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State Fire
Marshal and
Pipeline Safety

Office of the Commissioner

445 Minnesota Street • Suite 1000 • Saint Paul, Minnesota 55101-5100

Phone: 651.296.6642 • Fax: 651.297.5728 • TTY: 651.282.6555

www.dps.state.mn.us

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The Department of Public Safety administers programs to protect the safety of Minnesota citizens. Traffic crashes are a leading public safety problem — each year, hundreds of people die and thousands more are injured in crashes. The experience of the last few decades suggests that much of this suffering is preventable.

Our perspective is that traffic crashes are not “accidents.” They are tragic events that do not have to occur, but rather can be prevented by changes in human behavior. History proves that human behavioral factors contribute greatly to incidence of traffic crashes.

Fortunately, changes in the same behavioral factors can reduce the seriousness of crashes. The department’s advice is to be conscious of the leading factors in traffic crashes: driver inattention, driving at illegal or unsafe speeds, and driving while impaired. Also, a critically important factor in the prevention of death and injury in a crash is the use of safety equipment, including safety belts, child restraint seats, and helmets for motorcyclists and bicyclists.

The Department of Public Safety is responsible for reducing crashes, injuries and fatalities, and the tremendous cost of all vehicle crashes, which is about \$2 billion each year in Minnesota. To that end, we are working with other state agencies, private organizations and other stakeholders in moving Minnesota *Toward Zero Deaths*. This collaborative program addresses traffic safety issues through the application of the “Four Es” — education, enforcement, engineering and emergency services.

While reaching zero traffic deaths may not be attainable in our lifetime, it is a goal. And the operative word to measure our progress is “towards.” The loss of more than 600 lives each year in crashes is unacceptable. In its specific role, the Department of Public Safety can, and will, reduce that number through public education and aggressive law enforcement.

Ultimately, the greatest factor in reducing crashes is individual driver behavior. Every Minnesota motorist can reduce crashes by obeying traffic laws, using safety equipment, and exercising patience behind the wheel. Collectively, we can reduce crashes and their consequences and drive *Towards Zero Deaths*.

Sincerely,

Michael Campion
Commissioner

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Minnesota Traffic Crashes in 2004 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 2004. We hope that the information contained within this book will help you and others use our roadways more safely.

In 2004,

- 91,274 traffic crashes were reported to the Department of Public Safety
- 168,275 motor vehicles were involved
- 233,574 people were involved
- 567 people died
- 40,073 people were injured
- \$1,769,484,700 estimated economic cost to Minnesota

On an average day in 2004,

- 249 crashes
- 1.5 deaths
- 109 people injured
- \$4,834,658 average daily cost

2004 crashes that involved alcohol

- 4,841 crashes
- 177 deaths
- 3,622 people injured
- \$287,802,000 estimated economic cost

Highlights from the 2004 *Crash Facts* edition

- **Traffic fatalities decreased 13.4 percent (from 655 in 2003 to 567 in 2004).**
Despite the decrease in 2004, traffic fatalities in Minnesota have reached epidemic proportions. 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 82% (from 79% in 2003).**
This good news means that, compared to prior years, more people in 2004 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 2004 is 1.00. This is a decrease from 2003 when the fatality rate was 1.18. 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 2002 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.

INTRODUCTION

At the end of the 2004 calendar year, 3,851,856 people held Minnesota driver licenses and 4,630,664 motor vehicles were registered in the state. Vehicles traveled approximately fifty-six billion miles on public roadways in the state. There were 91,274 traffic crashes; 567 people died and 40,073 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, 2003 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 2003 data. Based on those, the total economic loss from 2004 traffic crashes in Minnesota was \$1,769,484,700, a figure that is calculated as follows:

Cost of Motor Vehicle Crashes in 2004

567	deaths	@	\$1,120,000	=	\$635,040,000
2,424	severe injuries	@	\$55,500	=	\$134,532,000
12,416	moderate injuries	@	\$18,200	=	\$225,971,200
25,233	minor injuries	@	\$10,300	=	\$259,899,900
62,688	property damage				
	crashes	@	\$8,200	=	\$514,041,600
	Total	=			\$1,769,484,700

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 failure to yield right of way. 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 42,636 traffic fatalities throughout the country and 567 in Minnesota. The respective rates per hundred million miles of travel were 1.46 and 1.00. 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.

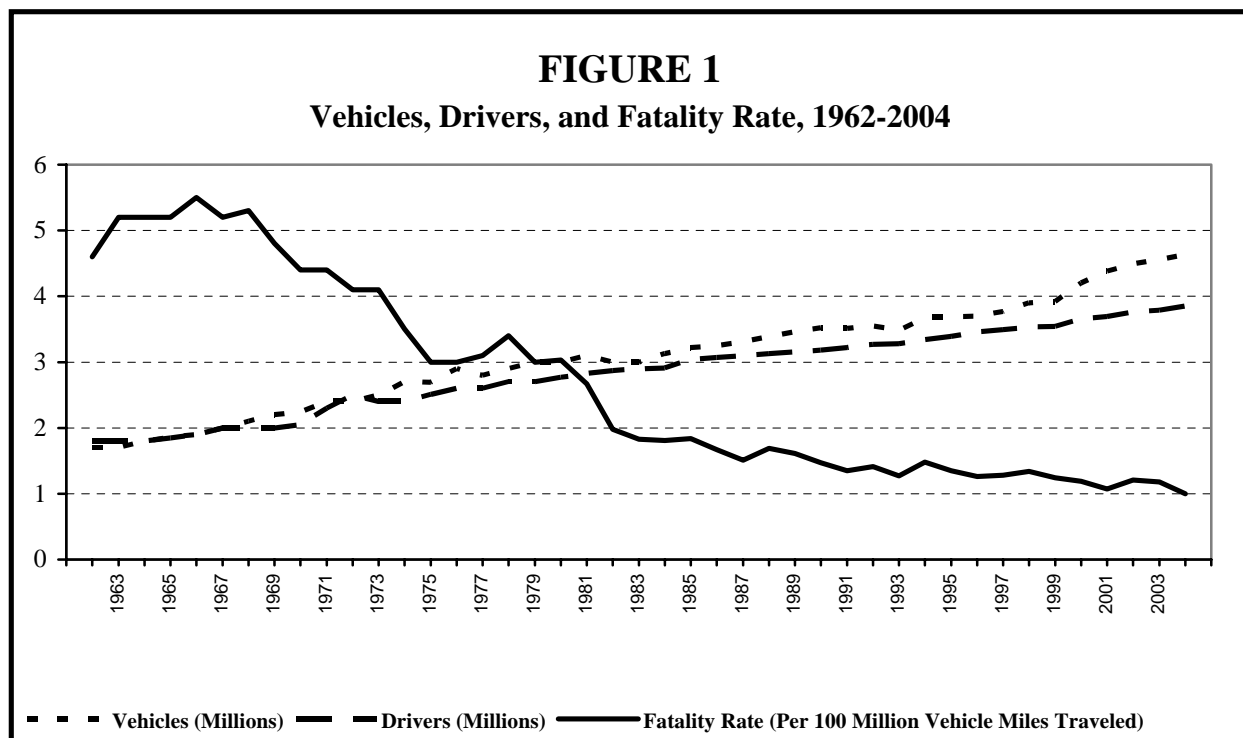
Legislative requirement

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 2004:

- The population of Minnesota approached 5.2 million.
- Over 4.4 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 2004

There were 91,274 traffic crashes in 2004. This amount is actually the lowest number of crashes in Minnesota since 1982 when 89,443 were recorded.

There were 567 deaths on Minnesota roads in 2004, a decrease from the previous two years. In actuality, the number of traffic deaths has been very high the past few years. Since 1997, Minnesota has averaged 626 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 2004 traffic crashes; In addition to the 567 killed...

- 40,073 were injured.
- 2,424 of these were severe injuries.
- 12,416 of these were moderate injuries.
- 25,233 of these were minor injuries.
- In all crashes, 233,574 people were involved.
- In all crashes, 166,205 motor vehicles were involved.
- In addition, there were 1,001 bicyclists involved, and,
- There were 1,102 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, 8,043 crashes were "hit-and-run".
- The economic loss to Minnesota was almost \$1.8 billion.

WHO was involved?

Among drivers, young people and males are over represented in traffic crashes in Minnesota. There are 3,851,856 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 2004, they represented 7% of the licensed drivers, but 14% of the crash-involved drivers. By contrast drivers over 65 made up 15% of the driving population, but accounted for just 6% of the crash-involved drivers in 2004. Crash-involved drivers are also more likely to be males: 71% of drivers in fatal crashes were male; 57% of drivers in all crashes were male.

Traffic crashes are the leading cause of death to young people. In the state last year, 224 people under age 30 died in crashes. That represents 40% of all traffic deaths. As mentioned previously, people over 65 are safe drivers as a general rule, but are more likely to be killed if they are involved in a traffic crash. Senior citizen drivers were involved in only 7% of all traffic crashes in 2004 but accounted for 18% of the traffic fatalities.

Among people injured, young people especially pay the price. There were 18,619 people under age 30 who were injured; that represents 46% 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 567 traffic fatalities, 446 (79%) were from these 4 vehicle types. There were also 37 pedestrians, 50 motorcyclists, and 10 bicyclists who died in traffic crashes. There were no deaths among school bus occupants, and only 12 fatalities among commercial truck occupants. There is a similar pattern among people who were injured: of the 40,073 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 (66%) of all crashes involve one vehicle colliding with another vehicle. In fatal and injury crashes, collisions with fixed objects and overturns are also common. For property damage crashes, the other leading crash types are collision with fixed object (12% of the total), collision with a parked motor vehicle (6% of the total), and collision with deer (5% of the total).

