

## Suggestions for Using *Crash Facts*

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

### **Legislators:**

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

### **Students studying traffic safety issues:**

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

### **Law enforcement community:**

There are over 500 city, county, and state law enforcement agencies in Minnesota. Each agency has access to its own reports on traffic crashes, but the data are brought together here. Table 1.26 shows statistical information arranged by county. Table 1.27 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 1.26; your city’s statistics may be listed in Table 1.27. 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) 201-7073 or (651) 201-7076

# MINNESOTA

## MOTOR VEHICLE

### CRASH FACTS

#### 2005

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

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#### **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 Minnesota State Patrol and to the Bureau of Criminal Apprehension 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  
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July 2006

Each year in Minnesota, hundreds of people die and thousands are injured in traffic crashes. The perspective of the Department of Public Safety is that crashes are not “accidents,” but rather preventable events due mostly to driver behavior.

To combat this epidemic, the Department of Public Safety works with state agencies, organizations and stakeholders to find remedies based in education, enforcement, engineering and emergency care — and drive Minnesota *Toward Zero Deaths*. There is progress to report.

- Traffic fatalities dropped consecutively the last two years, from 655 in 2003 to 559 last year — resulting in 96 fewer deaths, a nearly 15 percent reduction.
- The fatality rate per 100 million vehicle miles traveled (VMT) has decreased to less than one person (0.99) — the state’s lowest rate yet and among the lowest in the nation — down from a rate of 4.41 in 1970. This is significant as the number of drivers, vehicles and VMT increase with population.
- Seat belt use — the simplest and most effective way to prevent death or injury in a crash — is at a record-high of 84 percent.

This progress is greatly tempered by the staggering loss of life. The fewer deaths are of small consolation to the families and friends of the 559 people killed on our roads last year, as well as those of the thousands who suffered life-altering injuries.

Also, following the record-low 177 alcohol-related traffic deaths in 2004, last year spiked to 197 people killed in impaired driving incidents — clearly unacceptable. It is my belief that the enforcement partnership of the State Patrol, county sheriffs and local police, as well as the effort of many stakeholders, will reduce this factor responsible for one-third or more of Minnesota’s traffic deaths.

As the Department of Public Safety continues to reduce traffic deaths through law enforcement and public education, I call upon every driver and passenger, parent and spouse, employer and colleague, teacher and student, neighbor and friend, to demonstrate safe driving behavior and influence others by committing to the following:

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

By adhering to these four simple actions, we can together reduce the number of crashes, fatalities and injuries and drive Minnesota *Toward Zero Deaths*.

Michael Campion  
Commissioner

## Minnesota Traffic Crashes in 2005 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 2005. We hope that the information contained within this book will help you and others use our roadways more safely.

### In 2005,

- 87,813 traffic crashes were reported to the Department of Public Safety
- 161,683 motor vehicles were involved
- 221,835 people were involved
- 559 people died
- 37,686 people were injured
- \$1,666,276,000 estimated economic cost to Minnesota

### On an average day in 2005,

- 241 crashes
- 1.5 deaths
- 103 people injured
- \$4,565,139 average daily cost

### 2005 crashes that involved alcohol

- 5,055 crashes
- 197 deaths
- 3,571 people injured
- \$310,055,700 estimated economic cost

### Highlights from the 2005 *Crash Facts* edition

- **Traffic fatalities decrease for second year in a row.**  
In 2005, Minnesota experienced a modest decrease in traffic fatalities of 1.4% from the previous year. Despite this decrease, traffic fatalities in Minnesota remain at epidemic levels. Fortunately, we know the cause of, and the cure for, this epidemic. We urge all drivers to pay attention while driving, to insist that all passengers use seat belts, to drive at legal speeds (and slow down when weather conditions warrant it), and to always be sober and clear headed when driving.
- **Safety belt use increased to a record high of 84% (from 82% in 2004).**  
This good news means that, compared to prior years, more people in 2005 escaped severe injury or death because they were wearing their safety belts.
- **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 2005 is 0.99. This is a decrease from 2004 when the fatality rate was 1.00. However, 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.

### **Section I: All Crashes**

This section starts on page 4, and it describes the aggregate of all traffic crashes in the state last year. Information provided includes:

- Licensed drivers by age (Table 1.12)
- Registered vehicles by category (Table 1.13)
- Contributing factors to crashes (Tables 1.09, 1.10 and 1.19)
- Holiday crashes, deaths and injuries (Table 1.30)

### **Section II: Alcohol-Related Crashes**

Starting on page 37, 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 2005 Crashes**

Seat belt and related information can be found starting on page 50. 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 59; it focuses on crashes involving a motorcycle.

- This section does not include all-terrain vehicles, motorscooters, or motorized pedalcycles ("mopeds").

### **Section V: Truck Crashes**

This section, which starts on page 68, 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 76. 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 85.

- 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 90. 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 95. Crashes that do not involve a motor vehicle (that is, a crash between a pedestrian 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.

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# INTRODUCTION

At the end of the 2005 calendar year, 3,872,093 people held Minnesota driver licenses and 4,658,953 motor vehicles were registered in the state. Vehicles traveled approximately fifty-six billion miles on public roadways in the state. There were 87,813 traffic crashes; 559 people died and 37,686 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 two 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 2004 data. Based on those, the total economic loss from 2005 traffic crashes in Minnesota was \$1,666,276,000, a figure that is calculated as follows:

## Cost of Motor Vehicle Crashes in 2005

559	deaths	@	\$1,130,000	=	\$631,670,000
2,019	severe injuries	@	\$58,500	=	\$118,111,500
10,453	moderate injuries	@	\$18,900	=	\$197,561,700
25,214	minor injuries	@	\$10,700	=	\$269,789,800
60,695	property damage crashes	@	\$7,400	=	<u>\$449,143,000</u>
	Total	=			\$1,666,276,000

## 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. Last year, there were 43,200 traffic fatalities throughout the country and 559 in Minnesota. The respective rates per hundred million miles of travel were 1.46 and 0.99. 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.

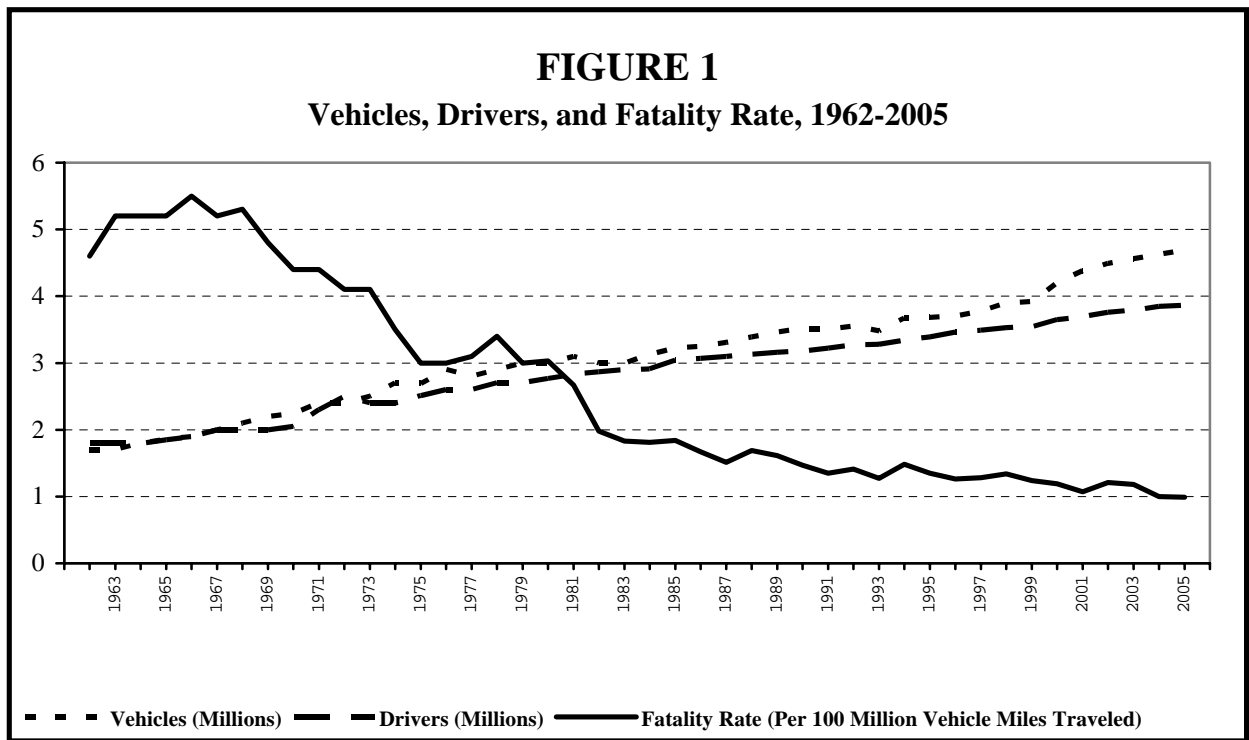
**Legislative requirement**

*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.



## I. ALL CRASHES

### Overview of Traffic Crashes in Minnesota

If a traffic crash in Minnesota meets certain criteria, the law states that data concerning that crash must be reported to the Department of Public Safety. In the recent past, approximately 95,000 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. Keeping this number below 100,000 each year remains a challenge for safety officials because:

By the end of the calendar year 2005:

- The population of Minnesota approached 5.2 million.
- Over 4.6 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 2005

There were 87,813 traffic crashes in 2005. This amount is actually the lowest number of crashes in Minnesota since the mid-1960's.

There were 559 deaths on Minnesota roads in 2005, a decrease for the second year in a row. In actuality, the number of traffic deaths has been very high the past few years. Since 1997, Minnesota has averaged 612 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 2005 traffic crashes; In addition to the 559 killed...

- 37,686 were injured.
- 2,019 of these were severe injuries.
- 10,453 of these were moderate injuries.
- 25,214 of these were minor injuries.
  
- In all crashes, 221,835 people were involved.
- In all crashes, 161,683 motor vehicles were involved.
- In addition, there were 965 bicyclists involved, and,
- There were 938 pedestrians involved.
  
- One-third of all crashes involved just one vehicle.
- 1 out of every 3 fatalities was less than 25 years of age.
- 1 out of every 8 fatalities was a SUV occupant.
- 2 of 3 fatalities occurred in rural areas (< 5,000 pop.).
- In all, 8,506 crashes were "hit-and-run".
- The economic loss to Minnesota was almost \$1.7 billion.

### WHO was involved?

Among drivers, young people and males are over represented in traffic crashes in Minnesota. There are 3,872,093 licensed drivers in the state. Fifteen to 24 year olds make up 17% of the licensed drivers, yet they accounted for 29% of the crash-involved drivers. Teenage drivers are the worst, from this perspective. In 2005, they represented 7% of the licensed drivers, but 14% of the crash-involved drivers. By contrast drivers over 65 made up 14% of the driving population, but accounted for just 7% of the crash-involved drivers in 2005. Crash-involved drivers are also more likely to be males: 75% 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, 210 people under age 30 died in crashes. That represents 38% 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 2005 but accounted for 15% of the traffic fatalities.

Among people injured, young people especially pay the price. There were 17,587 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 third most cited factor for all age groups after age 20. 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 559 traffic fatalities, 428 (77%) were from these 4 vehicle types. There were also 44 pedestrians, 59 motorcyclists, and 7 bicyclists who died in traffic crashes. There were no deaths among school bus occupants, and only 10 fatalities among commercial truck occupants. There is a similar pattern among people who were injured: of the 37,686 injured, 88% 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 (48%) of the fatal crashes and two-thirds (65%) of all crashes involve one vehicle colliding with another vehicle. In fatal and injury crashes, collisions with fixed objects and overturns are also common. For property damage crashes, the other leading crash types are collision with fixed object (13% of the total), collision with a parked motor vehicle (8% of the total), and collision with deer (6% of the total).

Most crashes occur in good driving conditions. Over half (55%) of fatal crashes, and 66% of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half (61%) of fatal crashes, and 55% 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 11% were on snowy or icy roads. For nonfatal crashes, 66% were on dry roads, 14% on wet roads, and 18% 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 2005, 349 (70%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. And, 347 (69%) of all fatal crashes occurred on trunk or county state aid highways, and 265 of those were in rural areas. The 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 31% of the fatal crashes, but 59% of all crashes.

### **WHEN they occurred**

In the year 2005, fatal crashes occurred most often in the afternoon hours between 3:00-7:00pm. In fact, almost one out of every four fatal crashes occurred during that time period. 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. 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 35%). Total crashes are more evenly distributed across days of the week, though Fridays had the most (18%) 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 2005 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 almost 4% 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 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 - 2005

Year	Total Crashes	Persons		Licensed Drivers (million)	Motor Vehicles (MV) (million)	State Population (million)	Vehicle Miles Traveled (VMT) (billion)	Crash Rates			Fatality Rates		
		Killed	Injured					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

## Note:

- (1) Statistics are susceptible to error from different sources. For example, the number of "total crashes" or "persons injured" cannot include the number of crashes or persons injured that by law should have been reported to the state but were not. Fatalities are not likely to be unreported, but even they are subject to error. Estimates of population and of miles traveled are subject to the errors of the estimating procedures, which may vary over time, and which will influence the rates shown, as well.
- (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 from the Driver and Vehicle Services Division, Minnesota Department of Public Safety.

TABLE 1.02

**TRAFFIC CRASH TRENDS  
2000 - 2005**

	2000	2001	2002	2003	2004	2005	Record High	
<b>Total Crashes</b>	<b>103,591</b>	<b>98,984</b>	<b>94,969</b>	N/A	<b>91,274</b>	<b>87,813</b>	<b>123,106</b>	<b>(1975)</b>
<b>Fatal Crashes</b>	<b>557</b>	<b>508</b>	<b>590</b>	<b>583</b>	<b>520</b>	<b>500</b>	<b>878</b>	<b>(1973)</b>
<b>Injury Crashes</b>	<b>30,830</b>	<b>29,273</b>	<b>28,140</b>	N/A	<b>28,066</b>	<b>26,618</b>	<b>33,686</b>	<b>(1978)</b>
Severe	2,471	2,274	2,226	N/A	1,937	1,660	5,109	(1984) <sup>1</sup>
Moderate	11,445	10,851	10,460	N/A	9,257	7,958	12,326	(1985) <sup>1</sup>
Minor	16,914	16,148	15,454	N/A	16,872	17,000	18,578	(1996) <sup>1</sup>
<b>Property Damage Crashes</b>	<b>72,204</b>	<b>69,203</b>	<b>66,239</b>	N/A	<b>62,688</b>	<b>60,695</b>	<b>94,810</b>	<b>(1975)</b>
<b>Total Injuries</b>	<b>44,740</b>	<b>42,223</b>	<b>40,677</b>	N/A	<b>40,073</b>	<b>37,686</b>	<b>50,332</b>	<b>(1978)</b>
Severe	3,174	2,949	2,807	N/A	2,424	2,019	6,573	(1984) <sup>1</sup>
Moderate	15,903	14,861	14,485	N/A	12,416	10,453	17,670	(1985) <sup>1</sup>
Minor	25,663	24,413	23,385	N/A	25,233	25,214	28,631	(1996) <sup>1</sup>
<b>Total Fatalities</b>	<b>625</b>	<b>568</b>	<b>657</b>	<b>655</b>	<b>567</b>	<b>559</b>	<b>1,060</b>	<b>(1968)</b>
Pedestrian	41	46	50	52	37	44	157	(1971)
Motor Vehicle/Train <sup>2</sup>	4	6	9	5	13	6	62	(1932)
Bicycle	14	7	7	6	10	7	24	(1977)
Motorcycle	35	42	47	62	50	59	121	(1980)
All Terrain Vehicle	5	4	1	4	4	7	9	(1986)
Snowmobile	5	3	2	2	1	2	9	(1984)
Motor Vehicle Occupants	520	460	544	526	461	440	544	(2002) <sup>1</sup>
<b>Minnesota Fatality Rate<sup>3</sup></b>	1.19	1.07	1.21	1.18	1.00	0.99	23.6	(1934)
<b>U.S. Fatality Rate<sup>3</sup></b>	1.53	1.51	1.51	1.48	1.44	1.46	18.0	(1925)
<b>Minnesota Economic Loss (millions)</b>	\$1,680	\$1,619	\$1,712	N/A	\$1,769	\$1,666	\$1,769	(2004) <sup>4</sup>

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

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

<sup>3</sup>Rate is based on 100 million vehicle miles of travel.

<sup>4</sup>Economic loss is a function of health care costs, inflation, and other factors, in addition to trends in traffic crashes.

TABLE 1.03

2005 FATALITIES BY TRAFFIC ROLE, GENDER, AND AGE

Type of Vehicle	Position in Vehicle	Gender	Age								Total
			0-9	10-19	20-29	30-39	40-49	50-59	60-69	70 & Older	
Car or Truck	Driver	Male	0	28	50	34	42	25	23	26	228
		Female	0	14	16	15	21	11	5	5	87
	Passenger	Male	5	14	12	6	7	3	1	3	51
		Female	4	13	9	5	5	8	4	17	65
	Unknown	Male	0	0	4	0	0	0	0	0	4
		Female	0	1	2	0	0	0	0	0	3
Motorcycle	Operator	Male	0	3	9	8	15	8	6	1	50
		Female	0	0	0	0	4	0	0	0	4
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	1	0	0	3	0	0	0	4
Motor scooter or Moped	Driver	Male	0	0	0	0	0	1	0	0	1
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	0	0
All Terrain Vehicle	Driver	Male	0	0	2	2	0	0	1	0	5
		Female	0	0	1	0	0	0	0	0	1
	Passenger	Male	0	1	0	0	0	0	0	0	1
		Female	0	0	0	0	0	0	0	0	0
Snowmobile	Driver	Male	0	1	1	0	0	0	0	0	2
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	0	0
Other Motor Vehicle	Driver	Male	0	0	0	0	1	0	0	0	1
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	1	0	1
Bicyclist	Male	0	1	0	0	2	1	0	0	4	
	Female	2	0	0	0	1	0	0	0	3	
Pedestrian	Male	2	4	7	2	6	0	2	5	28	
	Female	2	0	1	2	4	1	1	5	16	
Total Fatalities	Male	7	52	85	52	73	38	33	35	375	
	Female	8	29	29	22	38	20	11	27	184	
	Total	15	81	114	74	111	58	44	62	559	

TABLE 1.04

**AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2005 CRASHES**

Age Group	Persons Killed			Persons Injured			
	Male	Female	Total	Male	Female	Unknown	Total
0 - 3	3	2	5	229	183	4	416
4 - 10	6	7	13	574	568	5	1,147
11 - 14	6	4	10	500	523	5	1,028
Total Under 15	15	13	28	1,303	1,274	14	2,591
15	1	4	5	217	295	1	513
16	10	3	13	585	719	2	1,306
17	8	9	17	589	808	1	1,398
18	13	3	16	687	685	4	1,376
19	12	5	17	650	618	6	1,274
20	9	6	15	598	652	5	1,255
Total 15 - 20	53	30	83	3,326	3,777	19	7,122
Total Under 21	68	43	111	4,629	5,051	33	9,713
0 - 4	4	3	7	294	248	5	547
5 - 9	3	5	8	412	393	3	808
10 - 14	8	5	13	597	633	6	1,236
15 - 19	44	24	68	2,728	3,125	14	5,867
20 - 24	54	20	74	2,722	2,797	15	5,534
25 - 29	31	9	40	1,745	1,839	11	3,595
30 - 34	23	10	33	1,393	1,498	5	2,896
35 - 39	29	12	41	1,357	1,455	3	2,815
40 - 44	38	21	59	1,349	1,535	6	2,890
45 - 49	35	17	52	1,324	1,363	6	2,693
50 - 54	19	9	28	1,073	1,167	4	2,244
55 - 59	19	11	30	813	884	2	1,699
60 - 64	16	6	22	490	570	1	1,061
65 - 69	17	5	22	367	420	3	790
70 - 74	7	6	13	300	348	0	648
75 - 79	10	7	17	235	304	1	540
80 - 84	9	2	11	205	222	1	428
85 & Older	9	12	21	116	137	0	253
Not Stated	0	0	0	330	493	319	1,142
Total	375	184	559	17,850	19,431	405	37,686

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 2005 CRASHES

Age Group	Drivers in Fatal Crashes				Drivers in All Crashes			
	Male	Female	Not Stated	Total	Male	Female	Not Stated	Total
14 & Younger	1	0	0	1	70	36	6	112
15	2	1	0	3	151	137	4	292
16	9	12	0	21	2,383	2,339	4	4,726
17	12	10	0	22	2,858	2,616	3	5,477
18	14	5	0	19	3,060	2,382	13	5,455
19	16	7	0	23	2,909	2,250	14	5,173
20	13	8	0	21	2,744	2,218	17	4,979
Total Under 21	67	43	0	110	14,175	11,978	61	26,214
0 - 4	0	0	0	0	9	6	4	19
5 - 9	0	0	0	0	6	3	2	11
10 - 14	1	0	0	1	55	27	0	82
15 - 19	53	35	0	88	11,361	9,724	38	21,123
20 - 24	77	28	0	105	12,523	9,781	61	22,365
25 - 29	55	14	0	69	9,522	6,692	43	16,257
30 - 34	45	14	0	59	7,771	5,406	17	13,194
35 - 39	49	17	0	66	7,532	5,436	15	12,983
40 - 44	54	21	0	75	7,824	5,696	12	13,532
45 - 49	64	19	0	83	7,254	4,996	17	12,267
50 - 54	48	11	0	59	5,857	4,039	4	9,900
55 - 59	41	9	0	50	4,741	2,974	14	7,729
60 - 64	29	5	0	34	3,025	1,923	3	4,951
65 - 69	26	4	0	30	2,056	1,248	3	3,307
70 - 74	9	6	0	15	1,473	968	1	2,442
75 - 79	11	0	0	11	1,249	897	2	2,148
80 - 84	9	3	0	12	880	687	0	1,567
85 & Older	9	3	0	12	480	404	0	884
Not Stated	0	0	4	4	646	311	6,796	7,753
Total	580	189	4	773	84,264	61,218	7,032	152,514

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.)

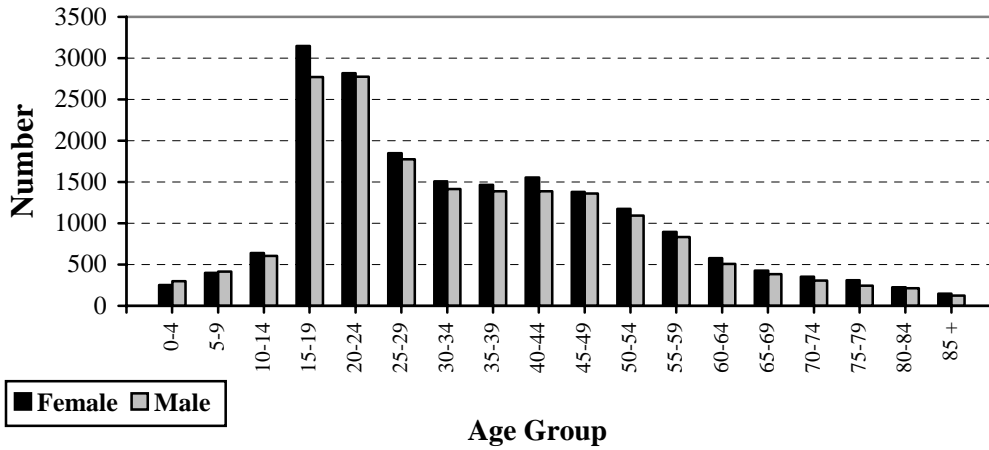
TABLE 1.06

LICENSED VS. CRASH-INVOLVED DRIVERS BY AGE, 2005

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	0.8	0.4	0.2	0.2	0.2
16	1.4	2.7	3.2	3.1	3.1
17	1.6	2.8	3.7	3.5	3.6
18	1.7	2.5	3.6	3.6	3.6
19	1.8	3.0	3.4	3.4	3.4
20	1.9	2.7	3.4	3.2	3.3
Total Under 21	9.1%	14.2%	17.6%	17.0%	17.2%
15 - 19	7.3%	11.4%	14.1%	13.7%	13.8%
20 - 24	9.3	13.6	15.1	14.5	14.7
25 - 29	9.0	8.9	10.7	10.6	10.7
30 - 34	8.3	7.6	8.8	8.6	8.6
35 - 39	9.0	8.5	8.9	8.3	8.5
40 - 44	10.1	9.7	9.2	8.7	8.9
45 - 49	10.4	10.7	8.3	7.9	8.0
50 - 54	9.2	7.6	6.7	6.4	6.5
55 - 59	7.7	6.5	5.1	5.0	5.1
60 - 64	5.5	4.4	3.3	3.2	3.2
65 - 69	4.2	3.9	2.2	2.2	2.2
70 - 74	3.4	1.9	1.6	1.6	1.6
75 - 79	2.9	1.4	1.5	1.4	1.4
80 - 84	2.2	1.6	1.1	1.0	1.0
85 & Older	1.6	1.6	0.6	0.6	0.6
Age Not Stated	0.0	0.5	2.6	6.2	5.1
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number	3,872,093				

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, 2005**



**FIGURE 1.02**  
**Licensed vs Crash-Involved Drivers by Age, 2005**

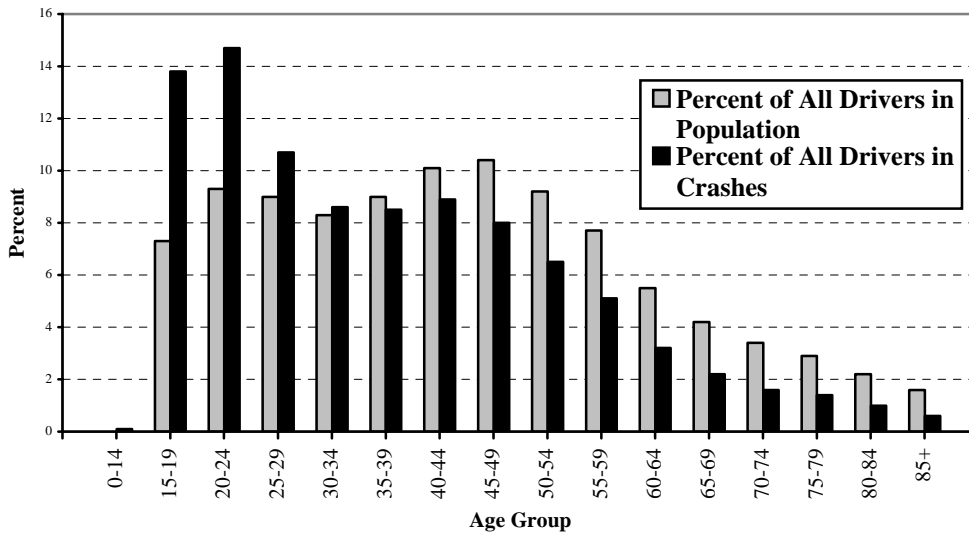


TABLE 1.07

**PERCENTAGE OF DRIVERS IN 2005 CRASHES  
BY AGE AND FIRST HARMFUL EVENT**

First Harmful Event	Age Group							All Ages
	15-19	20-24	25-29	30-34	35-64	65-79	80 +	
<b>Collision With:</b>								
Other Motor Vehicle	75.8%	77.1%	79.8%	81.0%	81.6%	82.9%	84.7%	78.8%
Parked Motor Vehicle	3.5	3.2	2.8	2.8	2.4	3.1	5.0	4.1
Railroad Train	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Bicycle	0.4	0.4	0.6	0.6	0.7	0.8	0.8	0.6
Pedestrian	0.5	0.5	0.6	0.5	0.6	0.8	0.8	0.6
Deer	1.5	2.1	2.3	2.9	3.9	3.2	0.8	2.8
Other Animal	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2
Fixed Object	11.4	10.5	8.5	7.3	5.8	5.4	5.1	7.8
Other Object	0.5	0.5	0.5	0.5	0.5	0.6	0.4	0.5
<b>Non-Collision:</b>								
Overturn	4.8	4.0	3.3	2.7	2.5	1.6	0.8	3.0
Other Non-Collision	0.3	0.5	0.4	0.4	0.6	0.4	0.2	0.4
<b>Other or Unknown</b>	1.2	1.0	1.0	1.0	1.1	1.0	1.2	1.1
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Drivers	21,103	22,332	16,234	13,182	61,292	7,891	2,457	152,317

Percentages are based on the number of crash-involved drivers in each age group (some driver ages are not available). They may not sum to 100% due to rounding. Bicyclists and pedestrians are not included.

