn	2.4	2.2	2.2	2.0	2.5	3.7	4.4	2.5
Chemical Impairment	1.0	3.2	3.3	3.4	2.5	0.8	0.2	2.3
Vision Obscured	2.0	2.0	2.0	2.0	2.5	2.9	3.6	2.2
Driver Inexperience	7.8	1.8	1.2	0.9	0.4	0.3	0.3	2.2
Improper Passing or Overtaking	1.2	1.5	1.5	1.4	1.8	1.4	1.3	1.7
Unsafe Backing	1.1	1.3	1.2	1.2	2.0	2.3	2.2	1.7
Improper Parking, Starting, or Stopping	0.9	0.9	1.2	1.0	1.2	1.5	2.4	1.2
Driving Left of Center (Not Passing)	0.7	0.8	0.8	0.7	0.8	1.0	0.9	0.8
Overcorrecting	0.6	0.6	0.7	0.8	0.5	0.4	0.3	0.6
Improper or No Signal	0.3	0.2	0.2	0.1	0.4	0.5	0.6	0.3
Impeding Traffic	0.2	0.1	0.2	0.2	0.3	0.4	0.2	0.2
Driver on Cell Phone or CB Radio	0.3	0.3	0.2	0.3	0.2	0.0	0.0	0.2
Failure To Use Lights	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1
Other Human Factors	1.1	1.5	1.6	2.0	1.9	2.8	4.0	1.8
Vehicular Factors								
Skidding	2.2	1.8	1.9	2.2	1.8	1.0	0.5	1.8
Defective Equipment	0.7	0.7	0.6	0.7	0.7	0.3	0.2	0.6
Other Vehicular Factor	0.3	0.4	0.6	0.8	0.7	0.3	0.2	0.5
Miscellaneous Factors								
Weather	2.9	2.9	3.1	3.8	3.5	2.2	1.0	3.0
Other	1.6	2.3	3.0	3.2	3.5	3.2	2.1	2.8
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	13,527	11,948	7,951	5,607	24,799	4,074	1,847	72,983
Drivers for Whom There Was "No Clear Contributing Factor"	4,250	6,006	5,111	4,509	23,035	2,567	555	46,381
Total Number of Drivers	14,909	16,173	12,300	9,791	47,437	6,526	2,167	115,759

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, 2006

Vehicle Type	Killed	Injured				Not Injured	Total Persons
		Severe	Moder-ate	Minor	Total		
Automobile	231	780	4,750	13,832	19,362	83,121	102,714
Pickup Truck	62	200	1,014	2,256	3,470	19,250	22,782
Sport Utility Vehicle	43	207	1,146	3,383	4,736	24,476	29,255
Van	21	118	728	2,219	3,065	16,129	19,215
Motorhome/Camper	1	0	9	11	20	136	157
Taxi Cab	1	3	18	94	115	507	623
Police Vehicle	0	1	23	69	93	468	561
Fire Department Vehicle	0	0	2	4	6	59	65
School Bus	0	5	11	89	105	4,273	4,378
Other Bus	0	1	11	61	73	1,409	1,482
Ambulance	0	0	0	6	6	92	98
Military Vehicle	0	0	0	1	1	14	15
Snowmobile	3	2	11	10	23	11	37
All Terrain Vehicle	2	16	19	16	51	12	65
Farm Tractor or Equipment	0	5	5	9	19	114	133
Motorcycle*	67	257	651	442	1,350	213	1,630
Motor scooter/Motorbike*	3	10	26	22	58	10	71
Motorized Bicycle (Moped)*	0	6	9	10	25	10	35
Hit and Run Vehicle	2	7	41	89	137	4,080	4,219
Road Maintenance Vehicle	1	2	12	24	38	507	546
Other Public Owned Vehicle	0	1	6	15	22	195	217
Single Truck (2-axle, 6-tire)	1	2	19	50	71	933	1,005
Single Truck (3 or more axles)	2	1	10	23	34	384	420
Single Truck with Trailer	0	0	7	13	20	295	315
Truck Tractor with No Trailer	0	0	0	3	3	76	79
Truck Tractor with Semi Trailer	7	5	48	118	171	2,213	2,391
Truck Tractor with Double Trailers	0	0	2	2	4	36	40
Other or Unknown Truck Type	1	1	8	12	21	358	380
Other Vehicle Type	0	4	16	9	29	319	348
Unknown Vehicle Type	0	4	29	51	84	2,675	2,759
Bicycle	8	60	370	477	907	59	974
Pedestrian	38	146	322	438	906	74	1,018
Total	494	1,844	9,323	23,858	35,025	162,508	198,027

* 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 2006 CRASHES

Motor Vehicle Type*	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in Property Damage Crashes	Vehicles in All Crashes
Automobile	310	24,201	52,702	77,213
Pickup Truck	108	5,345	12,510	17,963
Sport Utility Vehicle	86	6,319	14,013	20,418
Van	47	3,722	8,009	11,778
Motorhome/Camper	3	25	59	87
Taxicab	1	151	278	430
Police Vehicle	1	162	391	554
Fire Department Vehicle	0	10	25	35
School Bus	1	139	491	631
Other Bus	3	73	220	296
Ambulance	0	10	34	44
Military Vehicle	0	2	10	12
Snowmobile*	3	19	9	31
All Terrain Vehicle*	2	45	6	53
Farm Tractor or Equipment	1	45	82	128
Motorcycle**	68	1,256	143	1,467
Motor scooter/Motorbike**	3	57	5	65
Motorized Bicycle (Moped)**	1	24	8	33
Hit and Run Vehicle	4	520	3,013	3,537
Road Maintenance Vehicle	3	120	388	511
Other Public Owned Vehicle	0	50	141	191
Single Truck (2-axle, 6-tire)	9	239	641	889
Single Truck (3 or more axles)	11	111	283	405
Single Truck with Trailer	4	48	208	260
Truck Tractor with No Trailer	0	22	60	82
Truck Tractor with Semi Trailer	35	624	1,616	2,275
Truck Tractor with Double Trailers	2	9	25	36
Other or Unknown Truck Type	1	71	279	351
Other Vehicle Type	1	62	246	309
Unknown Vehicle Type	0	460	2,006	2,466
Total***	708	43,941	97,901	142,550

* 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

2006 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	193	15,272	34,947	50,412	220	23,398	4.4
Parked Motor Vehicle	10	613	4,634	5,257	10	781	1.9
Bicycle	8	867	40	915	8	901	8.7
Pedestrian	35	811	1	847	35	875	41.3
Deer	3	420	3,715	4,138	3	486	0.7
Other Animal	1	64	244	309	1	73	3.2
Railroad Train	8	10	33	51	9	15	176.5
Fixed Object	91	3,374	6,728	10,193	96	4,163	9.4
Non-Fixed Object	2	106	311	419	2	128	4.8
Other Collision Type	1	216	321	538	1	281	1.9
Unkn Collision Type	0	14	31	45	0	19	0.0
Non-Collision:							
Overturn	96	2,495	1,912	4,503	101	3,438	22.4
Fire/Explosion	1	6	102	109	1	6	9.2
Submersion	2	11	42	55	2	16	36.4
Other Non-Collision	0	157	243	400	0	186	0.0
Unknown Crash Type	5	227	322	554	5	259	9.0
Total	456	24,663	53,626	78,745	494	35,025	6.3

TABLE 1.14

2006 "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	5	825	2,712	3,542	5	1,183
Parked Motor Vehicle	1	119	2,181	2,301	1	141
Bicycle	0	116	7	123	0	120
Pedestrian	5	146	0	151	5	158
Deer	0	1	2	3	0	2
Other Animal	0	0	1	1	0	0
Railroad Train	0	1	5	6	0	2
Fixed Object	1	213	1,008	1,222	1	248
Non-Fixed Object	0	9	28	37	0	10
Other Collision Type	0	7	40	47	0	9
Unkn Collision Type	0	0	14	14	0	0
Non-Collision:						
Overturn	1	42	43	86	1	57
Other Non-Collision	0	2	7	9	0	2
Unknown Crash Type	0	13	35	48	0	14
Total	13	1,494	6,083	7,590	13	1,946

TABLE 1.15

2006 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Not Applicable	321	13,188	31,314	44,823	346	18,270
Traffic Signal	25	5,999	11,225	17,249	28	8,641
Overhead Flashers	0	24	53	77	0	45
Stop Sign-All Approaches	4	419	1,152	1,575	5	557
Other Stop Sign	71	3,702	6,438	10,211	79	5,639
Yield Sign	8	435	854	1,297	8	646
Flagman, Officer, or School Patrol	1	24	59	84	1	37
School Bus Stop Arm	0	19	28	47	0	31
School Zone Sign	0	13	19	32	0	15
No Passing Zone	14	165	236	415	15	227
RR Crossing Gate	1	9	34	44	1	11
RR Flashing Lights	0	13	19	32	0	17
RR Crossing Stop Sign	4	7	9	20	4	10
RR Overhead Flashing Lights	0	0	4	4	0	0
RR Overhead Lights and Gate	0	9	24	33	0	12
RR Crossbuck	1	4	25	30	1	5
Other Device	5	294	764	1,063	5	439
Unknown	1	339	1,369	1,709	1	423
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.16

2006 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	277	14,864	30,750	45,891	303	20,965
Cloudy	122	6,375	13,789	20,286	132	9,193
Rain	25	1,533	3,400	4,958	27	2,250
Snow	14	1,001	2,950	3,965	14	1,429
Sleet/Hail/Freezing Rain	4	294	763	1,061	4	382
Fog/Smog/Smoke	6	106	231	343	6	141
Blowing Sand/Dust/Snow	1	164	375	540	1	240
Severe Crosswinds	0	30	44	74	0	41
Other	1	51	145	197	1	74
Not Stated/Unknown	6	245	1,179	1,430	6	310
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.17

CONTRIBUTING FACTORS IN 2006 CRASHES

Contributing Factors	Percent of Factors Cited in Crashes by Severity of Crash: Fatal Crashes	Injury Crashes	Property Damage Crashes	Number of Crashes in which the Factor was Cited: Fatal Crashes	Injury Crashes	Property Damage Crashes	Number of People Affected: Killed	Injured
Human Factors								
Driver Inattention/Distraction	10.8%	22.0%	22.8%	74	7,058	13,179	75	10,216
Failure to Yield Right of Way	11.5	16.0	14.0	81	5,126	8,111	91	7,986
Illegal/Unsafe Speed	19.9	11.3	10.1	140	3,667	5,905	151	5,490
Following Too Closely	0.0	7.6	10.2	0	2,282	5,710	0	3,266
Improper/Unsafe Lane Use	5.6	3.4	5.8	37	1,114	3,356	43	1,616
Disregard Traf Contr Device	3.4	5.1	3.5	23	1,668	2,056	26	2,711
Driver Inexperience	2.4	3.0	2.7	17	998	1,618	19	1,503
Chemical Impairment	8.4	5.6	2.9	58	1,820	1,713	62	2,540
Improper Turn	1.3	1.5	2.6	9	512	1,538	12	768
Vision Obscured	2.0	1.7	1.9	11	526	1,047	11	758
Unsafe Backing	0.0	0.3	2.0	0	112	1,164	0	140
Improper Passing/Overtaking	1.1	0.8	1.7	8	260	1,007	8	362
Overcorrecting	6.0	2.6	1.6	43	872	961	45	1,213
Improper Park/Start/Stop	0.8	0.8	1.2	5	281	674	5	433
Driving Left of Center (Not Passing)	5.0	1.0	0.6	35	334	386	41	585
Improper or No Signal	0.1	0.1	0.3	1	46	163	3	67
Impeding Traffic	0.3	0.2	0.2	2	68	110	2	95
Driver on Phone or CB Radio	0.0	0.2	0.2	0	80	112	0	108
Failure to Use Lights	0.3	0.1	0.1	2	30	41	2	43
Non-Motorist Error	2.5	0.8	0.1	15	228	35	15	249
Other Human Factor	4.9	3.3	2.1	33	1,049	1,221	36	1,381
Vehicular Factors								
Skidding	5.8	3.1	3.2	41	997	1,868	47	1,392
Defective Equipment	0.4	0.8	0.7	3	250	419	4	372
Other Vehicular Factor	0.3	0.6	0.8	2	198	444	2	268
Miscellaneous Factors								
Weather	3.2	4.2	5.3	18	1,257	2,845	19	1,765
Other	3.9	3.7	3.5	25	1,081	1,724	26	1,467
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	713	33,686	60,859					
Vehicles Where There Was "No Clear Contributing Factor"	265	17,612	35,206					
Total Number of Vehicles	760	45,763	97,999					

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

2006 CRASHES BY LIGHT CONDITION

Light Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Daylight	240	16,593	34,932	51,765	260	23,615
Dawn (Morning)	11	498	1,284	1,793	11	681
Dusk (Evening)	9	624	1,492	2,125	10	879
Dark/Street Lights On	58	4,040	9,022	13,120	62	5,760
Dark/No Street Lights	134	2,723	5,798	8,655	147	3,851
Other/Unknown	4	185	1,098	1,287	4	239
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.19

2006 CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	345	18,457	38,270	57,072	373	26,250
Wet	51	3,207	7,309	10,567	56	4,641
Snow/Slush	9	893	2,890	3,792	9	1,238
Ice or Packed Snow	32	1,594	3,890	5,516	37	2,198
Other	13	374	563	950	13	518
Not Stated/Unknown	6	138	704	848	6	180
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.20

2006 CRASHES BY ROAD DESIGN

Road Design	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Freeway (Including Ramps)	49	3,086	8,231	11,366	52	4,309
Other Divided Highway	60	3,641	6,433	10,134	67	5,420
One-Way Street	1	568	1,090	1,659	1	802
4-6 Lanes Undivided	25	4,083	7,768	11,876	25	5,837
3 Lanes Undivided	4	274	573	851	4	401
2-Lane--2-Way	300	10,041	19,280	29,621	326	14,332
Alley/Driveway	0	98	368	466	0	110
Other Road Design	16	757	1,570	2,343	18	1,068
Not Stated/Unknown	1	2,115	8,313	10,429	1	2,746
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.21

2006 CRASHES BY DIAGRAM

Diagram	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Rear End	23	6,943	15,462	22,428	24	10,027
Sideswipe Passing	8	863	6,390	7,261	8	1,159
Left Turn -- Oncoming Traffic	11	1,324	2,787	4,122	11	1,960
Ran Off Road - Left	63	2,105	2,830	4,998	67	2,756
Right Angle	106	5,415	9,184	14,705	116	8,301
Right Turn -- Cross Street Traffic	1	258	702	961	1	324
Ran Off Road - Right	96	2,823	4,097	7,016	101	3,671
Head On	76	1,344	2,506	3,926	92	2,108
Sideswipe Opposing	13	432	1,340	1,785	14	622
Not Applicable	10	796	2,052	2,858	10	984
Other / Unknown / Incomplete	49	2,360	6,276	8,685	50	3,113
Total	456	24,663	53,626	78,745	494	35,025

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

2006 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	25	4,351	11,803	16,179	26	6,031
50,000 - 99,999	37	3,759	8,068	11,864	40	5,208
25,000 - 49,999	31	3,132	6,836	9,999	34	4,384
10,000 - 24,999	41	3,857	8,519	12,417	46	5,403
5,000 - 9,999	14	1,580	3,707	5,301	15	2,287
2,500 - 4,999	11	933	2,351	3,295	12	1,337
1,000 - 2,499	8	451	1,178	1,637	9	610
Under 1,000	289	6,600	11,164	18,053	312	9,765
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.23

2006 CRASHES BY TYPE OF ROADWAY

Type of Roadway	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	29	1,943	5,483	7,455	32	2,697
US Trunk Highway	15	1,520	3,354	4,889	16	2,194
MN Trunk Highway	33	2,615	5,391	8,039	41	3,774
County State Aid Highway	38	4,934	9,756	14,728	38	7,015
County Road	2	121	219	342	2	175
Township Road	0	2	8	10	0	2
Local Street	30	5,462	14,380	19,872	31	7,356
Other Road	1	82	342	425	1	100
Urban Total	148	16,679	38,933	55,760	161	23,313
Rural						
Interstate	11	608	1,615	2,234	11	890
US Trunk Highway	48	1,366	2,564	3,978	52	2,088
MN Trunk Highway	82	1,970	3,625	5,677	87	2,949
County State Aid Highway	107	2,594	4,037	6,738	119	3,714
County Road	24	399	537	960	26	555
Township Road	28	642	951	1,621	29	975
Local Street	7	344	1,200	1,551	8	458
Other Road	1	61	164	226	1	83
Rural Total	308	7,984	14,693	22,985	333	11,712
All Roadways						
Interstate	40	2,551	7,098	9,689	43	3,587
US Trunk Highway	63	2,886	5,918	8,867	68	4,282
MN Trunk Highway	115	4,585	9,016	13,716	128	6,723
County State Aid Highway	145	7,528	13,793	21,466	157	10,729
County Road	26	520	756	1,302	28	730
Township Road	28	644	959	1,631	29	977
Local Street	37	5,806	15,580	21,423	39	7,814
Other Road	2	143	506	651	2	183
Total	456	24,663	53,626	78,745	494	35,025

("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

2006 COUNTY CRASH REPORT

	2006 Crashes				Total	Number	Number	Number	Number
			Property		Crashes	Killed	Killed	Injured	Injured
County	Fatal	Injury	Damage	Total	2005	2006	2005	2006	2005
Aitkin	2	76	133	211	242	2	5	116	92
Anoka	26	1,386	2,519	3,931	4,167	29	22	2,031	2,057
Becker	3	161	195	359	336	4	6	243	215
Beltrami	8	173	434	615	621	8	4	252	331
Benton	4	190	369	563	595	4	10	288	274
Big Stone	1	14	40	55	64	1	0	19	17
Blue Earth	5	364	956	1,325	1,433	5	10	478	483
Brown	3	117	200	320	342	3	1	159	163
Carlton	8	153	179	340	397	9	4	223	209
Carver	7	367	793	1,167	1,246	8	8	516	516
Cass	4	127	214	345	351	4	5	199	211
Chippewa	4	55	117	176	174	5	4	78	102
Chisago	12	264	427	703	791	13	6	420	377
Clay	6	223	593	822	970	8	5	309	357
Clearwater	3	22	54	79	91	3	5	29	40
Cook	2	35	92	129	132	2	1	48	46
Cottonwood	1	44	79	124	117	1	1	65	79
Crow Wing	7	331	635	973	1,032	8	16	485	543
Dakota	20	1,532	2,996	4,548	5,206	20	28	2,150	2,478
Dodge	2	73	114	189	228	2	7	117	111
Douglas	7	186	496	689	757	8	6	263	297
Faribault	2	62	130	194	180	3	2	97	75
Fillmore	6	89	164	259	315	6	2	121	119
Freeborn	2	144	404	550	635	2	4	215	241
Goodhue	7	266	583	856	916	7	8	401	350
Grant	1	38	60	99	86	1	0	48	28
Hennepin	38	6,554	14,305	20,897	24,322	40	50	9,078	10,024
Houston	0	85	227	312	305	0	2	119	79
Hubbard	3	93	129	225	277	5	5	140	157
Isanti	9	158	327	494	533	9	7	230	217
Itasca	5	212	364	581	667	5	4	334	419
Jackson	1	61	112	174	140	1	6	81	70
Kanabec	0	75	96	171	225	0	9	105	127
Kandiyohi	6	210	428	644	728	8	8	309	343