Most crashes occur in good driving conditions. Over half (58%) of fatal crashes, and 66% of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half (58%) of fatal crashes, and 55% of nonfatal crashes occurred during "clear" weather. Road surface conditions where crashes occurred were usually good. For fatal crashes, 78% were on dry roads, 10% were on wet roads, and 10% were on snowy or icy roads. For nonfatal crashes, 67% were on dry roads, 14% on wet roads, and 16% 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 2004, 366 (70%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. And, 387 (74%) of all fatal crashes occurred on trunk or county state aid highways, and 286 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 2004, 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: A full 29% 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 (10%).

As a general rule, harsh winter weather results in more, but less severe, traffic crashes. In other words, there are more 'fender-benders' during icy and snowy conditions, but more fatal and severe injury crashes in the dry and warm summer/fall months. The year 2004 followed this axiom, as the early part of the year produced actual winter like weather unlike the previous two years. This helped reduce the number of fatalities for 2004 a full 13% 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.

Thus, 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 - 2004

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
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	NA	655	NA	3.79	4.56	5.09	55.4	NA	NA	NA	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

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
1999 - 2004

	1999	2000	2001	2002	2003	2004	Record High	
Total Crashes	96,813	103,591	98,984	94,969	NA	91,274	123,106	(1975)
Fatal Crashes	567	557	508	590	583	520	878	(1973)
Injury Crashes	30,279	30,830	29,273	28,140	NA	28,066	33,686	(1978)
Severe	2,677	2,471	2,274	2,226	NA	1,937	5,109	(1984) ¹
Moderate	11,352	11,445	10,851	10,460	NA	9,257	12,326	(1985) ¹
Minor	16,250	16,914	16,148	15,454	NA	16,872	18,578	(1996) ¹
Property Damage Crashes	65,967	72,204	69,203	66,239	NA	62,688	94,810	(1975)
Total Injuries	44,538	44,740	42,223	40,677	NA	40,073	50,332	(1978)
Severe	3,460	3,174	2,949	2,807	NA	2,424	6,573	(1984) ¹
Moderate	16,002	15,903	14,861	14,485	NA	12,416	17,670	(1985) ¹
Minor	25,076	25,663	24,413	23,385	NA	25,233	28,631	(1996) ¹
Total Fatalities	626	625	568	657	655	567	1,060	(1968)
Pedestrian	51	41	46	50	52	37	157	(1971)
Motor Vehicle/Train ²	10	4	6	9	5	13	62	(1932)
Bicycle	8	14	7	7	6	10	24	(1977)
Motorcycle	29	35	42	47	62	50	121	(1980)
All Terrain Vehicle	7	5	4	1	4	4	9	(1986)
Snowmobile	8	5	3	2	2	1	9	(1984)
Motor Vehicle Occupants	516	520	460	544	526	461	544	(2002) ¹
Minnesota Fatality Rate³	1.24	1.19	1.07	1.21	1.18	1.00	23.6	(1934)
U.S. Fatality Rate³	1.5	1.6	1.5	1.5	1.5	1.5	18.0	(1925)
Minnesota Economic Loss (millions)	\$1,635	\$1,680	\$1,619	\$1,712	NA	\$1,769	\$1,769	(2004)⁴

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

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

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

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

TABLE 1.03

2004 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	22	56	32	29	36	18	32	225
		Female	0	25	14	13	13	12	13	21	111
	Passenger	Male	10	16	16	4	7	6	4	6	70
		Female	5	14	9	5	5	2	3	12	55
Motorcycle	Operator	Male	0	3	10	7	15	6	1	1	43
		Female	0	0	0	1	2	0	0	0	3
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	1	2	1	0	0	4
Motor scooter or Moped	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
All Terrain Vehicle	Driver	Male	0	0	0	0	0	0	1	2	3
		Female	0	0	0	0	1	0	0	0	1
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	0	0
Snowmobile	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
Other Motor Vehicle	Driver	Male	0	0	0	0	0	0	0	1	1
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	1	0	0	0	0	0	0	0	1
Bicyclist		Male	0	3	0	1	0	1	2	0	7
		Female	1	1	0	0	1	0	0	0	3
Pedestrian		Male	0	7	7	5	1	2	3	5	30
		Female	1	2	0	0	0	1	0	3	7
Total Fatalities		Male	10	51	90	49	53	52	29	47	381
		Female	8	42	23	20	24	16	17	36	186
		Unk	0	0	0	0	0	0	0	0	0
	Total		18	93	113	69	77	68	46	83	567

TABLE 1.04

AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2004 CRASHES

Age Group	Persons Killed			Persons Injured			
	Male	Female	Total	Male	Female	Unknown	Total
0 - 3	4	3	7	264	226	0	490
4 - 10	6	6	12	640	600	4	1,244
11 - 14	7	7	14	545	535	5	1,085
Total Under 15	17	16	33	1,449	1,361	9	2,819
15	0	2	2	267	317	2	586
16	4	11	15	613	876	3	1,492
17	12	8	20	660	835	2	1,497
18	13	8	21	708	776	5	1,489
19	15	5	20	662	695	3	1,360
20	9	2	11	612	619	2	1,233
Total 15 - 20	53	36	89	3,522	4,118	17	7,657
Total Under 21	70	52	122	4,971	5,479	26	10,476
0 - 4	4	5	9	354	301	0	655
5 - 9	6	3	9	451	430	4	885
10 - 14	7	8	15	644	630	5	1,279
15 - 19	44	34	78	2,910	3,499	15	6,424
20 - 24	60	11	71	2,890	2,788	10	5,688
25 - 29	29	13	42	1,826	1,856	6	3,688
30 - 34	22	10	32	1,496	1,639	2	3,137
35 - 39	27	10	37	1,474	1,495	1	2,970
40 - 44	23	14	37	1,547	1,623	3	3,173
45 - 49	30	10	40	1,259	1,467	7	2,733
50 - 54	36	8	44	1,043	1,215	2	2,260
55 - 59	16	8	24	849	922	3	1,774
60 - 64	18	9	27	532	617	1	1,150
65 - 69	12	7	19	375	418	0	793
70 - 74	7	8	15	336	356	0	692
75 - 79	16	10	26	270	346	0	616
80 - 84	11	14	25	189	240	2	431
85 & Older	13	4	17	153	163	0	316
Not Stated	0	0	0	426	611	372	1,409
Total	381	186	567	19,024	20,616	433	40,073

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 2004 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	91	37	0	128
15	0	3	0	3	193	153	2	348
16	8	18	0	26	2,733	2,523	2	5,258
17	9	13	0	22	2,971	2,772	1	5,744
18	12	13	0	25	3,286	2,583	16	5,885
19	30	8	0	38	3,074	2,406	7	5,487
20	15	4	0	19	2,821	2,120	10	4,951
Total Under 21	75	59	0	134	15,169	12,594	38	27,801
0 - 4	0	0	0	0	7	3	0	10
5 - 9	0	0	0	0	7	2	0	9
10 - 14	1	0	0	1	77	32	0	109
15 - 19	59	55	0	114	12,257	10,437	28	22,722
20 - 24	78	20	0	98	13,080	9,847	42	22,969
25 - 29	51	19	0	70	9,490	6,849	27	16,366
30 - 34	50	19	0	69	8,267	5,973	18	14,258
35 - 39	55	16	0	71	7,966	5,823	6	13,795
40 - 44	46	20	0	66	8,465	5,947	14	14,426
45 - 49	54	19	0	73	7,190	5,247	14	12,451
50 - 54	52	9	0	61	6,098	4,180	11	10,289
55 - 59	37	14	0	51	4,622	2,967	6	7,595
60 - 64	25	10	0	35	3,060	2,020	6	5,086
65 - 69	14	7	0	21	1,927	1,318	2	3,247
70 - 74	15	10	0	25	1,568	1,072	1	2,641
75 - 79	16	5	0	21	1,302	991	1	2,294
80 - 84	11	10	0	21	875	700	1	1,576
85 & Older	12	5	0	17	518	384	1	903
Not Stated	0	0	5	5	481	186	8,822	9,489
Total	576	238	5	819	87,257	63,978	9,000	160,235

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, 2004

Age Group	Percentage of All Licensed Drivers	Fatal Crashes	Percentage of Drivers in		All Crashes
			Injury Crashes	Property Damage Crashes	
14 & Younger	0.0%	0.1%	0.1%	0.1%	0.1%
15	0.8	0.4	0.3	0.2	0.2
16	1.4	3.2	3.5	3.2	3.3
17	1.6	2.7	3.7	3.5	3.6
18	1.7	3.1	3.8	3.6	3.7
19	1.8	4.6	3.5	3.4	3.4
20	1.9	2.3	3.2	3.0	3.1
Total Under 21	9.3%	16.4%	18.1%	17.0%	17.4%
15 - 19	7.4%	13.9%	14.8%	13.9%	14.2%
20 - 24	9.4	12.0	14.8	14.1	14.3
25 - 29	8.8	8.6	10.3	10.2	10.2
30 - 34	8.6	8.4	9.2	8.8	8.9
35 - 39	9.1	8.7	8.9	8.5	8.6
40 - 44	10.5	8.1	9.4	8.8	9.0
45 - 49	10.3	8.9	7.9	7.7	7.8
50 - 54	9.0	7.4	6.5	6.4	6.4
55 - 59	7.3	6.2	4.8	4.7	4.7
60 - 64	5.4	4.3	3.2	3.1	3.2
65 - 69	4.1	2.6	2.1	2.0	2.0
70 - 74	3.4	3.0	1.8	1.6	1.6
75 - 79	3.0	2.6	1.5	1.4	1.4
80 - 84	2.2	2.6	1.1	0.9	1.0
85 & Older	1.6	2.1	0.6	0.5	0.6
Age Not Stated	0.0	0.6	3.0	7.3	5.9
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number	3,851,856				