TABLE 1.08

**DRIVERS IN 2005 CRASHES BY PHYSICAL CONDITION\***

Physical Condition	Drivers in Fatal Crashes	Drivers in Injury Crashes	Drivers in Property Damage Crashes	Drivers in All Crashes
Normal	395	38,538	78,948	117,881
Under the Influence	59	1,663	1,683	3,405
Had Been Drinking	55	741	737	1,533
Commercial Driver > .04	0	5	8	13
Had Been Using Drugs	3	73	49	125
Aggressive	3	28	50	81
Fatigued/Asleep	6	322	322	650
Ill	1	104	62	167
Physical Disability	1	48	48	97
Other	10	192	129	331
Unknown	240	5,543	22,447	28,230
Total	773	47,257	104,483	152,513

\* 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, 2005**

Contributing Factor	Age Group							All Ages
	15-19	20-24	25-29	30-34	35-64	65-79	80+	
<b>Human Factors</b>								
Illegal/Unsafe Speed	27.3%	28.4%	27.2%	25.7%	22.4%	15.1%	15.8%	25.8%
Driver Inattention/Distraction	13.2	14.2	14.3	14.7	14.0	18.8	19.1	14.0
Chemical Impairment	5.0	13.0	12.2	11.9	8.8	3.2	1.1	9.0
Overcorrecting	8.0	6.7	6.0	5.4	6.0	4.6	6.6	6.5
Driver Inexperience	15.3	3.7	2.2	2.1	1.7	0.4	1.1	5.4
Improper/Unsafe Lane Use	2.0	2.6	2.9	3.0	2.4	2.6	5.5	2.6
Improper Turn	0.6	0.5	0.8	0.7	1.2	1.4	2.2	1.0
Driving Left of Center--Not Passing	0.4	0.5	0.8	0.7	0.6	1.3	1.6	0.6
Vision Obscured	0.4	0.4	0.5	0.5	0.7	2.9	2.2	0.6
Disregard for Traffic Control Device	0.6	0.5	0.3	0.7	0.6	0.9	2.2	0.6
Following Too Closely	0.4	0.3	0.5	0.7	0.4	0.6	0.0	0.4
Improper Passing/Overtaking	0.4	0.2	0.3	0.4	0.4	0.7	0.0	0.4
Unsafe Backing	0.2	0.2	0.2	0.2	0.3	0.4	1.1	0.3
Failure to Yield Right of Way	0.3	0.3	0.2	0.3	0.2	0.6	0.6	0.3
Improper Parking/Starting/Stopping	0.1	0.2	0.3	0.2	0.2	0.6	0.6	0.2
Driver on Cell Phone or CB Radio	0.3	0.3	0.2	0.3	0.2	0.1	0.0	0.2
Impeding Traffic	0.1	0.0	0.1	0.0	0.0	0.0	0.6	0.1
Failure To Use Lights	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Other Human Factors	3.6	3.9	4.0	3.8	5.8	13.4	19.7	4.8
<b>Vehicular Factors</b>								
Skidding	8.1	7.3	8.1	8.8	9.5	9.2	5.5	8.4
Defective Equipment	1.1	1.2	1.2	1.1	1.8	1.2	1.1	1.4
Other Vehicular Factor	0.5	0.5	0.9	1.3	1.3	1.4	2.2	0.9
<b>Miscellaneous Factors</b>								
Weather	8.9	10.5	12.6	12.8	14.6	13.4	6.6	11.7
Other	3.3	4.5	4.3	4.8	6.6	7.2	4.9	4.9
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	5,407	4,772	2,697	1,888	7,063	695	183	23,327
Drivers for Whom There Was								
"No Clear Contributing Factor"	386	563	446	373	2,173	207	34	4,219
Total Number of Drivers	3,944	3,858	2,398	1,789	7,961	855	185	21,884

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 1.19.

TABLE 1.10

**MULTIPLE-VEHICLE CRASHES:  
CONTRIBUTING FACTORS, BY PERCENT, WITHIN DRIVER AGE GROUPS, 2005**

Contributing Factor	Age Group							All Ages
	15-19	20-24	25-29	30-34	35-64	65-79	80 +	
<b>Human Factors</b>								
Driver Inattention or Distraction	26.5%	26.3%	24.5%	25.2%	25.2%	22.8%	23.4%	24.9%
Failure to Yield Right of Way	18.4	15.4	15.6	16.1	17.6	28.3	34.4	17.9
Following Too Closely	11.0	13.3	13.6	14.2	12.4	7.1	5.5	11.9
Illegal or Unsafe Speed	8.5	10.1	9.4	8.7	6.7	3.6	2.0	8.0
Improper or Unsafe Lane Use	3.5	4.8	5.1	5.0	5.6	6.3	5.5	5.4
Disregard of Traffic Control Device	3.5	4.4	4.6	4.3	4.6	6.0	6.2	4.6
Vision Obscured	2.4	2.0	2.1	2.3	2.8	3.8	3.7	2.4
Improper Turn	1.9	2.1	2.2	2.3	2.4	2.9	4.0	2.3
Driver Inexperience	7.6	1.8	1.3	0.9	0.5	0.1	0.0	2.2
Chemical Impairment	0.8	2.8	3.2	3.0	2.5	0.8	0.2	2.1
Improper Passing or Overtaking	1.0	1.5	1.5	1.4	1.8	1.8	1.4	1.7
Unsafe Backing	1.0	0.8	1.2	1.5	1.9	2.1	1.4	1.6
Improper Parking, Starting, or Stopping	1.0	1.0	1.3	1.3	1.3	1.7	1.9	1.3
Driving Left of Center (Not Passing)	0.9	0.9	0.8	0.9	0.9	1.2	0.7	0.9
Overcorrecting	0.6	0.9	0.8	0.7	0.5	0.3	0.2	0.6
Impeding Traffic	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Improper or No Signal	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.2
Driver on Cell Phone or CB Radio	0.2	0.3	0.3	0.2	0.2	0.0	0.0	0.2
Failure To Use Lights	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Other Human Factors	1.0	1.3	1.4	1.6	1.7	2.7	3.7	1.5
<b>Vehicular Factors</b>								
Skidding	3.1	2.8	2.9	2.5	2.5	1.4	1.0	2.5
Defective Equipment	0.8	0.8	0.7	0.5	0.7	0.5	0.2	0.7
Other Vehicular Factor	0.4	0.4	0.3	0.4	0.5	0.4	0.2	0.4
<b>Miscellaneous Factors</b>								
Weather	3.6	3.9	3.7	3.8	4.2	2.6	1.6	3.7
Other	1.6	2.2	2.8	2.8	2.9	2.7	2.2	2.5
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	15,903	14,232	9,009	6,866	28,650	4,463	1,986	85,005
Drivers for Whom There Was								
"No Clear Contributing Factor"	4,820	6,593	5,864	5,213	25,974	2,830	558	52,246
Total Number of Drivers	17,176	18,500	13,853	11,402	53,380	7,039	2,275	130,694

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 1.19.

TABLE 1.11

**PERSONS INVOLVED IN CRASHES BY TYPE OF  
VEHICLE OCCUPIED AND INJURY SEVERITY, 2005**

Vehicle Type	Killed	Injured			Total	Not Injured	Total Persons
		Severe	Moder- ate	Minor			
Automobile	254	921	5,501	14,636	21,058	93,846	115,158
Pickup Truck	66	234	1,107	2,372	3,713	22,580	26,359
Van	42	129	793	2,524	3,446	18,473	21,961
Sport Utility Vehicle	66	222	1,239	3,489	4,950	26,848	31,864
Motorhome/Camper	0	2	9	18	29	164	193
Taxi Cab	0	3	23	96	122	616	738
Police Vehicle	0	1	31	81	113	587	700
Fire Department Vehicle	0	0	1	5	6	80	86
School Bus	0	1	22	81	104	5,015	5,119
Other Bus	0	0	17	72	89	1,209	1,298
Ambulance	2	1	5	10	16	88	106
Military Vehicle	0	0	0	1	1	17	18
Snowmobile	2	11	11	9	31	15	48
All Terrain Vehicle	7	11	22	14	47	26	80
Farm Tractor or Equipment	0	5	3	9	17	118	135
Motorcycle*	58	226	649	397	1,272	198	1,528
Motor scooter/Motorbike*	1	9	19	15	43	3	47
Motorized Bicycle (Moped)*	0	4	19	13	36	4	40
Hit and Run Vehicle	0	10	44	91	145	4,803	4,948
Road Maintenance Vehicle	0	3	7	34	44	655	699
Other Public Owned Vehicle	0	2	5	20	27	187	214
Single Truck (2-axle, 6-tire)	1	2	23	64	89	1,167	1,257
Single Truck (3 or more axles)	2	3	15	31	49	441	492
Single Truck with Trailer	0	1	4	19	24	344	368
Truck Tractor with No Trailer	1	0	1	4	5	97	103
Truck Tractor with Semi Trailer	6	6	63	123	192	2,641	2,839
Truck Tractor with Double Trailers	0	0	1	4	5	47	52
Other or Unknown Truck Type	0	3	5	3	11	271	282
Other Vehicle Type	0	2	9	28	39	467	506
Unknown Vehicle Type	0	5	16	54	75	2,472	2,547
Bicycle	7	74	414	464	952	31	990
Pedestrian	44	128	375	433	936	80	1,060
<b>Total</b>	<b>559</b>	<b>2,019</b>	<b>10,453</b>	<b>25,214</b>	<b>37,686</b>	<b>183,590</b>	<b>221,835</b>

\* 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

**DRIVER LICENSE\* SUMMARY BY AGE, 2000 - 2005**

Age	2000	2001	2002	2003	2004	2005
15	28,479	27,878	28,880	29,800	31,638	31,161
16	55,792	56,361	55,286	55,614	55,812	55,398
17	60,724	62,068	63,011	61,329	61,286	61,431
18	65,830	64,963	66,876	67,491	66,397	65,440
19	68,697	69,232	68,609	69,792	71,026	68,842
20	69,306	70,351	70,985	69,385	71,513	71,780
Under 21	348,828	350,853	353,647	353,411	357,672	354,052
15 - 19	279,522	280,502	282,662	284,026	286,159	282,272
20 - 24	327,545	339,486	352,022	352,818	361,589	361,839
25 - 29	310,399	309,079	320,420	326,355	339,712	348,538
30 - 34	347,932	344,952	343,933	333,363	330,480	319,537
35 - 39	391,515	377,905	366,661	354,509	350,988	349,515
40 - 44	405,043	408,621	411,413	408,428	403,774	390,439
45 - 49	362,105	368,930	379,702	386,086	395,178	400,876
50 - 54	306,566	316,321	325,664	335,331	345,855	355,524
55 - 59	222,828	238,022	252,631	264,204	280,193	296,390
60 - 64	174,735	180,723	192,074	200,322	208,133	212,324
65 - 69	145,334	146,107	149,272	154,103	158,035	163,125
70 - 74	133,774	133,205	132,368	131,255	131,277	131,383
75 - 79	112,404	111,876	113,370	114,350	114,333	114,220
80 - 84	76,888	78,351	80,361	82,681	84,761	85,056
85 & Older	52,854	51,419	54,940	60,348	61,389	61,055
Total	3,649,444	3,685,499	3,757,493	3,788,179	3,851,856	3,872,093

\* 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 1.13

**MOTOR VEHICLE REGISTRATIONS, 2000 - 2005**

Type of Vehicle*	2000	2001	2002	2003	2004	2005
Passenger Cars	2,957,883	3,072,081	3,156,906	3,196,960	3,239,418	3,288,446
Pickups	821,148	866,434	890,648	895,409	902,941	894,230
Trucks	182,469	190,314	194,695	197,952	206,419	211,577
Recreational Vehicles	39,827	39,649	39,584	39,828	39,853	39,032
Motorcycles	132,352	142,822	149,360	161,793	174,195	185,087
Motorized Bicycles	5,819	6,277	6,500	7,493	8,670	9,432
School Buses	6,017	5,926	5,938	5,979	5,989	6,093
Buses	5,018	5,037	5,001	5,058	5,059	5,018
Van Pool	260	267	246	219	201	193
Tax Exempt Vehicles	45,233	48,008	41,271	44,316	47,919	49,845
<b>Motor Vehicle Subtotal</b>	<b>4,196,026</b>	<b>4,376,815</b>	<b>4,490,149</b>	<b>4,555,007</b>	<b>4,630,664</b>	<b>4,688,953</b>
Trailers	1,122,330	1,052,751	875,677	1,357,019	1,388,642	1,448,877
Classic Motor Vehicles	121,934	127,239	132,964	139,784	146,541	153,383
Classic Motorcycles	3,666	4,077	4,599	5,110	5,703	6,266
<b>Total Registrations</b>	<b>5,443,956</b>	<b>5,560,882</b>	<b>5,503,389</b>	<b>6,056,920</b>	<b>6,171,550</b>	<b>6,297,479</b>

\* 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 1.14) 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.

TABLE 1.14

## TYPES OF MOTOR VEHICLES IN 2005 CRASHES

Motor Vehicle Type*	Vehicles in			
	Fatal Crashes	Injury Crashes	Property Damage Crashes	All Crashes
Automobile	325	26,480	59,541	86,346
Pickup Truck	140	6,009	14,681	20,830
Van	55	4,354	9,022	13,431
Sport Utility Vehicle	108	6,804	15,330	22,242
Motorhome/Camper	0	45	71	116
Taxicab	0	172	333	505
Police Vehicle	3	158	519	680
Fire Department Vehicle	0	10	32	42
School Bus	7	143	574	724
Other Bus	2	94	219	315
Ambulance	1	13	37	51
Military Vehicle	0	3	12	15
Snowmobile**	2	29	13	44
All Terrain Vehicle**	7	41	12	60
Farm Tractor or Equipment	0	49	85	134
Motorcycle*	62	1,172	163	1,397
Motor scooter/Motorbike*	1	43	3	47
Motorized Bicycle (Moped)*	0	37	4	41
Hit and Run Vehicle	1	642	3,551	4,194
Road Maintenance Vehicle	5	134	526	665
Other Public Owned Vehicle	1	55	125	181
Single Truck (2-axle, 6-tire)	3	296	811	1,110
Single Truck (3 or more axles)	14	141	315	470
Single Truck with Trailer	4	67	234	305
Truck Tractor with No Trailer	2	19	82	103
Truck Tractor with Semi Trailer	38	675	1,973	2,686
Truck Tractor with Double Trailers	1	11	33	45
Other or Unknown Truck Type	0	50	207	257
Other Vehicle Type	1	88	328	417
Unknown Vehicle Type	1	362	1,826	2,189
Total***	784	48,196	110,662	159,642

\* 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").

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

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

TABLE 1.15

## 2005 CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Personal Property			Total Crashes	Killed	Injured	Fatality Rate Per 1,000 Crashes
	Fatal Crashes	Injury Crashes	Damage Crashes				
<b>Collision With:</b>							
Another Motor Vehicle	240	17,168	39,718	57,126	285	26,052	5.0
Parked Motor Vehicle	4	618	5,037	5,659	4	803	0.7
Railroad Train	5	22	25	52	6	29	115.4
Bicycle	7	921	20	948	7	949	7.4
Pedestrian	44	844	12	900	44	916	48.9
Deer	2	398	3,776	4,176	2	474	0.5
Other Animal	0	79	244	323	0	95	0.0
Fixed Object	86	3,429	8,102	11,617	93	4,195	8.0
<b>Non-Collision:</b>							
Overturn	96	2,359	2,051	4,506	101	3,212	22.4
Fire/Explosion	0	4	110	114	0	5	0.0
Submersion	1	13	37	51	1	14	19.6
Other Non-Collision	6	145	277	428	6	161	14.0
<b>Unknown</b>	9	618	1,286	1,913	10	781	5.2
Total	500	26,618	60,695	87,813	559	37,686	6.4

TABLE 1.16

## 2005 "HIT-AND-RUN" CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Personal Property			Total Crashes	Killed	Injured
	Fatal Crashes	Injury Crashes	Damage Crashes			
<b>Collision With:</b>						
Other Motor Vehicle	3	898	3,220	4,121	3	1,224
Parked Motor Vehicle	1	112	2,396	2,509	1	134
Railroad Train	0	0	0	0	0	0
Bicycle	0	112	4	116	0	114
Pedestrian	9	149	1	159	9	161
Deer	0	1	7	8	0	1
Other Animal	0	1	2	3	0	1
Fixed Object	1	221	1,088	1,310	1	269
<b>Non-Collision:</b>						
Overturn	0	44	47	91	0	50
Fire/Explosion	0	0	2	2	0	0
Submersion	0	1	1	2	0	1
Other Non-Collision	0	4	5	9	0	4
<b>Unknown</b>	0	24	152	176	0	28
Total	14	1,567	6,925	8,506	14	1,987

TABLE 1.17

## 2005 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Property		Total Crashes	Killed	Injured
		Injury Crashes	Damage Crashes			
Not Applicable	355	14,165	35,806	50,326	395	19,472
Traffic Signal	27	6,431	12,088	18,546	27	9,190
Overhead Flashers	0	28	58	86	0	35
Stop Sign-All Approaches	3	529	1,281	1,813	3	703
Other Stop Sign	78	3,953	7,367	11,398	92	6,118
Yield Sign	9	473	881	1,363	10	733
Flagman, Officer, or School Patrol	1	28	57	86	1	40
School Bus Stop Arm	0	18	30	48	0	27
School Zone Sign	0	6	17	23	0	7
No Passing Zone	12	185	263	460	14	277
RR Crossing Gate	0	7	27	34	0	12
RR Flashing Lights	1	15	30	46	1	21
RR Crossing Stop Sign	1	6	5	12	1	8
RR Overhead Flashing Lights	0	3	2	5	0	4
RR Overhead Lights and Gate	0	7	19	26	0	8
RR Crossbuck	2	12	21	35	3	16
Other	4	305	874	1,183	4	433
Unknown	7	447	1,869	2,323	8	582
Total	500	26,618	60,695	87,813	559	37,686

TABLE 1.18

## 2005 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Property		Total Crashes	Killed	Injured
		Injury Crashes	Damage Crashes			
Clear	307	15,696	32,966	48,969	339	22,265
Cloudy	132	6,990	15,573	22,695	151	9,974
Rain	17	1,419	3,286	4,722	21	2,014
Snow	19	1,630	5,681	7,330	20	2,221
Sleet/Hail/Freezing Rain	5	301	926	1,232	7	428
Fog/Smog/Smoke	4	119	231	354	5	176
Blowing Sand/Dust/Snow	5	131	376	512	5	172
Severe Crosswinds	3	22	40	65	3	33
Other	2	47	146	195	2	64
Not Stated/Unknown	6	263	1,470	1,739	6	339
Total	500	26,618	60,695	87,813	559	37,686



TABLE 1.19

## CONTRIBUTING FACTORS IN 2005 CRASHES

Contributing Factors	Percent of Factors Cited in Crashes by Severity of Crash			Number of Crashes in which the Factor was Cited			Number of People Affected	
	Fatal Crashes	Injury Crashes	Property Damage Crashes	Fatal Crashes	Injury Crashes	Property Damage Crashes	Killed	Injured
<b>Human Factors</b>								
Driver Inattention/Distraction	12.0%	22.1%	22.6%	91	7,922	15,307	98	11,422
Failure to Yield Right of Way	10.6	15.8	13.3	79	5,714	9,152	89	8,820
Illegal/Unsafe Speed	18.5	11.7	11.6	140	4,246	7,981	161	6,302
Following Too Closely	1.6	7.8	10.2	11	2,634	6,638	14	3,699
Improper/Unsafe Lane Use	4.3	3.4	5.6	31	1,229	3,851	36	1,727
Disregard Traf Contr Device	4.6	5.1	3.0	35	1,864	2,119	43	3,049
Driver Inexperience	3.4	2.9	2.8	25	1,053	1,983	27	1,592
Chemical Impairment	9.1	5.2	2.7	68	1,906	1,898	74	2,743
Improper Turn	0.6	1.4	2.4	5	532	1,651	6	804
Vision Obscured	2.3	2.2	2.0	17	755	1,310	18	1,027
Unsafe Backing	0.1	0.3	1.8	1	106	1,235	1	123
Improper Passing/Overtaking	1.4	0.9	1.6	10	332	1,138	11	476
Overcorrecting	3.8	2.3	1.6	28	841	1,139	31	1,149
Improper Park/Start/Stop	0.6	1.0	1.2	5	349	827	6	481
Driving Left of Center (Not Passing)	7.3	1.1	0.7	56	419	458	65	769
Improper or No Signal	0.0	0.1	0.2	0	52	149	0	72
Impeding Traffic	0.3	0.2	0.2	2	72	137	2	114
Driver on Phone or CB Radio	0.4	0.2	0.2	3	91	119	3	130
Failure to Use Lights	0.3	0.1	0.1	2	52	41	2	80
Non-Motorist Error	1.8	0.8	0.0	13	261	5	13	284
Other Human Factor	3.9	3.1	1.9	29	1,113	1,269	32	1,444
<b>Vehicular Factors</b>								
Skidding	4.7	3.2	4.0	36	1,108	2,750	43	1,522
Defective Equipment	0.6	0.7	0.8	5	265	525	5	389
Other Vehicular Factor	0.6	0.5	0.7	5	184	454	6	273
<b>Miscellaneous Factors</b>								
Weather	3.5	4.4	5.9	21	1,417	3,704	26	1,945
Other	3.6	3.5	3.0	27	1,124	1,737	30	1,490
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	768	37,566	71,630					
Vehicles Where There Was "No Clear Contributing Factor"								
Total Number of Vehicles	296	19,678	39,367					
	839	50,089	110,755					

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 1.20

## 2005 CRASHES BY LIGHT CONDITION

<b>Light Condition</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Daylight	277	18,319	39,695	58,291	312	25,991
Dawn (Morning)	12	525	1,378	1,915	13	683
Dusk (Evening)	7	655	1,565	2,227	8	971
Dark/Street Lights On	53	4,237	10,496	14,786	56	5,942
Dark/No Street Lights	148	2,672	6,278	9,098	167	3,816
Other/Unknown	3	210	1,283	1,496	3	283
<b>Total</b>	<b>500</b>	<b>26,618</b>	<b>60,695</b>	<b>87,813</b>	<b>559</b>	<b>37,686</b>

TABLE 1.21

## 2005 CRASHES BY ROAD SURFACE CONDITION

<b>Road Surface Condition</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Dry	381	18,586	38,118	57,085	419	26,515
Wet	54	3,862	8,810	12,726	65	5,459
Snow/Slush	20	1,609	5,847	7,476	22	2,196
Ice or Packed Snow	34	2,059	6,369	8,462	38	2,822
Other	7	362	665	1,034	11	506
Not Stated/Unknown	4	140	886	1,030	4	188
<b>Total</b>	<b>500</b>	<b>26,618</b>	<b>60,695</b>	<b>87,813</b>	<b>559</b>	<b>37,686</b>

TABLE 1.22

## 2005 CRASHES BY ROAD DESIGN

<b>Road Design</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Freeway (Including Ramps)	67	3,645	10,160	13,872	78	5,084
Other Divided Highway	66	3,914	7,286	11,266	73	5,771
One-Way Street	2	632	1,144	1,778	2	872
4-6 Lanes Undivided	22	4,569	8,755	13,346	24	6,516
3 Lanes	5	306	661	972	5	426
2-Lane--2-Way	327	10,762	21,855	32,944	361	15,354
Alley/Driveway	3	107	362	472	3	116
Other	7	739	1,556	2,302	12	1,037
Not Stated/Unknown	1	1,944	8,916	10,861	1	2,510
<b>Total</b>	<b>500</b>	<b>26,618</b>	<b>60,695</b>	<b>87,813</b>	<b>559</b>	<b>37,686</b>