TABLE 1.24 CONTINUED

2006 COUNTY CRASH REPORT

	2006 Crashes				Total	Number	Number	Number	Number
County	Fatal	Injury	Property Damage	Total	Crashes 2005	Killed 2006	Killed 2005	Injured 2006	Injured 2005
Kittson	0	13	25	38	44	0	2	24	14
Koochiching	1	50	92	143	137	1	1	73	72
Lac Qui Parle	2	20	35	57	46	2	1	29	36
Lake	3	61	115	179	172	3	5	83	78
Lake of the Woods	1	11	13	25	41	1	2	17	22
Le Sueur	2	131	287	420	446	3	7	183	220
Lincoln	0	23	52	75	108	0	3	40	29
Lyon	5	95	215	315	396	6	2	150	192
McLeod	7	160	415	582	644	7	5	235	270
Mahnomen	2	26	35	63	60	2	0	39	43
Marshall	2	37	37	76	75	2	1	44	35
Martin	2	91	215	308	297	2	3	133	87
Meeker	3	92	149	244	247	3	5	142	149
Mille Lacs	9	136	184	329	380	10	8	218	182
Morrison	4	135	215	354	465	5	7	193	199
Mower	5	162	394	561	624	5	1	217	206
Murray	1	39	69	109	87	1	2	66	50
Nicollet	4	122	302	428	468	6	1	170	157
Nobles	2	103	252	357	345	2	3	154	135
Norman	0	23	51	74	71	0	0	34	41
Olmsted	13	636	1,277	1,926	2,363	15	10	888	1,047
Otter Tail	4	277	524	805	817	4	10	389	438
Pennington	0	71	85	156	168	0	3	101	116
Pine	4	125	222	351	388	4	13	194	262
Pipestone	2	35	73	110	107	2	2	51	57
Polk	4	84	271	359	397	6	4	109	155
Pope	4	51	65	120	140	4	2	71	54
Ramsey	18	2,647	8,157	10,822	12,712	20	26	3,649	4,006
Red Lake	2	16	11	29	37	2	1	27	18
Redwood	3	78	111	192	181	3	3	115	99
Renville	4	74	81	159	181	4	7	118	128
Rice	11	308	524	843	924	13	14	420	461
Rock	1	46	126	173	151	1	1	65	72

TABLE 1.24 CONTINUED

2006 COUNTY CRASH REPORT

County	2006 Crashes Fatal	Injury	Property Damage	Total	Total Crashes 2005	Number Killed 2006	Number Killed 2005	Number Injured 2006	Number Injured 2005
Roseau	0	29	81	110	145	0	6	44	74
St. Louis	21	897	1,938	2,856	2,364	21	19	1,279	1,203
Scott	8	464	777	1,249	1,365	8	11	709	746
Sherburne	9	356	807	1,172	1,240	9	18	508	561
Sibley	2	43	99	144	184	2	0	63	96
Stearns	14	758	1,547	2,319	2,222	15	18	1,129	1,145
Steele	5	154	355	514	759	5	7	219	235
Stevens	2	29	101	132	103	2	3	49	45
Swift	0	39	47	86	90	0	0	62	40
Todd	3	97	157	257	235	3	5	131	118
Traverse	1	7	19	27	17	1	0	10	9
Wabasha	7	95	176	278	283	7	6	145	139
Wadena	2	51	91	144	167	3	2	71	84
Waseca	3	84	151	238	267	3	3	111	120
Washington	15	840	1,902	2,757	3,167	16	19	1,175	1,411
Watonwan	2	33	104	139	154	4	3	50	61
Wilkin	1	42	83	126	134	1	0	51	51
Winona	7	235	592	834	942	7	2	300	338
Wright	11	451	872	1,334	1,495	11	16	658	754
Yellow Medicine	3	41	84	128	139	3	5	54	77
Unknown	0	0	0	0	1	0	0	0	2
Minnesota Totals	456	24,663	53,626	78,745	87,813	494	559	35,025	37,686

TABLE 1.25

2006 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Afton	0	11	17	28	0	14
Albert Lea	1	55	221	277	1	88
Albertville	0	38	73	111	0	53
Alexandria	0	79	231	310	0	105
Andover	2	73	103	178	2	113
Annandale	0	8	12	20	0	11
Anoka	0	96	317	413	0	123
Apple Valley	0	203	279	482	0	286
Arden Hills	1	105	311	417	1	154
Aurora	0	4	5	9	0	5
Austin	1	85	260	346	1	114
Baxter	0	60	122	182	0	95
Bayport	0	7	21	28	0	10
Baytown Township	0	7	21	28	0	10
Becker	0	13	35	48	0	22
Belle Plaine	0	15	43	58	0	23
Bemidji	1	72	234	307	1	96
Benson	0	6	21	27	0	13
Big Lake	0	26	49	75	0	33
Blaine	5	257	334	596	6	372
Bloomington	3	574	1,111	1,688	3	783
Blue Earth	1	11	32	44	2	14
Brainerd	0	106	240	346	0	145
Breckenridge	0	11	33	44	0	13
Brooklyn Center	2	247	395	644	2	358
Brooklyn Park	6	299	251	556	7	431
Buffalo	0	52	94	146	0	81
Burnsville	2	280	504	786	2	386
Byron	0	12	21	33	0	21
Caledonia	0	6	25	31	0	6
Cambridge	0	39	104	143	0	50
Cannon Falls	1	11	34	46	1	25
Centerville	0	3	11	14	0	3
Champlin	0	80	92	172	0	120
Chanhassen	2	99	289	390	3	130
Chaska	0	67	163	230	0	106
Chisago City	0	11	16	27	0	20
Chisholm	1	11	61	73	1	14
Circle Pines	0	10	28	38	0	10
Cloquet	2	47	34	83	2	77
Cokato	0	3	10	13	0	5
Cold Spring	0	8	31	39	0	17
Columbia Heights	1	82	132	215	1	110
Coon Rapids	3	328	669	1,000	3	468
Corcoran	0	21	41	62	0	32
Cottage Grove	0	62	223	285	0	99
Crookston	0	8	57	65	0	9

TABLE 1.25

2006 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Crystal	0	89	100	189	0	131
Dayton	0	29	54	83	0	42
Deephaven	0	6	18	24	0	9
Delano	1	8	33	42	1	11
Denmark Township	1	13	20	34	1	16
Detroit Lakes	0	55	87	142	0	82
Dilworth	0	7	24	31	0	16
Duluth	4	342	876	1,222	4	485
Eagan	3	255	652	910	3	342
East Bethel	1	39	42	82	2	65
East Grand Forks	0	21	92	113	0	25
Eden Prairie	1	194	549	744	2	266
Edina	0	147	416	563	0	192
Elk River	1	111	211	323	1	157
Ely	0	4	16	20	0	4
Eveleth	0	7	40	47	0	10
Fairmont	0	42	100	142	0	59
Falcon Heights	0	21	43	64	0	30
Faribault	2	105	115	222	3	153
Farmington	1	32	80	113	1	46
Fergus Falls	1	58	157	216	1	69
Forest Lake	0	101	214	315	0	137
Fridley	3	139	210	352	3	203
Gilbert	0	6	17	23	0	10
Glencoe	0	12	34	46	0	18
Glenwood	0	8	22	30	0	13
Golden Valley	1	142	314	457	1	185
Goodview	0	6	22	28	0	6
Grand Rapids	0	60	140	200	0	112
Granite Falls	1	4	27	32	1	9
Grant	2	11	32	45	2	17
Greenfield	0	13	18	31	0	14
Ham Lake	2	53	70	125	2	108
Hastings	0	68	192	260	0	185
Hermantown	0	50	61	111	0	81
Hibbing	1	86	256	343	1	119
Hopkins	1	68	164	233	1	86
Hugo	1	33	53	87	1	53
Hutchinson	2	61	161	224	2	84
Independence	0	19	25	44	0	28
International Falls	0	25	53	78	0	37
Inver Grove Heights	2	110	245	357	2	164
Jackson	0	9	33	42	0	14
Jordan	1	24	35	60	1	39

TABLE 1.25

2006 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Kasson	0	9	26	35	0	12
La Crescent	0	13	46	59	0	18
Lake City	0	17	46	63	0	33
Lake Elmo	2	54	118	174	2	75
Lakeville	2	111	144	257	2	166
Le Sueur	0	15	31	46	0	19
Lindstrom	0	16	32	48	0	21
Lino Lakes	2	61	189	252	3	94
Litchfield	0	13	47	60	0	18
Little Canada	0	132	303	435	0	187
Little Falls	0	35	76	111	0	48
Long Prairie	0	9	19	28	0	14
Luverne	0	10	38	48	0	12
Mahtomedi	1	12	26	39	1	19
Mankato	2	255	693	950	2	338
Maple Grove	1	214	567	782	1	310
Maplewood	3	254	677	934	3	356
Marshall	1	50	113	164	2	79
May Township	0	7	14	21	0	9
Medina	0	34	91	125	0	47
Melrose	1	10	25	36	1	16
Mendota Heights	0	57	121	178	0	71
Minneapolis	15	3,052	6,998	10,065	15	4,263
Minnetonka	2	230	416	648	2	305
Minnetrista	0	12	55	67	0	17
Montevideo	0	14	56	70	0	19
Monticello	0	40	98	138	0	59
Moorhead	1	130	370	501	2	174
Mora	0	17	27	44	0	23
Morris	0	11	56	67	0	21
Mound	0	20	35	55	0	26
Mounds View	0	49	71	120	0	70
Mountain Iron	0	17	32	49	0	28
New Brighton	2	70	185	257	2	96
New Hope	0	40	96	136	0	54
Newport	0	37	118	155	0	45
New Prague	1	10	26	37	2	19
New Scandia Twsp	1	22	26	49	1	30
New Ulm	1	75	130	206	1	98
North Branch	1	45	80	126	1	74
Northfield	0	49	98	147	0	70
North Mankato	0	20	69	89	0	28
North Oaks	0	7	13	20	0	12
North St. Paul	0	58	127	185	0	82
Oakdale	3	101	183	287	3	141

TABLE 1.25

2006 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Oak Park Heights	0	32	52	84	0	41
Olivia	0	5	6	11	0	9
Orono	0	29	86	115	0	35
Otsego	1	46	72	119	1	57
Owatonna	1	80	161	242	1	115
Park Rapids	0	12	18	30	0	21
Pine City	0	7	26	33	0	8
Pipestone	0	12	18	30	0	16
Plainview	0	12	10	22	0	20
Plymouth	4	209	564	777	4	284
Princeton	0	26	37	63	0	37
Prior Lake	2	46	38	86	2	73
Proctor	0	7	28	35	0	9
Ramsey	4	91	158	253	4	132
Red Wing	0	99	244	343	0	136
Redwood Falls	0	23	42	65	0	27
Richfield	0	219	474	693	0	306
Robbinsdale	0	47	89	136	0	61
Rochester	4	425	951	1,380	5	588
Rockford	0	8	16	24	0	14
Rogers	0	75	149	224	0	104
Roseau	0	6	16	22	0	10
Rosemount	0	65	169	234	0	98
Roseville	1	215	617	833	1	301
St. Anthony	0	26	54	80	0	40
St. Augusta Twnshp	0	10	28	38	0	12
St. Charles	0	7	36	43	0	7
St. Cloud	4	409	958	1,371	4	560
St. Francis	1	20	31	52	1	35
St. James	0	12	32	44	0	14
St. Joseph	0	12	23	35	0	20
St. Louis Park	2	205	553	760	2	263
St. Michael	1	30	54	85	1	45
St. Paul	10	1,299	4,805	6,114	11	1,768
St. Paul Park	0	12	32	44	0	14
St. Peter	0	23	80	103	0	32
Sartell	0	22	38	60	0	33
Sauk Centre	0	19	25	44	0	33
Sauk Rapids	1	40	56	97	1	56
Savage	1	114	177	292	1	158
Shakopee	2	116	290	408	2	164
Shoreview	0	102	241	343	0	140
Shorewood	0	30	83	113	0	34
Sleepy Eye	0	11	14	25	0	18

TABLE 1.25

2006 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
South St. Paul	1	90	240	331	1	113
Spring Lake Park	0	34	66	100	0	48
Spring Valley	0	12	25	37	0	16
Staples	0	5	23	28	0	8
Stewartville	0	8	15	23	0	10
Stillwater	1	57	166	224	1	68
Stillwater Township	0	27	36	63	0	44
Thief River Falls	0	41	61	102	0	53
Two Harbors	0	15	33	48	0	20
Vadnais Heights	0	108	272	380	0	153
Victoria	0	17	36	53	0	22
Virginia	2	44	146	192	2	56
Waconia	0	19	43	62	0	26
Wadena	0	16	38	54	0	23
Waite Park	1	52	127	180	1	81
Waseca	1	30	64	95	1	44
Watertown	0	7	17	24	0	11
Wayzata	0	32	116	148	0	38
W. Lakeland Twnsp	0	6	24	30	0	8
West St. Paul	0	94	125	219	0	128
White Bear Lake	0	174	371	545	0	227
White Bear Twnsp	1	19	37	57	2	27
Willmar	0	107	281	388	0	157
Windom	0	10	37	47	0	13
Winona	0	119	275	394	0	145
Woodbury	3	183	404	590	4	267
Worthington	0	52	139	191	0	70
Wyoming	1	17	42	60	1	27
Zimmerman	0	13	58	71	0	17

TABLE 1.26

2006 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	1,413	19	323	2	138	2	132	3	146	1	146	2	195	3	333	6
1:00	1,413	16	332	6	135	3	140	1	147	0	152	1	183	1	324	4
2:00	1,507	21	399	6	126	1	106	1	112	1	189	2	219	1	356	9
3:00	995	9	246	2	103	0	90	0	94	1	115	1	135	0	212	5
4:00	853	6	156	2	127	1	89	0	93	2	88	0	138	0	162	1
5:00	1,281	14	171	1	207	2	157	2	185	4	214	4	210	0	137	1
6:00	2,458	15	203	2	424	4	405	2	402	0	448	4	386	0	190	3
7:00	4,626	28	216	2	852	12	921	5	836	3	849	3	690	2	262	1
8:00	4,151	15	259	3	749	2	793	3	700	3	734	2	636	1	280	1
9:00	3,196	13	289	1	545	1	569	1	446	1	463	4	512	4	372	1
10:00	3,154	18	422	6	433	2	441	2	369	1	469	1	532	1	488	5
11:00	3,709	16	458	3	511	5	522	2	455	1	515	3	656	1	592	1
Noon	4,400	19	582	9	600	3	640	1	577	0	629	3	760	2	612	1
1:00	4,129	23	492	2	545	3	564	3	545	1	661	5	731	6	591	3
2:00	4,978	24	514	2	732	4	704	3	684	7	782	4	962	4	600	0
3:00	5,975	20	559	4	937	5	843	2	891	5	1,039	1	1,130	2	576	1
4:00	6,183	25	552	4	938	5	935	3	969	3	1,019	4	1,173	3	597	3
5:00	6,744	35	522	1	1,043	8	1,086	9	1,194	3	1,158	5	1,193	8	548	1
6:00	4,613	14	510	1	642	0	688	2	695	3	766	2	760	3	552	3
7:00	3,180	24	473	4	440	1	429	3	439	3	455	3	521	4	423	6
8:00	2,581	25	380	5	362	2	355	1	360	6	393	2	357	2	374	7
9:00	2,681	17	375	3	329	1	370	3	336	0	391	2	493	6	387	2
10:00	2,115	20	282	2	258	1	263	1	244	0	315	3	422	7	331	6
11:00	1,687	20	194	4	161	1	196	3	178	4	202	1	390	5	366	2
Unknown	723	0	77	0	96	0	105	0	116	0	101	0	130	0	98	0
Total	78,745	456	8,986	77	11,433	69	11,543	56	11,213	53	12,293	62	13,514	66	9,763	73

FIGURE 1.03

Total Crashes vs Fatal Crashes, by Time, 2006

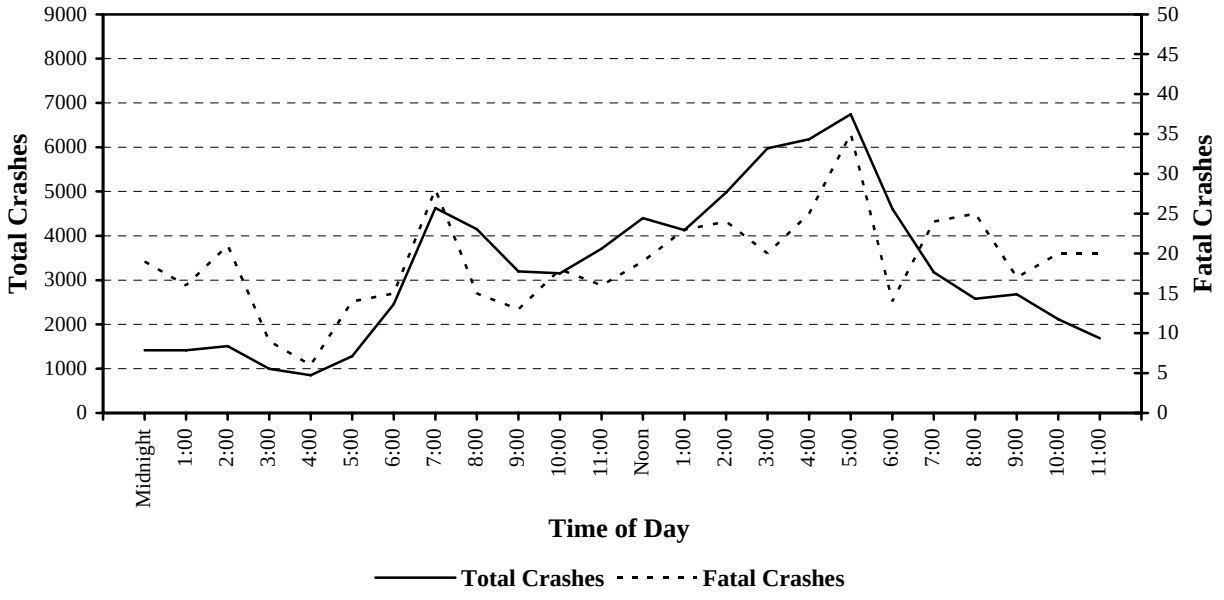

TABLE 1.27

2006 CRASHES, FATALITIES, AND INJURIES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	43	1,952	5,051	7,046	50	2,755
February	27	1,702	4,496	6,225	27	2,371
March	28	1,725	4,569	6,322	31	2,489
April	34	1,783	3,491	5,308	35	2,563
May	39	2,072	4,168	6,279	44	2,945
June	40	2,211	4,266	6,517	42	3,185
July	56	2,184	3,639	5,879	59	3,116
August	42	2,192	3,939	6,173	48	3,106
September	30	2,249	4,492	6,771	30	3,189
October	39	2,226	4,991	7,256	41	3,103
November	36	1,963	4,853	6,852	41	2,775
December	42	2,404	5,671	8,117	46	3,428
Total	456	24,663	53,626	78,745	494	35,025