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, 2004

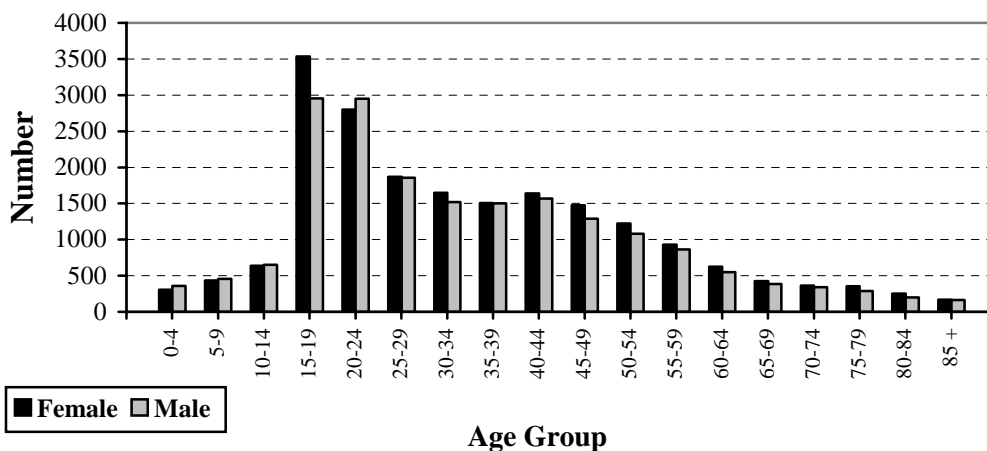


FIGURE 1.02
Licensed vs Crash-Involved Drivers by Age, 2004

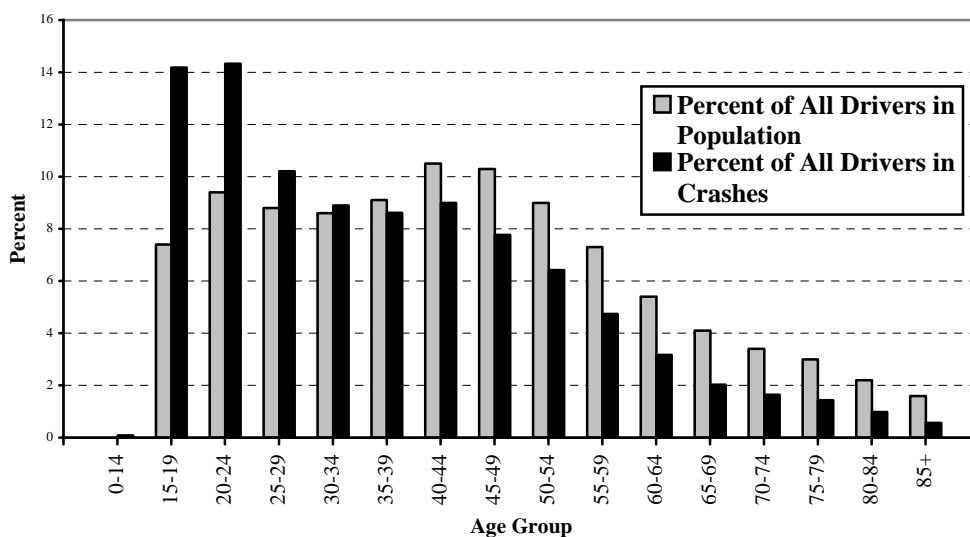


TABLE 1.07

**PERCENTAGE OF DRIVERS IN 2004 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 +	
Collision With:								
Other Motor Vehicle	76.2%	77.5%	80.0%	81.5%	81.6%	84.0%	82.6%	79.0%
Parked Motor Vehicle	3.3	3.0	2.5	2.6	2.3	2.6	4.9	3.9
Railroad Train	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.1
Bicycle	0.4	0.5	0.5	0.6	0.7	0.6	0.7	0.6
Pedestrian	0.5	0.5	0.6	0.5	0.5	0.5	0.7	0.6
Deer	1.6	2.4	2.9	3.1	4.4	3.1	1.3	3.1
Other Animal	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.2
Fixed Object	10.0	9.4	7.6	6.5	5.3	5.0	5.8	7.0
Other Object	0.7	0.7	0.8	0.8	0.7	0.6	0.6	0.7
Non-Collision:								
Overturn	5.0	3.9	3.1	2.6	2.5	1.5	1.1	3.0
Other Non-Collision	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.4
Other or Unknown	1.7	1.5	1.2	1.3	1.3	1.2	1.4	1.4
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0
Total Drivers	22,670	22,920	16,338	14,219	63,487	8,159	2,483	159,812

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 2004 CRASHES BY PHYSICAL CONDITION*

Physical Condition	Drivers in Fatal Crashes	Drivers in Injury Crashes	Drivers in Property Damage Crashes	Drivers in All Crashes
Normal	479	40,833	80,432	121,744
Under the Influence	46	1,631	1,494	3,171
Had Been Drinking	47	831	692	1,570
Commercial Driver > .04	0	12	24	36
Had Been Using Drugs	5	85	54	144
Aggressive	1	30	45	76
Fatigued/Asleep	11	346	341	698
Ill	0	101	56	157
Physical Disability	3	52	46	101
Other	10	210	164	384
Unknown	217	6,023	25,912	32,152
Total	819	50,154	109,260	160,233

* 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, 2004**

Contributing Factor	Age Group							All Ages
	15-19	20-24	25-29	30-34	35-64	65-79	80+	
Human Factors								
Illegal/Unsafe Speed	26.6%	29.2%	28.4%	26.6%	22.3%	13.5%	12.0%	25.8%
Driver Inattention/Distraction	14.8	13.7	14.0	13.4	14.6	23.4	22.3	14.5
Chemical Impairment	5.1	12.9	12.3	11.8	9.3	2.8	0.4	9.1
Overcorrecting	7.8	5.7	5.4	5.8	5.6	5.2	5.2	6.0
Driver Inexperience	16.1	4.4	2.3	2.6	1.6	0.6	0.8	5.9
Improper/Unsafe Lane Use	2.4	2.8	3.2	2.5	2.6	3.1	5.2	2.9
Improper Turn	0.7	0.9	0.6	1.1	1.1	2.0	2.0	1.0
Driving Left of Center--Not Passing	0.6	0.8	0.6	0.7	0.8	1.1	2.0	0.8
Vision Obscured	0.5	0.2	0.5	0.5	0.9	0.8	3.2	0.6
Disregard for Traffic Control Device	0.4	0.6	0.4	0.6	0.7	1.0	3.6	0.6
Following Too Closely	0.2	0.5	0.5	0.2	0.6	0.4	0.0	0.4
Unsafe Backing	0.2	0.3	0.2	0.5	0.4	0.6	2.0	0.4
Failure to Yield Right of Way	0.3	0.3	0.3	0.5	0.4	1.0	2.4	0.4
Improper Passing/Overtaking	0.4	0.4	0.4	0.2	0.3	0.1	0.0	0.3
Improper Parking/Starting/Stopping	0.0	0.2	0.1	0.3	0.3	0.3	1.6	0.2
Driver on Cell Phone or CB Radio	0.2	0.4	0.3	0.2	0.1	0.6	0.0	0.2
Impeding Traffic	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Failure To Use Lights	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0
Other Human Factors	3.2	3.8	4.6	3.4	5.4	13.4	16.3	4.6
Vehicular Factors								
Skidding	7.5	6.4	7.1	9.0	9.4	7.3	4.0	7.8
Defective Equipment	0.9	1.4	0.8	1.5	1.3	2.1	0.8	1.2
Other Vehicular Factor	0.8	0.9	1.3	1.2	1.8	1.4	0.0	1.2
Miscellaneous Factors								
Weather	7.5	10.3	11.0	11.9	14.1	12.2	9.6	10.8
Other	3.6	3.7	5.3	5.4	6.3	7.0	6.8	4.9
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	5,461	4,652	2,641	1,823	6,918	710	251	23,089
Drivers for Whom There Was								
"No Clear Contributing Factor"	480	611	483	420	2,316	208	33	4,621
Total Number of Drivers	4,087	3,833	2,380	1,813	8,213	854	227	22,362