TABLE 1.23

**2005 CRASHES BY DIAGRAM**

<b>Diagram</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Rear End	21	7,666	17,133	24,820	22	10,839
Sideswipe Passing	5	939	7,154	8,098	7	1,192
Left Turn -- Oncoming Traffic	6	1,466	2,986	4,458	7	2,164
Ran Off Road - Left	67	2,207	3,427	5,701	76	2,858
Right Angle	116	6,095	10,337	16,548	133	9,437
Right Turn -- Cross Street Traffic	3	240	763	1,006	3	288
Ran Off Road - Right	97	2,815	4,961	7,873	103	3,612
Head On	92	1,404	2,549	4,045	113	2,291
Sideswipe Opposing	10	514	1,578	2,102	10	751
Not Applicable	18	821	2,557	3,396	18	1,020
Other / Unknown / Incomplete	65	2,451	7,250	9,766	67	3,234
<b>Total</b>	<b>500</b>	<b>26,618</b>	<b>60,695</b>	<b>87,813</b>	<b>559</b>	<b>37,686</b>

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 1.24

**2005 CRASHES BY POPULATION OF AREA**

<b>Population of City or Township</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
100,000 & Over	34	4,982	14,148	19,164	37	6,761
50,000 - 99,999	28	4,260	8,325	12,613	29	5,967
25,000 - 49,999	32	3,454	7,902	11,388	32	4,711
10,000 - 24,999	37	4,118	9,929	14,084	37	5,724
5,000 - 9,999	20	1,666	4,017	5,703	20	2,424
2,500 - 4,999	11	1,002	2,630	3,643	13	1,412
1,000 - 2,499	6	503	1,482	1,991	7	704
Under 1,000	332	6,633	12,262	19,227	384	9,983
<b>Total</b>	<b>500</b>	<b>26,618</b>	<b>60,695</b>	<b>87,813</b>	<b>559</b>	<b>37,686</b>

TABLE 1.25

**2005 CRASHES BY TYPE OF ROADWAY**

<b>Type of Roadway</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
<b>Urban</b>						
Interstate	25	2,253	6,722	9,000	25	3,077
US Trunk Highway	16	1,606	3,810	5,432	16	2,285
MN Trunk Highway	25	2,860	6,078	8,963	26	4,101
County State Aid Highway	41	5,485	10,661	16,187	41	7,649
County Road	4	134	300	438	4	198
Township Road	0	10	19	29	0	12
Local Street	39	6,049	16,381	22,469	42	8,166
Other Road	1	83	350	434	1	99
Total	151	18,480	44,321	62,952	155	25,587
<b>Rural</b>						
Interstate	30	719	1,980	2,729	41	1,088
US Trunk Highway	62	1,393	3,001	4,456	73	2,207
MN Trunk Highway	100	2,071	3,996	6,167	113	3,172
County State Aid Highway	103	2,482	4,126	6,711	116	3,561
County Road	21	358	607	986	25	504
Township Road	28	690	1,143	1,861	28	1,004
Local Street	2	398	1,408	1,808	2	520
Other Road	3	27	113	143	6	43
Total	349	8,138	16,374	24,861	404	12,099
<b>All Roadways</b>						
Interstate	55	2,972	8,702	11,729	66	4,165
US Trunk Highway	78	2,999	6,811	9,888	89	4,492
MN Trunk Highway	125	4,931	10,074	15,130	139	7,273
County State Aid Highway	144	7,967	14,787	22,898	157	11,210
County Road	25	492	907	1,424	29	702
Township Road	28	700	1,162	1,890	28	1,016
Local Street	41	6,447	17,789	24,277	44	8,686
Other Road	4	110	463	577	7	142
Total	500	26,618	60,695	87,813	559	37,686

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

TABLE 1.26

2005 COUNTY CRASH REPORT

County	Crashes				Total Crashes 2004	Number Killed 2005	Number Killed 2004	Number Injured 2005	Number Injured 2004
	Fatal	Injury	Property Damage	Total					
Aitkin	4	68	170	242	297	5	10	92	145
Anoka	21	1,465	2,681	4,167	4,275	22	28	2,057	2,191
Becker	5	145	186	336	387	6	4	215	272
Beltrami	4	215	402	621	745	4	7	331	370
Benton	9	189	397	595	578	10	5	274	302
Big Stone	0	13	51	64	85	0	4	17	52
Blue Earth	7	351	1,075	1,433	1,324	10	7	483	547
Brown	1	111	230	342	378	1	4	163	176
Carlton	4	141	252	397	395	4	7	209	207
Carver	8	353	885	1,246	1,234	8	4	516	560
Cass	5	137	209	351	394	5	7	211	231
Chippewa	0	64	109	173	135	0	3	99	108
Chisago	6	265	520	791	867	6	4	377	447
Clay	5	253	712	970	862	5	7	357	324
Clearwater	2	26	63	91	74	5	2	40	48
Cook	1	32	99	132	116	1	0	46	37
Cottonwood	1	39	77	117	128	1	3	79	66
Crow Wing	14	371	647	1,032	1,159	16	6	543	533
Dakota	24	1,713	3,469	5,206	5,498	28	33	2,478	2,557
Dodge	6	69	153	228	226	7	4	111	138
Douglas	5	208	544	757	760	6	11	297	346
Faribault	2	51	127	180	191	2	0	75	132
Fillmore	2	89	224	315	298	2	4	119	121
Freeborn	3	174	458	635	709	4	9	241	292
Goodhue	8	243	665	916	989	8	4	350	381
Grant	0	20	66	86	79	0	2	28	38
Hennepin	48	7,361	16,913	24,322	25,240	50	48	10,024	10,448
Houston	2	56	247	305	330	2	4	79	122
Hubbard	5	113	159	277	248	5	6	157	123
Isanti	7	149	377	533	581	7	4	217	271
Itasca	4	249	414	667	729	4	10	419	406
Jackson	3	48	89	140	177	6	0	70	96
Kanabec	4	83	138	225	201	9	4	127	131
Kandiyohi	8	231	490	729	737	12	14	346	366

TABLE 1.26 CONTINUED

2005 COUNTY CRASH REPORT

County	Crashes				Total Crashes 2004	Number Killed 2005	Number Killed 2004	Number Injured 2005	Number Injured 2004
	Fatal	Injury	Property Damage	Total					
Kittson	2	12	30	44	43	2	1	14	16
Koochiching	1	41	95	137	174	1	3	72	84
Lac Qui Parle	1	19	26	46	60	1	2	36	30
Lake	5	49	118	172	198	5	3	78	77
Lake of the Woods	2	16	23	41	68	2	0	22	22
Le Sueur	7	135	304	446	473	7	3	220	216
Lincoln	2	23	83	108	93	3	1	29	31
Lyon	2	138	256	396	352	2	6	192	144
McLeod	5	177	462	644	600	5	2	270	267
Mahnomen	0	26	34	60	63	0	1	43	37
Marshall	1	26	48	75	63	1	0	35	43
Martin	3	67	227	297	304	3	5	87	147
Meeker	4	104	139	247	294	5	4	149	156
Mille Lacs	7	117	256	380	425	8	7	182	240
Morrison	7	145	313	465	421	7	13	199	187
Mower	1	155	468	624	670	1	1	206	238
Murray	2	27	58	87	93	2	2	50	47
Nicollet	1	115	352	468	461	1	0	157	172
Nobles	3	89	253	345	332	3	4	135	130
Norman	0	23	48	71	92	0	2	41	51
Olmsted	9	730	1,624	2,363	2,499	10	15	1,047	1,215
Otter Tail	9	291	517	817	824	10	9	438	430
Pennington	3	76	89	168	188	3	4	116	92
Pine	9	173	206	388	412	13	7	262	259
Pipestone	2	36	69	107	94	2	4	57	68
Polk	4	106	287	397	404	4	7	155	183
Pope	2	43	95	140	113	2	3	54	68
Ramsey	25	2,962	9,725	12,712	13,061	26	22	4,006	4,420
Red Lake	1	13	23	37	46	1	1	18	19
Redwood	3	67	111	181	200	3	0	99	121
Renville	6	68	107	181	155	7	4	128	99
Rice	11	327	586	924	988	14	9	461	439
Rock	1	45	105	151	199	1	2	72	71

TABLE 1.26 CONTINUED

2005 COUNTY CRASH REPORT

County	Crashes				Total Crashes 2004	Number Killed 2005	Number Killed 2004	Number Injured 2005	Number Injured 2004
	Fatal	Injury	Property Damage	Total					
Roseau	5	47	93	145	160	6	2	74	70
St. Louis	19	849	1,496	2,364	2,553	19	21	1,203	1,384
Scott	10	467	888	1,365	1,386	11	19	746	718
Sherburne	16	380	844	1,240	1,342	18	14	561	612
Sibley	0	65	119	184	196	0	1	96	89
Stearns	14	792	1,416	2,222	2,286	18	20	1,145	1,214
Steele	5	175	579	759	776	7	12	235	271
Stevens	2	32	69	103	98	3	1	45	36
Swift	0	30	60	90	95	0	1	40	45
Todd	5	85	145	235	316	5	11	118	184
Traverse	0	7	10	17	24	0	0	9	9
Wabasha	5	91	187	283	340	6	2	139	155
Wadena	2	53	112	167	169	2	1	84	79
Waseca	3	89	175	267	243	3	1	120	123
Washington	19	1,009	2,139	3,167	3,366	19	18	1,411	1,321
Watonwan	3	44	107	154	145	3	4	61	45
Wilkin	0	41	93	134	134	0	1	51	52
Winona	2	258	682	942	1,038	2	6	338	369
Wright	16	505	974	1,495	1,590	16	15	754	814
Yellow Medicine	5	62	72	139	116	5	1	77	68
Unknown	0	1	0	1	13	0	0	2	12
Minnesota Total	500	26,618	60,695	87,813	91,274	559	567	37,686	40,073

TABLE 1.27

## 2005 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Afton	1	11	15	27	1	18
Albert Lea	0	84	241	325	0	110
Albertville	0	36	83	119	0	50
Alexandria	0	82	236	318	0	111
Andover	0	82	117	199	0	129
Annandale	0	2	8	10	0	3
Anoka	0	120	360	480	0	152
Apple Valley	1	214	318	533	1	293
Arden Hills	2	109	359	470	2	165
Aurora	0	4	15	19	0	4
Austin	0	94	327	421	0	122
Baxter	1	80	111	192	1	125
Bayport	0	7	25	32	0	10
Baytown Township	0	13	29	42	0	19
Becker	0	24	23	47	0	41
Belle Plaine	0	12	45	57	0	18
Bemidji	0	87	219	306	0	121
Benson	0	9	31	40	0	12
Big Lake	2	18	54	74	2	34
Blaine	4	237	297	538	4	343
Bloomington	0	623	1,338	1,961	0	852
Blue Earth	0	9	33	42	0	11
Brainerd	2	96	242	340	2	125
Breckenridge	0	12	17	29	0	14
Brooklyn Center	4	255	454	713	4	356
Brooklyn Park	2	371	337	710	2	523
Buffalo	0	70	146	216	0	100
Burnsville	1	367	681	1,049	2	546
Byron	0	7	19	26	0	8
Caledonia	0	7	27	34	0	12
Cambridge	0	26	139	165	0	36
Cannon Falls	0	17	44	61	0	21
Centerville	0	1	4	5	0	1
Champlin	0	73	138	211	0	104
Chanhassen	3	94	309	406	3	140
Chaska	0	47	176	223	0	78
Chisago City	0	14	28	42	0	24
Chisholm	1	5	35	41	1	6
Circle Pines	0	10	22	32	0	18
Cloquet	0	50	61	111	0	75
Cokato	0	2	9	11	0	2
Cold Spring	0	9	37	46	0	9
Columbia Heights	2	81	125	208	2	104
Coon Rapids	2	406	717	1,125	2	555
Corcoran	1	21	42	64	1	30
Cottage Grove	3	88	259	350	3	119
Crookston	1	16	55	72	1	22



TABLE 1.27

## 2005 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
Crystal	1	111	139	251	1	160
Dayton	1	24	65	90	1	35
Deephaven	0	12	20	32	0	15
Delano	0	10	24	34	0	11
Denmark Township	4	25	31	60	4	41
Detroit Lakes	0	56	58	114	0	80
Dilworth	0	9	17	26	0	14
Duluth	2	302	379	683	2	422
Eagan	4	256	610	870	4	380
East Bethel	0	33	42	75	0	47
East Grand Forks	0	19	94	113	0	23
Eden Prairie	0	229	672	901	0	301
Edina	0	206	516	722	0	257
Elk River	1	132	257	390	1	190
Ely	0	13	18	31	0	23
Eveleth	0	7	42	49	0	9
Fairmont	0	35	123	158	0	42
Falcon Heights	0	19	48	67	0	25
Faribault	1	125	185	311	1	171
Farmington	0	24	96	120	0	40
Fergus Falls	0	70	169	239	0	93
Forest Lake	2	129	251	382	2	172
Fridley	1	150	269	420	1	206
Gilbert	0	8	19	27	0	12
Glencoe	0	14	44	58	0	21
Glenwood	0	6	38	46	0	12
Golden Valley	2	153	386	541	2	198
Goodview	0	8	19	27	0	10
Grand Rapids	0	91	166	257	0	193
Granite Falls	0	13	26	39	0	21
Grant	0	22	34	56	0	28
Greenfield	1	13	39	53	1	17
Ham Lake	3	64	74	141	3	95
Hastings	0	71	230	301	0	105
Hermantown	1	33	87	121	1	41
Hibbing	0	92	251	343	0	122
Hopkins	1	77	150	228	1	100
Hugo	3	25	55	83	3	30
Hutchinson	1	59	191	251	1	82
Independence	1	22	46	69	1	33
International Falls	0	21	52	73	0	39
Inver Grove Heights	3	121	310	434	3	172
Jackson	1	9	21	31	1	16
Jordan	0	5	40	45	0	11

TABLE 1.27

## 2005 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Kasson	0	8	44	52	0	10
La Crescent	0	13	64	77	0	13
Lake City	1	16	48	65	1	29
Lake Elmo	1	60	114	175	1	94
Lakeville	6	136	202	344	6	201
Le Sueur	0	11	33	44	0	13
Lindstrom	0	9	33	42	0	9
Lino Lakes	1	50	195	246	1	63
Litchfield	0	16	60	76	0	19
Little Canada	2	105	285	392	2	143
Little Falls	1	40	94	135	1	54
Long Prairie	0	8	24	32	0	9
Luverne	0	14	33	47	0	18
Mahtomedi	0	19	28	47	0	33
Mankato	0	233	772	1,005	0	305
Maple Grove	6	245	634	885	6	334
Maplewood	3	295	711	1,009	3	405
Marshall	0	76	134	210	0	101
May Township	0	9	26	35	0	11
Medina	0	30	71	101	0	40
Melrose	1	3	33	37	2	5
Mendota Heights	0	68	173	241	0	98
Minneapolis	19	3,399	8,202	11,620	21	4,658
Minnetonka	5	249	479	733	5	345
Minnetrissa	0	20	60	80	0	26
Montevideo	0	27	62	89	0	46
Monticello	0	57	116	173	0	81
Moorhead	1	133	452	586	1	177
Mora	1	19	34	54	2	29
Morris	0	12	49	61	0	13
Mound	0	13	38	51	0	20
Mounds View	0	51	99	150	0	66
Mountain Iron	1	23	30	54	1	35
New Brighton	0	74	209	283	0	102
New Hope	1	52	105	158	1	82
Newport	1	68	195	264	1	98
New Prague	0	16	36	52	0	21
New Scandia	0	23	47	70	0	28
Twinsp						
New Ulm	0	52	144	196	0	73
North Branch	2	54	108	164	2	74
Northfield	0	53	115	168	0	72
North Mankato	0	38	103	141	0	56
North Oaks	0	12	19	31	0	16
North St. Paul	1	58	106	165	1	81
Oakdale	1	103	188	292	1	135

TABLE 1.27

## 2005 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Oak Park Heights	0	20	47	67	0	31
Olivia	0	3	8	11	0	10
Orono	0	43	118	161	0	55
Otsego	2	45	64	111	2	80
Owatonna	0	98	354	452	0	127
Park Rapids	0	17	30	47	0	22
Pine City	0	21	24	45	0	33
Pipestone	0	7	23	30	0	8
Plainview	0	3	11	14	0	7
Plymouth	1	241	682	924	1	325
Princeton	0	21	72	93	0	29
Prior Lake	0	51	37	88	0	77
Proctor	0	6	28	34	0	7
Ramsey	4	73	182	259	4	115
Red Wing	2	70	280	352	2	99
Redwood Falls	0	13	51	64	0	18
Richfield	1	261	598	860	1	374
Robbinsdale	0	63	120	183	0	87
Rochester	3	518	1,215	1,736	3	724
Rockford	0	9	15	24	0	15
Rogers	0	57	161	218	0	74
Roseau	0	9	19	28	0	15
Rosemount	1	90	173	264	1	128
Roseville	1	229	777	1,007	1	304
St. Anthony	0	17	58	75	0	22
St. Augusta Twncshp	1	16	50	67	3	31
St. Charles	0	8	22	30	0	8
St. Cloud	2	453	581	1,036	2	660
St. Francis	0	29	41	70	0	38
St. James	0	14	29	43	0	17
St. Joseph	0	9	29	38	0	9
St. Louis Park	0	242	641	883	0	296
St. Michael	1	34	76	111	1	59
St. Paul	15	1,583	5,947	7,545	16	2,103
St. Paul Park	0	19	42	61	0	27
St. Peter	0	16	77	93	0	19
Sartell	0	22	41	63	0	32
Sauk Centre	0	12	44	56	0	18
Sauk Rapids	0	37	89	126	0	43
Savage	1	109	197	307	1	163
Shakopee	2	133	313	448	2	190
Shoreview	0	113	272	385	0	158
Shorewood	0	30	91	121	0	36
Sleepy Eye	0	9	21	30	0	13

TABLE 1.27

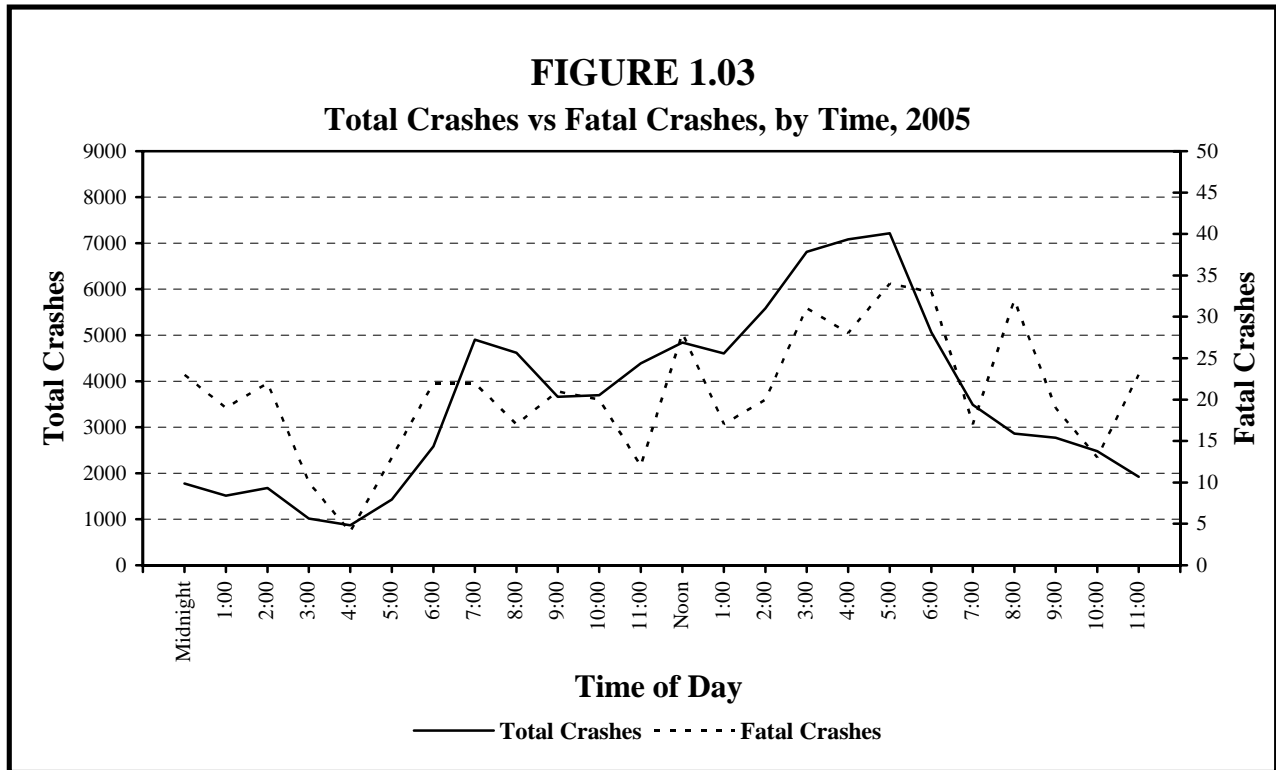
## 2005 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
South St. Paul	1	112	259	372	1	148
Spring Lake Park	0	32	42	74	0	46
Spring Valley	0	5	21	26	0	5
Staples	0	8	34	42	0	12
Stewartville	0	9	32	41	0	12
Stillwater	0	53	165	218	0	72
Stillwater Township	0	16	47	63	0	28
Thief River Falls	0	42	67	109	0	56
Two Harbors	0	10	39	49	0	11
Vadnais Heights	1	110	289	400	1	154
Victoria	0	33	59	92	0	46
Virginia	0	58	126	184	0	78
Waconia	0	38	53	91	0	59
Wadena	0	16	49	65	0	26
Waite Park	0	71	157	228	0	101
Waseca	0	35	58	93	0	44
Watertown	0	7	18	25	0	8
Wayzata	0	44	132	176	0	54
W. Lakeland Twmsp	0	19	21	40	0	29
West St. Paul	1	84	172	257	1	115
White Bear Lake	0	169	451	620	0	235
White Bear Twmsp	0	20	64	84	0	25
Willmar	1	130	329	460	1	186
Windom	0	20	30	50	0	36
Winona	1	120	346	467	1	152
Woodbury	2	236	403	641	2	329
Worthington	0	38	134	172	0	53
Wyoming	0	18	31	49	0	23
Zimmerman	1	11	58	70	1	16

TABLE 1.28

2005 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	1,779	23	395	6	165	1	181	4	218	4	182	1	242	0	396	7
1:00	1,517	19	353	6	124	2	126	0	153	0	156	5	230	1	375	5
2:00	1,684	22	442	3	142	2	128	1	165	3	156	2	263	3	388	8
3:00	1,016	10	245	1	100	1	94	0	99	0	104	2	152	1	222	5
4:00	867	4	167	1	93	0	72	0	128	0	109	0	139	1	159	2
5:00	1,432	13	174	3	199	5	179	0	248	2	196	1	252	1	184	1
6:00	2,583	22	197	1	424	4	416	5	488	4	405	1	428	1	225	6
7:00	4,905	22	246	2	770	4	890	2	999	4	957	4	818	4	225	2
8:00	4,615	17	264	2	696	3	785	3	902	2	822	5	801	0	345	2
9:00	3,659	21	361	2	506	2	544	3	554	7	531	2	669	4	494	1
10:00	3,691	20	409	1	474	1	452	3	507	6	495	2	716	4	638	3
11:00	4,390	12	519	3	544	1	554	2	586	1	626	2	828	2	733	1
Noon	4,840	28	595	5	586	3	627	5	660	0	691	8	942	2	739	5
1:00	4,604	17	560	2	592	2	585	2	599	0	603	3	947	4	718	4
2:00	5,580	20	577	2	772	2	786	4	775	3	767	2	1,181	3	722	4
3:00	6,814	31	579	4	1,081	2	965	5	1,007	7	1,108	7	1,344	3	730	3
4:00	7,086	28	627	5	1,014	2	1,099	7	1,056	1	1,208	1	1,429	4	653	8
5:00	7,214	34	564	1	1,127	9	1,131	5	1,131	4	1,253	2	1,343	6	665	7
6:00	5,065	33	483	5	686	1	687	2	839	4	801	4	946	10	623	7
7:00	3,484	17	459	2	478	2	446	2	499	1	486	1	647	5	469	4
8:00	2,860	32	401	7	356	3	371	4	380	4	413	6	477	5	462	3
9:00	2,769	19	382	3	331	1	374	4	383	6	400	0	447	3	452	2
10:00	2,477	13	289	2	246	2	303	2	344	1	354	1	477	4	464	1
11:00	1,925	23	197	3	205	3	187	0	230	1	259	3	417	6	430	7
Unknown	957	0	122	0	139	0	118	0	130	0	160	0	161	0	127	0
Total	87,813	500	9,607	72	11,850	58	12,100	65	13,080	65	13,242	65	16,296	77	11,638	98



*TABLE 1.29*

**2005 CRASHES, FATALITIES, AND INJURIES BY MONTH**

<b>Month</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
January	40	2,141	6,740	8,921	46	2,954
February	34	1,824	4,815	6,673	37	2,568
March	31	1,773	4,506	6,310	34	2,542
April	36	1,831	3,667	5,534	43	2,633
May	35	2,172	4,454	6,661	40	3,066
June	43	2,564	4,761	7,368	47	3,614
July	51	2,386	4,295	6,732	58	3,475
August	53	2,369	4,239	6,661	56	3,343
September	51	2,319	4,301	6,671	52	3,278
October	48	2,266	4,680	6,994	57	3,231
November	37	2,330	6,383	8,750	43	3,302
December	41	2,643	7,854	10,538	46	3,680
<b>Total</b>	<b>500</b>	<b>26,618</b>	<b>60,695</b>	<b>87,813</b>	<b>559</b>	<b>37,686</b>

TABLE 1.30

**HOLIDAY CRASH SUMMARY, 2000 - 2005**

<b>Holiday Period</b>	<b>Year</b>	<b>Hours*</b>	<b>Fatal Crashes</b>	<b>Personal Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
<b>Memorial Day</b> (For 2005, the holiday period was 6 PM Fri., May 27 -- midnight Monday, May 30.)	2000	78	4	215	441	660	4	327
	2001	78	7	169	388	564	7	260
	2002	78	6	208	387	601	7	297
	2003	78	6	NA	NA	NA	6	NA
	2004	78	6	194	362	562	9	283
	2005	78	8	177	342	527	9	295
<b>July 4<sup>th</sup></b> (For 2005, the holiday period was 6 PM Fri., July 1 -- midnight Monday, July 4.)	2000	102	12	302	524	838	14	503
	2001	30	2	122	161	285	3	189
	2002	102	6	342	606	954	6	541
	2003	78	3	NA	NA	NA	3	NA
	2004	78	9	235	420	664	9	379
	2005	78	7	207	336	550	9	332
<b>Labor Day</b> (For 2005, the holiday period was 6 PM Fri., Sept 2 -- midnight Monday, Sep 5.)	2000	78	6	218	426	650	8	347
	2001	78	4	220	394	618	4	326
	2002	78	7	233	389	629	7	377
	2003	78	7	NA	NA	NA	9	NA
	2004	78	4	213	357	574	4	358
	2005	78	8	187	315	510	8	289
<b>Thanksgiving</b> (For 2005, the holiday period was 6 PM Wed., Nov 23 -- midnight Sunday, Nov 27.)	2000	102	8	252	658	918	10	393
	2001	102	9	309	698	1,016	10	473
	2002	102	8	232	593	833	8	357
	2003	102	5	NA	NA	NA	6	NA
	2004	102	10	419	981	1,410	13	646
	2005	102	8	390	1,066	1,464	11	592
<b>Christmas</b> (For 2005, the holiday period was 6 PM Fri., Dec 23 -- midnight Monday, Dec 26.)	2000	78	2	245	812	1,059	2	351
	2001	102	9	491	1,552	2,052	10	719
	2002	30	1	37	84	122	1	56
	2003	102	4	NA	NA	NA	4	NA
	2004	78	9	178	511	698	9	284
	2005	78	1	153	325	479	1	227
<b>New Year's</b> (For 2005, the holiday period was 6 PM Fri, Dec. 30 -- Midnight Monday, Jan 2, 2006.)	2000/01	78	6	196	684	886	7	300
	2001/02	102	8	213	760	981	11	342
	2002/03	30	5	56	112	173	5	84
	2003/04	102	7	NA	NA	NA	10	NA
	2004/05	78	3	219	598	820	3	333
	2005/06	78	6	134	422	562	8	211

\* 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 2002, nine drinking pedestrians and one drinking bicyclist died after colliding with a vehicle driven by a non-drinking driver. (Two 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 2005

Department of Public Safety, Office of Traffic Safety



Drinking and driving remains a serious problem in Minnesota and across the nation. For 2005, the National Safety Council has made a conservative estimate of \$310 million as the cost of alcohol-related crashes in Minnesota. Predictably, there is a strong positive relationship between alcohol use and crash severity. That is, as crash severity increases, alcohol is more likely to have been a factor in the crash. Last year, 7% of minor injuries, 13% of moderate injuries, 21% of severe injuries, and 35% of deaths were alcohol-related. In all, 197 known people died and 3,571 known people were injured in crashes classified as alcohol-related. (NHTSA estimates will be higher).