TABLE 1.28

HOLIDAY CRASH SUMMARY, 2001 - 2006

Holiday Period	Year	Hours*	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Memorial Day	2001	78	7	169	388	564	7	260
(For 2006, the holiday	2002	78	6	208	387	601	7	297
period was 6 PM Fri.,	2003	78	6	NA	NA	NA	6	NA
May 26 -- midnight	2004	78	6	194	362	562	9	283
Monday, May 29.)	2005	78	8	177	342	527	9	295
	2006	78	3	188	344	535	4	287
July 4th	2001	30	2	122	161	285	3	189
(For 2006, the holiday	2002	102	6	342	606	954	6	541
period was 6 PM Fri,	2003	78	3	NA	NA	NA	3	NA
June 30 -- midnight	2004	78	9	235	420	664	9	379
Tuesday, July 4.)	2005	78	7	207	336	550	9	332
	2006	102	5	266	389	660	5	377
Labor Day	2001	78	4	220	394	618	4	326
(For 2006, the holiday	2002	78	7	233	389	629	7	377
period was 6 PM Fri.,	2003	78	7	NA	NA	NA	9	NA
Sept 1 -- midnight	2004	78	4	213	357	574	4	358
Monday, Sept 4.)	2005	78	8	187	315	510	8	289
	2006	78	1	182	325	508	1	272
Thanksgiving	2001	102	9	309	698	1,016	10	473
(For 2006, the holiday	2002	102	8	232	593	833	8	357
period was 6 PM Wed.,	2003	102	5	NA	NA	NA	6	NA
Nov 22 -- midnight	2004	102	10	419	981	1,410	13	646
Sunday, Nov 26.)	2005	102	8	390	1,066	1,464	11	592
	2006	102	8	200	469	677	8	299
Christmas	2001	102	9	491	1,552	2,052	10	719
(For 2006, the holiday	2002	30	1	37	84	122	1	56
period was 6 PM Fri,	2003	102	4	NA	NA	NA	4	NA
Dec 22 -- midnight	2004	78	9	178	511	698	9	284
Monday, Dec 25.)	2005	78	1	153	325	479	1	227
	2006	78	0	150	333	483	0	214
New Year's	2001/02	102	8	213	760	981	11	342
(For 2006, the	2002/03	30	5	56	112	173	5	84
holiday period was	2003/04	102	7	NA	NA	NA	10	NA
6 PM Fri, Dec. 29 --	2004/05	78	3	219	598	820	3	333
Midnight Monday,	2005/06	78	6	134	422	562	8	211
Jan 1, 2007.)	2006/07	78	8	286	735	1,029	9	451

* 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 cautious, or conservative, in reporting that a driver, pedestrian, or bicyclist had been drinking or was under the influence. 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 2006, six drinking pedestrians and one drinking bicyclist died after colliding with a vehicle driven by a non-drinking driver. (Three 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 2006
Drinking and driving remains a serious problem in Minnesota and across the nation. For 2006, the National Safety Council has made a conservative estimate of $278 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, 8% of minor injures, 13% of moderate injuries, 24% of severe injuries, and 34% of deaths were alcohol-related. In all, 166 known people died and 3,501 known people were injured in crashes classified as alcohol-related. (NHTSA estimates will be higher).

Impaired driving incidents (DWI's) increase
There were 41,842 impaired driving incidents last year in Minnesota. This number represents a 13% increase 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 especially incur the incidents
Males made up 69% of the DWI offenders last year. Females are getting arrested more and more often though. In 2006, they accounted for 22% of the incidents. (Ten 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 10%.

Young people and the 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. Fifteen-to-thirty-four year-olds accounted for 44% of all traffic deaths, and for fully 59% 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, 124 (75%) of the 166 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 42 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 61% of the alcohol-related crashes. The late night hours from 9:00 PM to 3:00 AM accounted for 14% of all crashes, but 52% of the alcohol crashes.

Fatal alcohol crashes usually involve just one vehicle
Of the 156 alcohol-related fatal crashes in 2006, 125 (80%) involved just one motor vehicle in transport. Of the 125 single vehicle alcohol-related fatal crashes, 49 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 2006, there were 346 motor vehicle drivers who were killed. (Note that this total does not include pedestrians or bicyclists). Of the 346 killed drivers, the Department of Public Safety was able to get alcohol test results for 321 (93%). Of the 321 tested, 207 (64%) tested negative, 15 (5%) tested between .01 and .07, 5 (2%) tested between .08 and .09, and 94 (29%) tested .10 or greater.

Majority of alcohol-related fatalities test above the legal limit
The 166 alcohol-related fatalities in 2006 consisted of 102 car or truck drivers, 31 car or truck passengers, 19 motorcycle drivers, 1 motorcycle passenger, 12 pedestrians, and 1 bicyclist. Of the 166, the Department of Public Safety was able to get alcohol test results for 153. Of the 153 tested, 117 (76%) had a result above the legal limit of .08.

Success story in Minnesota
In reality, the percentage of alcohol-related traffic fatalities in Minnesota has steadily decreased in the past half century. In the 1960's, around 60% of all traffic deaths per year were alcohol-related. Today, this percentage hovers around 33% per year. This is a great success story for Minnesota and the nation as a whole. It is also proof that as drivers change their behavior, less tragedy occurs on our roadways. The implementation of the .08 legal limit law in mid-2005 will also help this downward trend continue.

Many factors can contribute to a traffic death. Speeding, driver inattention, and not wearing a seat belt are but a few of these. Drinking and driving should <u>not</u> be one of them!

TABLE 2.01

ALCOHOL-RELATED FATAL CRASH SUMMARY, 1980 - 2006

	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	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, 1990 - 2006

		Gender						Area of State			
		Male		Female		Not Stated		Metro		Non-Metro	
Year	Total	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1990	36,884	29,397	79.7	6,160	16.7	1,327	3.6	20,692	56.1	16,192	43.9
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

* 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, 1990 - 2006

		Age										
Year	Total	0-14	15	16	17	18	19	20	Total Under 21	21-34	35-49	50 & Older
1990	36,884	3	19	184	454	989	1,346	1,477	4,472	21,778	8,191	2,443
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

FIGURE 2.01

PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs") COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990 - 2006

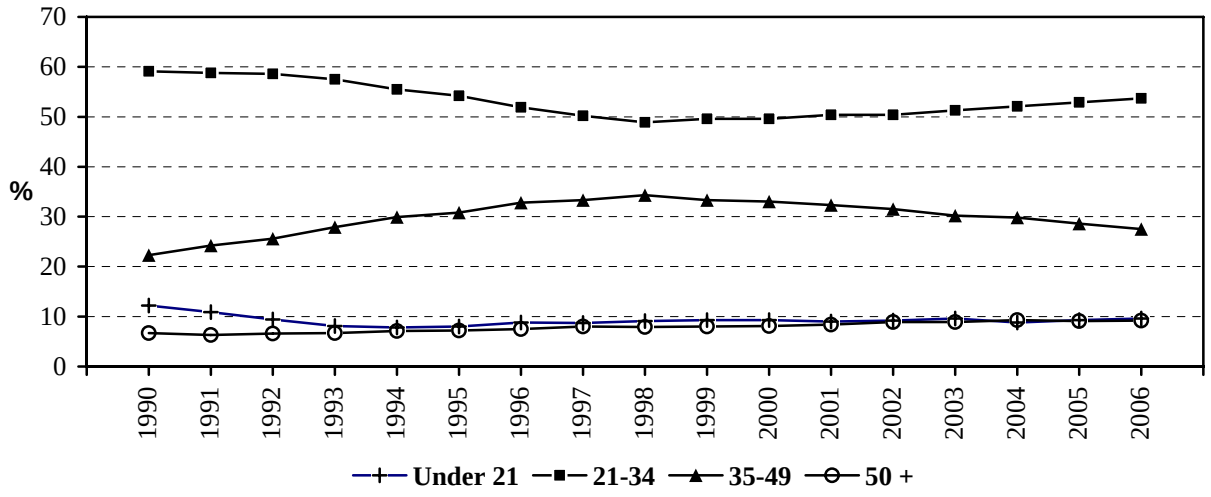

TABLE 2.04

IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1990 - 2006

	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
1990	3	2,992	8,287	8,548	6,420	4,073	2,629	1,489	997	591	420	238	127	52	15	3	36,884
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

TABLE 2.05

AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES AND IN ALCOHOL - RELATED CRASHES, 2006

	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	3	0	22	2	87	7	419	23	528	32
05 - 09	2	0	36	3	192	6	563	21	791	30
10 - 14	9	1	56	2	291	15	683	26	1,030	43
15	5	0	22	3	121	12	320	18	463	33
16	19	4	46	11	367	28	841	29	1,254	68
17	12	2	73	15	370	36	884	54	1,327	105
18	18	6	71	16	368	46	845	61	1,284	123
19	16	8	63	21	331	62	814	88	1,208	171
20	14	3	58	19	338	61	695	69	1,091	149
Total Under 21:	98	24	447	92	2,465	273	6,064	389	8,976	754
00 - 14	14	1	114	7	570	28	1,665	70	2,349	105
15 - 19	70	20	275	66	1,557	184	3,704	250	5,536	500
20 - 24	66	31	282	117	1,435	320	3,203	425	4,920	862
25 - 29	46	27	197	72	894	186	2,393	300	3,484	558
30 - 34	36	21	146	40	632	116	1,769	169	2,547	325
35 - 39	21	10	125	29	670	90	1,722	150	2,517	269
40 - 44	40	20	134	33	670	99	1,826	112	2,630	244
45 - 49	40	10	152	38	693	82	1,734	115	2,579	235
50 - 54	33	9	110	19	550	48	1,507	75	2,167	142
55 - 59	33	8	102	7	435	29	1,143	50	1,680	86
60 - 64	10	2	53	2	304	26	738	36	1,095	64
65 - 69	19	4	44	4	198	8	510	14	752	26
70 - 74	15	1	37	3	164	8	391	8	592	19
75 - 79	16	0	25	0	154	7	324	7	503	14
80 - 84	19	1	14	1	118	3	247	2	379	6
85 & Older	16	1	18	0	76	1	159	1	253	2
Not Stated	0	0	16	2	203	10	823	32	1,042	44
Total	494	166	1,844	440	9,323	1,245	23,858	1,816	35,025	3,501

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 166 alcohol-related traffic deaths in the year 2006. Twelve of those deaths were to pedestrians, and 9 of those 12 pedestrians were drinking. In 3 of the 12 crashes involving drinking pedestrians, the motor vehicle driver had also been drinking. Additionally, 1 bicyclist was among the 166 alcohol-related deaths. In that crash, the bicyclist was drinking and the motor vehicle driver was not.

TABLE 2.06

2006 ALCOHOL - RELATED FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY TRAFFIC ROLE

Traffic Role	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
Car or Truck Driver	102	102	7	14	4	77
Car or Truck Passenger	31	19	4	6	1	8
Motorcycle Driver	19	19	0	1	1	17
Motorcycle Passenger	1	1	0	0	0	1
Snowmobile Driver	0	0	0	0	0	0
ATV Driver	0	0	0	0	0	0
Pedestrian	12	11	2	1	0	8
Bicyclist	1	1	0	1	0	0
Total	166	153	13	23	6	111

TABLE 2.07

PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES DETERMINED TO BE ALCOHOL - RELATED, 1997 - 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Deaths* (Known)	30%	42%	31%	39%	37%	36%	39%	31%	35%	34%
(Estimated)	33%	44%	33%	41%	40%	39%	41%	32%	36%	NA
Injuries**	11%	11%	10%	10%	10%	10%	NA	9%	9%	10%
PDO Crashes**	4%	4%	4%	4%	4%	4%	NA	3%	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, 2006

	All Fatal Crashes		Alcohol-Related Fatal Crashes *	
First Harmful Event	Number	Percent	Number	Percent
Collision with:				
Another Motor Vehicle	193	42.3%	31	19.9%
Parked Motor Vehicle	10	2.2	5	3.2
Railroad Train	8	1.8	2	1.3
Bicycle	8	1.8	1	0.6
Pedestrian	35	7.7	12	7.7
Deer	3	0.7	0	0.0
Fixed Object	91	20.0	49	31.4
Other Collision Type	4	0.9	2	1.3
Non-Collision:				
Overturn	96	21.0	50	32.0
Submersion	2	0.4	1	0.6
Other Type Non-Collision	1	0.2	1	0.6
Other/Unknown	5	1.1	2	1.3
Total	456	100.0%	156	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, 1997 - 2006

Year	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
1997	384	345	226 (66%)	15 (5%)	4 (1%)	100 (29%)
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%)

* Percents based on drivers tested.

TABLE 2.10

DRIVERS KILLED WHO TESTED .01 OR HIGHER, 1997 - 2006 ("Any Alcohol")

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
1997	119	102	(86%)	17	(14%)	32	(27%)	13	(11%)
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%)

TABLE 2.11

DRIVERS KILLED WHO TESTED OVER THE LEGAL LIMIT, 1997 - 2006 (The legal limit in Minnesota was lowered to .08 in mid-2005)

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
1997	100	89	(89%)	11	(11%)	32	(32%)	13	(13%)
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%)

FIGURE 2.02

Killed Drivers Tested for Alcohol: 1975 - 2006
Percent Over .01 Alcohol Level and Percent Over Legal Limit
(The legal limit in Minnesota was lowered to .08 in 2005)

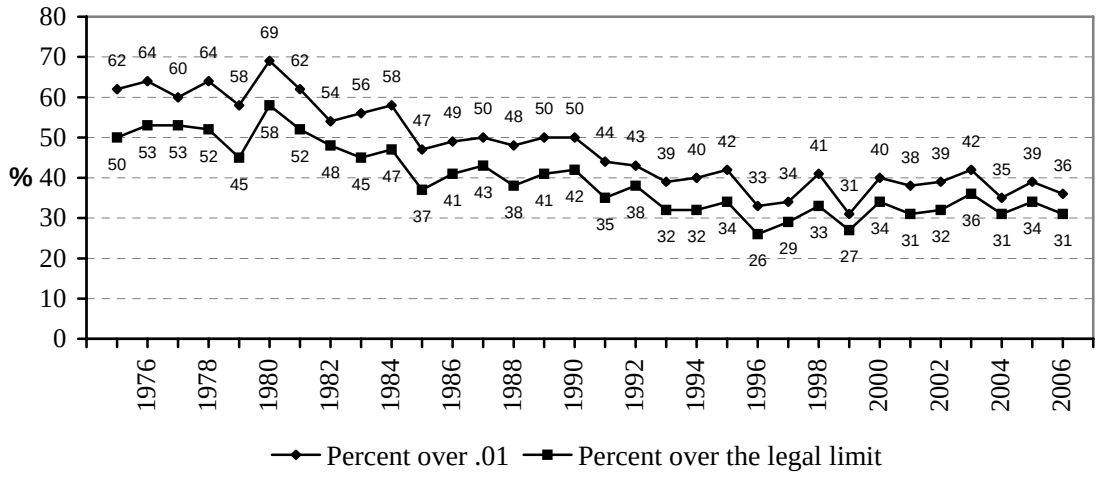

FIGURE 2.03

Percent of Drivers Killed Who Had Been Drinking, by Age, 2006

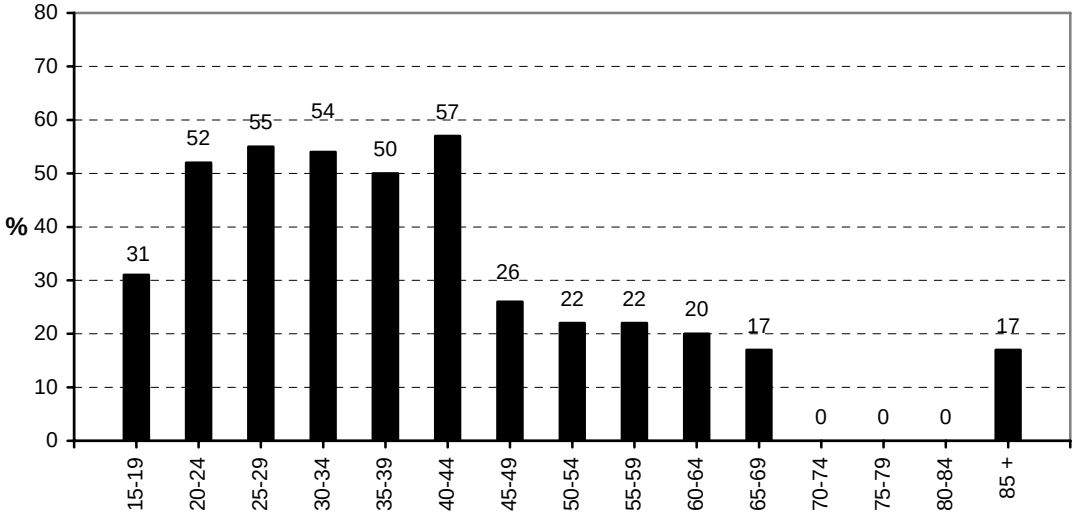

TABLE 2.12

2006 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration								Alcohol Concentration						
			.00		.01 - .07		.08 - .09		.10 +								
			number	percent	number	percent	number	percent	number	percent	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-.24	.25 +
14 & Younger	1	0	0		0		0		0		0	0	0	0	0	0	0
15	2	1	1		0		0		0		1	0	0	0	0	0	0
16	12	12	10		0		0		2		10	0	0	1	1	0	0
17	6	6	5		0		0		1		5	0	0	0	0	0	1
18	9	8	5		1		0		2		5	1	0	1	0	1	0
19	9	9	4		0		1		4		4	0	1	4	0	0	0
20	8	8	5		0		0		3		5	0	0	0	0	3	0
Under 21	47	44	30		1		1		12		30	1	1	6	1	4	1
14 & Younger	1	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0	0
15 - 19	38	36	25	69.4	1	2.8	1	2.8	9	25.0	25	1	1	6	1	1	1
20 - 24	43	40	19	47.5	2	5.0	0	0.0	19	47.5	19	1	1	2	6	8	3
25 - 29	33	33	15	45.4	1	3.0	0	0.0	17	51.5	15	0	1	1	8	4	4
30 - 34	27	26	12	46.2	3	11.5	0	0.0	11	42.3	12	2	1	2	3	2	4
35 - 39	19	18	9	50.0	1	5.6	0	0.0	8	44.4	9	0	1	3	1	3	1
40 - 44	33	30	13	43.3	4	13.3	1	3.3	12	40.0	13	4	1	0	4	4	4
45 - 49	34	31	23	74.2	0	0.0	1	3.2	7	22.6	23	0	1	0	0	3	4
50 - 54	24	23	18	78.3	0	0.0	1	4.4	4	17.4	18	0	1	2	0	1	1
55 - 59	27	27	21	77.8	0	0.0	1	3.7	5	18.5	21	0	1	0	2	2	1
60 - 64	10	10	8	80.0	1	10.0	0	0.0	1	10.0	8	1	0	1	0	0	0
65 - 69	17	12	10	83.3	1	8.3	0	0.0	1	8.3	10	1	0	0	0	0	1
70 - 74	7	7	7	100.0	0	0.0	0	0.0	0	0.0	7	0	0	0	0	0	0
75 - 79	12	10	10	100.0	0	0.0	0	0.0	0	0.0	10	0	0	0	0	0	0
80 - 84	13	12	12	100.0	0	0.0	0	0.0	0	0.0	12	0	0	0	0	0	0
85 +	8	6	5	83.3	1	16.7	0	0.0	0	0.0	5	1	0	0	0	0	0
Total	346	321	207	64.5	15	4.7	5	1.6	94	29.3	207	11	9	17	25	28	24