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, 2004**

Contributing Factor	Age Group							All Ages
	15-19	20-24	25-29	30-34	35-64	65-79	80 +	
Human Factors								
Driver Inattention or Distraction	26.3%	26.5%	24.9%	25.0%	25.2%	24.7%	21.9%	25.0%
Failure to Yield Right of Way	18.8	15.5	15.9	15.8	17.8	29.5	36.3	18.2
Following Too Closely	10.9	13.2	13.4	13.4	11.9	6.5	4.9	11.6
Illegal or Unsafe Speed	9.0	11.0	10.4	8.9	7.4	3.1	2.1	8.6
Improper or Unsafe Lane Use	3.5	4.6	5.2	5.2	5.5	6.0	5.7	5.4
Disregard of Traffic Control Device	3.7	4.5	5.1	4.3	4.6	6.3	6.7	4.7
Improper Turn	2.2	2.1	2.4	2.1	2.6	4.0	3.7	2.6
Vision Obscured	2.3	2.1	2.0	2.3	2.6	3.6	3.8	2.4
Driver Inexperience	7.6	1.8	1.1	0.9	0.6	0.1	0.1	2.2
Chemical Impairment	0.7	3.0	3.0	2.5	2.4	0.6	0.2	2.0
Improper Passing or Overtaking	1.3	1.7	1.4	1.7	1.5	1.5	1.3	1.6
Unsafe Backing	1.0	0.9	1.2	1.7	2.1	1.8	1.5	1.6
Improper Parking, Starting, or Stopping	1.0	0.9	1.1	1.2	1.3	1.2	2.1	1.2
Driving Left of Center (Not Passing)	0.9	0.9	0.8	0.8	0.9	0.9	0.8	0.9
Overcorrecting	0.7	0.8	0.7	0.6	0.6	0.4	0.3	0.6
Impeding Traffic	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
Improper or No Signal	0.3	0.2	0.2	0.3	0.3	0.4	0.2	0.2
Driver on Cell Phone or CB Radio	0.3	0.3	0.3	0.2	0.2	0.0	0.0	0.2
Failure To Use Lights	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1
Other Human Factors	1.0	1.4	1.4	1.5	1.7	2.4	4.0	1.5
Vehicular Factors								
Skidding	2.6	2.3	2.6	2.7	2.5	1.4	0.8	2.3
Defective Equipment	0.8	0.7	0.6	0.5	0.6	0.4	0.1	0.6
Other Vehicular Factor	0.4	0.4	0.4	0.4	0.6	0.2	0.0	0.4
Miscellaneous Factors								
Weather	3.0	3.0	3.6	4.5	4.0	2.5	1.7	3.4
Other	1.6	2.1	2.2	2.9	2.8	2.2	1.4	2.3
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	17,065	14,295	8,873	7,249	29,461	4,844	1,911	88,041
Drivers for Whom There Was								
"No Clear Contributing Factor"	5,209	6,719	5,841	5,594	26,102	2,778	583	53,376
Total Number of Drivers	18,634	19,128	13,982	12,439	55,404	7,328	2,259	137,849

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, 2004**

Vehicle Type	Killed	Severe	Injured		Total	Not Injured	Total Persons
			Moder- ate	Minor			
Automobile	271	1,167	6,661	14,939	22,767	100,524	123,562
Pickup Truck	79	300	1,410	2,488	4,198	24,411	28,688
Van	30	166	960	2,386	3,512	19,524	23,066
Sport Utility Vehicle	66	231	1,485	3,220	4,936	25,634	30,636
Motorhome/Camper	0	7	16	8	31	158	189
Taxi Cab	2	4	41	101	146	597	745
Police Vehicle	1	4	44	117	165	618	784
Fire Department Vehicle	0	0	4	9	13	132	145
School Bus	0	1	13	114	128	5,093	5,221
Other Bus	0	1	15	50	66	1,325	1,391
Ambulance	0	1	8	16	25	121	146
Military Vehicle	0	0	2	5	7	30	37
Snowmobile	1	7	11	11	29	19	49
All Terrain Vehicle	4	13	17	12	42	21	67
Farm Tractor or Equipment	2	2	6	9	17	151	170
Motorcycle*	50	230	668	349	1,247	240	1,537
Motor scooter/Motorbike*	2	11	27	14	52	4	58
Motorized Bicycle (Moped)*	0	1	7	5	13	7	20
Hit and Run Vehicle	0	6	45	78	129	4,643	4,772
Road Maintenance Vehicle	0	1	10	29	40	646	686
Other Public Owned Vehicle	3	0	6	29	35	236	274
Single Truck (2-axle, 6-tire)	1	3	30	55	88	1,164	1,253
Single Truck (3 or more axles)	2	7	18	46	71	485	558
Single Truck with Trailer	1	3	14	24	41	442	484
Truck Tractor with No Trailer	0	1	3	5	9	109	118
Truck Tractor with Semi Trailer	5	8	61	137	206	2,659	2,870
Truck Tractor with Double Trailers	0	0	1	1	2	40	42
Other or Unknown Truck Type	0	0	5	10	15	311	326
Other or Unknown Motor Vehicle	0	7	41	82	130	3,447	3,577
Bicycle	10	92	411	434	937	54	1,001
Pedestrian	37	150	376	450	976	89	1,102
Total	567	2,424	12,416	25,233	40,073	192,934	233,574

* 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.

TABLE 1.12

DRIVER LICENSE* SUMMARY BY AGE, 1999 - 2004

Age	1999	2000	2001	2002	2003	2004
15	24,944	28,479	27,878	28,880	29,800	31,638
16	52,576	55,792	56,361	55,286	55,614	55,812
17	59,336	60,724	62,068	63,011	61,329	61,286
18	60,177	65,830	64,963	66,876	67,491	66,397
19	67,779	68,697	69,232	68,609	69,792	71,026
20	67,816	69,306	70,351	70,985	69,385	71,513
Under 21	332,629	348,828	350,853	353,647	353,411	357,672
15 – 19	264,812	279,522	280,502	282,662	284,026	286,159
20 – 24	316,452	327,545	339,486	352,022	352,818	361,589
25 – 29	316,642	310,399	309,079	320,420	326,355	339,712
30 – 34	346,159	347,932	344,952	343,933	333,363	330,480
35 – 39	401,755	391,515	377,905	366,661	354,509	350,988
40 – 44	398,519	405,043	408,621	411,413	408,428	403,774
45 – 49	352,585	362,105	368,930	379,702	386,086	395,178
50 – 54	290,428	306,566	316,321	325,664	335,331	345,855
55 – 59	218,555	222,828	238,022	252,631	264,204	280,193
60 – 64	170,263	174,735	180,723	192,074	200,322	208,133
65 – 69	145,284	145,334	146,107	149,272	154,103	158,035
70 – 74	134,225	133,774	133,205	132,368	131,255	131,277
75 – 79	111,888	112,404	111,876	113,370	114,350	114,333
80 – 84	76,147	76,888	78,351	80,361	82,681	84,761
85 & Older	51,903	52,854	51,419	54,940	60,348	61,389
Total	3,595,617	3,649,444	3,685,499	3,757,493	3,788,179	3,851,856

* 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. The 1999 totals for ages 15, 16, and 17 have recently been revised by DVS and are included above.

TABLE 1.13

MOTOR VEHICLE REGISTRATIONS, 1999 - 2004

Type of Vehicle*	1999	2000	2001	2002	2003	2004
Passenger Cars	2,774,170	2,957,883	3,072,081	3,156,906	3,196,960	3,239,418
Pickups	747,650	821,148	866,434	890,648	895,409	902,941
Trucks	172,487	182,469	190,314	194,695	197,952	206,419
Recreational Vehicles	39,569	39,827	39,649	39,584	39,828	39,853
Motorcycles	122,676	132,352	142,822	149,360	161,793	174,195
Motorized Bicycles	5,656	5,819	6,277	6,500	7,493	8,670
School Buses	6,012	6,017	5,926	5,938	5,979	5,989
Buses	4,860	5,018	5,037	5,001	5,058	5,059
Van Pool	315	260	267	246	219	201
Tax Exempt Vehicles	45,476	45,233	48,008	41,271	44,316	47,919
Motor Vehicle Subtotal	3,918,871	4,196,026	4,376,815	4,490,149	4,555,007	4,630,664
Trailers	1,000,730	1,122,330	1,052,751	875,677	1,357,019	1,388,642
Classic Motor Vehicles	116,863	121,934	127,239	132,964	139,784	146,541
Classic Motorcycles	3,314	3,666	4,077	4,599	5,110	5,703
Total Registrations	5,039,778	5,443,956	5,560,882	5,503,389	6,056,920	6,171,550

* 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 2004 CRASHES

Motor Vehicle Type*	Vehicles in			
	Fatal Crashes	Injury Crashes	Property Damage Crashes	All Crashes
Automobile	343	28,534	62,265	91,142
Pickup Truck	148	6,648	15,725	22,521
Van	58	4,282	9,455	13,795
Sport Utility Vehicle	115	6,581	14,354	21,050
Motorhome/Camper	0	30	81	111
Taxicab	3	192	317	512
Police Vehicle	2	196	513	711
Fire Department Vehicle	1	22	54	77
School Bus	3	152	553	708
Other Bus	1	84	226	311
Ambulance	1	18	48	67
Military Vehicle	1	11	17	29
Snowmobile**	1	26	16	43
All Terrain Vehicle**	4	37	15	56
Farm Tractor or Equipment	7	59	73	139
Motorcycle*	54	1,136	177	1,367
Motor scooter/Motorbike*	2	50	3	55
Motorized Bicycle (Moped)*	0	19	1	20
Hit and Run Vehicle	3	686	3,552	4,241
Road Maintenance Vehicle	4	122	515	641
Other Public Owned Vehicle	2	54	160	216
Single Truck (2-axle, 6-tire)	8	300	798	1,106
Single Truck (3 or more axles)	8	178	356	542
Single Truck with Trailer	3	98	263	364
Truck Tractor with No Trailer	0	38	74	112
Truck Tractor with Semi Trailer	45	698	1,966	2,709
Truck Tractor with Double Trailers	0	8	32	40
Other or Unknown Truck Type	3	60	246	309
Other or Unknown Motor Vehicle	2	539	2,670	3,211
Total***	822	50,858	114,525	166,205

* 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.