#### **Impaired driving incidents (DWI's) increase**

There were 36,870 impaired driving incidents last year in Minnesota. This number represents an 8% 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 70% of the DWI offenders last year. Females are getting arrested more and more often though. In 2005, 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 52% of the incidents on record. Drivers under age 21 accounted for 9%.

#### **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 38% of all traffic deaths, and for fully 47% 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, 154 (78%) of the 197 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 43 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 43% of all traffic crashes, but 64% 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.

#### **Alcohol crashes usually involve just the single vehicle**

Forty-eight percent of all fatal crashes involved collision with another motor vehicle in transport, compared to only 25% of alcohol-related fatal crashes. Most of the alcohol-related fatal crashes involved a single vehicle colliding with a fixed object (25%), or a single vehicle losing control and overturning (33%).

#### **The proportion of all deaths that are alcohol-related may fluctuate each year**

In the past decade, the percentage of all traffic deaths that were alcohol-related has been as high as 42% (1998) and as low as 30% (1997). After averaging 38% per year from 2000 through 2003, this percentage dropped to 31% in 2004. The base for this percentage--the total number of deaths--is large enough, at around 600 per year, that one would not expect such volatility in the proportion.

The explanation that comes first to mind is that inconsistencies in record-keeping cause the appearance of erratic changes. However, in Minnesota, more effort is invested in accurate data keeping on this problem than on almost any other aspect of traffic safety. 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 37) that compensates for missing data, and NHTSA's estimates of alcohol-related deaths for Minnesota show the same erratic fluctuation in the recent years.

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 37% per year. This is a great success story for Minnesota and the nation as a whole. The 2005 alcohol-related percentage of 35% is evidence of this continued decrease. 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.

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 not be one of them! Drinking and driving makes for a volatile mixture. A mixture that will surely result in fluctuating amounts of tragic alcohol-related death and injury.

**TABLE 2.01**  
**ALCOHOL-RELATED FATAL CRASH SUMMARY, 1980 - 2005**

Year	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 **			
		num-ber	% of total	num-ber	% of tested	num-ber	% of tested	num-ber	% of tested		num-ber	% of total	num-ber	% 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		
						<b>.01 to .07</b>	<b>.08 to .09</b>									
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	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 - 2005**

Year	Total	Gender						Area of State			
		Male		Female		Not Stated		Metro		Non-Metro	
		Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
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

\* 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 - 2005**

Year	Total	Age								Total Under 21	21-34	35-49	50 & Older
		0-14	15	16	17	18	19	20					
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	

**FIGURE 2.01**  
**PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs")**  
**COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990 - 2005**

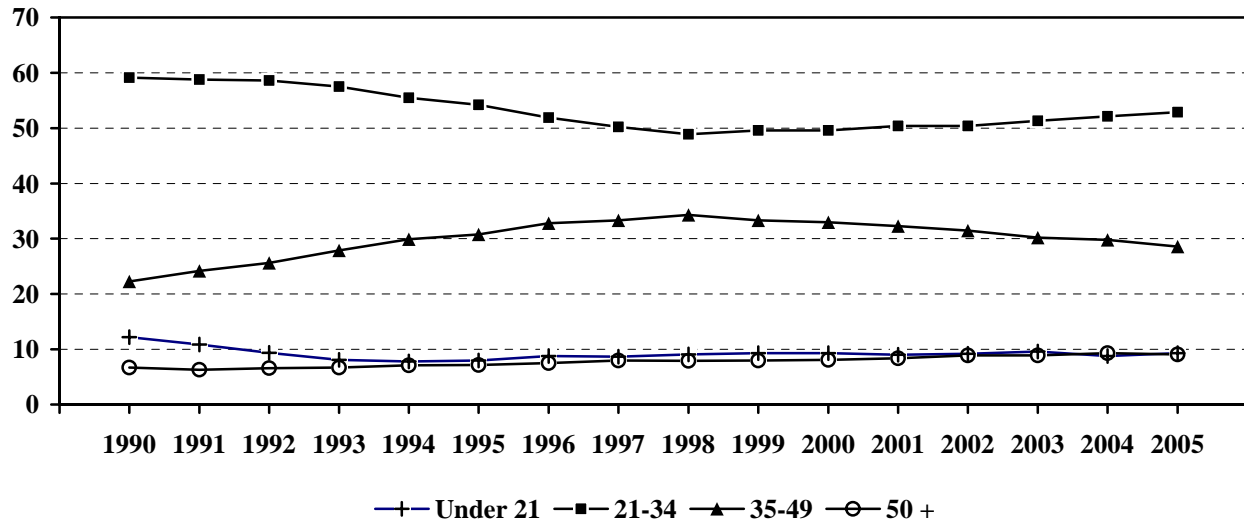


TABLE 2.04

**IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1990 - 2005**

Year	Age Group															Total	
	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+
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

*TABLE 2.05*  
**AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES  
 AND IN ALCOHOL - RELATED CRASHES, 2005**

Age Group	Persons Killed		Persons Injured by Severity						Total Persons Injured	
	All	Alcohol-Related <sup>1</sup>	Severe		Moderate		Minor		All	Alcohol-Related <sup>2</sup>
			All	Alcohol-Related <sup>2</sup>	All	Alcohol-Related <sup>2</sup>	All	Alcohol-Related <sup>2</sup>		
0 - 4	7	0	21	2	118	11	408	18	547	31
5 - 9	8	0	31	0	221	10	556	15	808	25
10 - 14	13	2	68	7	394	24	774	25	1,236	56
15	5	2	29	3	150	13	334	14	513	30
16	13	3	66	3	368	21	872	40	1,306	64
17	17	3	69	11	410	23	919	53	1,398	87
18	16	3	72	15	410	49	894	71	1,376	135
19	17	3	74	20	378	61	822	83	1,274	164
20	15	10	78	20	387	53	790	88	1,255	161
Total Under 21	111	26	508	81	2,836	265	6,369	407	9,713	753
0 - 14	28	2	120	9	733	45	1,738	58	2,591	112
15 - 19	68	14	310	52	1,716	167	3,841	261	5,867	480
20 - 24	74	45	308	104	1,636	333	3,590	472	5,534	909
25 - 29	40	17	202	53	962	188	2,431	231	3,595	472
30 - 34	33	17	153	60	775	119	1,968	181	2,896	360
35 - 39	41	21	138	32	736	116	1,941	123	2,815	271
40 - 44	59	30	164	36	779	106	1,947	148	2,890	290
45 - 49	52	23	158	33	763	91	1,772	122	2,693	246
50 - 54	28	11	124	23	608	61	1,512	69	2,244	153
55 - 59	30	8	82	10	465	35	1,152	54	1,699	99
60 - 64	22	5	73	3	290	27	698	26	1,061	56
65 - 69	22	3	55	5	201	5	534	21	790	31
70 - 74	13	1	36	1	185	7	427	12	648	20
75 - 79	17	0	32	3	161	2	347	3	540	8
80 - 84	11	0	27	2	128	3	273	2	428	7
85 & Older	21	0	4	0	83	1	166	3	253	4
Not Stated	0	0	33	5	232	12	877	36	1,142	53
Total	559	197	2,019	431	10,453	1,318	25,214	1,822	37,686	3,571

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

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

\* As shown, there were 197 alcohol-related traffic deaths in the year 2005. Nineteen of those deaths were to pedestrians, and 16 of those 19 pedestrians were drinking. In 4 of the 16 crashes involving drinking pedestrians, the motor vehicle driver had also been drinking. Additionally, 2 bicyclists were among the 197 alcohol-related deaths. In one of those crashes the bicyclist was drinking and the motor vehicle driver was not. In the other the reverse happened; the motor vehicle driver was drinking and the bicyclist was not.

**TABLE 2.06**  
**2005 ALCOHOL - RELATED FATALITIES'**  
**LEVEL OF ALCOHOL CONCENTRATION BY TRAFFIC ROLE**

<b>Traffic Role</b>	<b>Killed</b>	<b>Tested</b>	<b>.00</b>	<b>.01 - .07</b>	<b>.08 - .09</b>	<b>.10 +</b>
Car or Truck Driver	121	119	11	9	4	95
Car or Truck Passenger	21	5	0	1	0	4
Motorcycle Driver	25	25	3	7	1	14
Snowmobile Driver	1	1	0	0	0	1
ATV Driver	3	3	0	0	0	3
Pedestrian	19	19	3	1	2	13
Bicyclist	2	1	0	1	0	0
Other/Unknown	5	5	0	1	0	4
<b>Total</b>	<b>197</b>	<b>178</b>	<b>17</b>	<b>20</b>	<b>7</b>	<b>134</b>

**TABLE 2.07**  
**PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES**  
**DETERMINED TO BE ALCOHOL - RELATED, 1996 - 2005**

	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Deaths* (Known)	36%	30%	42%	31%	39%	37%	36%	39%	31%	35%
(Estimated)	38%	33%	44%	33%	41%	40%	39%	41%	32%	NA
Injuries**	11%	11%	11%	10%	10%	10%	10%	NA	9%	9%
PDO Crashes**	4%	4%	4%	4%	4%	4%	4%	NA	3%	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, 2005**

<b>First Harmful Event</b>	<b>All Fatal Crashes</b>		<b>Alcohol-Related Fatal Crashes *</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>Collision with:</b>				
Another Motor Vehicle	240	48.0%	46	25.4%
Parked Motor Vehicle	4	0.8	2	1.1
Railroad Train	5	1.0	1	0.6
Bicycle	7	1.4	2	1.1
Pedestrian	44	8.8	19	10.5
Deer	2	0.4	0	0.0
Fixed Object	86	17.2	46	25.4
Other Collision Type	4	0.8	2	1.1
<b>Non-Collision:</b>				
Overturn	96	19.2	60	33.2
Submersion	1	0.2	0	0.0
Other Type Non-Collision	4	0.8	0	0.0
<b>Other/Unknown</b>	<b>7</b>	<b>1.4</b>	<b>3</b>	<b>1.7</b>
<b>Total</b>	<b>500</b>	<b>100.0%</b>	<b>181</b>	<b>100.0%</b>

\* 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, 1996 - 2005**

<b>Year</b>	<b>Killed</b>	<b>Tested</b>	<b>.00</b>	<b>.01 - .07</b>	<b>.08 - .09</b>	<b>.10 +</b>
1996	359	314	209 (67%)	16 (5%)	6 (2%)	83 (26%)
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%)

\* Percents based on drivers tested.

**TABLE 2.10**  
**DRIVERS KILLED WHO TESTED .01 OR HIGHER, 1996 - 2005**  
**("Any Alcohol")**

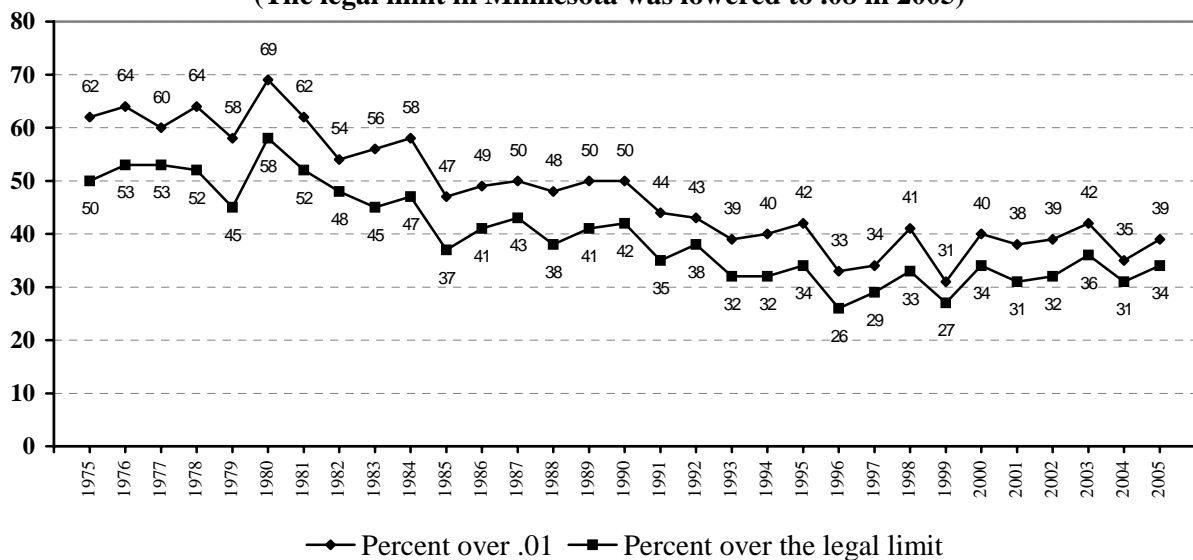
<b>Year</b>	<b>Total</b>	<b>Male</b>		<b>Female</b>		<b>Occurred Between</b>		<b>Under</b>	
						<b>Midnight - 3 AM</b>		<b>Legal Age</b>	
1996	105	81	(77%)	24	(23%)	31	(30%)	16	(15%)
1997	119	102	(86%)	17	(14%)	32	(27%)	13	(11%)
1998	151	126	(83%)	25	(17%)	41	(27%)	26	(17%)
1999	116	98	(84%)	16	(16%)	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%)

**TABLE 2.11**  
**DRIVERS KILLED WHO TESTED OVER THE LEGAL LIMIT, 1996 - 2005**  
**(The legal limit in Minnesota was lowered to .08 in 2005)**

<b>Year</b>	<b>Total</b>	<b>Male</b>		<b>Female</b>		<b>Occurred Between</b>		<b>Under</b>	
						<b>Midnight - 3 AM</b>		<b>Legal Age</b>	
1996	83	65	(78%)	18	(22%)	25	(30%)	13	(16%)
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%)

**Figure 2.02**

**Killed Drivers Tested for Alcohol: 1975 - 2005**  
**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, 2005**

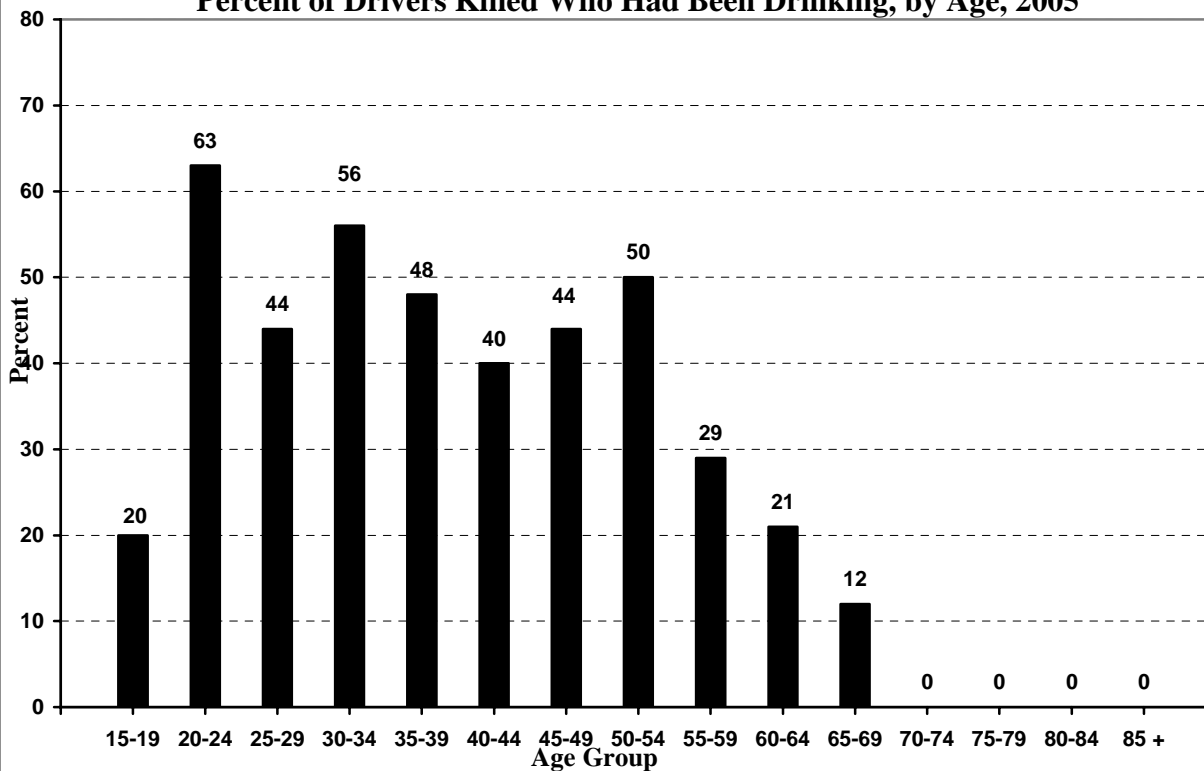




TABLE 2.12

2005 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration								Alcohol Concentration						
			.00		.01 - .07		.08 - .09		.10 +		.01-	.05-	.10-	.15-	.20-	.25	
			num- ber	per- cent	num- ber	per- cent	num- ber	per- cent	num- ber	per- cent	.00	.04	.09	.14	.19	.24	+
14 & Younger	1	0	0		0		0		0		0	0	0	0	0	0	
15	2	2	1		0		0		1		1	0	0	1	0	0	
16	7	7	4		1		0		2		4	1	0	1	0	1	
17	12	12	11		0		0		1		11	0	0	0	1	0	
18	11	9	8		0		0		1		8	0	0	1	0	0	
19	13	11	9		1		0		1		9	1	0	0	1	0	
20	6	6	3		0		0		3		3	0	0	0	1	2	
Under 21	52	47	36		2		0		9		36	2	0	3	3	3	
14 & Younger	1	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0	
15 - 19	45	41	33	80.5	2	4.9	0	0.0	6	14.6	33	2	0	3	2	1	
20 - 24	51	49	18	36.7	2	4.1	1	2.0	28	57.1	18	2	1	3	13	10	
25 - 29	28	25	14	56.0	3	12.0	1	4.0	7	28.0	14	3	1	2	2	2	
30 - 34	26	25	11	44.0	2	8.0	0	0.0	12	48.0	11	1	1	1	2	2	
35 - 39	33	31	16	51.6	0	0.0	1	3.2	14	45.2	16	0	1	3	4	4	
40 - 44	42	42	25	59.5	0	0.0	0	0.0	17	40.5	25	0	0	1	5	4	
45 - 49	41	39	22	56.4	2	5.1	0	0.0	15	38.5	22	2	0	2	2	4	
50 - 54	20	20	10	50.0	3	15.0	0	0.0	7	35.0	10	1	2	1	1	3	
55 - 59	25	24	17	70.8	2	8.3	1	4.2	4	16.7	17	1	2	0	3	0	
60 - 64	18	14	11	78.6	0	0.0	0	0.0	3	21.4	11	0	0	0	1	1	
65 - 69	17	16	14	87.5	1	6.2	1	6.2	0	0.0	14	1	1	0	0	0	
70 - 74	7	6	6	100.0	0	0.0	0	0.0	0	0.0	6	0	0	0	0	0	
75 - 79	8	6	6	100.0	0	0.0	0	0.0	0	0.0	6	0	0	0	0	0	
80 - 84	8	5	5	100.0	0	0.0	0	0.0	0	0.0	5	0	0	0	0	0	
85 +	9	5	5	100.0	0	0.0	0	0.0	0	0.0	5	0	0	0	0	0	
Total	379	348	213	61.2	17	4.9	5	1.4	113	32.5	213	13	9	16	35	31	

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

TABLE 2.13

**2005 ALCOHOL - RELATED CRASHES BY MONTH**

<b>Month</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
January	7	200	240	447	8	273
February	11	163	225	399	12	240
March	10	177	194	381	10	249
April	16	184	188	388	18	282
May	16	247	215	478	20	362
June	14	211	158	383	14	301
July	24	245	182	451	27	373
August	21	204	162	387	21	299
September	20	212	195	427	20	315
October	19	219	184	422	20	331
November	15	209	209	433	18	287
December	8	194	257	459	9	259
<b>Total</b>	<b>181</b>	<b>2,465</b>	<b>2,409</b>	<b>5,055</b>	<b>197</b>	<b>3,571</b>

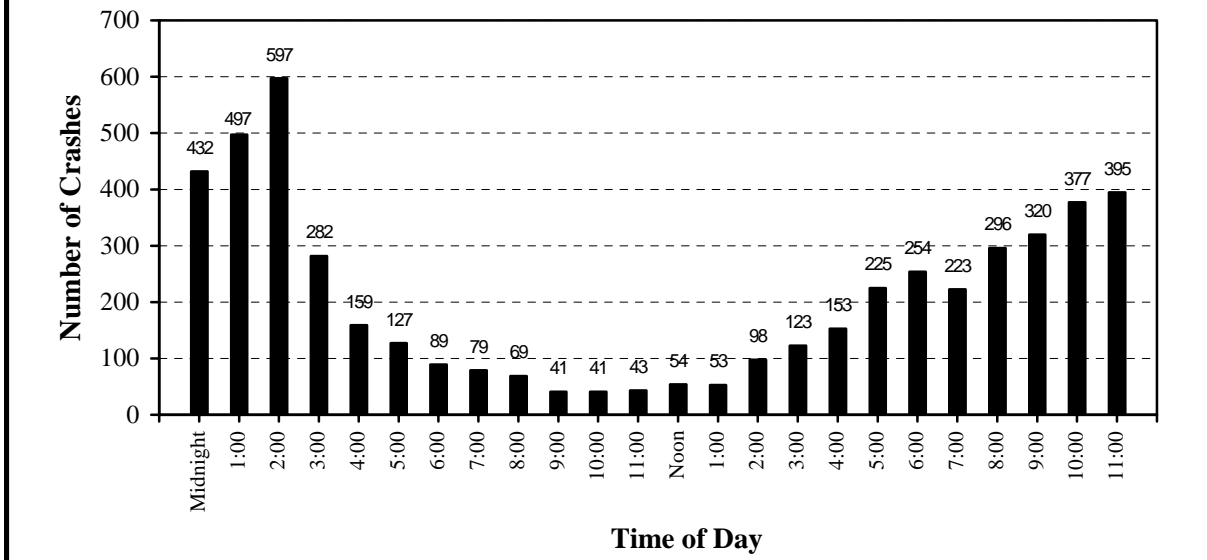
TABLE 2.14

**2005 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE**

<b>Roadway Type</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Urban Interstate	10	208	286	504	10	299
Rural Interstate	7	47	41	95	7	76
Urban Trunk Hwy	6	314	325	645	6	464
Rural Trunk Hwy	52	374	278	704	59	572
County State Aid Hwy	73	766	549	1,388	78	1,117
County Road	10	89	56	155	10	115
Township Road	11	133	90	234	11	195
Local Street	9	519	753	1,281	10	711
Other	3	15	31	49	6	22
<b>Total</b>	<b>181</b>	<b>2,465</b>	<b>2,409</b>	<b>5,055</b>	<b>197</b>	<b>3,571</b>