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

TABLE 2.13

2006 ALCOHOL - RELATED CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	13	186	200	399	14	265
February	9	173	191	373	9	226
March	6	175	195	376	7	244
April	17	198	153	368	17	287
May	18	208	187	413	19	300
June	9	209	139	357	9	297
July	22	240	148	410	23	348
August	16	200	162	378	18	273
September	11	225	162	398	11	333
October	8	212	185	405	9	300
November	12	190	158	360	12	274
December	15	237	199	451	18	354
Total	156	2,453	2,079	4,688	166	3,501

TABLE 2.14

2006 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban Interstate	13	192	196	401	13	273
Rural Interstate	0	34	36	70	0	45
Urban US Trunk Hwy	3	106	115	224	3	156
Rural US Trunk Hwy	12	133	89	234	13	188
Urban MN Trunk Hwy	12	178	149	339	15	263
Rural MN Trunk Hwy	20	249	107	376	20	369
County State Aid Hwy	54	783	534	1,371	57	1,120
County Road	16	99	50	165	17	139
Township Road	13	132	80	225	13	210
Local Street	13	529	699	1,241	15	718
Other	0	18	24	42	0	20
Total	156	2,453	2,079	4,688	166	3,501

FIGURE 2.04

2006 Alcohol-Related Crashes by Time of Day

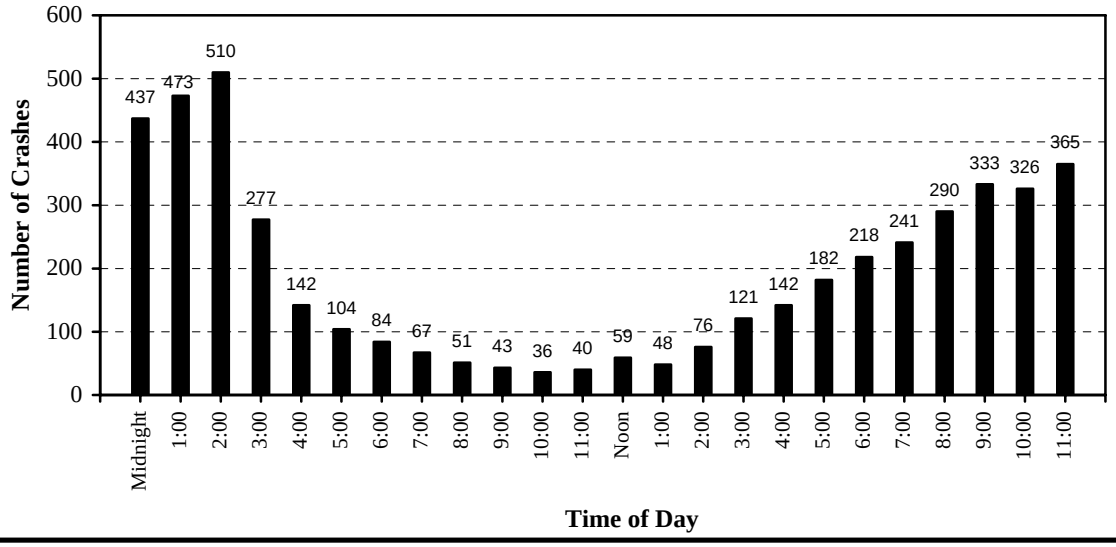

FIGURE 2.05

2006 Alcohol-Related Crashes by Day of Week

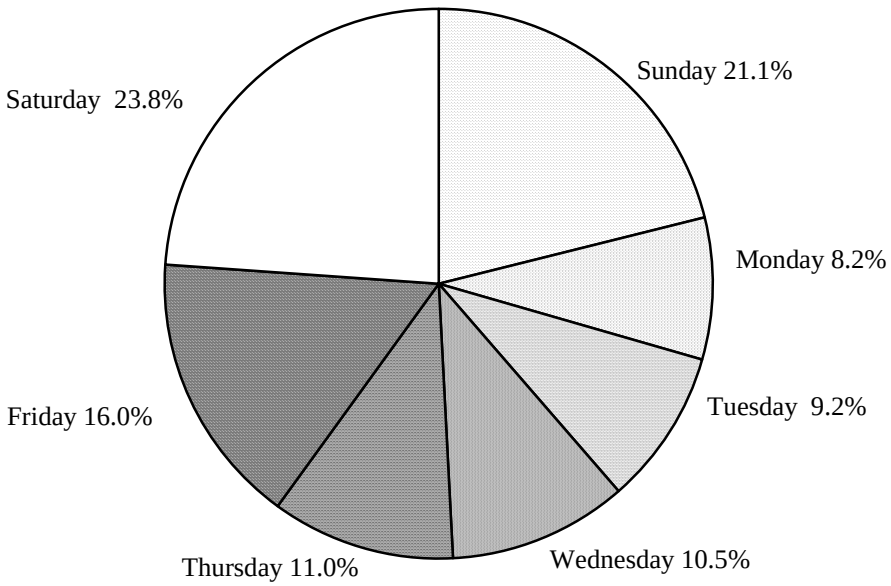

TABLE 2.15

2006 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	99	29	34	44	46	64	121	437	16	307
1:00 AM	127	34	34	43	44	61	130	473	13	342
2:00 AM	150	28	28	19	55	72	158	510	19	380
3:00 AM	89	11	20	17	28	24	88	277	10	189
4:00 AM	46	5	8	12	14	15	42	142	3	105
5:00 AM	34	10	5	10	8	8	29	104	3	65
6:00 AM	26	5	3	10	7	8	25	84	5	59
7:00 AM	14	3	3	13	6	7	21	67	4	58
8:00 AM	15	3	2	9	5	10	7	51	2	31
9:00 AM	9	7	4	3	4	8	8	43	2	26
10:00 AM	16	1	2	2	3	4	8	36	1	27
11:00 AM	4	6	4	9	2	7	8	40	4	37
Noon	11	6	9	7	7	5	14	59	0	40
1:00 PM	11	7	6	6	8	6	4	48	2	26
2:00 PM	15	10	10	10	5	13	13	76	3	73
3:00 PM	20	19	16	12	14	15	25	121	3	93
4:00 PM	29	10	17	17	18	30	21	142	5	115
5:00 PM	33	20	26	23	19	32	29	182	10	133
6:00 PM	31	19	23	29	26	36	54	218	3	180
7:00 PM	38	23	35	34	20	43	48	241	10	193
8:00 PM	56	23	33	33	39	42	64	290	10	232
9:00 PM	44	35	41	52	42	63	56	333	11	290
10:00 PM	27	38	33	39	54	76	59	326	14	207
11:00 PM	41	33	37	38	42	95	79	365	13	277
Unknown	5	1	0	3	2	5	7	23	0	16
Total	990	386	433	494	518	749	1,118	4,688	166	3,501

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2006 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 8.0% of the persons killed and 12.3% of the persons injured in 2006. However, these percentages of 'unknowns' have been decreasing over the past few years as data collection keeps improving at the Department of Public Safety.

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 decrease in 2006
In 2006, 373 motor vehicle occupants died in crashes --a 15% decrease from the previous year of 2005. Also, vehicle occupants injured (31,387) decreased 8% from 2005. However, these figures conceal an even more dramatically 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 2006, that number decreased to 1,328. 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, paralysis, and dismemberment.

Seat belt use in Minnesota holds steady
According to the August 2006 observational survey, belt use among front-seat occupants averaged 83% across all of Minnesota. Traffic safety officials agree that 90% is an obtainable goal in the near future.

Northwest region/Township roads
Among the motor vehicle occupants that were killed or injured in the northwest region of Minnesota, 26% were not using a restraint. This is the highest rate of non-use of any region. The southwest region was second highest: 22%. The 7-county metro area had the lowest rate of non-use: just 8%. Concerning types of roadway, 'Township Roads' had the highest percentage of non-seat belt use (30%). The second highest rate of non-use was on 'County Roads' (21%).

Airbag update: always wear your seat belt
In 2006, airbag deployment was reported 13,459 times when the occupant was also wearing a seat belt. Fifty-three percent of these incidents resulted in no apparent injury. Airbags deployed 1,254 times when occupants were not wearing seat belts. Only 30% of these cases resulted in no apparent injury. The message is clear: always buckle up!

TABLE 3.01

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

Date of Survey	Area of State			Class of Roadway	
	Overall	Metro	Non-Metro	Major Roads	Local Roads
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

The usage rate is not a simple ratio of the number of persons observed belted to the total number of people observed. It is, instead, the ratio of estimated time on the road that front seat occupants are using safety belts to the total estimated time on the road for these occupants.

* A new survey design was initiated in August 1994. In 2003 the survey was completely redesigned and collected more information on vehicle occupants. The current version of the survey began in August, 2003 and has been conducted at least once annually since. It is *not* strictly comparable to prior designs.

TABLE 3.02

MOTOR VEHICLE OCCUPANTS KILLED OR INJURED BY EJECTION STATUS AND INJURY SEVERITY, 2006

	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	260	0.9	1,046	3.6	7,155	24.6	20,673	71.0	29,134	100.0%
Partly Ejected	18	18.6	24	24.7	30	30.9	25	25.8	97	100.0
Ejected	86	13.9	169	27.4	187	30.3	175	28.4	617	100.0
Not Stated	9	0.5	89	4.6	466	24.4	1,348	70.5	1,912	100.0
Total	373	1.2	1,328	4.2	7,838	24.7	22,221	70.0	31,760	100.0%

TABLE 3.03

MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2006

		Injured			
Age Group	**Killed**	**Severe**	**Moderate**	**Minor**	**Total**
00 - 04	3	18	78	406	502
05 - 09	0	16	149	466	631
10 - 14	5	27	169	524	720
15 - 19	58	234	1,413	3,504	5,151
20 - 24	49	222	1,235	3,020	4,477
25 - 29	35	148	772	2,264	3,184
30 - 34	29	103	530	1,691	2,324
35 - 39	15	98	558	1,607	2,263
40 - 44	22	79	548	1,695	2,322
45 - 49	29	88	543	1,613	2,244
50 - 54	25	70	426	1,394	1,890
55 - 59	22	66	354	1,068	1,488
60 - 64	9	36	250	693	979
65 - 69	16	34	172	488	694
70 - 74	12	29	149	368	546
75 - 79	15	24	145	310	479
80 - 84	14	10	110	240	360
85 & Older	15	16	71	157	244
Not Stated	0	10	166	713	889
Total	373	1,328	7,838	22,221	31,387

FIGURE 3.01
Safety Equipment Use Among Motor Vehicle Occupants Killed and Injured, by Age, 2006

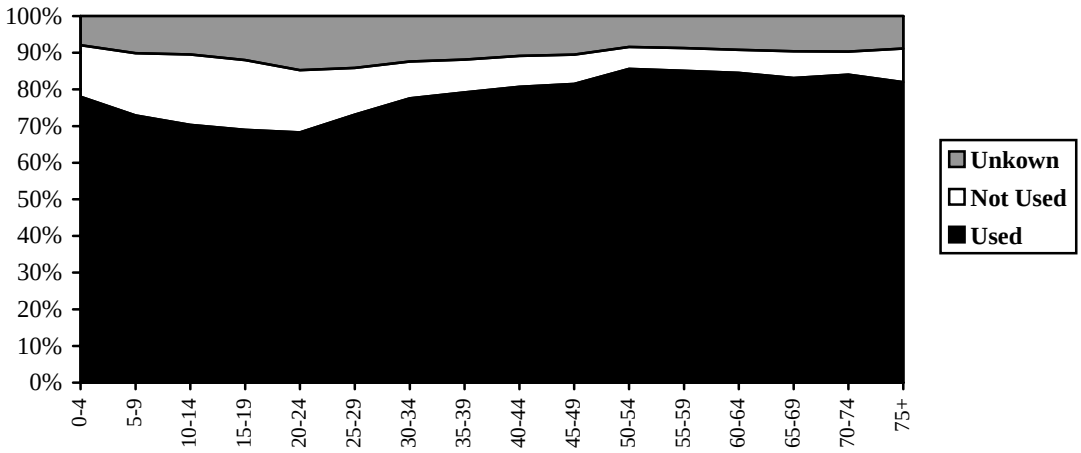

TABLE 3.04

SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS, BY GENDER AND INJURY SEVERITY, 2006

	Killed			Injured						
				Severe		Moderate		Minor		
	Female	Male	Total	Female	Male	Female	Male	Female	Male	Total
Used	65	84	149	368	294	3,069	2,304	10,342	7,372	23,885
Not Used	62	132	194	155	277	556	753	823	1,065	3,654
Unknown	11	19	30	85	144	456	633	1,117	1,213	3,848
Total	138	235	373	608	715	4,081	3,690	12,282	9,650	31,387

Note: Gender was not reported for 361 persons injured (mostly those with minor injuries), causing the "Total" to be 361 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, 2006

Age Group	Restraint Use	Killed		Injured							
				Severe		Moderate		Minor		Total	
		#	%	#	%	#	%	#	%	#	%
00 - 03	Used	0	0.0	5	45.4	37	72.6	259	80.7	301	78.6
Years	Not Used	2	66.7	5	45.4	6	11.8	41	12.8	52	13.6
	Unknown	1	33.3	1	9.1	8	15.7	21	6.5	30	7.8
	Subtotal	3	100.0	11	100.0	51	100.0	321	100.0	383	100.0
04 - 10	Used	0	0.0	10	37.0	127	65.1	496	77.5	633	73.4
Years	Not Used	0	0.0	11	40.7	38	19.5	92	14.4	141	16.4
	Unknown	1	100.0	6	22.2	30	15.4	52	8.1	88	10.2
	Subtotal	1	100.0	27	100.0	195	100.0	640	100.0	862	100.0
Total	Used	0	0.0	15	39.5	164	66.7	755	78.6	934	75.0
00 - 10	Not Used	2	50.0	16	42.1	44	17.9	133	13.8	193	15.5
Years	Unknown	2	50.0	7	18.4	38	15.4	73	7.6	118	9.5
	Subtotal	4	100.0	38	100.0	246	100.0	961	100.0	1,245	100.0
00 - 04	Used	0	0.0	9	50.0	54	69.2	331	81.5	394	78.5
Years	Not Used	2	66.7	7	38.9	12	15.4	50	12.3	69	13.8
	Unknown	1	33.3	2	11.1	12	15.4	25	6.2	39	7.8
	Subtotal	3	100.0	18	100.0	78	100.0	406	100.0	502	100.0
05 - 09	Used	0	0.0	6	37.5	97	65.1	357	76.6	460	72.9
Years	Not Used	0	0.0	7	43.8	29	19.5	71	15.2	107	17.0
	Unknown	0	0.0	3	18.8	23	15.4	38	8.2	64	10.1
	Subtotal	0	0.0	16	100.0	149	100.0	466	100.0	631	100.0
10 - 14	Used	2	40.0	6	22.2	110	65.1	392	74.8	508	70.6
Years	Not Used	1	20.0	16	59.3	39	23.1	83	15.8	138	19.2
	Unknown	2	40.0	5	18.5	20	11.8	49	9.4	74	10.3
	Subtotal	5	100.0	27	100.0	169	100.0	524	100.0	720	100.0
15 - 19	Used	20	34.5	92	39.3	885	62.6	2,597	74.1	3,574	69.4
Years	Not Used	31	53.4	99	42.3	355	25.1	506	14.4	960	18.6
	Unknown	7	12.1	43	18.4	173	12.2	401	11.4	617	12.0
	Subtotal	58	100.0	234	100.0	1,413	100.0	3,504	100.0	5,151	100.0
20 - 24	Used	9	18.4	83	37.4	724	58.6	2,275	75.3	3,082	68.8
Years	Not Used	37	75.5	91	41.0	287	23.2	353	11.7	731	16.3
	Unknown	3	6.1	48	21.6	224	18.1	392	13.0	664	14.8
	Subtotal	49	100.0	222	100.0	1,235	100.0	3,020	100.0	4,477	100.0
25 - 29	Used	12	34.3	67	45.3	489	63.3	1,786	78.9	2,342	73.6
Years	Not Used	20	57.1	51	34.5	148	19.2	191	8.4	390	12.2
	Unknown	3	8.6	30	20.3	135	17.5	287	12.7	452	14.2
	Subtotal	35	100.0	148	100.0	772	100.0	2,264	100.0	3,184	100.0
30 - 34	Used	6	20.7	52	50.5	371	70.0	1,396	82.6	1,819	78.3
Years	Not Used	21	72.4	31	30.1	82	15.5	103	6.1	216	9.3
	Unknown	2	6.9	20	19.4	77	14.5	192	11.4	289	12.4
	Subtotal	29	100.0	103	100.0	530	100.0	1,691	100.0	2,324	100.0
35 - 39	Used	3	20.0	50	51.0	417	74.7	1,334	83.0	1,801	79.6
Years	Not Used	9	60.0	31	31.6	71	12.7	93	5.8	195	8.6
	Unknown	3	20.0	17	17.4	70	12.5	180	11.2	267	11.8
	Subtotal	15	100.0	98	100.0	558	100.0	1,607	100.0	2,263	100.0