** 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

2004 CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured	Fatality Rate Per 1,000 Crashes
Collision With:							
Another Motor Vehicle	252	18,308	41,388	59,948	282	28,011	4.7
Parked Motor Vehicle	3	606	4,747	5,356	3	795	0.6
Railroad Train	12	21	39	72	13	27	180.6
Bicycle	10	924	43	977	10	949	10.2
Pedestrian	36	857	21	914	36	924	39.4
Deer	7	407	4,486	4,900	8	489	1.6
Other Animal	0	73	221	294	0	87	0.0
Fixed Object	84	3,314	7,401	10,799	90	4,095	8.3
Non-Collision:							
Overturn	96	2,531	2,033	4,660	105	3,399	22.5
Fire/Explosion	0	11	114	125	0	14	0.0
Submersion	1	15	30	46	1	16	21.7
Other Non-Collision	5	180	247	432	5	214	11.6
Unknown	14	819	1,918	2,751	14	1,053	5.1
Total	520	28,066	62,688	91,274	567	40,073	6.2

TABLE 1.16

2004 "HIT-AND-RUN" CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	2	966	3,078	4,046	2	1,343
Parked Motor Vehicle	0	84	2,178	2,262	0	98
Railroad Train	0	1	1	2	0	1
Bicycle	0	100	6	106	0	101
Pedestrian	5	159	2	166	5	169
Deer	0	1	11	12	0	1
Other Animal	0	0	3	3	0	0
Fixed Object	0	163	913	1,076	0	197
Non-Collision:						
Overturn	1	39	41	81	1	57
Fire/Explosion	0	0	2	2	0	0
Submersion	0	0	1	1	0	0
Other Non-Collision	0	8	2	10	0	11
Unknown	0	41	235	276	0	50
Total	8	1,562	6,473	8,043	8	2,028

TABLE 1.17

2004 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Not Applicable	350	14,824	36,614	51,788	384	20,601
Traffic Signal	30	6,705	12,350	19,085	32	9,741
Overhead Flashers	0	26	70	96	0	41
Stop Sign-All Approaches	3	514	1,265	1,782	3	696
Other Stop Sign	95	4,232	7,246	11,573	104	6,548
Yield Sign	7	510	959	1,476	7	794
Flagman, Officer, or School Patrol	0	18	63	81	0	27
School Bus Stop Arm	0	23	41	64	0	29
School Zone Sign	0	17	24	41	0	25
No Passing Zone	16	218	294	528	17	316
RR Crossing Gate	1	5	37	43	1	6
RR Flashing Lights	0	17	27	44	0	21
RR Crossing Stop Sign	3	4	15	22	3	6
RR Overhead Flashing Lights	0	0	6	6	0	0
RR Overhead Lights and Gate	2	11	27	40	3	14
RR Crossbuck	3	17	23	43	3	20
Other	6	341	1,056	1,403	6	442
Unknown	4	584	2,571	3,159	4	746
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.18

2004 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	303	15,913	33,737	49,953	323	22,825
Cloudy	144	7,831	16,502	24,477	163	11,158
Rain	25	1,797	4,147	5,969	29	2,576
Snow	17	1,381	4,553	5,951	19	1,951
Sleet/Hail/Freezing Rain	7	419	1,056	1,482	7	597
Fog/Smog/Smoke	9	180	331	520	9	246
Blowing Sand/Dust/Snow	5	146	364	515	7	210
Severe Crosswinds	1	30	59	90	1	48
Other	1	65	184	250	1	83
Not Stated/Unknown	8	304	1,755	2,067	8	379
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.19

CONTRIBUTING FACTORS IN 2004 CRASHES

Contributing Factors	Percent of Factors Cited in Crashes by Severity of Crash			Number of Crashes in which the Factor was Cited			Number of People Affected	
	Fatal Crashes	Injury Crashes	Property Damage Crashes	Fatal Crashes	Injury Crashes	Property Damage Crashes	Killed	Injured
Human Factors								
Driver Inattention/Distraction	12.0%	22.7%	22.7%	94	8,642	15,556	100	12,585
Failure to Yield Right of Way	14.0	16.1	13.6	112	6,188	9,406	123	9,666
Illegal/Unsafe Speed	17.2	12.2	12.0	139	4,658	8,296	152	6,768
Following Too Closely	0.5	7.5	10.1	4	2,702	6,593	4	3,890
Improper/Unsafe Lane Use	5.0	3.4	5.7	41	1,326	3,940	44	1,960
Disregard Traf Contr Device	4.2	5.2	3.1	35	2,044	2,222	40	3,314
Driver Inexperience	3.8	3.1	2.9	31	1,194	2,031	34	1,781
Improper Turn	1.7	1.6	2.6	14	628	1,814	15	988
Chemical Impairment	7.4	5.0	2.6	59	1,953	1,812	69	2,779
Vision Obscured	2.4	2.1	1.9	16	769	1,280	18	1,096
Unsafe Backing	0.0	0.3	1.9	0	118	1,316	0	140
Improper Passing/Overtaking	1.1	0.9	1.6	9	350	1,132	13	562
Overcorrecting	4.6	2.1	1.4	38	841	1,025	42	1,215
Improper Park/Start/Stop	0.5	0.9	1.2	4	342	840	5	482
Driving Left of Center (Not Passing)	5.2	1.1	0.7	41	431	512	47	741
Improper or No Signal	0.0	0.1	0.2	0	50	166	0	70
Impeding Traffic	0.2	0.2	0.2	2	92	168	2	126
Driver on Phone or CB Radio	0.2	0.3	0.2	2	109	119	2	159
Non-Motorist Error	1.3	0.6	0.0	11	245	5	11	255
Failure to Use Lights	0.1	0.2	0.1	1	64	51	1	81
Other Human Factor	5.0	2.9	1.9	40	1,098	1,295	40	1,501
Vehicular Factors								
Skidding	3.9	3.0	3.7	31	1,135	2,500	36	1,533
Defective Equipment	0.7	0.7	0.7	6	276	510	7	396
Other Vehicular Factor	0.5	0.5	0.6	3	190	439	3	260
Miscellaneous Factors								
Weather	4.6	4.1	5.4	33	1,384	3,354	38	1,921
Other	3.8	3.1	2.9	29	1,106	1,779	31	1,506
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	824	39,835	71,965					
Vehicles Where There Was "No								
Clear Contributing Factor"	317	20,657	40,624					
Total Number of Vehicles	873	52,776	114,626					

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

2004 CRASHES BY LIGHT CONDITION

Light Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Daylight	304	19,516	41,257	61,077	329	27,984
Dawn (Morning)	14	547	1,544	2,105	14	707
Dusk (Evening)	17	633	1,658	2,308	24	924
Dark/Street Lights On	50	4,263	10,215	14,528	50	6,125
Dark/No Street Lights	132	2,861	6,386	9,379	147	4,014
Other/Unknown	3	246	1,628	1,877	3	319
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.21

2004 CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	408	20,131	40,975	61,514	440	29,025
Wet	51	4,003	9,090	13,144	57	5,703
Snow/Slush	10	1,228	4,398	5,636	11	1,667
Ice or Packed Snow	40	2,106	6,233	8,379	47	2,898
Other	5	424	774	1,203	5	557
Not Stated/Unknown	6	174	1,218	1,398	7	223
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.22

2004 CRASHES BY ROAD DESIGN

Road Design	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Freeway (Including Ramps)	54	3,723	10,357	14,134	59	5,182
Other Divided Highway	75	4,287	7,754	12,116	83	6,438
One-Way Street	1	718	1,168	1,887	1	1,017
4-6 Lanes Undivided	28	4,722	8,396	13,146	28	6,792
3 Lanes	5	343	650	998	5	516
2-Lane--2-Way	339	11,357	21,503	33,199	371	16,317
Alley/Driveway	1	118	371	490	1	128
Other	17	756	1,600	2,373	19	1,085
Not Stated/Unknown	0	2,042	10,889	12,931	0	2,598
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.23

2004 CRASHES BY DIAGRAM

Diagram	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Rear End	19	7,978	17,624	25,621	19	11,460
Sideswipe Passing	13	947	6,986	7,946	14	1,234
Left Turn -- Oncoming Traffic	10	1,651	3,138	4,799	11	2,484
Ran Off Road - Left	72	2,232	3,319	5,623	76	2,909
Right Angle	131	6,575	10,794	17,500	143	10,162
Right Turn -- Cross Street Traffic	1	228	806	1,035	1	304
Ran Off Road - Right	91	3,036	4,735	7,862	99	3,895
Head On	94	1,377	2,591	4,062	107	2,262
Sideswipe Opposing	9	556	1,513	2,078	10	810
Not Applicable	25	954	2,912	3,891	25	1,157
Other / Unknown / Incomplete	55	2,532	8,270	10,857	62	3,396
Total	520	28,066	62,688	91,274	567	40,073

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

2004 CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
100,000 & Over	27	5,254	14,443	19,724	27	7,246
50,000 - 99,999	31	4,465	8,750	13,246	31	6,199
25,000 - 49,999	28	3,550	7,881	11,459	29	4,949
10,000 - 24,999	52	4,338	10,317	14,707	54	6,192
5,000 - 9,999	16	1,725	4,146	5,887	16	2,511
2,500 - 4,999	23	982	2,653	3,658	23	1,365
1,000 - 2,499	8	559	1,515	2,082	11	806
Under 1,000	335	7,193	12,983	20,511	376	10,805
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.25