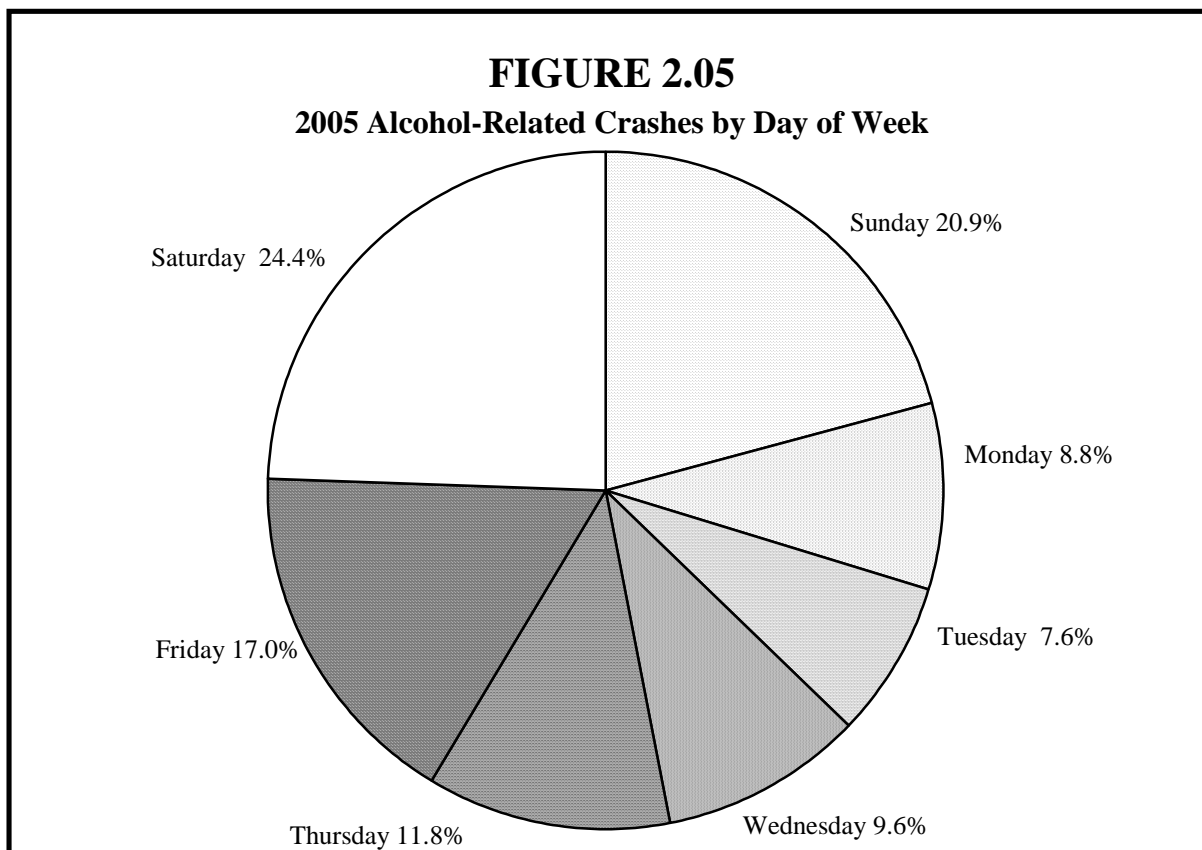
**FIGURE 2.04**

**2005 Alcohol-Related Crashes by Time of Day**



**FIGURE 2.05**

**2005 Alcohol-Related Crashes by Day of Week**



**TABLE 2.15**

**2005 ALCOHOL-RELATED CRASHES BY TIME OF DAY AND DAY OF WEEK**

<b>Hour Beginning</b>	<b>Sun-day</b>	<b>Mon-day</b>	<b>Tues-day</b>	<b>Wednes-day</b>	<b>Thurs-day</b>	<b>Fri-day</b>	<b>Satur-day</b>	<b>Total Crashes</b>	<b>Total Killed</b>	<b>Total Injured</b>
Midnight	108	32	31	37	41	57	126	432	21	299
1:00 AM	136	33	26	38	52	62	150	497	18	336
2:00 AM	156	48	37	41	48	91	176	597	16	402
3:00 AM	82	13	14	18	22	46	87	282	8	184
4:00 AM	59	14	6	4	15	13	48	159	4	104
5:00 AM	39	7	6	7	13	18	37	127	8	102
6:00 AM	21	4	10	1	4	11	38	89	5	63
7:00 AM	22	6	0	15	8	8	20	79	2	51
8:00 AM	24	5	4	6	8	10	12	69	3	40
9:00 AM	6	2	2	4	6	5	16	41	1	32
10:00 AM	8	4	1	10	6	3	9	41	1	37
11:00 AM	9	1	3	6	5	10	9	43	5	19
Noon	12	5	4	8	9	9	7	54	4	47
1:00 PM	9	8	5	5	7	12	7	53	2	41
2:00 PM	16	10	13	10	8	21	20	98	2	80
3:00 PM	27	11	7	11	19	25	23	123	6	97
4:00 PM	26	21	14	14	20	33	25	153	6	110
5:00 PM	55	24	27	17	29	24	49	225	7	157
6:00 PM	42	25	22	26	35	52	52	254	16	169
7:00 PM	41	30	20	29	18	51	34	223	7	166
8:00 PM	40	40	33	34	44	47	58	296	18	228
9:00 PM	40	27	31	56	49	62	55	320	12	237
10:00 PM	36	22	41	54	67	82	75	377	8	291
11:00 PM	33	49	24	32	62	100	95	395	17	259
Unknown	8	2	3	2	2	7	4	28	0	20
<b>Total</b>	<b>1,055</b>	<b>443</b>	<b>384</b>	<b>485</b>	<b>597</b>	<b>859</b>	<b>1,232</b>	<b>5,055</b>	<b>197</b>	<b>3,571</b>

### III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2005 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 8.6% of the persons killed and 11.7% of the persons injured in 2005. 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 2005**

In 2005, 440 motor vehicle occupants died in crashes --a 4.6% decrease from the previous year of 2004. Also, vehicle occupants injured (34,043) decreased 6.5% from 2004. 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 2005, that number decreased to 1,542. 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 increases in 2005**

According to the August 2005 observational survey, belt use among front-seat occupants averaged 84% across all of Minnesota --- an increase of two percentage points from 2004.

#### **Northwest region/Township roads**

Among the motor vehicle occupants that were killed or injured in the northwest region of Minnesota, 24% were not using a restraint. This is the highest rate of non-use of any region. The southwest region was second highest: 20%. The 7-county metro area had the lowest rate of non-use: just 9%. Concerning types of roadway, 'Township Roads' had the highest percentage of non seat belt use. Twenty-eight percent of those killed or injured on these roads in 2005 were not wearing a belt.

#### **Airbag update: always wear your seat belt**

In 2005, airbag deployment was reported 14,278 times when the occupant was also wearing a seat belt. Fifty-three percent of these incidents resulted in no apparent injury. Airbags deployed 1,354 times when occupants were not wearing seat belts. Only 29% 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

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

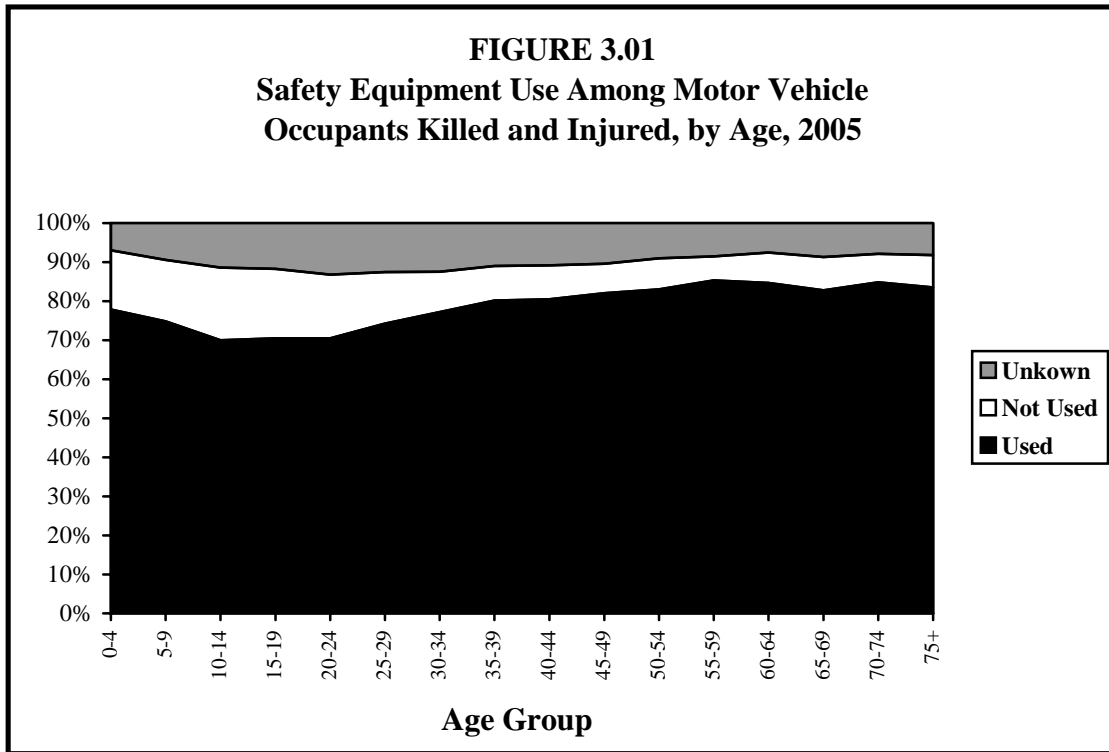
**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED  
BY EJECTION STATUS AND INJURY SEVERITY, 2005**

Ejection Status	Killed		Severe Injury		Moderate Injury		Minor Injury		Total Persons Killed or Injured	
	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent	Num-ber	Per-cent
Not Ejected	316	1.0	1,240	3.9	8,114	25.7	21,862	69.3	31,532	100.0%
Partly Ejected	24	20.7	23	19.8	45	38.8	24	20.7	116	100.0
Ejected	94	14.9	163	25.9	171	27.2	201	32.0	629	100.0
Not Stated	6	0.3	116	5.3	545	24.7	1,539	69.8	2,206	100.0
<b>Total</b>	<b>440</b>	<b>1.3</b>	<b>1,542</b>	<b>4.5</b>	<b>8,875</b>	<b>25.7</b>	<b>23,626</b>	<b>68.5</b>	<b>34,483</b>	<b>100.0</b>

TABLE 3.03

**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED,  
BY AGE AND INJURY SEVERITY, 2005**

Age Group	Killed	Injured			Total
		Severe	Moderate	Minor	
0 - 4	5	11	92	394	497
5 - 9	4	17	143	472	632
10 - 14	8	35	226	608	869
15 - 19	62	258	1,566	3,648	5,472
20 - 24	57	240	1,451	3,408	5,099
25 - 29	36	166	840	2,329	3,335
30 - 34	28	125	672	1,870	2,667
35 - 39	32	113	620	1,839	2,572
40 - 44	41	116	659	1,809	2,584
45 - 49	35	108	615	1,643	2,366
50 - 54	21	85	490	1,407	1,982
55 - 59	26	60	367	1,077	1,504
60 - 64	16	60	256	649	965
65 - 69	18	45	174	501	720
70 - 74	8	22	161	417	600
75 - 79	15	27	151	333	511
80 - 84	10	21	121	265	407
85 & Older	18	3	78	163	244
Not Stated	0	30	193	794	1,017
<b>Total</b>	<b>440</b>	<b>1,542</b>	<b>8,875</b>	<b>23,626</b>	<b>34,043</b>



*TABLE 3.04*

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS,  
BY GENDER AND INJURY SEVERITY, 2005**

	Killed			Injured						
	Female	Male	Total	Severe		Moderate		Minor		Total
				Female	Male	Female	Male	Female	Male	
Used	85	92	177	417	347	3,524	2,745	11,062	7,911	26,095
Not Used	59	166	225	152	321	568	836	948	1,120	3,968
Unknown	12	26	38	93	203	457	691	1,149	1,186	3,980
<b>Total</b>	<b>156</b>	<b>284</b>	<b>440</b>	<b>662</b>	<b>871</b>	<b>4,549</b>	<b>4,272</b>	<b>13,159</b>	<b>10,217</b>	<b>34,043</b>

Note: Gender was not reported for 313 persons injured (mostly those with minor injuries), causing the “Total” to be 313 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, 2005**

Age Group	Restraint Use	Killed		Injured							
		#	%	Severe		Moderate		Minor		Total	
				#	%	#	%	#	%	#	%
0 – 3 Years	Used	4	80.0	3	42.9	53	77.9	253	81.1	309	79.8
	Not Used	0	0.0	3	42.9	9	13.2	43	13.8	55	14.2
	Unknown	<u>1</u>	<u>20.0</u>	<u>1</u>	<u>14.3</u>	<u>6</u>	<u>8.8</u>	<u>16</u>	<u>5.1</u>	<u>23</u>	<u>5.9</u>
	Subtotal	5	100.0	7	100.0	68	100.0	312	100.0	387	100.0
4 – 10 Years	Used	3	42.9	13	50.0	148	72.9	508	75.3	669	74.0
	Not Used	3	42.9	7	26.9	34	16.8	105	15.6	146	16.2
	Unknown	<u>1</u>	<u>14.3</u>	<u>6</u>	<u>23.1</u>	<u>21</u>	<u>10.3</u>	<u>62</u>	<u>9.2</u>	<u>89</u>	<u>9.8</u>
	Subtotal	7	100.0	26	100.0	203	100.0	675	100.0	904	100.0
Total	Used	7	58.3	16	48.5	201	74.2	761	77.1	978	75.8
0 – 10 Years	Not Used	3	25.0	10	30.3	43	15.9	148	15.0	201	15.6
	Unknown	<u>2</u>	<u>16.7</u>	<u>7</u>	<u>21.2</u>	<u>27</u>	<u>10.0</u>	<u>78</u>	<u>7.9</u>	<u>112</u>	<u>8.7</u>
	Subtotal	12	100.0	33	100.0	271	100.0	987	100.0	1,291	100.0
0 – 4 Years	Used	4	80.0	4	36.4	65	70.6	318	80.7	387	77.9
	Not Used	0	0.0	6	54.6	18	19.6	52	13.2	76	15.3
	Unknown	<u>1</u>	<u>20.0</u>	<u>1</u>	<u>9.1</u>	<u>9</u>	<u>9.8</u>	<u>24</u>	<u>6.1</u>	<u>34</u>	<u>6.8</u>
	Subtotal	5	100.0	11	100.0	92	100.0	394	100.0	497	100.0
5 – 9 Years	Used	1	25.0	9	52.9	106	74.1	360	76.3	475	75.2
	Not Used	2	50.0	3	17.6	21	14.7	74	15.7	98	15.5
	Unknown	<u>1</u>	<u>25.0</u>	<u>5</u>	<u>29.4</u>	<u>16</u>	<u>11.2</u>	<u>38</u>	<u>8.0</u>	<u>59</u>	<u>9.3</u>
	Subtotal	4	100.0	17	100.0	143	100.0	472	100.0	632	100.0
10 – 14 Years	Used	4	50.0	12	34.3	156	69.0	442	72.7	610	70.2
	Not Used	3	37.5	13	37.1	48	21.2	99	16.3	160	18.4
	Unknown	<u>1</u>	<u>12.5</u>	<u>10</u>	<u>28.6</u>	<u>22</u>	<u>9.7</u>	<u>67</u>	<u>11.0</u>	<u>99</u>	<u>11.4</u>
	Subtotal	8	100.0	35	100.0	226	100.0	608	100.0	869	100.0
15 – 19 Years	Used	23	37.1	102	39.5	987	63.0	2,791	76.5	3,880	70.9
	Not Used	35	56.4	97	37.6	375	24.0	475	13.0	947	17.3
	Unknown	<u>4</u>	<u>6.4</u>	<u>59</u>	<u>22.9</u>	<u>204</u>	<u>13.0</u>	<u>382</u>	<u>10.5</u>	<u>645</u>	<u>11.8</u>
	Subtotal	62	100.0	258	100.0	1,566	100.0	3,648	100.0	5,472	100.0
20 – 24 Years	Used	17	29.8	97	40.4	922	63.5	2,598	76.2	3,617	70.9
	Not Used	36	63.2	103	42.9	302	20.8	399	11.7	804	15.8
	Unknown	<u>4</u>	<u>7.0</u>	<u>40</u>	<u>16.7</u>	<u>227</u>	<u>15.6</u>	<u>411</u>	<u>12.1</u>	<u>678</u>	<u>13.3</u>
	Subtotal	57	100.0	240	100.0	1,451	100.0	3,408	100.0	5,099	100.0
25 – 29 Years	Used	11	30.6	75	45.2	576	68.6	1,842	79.1	2,493	74.8
	Not Used	18	50.0	55	33.1	144	17.1	226	9.7	425	12.7
	Unknown	<u>7</u>	<u>19.4</u>	<u>36</u>	<u>21.7</u>	<u>120</u>	<u>14.3</u>	<u>261</u>	<u>11.2</u>	<u>417</u>	<u>12.5</u>
	Subtotal	36	100.0	166	100.0	840	100.0	2,329	100.0	3,335	100.0
30 – 34 Years	Used	12	42.9	57	45.6	475	70.7	1,536	82.1	2,068	77.5
	Not Used	14	50.0	43	34.4	87	13.0	135	7.2	265	9.9
	Unknown	<u>2</u>	<u>7.1</u>	<u>25</u>	<u>20.0</u>	<u>110</u>	<u>16.4</u>	<u>199</u>	<u>10.6</u>	<u>334</u>	<u>12.5</u>
	Subtotal	28	100.0	125	100.0	672	100.0	1,870	100.0	2,667	100.0
35 – 39 Years	Used	13	40.6	55	48.7	458	73.9	1,561	84.9	2,074	80.6
	Not Used	15	46.9	36	31.9	68	11.0	111	6.0	215	8.4
	Unknown	<u>4</u>	<u>12.5</u>	<u>22</u>	<u>19.5</u>	<u>94</u>	<u>15.2</u>	<u>167</u>	<u>9.1</u>	<u>283</u>	<u>11.0</u>
	Subtotal	32	100.0	113	100.0	620	100.0	1,839	100.0	2,572	100.0

TABLE 3.05 CONTINUED

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED  
OR INJURED, BY AGE AND INJURY SEVERITY, 2005**

Age Group	Restraint Use	Killed		Injured							
		#	%	Severe		Moderate		Minor		Total	
		#	%	#	%	#	%	#	%	#	%
40 – 44 Years	Used	15	36.6	65	56.0	512	77.7	1,521	84.1	2,098	81.2
	Not Used	20	48.8	33	28.4	71	10.8	103	5.7	207	8.0
	Unknown	<u>6</u>	<u>14.6</u>	<u>18</u>	<u>15.5</u>	<u>76</u>	<u>11.5</u>	<u>185</u>	<u>10.2</u>	<u>279</u>	<u>10.8</u>
	Subtotal	41	100.0	116	100.0	659	100.0	1,809	100.0	2,584	100.0
45 – 49 Years	Used	14	40.0	66	61.1	470	76.4	1,421	86.5	1,957	82.7
	Not Used	19	54.3	23	21.3	59	9.6	79	4.8	161	6.8
	Unknown	<u>2</u>	<u>5.7</u>	<u>19</u>	<u>17.6</u>	<u>86</u>	<u>14.0</u>	<u>143</u>	<u>8.7</u>	<u>248</u>	<u>10.5</u>
	Subtotal	35	100.0	108	100.0	615	100.0	1,643	100.0	2,366	100.0
50 – 54 Years	Used	5	23.8	47	55.3	397	81.0	1,214	86.3	1,658	83.6
	Not Used	14	66.7	17	20.0	51	10.4	78	5.5	146	7.4
	Unknown	<u>2</u>	<u>9.5</u>	<u>21</u>	<u>24.7</u>	<u>42</u>	<u>8.6</u>	<u>115</u>	<u>8.2</u>	<u>178</u>	<u>9.0</u>
	Subtotal	21	100.0	85	100.0	490	100.0	1,407	100.0	1,982	100.0
55 – 59 Years	Used	16	61.5	40	66.7	303	82.6	947	87.9	1,290	85.8
	Not Used	10	38.5	9	15.0	35	9.5	39	3.6	83	5.5
	Unknown	<u>0</u>	<u>0.0</u>	<u>11</u>	<u>18.3</u>	<u>29</u>	<u>7.9</u>	<u>91</u>	<u>8.4</u>	<u>131</u>	<u>8.7</u>
	Subtotal	26	100.0	60	100.0	367	100.0	1,077	100.0	1,504	100.0
60 – 64 Years	Used	3	18.8	43	71.7	213	83.2	572	88.1	828	85.8
	Not Used	12	75.0	10	16.7	24	9.4	30	4.6	64	6.6
	Unknown	<u>1</u>	<u>6.2</u>	<u>7</u>	<u>11.7</u>	<u>19</u>	<u>7.4</u>	<u>47</u>	<u>7.2</u>	<u>73</u>	<u>7.6</u>
	Subtotal	16	100.0	60	100.0	256	100.0	649	100.0	965	100.0
65 – 69 Years	Used	4	22.2	31	68.9	144	82.8	432	86.2	607	84.3
	Not Used	12	66.7	8	17.8	17	9.8	26	5.2	51	7.1
	Unknown	<u>2</u>	<u>11.1</u>	<u>6</u>	<u>13.3</u>	<u>13</u>	<u>7.5</u>	<u>43</u>	<u>8.6</u>	<u>62</u>	<u>8.6</u>
	Subtotal	18	100.0	45	100.0	174	100.0	501	100.0	720	100.0
70 – 74 Years	Used	7	87.5	16	72.7	123	76.4	370	88.7	509	84.8
	Not Used	1	12.5	3	13.6	20	12.4	20	4.8	43	7.2
	Unknown	<u>0</u>	<u>0.0</u>	<u>3</u>	<u>13.6</u>	<u>18</u>	<u>11.2</u>	<u>27</u>	<u>6.5</u>	<u>48</u>	<u>8.0</u>
	Subtotal	8	100.0	22	100.0	161	100.0	417	100.0	600	100.0
75 & Older	Used	28	65.1	37	72.6	274	78.1	668	87.6	979	84.0
	Not Used	14	32.6	6	11.8	41	11.7	39	5.1	86	7.4
	Unknown	<u>1</u>	<u>2.3</u>	<u>8</u>	<u>15.7</u>	<u>36</u>	<u>10.3</u>	<u>56</u>	<u>7.3</u>	<u>100</u>	<u>8.6</u>
	Subtotal	43	100.0	51	100.0	351	100.0	763	100.0	1,165	100.0
Age Not Stated	Used	0	0.0	9	30.0	108	56.2	448	56.6	565	55.7
	Not Used	0	0.0	10	33.3	31	16.2	96	12.1	137	13.5
	Unknown	<u>0</u>	<u>0.0</u>	<u>11</u>	<u>36.7</u>	<u>53</u>	<u>27.6</u>	<u>248</u>	<u>31.3</u>	<u>312</u>	<u>30.8</u>
	Subtotal	0	0.0	30	100.0	192	100.0	792	100.0	1,014	100.0
All Ages	Used	177	40.2	765	49.6	6,289	70.9	19,041	80.6	26,095	76.6
	Not Used	225	51.2	475	30.8	1,412	15.9	2,081	8.8	3,968	11.7
	Unknown	<u>38</u>	<u>8.6</u>	<u>302</u>	<u>19.6</u>	<u>1,174</u>	<u>13.2</u>	<u>2,504</u>	<u>10.6</u>	<u>3,980</u>	<u>11.7</u>
	Subtotal	440	100.0	1,542	100.0	8,875	100.0	23,626	100.0	34,043	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, 1996 - 2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Killed</b>										
Used	30.3	37.5	30.3	31.6	29.4	31.1	37.9	39.4	39.5	40.2
Not Used	52.6	45.9	48.7	50.0	54.4	54.8	55.0	48.9	51.8	51.2
Unknown	17.1	16.6	21.0	18.4	16.2	14.1	7.2	11.8	8.7	8.6
<b>Injured</b>										
<b>Severe Injuries</b>										
Used	44.8	45.4	43.8	44.9	45.7	47.1	46.0	NA	49.3	49.6
Not Used	35.9	35.2	36.0	34.2	33.5	34.4	34.5	NA	32.8	30.8
Unknown	19.3	19.4	20.1	20.9	20.8	18.5	19.5	NA	17.9	19.6
<b>Moderate Injuries</b>										
Used	57.5	59.0	59.3	61.0	63.1	65.3	65.1	NA	70.3	70.9
Not Used	27.4	25.7	26.0	24.6	22.9	21.1	21.1	NA	17.4	15.9
Unknown	15.1	15.3	14.7	14.4	14.0	13.5	13.8	NA	12.4	13.2
<b>Minor Injuries</b>										
Used	67.9	69.5	69.9	71.1	72.6	73.6	73.7	NA	78.8	80.6
Not Used	14.6	13.1	13.4	12.7	11.9	11.2	10.6	NA	9.7	8.8
Unknown	17.5	17.4	16.7	16.2	15.5	15.2	15.7	NA	11.4	10.6
<b>Total Injured</b>										
Used	62.9	64.2	64.4	65.7	67.6	69.2	69.0	NA	74.8	76.6
Not Used	20.3	18.9	19.4	18.4	17.1	16.0	15.7	NA	13.2	11.7
Unknown	16.8	16.8	16.2	15.9	15.3	14.8	15.3	NA	12.0	11.7

TABLE 3.07

**SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED AND INJURED, BY ROADWAY TYPE, 2005**

Roadway Type	Used		Not Used		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Interstate	3,415	83.3	399	9.7	286	7.0	4,100	100.0%
US Trunk Hwy	3,484	80.9	526	12.2	297	6.9	4,307	100.0%
MN Trunk Hwy	5,476	79.2	840	12.2	599	8.7	6,915	100.0%
CSAH	7,575	75.0	1,156	11.4	1,362	13.5	10,093	100.0%
County Road	460	69.3	123	18.5	81	12.2	664	100.0%
Township Road	554	58.3	261	27.5	135	14.2	950	100.0%
Local Street	5,253	71.5	871	11.9	1,219	16.6	7,343	100.0%
Other Road	55	49.6	17	15.3	39	35.1	111	100.0%
Total	26,272	76.2	4,193	12.2	4,018	11.6	34,483	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, 2005**

<b>EMS Region</b>	<b>Percent Used</b>	<b>Percent Not Used</b>	<b>Percent Unknown</b>	<b>Number of People</b>
Metropolitan	78.4	8.6	12.9	19,086
Central	75.0	15.2	9.9	4,775
Northeast	74.6	15.3	10.0	1,980
Northwest	64.1	24.3	11.6	988
South Central	74.0	14.8	11.1	1,341
Southeast	75.1	15.3	9.6	3,092
Southwest	70.4	20.0	9.6	1,804
West Central	72.4	17.5	10.2	1,415
Unknown	100.0	0.0	0.0	2
Statewide	76.2	12.2	11.6	34,483

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



TABLE 3.09

## AIRBAG DEPLOYMENTS, 1998 - 2005

Year	Injury Severity	Airbag Deployed		Deployment Not Indicated		Belt Use Unknown	Total
		Belt Used	Belt Not Used	Belt Used	Belt Not Used		
1998	Killed	17	8	144	251	112	532
	Severe Injury	88	26	1,129	974	559	2,776
	Moderate Injury	565	113	7,841	3,572	2,079	14,170
	Minor Injury	640	75	15,815	3,082	3,934	23,546
	No Apparent Injury	<u>1,436</u>	<u>89</u>	<u>93,842</u>	<u>7,044</u>	<u>83,677</u>	<u>186,088</u>
	Total	2,746	311	118,771	14,923	90,361	227,112
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	<u>1,777</u>	<u>87</u>	<u>101,556</u>	<u>6,597</u>	<u>84,477</u>	<u>194,494</u>
	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	<u>2,106</u>	<u>107</u>	<u>111,072</u>	<u>6,275</u>	<u>87,803</u>	<u>207,363</u>
	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	<u>2,141</u>	<u>105</u>	<u>105,404</u>	<u>5,519</u>	<u>82,566</u>	<u>195,735</u>
	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	<u>2,441</u>	<u>130</u>	<u>101,861</u>	<u>5,022</u>	<u>79,687</u>	<u>189,141</u>
	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	<u>7,480</u>	<u>419</u>	<u>110,451</u>	<u>5,523</u>	<u>57,101</u>	<u>180,974</u>
	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	<u>7,529</u>	<u>390</u>	<u>109,215</u>	<u>4,714</u>	<u>50,655</u>	<u>172,503</u>
	Total	14,278	1,354	128,738	7,943	54,673	206,986

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 hit fifteen year high**

In 2005, there were 1,431 crashes that involved at least one motorcycle. This is the highest number of motorcycle crashes observed in Minnesota in the past ten years. In 1990, there were 1,735 motorcycle crashes and in 1991 there were 1,461.