TABLE 3.05 CONTINUED

SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2006

Age Group	Restraint Use	Killed		Injured							
				Severe		Moderate		Minor		Total	
		#	%	#	%	#	%	#	%	#	%
40 - 44	Used	8	36.4	47	59.5	409	74.6	1,428	84.2	1,884	81.1
Years	Not Used	13	59.1	19	24.0	65	11.9	100	5.9	184	7.9
	Unknown	1	4.6	13	16.5	74	13.5	167	9.8	254	10.9
	Subtotal	22	100.0	79	100.0	548	100.0	1,695	100.0	2,322	100.0
45 - 49	Used	15	51.7	46	52.3	413	76.1	1,379	85.5	1,838	81.9
Years	Not Used	13	44.8	27	30.7	59	10.9	82	5.1	168	7.5
	Unknown	1	3.4	15	17.0	71	13.1	152	9.4	238	10.6
	Subtotal	29	100.0	88	100.0	543	100.0	1,613	100.0	2,244	100.0
50 - 54	Used	16	64.0	41	58.6	347	81.5	1,235	88.6	1,623	85.9
Years	Not Used	8	32.0	18	25.7	41	9.6	48	3.4	107	5.7
	Unknown	1	4.0	11	15.7	38	8.9	111	8.0	160	8.5
	Subtotal	25	100.0	70	100.0	426	100.0	1,394	100.0	1,890	100.0
55 - 59	Used	11	50.0	42	63.6	291	82.2	941	88.1	1,274	85.6
Years	Not Used	10	45.4	16	24.2	29	8.2	38	3.6	83	5.6
	Unknown	1	4.6	8	12.1	34	9.6	89	8.3	131	8.8
	Subtotal	22	100.0	66	100.0	354	100.0	1,068	100.0	1,488	100.0
60 - 64	Used	5	55.6	25	69.4	206	82.4	599	86.4	830	84.8
Years	Not Used	4	44.4	6	16.7	18	7.2	34	4.9	58	5.9
	Unknown	0	0.0	5	13.9	26	10.4	60	8.7	91	9.3
	Subtotal	9	100.0	36	100.0	250	100.0	693	100.0	979	100.0
65 - 69	Used	10	62.5	27	79.4	136	79.1	417	85.4	580	83.6
Years	Not Used	6	37.5	4	11.8	15	8.7	27	5.5	46	6.6
	Unknown	0	0.0	3	8.8	21	12.2	44	9.0	68	9.8
	Subtotal	16	100.0	34	100.0	172	100.0	488	100.0	694	100.0
70 - 74	Used	7	58.3	23	79.3	111	74.5	328	89.1	462	84.6
Years	Not Used	3	25.0	4	13.8	12	8.0	16	4.4	32	5.9
	Unknown	2	16.7	2	6.9	26	17.4	24	6.5	52	9.5
	Subtotal	12	100.0	29	100.0	149	100.0	368	100.0	546	100.0
75 &	Used	25	56.8	43	86.0	251	76.5	607	85.6	901	82.9
Older	Not Used	16	36.4	4	8.0	39	11.9	45	6.4	88	8.1
	Unknown	3	6.8	3	6.0	38	11.6	57	8.0	98	9.0
	Subtotal	44	100.0	50	100.0	328	100.0	709	100.0	1,087	100.0
Age	Used	0	0.0	4	40.0	97	59.2	412	58.0	513	58.0
Not	Not Used	0	0.0	4	40.0	15	9.2	63	8.9	82	9.3
Stated	Unknown	0	0.0	2	20.0	52	31.7	236	33.2	290	32.8
	Subtotal	0	0.0	10	100.0	164	100.0	711	100.0	885	100.0
All	Used	149	40.0	663	49.9	5,408	69.0	17,814	80.2	23,885	76.1
Ages	Not Used	194	52.0	435	32.8	1,316	16.8	1,903	8.6	3,654	11.6
	Unknown	30	8.0	230	17.3	1,114	14.2	2,504	11.3	3,848	12.3
	Subtotal	373	100.0	1,328	100.0	7,838	100.0	22,221	100.0	31,387	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, 1997 - 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Killed										
Used	37.5	30.3	31.6	29.4	31.1	37.9	39.4	39.5	40.2	40.0
Not Used	45.9	48.7	50.0	54.4	54.8	55.0	48.9	51.8	51.2	52.0
Unknown	16.6	21.0	18.4	16.2	14.1	7.2	11.8	8.7	8.6	8.0
Injured										
Severe Injuries										
Used	45.4	43.8	44.9	45.7	47.1	46.0	NA	49.3	49.6	49.9
Not Used	35.2	36.0	34.2	33.5	34.4	34.5	NA	32.8	30.8	32.8
Unknown	19.4	20.1	20.9	20.8	18.5	19.5	NA	17.9	19.6	17.3
Moderate Injuries										
Used	59.0	59.3	61.0	63.1	65.3	65.1	NA	70.3	70.9	69.0
Not Used	25.7	26.0	24.6	22.9	21.1	21.1	NA	17.4	15.9	16.8
Unknown	15.3	14.7	14.4	14.0	13.5	13.8	NA	12.4	13.2	14.2
Minor Injuries										
Used	69.5	69.9	71.1	72.6	73.6	73.7	NA	78.8	80.6	80.2
Not Used	13.1	13.4	12.7	11.9	11.2	10.6	NA	9.7	8.8	8.6
Unknown	17.4	16.7	16.2	15.5	15.2	15.7	NA	11.4	10.6	11.3
Total Injured										
Used	64.2	64.4	65.7	67.6	69.2	69.0	NA	74.8	76.6	76.1
Not Used	18.9	19.4	18.4	17.1	16.0	15.7	NA	13.2	11.7	11.6
Unknown	16.8	16.2	15.9	15.3	14.8	15.3	NA	12.0	11.7	12.3

TABLE 3.07

SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED AND INJURED, BY ROADWAY TYPE, 2006

	Used		Not Used		Unknown		Total	
Roadway Type	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Interstate	2,921	84.6	291	8.4	242	7.0	3,454	100.0%
US Trunk Hwy	3,321	81.3	474	11.6	289	7.1	4,084	100.0%
MN Trunk Hwy	4,998	79.7	712	11.4	559	8.9	6,269	100.0%
CSAH	7,123	73.5	1,219	12.6	1,346	13.9	9,688	100.0%
County Road	443	64.8	141	20.6	100	14.6	684	100.0%
Township Road	507	55.2	278	30.2	134	14.6	919	100.0%
Local Street	4,631	71.1	706	10.8	1,177	18.1	6,514	100.0%
Other Road	90	60.8	27	18.2	31	21.0	148	100.0%
Total	24,034	75.7	3,848	12.1	3,878	12.2	31,760	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, 2006

EMS Region	Percent Used	Percent Not Used	Percent Unknown	Number of People
Metropolitan	78.2	8.0	13.9	17,203
Central	75.2	14.7	10.2	4,462
Northeast	74.6	15.7	9.7	2,012
Northwest	60.5	26.3	13.2	811
South Central	73.0	16.5	10.5	1,300
Southeast	74.2	15.0	10.8	2,927
Southwest	68.6	22.5	8.8	1,717
West Central	70.9	19.4	9.6	1,328
Statewide	75.7	12.1	12.2	31,760

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

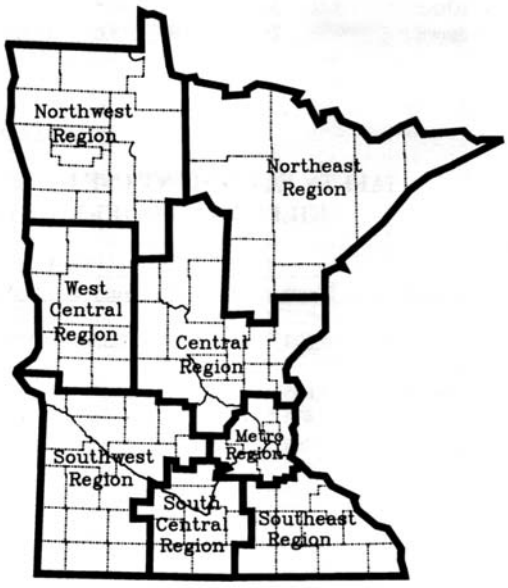

TABLE 3.09

AIRBAG DEPLOYMENTS, 1999 - 2006

		Airbag Deployed		Deployment Not Indicated			
Year	Injury Severity	Belt Used	Belt Not Used	Belt Used	Belt Not Used	Belt Use Unknown	Total
1999	Killed	20	13	143	245	95	516
	Severe Injury	117	47	1,143	914	588	2,809
	Moderate Injury	746	124	7,883	3,353	2,032	14,138
	Minor Injury	833	73	15,722	2,882	3,766	23,276
	No Apparent Injury	1,777	87	101,556	6,597	84,477	194,494
	Total	3,493	344	126,447	13,991	90,958	235,233
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

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 2006, there were 1,496 crashes that involved at least one motorcycle. This is the highest number of motorcycle crashes observed in Minnesota in the past sixteen years. In 1990, there were 1,735 motorcycle crashes, but then the number of crashes decreased throughout the decade.

In 2006, 1,413 motorcyclists were injured. This is also the highest number of motorcyclist injuries since 1990 when 1,605 motorcyclists were injured.

Fatalities increase
Motorcyclist fatalities increased again in 2006. There were 70 killed motorcyclists recorded. This number is a 19% increase from the previous year. And, it is the highest recorded number since 1985 when 77 motorcyclists died on Minnesota roadways. Of the 70 killed motorcyclists in 2006, 66 were drivers and 4 were passengers.

There is some evidence for the increase in motorcycle crashes, fatalities, and injuries; the number of registered motorcycles has almost doubled since 1996 with older people returning to motorcycling. In fact, 56% of the killed motorcyclists in 2006 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 2006, 66 motorcycle drivers were killed and 61 of them were tested. Nineteen (32%) of the 61 drivers tested positive for alcohol, and almost one-third (28%) 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, 4.7 of every 100 motorcycle crashes in 2006 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 2006, only 15 (21%) of the 70 motorcycle riders killed were known to be wearing a helmet. Of the 1,413 motorcyclists injured, only 481 (34%) were recorded as wearing a helmet.

Operator training is essential
As mentioned previously, a large number of middle-aged people are returning to motorcycling, and evidently, they are returning without proper operator training. In 2006, 58% 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 2006, 62 of the 70 motorcyclists killed, and 1,147 of the 1,413 injured, were male. Males account for 82% of all motorcyclists killed or injured.

Contributing factors:
Speeding motorcyclists
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 chemical impairment (10%). 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 (39%) and driver inattention or distraction (26%) are cited most frequently.

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1980 - 2006

	Motorcycle Crashes				Killed		Injured		Licensed Oper-	Regis- Tered Motor-	Mcy deaths per 10,000 Reg.	Fatal Crash Rate Per 100 Crashes	
Year	Fatal	Injury	PDO*	Total	Mcy	Other	Mcy	Other	ators	Cycles	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
Record High*	112	2,728	537	3,308	121	9	3,359	207	360,143	197,735	7.7	4.7	0.8
(year)	(1980)	(1980)	(1976)	(1980)	(1980)	(1975)	(1980)	(1984)	(2006)	(2006)	(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

2006 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	515	80	625	30	565
Parked Motor Vehicle	1	22	17	40	1	22
Bicycle	0	8	1	9	0	6
Pedestrian	0	4	0	4	0	3
Deer	3	91	13	107	3	109
Other Animal	0	8	2	10	0	9
Train	0	0	0	0	0	0
Fixed Object	20	185	6	211	20	200
Non-Collision:						
Overturn/Rollover	12	192	7	211	12	222
Fire/Explosion	0	0	1	1	0	0
Submersion	0	0	0	0	0	0
Other / Unknown	4	254	20	278	4	277
Total	70	1,279	147	1,496	70	1,413

TABLE 4.03

2006 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	5	138	32	175	5	145
50,000 - 99,999	6	162	14	182	6	167
25,000 - 49,999	6	157	12	175	6	172
10,000 - 24,999	6	192	21	219	6	207
5,000 - 9,999	3	87	16	106	3	95
2,500 - 4,999	2	62	10	74	2	67
1,000 - 2,499	3	24	7	34	3	24
Under 1,000	39	457	35	531	39	536
Total	70	1,279	147	1,496	70	1,413

TABLE 4.04

2006 MOTORCYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
January	0	1	2	3	0	1
February	0	0	0	0	0	0
March	0	18	2	20	0	18
April	5	99	7	111	5	107
May	9	145	18	172	9	163
June	9	228	30	267	9	252
July	19	274	26	319	19	321
August	13	244	23	280	13	262
September	5	152	23	180	5	155
October	7	81	10	98	7	96
November	3	33	6	42	3	34
December	0	4	0	4	0	4
Total	70	1,279	147	1,496	70	1,413

FIGURE 4.01
2006 Motorcycle Crashes by Time of Day

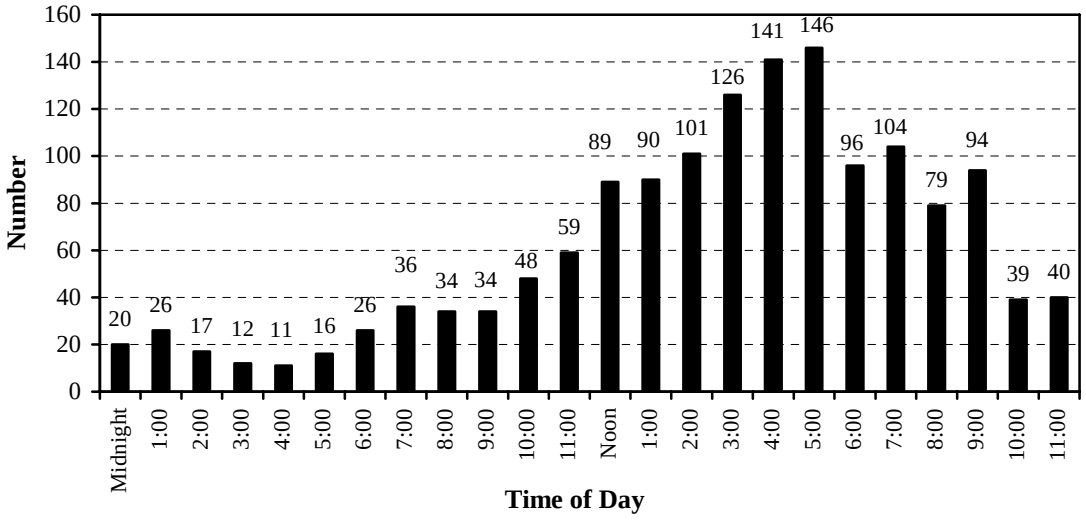

TABLE 4.05

2006 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	20	1	1	0	0	0	3	1	4	0	4	0	6	0	2	0
1:00	26	1	6	1	0	0	5	0	3	0	3	0	6	0	3	0
2:00	17	1	4	0	1	0	0	0	0	0	1	0	2	0	9	1
3:00	12	1	3	0	1	0	0	0	0	0	2	0	1	0	5	1
4:00	11	2	3	1	1	0	2	0	0	0	0	0	2	0	3	1
5:00	16	2	0	0	5	0	4	1	3	1	0	0	4	0	0	0
6:00	26	2	1	1	7	0	9	1	4	0	3	0	0	0	2	0
7:00	36	1	1	0	4	0	4	1	4	0	10	0	9	0	4	0
8:00	34	2	4	1	8	0	3	0	3	0	6	0	4	0	6	1
9:00	34	1	7	0	3	0	3	0	2	0	7	1	4	0	8	0
10:00	48	3	7	1	5	0	6	0	6	0	2	0	8	0	14	2
11:00	59	3	12	1	9	1	8	0	9	0	4	1	5	0	12	0
Noon	89	6	23	3	9	0	14	1	9	0	7	1	10	0	17	1
1:00	90	4	15	0	13	0	10	1	9	0	9	0	11	1	23	2
2:00	101	3	23	0	13	1	12	0	12	1	7	1	7	0	27	0
3:00	126	3	24	1	14	1	10	1	20	0	19	0	15	0	24	0
4:00	141	4	30	2	22	1	13	0	15	0	16	1	21	0	24	0
5:00	146	8	25	0	15	2	25	1	17	1	23	1	23	2	18	1
6:00	96	4	12	0	13	0	18	2	9	0	14	0	8	1	22	1
7:00	104	5	20	0	15	1	11	0	13	1	12	0	15	1	18	2
8:00	79	4	10	1	12	1	8	0	11	2	13	0	9	0	16	0
9:00	94	4	23	1	10	0	8	0	9	0	12	0	13	2	19	1
10:00	39	3	2	0	5	1	4	0	4	0	8	0	9	1	7	1
11:00	40	2	5	1	3	0	5	0	3	0	3	0	10	1	11	0
Unknown	12	0	0	0	1	0	0	0	1	0	1	0	3	0	6	0
Total	1,496	70	261	15	189	9	185	10	170	6	186	6	205	9	300	15

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2006

	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	1	0	1	2	0	2	3	0	3
10 - 14	0	0	0	3	1	4	5	1	6	2	1	3	10	3	13
15 - 19	1	0	1	11	3	14	26	4	30	29	6	35	66	13	79
20 - 24	10	1	11	33	3	36	81	14	95	56	11	67	170	28	198
25 - 29	9	0	9	23	4	27	54	11	65	48	2	50	125	17	142
30 - 34	3	2	5	22	6	28	40	12	52	27	7	34	89	25	114
35 - 39	5	0	5	10	4	14	53	17	70	36	7	43	99	28	127
40 - 44	11	1	12	27	11	38	57	15	74	49	15	64	133	41	176
45 - 49	8	1	9	36	8	44	78	18	96	44	8	52	158	34	192
50 - 54	4	1	5	23	3	26	66	13	79	39	11	50	128	27	155
55 - 59	8	1	9	16	5	21	37	8	45	27	3	30	80	16	96
60 - 64	1	0	1	7	2	9	28	7	36	15	4	19	50	13	64
65 - 69	1	0	1	2	1	3	10	2	12	5	0	5	17	3	20
70 & Older	1	1	2	1	0	1	7	1	8	8	0	8	16	1	17
Not Stated	0	0	0	0	1	2	2	5	11	1	1	4	3	7	17
Total	62	8	70	214	52	267	545	128	680	388	76	466	1,147	256	1,413

* 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, 2006

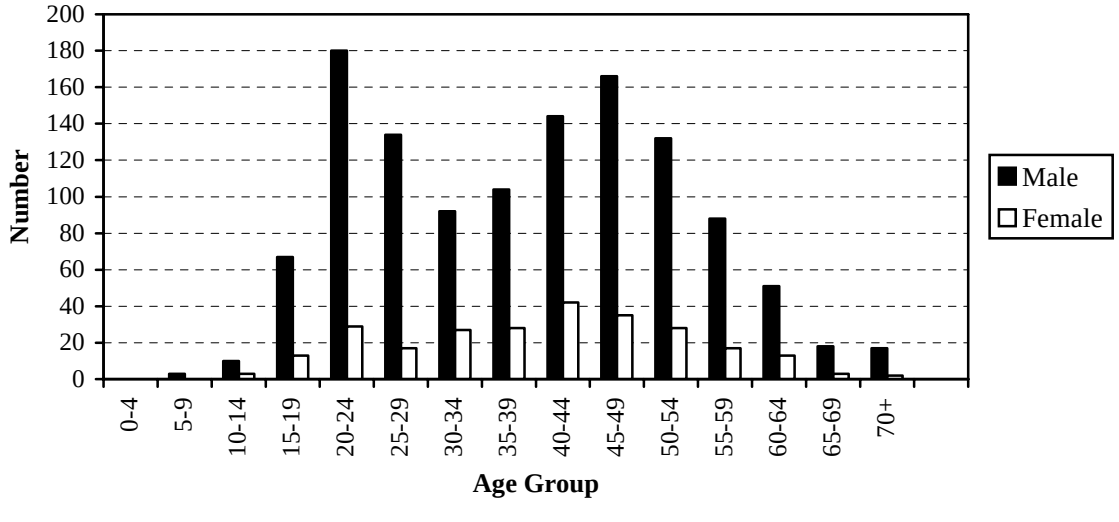

TABLE 4.07

HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 1997 - 2006

		Helmet Used		Helmet Not Used		Helmet Use Unknown		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Killed									
	1997	3	12.5	17	70.8	4	16.7	24	100.0
	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
Injured									
	1997	225	24.5	470	51.3	221	24.1	916	100.0
	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

TABLE 4.08

ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 1997 - 2006

	Valid Endorsement*		Permit Only		Canceled, Suspended, Revoked		No Endorsement		Total** For Year	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1997	21	91.3	0	0.0	0	0.0	2	8.7	23	100.0
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

* 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, 1997 – 2006

			Alcohol Concentration*			
Year	Killed	Tested	(.00)	(.01 - .07)	(.08-.09)	(.10 or more)
1997	22	19	7 (37%)	3 (16%)	0 (0%)	9 (47%)
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%)

*Percentages are based on those motorcycle drivers tested.