2004 CRASHES BY TYPE OF ROADWAY

Type of Roadway	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	20	2,346	7,152	9,518	22	3,242
US Trunk Highway	15	1,769	4,066	5,850	15	2,569
MN Trunk Highway	28	2,972	6,683	9,683	29	4,323
County State Aid Highway	58	5,594	10,971	16,623	58	8,027
County Road	3	151	297	451	3	209
Township Road	0	15	21	36	0	20
Local Street	30	6,377	16,011	22,418	30	8,580
Other Road	0	108	336	444	0	127
Total	154	19,332	45,537	65,023	157	27,097
Rural						
Interstate	25	743	1,953	2,721	28	1,081
US Trunk Highway	66	1,609	3,195	4,870	80	2,539
MN Trunk Highway	102	2,161	4,129	6,392	118	3,337
County State Aid Highway	118	2,580	4,315	7,013	124	3,698
County Road	20	427	609	1,056	22	616
Township Road	24	688	1,063	1,775	27	971
Local Street	8	426	1,501	1,935	8	584
Other Road	3	100	386	489	3	150
Total	366	8,734	17,151	26,251	410	12,976
All Roadways						
Interstate	45	3,089	9,105	12,239	50	4,323
US Trunk Highway	81	3,378	7,261	10,720	95	5,108
MN Trunk Highway	130	5,133	10,812	16,075	147	7,660
County State Aid Highway	176	8,174	15,286	23,636	182	11,725
County Road	23	578	906	1,507	25	825
Township Road	24	703	1,084	1,811	27	991
Local Street	38	6,803	17,512	24,353	38	9,164
Other Road	3	208	722	933	3	277
Total	520	28,066	62,688	91,274	567	40,073

("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

2004 COUNTY CRASH REPORT

County	Crashes				Average Crashes 1998-2002	Number Killed 2004	Average Killed 1998-2002	Number Injured 2004	Average Injured 1998-2002
	Fatal	Injury	Property Damage	Total					
Aitkin	10	90	197	297	318	10	5	145	131
Anoka	27	1,522	2,726	4,275	4,720	28	26	2,191	2,502
Becker	4	168	215	387	378	4	8	272	229
Beltrami	6	232	507	745	782	7	6	370	352
Benton	5	203	370	578	650	5	10	302	351
Big Stone	2	32	51	85	87	4	1	52	35
Blue Earth	6	373	945	1,324	1,343	7	8	547	517
Brown	3	120	255	378	450	4	3	176	199
Carlton	6	141	248	395	404	7	7	207	208
Carver	4	382	848	1,234	1,140	4	12	560	526
Cass	6	151	237	394	452	7	13	231	290
Chippewa	2	70	63	135	169	3	2	108	99
Chisago	4	307	556	867	826	4	9	447	413
Clay	6	225	631	862	912	7	10	324	363
Clearwater	2	33	39	74	103	2	5	48	57
Cook	0	28	88	116	137	0	2	37	65
Cottonwood	3	40	85	128	168	3	3	66	82
Crow Wing	6	372	781	1,159	1,190	6	13	533	611
Dakota	29	1,791	3,678	5,498	5,627	33	27	2,557	2,516
Dodge	4	83	139	226	260	4	5	138	134
Douglas	9	230	521	760	880	11	5	346	338
Faribault	0	73	118	191	178	0	2	132	98
Fillmore	3	88	207	298	310	4	4	121	145
Freeborn	9	194	506	709	760	9	6	292	312
Goodhue	4	275	710	989	1,019	4	10	381	441
Grant	2	32	45	79	103	2	2	38	47
Hennepin	48	7,585	17,607	25,240	28,292	48	58	10,448	11,539
Houston	4	89	237	330	324	4	3	122	138
Hubbard	6	80	162	248	256	6	6	123	157
Isanti	4	184	393	581	594	4	5	271	304
Itasca	8	263	458	729	704	10	8	406	353
Jackson	0	66	111	177	187	0	3	96	94
Kanabec	4	75	122	201	247	4	6	131	139
Kandiyohi	12	239	486	737	785	14	8	366	447

TABLE 1.26 CONTINUED

2004 COUNTY CRASH REPORT

County	Crashes			Total	Average Crashes 1998-2002	Number Killed 2004	Average Killed 1998-2002	Number Injured 2004	Average Injured 1998-2002
	Fatal	Injury	Property Damage						
Kittson	1	12	30	43	86	1	1	16	21
Koochiching	2	57	115	174	167	3	1	84	108
Lac Qui Parle	2	19	39	60	72	2	1	30	41
Lake	2	55	141	198	212	3	2	77	95
Lake of the Woods	0	16	52	68	51	0	2	22	21
Le Sueur	3	149	321	473	460	3	6	216	222
Lincoln	1	24	68	93	103	1	2	31	36
Lyon	4	101	247	352	407	6	4	144	202
McLeod	2	171	427	600	630	2	6	267	310
Mahnomen	1	20	42	63	71	1	3	37	52
Marshall	0	28	35	63	88	0	3	43	45
Martin	5	100	199	304	355	5	4	147	164
Meeker	4	104	186	294	312	4	5	156	185
Mille Lacs	6	156	263	425	410	7	6	240	257
Morrison	12	120	289	421	484	13	10	187	269
Mower	1	178	491	670	699	1	6	238	276
Murray	2	33	58	93	125	2	1	47	56
Nicollet	0	129	332	461	495	0	3	172	188
Nobles	3	91	238	332	388	4	5	130	166
Norman	2	27	63	92	90	2	2	51	42
Olmsted	15	873	1,611	2,499	2,322	15	19	1,215	1,184
Otter Tail	8	291	525	824	933	9	12	430	455
Pennington	4	63	121	188	205	4	3	92	128
Pine	5	167	240	412	533	7	8	259	291
Pipestone	4	39	51	94	126	4	3	68	66
Polk	3	127	274	404	442	7	5	183	208
Pope	3	44	66	113	146	3	2	68	66
Ramsey	21	3,216	9,824	13,061	13,823	22	30	4,420	5,044
Red Lake	1	14	31	46	58	1	2	19	20
Redwood	0	80	120	200	206	0	3	121	121
Renville	4	59	92	155	231	4	6	99	134
Rice	8	318	662	988	1,126	9	13	439	560
Rock	2	48	149	199	230	2	2	71	82

TABLE 1.26 CONTINUED

2004 COUNTY CRASH REPORT

County	Crashes			Total	Average Crashes 1998-2002	Number Killed 2004	Average Killed 1998-2002	Number Injured 2004	Average Injured 1998-2002
	Fatal	Injury	Property Damage						
Roseau	2	45	113	160	195	2	4	70	88
St. Louis	20	944	1,589	2,553	2,678	21	27	1,384	1,504
Scott	17	468	901	1,386	1,491	19	16	718	742
Sherburne	14	396	932	1,342	1,147	14	10	612	566
Sibley	1	66	129	196	214	1	2	89	103
Stearns	18	861	1,407	2,286	2,413	20	18	1,214	1,350
Steele	10	173	593	776	756	12	5	271	236
Stevens	1	23	74	98	117	1	1	36	57
Swift	1	34	60	95	101	1	2	45	58
Todd	9	115	192	316	403	11	5	184	178
Traverse	0	7	17	24	34	0	1	9	15
Wabasha	2	111	227	340	339	2	6	155	160
Wadena	1	64	104	169	218	1	3	79	112
Waseca	1	89	153	243	297	1	3	123	152
Washington	18	956	2,392	3,366	3,163	18	13	1,321	1,367
Watonwan	4	32	109	145	165	4	1	45	66
Wilkin	1	39	94	134	148	1	2	52	65
Winona	6	275	757	1,038	1,086	6	10	369	420
Wright	14	555	1,021	1,590	1,477	15	12	814	783
Yellow Medicine	1	43	72	116	156	1	4	68	82
Unknown	0	5	8	13	20	0	0	12	8
Minnesota Total	520	28,066	62,688	91,274	97,456	567	625	40,073	43,458

TABLE 1.27

2004 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
Afton	2	10	12	24	2	17
Albert Lea	3	99	250	352	3	159
Albertville	1	28	72	101	1	40
Alexandria	0	91	234	325	0	132
Andover	2	89	136	227	2	132
Annandale	0	2	12	14	0	3
Anoka	0	130	342	472	0	153
Apple Valley	1	191	301	493	1	273
Arden Hills	0	125	351	476	0	164
Aurora	0	6	10	16	0	10
Austin	0	93	282	375	0	112
Baxter	0	56	154	210	0	75
Bayport	0	5	17	22	0	8
Baytown Township	0	9	27	36	0	16
Becker	0	13	31	44	0	17
Belle Plaine	1	15	42	58	1	18
Bemidji	1	102	263	366	1	151
Benson	1	10	25	36	1	14
Big Lake	0	19	70	89	0	29
Blaine	4	257	305	566	4	397
Bloomington	5	633	1,595	2,233	5	835
Blue Earth	0	14	40	54	0	21
Brainerd	1	117	304	422	1	163
Breckenridge	0	6	46	52	0	6
Brooklyn Center	3	279	564	846	3	390
Brooklyn Park	2	395	405	802	2	562
Buffalo	0	76	176	252	0	103
Burnsville	5	360	714	1,079	5	489
Byron	0	10	11	21	0	12
Caledonia	0	8	29	37	0	9
Cambridge	0	53	138	191	0	80
Cannon Falls	0	13	65	78	0	16
Centerville	0	2	12	14	0	3
Champlin	1	68	148	217	1	91
Chanhassen	0	110	290	400	0	154
Chaska	1	79	195	275	1	105
Chisago City	0	16	22	38	0	27
Chisholm	0	13	33	46	0	20
Circle Pines	0	14	14	28	0	20
Cloquet	1	48	61	110	1	81
Cokato	0	5	8	13	0	6
Cold Spring	0	12	39	51	0	14
Columbia Heights	1	51	123	175	1	66
Coon Rapids	1	382	734	1,117	1	544
Corcoran	1	19	46	66	1	28
Cottage Grove	2	91	272	365	2	118
Crookston	0	21	58	79	0	26