In 2005, 1,319 motorcyclists were injured. This is the highest number of motorcyclist injuries since 1991 when 1,357 motorcyclists were injured.

### **Fatalities increase**

Fatal motorcycle crashes and motorcyclist fatalities increased in 2005. There were 59 motorcyclist fatalities and 61 fatal motorcycle crashes in 2005 compared with 50 motorcyclist fatalities and 50 fatal motorcycle crashes in 2004.

### **Alcohol use among fatalities increase**

State law requires that drivers who die in traffic crashes be tested for blood alcohol level. In 2005, 55 motorcycle drivers were killed and 51 of them were tested. Twenty-three (45%) of the 51 drivers tested positive for alcohol, and nearly one-third tested (29%) at .08 or greater. This represents a ten percent increase from 2004.

### **Greater crash severity**

When a motorcycle is involved in a traffic crash, the chances of severe injury are greatly increased. In fact, 4.3 of every 100 motorcycle crashes in 2005 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 2005, 18 (30%) of the 59 motorcycle riders killed were known to be wearing a helmet. Of the 1,319 motorcyclists injured, only 412 (31%) were recorded as wearing a helmet.

### **Operator training is essential**

In 2005, 58% of all motorcycle crashes were single vehicle crashes. This may indicate that further training is needed for a large segment of the motorcycle driver population.

### **Males are most often victims**

In 2005, 51 of the 59 motorcyclists killed, and 1,100 of the 1,319 injured, were male. Males account for 84% 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 (21%), driver inexperience (15%), and driver inattention or distraction (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 (35%) and driver inattention or distraction (23%) are cited most frequently.

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1980 - 2005

Year	Motorcycle Crashes				Killed		Injured		Licensed Operators	Registered Motorcycles	Mcy deaths per 10000 Reg. Mcy	Fatal Crash Rate Per 100 Crashes	
	Fatal	Injury	PDO*	Total	Mcy	Other	Mcy	Other				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
Record High* (year)	112 (1980)	2,728 (1980)	537 (1976)	3,308 (1980)	121 (1980)	9 (1975)	3,359 (1980)	207 (1984)	346,169 (2004)	174,195 (2004)	7.7 (1980)	4.0 (2002)	0.8 (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 1.13 on page 18.

TABLE 4.02

2005 MOTORCYCLE CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
<b>Collision With:</b>						
Other Motor Vehicle	30	475	98	603	30	521
Parked Motor Vehicle	1	16	27	44	1	17
Bicycle	0	4	0	4	0	2
Pedestrian	2	6	0	8	0	4
Deer	1	100	6	107	1	125
Other Animal	0	14	1	15	0	15
Train	0	0	0	0	0	0
Fixed Object	14	170	14	198	14	183
<b>Non-Collision:</b>	0	0	0	0	0	0
Overturn/Rollover	8	204	13	225	8	221
Fire/Explosion	0	0	1	1	0	0
Submersion	0	0	0	0	0	0
<b>Other / Unknown</b>	5	212	9	226	5	231
<b>Total</b>	61	1,201	169	1,431	59	1,319

TABLE 4.03

2005 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	4	139	53	196	4	142
50,000 - 99,999	2	155	20	177	2	164
25,000 - 49,999	7	144	18	169	7	151
10,000 - 24,999	8	187	18	213	7	204
5,000 - 9,999	6	86	13	105	5	93
2,500 - 4,999	2	51	5	58	2	59
1,000 - 2,499	2	25	5	32	2	27
Under 1,000	30	414	37	481	30	479
<b>Total</b>	61	1,201	169	1,431	59	1,319



TABLE 4.04

2005 MOTORCYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
January	0	2	2	4	0	2
February	0	3	3	6	0	3
March	0	16	6	22	0	18
April	5	106	15	126	5	112
May	6	123	12	141	6	133
June	11	194	29	234	10	212
July	9	234	30	273	8	267
August	10	225	28	263	10	246
September	10	175	25	210	10	192
October	8	96	15	119	8	106
November	2	27	2	31	2	28
December	0	0	2	2	0	0
Total	61	1,201	169	1,431	59	1,319

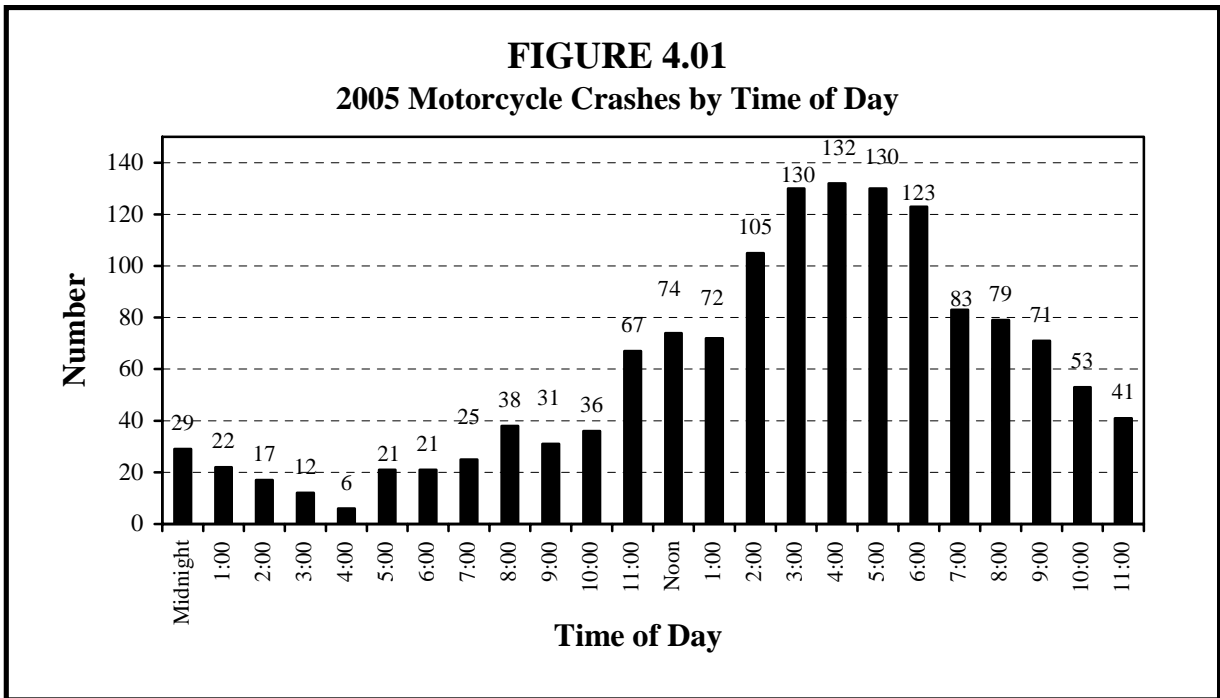


TABLE 4.05

2005 MOTORCYCLE CRASHES BY TIME AND DAY

Hour Begin- ning	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	29	2	5	0	4	0	1	0	3	2	5	0	1	0	10	0
1:00	22	2	9	1	2	0	3	0	0	0	1	0	2	0	5	1
2:00	17	2	3	1	1	0	1	0	1	0	3	0	2	0	6	1
3:00	12	1	1	0	0	0	1	0	1	0	2	0	0	0	7	1
4:00	6	0	2	0	0	0	0	0	1	0	1	0	0	0	2	0
5:00	21	0	3	0	2	0	2	0	3	0	5	0	1	0	5	0
6:00	21	4	2	1	3	1	7	1	2	0	2	0	3	0	2	1
7:00	25	1	1	0	6	0	3	0	1	0	4	0	8	1	2	0
8:00	38	1	2	0	4	0	4	0	9	0	6	1	9	0	4	0
9:00	31	1	3	0	5	0	3	0	5	1	5	0	3	0	7	0
10:00	36	3	4	0	8	0	4	1	6	1	3	0	3	0	8	1
11:00	67	0	17	0	4	0	9	0	3	0	10	0	9	0	15	0
Noon	74	7	14	0	6	0	6	0	7	0	5	2	13	0	23	5
1:00	72	0	12	0	13	0	9	0	7	0	6	0	9	0	16	0
2:00	105	2	22	0	10	0	11	0	16	1	9	0	22	1	15	0
3:00	130	2	26	0	13	0	11	0	12	0	13	0	24	0	31	2
4:00	132	5	25	1	14	1	17	0	17	0	13	0	28	1	18	2
5:00	130	3	24	0	22	2	16	0	9	0	12	0	23	1	24	0
6:00	123	12	16	1	12	1	17	2	20	2	17	1	19	2	22	3
7:00	86	1	10	0	5	0	16	0	11	1	18	0	14	0	12	0
8:00	79	5	10	1	6	0	11	1	6	1	11	1	12	1	23	0
9:00	71	4	11	2	5	0	6	0	11	1	10	0	17	0	11	1
10:00	53	1	3	1	5	0	1	0	11	0	10	0	15	0	8	0
11:00	41	2	3	1	5	0	8	0	5	0	4	0	8	1	8	0
Unknown	10	0	1	0	1	0	1	0	2	0	1	0	1	0	3	0
Total	1,431	61	229	10	156	5	168	5	169	10	176	5	246	8	287	18

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2005

Age Group	Killed			Injured									Total*		
	M	F	Total	Severe			Moderate			Minor			M	F	Total*
				M	F	Total	M	F	Total	M	F	Total			
0 - 4	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1
5 - 9	0	0	0	1	0	1	1	0	1	0	1	1	2	1	3
10 - 14	1	1	2	1	0	1	2	3	5	3	1	4	6	4	10
15 - 19	2	0	2	15	1	16	35	8	43	36	1	37	86	10	96
20 - 24	6	0	6	30	7	37	88	7	95	46	7	53	164	21	185
25 - 29	3	0	3	20	2	22	65	3	68	25	4	29	110	9	119
30 - 34	2	0	2	18	5	23	42	8	50	30	6	36	90	19	109
35 - 39	6	0	6	9	5	14	63	14	77	32	7	39	104	26	130
40 - 44	5	3	8	20	9	29	63	10	73	40	13	53	123	32	155
45 - 49	10	4	14	29	10	39	61	19	81	50	12	63	140	41	183
50 - 54	7	0	7	18	5	23	59	13	72	33	10	43	110	28	138
55 - 59	2	0	2	14	2	16	51	11	62	22	2	24	87	15	102
60 - 64	4	0	4	8	0	8	17	0	17	17	0	17	42	0	42
65 - 69	2	0	2	4	0	4	12	2	14	9	0	9	25	2	27
70 & Older	1	0	1	3	1	4	8	1	9	0	0	0	11	2	13
Not Stated	0	0	0	0	0	0	0	2	2	0	3	4	0	5	6
Total	51	8	59	190	47	237	567	102	670	343	67	412	1,100	216	1,319

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

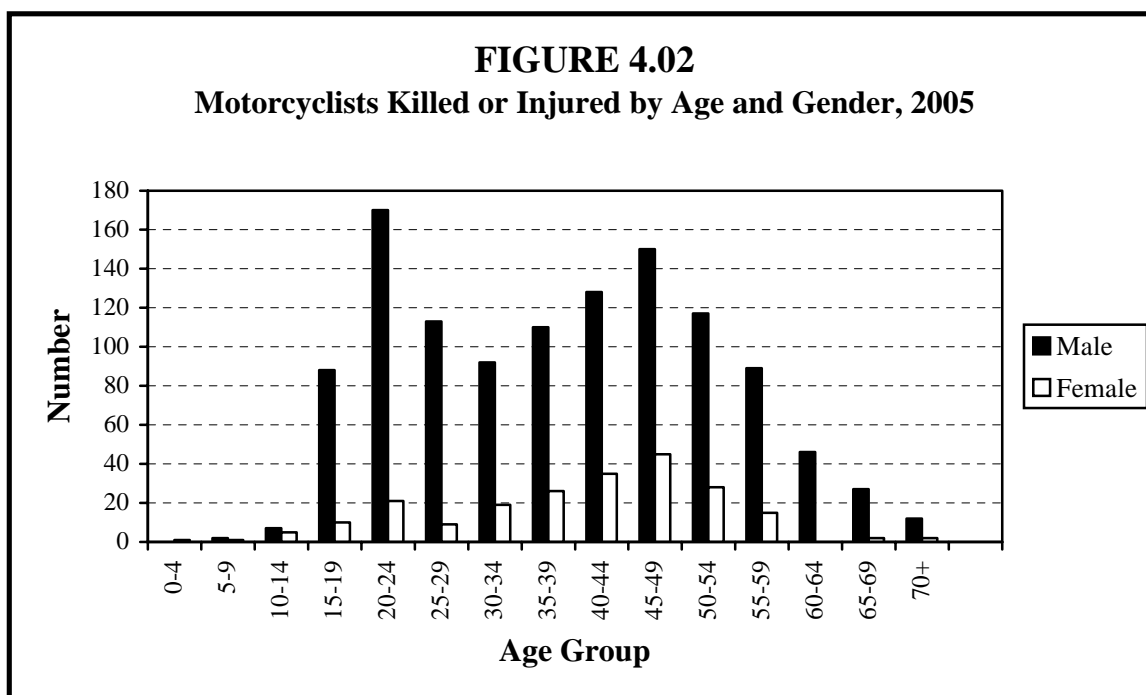


TABLE 4.07

**HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 1996 - 2005**

	<u>Helmet Used</u>		<u>Helmet Not Used</u>		<u>Helmet Use Unknown</u>		<u>Total</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Killed</b>								
1996	9	21.4	29	69.1	4	9.5	42	100.0
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
<b>Injured</b>								
1996	269	25.7	546	52.2	231	22.1	1,046	100.0
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

TABLE 4.08

**ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 1996 - 2005**

<u>Year</u>	<u>Valid Endorsement*</u>		<u>Permit Only</u>		<u>Canceled, Suspended, Revoked</u>		<u>No Endorsement</u>		<u>Total** For Year</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1996	27	64.3	0	0.0	4	9.5	9	21.4	42	100.0
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

\* 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, 1991 - 2005

Year	Killed	Tested	Alcohol Concentration*			
			(.00)	(.01 - .07)	(.08-.09)	(.10 or more)
1991	36	30	13 (43%)	2 (7%)	1 (3%)	14 (47%)
1992	23	22	11 (50%)	0 (0%)	0 (0%)	11 (50%)
1993	29	26	9 (35%)	3 (12%)	0 (0%)	14 (54%)
1994	36	27	17 (63%)	1 (4%)	1 (4%)	8 (30%)
1995	25	22	7 (32%)	2 (9%)	0 (0%)	13 (59%)
1996	38	36	22 (61%)	2 (6%)	2 (6%)	10 (28%)
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%)

\*Percentages are based on those motorcycle drivers tested.

TABLE 4.10

2005 MOTORCYCLE DRIVER FATALITIES'  
LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration*									
			(.01 - .07)	(.08-.09)	(.10 +)	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-.24	.25 & Over
14 & Younger	1	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	1	1	0	0	0	1	0	0	0	0	0	0
19	1	1	0	0	0	1	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
Under 21	3	2	0	0	0	0	0	0	0	0	0	0
14 & Younger	1	0	0	0	0	0	0	0	0	0	0	0
15 - 19	2	2	0	0	0	2	0	0	0	0	0	0
20 - 24	6	5	1	0	1	2	2	0	0	1	0	0
25 - 29	3	3	1	0	0	2	1	0	0	0	0	0
30 - 34	2	2	0	0	1	1	0	0	0	1	0	0
35 - 39	6	6	0	0	4	2	0	0	1	2	1	0
40 - 44	8	8	0	0	2	6	0	0	0	2	0	0
45 - 49	11	10	2	0	4	4	2	0	0	2	1	1
50 - 54	7	7	2	0	2	3	0	2	1	0	1	0
55 - 59	2	2	1	0	0	1	1	0	0	0	0	0
60 & Older		6	0	1	0	5	0	1	0	0	0	0
Total	55	51	7	1	14	28	6	3	2	8	3	1

\* Percentages are based on those motorcycle drivers tested.

TABLE 4.11

CONTRIBUTING FACTORS IN 2005 MOTORCYCLE CRASHES

Contributing Factors	<i>Single Vehicle Crashes</i>		<i>Multi-Vehicle Crashes</i>			
	Attributed to		Attributed to		Attributed to	
	<u>Motorcycle Drivers</u>		<u>Motorcycle Drivers</u>		<u>Other Drivers</u>	
	Number	Percent	Number	Percent	Number	Percent
<b>Human Factors:</b>						
Illegal/Unsafe Speed	164	21.3%	53	14.6%	8	1.6%
Driver Inexperience	115	14.9	31	8.6	4	0.8
Driver Inattention/Distracted	80	10.4	71	19.6	117	23.4
Chemical Impairment	65	8.4	15	4.1	10	2.0
Overcorrecting	34	4.4	5	1.4	1	0.2
Improper/Unsafe Lane Use	23	3.0	18	5.0	28	5.6
Improper Passing/Overtaking	11	1.4	10	2.8	6	1.2
Improper Park/Start/Stop	9	1.2	4	1.1	7	1.4
Driving Left of Center	8	1.0	13	3.6	6	1.2
Improper Turn	7	0.9	4	1.1	27	5.4
Disregard Traffic Cntrl Device	6	0.8	9	2.5	20	4.0
Following Too Closely	6	0.8	51	14.1	26	5.2
Failure To Yield Right of Way	4	0.5	26	7.2	177	35.4
Vision Obscured	4	0.5	4	1.1	9	1.8
Impeding Traffic	2	0.3	0	0.0	2	0.4
Other Vision Factors	2	0.3	3	0.8	14	2.8
Failure To Use Lights	1	0.1	0	0.0	2	0.4
Unsafe Backing	0	0.0	1	0.3	8	1.6
Improper/No Signal	0	0.0	1	0.3	3	0.6
Driver on Phone/CB	0	0.0	0	0.0	2	0.4
Other Human Factor	34	4.4	9	2.5	7	1.4
<b>Vehicular Factors:</b>						
Skidding	62	8.0	9	2.5	0	0.0
Defective Brakes	14	1.8	3	0.8	6	0.8
Other Vehicular Factors	14	1.8	2	0.6	2	0.4
<b>Miscellaneous Factors:</b>						
Weather Conditions	15	1.9	3	0.8	1	0.2
Other	91	11.8	17	4.7	7	1.4
Total	771	100.0%	362	100.0%	500	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	221		317		215	
Total Number Drivers	833		621		605	

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 5,313 truck-involved traffic crashes in 2005—a 4% decrease from the total number of crashes for the previous year.

### **Fatalities and injuries decrease**

In 2005, there were 66 fatal truck crashes, killing 78 people. This was one less fatality than in the previous year. There were 1,753 persons injured in 2005. This was a 9% 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 10 of the 78 people killed in truck-involved crashes were in trucks. The other 68 included 1 bicyclist, 3 pedestrians, 6 motorcyclists, and 56 people who were in cars, SUVs, pickups, or vans. Of the 1,753 people injured, only 424 (24%) were truck occupants.

### **Contributing factors for truck drivers compared to others.**

Reporting officers indicated there was no clear contributing factor for 55% of the truck drivers and for 58% 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

(23% of the time) as well as for non-truck drivers (21% of the time). Illegal or unsafe speed was reported for 9% of the trucks and for 12% 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 13%), but they are more likely to be reported for “following too closely” (9% compared to 7%) and for unsafe backing (4% 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-related**

Truck crashes are strongly tied to the workday. In 2005, Monday through Friday averaged over 900 truck crashes per day, compared to just 260 on average for Saturdays or Sundays.

### **Driving conditions**

Driving conditions can vary from day to day in Minnesota, but most truck crashes occurred on dry roads in clear weather. However, 26% of the fatal crashes and 30% 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. Forty-four percent of injury crashes, and 74% of the fatal truck crashes occurred in the rural areas of Minnesota.

TABLE 5.01

**TRUCK CRASH SUMMARY, 1996 - 2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Total Crashes</b>	<b>5,358</b>	<b>4,991</b>	<b>4,761</b>	<b>5,156</b>	<b>5,306</b>	<b>4,976</b>	<b>4,409</b>	<b>NA</b>	<b>5,521</b>	<b>5,313</b>
Fatal Crashes	60	90	85	84	73	61	76	71	70	66
Persons Killed	79	105	97	94	90	67	87	78	79	78
Injury Crashes	1,473	1,389	1,408	1,400	1,371	1,287	1,179	NA	1,401	1,315
Severe	176	163	180	150	134	127	82	NA	107	96
Moderate	516	505	492	567	490	479	449	NA	443	377
Minor	781	721	736	683	747	681	648	NA	851	842
Persons Injured	2,074	2,042	2,031	2,026	1,903	1,785	1,674	NA	1,935	1,753
Severe	217	215	219	212	173	157	115	NA	131	116
Moderate	708	721	700	782	659	632	597	NA	585	481
Minor	1,149	1,106	1,112	1,032	1,071	996	962	NA	1,219	1,156
Property Damage Crashes	3,825	3,512	3,268	3,672	3,862	3,628	3,154	NA	4,050	3,932

TABLE 5.02

**PERSONS KILLED OR INJURED IN 2005 TRUCK CRASHES  
BY VEHICLE OCCUPIED**

Vehicle Type	Killed	Injured			Total
		Severe	Moderate	Minor	
Automobile	28	55	194	536	785
Pickup Truck	12	12	62	98	172
SUV	5	8	56	119	183
Pedestrian	3	3	7	6	16
Bicycle	1	0	4	0	4
Van	11	14	32	101	147
Ambulance	2	1	1	2	4
School Bus	0	1	0	2	3
Motor Home/Camper	0	0	0	1	1
Farm Equipment	0	0	0	2	2
Motorcycle	6	3	2	6	11
Hit and Run Vehicle	0	0	1	0	1
Two-Axle, Six-Tire, Single					
Unit Truck or Stepvan	1	2	23	64	89
Three or More Axle Single Unit Truck	2	3	15	31	49
Single Unit Truck with Trailer	0	1	4	19	24
Truck Tractor with No Trailer	1	0	1	4	5
Truck Tractor with Semi Trailer	6	6	63	123	192
Truck Tractor with Twin Trailers	0	0	1	4	5
Heavy Truck--Other or Unknown Type	0	3	5	3	11
Other or Unknown Vehicle Type	0	4	10	35	49
Total	78	116	481	1,156	1,753



TABLE 5.03

## CONTRIBUTING FACTORS IN 2005 TRUCK CRASHES

Contributing Factors	Attributed to Truck Vehicles		Attributed to Non-Truck Vehicles	
	Number	Percent	Number	Percent
<b>Human Factors</b>				
Driver Inattention/Distraction	956	23.0%	752	21.2%
Improper or Unsafe Lane Use	394	9.5	394	11.1
Illegal/Unsafe Speed	369	8.9	431	12.1
Following Too Closely	363	8.7	238	6.7
Failure to Yield Right of Way	319	7.7	462	13.0
Improper Turn	206	5	84	2.4
Unsafe Backing	182	4.4	21	0.6
Vision-Other	130	3.1	73	2.1
Disregard for Traffic Control Device	100	2.4	104	2.9
Improper Passing or Overtaking	78	1.9	182	5.1
Improper Parking, Starting, or Stopping	62	1.5	39	1.1
Driver Inexperience	51	1.2	65	1.8
Overcorrecting	43	1	48	1.4
Driving Left of Center (Not Passing)	36	0.9	66	1.9
Chemical Impairment	15	0.4	64	1.8
Improper/No Signal	15	0.4	8	0.2
Impeding Traffic	12	0.3	5	0.1
Vision Obscured-Windshield	6	0.1	16	0.4
Driver on Phone/CB/2-Way Radio	1	0.0	8	0.2
Failure to Use Lights	2	0.0	2	0.1
Other Human Factors	101	2.4	67	1.9
<b>Vehicular Factors</b>				
Skidding	87	2.1	113	3.2
Defective Brakes	49	1.2	13	0.4
Defective Tire	46	1.1	9	0.2
Oversize/Overweight Vehicle	44	1.1	4	0.1
Defective Lights	6	0.1	2	0.1
Other Vehicular Factor	76	1.8	9	0.2
<b>Miscellaneous Factors</b>				
Weather	223	5.4	172	4.8
Other	178	4.3	97	2.7
Total Contributing Factors Cited	4,150	100.0%	3,548	100.0%
Vehicles for Which There Was				
"No Clear Contributing Factor"	2,270		2,067	
Total Number of Vehicles	5,521		4,823	

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 2005 CRASHES**

<b>Driver Age</b>	<b>Truck or Tractor</b>	<b>Truck with Semi-Trailer</b>	<b>Truck with Twin Trailer</b>	<b>Truck with Other Trailer</b>	<b>Total</b>
10 - 14	0	0	0	0	0
15 - 19	42	10	0	7	59
20 - 24	221	128	0	32	381
25 - 29	260	224	2	45	531
30 - 34	292	285	4	29	610
35 - 39	267	323	7	36	633
40 - 44	307	365	10	42	724
45 - 49	270	392	7	51	720
50 - 54	224	347	6	29	606
55 - 59	150	283	1	21	455
60 - 64	99	163	5	10	277
65 & Older	74	106	1	9	190
Not Stated	20	98	3	8	129
Total*	2,226	2,724	46	319	5,315

\* There were 5,521 trucks in crashes in 2005. However, 166 of these trucks were parked vehicles. This table tabulates the ages of drivers for the remaining 5,355 trucks where it was possible to identify a driver.