TABLE 4.10

2006 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	1	1	0	0	1	0	0	0	1	0	0	0
20	2	2	0	0	1	1	0	0	0	0	1	0
Under 21	3	3	0	0	2	1	0	0	1	0	1	0
14 & Younger	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	1	1	0	0	1	0	0	0	1	0	0	0
20 – 24	10	9	0	0	2	7	0	0	1	0	1	0
25 – 29	9	9	0	0	4	5	0	0	0	3	0	1
30 – 34	4	4	1	0	3	0	0	1	1	1	0	1
35 – 39	5	5	0	0	3	2	0	0	2	0	1	0
40 – 44	12	10	0	1	2	7	0	1	0	1	1	0
45 – 49	9	7	0	0	0	7	0	0	0	0	0	0
50 – 54	4	4	0	0	1	3	0	0	1	0	0	0
55 – 59	8	8	0	0	1	7	0	0	0	1	0	0
60 & Older	4	4	0	0	0	4	0	0	0	0	0	0
Total	66	61	1	1	17	42	0	2	6	6	3	2

* Percentages are based on those motorcycle drivers tested.

TABLE 4.11

CONTRIBUTING FACTORS IN 2006 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	187	22.4%	60	15.9%	7	1.3%
Driver Inexperience	124	14.9	25	6.6	11	2.1
Chemical Impairment	85	10.2	16	4.2	9	1.7
Driver Inattention/Distraction	76	9.1	84	22.2	139	26.1
Overcorrecting	35	4.2	5	1.3	2	0.4
Improper/Unsafe Lane Use	26	3.1	16	4.2	35	6.6
Following Too Closely	14	1.7	48	12.7	28	5.3
Improper Turn	12	1.4	7	1.9	20	3.8
Improper Passing/Overtaking	9	1.1	14	3.7	2	0.4
Improper Park/Start/Stop	6	0.7	2	0.5	5	0.9
Vision Obscured	6	0.7	1	0.3	12	2.3
Disregard Traffic Cntrl Device	4	0.5	17	4.5	18	3.4
Driving Left of Center	3	0.4	5	1.3	4	0.8
Failure To Yield Right of Way	2	0.2	21	5.6	210	39.4
Failure To Use Lights	1	0.1	1	0.3	0	0.0
Improper/No Signal	1	0.1	1	0.3	7	1.3
Driver on Phone/CB	1	0.1	0	0.0	0	0.0
Impeding Traffic	0	0.0	0	0.0	3	0.6
Unsafe Backing	0	0.0	0	0.0	3	0.6
Other Human Factor	32	3.8	10	2.6	4	0.8
Vehicular Factors:						
Skidding	72	8.6	17	4.5	0	0.0
Defective Brakes	13	1.6	4	1.1	3	0.6
Other Vehicular Factors	23	2.8	2	0.5	2	0.4
Miscellaneous Factors:						
Weather Conditions	11	1.3	2	0.5	2	0.4
Other	91	10.9	20	5.3	7	1.3
Total	834	100.0%	378	100.0%	533	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	229		346		222	
Total Number Drivers	885		657		631	

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

V: TRUCK CRASHES

This section summarizes data on crashes involving trucks. On the crash report form, trucks are identified as any of the following eight types of vehicles: (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 decrease
There were 4,558 truck-involved traffic crashes in 2006—a 14% decrease from the total number of crashes in the previous year.

Fatalities and injuries decrease
In 2006, there were 62 fatal truck crashes, killing 65 people. The number of fatalities was a 17% decrease from the previous year. There were 1,544 persons injured in 2006. This was a 12% decrease from the previous year.

Persons killed or injured are usually in other vehicles
In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only 11 of the 65 people killed in truck-involved crashes were in trucks. The other 54 included 1 bicyclist, 3 pedestrians, 1 motorcyclist, and 46 people who were in cars, SUVs, pickups, or vans. Of the 1,544 people injured, only 324 (21%) were truck occupants.

Contributing factors for truck drivers compared to others.
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 (21% of the time). Illegal or unsafe speed was reported for 8% of the trucks and for 10% of the other vehicles.

Truck drivers do differ some from other drivers; truck drivers are less likely to be reported for "failure to yield right of way" (8% versus 14%), but they are more likely to be reported for "following too closely" (9% compared to 7%) and for unsafe backing (5% compared to 1%).

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 other vehicle drivers were reported as having some such impairment.

Truck crashes are workday occurrences
Truck crashes are strongly tied to the workday. In 2006, only 10% (441) of the crashes occurred on either a Saturday or a 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, 19% of the fatal crashes and 25% 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. Seventy-nine percent of fatal and 36% of the injury truck crashes occurred in the rural areas of Minnesota.

TABLE 5.01

TRUCK CRASH SUMMARY, 1997 - 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Crashes	**4,991**	**4,761**	**5,156**	**5,306**	**4,976**	**4,409**	**NA**	**5,521**	**5,313**	**4,558**
Fatal Crashes	90	85	84	73	61	76	71	70	66	62
Persons Killed	105	97	94	90	67	87	78	79	78	65
Injury Crashes	1,389	1,408	1,400	1,371	1,287	1,179	NA	1,401	1,315	1,156
Severe	163	180	150	134	127	82	NA	107	96	89
Moderate	505	492	567	490	479	449	NA	443	377	323
Minor	721	736	683	747	681	648	NA	851	842	744
Persons Injured	2,042	2,031	2,026	1,903	1,785	1,674	NA	1,935	1,753	1,544
Severe	215	219	212	173	157	115	NA	131	116	104
Moderate	721	700	782	659	632	597	NA	585	481	415
Minor	1,106	1,112	1,032	1,071	996	962	NA	1,219	1,156	1,025
Property Damage Crashes	3,512	3,268	3,672	3,862	3,628	3,154	NA	4,050	3,932	3,340

TABLE 5.02

PERSONS KILLED OR INJURED IN 2006 TRUCK CRASHES BY VEHICLE OCCUPIED

		Injured			
Vehicle Type	**Killed**	**Severe**	**Moderate**	**Minor**	**Total**
Automobile	26	44	177	491	712
Pickup Truck	8	13	41	84	138
SUV	9	9	41	126	176
Pedestrian	3	8	1	3	12
Bicycle	1	5	6	3	14
Van	3	7	31	62	100
Ambulance	0	0	0	3	3
Police/Fire Vehicle	0	0	3	4	7
Motor Home/Camper	1	0	2	0	2
Motorcycle	1	5	8	5	18
Snowmobile	1	0	0	0	0
Roadway Maintenance Vehicle	1	1	7	14	22
Two-Axle, Six-Tire, Single Unit Truck or Stepvan	1	2	19	50	71
Three or More Axle Single Unit Truck	2	1	10	23	34
Single Unit Truck with Trailer	0	0	7	13	20
Truck Tractor with No Trailer	0	0	0	3	3
Truck Tractor with Semi Trailer	7	5	48	118	171
Truck Tractor with Twin Trailers	0	0	2	2	4
Heavy Truck--Other or Unknown Type	1	1	8	12	21
Other or Unknown Vehicle Type	0	3	4	9	16
Total	65	104	415	1,025	1,544

TABLE 5.03

CONTRIBUTING FACTORS IN 2006 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	710	21.6%	613	20.8%
Improper or Unsafe Lane Use	310	9.4	325	11.0
Following Too Closely	284	8.6	201	6.8
Illegal/Unsafe Speed	269	8.2	290	9.8
Failure to Yield Right of Way	266	8.1	417	14.1
Unsafe Backing	175	5.3	27	0.9
Improper Turn	152	4.6	68	2.3
Vision Obscured-Windshield	102	3.1	64	2.2
Disregard for Traffic Control Device	73	2.2	112	3.8
Improper Passing or Overtaking	59	1.8	111	3.8
Driver Inexperience	48	1.5	68	2.3
Improper Parking, Starting, or Stopping	37	1.1	33	1.1
Overcorrecting	36	1.1	35	1.2
Driving Left of Center (Not Passing)	23	0.7	53	1.8
Improper/No Signal	14	0.4	8	0.3
Impeding Traffic	6	0.2	10	0.3
Chemical Impairment	6	0.2	70	2.4
Driver on Phone/CB/2-Way Radio	5	0.2	9	0.3
Failure to Use Lights	2	0.1	1	0.0
Non-Motorist Error	0	0.0	9	0.3
Other Human Factors	90	2.7	66	2.2
Vehicular Factors				
Skidding	75	2.3	74	2.5
Defective Brakes	74	2.3	20	0.7
Oversize/Overweight Vehicle	49	1.5	3	0.1
Other Vehicular Factor	72	2.2	15	0.5
Miscellaneous Factors				
Weather	188	5.7	153	5.2
Other	162	4.9	94	3.2
Total Contributing Factors Cited	3,287	100.0%	2,949	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	1,972		1,792	
Total Number of Vehicles	4,732		4,201	

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 2006 CRASHES

Driver Age	Truck or Truck Tractor	Truck with Semi-Trailer	Truck with Twin Trailer	Truck with Other Trailer	Total
10 - 14	0	0	0	0	0
15 - 19	30	11	0	1	42
20 - 24	164	108	1	20	293
25 - 29	268	176	3	35	482
30 - 34	208	235	5	26	474
35 - 39	225	276	6	36	543
40 - 44	261	300	5	35	601
45 - 49	258	326	5	35	624
50 - 54	217	315	3	21	556
55 - 59	144	225	6	19	394
60 - 64	68	136	3	14	221
65 & Older	72	115	0	12	199
Not Stated	52	78	0	14	144
Total*	1,967	2,301	37	268	4,573

* There were 4,732 trucks in crashes in 2006. However, 159 of these trucks were parked vehicles. This table tabulates the ages of drivers for the remaining 4,573 trucks where it was possible to identify a driver.

TABLE 5.05

DRIVERS IN 2006 TRUCK CRASHES BY PHYSICAL CONDITION*

	Truck Driver		Other Driver	
Physical Condition	Number	Percent	Number	Percent
Normal	4,116	90.0%	3,446	87.4%
Under the Influence	3	0.1	60	1.5
Had Been Drinking	4	0.1	27	0.7
Driver >.04 BAC	1	0.0	1	0.0
Had Been Using Drugs	1	0.0	2	0.1
Aggressive	1	0.0	3	0.1
Fatigued/Asleep	30	0.7	22	0.6
Physical Disability	0	0.0	1	0.0
Ill	1	0.0	7	0.2
Other	9	0.2	14	0.4
Unknown	407	8.9	358	9.1
Total **	4,573	100.0%	3,941	100.0%

* As noted by police officer on accident report.

** There were 4,732 trucks in crashes in 2006. However, 159 were parked. This table tabulates the apparent physical condition of drivers for the remaining 5,634 trucks where it was possible to identify a driver. Also, there were 4,169 non-truck motor vehicles in 2006 truck crashes. However, 228 of them were parked, leaving 3,941 for which an apparent physical condition was recorded.

TABLE 5.06

2006 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	44	886	2,392	3,322	47	1,233
Parked Motor Vehicle	4	35	274	313	4	49
Bicycle	1	13	0	14	1	14
Pedestrian	3	11	0	14	3	12
Deer	0	2	39	41	0	2
Other Animal	0	3	13	16	0	3
Fixed Object	2	57	308	367	2	67
Train	1	2	9	12	1	2
Non-Collision:						
Overturn	6	109	105	220	6	115
Jackknife	0	11	66	77	0	14
Fire or Explosion	0	0	9	9	0	0
Other	1	27	125	153	1	33
Total	62	1,156	3,340	4,558	65	1,544

TABLE 5.07

2006 TRUCK CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	9	86	258	353	9	111
February	6	88	302	396	6	118
March	4	104	326	434	5	145
April	1	75	199	275	1	103
May	4	98	306	408	5	145
June	7	113	254	374	7	151
July	4	100	269	373	4	118
August	5	87	309	401	6	112
September	7	96	282	385	7	129
October	6	127	318	451	6	175
November	4	97	249	350	4	117
December	5	85	268	358	5	120
Total	62	1,156	3,340	4,558	65	1,544

TABLE 5.08

2006 TRUCK CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	15	11	16	19	27	19	22	129
3:00 - 5:59 AM	14	28	16	25	40	26	12	161
6:00 - 8:59 AM	19	155	188	145	144	139	28	818
9:00 - 11:59 AM	30	214	184	150	193	203	48	1,022
Noon - 2:59 PM	46	200	203	155	172	191	49	1,016
3:00 - 5:59 PM	37	171	152	155	166	154	32	867
6:00 - 8:59 PM	34	55	67	55	74	49	16	350
9:00 - 11:59 PM	21	34	20	19	30	24	14	162
Unknown	3	6	5	6	3	9	1	33
Total	219	874	851	729	849	814	222	4,558

FIGURE 5.01
2006 Truck Crashes by Time of Day

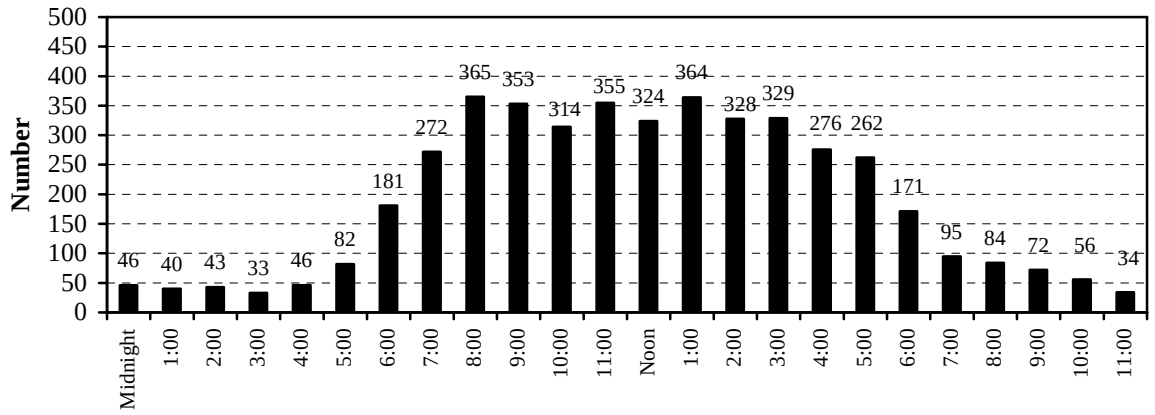

TABLE 5.09

2006 TRUCK CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	48	856	2,451	3,355	51	1,144
Wet	8	145	385	538	8	190
Snow or Slush	1	52	208	261	1	65
Ice or Packed Snow	3	84	245	332	3	120
Water Standing/Moving	0	0	1	1	0	0
Muddy	0	0	8	8	0	0
Debris	0	3	1	4	0	5
Other	2	11	21	34	2	15
Unknown	0	5	20	25	0	5
Total	62	1,156	3,340	4,558	65	1,544

TABLE 5.10

2006 TRUCK CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	40	657	1,893	2,590	43	867
Cloudy	15	323	914	1252	15	442
Rain	4	63	170	237	4	86
Snow	1	67	224	292	1	92
Sleet/Hail/Freezing Rain	1	17	46	64	1	19
Fog/Smog/Smoke	1	11	12	24	1	15
Blowing Sand/Dust/Snow	0	8	42	50	0	12
Severe Cross Winds	0	5	12	17	0	5
Other	0	1	5	6	0	2
Unknown	0	4	22	26	0	4
Total	62	1,156	3,340	4,558	65	1,544

TABLE 5.11

2006 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	1	152	618	771	1	213
50,000 - 99,999	4	174	500	678	4	237
25,000 - 49,999	1	138	383	522	1	179
10,000 - 24,999	5	130	483	618	6	167
5,000 - 9,999	2	71	249	322	2	88
2,500 - 4,999	2	42	183	227	2	58
1,000 - 2,499	1	28	107	136	1	30
Under 1,000	46	421	817	1,284	48	572
Total	62	1,156	3,340	4,558	65	1,544

TABLE 5.12

2006 TRUCK CRASHES BY TYPE OF ROADWAY

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Interstate Highway	8	282	876	1,166	9	394
US Trunk Highway	13	201	498	712	13	261
State Trunk Highway	23	263	590	876	24	346
County State-Aid Highway	15	226	627	868	16	300
County Road	0	12	30	42	0	19
Township Road	1	26	32	59	1	31
Local Street	2	141	656	799	2	184
Other Road	0	5	31	36	0	9
Total	62	1,156	3,340	4,558	65	1,544

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 decline
In 2006, there were 915 crashes in which a pedestrian was injured or killed by a motor vehicle. This is the lowest number of pedestrian crashes over the last ten years.

Deaths and injuries
In 2006, 38 pedestrians were killed and 906 pedestrians were injured. Nearly 4% of pedestrian crashes resulted in a death, compared to about one-half of one percent for all traffic crashes.

Young people and males at greater risk
Persons less than 25 years of age accounted for nearly one-third (32%) of the persons killed and nearly two out of five (38%) of those injured. Males were more likely than females to be killed: Males accounted for 53% of all pedestrian fatalities.

Urban areas and rush-hours
In 2006, 47% of pedestrian crashes occurred in areas with populations over 100,000. However, 14 of the 38 (37%) fatalities occurred in rural areas (defined as less than 5,000 population.) In 2006, 37% of pedestrian crashes occurred during the weekday rush hour driving time periods. The rush hour driving time period is defined as 6:00-9:00 a.m. and 3:00-6:00 p.m.

Prior actions of vehicles and pedestrians
Regarding motor vehicles that were involved in pedestrian crashes in 2006, nearly half (47%) of them were simply going straight ahead on the roadway prior to the crash. Nearly one-third (32%) of the motor vehicles involved in pedestrian crashes were making a right or left turn. As might be expected, more than one out of four (29%) of pedestrians killed were trying to cross a road with no crosswalk and no signal.

Contributing factors
For 29% of the 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 decreases
Of the 38 pedestrians killed, 31 were tested for alcohol. Of those tested, 26% had concentrations over .08, a thirty eight percent decrease from the previous year.