TABLE 1.27

2004 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
Crystal	1	92	132	225	1	141
Dayton	1	27	54	82	1	38
Deephaven	0	6	7	13	0	8
Delano	0	21	33	54	0	23
Denmark Township	1	16	39	56	1	22
Detroit Lakes	0	52	79	131	0	76
Dilworth	1	9	25	35	1	17
Duluth	3	340	445	788	3	488
Eagan	2	303	726	1,031	2	428
East Bethel	0	50	42	92	0	68
East Grand Forks	0	24	83	107	0	40
Eden Prairie	1	215	639	855	1	299
Edina	2	199	495	696	2	254
Elk River	3	120	272	395	3	183
Ely	0	9	38	47	0	11
Eveleth	1	14	35	50	1	19
Fairmont	2	52	97	151	2	75
Falcon Heights	0	19	59	78	0	27
Faribault	1	116	192	309	1	167
Farmington	1	36	82	119	1	51
Fergus Falls	1	63	181	245	1	92
Forest Lake	1	136	278	415	1	191
Fridley	2	147	233	382	2	206
Gilbert	0	6	15	21	0	12
Glencoe	0	21	62	83	0	33
Glenwood	1	2	23	26	1	4
Golden Valley	0	169	451	620	0	225
Goodview	1	7	20	28	1	10
Grand Rapids	0	82	178	260	0	141
Granite Falls	0	6	16	22	0	13
Grant	3	10	23	36	3	12
Greenfield	0	14	33	47	0	22
Ham Lake	3	70	102	175	3	95
Hastings	1	91	239	331	1	140
Hermantown	1	55	83	139	1	91
Hibbing	1	109	263	373	1	151
Hopkins	0	94	185	279	0	119
Hugo	3	23	52	78	3	32
Hutchinson	1	67	182	250	1	114
Independence	0	20	48	68	0	25
International Falls	0	35	62	97	0	51
Inver Grove Heights	2	163	294	459	2	222
Jackson	0	12	30	42	0	22
Jordan	0	9	34	43	0	13

TABLE 1.27

2004 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
Kasson	0	13	32	45	0	20
La Crescent	0	19	53	72	0	22
Lake City	0	19	64	83	0	36
Lake Elmo	0	57	150	207	0	88
Lakeville	3	155	229	387	4	221
Le Sueur	0	9	39	48	0	13
Lindstrom	0	13	51	64	0	21
Lino Lakes	2	69	204	275	2	105
Litchfield	0	20	75	95	0	33
Little Canada	1	134	310	445	1	186
Little Falls	2	22	82	106	2	30
Long Prairie	0	6	21	27	0	8
Luverne	0	12	58	70	0	19
Mahtomedi	0	13	28	41	0	18
Mankato	0	255	647	902	0	360
Maple Grove	2	246	610	858	2	342
Maplewood	2	273	744	1,019	2	385
Marshall	0	34	138	172	0	51
May Township	0	11	26	37	0	16
Medina	0	24	74	98	0	32
Melrose	0	12	20	32	0	15
Mendota Heights	0	72	163	235	0	107
Minneapolis	16	3,519	8,369	11,904	16	4,891
Minnetonka	2	254	460	716	2	370
Minnetrista	0	25	42	67	0	29
Montevideo	0	22	38	60	0	34
Monticello	1	54	127	182	1	78
Moorhead	0	126	417	543	0	174
Mora	0	24	29	53	0	34
Morris	0	9	42	51	0	12
Mound	0	13	38	51	0	13
Mounds View	0	48	114	162	0	64
Mountain Iron	1	20	37	58	1	29
New Brighton	2	80	211	293	2	104
New Hope	1	76	95	172	1	108
Newport	0	61	200	261	0	85
New Prague	0	14	29	43	0	23
New Scandia	1	22	50	73	1	31
Twinsp						
New Ulm	1	62	158	221	1	91
North Branch	1	61	119	181	1	83
Northfield	0	36	107	143	0	55
North Mankato	0	28	87	115	0	36
North Oaks	0	5	20	25	0	9
North St. Paul	0	62	123	185	0	87
Oakdale	0	96	252	348	0	132

TABLE 1.27

2004 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
Oak Park Heights	2	20	64	86	2	25
Olivia	0	2	10	12	0	2
Orono	0	48	103	151	0	66
Otsego	0	48	61	109	0	76
Owatonna	1	91	363	455	1	134
Park Rapids	0	9	19	28	0	13
Pine City	0	14	23	37	0	19
Pipestone	1	10	18	29	1	16
Plainview	0	2	6	8	0	2
Plymouth	4	256	703	963	4	340
Princeton	0	22	64	86	0	29
Prior Lake	0	54	37	91	0	88
Proctor	1	5	25	31	1	5
Ramsey	4	105	195	304	5	165
Red Wing	1	105	312	418	1	136
Redwood Falls	0	25	57	82	0	40
Richfield	2	267	606	875	2	367
Robbinsdale	1	70	128	199	1	101
Rochester	3	618	1,139	1,760	3	843
Rockford	0	12	33	45	0	21
Rogers	0	45	128	173	0	67
Roseau	0	6	26	32	0	6
Rosemount	1	82	185	268	1	127
Roseville	2	264	646	912	2	377
St. Anthony	0	16	58	74	0	25
St. Augusta Twnshp	2	32	59	93	2	47
St. Charles	0	9	20	29	0	14
St. Cloud	1	463	580	1,044	1	659
St. Francis	0	14	44	58	0	18
St. James	1	8	41	50	1	11
St. Joseph	0	14	38	52	0	25
St. Louis Park	0	232	645	877	0	316
St. Michael	1	38	77	116	1	48
St. Paul	11	1,735	6,074	7,820	11	2,355
St. Paul Park	0	11	38	49	0	14
St. Peter	0	26	88	114	0	31
Sartell	0	19	29	48	0	25
Sauk Centre	0	15	43	58	0	23
Sauk Rapids	0	36	70	106	0	51
Savage	3	90	179	272	3	126
Shakopee	2	139	327	468	2	222
Shoreview	0	120	280	400	0	159
Shorewood	0	25	57	82	0	30
Sleepy Eye	0	12	18	30	0	16

TABLE 1.27

2004 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
South St. Paul	2	93	293	388	2	129
Spring Lake Park	0	49	66	115	0	76
Spring Valley	0	5	21	26	0	7
Staples	0	14	42	56	0	16
Stewartville	0	12	20	32	0	19
Stillwater	0	51	231	282	0	72
Stillwater Township	1	13	28	42	1	18
Thief River Falls	1	36	86	123	1	50
Two Harbors	0	9	34	43	0	11
Vadnais Heights	1	112	295	408	1	168
Victoria	0	25	47	72	0	35
Virginia	0	61	102	163	0	80
Waconia	0	18	56	74	0	35
Wadena	0	30	47	77	0	34
Waite Park	1	67	158	226	1	91
Waseca	0	28	62	90	0	32
Watertown	0	3	18	21	0	4
Wayzata	0	36	131	167	0	50
W. Lakeland Twmsp	1	15	39	55	1	20
West St. Paul	0	97	160	257	0	138
White Bear Lake	2	179	448	629	3	252
White Bear Twmsp	0	22	50	72	0	28
Willmar	1	131	321	453	1	192
Windom	0	15	33	48	0	23
Winona	1	123	398	522	1	166
Woodbury	0	223	417	640	0	300
Worthington	2	44	147	193	2	65
Wyoming	0	22	38	60	0	29
Zimmerman	2	12	51	65	2	22

TABLE 1.28

2004 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	1,696	17	301	6	202	1	173	1	188	0	228	3	240	3	364	3
1:00	1,698	23	378	4	163	3	158	3	156	1	219	2	238	4	386	6
2:00	1,653	16	387	4	159	1	121	1	150	3	199	4	248	0	389	3
3:00	1,168	11	226	2	104	0	130	1	111	1	134	1	207	1	256	5
4:00	1,017	6	172	3	139	0	136	0	120	0	113	0	168	0	169	3
5:00	1,512	9	151	1	213	0	206	2	227	3	226	2	290	0	199	1
6:00	2,746	14	160	0	478	3	428	3	480	2	475	1	486	3	239	2
7:00	5,190	25	232	1	905	3	917	5	915	4	977	4	935	6	309	2
8:00	4,793	16	291	2	867	2	786	3	818	5	763	3	845	0	423	1
9:00	3,884	12	335	3	676	1	575	1	547	0	527	3	747	3	477	1
10:00	4,038	21	393	1	847	9	490	4	485	0	537	2	709	1	577	4
11:00	4,734	25	462	4	913	1	656	6	583	3	604	2	846	3	670	6
Noon	5,116	29	609	3	792	4	709	4	681	8	641	3	936	3	748	4
1:00	4,788	31	530	1	692	4	629	6	667	1	641	3	906	5	723	11
2:00	5,665	30	550	5	887	7	810	4	838	5	832	3	1,073	2	675	4
3:00	6,988	31	579	3	1,056	3	1,122	2	1,096	3	1,162	8	1,334	9	639	3
4:00	7,113	34	594	8	1,081	5	1,154	1	1,139	2	1,171	6	1,318	7	656	5
5:00	7,358	28	591	3	1,083	6	1,215	5	1,348	2	1,218	1	1,247	3	656	8
6:00	5,122	33	564	7	672	5	714	2	782	2	857	6	894	7	639	4
7:00	3,516	31	467	5	438	2	468	3	465	6	520	4	677	4	481	7
8:00	2,872	22	373	1	393	4	360	7	410	2	430	0	487	6	419	2
9:00	2,941	19	357	2	357	2	392	5	412	2	440	2	548	2	435	4
10:00	2,487	19	297	2	284	0	295	2	343	1	340	5	501	3	427	6
11:00	1,936	18	262	1	196	1	195	1	194	2	254	2	409	5	426	6
Unknown	1,243	0	140	0	181	0	165	0	175	0	177	0	225	0	180	0
Total	91,274	520	9,401	72	13,778	67	13,004	72	13,330	58	13,685	70	16,514	80	11,562	101