TABLE 5.05

**DRIVERS IN 2005 TRUCK CRASHES  
BY PHYSICAL CONDITION\***

<b>Physical Condition</b>	<b>Truck Driver</b>		<b>Other Driver</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Normal	4,919	91.9%	4,154	90.1%
Under the Influence	12	0.2	52	1.1
Had Been Drinking	3	0.1	27	0.6
Driver >.04 BAC	4	0.1	0	0.0
Had Been Using Drugs	3	0.1	1	0.0
Aggressive	2	0.0	1	0.0
Fatigued/Asleep	21	0.4	27	0.6
Physical Disability	2	0.0	0	0.0
Ill	5	0.1	4	0.1
Other	7	0.1	14	0.3
Unknown	377	7.0	286	6.2
Total **	5,355	100.0%	4,566	100.0%

\* As noted by police officer on accident report.

\*\* There were 5,521 trucks in crashes in 2005. However, 166 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 4,823 non-truck motor vehicles in 2005 truck crashes. However, 257 of them were parked, leaving 4,566 for which an apparent physical condition was recorded.

TABLE 5.06

## 2005 TRUCK CRASHES BY FIRST HARMFUL EVENT

<b>First Harmful Event</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
<b>Collision With:</b>						
Other Motor Vehicle	52	1,032	2,866	3,950	63	1,433
Parked Motor Vehicle	2	39	305	346	2	52
Train	2	4	8	14	2	4
Bicycle	1	4	0	5	1	4
Pedestrian	3	12	0	15	3	12
Deer	0	0	44	44	0	0
Other Animal	0	1	10	11	0	1
Fixed Object	2	68	311	381	2	78
<b>Non-Collision:</b>						
Overturn	3	115	135	253	3	125
Jackknife	0	5	86	91	0	5
Fire or Explosion	0	1	9	10	0	1
<b>Other</b>	1	34	158	193	2	38
<b>Total</b>	66	1,315	3,932	5,313	78	1,753

TABLE 5.07

## 2005 TRUCK CRASHES BY MONTH

<b>Month</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
January	5	113	383	501	7	147
February	5	90	253	348	5	113
March	1	72	274	347	1	97
April	2	69	201	272	5	82
May	5	70	277	352	5	92
June	5	120	344	469	5	160
July	6	114	312	432	7	155
August	8	158	333	499	8	212
September	7	138	316	461	7	185
October	11	108	326	445	14	148
November	4	137	386	527	6	203
December	7	126	527	660	8	159
<b>Total</b>	66	1,315	3,932	5,313	78	1,753

TABLE 5.08

2005 TRUCK CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	13	18	16	28	25	27	19	146
3:00 - 5:59 AM	11	27	27	42	36	53	15	211
6:00 - 8:59 AM	18	155	180	195	200	186	48	982
9:00 - 11:59 AM	28	215	195	205	211	270	68	1,192
Noon - 2:59 PM	40	187	206	203	212	267	78	1,193
3:00 - 5:59 PM	40	187	179	161	192	166	39	964
6:00 - 8:59 PM	31	52	68	59	62	71	34	377
9:00 - 11:59 PM	22	21	52	43	30	28	22	218
Unknown	2	7	4	4	4	8	1	30
<b>Total</b>	<b>205</b>	<b>869</b>	<b>927</b>	<b>940</b>	<b>972</b>	<b>1,076</b>	<b>324</b>	<b>5,313</b>

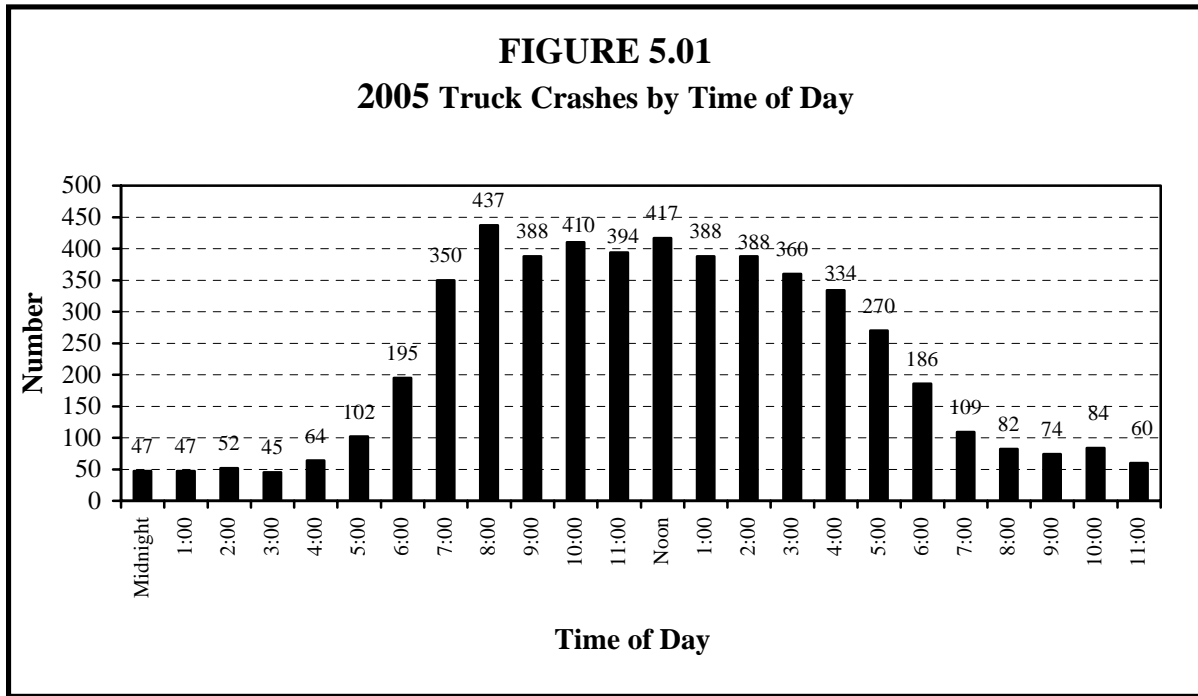


TABLE 5.09

**2005 TRUCK CRASHES BY ROAD SURFACE CONDITION**

<b>Road Surface Condition</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Dry	48	907	2,607	3,562	53	1,198
Wet	5	206	529	740	9	283
Snow or Slush	3	89	368	460	3	116
Ice or Packed Snow	8	97	377	482	11	133
Water Standing/Moving	1	1	3	5	1	4
Muddy	0	2	4	6	0	2
Debris	0	0	3	3	0	0
Other	0	11	18	29	0	14
Unknown	1	2	19	26	1	3
<b>Total</b>	<b>66</b>	<b>1,315</b>	<b>3,928</b>	<b>5,313</b>	<b>78</b>	<b>1,753</b>

TABLE 5.10

**2005 TRUCK CRASHES BY WEATHER CONDITION**

<b>Weather Condition</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Clear	32	758	2,091	2,881	36	1,009
Cloudy	22	331	1,088	1,441	24	424
Rain	3	83	182	268	6	118
Snow	5	100	419	524	6	136
Sleet/Hail/Freezing Rain	1	17	62	80	2	22
Fog/Smog/Smoke	1	10	13	24	2	20
Blowing Sand/Dust/Snow	1	9	31	41	1	13
Severe Cross Winds	0	2	8	10	0	2
Other	1	2	4	7	1	6
Unknown	0	3	34	37	0	3
<b>Total</b>	<b>66</b>	<b>1,315</b>	<b>3,932</b>	<b>5,313</b>	<b>78</b>	<b>1,753</b>

TABLE 5.11

2005 TRUCK CRASHES BY POPULATION OF AREA

<b>Population of City or Township</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
100,000 & Over	5	148	721	874	5	200
50,000 - 99,999	6	180	590	776	6	220
25,000 - 49,999	3	160	459	622	3	211
10,000 - 24,999	1	174	569	744	1	211
5,000 - 9,999	2	76	253	331	2	107
2,500 - 4,999	1	59	227	287	1	81
1,000 - 2,499	0	27	131	158	0	29
Under 1,000	48	491	982	1,521	60	694
Total	66	1,315	3,932	5,313	78	1,753

TABLE 5.12

2005 TRUCK CRASHES BY TYPE OF ROADWAY

<b>Roadway Type</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Interstate Highway	14	302	1,058	1,374	17	420
US Trunk Highway	18	237	568	823	22	332
State Trunk Highway	20	324	726	1,070	22	432
County State-Aid Highway	9	261	671	941	9	342
County Road	2	13	35	50	5	18
Township Road	1	24	61	86	1	32
Local Street	1	153	788	942	1	176
Other Road	1	1	25	27	1	1
Total	66	1,315	3,932	5,313	78	1,753

## 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 2005, there were 938 crashes in which a pedestrian was injured or killed by a motor vehicle. This is the lowest number of pedestrian crashes since traffic records have been kept.

### **Deaths and injuries**

In 2005, 44 pedestrians were killed and 936 pedestrians were injured. Nearly 5% 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**

In all pedestrian crashes, persons less than 25 years of age accounted for 45% of the persons killed or injured. The number of people injured decreased as age increased. Males were more likely than females to be killed: Males accounted for 64% of all pedestrian fatalities and 52% of all pedestrian injuries in 2005.

### **Urban areas and rush-hours**

In 2005, 91% of pedestrian crashes occurred in urban areas. However, 15 (34%) of the 44 fatalities occurred in rural areas (defined as less

than 5,000 population.) In 2005, 30% 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 2005, half (50%) of them were simply going straight ahead on the roadway prior to the crash. An additional 29% 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 (27%) 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%).

### **Alcohol related pedestrian fatalities rises**

Of the 44 pedestrians killed, 34 were tested for alcohol. Of those tested, 44% had concentrations over .08, a ten percent increase from the previous year.

TABLE 6.01

**PEDESTRIAN CRASH SUMMARY, 1996 - 2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Pedestrian Crashes	1,378	1,419	1,400	1,329	1,253	1,175	1,151	NA	963	938
Pedestrians Killed	46	58	56	51	41	46	50	52	37	44
Pedestrians Injured	1,388	1,434	1,410	1,330	1,269	1,184	1,149	NA	976	936

TABLE 6.02

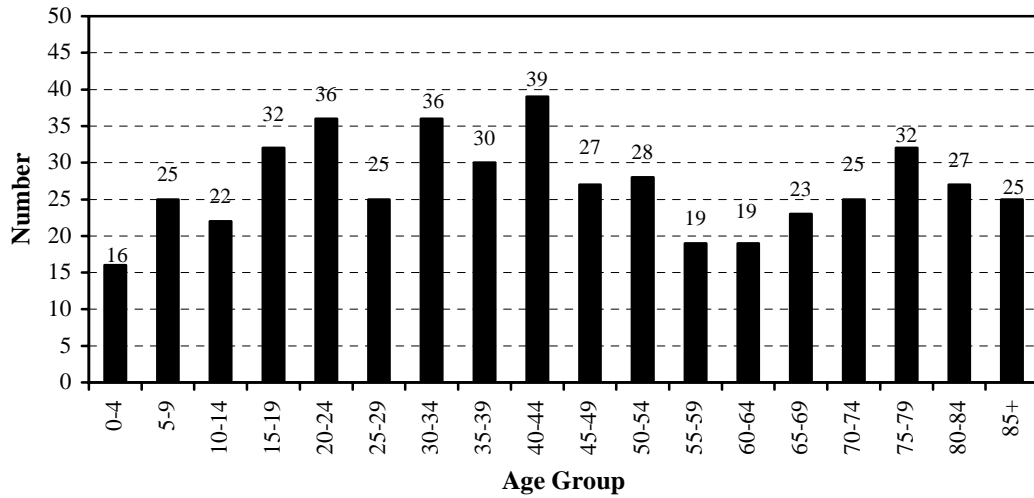
**PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2005**

Age Group	<u>Killed</u>		<u>Injured</u>			<u>Moderate</u>			<u>Minor</u>			<u>Total</u>			
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total*
0 - 4	1	0	1	7	3	10	13	6	19	4	2	9	24	11	38
5 - 9	1	2	3	4	2	6	16	9	26	21	9	30	41	20	62
10 - 14	1	0	1	6	3	10	26	16	42	19	22	42	51	41	94
15 - 19	3	0	3	9	6	15	18	17	36	30	32	63	57	55	114
20 - 24	6	1	7	9	8	17	24	18	44	21	31	52	54	57	113
25 - 29	1	0	1	5	1	6	11	11	22	12	15	27	28	27	55
30 - 34	2	1	3	2	1	3	8	17	26	10	8	19	20	26	48
35 - 39	0	1	1	3	0	3	12	7	19	16	9	25	31	16	47
40 - 44	4	4	8	7	2	9	5	14	20	19	12	32	31	28	61
45 - 49	2	0	2	6	3	9	13	14	27	18	10	28	37	27	64
50 - 54	0	0	0	6	6	12	11	9	20	12	16	28	29	31	60
55 - 59	0	1	1	1	1	2	17	7	24	11	9	20	29	17	46
60 - 64	1	1	2	2	2	4	4	4	8	7	3	10	13	9	22
65 - 69	1	0	1	1	2	3	4	3	7	4	3	7	9	8	17
70 - 74	2	2	4	2	5	7	4	6	10	1	2	3	7	13	20
75 - 79	1	1	2	1	4	5	1	4	5	3	5	8	5	13	18
80 - 84	1	0	1	2	3	5	2	3	5	3	0	3	7	6	13
85 & Older	1	2	3	0	0	0	0	3	3	0	0	0	0	3	3
Not Stated	0	0	0	1	0	2	3	1	12	6	7	27	10	8	41
Total	28	16	44	74	52	128	192	169	375	217	195	433	483	416	936

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



**FIGURE 6.01**  
**Pedestrian Fatalities by Age Group, 1996-2005 Combined**



**FIGURE 6.02**  
**Pedestrians Killed and Injured by Age and Gender, 2005**

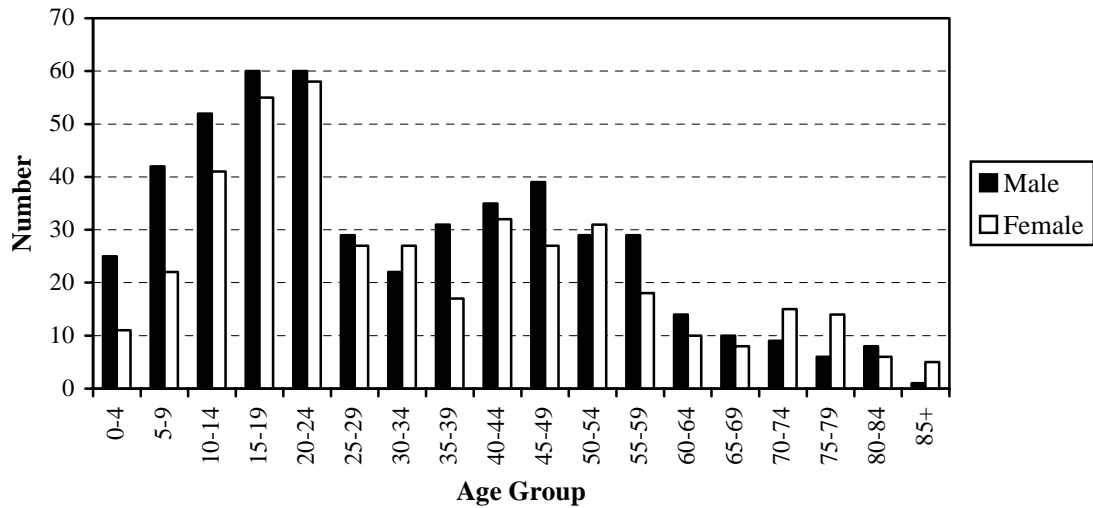


TABLE 6.03

**2005 PEDESTRIAN CRASHES BY MONTH**

<b>Month</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Total Crashes</b>	<b>Pedestrians Killed</b>	<b>Pedestrians Injured</b>
January	4	70	74	4	72
February	3	80	83	3	84
March	1	74	75	1	77
April	5	58	63	5	59
May	1	66	67	1	70
June	2	101	103	2	104
July	4	71	75	4	73
August	3	48	51	3	53
September	6	85	91	6	86
October	5	84	89	5	91
November	5	84	89	5	90
December	6	72	78	5	77
<b>Total</b>	<b>45</b>	<b>893</b>	<b>938</b>	<b>44</b>	<b>936</b>

TABLE 6.04

**2005 PEDESTRIAN CRASHES BY POPULATION OF AREA**

<b>Population of City or Township</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Total Crashes</b>	<b>Pedestrians Killed</b>	<b>Pedestrians Injured</b>
100,000 and Over	14	431	445	14	453
50,000 - 99,999	5	110	115	5	114
25,000 - 49,999	2	106	108	2	110
10,000 - 24,999	5	117	122	5	125
5,000 - 9,999	3	44	47	3	48
2,500 - 4,999	1	25	26	1	25
1,000 - 2,499	1	14	15	1	14
Under 1,000	14	46	60	13	47
<b>Total</b>	<b>45</b>	<b>893</b>	<b>938</b>	<b>44</b>	<b>936</b>

TABLE 6.05

2005 PEDESTRIAN CRASHES BY TIME AND DAY

Time of Day	Fatal		Total						
	Crashes	Crashes	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Midnight - 2:59 AM	12	61	20	4	3	4	4	7	19
3:00 - 5:59 AM	4	13	4	2	2	0	2	0	3
6:00 - 8:59 AM	4	90	1	11	17	16	16	24	5
9:00 - 11:59 AM	3	94	3	9	13	18	18	17	16
Noon - 2:59 PM	7	147	14	22	22	19	29	24	17
3:00 - 5:59 PM	4	250	19	35	45	31	41	46	33
6:00 - 8:59 PM	10	187	23	36	25	33	27	21	22
9:00 - 11:59 PM	1	91	7	6	18	9	14	17	20
Unknown	0	5	0	1	1	0	2	0	1
<b>Total</b>	<b>45</b>	<b>938</b>	<b>91</b>	<b>126</b>	<b>146</b>	<b>130</b>	<b>153</b>	<b>156</b>	<b>136</b>

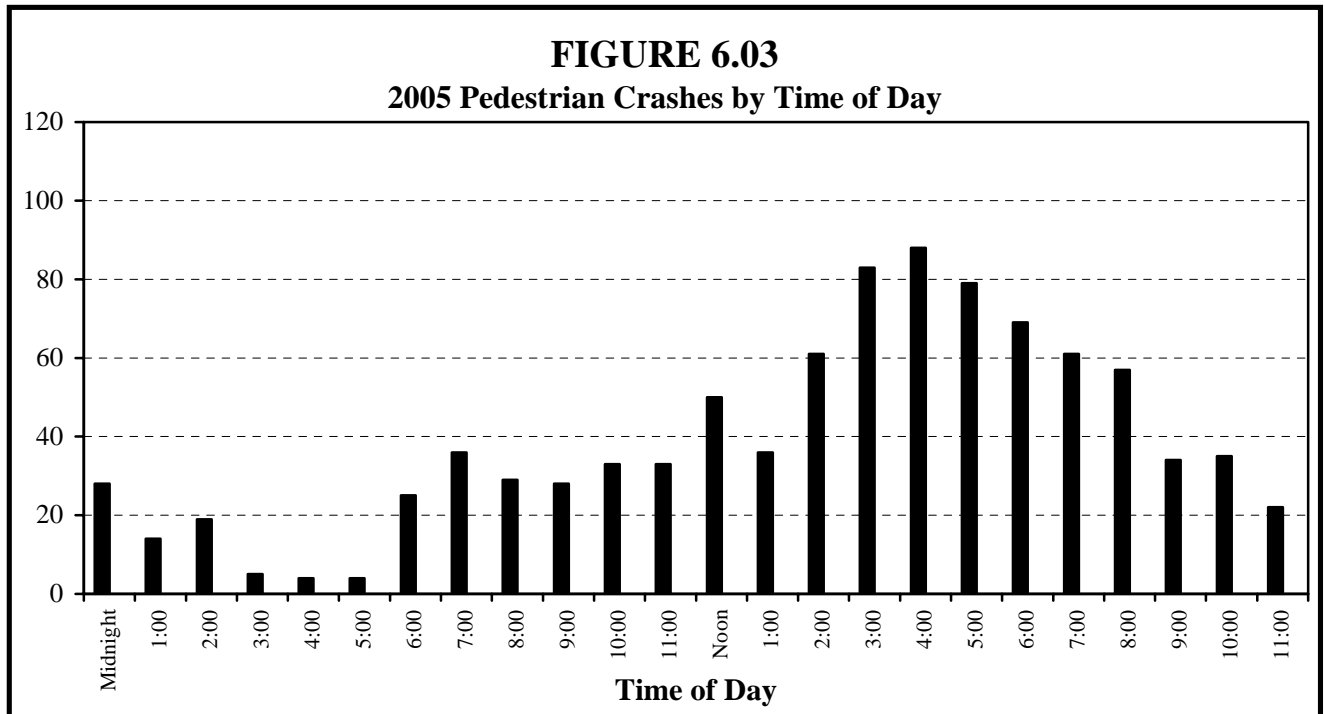


TABLE 6.06

**PRIOR ACTION OF VEHICLES IN 2005 PEDESTRIAN CRASHES**

<b>Action</b>	<b>Vehicles in Fatal Crashes</b>	<b>Vehicles in Injury Crashes</b>	<b>Vehicles in All Crashes*</b>
Going Straight	30	464	494
Wrong Way Opposing Traffic	0	5	5
Turning Right on Red	1	25	26
Turning Left on Red	0	2	2
Turning Right	0	80	80
Turning Left	1	203	204
Making U Turn	0	1	1
Starting From Parked	0	12	12
Starting in Traffic	0	21	21
Slowing in Traffic	0	8	8
Parking	1	3	4
Avoiding Object in Road	4	12	16
Changing Lanes	1	1	2
Passing	2	4	6
Backing	1	25	26
All Others	5	63	68
Unknown	4	13	17
<b>Total</b>	<b>50</b>	<b>942</b>	<b>992</b>

\* 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 2005**

<b>Action</b>	<b><u>Pedestrians Killed</u></b>		<b><u>Pedestrians Injured</u></b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Crossing Road (No Crosswalk and No Signal)	12	27.3%	107	11.4%
Crossing Against Signal	1	2.2	41	4.4
Crossing With Signal	0	0.0	146	15.6
Crossing In Crosswalk (No Signal)	5	11.4	140	15.0
Walking In Road With Traffic	2	4.5	37	4.0
Walking In Road Against Traffic	1	2.2	18	1.9
Standing In Road	5	11.4	41	4.4
Emerging From Front/Behind Parked Vehicle	0	0.0	8	0.9
Child Getting On/Off School Bus	0	0.0	0	0.0
Pushing/Working On Vehicle	0	0.0	4	0.4
Working In Road	0	0.0	8	0.9
Getting On/Off Vehicle	0	0.0	6	0.6
Playing In Road	1	2.2	5	0.5
Not In Road	0	0.0	22	2.4
Other Pedestrian Action	1	2.2	26	2.8
Unknown	16	36.4	327	34.9
<b>Total*</b>	<b>44</b>	<b>100.0%</b>	<b>936</b>	<b>100.0%</b>

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

TABLE 6.08

**CONTRIBUTING FACTORS IN 2005 PEDESTRIAN CRASHES**

<b>Contributing Factors</b>	<b>Attributed to Motor Vehicle Drivers</b>	
	<b>Number</b>	<b>Percent</b>
<b>Human Factors</b>		
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	43.2
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
<b>Vehicular Factors</b>		
Defective Brakes	5	0.6
Skidding	3	0.4
Other Vehicular Factors	3	0.4
<b>Miscellaneous Factors</b>		
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"	62	
Total Number of Drivers	992	

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, 1996 - 2005**

Year	Killed	Tested	Alcohol Concentration*			
			(.00)	(.01 - .07)	(.08 - .09)	(.10 or more)
1996	46	34	23 (68%)	0 (0%)	0 (0%)	11 (32%)
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%)

\* 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

**2005 PEDESTRIAN FATALITIES'  
LEVEL OF ALCOHOL CONCENTRATION BY AGE**

Age Group	Killed	Tested	Alcohol Concentration			
			(.00)	(.01 - .07)	(.08 - .09)	(.10 or more)
14 & Younger	5	0	0	0	0	0
15 - 19	3	3	1	0	1	1
20 - 24	7	6	3	0	0	3
25 - 29	1	1	0	0	0	1
30 - 34	3	3	3	0	0	0
35 - 39	1	1	0	1	0	0
40 - 44	8	8	2	0	0	6
45 - 49	2	2	1	0	0	1
50 - 54	0	0	0	0	0	0
55 - 59	1	1	0	0	1	0
60 - 64	2	1	0	0	0	1
65 - 69	1	1	1	0	0	0
70 - 74	4	3	3	0	0	0
75 - 79	2	1	1	0	0	0
80 - 84	1	1	1	0	0	0
85 & Older	3	2	2	0	0	0
Total	44	34	18	1	2	13

TABLE 6.11

**2005 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL  
CONCENTRATION BY TIME OF DAY**

<b>Time of Day</b>	<b>Killed</b>	<b>Tested</b>	<b>Alcohol Concentration</b>			
			<b>(.00)</b>	<b>(.01 - .07)</b>	<b>(.08 - .09)</b>	<b>(.10 or more)</b>
Midnight - 2:59 AM	11	11	1	1	1	8
3:00 - 5:59 AM	4	4	2	0	0	2
6:00 - 8:59 AM	4	2	1	0	1	0
9:00 - 11:59 AM	3	2	2	0	0	0
Noon - 2:59 PM	7	2	2	0	0	0
3:00 - 5:59 PM	4	3	3	0	0	0
6:00 - 8:59 PM	10	9	7	0	0	2
9:00 - 11:59 PM	1	1	0	0	0	1
<b>Total</b>	<b>44</b>	<b>34</b>	<b>18</b>	<b>1</b>	<b>2</b>	<b>13</b>

## 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 unchanged**

In 2005, there were 965 bicycle crashes in Minnesota. This number represents only a 2% decrease from 985 bicycle crashes the previous year.