TABLE 6.01

PEDESTRIAN CRASH SUMMARY, 1997 - 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Pedestrian Crashes	1,419	1,400	1,329	1,253	1,175	1,151	NA	963	938	915
Pedestrians Killed	58	56	51	41	46	50	52	37	44	38
Pedestrians Injured	1,434	1,410	1,330	1,269	1,184	1,149	NA	976	936	906

TABLE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2006

				Injured											
Age	Killed			Severe			Moderate			Minor			Total		
Group	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total*
00 - 14	0	0	0	2	1	3	4	1	5	4	5	10	10	7	18
05 - 09	0	0	0	7	5	12	6	8	14	22	10	32	35	23	58
10 - 14	1	1	2	6	3	9	18	10	28	14	17	32	38	30	69
15 - 19	4	2	6	7	7	15	23	16	39	21	26	48	51	49	102
20 - 24	3	1	4	6	6	12	23	23	46	21	19	40	50	48	98
25 - 29	0	2	2	8	2	10	5	16	22	22	17	40	35	35	72
30 - 34	1	1	2	4	5	9	12	10	23	11	12	23	27	27	55
35 - 39	1	0	1	6	4	10	6	13	20	11	13	24	23	30	54
40 - 44	3	3	6	6	6	12	11	9	20	17	12	30	34	27	62
45 - 49	1	1	2	6	2	8	10	10	20	13	17	30	29	29	58
50 - 54	2	1	3	3	6	9	11	14	25	13	13	26	27	33	60
55 - 59	1	1	2	8	3	11	9	10	19	11	14	25	28	27	55
60 - 64	0	0	0	4	2	6	2	6	8	7	5	12	13	13	26
65 - 69	0	1	0	3	1	4	6	1	7	5	4	9	14	6	20
70 - 74	2	0	2	5	1	6	2	3	5	4	5	9	11	9	20
75 - 79	0	1	1	0	1	1	2	2	4	1	6	7	3	9	12
80 - 84	1	3	4	3	1	4	1	3	4	3	3	6	7	7	14
85 & Older	0	0	0	0	2	2	4	0	4	0	0	0	4	2	6
Not Stated	0	0	0	2	0	3	0	3	9	5	10	35	7	13	47
Total	20	18	38	86	58	146	155	158	322	205	208	438	446	424	906

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

FIGURE 6.01
Pedestrian Fatalities by Age Group, 1997-2006 Combined

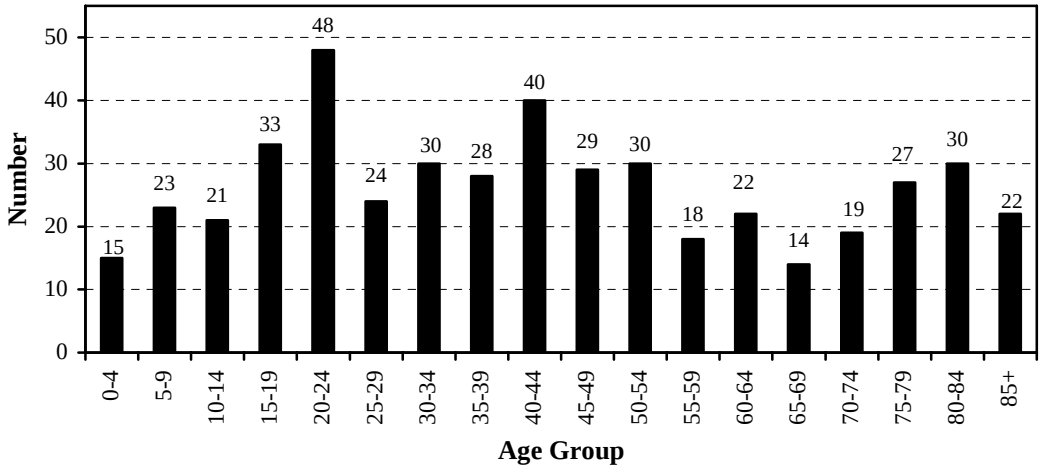

FIGURE 6.02
Pedestrians Killed or Injured by Age and Gender, 2006

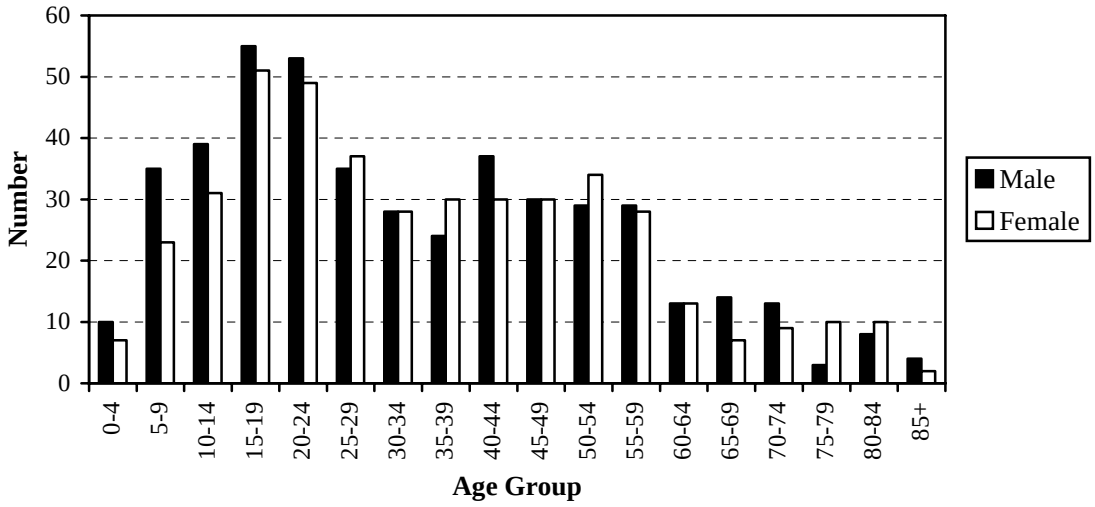

TABLE 6.03

2006 PEDESTRIAN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
January	4	86	90	4	88
February	3	64	67	3	65
March	3	55	58	3	59
April	4	62	66	4	64
May	1	59	60	1	60
June	7	72	79	7	74
July	1	66	67	1	69
August	1	60	61	1	59
September	3	90	93	3	100
October	2	88	90	2	92
November	5	90	95	5	91
December	4	85	89	4	85
Total	38	877	915	38	906

TABLE 6.04

2006 PEDESTRIAN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
100,000 and Over	4	414	418	4	429
50,000 - 99,999	4	119	123	4	123
25,000 - 49,999	8	83	91	8	87
10,000 - 24,999	7	122	129	7	128
5,000 - 9,999	1	46	47	1	48
2,500 - 4,999	0	37	37	0	35
1,000 - 2,499	0	20	20	0	20
Under 1,000	14	36	50	14	36
Total	38	877	915	38	906

TABLE 6.05

2006 PEDESTRIAN CRASHES BY TIME AND DAY

Time of Day	Fatal Crashes	Total Crashes	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Midnight - 2:59 AM	5	55	19	3	3	2	3	7	18
3:00 - 5:59 AM	6	27	5	3	4	4	5	1	5
6:00 - 8:59 AM	5	124	4	20	26	27	21	21	5
9:00 - 11:59 AM	1	84	5	10	11	16	17	15	10
Noon - 2:59 PM	1	144	11	16	16	26	24	30	21
3:00 - 5:59 PM	9	215	15	31	40	52	23	34	20
6:00 - 8:59 PM	6	169	19	15	27	21	27	29	31
9:00 - 11:59 PM	5	92	11	14	11	9	14	14	19
Unknown	0	5	0	2	0	0	2	0	1
Total	38	915	89	114	138	157	136	151	130

FIGURE 6.03
2006 Pedestrian Crashes by Time of Day

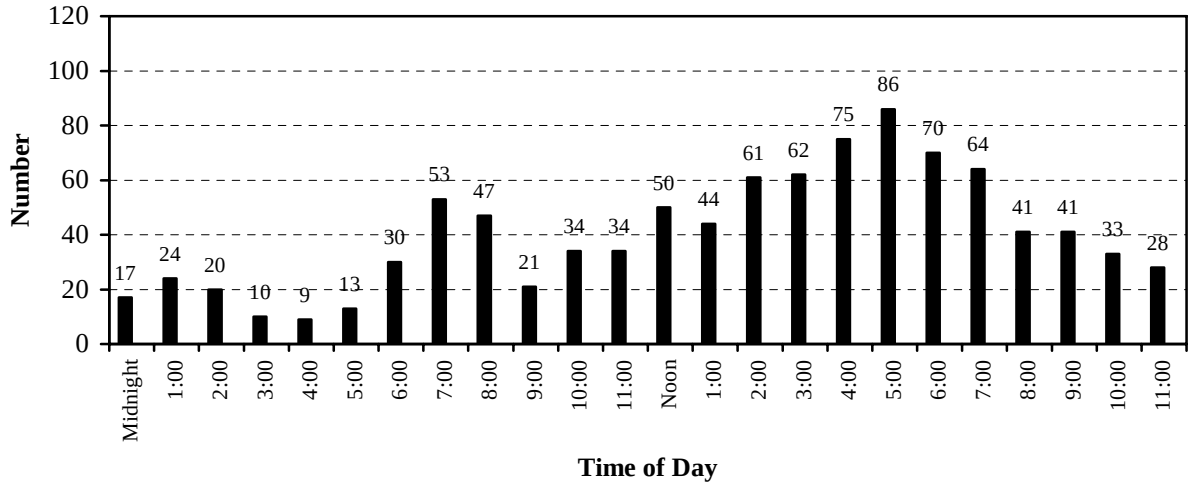

TABLE 6.06

PRIOR ACTION OF VEHICLES IN 2006 PEDESTRIAN CRASHES

Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes*
Going Straight	31	422	453
Wrong Way Opposing Traffic	1	4	5
Turning Right on Red	0	17	17
Turning Left on Red	0	2	2
Turning Right	0	77	77
Turning Left	3	204	207
Making U Turn	0	1	1
Starting From Parked	0	17	17
Starting in Traffic	0	11	11
Slowing in Traffic	0	8	8
Parking	1	1	2
Avoiding Object in Road	2	11	13
Changing Lanes	2	7	9
Passing	0	2	2
Backing	1	41	42
All Others	1	76	77
Unknown	1	12	13
Total	43	913	956

* 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 2006

	Pedestrians Killed		Pedestrians Injured	
Action	Number	Percent	Number	Percent
Crossing Road (No Crosswalk and No Signal)	11	28.9%	249	27.5%
Crossing Against Signal	3	7.9	43	4.7
Crossing With Signal	0	0.0	124	13.7
Crossing In Crosswalk (No Signal)	5	13.2	156	17.2
Walking In Road With Traffic	5	13.2	44	4.9
Walking In Road Against Traffic	2	5.3	10	1.1
Standing In Road	1	2.6	30	3.3
Emerging From Front/Behind Parked Vehicle	1	2.6	10	1.1
Child Getting On/Off School Bus	0	0.0	0	0.0
Pushing/Working On Vehicle	0	0.0	1	0.1
Working In Road	1	2.6	7	0.8
Getting On/Off Vehicle	0	0.0	9	1.0
Playing In Road	0	0.0	3	0.3
Not In Road	2	5.3	27	3.0
Other Pedestrian Action	1	2.6	37	4.1
Unknown	6	15.8	156	17.2
Total*	38	100.0%	906	100.0%

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

TABLE 6.08

CONTRIBUTING FACTORS IN 2006 PEDESTRIAN CRASHES

Contributing Factors	Attributed to Motor Vehicle Drivers Number	Percent
Human Factors		
Failure to Yield Right of Way	227	29.1%
Driver Inattention / Distraction	190	24.3
Vision Obscured	96	12.3
Illegal or Unsafe Speed	32	4.1
Chemical Impairment	25	3.2
Improper / Unsafe Lane Use	21	2.7
Disregard for Traffic Control Device	18	2.3
Unsafe Backing	13	1.7
Driver Inexperience	12	1.5
Improper Parking/Starting/Stopping	9	1.2
Following Too Closely	5	0.6
Driving Left of Center	5	0.6
Improper Passing / Overtaking	4	0.5
Improper Turn	4	0.5
Overcorrecting	4	0.5
Driver on Phone/CB	3	0.4
Failure To Use Lights	2	0.3
Improper / No Signal	1	0.1
Impeding Traffic	1	0.1
Other Human Factors	33	4.2
Vehicular Factors		
Defective Brakes	5	0.6
Skidding	3	0.4
Other Vehicular Factors	3	0.4
Miscellaneous Factors		
Weather Conditions	24	3.1
Other	41	5.2
Total Contributing Factors Cited	781	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	83	
Total Number of Drivers	956	

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, 1997 - 2006

			Alcohol Concentration*			
Year	Killed	Tested	(.00)	(.01 - .07)	(.08 - .09)	(.10 or more)
1997	58	40	29 (73%)	2 (4%)	0 (0%)	9 (23%)
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%)

* 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

2006 PEDESTRIAN FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY AGE

			Alcohol Concentration			
Age Group	Killed	Tested	(.00)	(.01 - .07)	(.08 - .09)	(.10 or more)
14 & Younger	2	1	1	0	0	0
15 – 19	6	4	4	0	0	0
20 – 24	4	4	1	0	0	3
25 – 29	2	2	1	0	0	1
30 – 34	2	2	2	0	0	0
35 – 39	1	1	0	0	0	1
40 – 44	6	6	4	1	0	1
45 – 49	2	1	1	0	0	0
50 – 54	3	3	1	0	0	2
55 – 59	2	2	2	0	0	0
60 – 64	0	0	0	0	0	0
65 – 69	1	1	1	0	0	0
70 – 74	2	1	1	0	0	0
75 – 79	1	0	0	0	0	0
80 – 84	4	3	3	0	0	0
85 & Older	0	0	0	0	0	0
Total	38	31	22	1	0	8

TABLE 6.11

2006 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	5	4	1	1	0	2
3:00 - 5:59 AM	6	6	4	0	0	2
6:00 - 8:59 AM	5	4	4	0	0	0
9:00 - 11:59 AM	1	0	0	0	0	0
Noon - 2:59 PM	1	1	1	0	0	0
3:00 - 5:59 PM	9	7	7	0	0	0
6:00 - 8:59 PM	6	5	5	0	0	0
9:00 - 11:59 PM	5	4	0	0	0	4
Total	38	31	22	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 decreases
In 2006, there were 944 bicycle crashes in Minnesota. This number represents a 2% decrease from the previous year.

Injuries decrease, fatalities increase
The number of bicyclists injured decreased in 2006. There were 908 injuries reported, a 5% decrease from 2005. In addition, there were 8 bicyclist fatalities in 2006, 1 more fatality than the previous year.

Warm weather
As expected, bicycle crashes are mostly a warm weather occurrence. In 2006, 7 of the 8 fatalities, 60% of the crashes, and 60% of the injuries occurred during the four-month period June through September.

Afternoon rush hour
Bicycle crashes in 2006 were most prevalent in the three-hour period of 3:00-6:00 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. This appears to be true once again in 2006. More than half (53%) bicycle crashes occurred in cities where the population was over 50,000 people. Only 10% of all bicycle crashes occurred in rural (defined as less than 5,000 people) areas.

Young people at risk
Of all the bicyclists injured in 2006, more than half (58%) were less than 25 years of age. Nearly two out of five (38%) of bicyclist fatalities were less than 15 years of age.

Males injured and killed most often
Males were nearly three times more likely than females (651 to 231) to be injured in bicycle crashes. In 2006, 6 of the 8 bicyclists killed and 72% of the bicyclists injured were male.

Actions by bicyclists prior to crash
Bicyclists are supposed to ride with traffic. The most commonly occurring action by bicyclists prior to the crash (15% of the total) was attempting to ride across the road. However, the prior action indicated as "other" or "unknown" was cited for 41% of bicyclists.

Contributing factors
Failure to yield the right of way was cited most often in 2006 for both the bicyclists and other motor vehicle drivers. For bicyclists, two other factors were often cited. These were 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, 1997- 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Bicycle Crashes	1,384	1,363	1,106	1,137	1,016	909	NA	985	965	944
Bicyclists Killed	7	9	8	14	7	7	6	10	7	8
Bicyclists Injured	1,348	1,310	1,060	1,080	960	860	NA	937	952	908

TABLE 7.02

2006 BICYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
January	0	11	0	11	0	11
February	0	8	1	9	0	8
March	0	11	0	11	0	11
April	0	69	6	75	0	69
May	1	116	5	122	1	118
June	3	154	6	163	3	156
July	1	136	5	142	1	139
August	3	147	10	160	3	150
September	0	100	2	102	0	101
October	0	70	3	73	0	73
November	0	45	3	48	0	46
December	0	26	2	28	0	26
Total	8	893	43	944	8	908

FIGURE 7.01
2006 Bicycle Crashes by Time of Day

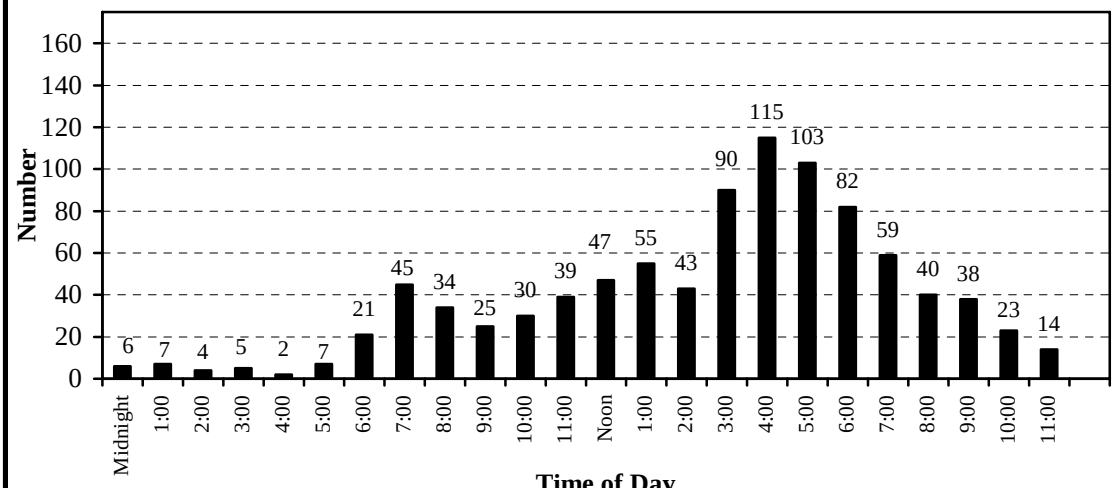

TABLE 7.03

2006 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	17	4	2	1	1	1	5	3
3:00 - 5:59 AM	14	3	2	1	5	1	2	0
6:00 - 8:59 AM	100	3	18	20	21	22	12	4
9:00 - 11:59 AM	94	5	7	29	15	8	17	13
Noon - 2:59 PM	145	18	16	27	17	16	29	22
3:00 - 5:59 PM	308	16	57	46	57	53	51	28
6:00 - 8:59 PM	181	17	36	35	28	22	24	19
9:00 - 11:59 PM	75	8	7	10	8	8	24	10
Unknown	10	0	1	2	5	1	1	0
Total	944	74	146	171	157	132	165	99