### **Injuries increase, fatalities decrease in 2005**

The number of bicyclists injured increased in 2005. There were 952 injuries reported, a slight increase from 937 injuries in 2004. There were 7 bicyclist fatalities in 2005, 3 fewer fatalities than the previous year.

### **Young people at risk**

Of all the bicyclists injured in 2005, nearly half (48%) were less than 20 years of age. Nearly half (3 of the 7) of the bicyclist fatalities were less than 15 years of age.

### **Warm weather**

As expected, bicycle crashes are mostly a warm weather occurrence. In 2005, 4 of the 7 fatalities, 73% of the crashes, and 74% of the injuries occurred in the five-month period of May through September.

### **Afternoon rush hour**

Bicycle crashes in 2005 were most prevalent in the three-hour time 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 2005. Two out of five (40%) bicycle crashes occurred in cities where the population was over 100,000 people. Only 9% of all bicycle crashes occurred in rural (defined as less than 5,000 people) areas.

### **Males injured and killed most often**

Males were more than two and a half times more likely than females (671 to 253) to be injured in bicycle crashes. In 2005, 4 of the bicyclists killed and 70% 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 (21% of the total) was attempting to ride across the road. However the prior action indicated as "other" or "unknown" was cited for 60% of the bicyclists.

### **Contributing factors**

One contributing factor for both the bicyclists and the other motor vehicle drivers was cited most often in 2005, failure to yield the right of way. 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, 1996- 2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Bicycle Crashes	1,337	1,384	1,363	1,106	1,137	1,016	909	NA	985	965
Bicyclists Killed	6	7	9	8	14	7	7	6	10	7
Bicyclists Injured	1,281	1,348	1,310	1,060	1,080	960	860	NA	937	952

TABLE 7.02

**2005 BICYCLE CRASHES BY MONTH**

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
January	0	6	0	6	0	6
February	0	12	1	13	0	13
March	2	15	0	17	2	15
April	0	77	3	80	0	77
May	0	87	1	88	0	90
June	2	133	4	139	2	136
July	0	166	1	167	0	170
August	1	159	4	164	1	159
September	1	147	1	149	1	148
October	1	91	2	94	1	91
November	0	36	2	38	0	38
December	0	9	1	10	0	9
Total	7	938	20	965	7	952

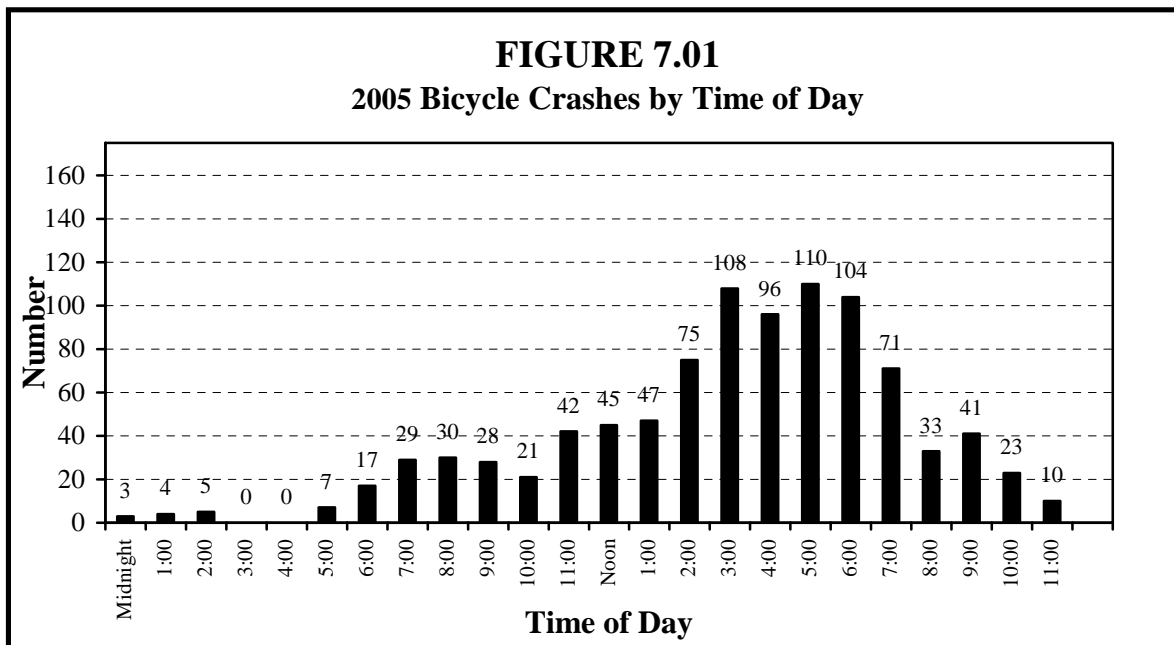


TABLE 7.03

2005 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	12	1	1	1	3	1	1	4
3:00 - 5:59 AM	7	0	1	3	1	0	1	1
6:00 - 8:59 AM	76	0	16	13	14	13	18	2
9:00 - 11:59 AM	91	7	14	13	15	15	14	13
Noon - 2:59 PM	167	18	32	24	26	25	22	20
3:00 - 5:59 PM	314	32	42	49	46	65	59	21
6:00 - 8:59 PM	208	25	28	33	31	42	24	25
9:00 - 11:59 PM	74	7	6	12	16	13	10	10
Unknown	16	4	4	1	3	3	1	0
Total	965	94	144	149	155	177	150	96

TABLE 7.04

2005 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	0	373	10	383	0	375
50,000 - 99,999	2	119	3	124	2	122
25,000 - 49,999	1	137	2	140	1	141
10,000 - 24,999	1	178	2	181	1	179
5,000 - 9,999	0	47	0	47	0	48
2,500 - 4,999	0	35	2	37	0	35
1,000 - 2,499	0	25	0	25	0	26
Under 1,000	3	24	1	28	3	26
Total	7	938	20	965	7	952

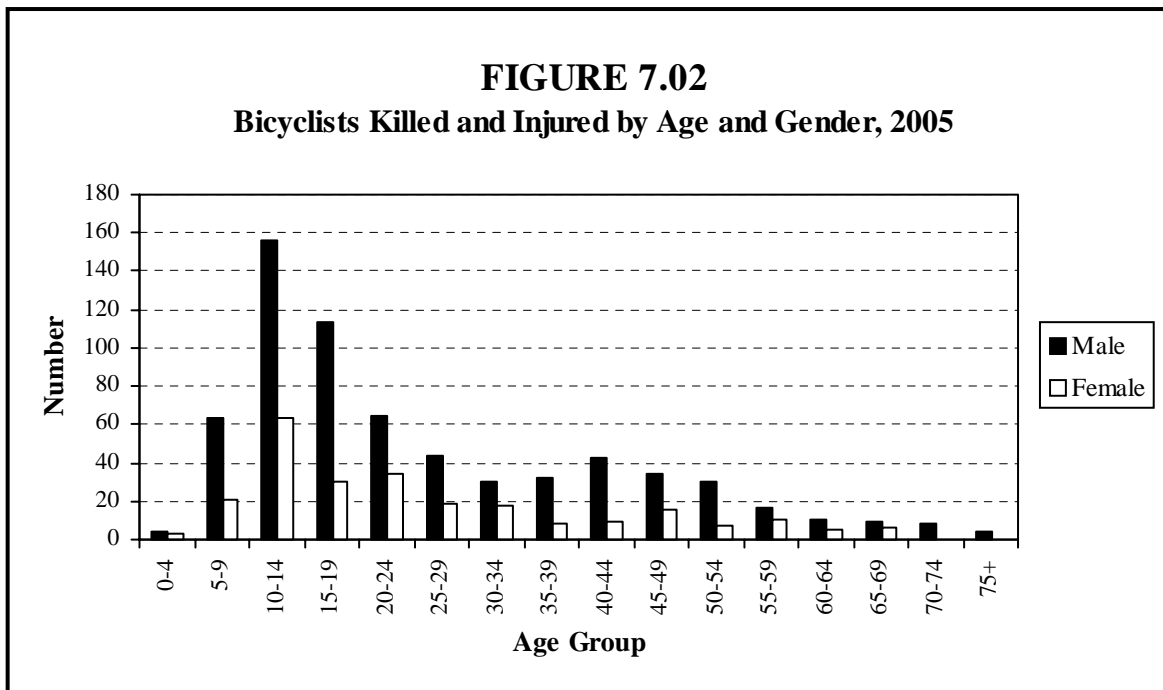


TABLE 7.05

**BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2005**

Age Group	Injured												Total		
	Killed			Severe			Moderate			Minor					
	M	F	Total	M	F	Total*	M	F	Total*	M	F	Total*	M	F	Total*
0 – 4	0	1	1	0	0	0	1	1	2	3	1	4	4	2	6
5 – 9	0	1	1	7	0	7	31	10	41	25	10	35	63	20	83
10 – 14	1	0	1	15	2	17	72	34	106	68	27	97	155	63	220
15 – 19	0	0	0	8	2	10	51	14	65	54	14	69	113	30	144
20 – 24	0	0	0	7	3	10	25	12	37	32	19	54	64	34	101
25 – 29	0	0	0	5	2	7	15	8	25	24	9	33	44	19	65
30 – 34	0	0	0	2	0	2	13	7	20	15	11	26	30	18	48
35 – 39	0	0	0	6	0	6	8	6	14	18	2	20	32	8	40
40 – 44	2	0	2	5	1	6	12	3	15	24	5	29	41	9	50
45 – 49	0	1	1	0	1	1	23	7	30	11	7	19	34	15	50
50 – 54	0	0	0	1	1	2	16	3	19	13	3	16	30	7	37
55 – 59	0	1	1	1	0	1	4	5	9	11	5	17	16	10	27
60 – 64	0	0	0	0	1	1	1	1	2	9	3	12	10	5	15
65 – 69	0	0	0	1	1	2	5	0	5	3	5	8	9	6	15
70 – 74	0	0	0	1	0	1	5	0	5	2	0	2	8	0	8
75 & Older	0	0	0	0	0	0	3	0	3	1	0	1	4	0	4
Not Stated	0	0	0	0	0	1	7	1	16	7	6	22	14	7	39
Total	3	4	7	59	14	74	292	112	414	320	127	464	671	253	952

\* 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 2005 CRASHES**

Prior Action	Bicyclists In Fatal Crashes	Bicyclists In Injury Crashes	Bicyclists In Property Damage Crashes	Bicyclists In All Crashes*
Riding With Traffic	0	95	1	96
Riding Against Traffic	0	66	2	68
Making Left Turn	0	8	1	9
Making Right Turn	0	2	0	2
Making U-Turn	0	1	0	1
Riding Across Road	4	193	5	202
Slowing/Stopping/Starting	1	13	0	14
Other/Unknown	2	564	20	586
Total	7	942	29	978

\* 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 2005 BICYCLE CRASHES**

<b>Contributing Factors</b>	<b>Attributed to Bicyclists</b>		<b>Attributed to Motor Vehicle Drivers</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>Human Factors</b>				
Failure to Yield Right of Way	168	24.8%	233	38.3%
Non-Motorist Error	149	22.0	0	0.0
Disregard Traffic Control Device	71	10.5	27	4.4
Driver Inattention/Distracted	69	10.2	162	26.6
Improper/Unsafe Lane Use	48	7.1	20	3.3
Driver Inexperience	21	3.1	7	1.1
Vision Obscured	14	2.1	57	9.4
Chemical Impairment	14	2.1	7	1.1
Improper Turn	11	1.6	12	2.0
Illegal or Unsafe Speed	10	1.5	7	1.1
Failure to use Lights	10	1.5	0	0.0
Driving Left of Center	9	1.3	1	0.2
Improper Park/Start/Stop	3	0.4	9	1.5
Following Too Closely	2	0.3	5	0.8
Improper Passing/Overtaking	2	0.3	9	1.5
Overcorrecting	1	0.1	0	0.0
Impeding Traffic	1	0.1	0	0.0
Driver On Phone/CB	1	0.1	1	0.2
Unsafe Backing	0	0.0	5	0.8
Improper/No Signal	0	0.0	1	0.2
Other Human Factors	16	2.4	15	2.5
<b>Vehicular Factors</b>				
Defective Brakes	9	1.3	0	0.0
Skidding	1	0.1	2	0.3
<b>Miscellaneous Factors</b>				
Weather Conditions	5	0.7	7	1.1
Other	42	6.2	22	3.6
<b>Total</b>	<b>677</b>	<b>100.0%</b>	<b>609</b>	<b>100.0%</b>
Vehicles for Which There Was				
“No Clear Contributing Factor”	315		422	
Total Number of Bicyclists/Drivers	980		974	

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 usually 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 now make it possible to identify crashes in which a school bus was indirectly involved. In 2005, there were 195 crashes resulting in 0 fatalities and 101 injuries in which a school bus was indirectly involved.

### **Number of crashes increases slightly**

School bus crashes have decreased the past five years. In 2005, there were 717 traffic crashes involving at least one school bus. This is a 2% increase from the previous year.

### **Seven deaths in 2005**

In 2005, there were seven fatal school bus crashes resulting in seven deaths. Four of the seven fatalities were drivers of other vehicles that collided with school buses. One was a 3-year old passenger in another vehicle, and two were pedestrians.

### **Morning and afternoon rush hours**

As would be expected, two out of three school bus crashes in 2005 (65%) occurred during the time periods of 6:00-9:00 a.m. and 3:00-6:00 p.m. In addition, 4 of the 7 fatalities and 67% of the injuries occurred during these two time periods. Not surprisingly, few crashes (9% of the total) occurred during the summer months of June, July and August.

### **School bus stop arm**

Forty-four percent of school bus crashes occurred where there was no traffic control device and less than 2% of the crashes occurred when the school bus stop arm was deployed. However, twelve injuries occurred in crashes where the school bus stop arm was in use.

### **Contributing factors**

Although there were 717 school bus crashes in 2005, a few involved more than one school bus. In all there were 728 school buses in crashes. For 49% of the school bus drivers, police showed there was "no clear contributing factor." This compares favorably to the 27% 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 (19%), and driver inattention or distraction (19%). The third most frequently cited contributing factor was improper turn (7%).

TABLE 8.01

**SCHOOL BUS CRASH SUMMARY, 1996 - 2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Crashes	1,041	961	782	782	890	852	719	NA	702	717
Fatal Crashes	6	4	3	5	2	4	3	3	3	7
Persons Killed	8	7	3	5	2	4	5	3	3	7
Injury Crashes	241	211	197	172	203	182	144	NA	150	140
Persons Injured	472	408	371	328	388	355	299	NA	266	250
Property Damage Crashes	794	746	582	605	685	666	572	NA	549	570
School Buses Directly Involved	1,050	979	790	789	903	857	731	NA	708	724

TABLE 8.02

**2005 SCHOOL BUS CRASHES BY TIME OF DAY**

<b>Time of Day</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
Midnight - 2:59 AM	0	2	4	6	0	2
3:00 - 5:59 AM	0	0	8	8	0	0
6:00 - 8:59 AM	2	44	201	247	2	74
9:00 - 11:59 AM	2	20	75	97	2	34
Noon - 2:59 PM	1	25	96	122	1	44
3:00 - 5:59 PM	2	47	171	220	2	94
6:00 - 8:59 PM	0	2	5	7	0	2
9:00 - 11:59 PM	0	0	2	2	0	0
Unknown	0	0	8	8	0	0
			0			
Total	7	140	570	717	7	250

TABLE 8.03

**2005 SCHOOL BUS CRASHES BY MONTH**

<b>Month</b>	<b>Fatal Crashes</b>	<b>Injury Crashes</b>	<b>Property Damage Crashes</b>	<b>Total Crashes</b>	<b>Killed</b>	<b>Injured</b>
January	3	9	83	95	3	13
February	0	10	55	65	0	12
March	0	13	52	65	0	25
April	2	13	35	50	2	29
May	0	19	52	71	0	25
June	0	12	31	43	0	20
July	0	4	11	15	0	4
August	0	2	4	6	0	3
September	1	7	54	62	1	15
October	1	14	43	58	1	24
November	0	17	55	72	0	34
December	0	20	95	115	0	46
Total	7	140	570	717	7	250

TABLE 8.04

**AGE AND GENDER OF PERSONS INJURED  
IN 2005 SCHOOL BUS CRASHES**

Age Group	Total*	In Other			Male	Female
		In Bus	Pedestrian	Vehicle		
0 - 4	3	1	0	2	1	2
5 - 9	25	17	1	7	15	10
10 - 14	24	21	0	3	11	11
15 - 19	40	6	0	34	19	21
20 - 24	19	3	0	16	5	14
25 - 29	11	1	0	10	2	9
30 - 34	10	1	0	9	5	5
35 - 39	13	2	0	11	6	7
40 - 44	20	4	0	16	11	9
45 - 54	25	7	0	18	8	17
55 - 64	16	3	0	13	9	7
65 & Older	15	2	0	13	10	5
Unknown	29	23	1	5	5	9
Total	250	91	2	157	107	126

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

TABLE 8.05

**PERSONS KILLED OR INJURED  
IN 2005 SCHOOL BUS CRASHES BY POPULATION OF AREA**

Population of City or Township	Killed	Injured			Total
		Severe	Moderate	Minor	
100,000 and Over	2	2	13	44	59
50,000 - 99,999	0	1	10	28	39
25,000 - 49,999	2	2	11	12	25
10,000 - 24,999	0	3	6	39	48
5,000 - 9,999	0	2	3	15	20
2,500 - 4,999	0	0	5	0	5
1,000 - 2,499	0	0	2	5	7
Under 1,000	3	2	22	23	47
Total	7	12	72	166	250

TABLE 8.06

2005 SCHOOL BUS CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
<b>Collision With:</b>						
Other Motor Vehicle	5	119	464	588	5	217
Parked Motor Vehicle	0	5	71	76	0	6
Bicycle	0	3	0	3	0	3
Pedestrian	2	2	0	4	2	2
Deer or Other Animal	0	0	2	2	0	0
Fixed Object	0	4	19	23	0	12
<b>Non-collision:</b>						
Overturn	0	0	1	1	0	0
<b>Other/Unknown</b>	0	7	13	20	0	10
<b>Total</b>	7	140	570	717	7	250

TABLE 8.07

2005 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Traffic Signal	1	35	114	150	1	57
Stop Sign--All Approaches	0	6	25	31	0	6
Other Stop Sign	1	33	127	161	1	60
Yield Sign	0	1	6	7	0	9
Officer/Flag Person	0	0	1	1	0	0
School Bus Stop Arm	0	6	6	12	0	11
School Zone Sign	0	0	2	2	0	0
Railroad Crossing Device	0	1	8	9	0	1
No Passing Zone	0	0	4	4	0	0
Not Applicable	5	51	237	293	5	94
Other	0	5	15	20	0	10
Unknown	0	2	25	27	0	2
<b>Total</b>	7	140	570	717	7	250



TABLE 8.08

CONTRIBUTING FACTORS IN 2005 SCHOOL BUS CRASHES

Contributing Factors	Attributed to School Bus Drivers		Attributed to Drivers of Other Vehicles	
	Number	Percent	Number	Percent
<b>Human Factors</b>				
Failure to Yield Right of Way	61	19.4%	67	11.7%
Driver Inattention /Distraction	59	18.8	125	21.8
Improper Turn	27	8.6	13	2.3
Improper/Unsafe Lane Use	22	7.0	20	3.5
Following Too Closely	20	6.4	49	8.5
Illegal/Unsafe Speed	13	4.1	55	9.6
Vision Obscured	9	2.9	13	2.3
Improper Passing/Overtaking	6	1.9	13	2.3
Improper Park/Start/Stop	6	1.9	8	1.4
Disregard Traffic Control Device	5	1.6	34	5.9
Unsafe Backing	5	1.6	7	1.2
Driver Inexperience	5	1.6	21	3.7
Overcorrecting	4	1.3	4	0.7
Driving Left of Center	2	0.6	10	1.7
Impeding Traffic	0	0.0	1	0.2
Non-Motorist Error	0	0.0	2	0.3
Other Human Factors	8	2.5	3	0.5
<b>Vehicular Factors</b>				
Skidding	14	4.5	5	9.1
Defective Brakes	2	0.6	5	0.9
Other Vehicular Factors	2	0.6	1	0.2
<b>Miscellaneous Factors</b>				
Weather Conditions	23	7.3	52	9.1
Other	21	6.7	19	3.3
Total	314	100%	574	100%
Vehicles for Which There Was				
“No Clear Contributing Factor”	357		198	
Total Number of Drivers	728		731	

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 for the purpose of this publication.

Statewide, one-half of one percent of all motor vehicle crashes result in a fatality. In 2005, 10% of all motor-vehicle/train crashes in Minnesota resulted in a fatality. Motor vehicle/train crashes may be few in numbers, but they are more likely to be serious. Thus, these types of crashes are a cause for concern.

### **Number of train crashes decreases**

Over the years, the number of motor-vehicle/train crashes in Minnesota has been declining. The calendar year 2005 was no exception. Fifty-two crashes were reported in 2005, a 28% decrease from the previous year.

### **Number of fatalities decreases**

The number of vehicle/train crash fatalities also decreased: six people were killed in 2005 compared to thirteen in 2004.

### **Railroad crossbuck sites dangerous**

Nineteen of the fifty-two (37%) motor-vehicle/train crashes, including two of the five fatal crashes, occurred at a railroad crossing signed by a railroad crossbuck. An additional seven crashes (including one fatal crash) occurred at crossings with a railroad crossing stop sign. Combined, these two types of traffic control devices were present at 50% of all crashes and 60% of fatal crashes.

### **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 2005, 62% of the total crashes, 62% 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 57% of all contributing factors cited.

TABLE 9.01

**MOTOR VEHICLE / TRAIN CRASH SUMMARY, 1996 - 2005**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Crashes	124	107	108	84	79	70	77	NA	72	52
Fatal Crashes	8	6	9	8	3	5	6	5	12	5
Persons Killed	8	6	11	10	4	6	9	8	13	6
Injury Crashes	45	36	47	32	32	22	27	NA	21	22
Persons Injured	50	46	64	50	43	28	37	NA	27	29
Property Damage Crashes	71	65	52	44	44	43	44	NA	39	25

TABLE 9.02

**2005 MOTOR VEHICLE / TRAIN CRASHES BY MONTH**

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total	Killed	Injured
January	1	3	2	6	1	3
February	1	0	1	2	1	0
March	0	0	4	4	0	0
April	0	1	1	2	0	1
May	0	1	1	2	0	1
June	0	1	4	5	0	1
July	1	1	2	4	2	3
August	0	4	1	5	0	4
September	0	2	2	4	0	2
October	0	3	2	5	0	4
November	1	1	2	4	1	3
December	1	5	3	9	1	7
Total	5	22	25	52	6	29

TABLE 9.03

**2005 MOTOR VEHICLE / TRAIN CRASHES BY TIME AND DAY**

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	2	1	0	0	1	0	0	0
3:00 - 5:59 AM	3	0	0	1	0	0	2	0
6:00 - 8:59 AM	4	0	0	0	2	1	0	1
9:00 - 11:59 AM	10	1	2	0	3	3	1	0
Noon - 2:59 PM	16	1	2	1	3	4	4	1
3:00 - 5:59 PM	9	1	1	2	1	1	1	2
6:00 - 8:59 PM	4	0	0	0	2	0	1	1
9:00 - 11:59 PM	2	0	0	0	1	0	0	1
Unknown	2	0	0	0	0	1	0	1
Total	52	4	5	4	13	10	9	7

TABLE 9.04

**2005 MOTOR VEHICLE / TRAIN CRASHES  
BY TRAFFIC CONTROL DEVICE**

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Injured	
					Killed	Injured
RR Crossing Stop Sign	1	3	3	7	1	3
RR Crossbuck	2	9	8	19	3	12
RR Flashing Lights	1	1	4	6	1	1
RR Overhead Flashers						
Plus Gate	0	2	0	2	0	2
RR Overhead Flashers	0	1	0	1	0	1
RR Crossing Gate	0	1	0	1	0	3
Stop Sign	1	1	5	7	1	1
Other Device	0	3	3	6	0	5
Unknown	0	0	1	1	0	0
Not Applicable	0	1	1	2	0	1
Total	5	22	25	52	6	29

TABLE 9.05

**AGE OF PERSONS KILLED OR INJURED IN 2005  
MOTOR VEHICLE / TRAIN CRASHES**

Age Group	Killed	Injured			Total
		Severe	Moderate	Minor	
0-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	0	0	0	3	3
15-19	2	1	0	3	4
20-24	1	0	0	0	0
25-29	0	2	1	0	3
30-34	1	0	0	0	0
35-39	0	1	0	0	1
40-44	0	0	0	0	0
45-49	0	2	1	2	5
50-54	2	1	1	1	4
55-59	0	0	1	1	2
60-69	0	2	1	1	2
70-79	0	0	0	1	4
80 & Older	0	0	0	3	1
Not Stated	0	0	0	0	0
				0	
Total	6	9	5	15	29

TABLE 9.06

## 2005 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	4	4	8	0	7
50,000 - 99,999	0	1	5	6	0	2
25,000 - 49,999	0	0	1	1	0	0
10,000 - 24,999	0	2	2	4	0	2
5,000 - 9,999	0	0	1	1	0	0
2,500 - 4,999	0	0	2	2	0	0
1,000 - 2,499	0	2	2	4	0	3
Under 1,000	5	13	8	26	6	15
Total	5	22	25	52	6	29

TABLE 9.07

CONTRIBUTING FACTORS  
IN 2005 MOTOR VEHICLE / TRAIN CRASHES

Contributing Factor	Number	Percent
<b>Human Factors</b>		
Failure to Yield Right of Way	20	26.7%
Driver Inattention/Distracted	13	17.3
Disregard for Traffic Control Device	10	13.3
Illegal or Unsafe Speed	6	8.0
Improper/Unsafe Lane Usage	3	4.0
Vision Obscured	3	4.0
Chemical Impairment	2	2.7
Improper/Park/Start/Stop	1	1.3
Driving Left of Center	1	1.3
Improper Passing/Overtaking	1	1.3
Other Human Factor	2	2.7
<b>Vehicular Factors</b>		
Skidding	5	
Other Vehicular Factor	7	9.3
Total	75	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"		
Number of Drivers	17	
	76	

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.