TABLE 7.04

2006 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	1	339	24	364	1	343
50,000 - 99,999	3	130	5	138	3	133
25,000 - 49,999	0	123	5	128	0	127
10,000 - 24,999	1	163	3	167	1	165
5,000 - 9,999	0	49	3	52	0	49
2,500 - 4,999	0	29	1	30	0	31
1,000 - 2,499	0	21	0	21	0	21
Under 1,000	3	39	2	44	3	39
Total	8	893	43	944	8	908

FIGURE 7.02
Bicyclists Killed and Injured by Age and Gender, 2006

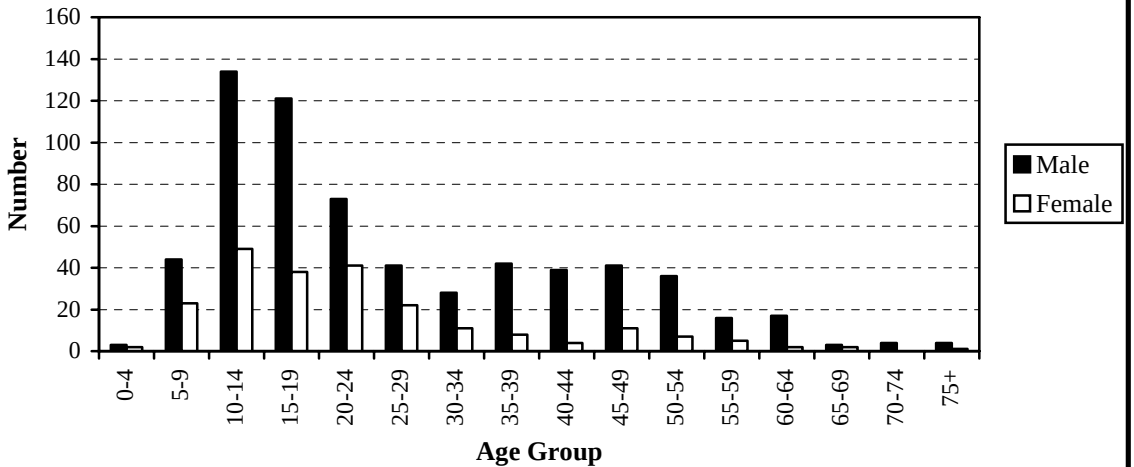

TABLE 7.05

BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2006

	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	3	0	3	0	2	2	3	2	5
05 – 09	1	1	2	4	3	7	17	9	26	22	10	32	43	22	65
10 – 14	1	0	1	6	5	11	54	17	71	73	27	100	133	49	182
15 – 19	2	0	2	4	1	5	50	11	63	65	26	91	119	38	159
20 – 24	1	1	2	3	2	5	26	22	48	43	16	60	72	40	113
25 – 29	0	0	0	6	2	8	17	9	26	18	11	30	41	22	64
30 – 34	0	0	0	3	1	4	14	5	19	11	5	16	28	11	39
35 – 39	0	0	0	2	0	2	14	5	19	26	3	29	42	8	50
40 – 44	0	0	0	2	0	2	21	3	24	16	1	17	39	4	43
45 – 49	0	0	0	4	2	6	22	2	24	15	7	22	41	11	52
50 – 54	0	0	0	3	1	4	15	0	15	18	6	24	36	7	43
55 – 59	0	0	0	2	1	3	7	2	9	7	2	9	16	5	21
60 – 64	0	0	0	1	0	1	7	2	9	9	0	9	17	2	19
65 – 69	0	0	0	0	1	1	1	1	2	2	0	3	3	2	6
70 – 74	0	0	0	0	0	0	1	0	1	3	0	3	4	0	4
75 & Older	1	0	1	0	0	0	2	0	2	1	1	2	3	1	4
Not Stated	0	0	0	0	0	1	3	4	10	8	3	28	11	7	39
Total	6	2	8	40	19	60	274	92	371	337	120	477	651	231	908

* 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 2006 CRASHES

Prior Action	Bicyclists in Fatal Crashes	Bicyclists in Injury Crashes	Bicyclists in Property Damage Crashes	Bicyclists in All Crashes*
Riding With Traffic	1	291	16	308
Riding Against Traffic	0	79	2	81
Making Left Turn	1	17	3	21
Making Right Turn	0	6	1	7
Making U-Turn	0	1	0	1
Riding Across Road	2	130	12	144
Slowing/Stopping/Starting	0	13	0	13
Other/Unknown	4	371	26	401
Total	8	908	60	976

* 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 2006 BICYCLE CRASHES

Contributing Factors	Attributed to Bicyclists		Attributed to Motor Vehicle Drivers	
	Number	Percent	Number	Percent
Human Factors				
Failure to Yield Right of Way	142	26.2%	218	36.3%
Non-Motorist Error	92	17.0	0	0.0
Disregard Traffic Control Device	78	14.4	19	3.2
Driver Inattention/Distraction	45	8.3	167	27.8
Improper/Unsafe Lane Use	35	6.5	17	2.8
Vision Obscured	17	3.1	51	8.5
Driver Inexperience	11	2.0	8	1.3
Chemical Impairment	9	1.7	10	1.7
Driving Left of Center	8	1.5	3	0.5
Illegal or Unsafe Speed	7	1.3	17	2.8
Failure to use Lights	6	1.1	2	0.3
Improper Passing/Overtaking	4	0.7	8	1.3
Impeding Traffic	4	0.7	4	0.7
Improper Park/Start/Stop	3	0.6	7	1.2
Following Too Closely	1	0.2	3	0.5
Improper Turn	1	0.2	12	2.0
Unsafe Backing	0	0.0	2	0.3
Driver On Phone/CB	0	0.0	4	0.7
Improper/No Signal	0	0.0	1	0.2
Overcorrecting	0	0.0	4	0.7
Other Human Factors	15	2.8	12	2.0
Vehicular Factors				
Defective Brakes	14	2.6	0	0.0
Skidding	0	0.0	1	0.2
Other Vehicular Factors	2	0.4	0	0.0
Miscellaneous Factors				
Weather Conditions	1	0.2	3	0.5
Other	47	8.7	28	4.7
Total	542	100.0%	601	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	317		391	
Total Number of Bicyclists/Drivers	958		949	

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 now identified
Changes in the crash reporting system in 2003 now make it possible to identify crashes in which a school bus was indirectly involved. In 2006, there were 200 crashes resulting in 2 fatalities and 116 injuries in which a school bus was indirectly involved. Both of the fatalities were passengers in other vehicles.

Number of crashes decreases
School bus crashes have decreased. In 2006, there were 625 traffic crashes directly involving at least one school bus. This is a 13% decrease from the previous year.

One death in 2006
In 2006, there was one fatal school bus crash resulting in one death. The fatality was the driver of a motorcycle that collided with a school bus.

Morning and afternoon rush hours
As would be expected, nearly two out of three (63%) school bus crashes in 2006 occurred during the time periods of 6:00-9:00 a.m. and 3:00-6:00 p.m. In addition, nearly three out of four (72%) of school bus crash injuries occurred during these two time periods. Not surprisingly, few crashes (7% of the total) occurred during the summer months of June, July, and August.

School bus stop arm
Forty-one percent of school bus crashes occurred where there was no traffic control device. Only 3% of the crashes occurred when the school bus stop arm was deployed. However, nine injuries occurred in crashes where the school bus stop arm was in use.

Contributing factors
Although there were 625 school bus crashes in 2006, a few involved more than one school bus. In all there were 636 school buses in crashes. For 43% of the school bus drivers, police showed there was “no clear contributing factor.” This compares favorably to the 31% of other motor vehicle drivers for whom there was “no clear contributing factor.” For the school bus drivers, the two contributing factors mentioned most often were failure to yield right of way (18%), and driver inattention or distraction (19%). The third most frequently cited contributing factor was improper turn (8%).

TABLE 8.01

SCHOOL BUS CRASH SUMMARY, 1997 - 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Crashes	961	782	782	890	852	719	NA	702	717	625
Fatal Crashes	4	3	5	2	4	3	3	3	7	1
Persons Killed	7	3	5	2	4	5	3	3	7	1
Injury Crashes	211	197	172	203	182	144	NA	150	140	137
Persons Injured	408	371	328	388	355	299	NA	266	250	241
Property Damage Crashes	746	582	605	685	666	572	NA	549	570	487
School Buses Directly Involved	979	790	789	903	857	731	NA	708	724	631

TABLE 8.02

2006 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	2	6	8	0	2
3:00 - 5:59 AM	0	1	6	7	0	1
6:00 - 8:59 AM	0	50	156	206	0	97
9:00 - 11:59 AM	0	17	51	68	0	27
Noon - 2:59 PM	1	23	99	123	1	35
3:00 - 5:59 PM	0	42	144	186	0	76
6:00 - 8:59 PM	0	2	19	21	0	3
9:00 - 11:59 PM	0	0	2	2	0	0
Unknown	0	0	4	4	0	0
Total	1	137	487	625	1	241

TABLE 8.03

2006 SCHOOL BUS CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	21	53	74	0	30
February	0	15	68	83	0	29
March	0	18	60	78	0	31
April	1	9	33	43	1	16
May	0	16	45	61	0	26
June	0	5	15	20	0	5
July	0	3	12	15	0	3
August	0	2	9	11	0	2
September	0	11	52	63	0	20
October	0	8	44	52	0	13
November	0	8	51	59	0	13
December	0	21	45	66	0	53
Total	1	137	487	625	1	241

TABLE 8.04

AGE AND GENDER OF PERSONS INJURED IN 2006 SCHOOL BUS CRASHES

Age Group	Total*	In Bus	Pedestrian	In Other Vehicle	Male	Female
00 - 04	3	1	0	2	3	0
05 - 09	31	26	0	5	17	14
10 - 14	23	23	0	0	11	12
15 - 19	36	10	2	24	16	20
20 - 24	17	2	1	14	8	9
25 - 29	15	1	0	14	8	7
30 - 34	9	2	0	7	1	8
35 - 39	15	3	0	12	4	11
40 - 44	13	5	0	8	8	5
45 - 49	10	1	1	8	2	8
50 - 54	9	3	0	6	4	5
55 - 59	13	4	2	7	10	3
60 - 64	5	0	1	4	2	3
65 & Older	16	5	2	9	8	8
Unknown	21	19	0	2	8	10
Total	236	105	9	122	110	123

* There were three cases where the gender of the person was not stated.

TABLE 8.05

PERSONS KILLED OR INJURED IN 2006 SCHOOL BUS CRASHES BY POPULATION OF AREA

Population of City or Township	Killed	Injured			
		Severe	Moderate	Minor	Total
100,000 and Over	1	3	10	34	47
50,000 - 99,999	0	2	5	16	23
25,000 - 49,999	0	1	12	17	30
10,000 - 24,999	0	6	12	40	58
5,000 - 9,999	0	0	8	10	18
2,500 - 4,999	0	0	0	9	9
1,000 - 2,499	0	0	1	1	2
Under 1,000	0	5	13	36	54
Total	1	17	61	163	241

TABLE 8.06

2006 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	1	107	376	484	1	196
Parked Motor Vehicle	0	10	80	90	0	18
Bicycle	0	5	0	5	0	5
Pedestrian	0	8	0	8	0	8
Fixed Object	0	3	17	20	0	8
Non-collision:						
Overturn	0	1	1	2	0	1
Other/Unknown	0	3	13	16	0	5
Total	1	137	487	625	1	241

TABLE 8.07

2006 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Traffic Signal	0	36	104	140	0	73
Overhead Flashers	0	0	1	1	0	0
Stop Sign--All Approaches	0	2	26	28	0	2
Other Stop Sign	0	35	92	127	0	66
Yield Sign	0	2	6	8	0	3
School Bus Stop Arm	0	7	10	17	0	9
Railroad Crossing Device	0	0	6	6	0	0
No Passing Zone	0	2	1	3	0	6
Not Applicable	0	48	208	256	0	76
Other	1	3	12	16	1	4
Unknown	0	2	21	23	0	2
Total	1	137	487	625	1	241

TABLE 8.08

CONTRIBUTING FACTORS IN 2006 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	61	19.1%	97	21.6%
Failure to Yield Right of Way	56	17.5	73	16.2
Improper Turn	27	8.4	11	2.4
Improper/Unsafe Lane Use	26	8.1	21	4.7
Unsafe Backing	16	5.0	11	2.4
Following Too Closely	12	3.8	41	9.1
Driver Inexperience	10	3.1	18	4.0
Vision Obscured	9	2.8	14	3.1
Improper Park/Start/Stop	7	2.2	16	3.6
Disregard Traffic Control Device	7	2.2	24	5.3
Improper Passing/Overtaking	7	2.2	12	2.7
Illegal/Unsafe Speed	5	1.6	34	7.6
Improper/No Signal	3	0.9	1	0.2
Driving Left of Center	2	0.6	3	0.7
Overcorrecting	1	0.3	5	1.1
Chemical Impairment	1	0.3	4	0.9
Impeding Traffic	0	0.0	1	0.2
Non-Motorist Error	0	0.0	1	0.2
Driver On Phone/CB	0	0.0	1	0.2
Other Human Factors	8	2.5	5	1.1
Vehicular Factors				
Skidding	14	4.4	28	6.2
Defective Brakes	3	0.9	2	0.4
Other Vehicular Factors	4	1.3	2	0.4
Miscellaneous Factors				
Weather Conditions	20	6.3	19	4.2
Other	21	6.6	6	1.3
Total	320	100%	450	100%
Vehicles for Which There Was "No Clear Contributing Factor"	273		198	
Total Number of Drivers	636		637	

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 2006, 16% 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. Thus, traffic safety officials are concerned with these types of crashes.

Number of train crashes decreases
Over the years, the number of motor-vehicle/train crashes in Minnesota has been declining. The calendar year 2006 was no exception. Fifty-one motor vehicle/train crashes were reported in 2006, one less than the previous year.

Number of fatalities increases
However, the number of vehicle/train crash fatalities increased: nine persons were killed in 2006 compared to six in 2005.

Railroad crossbuck and stop sign sites
Railroad crossings without some type of flashing light or a gate are very dangerous. Twenty-four (47%) of the fifty-one motor-vehicle/train crashes, including five of the eight fatal crashes, occurred at a railroad crossing signed only by a railroad crossbuck or a stop sign. Only 3 crashes, including one fatal crash, 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 2006, 64% of the total crashes, 47% of the injuries, and all of the fatalities occurred in rural areas.

Contributing factors
For the motor vehicles 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 at the scene. These three accounted for 66% of all contributing factors cited.

TABLE 9.01

MOTOR VEHICLE / TRAIN CRASH SUMMARY, 1997 - 2006

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Crashes	107	108	84	79	70	77	NA	72	52	51
Fatal Crashes	6	9	8	3	5	6	5	12	5	8
Persons Killed	6	11	10	4	6	9	8	13	6	9
Injury Crashes	36	47	32	32	22	27	NA	21	22	10
Persons Injured	46	64	50	43	28	37	NA	27	29	15
Property Damage Crashes	65	52	44	44	43	44	NA	39	25	33

TABLE 9.02

2006 MOTOR VEHICLE / TRAIN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total	Killed	Injured
January	1	2	6	9	1	2
February	0	0	1	1	0	0
March	1	1	3	5	1	2
April	0	1	2	3	0	1
May	1	0	2	3	1	0
June	0	0	2	2	0	0
July	1	1	1	3	1	2
August	0	2	4	6	0	2
September	0	1	4	5	0	1
October	0	0	2	2	0	0
November	0	1	2	3	0	2
December	4	1	4	9	5	3
Total	8	10	33	51	9	15

TABLE 9.03

2006 MOTOR VEHICLE / TRAIN CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	4	0	1	1	0	0	1	1
3:00 - 5:59 AM	1	1	0	0	0	0	0	0
6:00 - 8:59 AM	8	0	1	2	0	3	1	1
9:00 - 11:59 AM	5	0	0	2	0	2	1	0
Noon - 2:59 PM	6	0	2	2	0	1	1	0
3:00 - 5:59 PM	13	2	2	3	2	1	2	1
6:00 - 8:59 PM	6	1	2	1	1	0	0	1
9:00 - 11:59 PM	8	1	1	0	0	1	3	2
Unknown	0	0	0	0	0	0	0	0
Total	51	5	9	11	3	8	9	6

TABLE 9.04

2006 MOTOR VEHICLE / TRAIN CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
RR Crossing Stop Sign	4	1	1	6	4	2
RR Crossbuck	1	0	8	9	1	0
RR Flashing Lights	0	1	2	3	0	1
RR Overhead Flashers Plus Gate	0	1	5	6	0	2
RR Crossing Gate	1	2	0	3	1	2
Stop Sign	2	1	6	9	3	1
Other Device	0	1	6	7	0	2
Unknown	0	0	1	1	0	0
Not Applicable	0	3	4	7	0	5
Total	8	10	33	51	9	15

TABLE 9.05

AGE OF PERSONS KILLED OR INJURED IN 2006 MOTOR VEHICLE / TRAIN CRASHES

		Injured			
Age Group	Killed	Severe	Moderate	Minor	Total
00 - 04	0	1	0	0	1
05 - 09	0	1	0	0	1
10 - 14	0	0	0	0	0
15 - 19	0	0	1	1	2
20 - 24	3	1	1	1	3
25 - 29	0	0	0	2	2
30 - 34	0	0	0	1	1
35 - 39	2	0	1	0	1
40 - 44	0	0	0	0	0
45 - 49	0	1	0	0	1
50 - 54	0	0	0	1	1
55 - 59	1	0	0	0	0
60 - 64	0	0	0	0	0
65 - 69	1	0	0	0	0
70 - 74	2	0	1	1	2
75 - 79	0	0	0	0	0
80 & Older	0	0	0	0	0
Not Stated	0	0	0	0	0
Total	9	4	4	7	15

TABLE 9.06

2006 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	5	6	0	2
50,000 - 99,999	0	1	2	3	0	2
25,000 - 49,999	0	0	1	1	0	0
10,000 - 24,999	0	3	3	6	0	3
5,000 - 9,999	0	1	1	2	0	1
2,500 - 4,999	2	1	4	7	3	1
1,000 - 2,499	1	0	2	3	1	1
Under 1,000	5	3	15	23	5	5
Total	8	10	33	51	9	15

TABLE 9.07

CONTRIBUTING FACTORS IN 2006 MOTOR VEHICLE / TRAIN CRASHES

Contributing Factor	Number	Percent
Human Factors		
Failure to Yield Right of Way	18	26.9%
Driver Inattention/Distraction	13	19.4
Disregard for Traffic Control Device	13	19.4
Illegal or Unsafe Speed	4	6.0
Chemical Impairment	4	6.0
Vision Obscured	3	4.5
Improper/Park/Start/Stop	2	3.0
Driver Inexperience	2	3.0
Improper/Unsafe Lane Usage	1	1.5
Improper Passing/Overtaking	1	1.5
Other Human Factor	1	1.5
Vehicular Factors		
Skidding	2	3.0
Other Vehicular Factor	1	1.5
Other		
Weather	1	1.5
Other Contributing Factor	1	1.5
Total	67	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	21	
Number of Drivers	78	

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.