FIGURE 1.03
Total Crashes vs Fatal Crashes, by Time, 2004

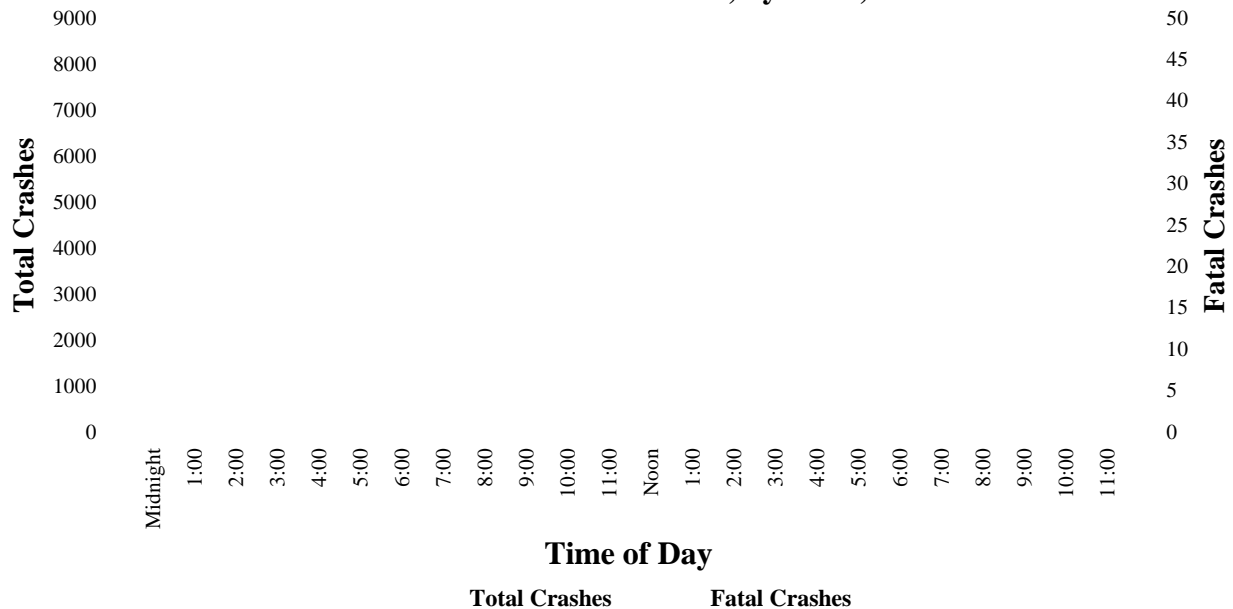


TABLE 1.29

2004 CRASHES, FATALITIES, AND INJURIES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	35	2,398	7,096	9,529	41	3,279
February	23	2,056	6,298	8,377	27	2,902
March	29	1,899	4,455	6,383	33	2,741
April	47	2,003	3,777	5,827	50	2,865
May	41	2,315	4,348	6,704	46	3,299
June	48	2,542	5,172	7,762	49	3,723
July	55	2,509	4,683	7,247	56	3,662
August	60	2,533	4,491	7,084	63	3,740
September	43	2,433	4,433	6,909	47	3,482
October	38	2,497	5,213	7,748	46	3,512
November	48	2,284	6,005	8,337	55	3,257
December	53	2,597	6,717	9,367	54	3,611
Total	520	28,066	62,688	91,274	567	40,073

TABLE 1.30

HOLIDAY CRASH SUMMARY, 1999 - 2004

Holiday Period	Year	Hours*	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Memorial Day	1999	78	5	215	375	595	8	347
(For 2004, the holiday	2000	78	4	215	441	660	4	327
period was 6 PM Fri.,	2001	78	7	169	388	564	7	260
May 28 - midnight	2002	78	6	208	387	601	7	297
Monday, May 31.)	2003	78	6	NA	NA	NA	6	NA
	2004	78	6	194	362	562	9	283
July 4th	1999	78	5	236	376	617	6	358
(For 2004, the holiday	2000	102	12	302	524	838	14	503
period was 6 PM Fri.,	2001	30	2	122	161	285	3	189
July 2 - midnight	2002	102	6	342	606	954	6	541
Monday, July 5.)	2003	78	3	NA	NA	NA	3	NA
	2004	78	9	235	420	664	9	379
Labor Day	1999	78	7	212	344	563	7	348
(For 2004, the holiday	2000	78	6	218	426	650	8	347
period was 6 PM Fri.,	2001	78	4	220	394	618	4	326
Sept 3 – midnight	2002	78	7	233	389	629	7	377
Monday, Sep 6.)	2003	78	7	NA	NA	NA	9	NA
	2004	78	4	213	357	574	4	358
Thanksgiving	1999	102	6	309	729	1,044	6	564
(For 2004, the holiday	2000	102	8	252	658	918	10	393
period was 6 PM Wed.,	2001	102	9	309	698	1,016	10	473
Nov 24 – midnight	2002	102	8	232	593	833	8	357
Sunday, Nov 28.)	2003	102	5	NA	NA	NA	6	NA
	2004	102	10	419	981	1,410	13	646
Christmas	1999	78	12	285	854	1,151	14	435
(For 2004, the holiday	2000	78	2	245	812	1,059	2	351
period was 6 PM Thur.,	2001	102	9	491	1,552	2,052	10	719
Dec 23 – midnight	2002	30	1	37	84	122	1	56
Sunday, Dec 26.)	2003	102	4	NA	NA	NA	4	NA
	2004	78	9	178	511	698	9	284
New Year's	1999/00	78	6	240	564	810	6	380
(For 2004, the	2000/01	78	6	196	684	886	7	300
holiday period was	2001/02	102	8	213	760	981	11	342
6 PM Thur, Dec. 30 -	2002/03	30	5	56	112	173	5	84
midnight Sunday,	2003/04	102	7	NA	NA	NA	10	NA
Jan 2, 2005.)	2004/05	78	3	219	598	820	3	333

* 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 2004

Department of Public Safety, Office of Traffic Safety

Drinking and driving remains a serious problem in Minnesota and across the nation. For 2004, the National Safety Council has made a conservative estimate of \$288 million as the cost of alcohol-related crashes in Minnesota. Predictably, there is a strong positive relationship between alcohol use and crash severity. That is, as crash severity increases, alcohol is more likely to have been a factor in the crash. Last year, 6% of minor injuries, 12% of moderate injuries, 21% of severe injuries, and 31% of deaths were alcohol-related. In all, 177 known people died and 3,622 known people were injured in crashes classified as alcohol-related. (NHTSA estimates will be higher).

Impaired driving incidents (DWI's) increase

There were 34,199 impaired driving incidents last year in Minnesota. This number represents a 6% 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 2004, they accounted for 21% 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 50% 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 39% of all traffic deaths, and for fully 50% 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, 130 (73%) of the 177 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 47 people who died in the alcohol crashes were non-drinking drivers, pedestrians, or bicyclists, or were drinking or non-drinking vehicle passengers.

When the crashes occur: weekends, late night

Most alcohol-related crashes occur on Fridays, Saturdays, and Sundays. Combined, these three days accounted for 41% of all traffic crashes, but 61% of the alcohol-related crashes. The late night hours from 9:00 PM to 3:00 AM accounted for 14% of all crashes, but 53% of the alcohol crashes.

Alcohol crashes usually involve just the single vehicle

Fifty-eight percent of non-alcohol-related fatal crashes involved collision with another motor vehicle in transport, compared to only 29% of alcohol fatal crashes. Most of the alcohol-related fatal crashes involved a single vehicle colliding with a fixed object (18%), 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 the past 4 years, 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 38) 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 35% per year. This is a great success story for Minnesota and the nation as a whole. The 2004 alcohol-related percentage of 31% is evidence of this continued downward trend. It is also proof that as drivers change their behavior, less tragedy occurs on our roadways.

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 - 2004

Year	Alcohol Concentration Test Results on Fatally Injured Drivers Only									All Traffic Fatalities				
	Drivers Killed			Results on Drivers Tested						Total	Alcohol-Related Fatalities			
	Total	Tested for Alcohol		Negative for alcohol		.01 to .09 alcohol		.10 or higher alcohol			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
1990	334	260	78	129	50	23	9	108	41	568	235	41	258	46
1991	327	242	74	135	56	22	9	85	35	531	212	40	233	44
1992	344	237	69	135	57	13	5	89	38	581	229	39	240	41
1993	355	283	80	174	61	19	7	90	32	538	196	36	216	40
1994	377	303	80	183	60	23	8	97	32	644	226	35	250	39
1995	383	343	90	198	58	30	9	115	34	597	246	41	269	45
1996	359	314	87	209	67	22	7	83	26	576	205	36	222	38
1997	384	345	90	226	66	19	6	100	29	600	178	30	197	33
1998	406	369	91	218	59	29	8	122	33	650	273	42	285	44
1999	426	370	87	254	69	16	4	100	27	626	195	31	206	33
2000	403	375	93	226	60	22	6	127	34	625	245	39	258	41
2001	361	322	89	198	62	23	7	101	31	568	211	37	226	40
2002	430	365	85	223	61	24	7	118	32	657	239	36	255	39
2003	435	376	86	219	58	23	6	134	36	655	255	39	267	41
2004	389	337	87	219	65	15	4	103	31	567	177	31	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, 1994 - 2004**

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
1994	29,739	23,167	77.9	5,294	17.8	1,278	4.3	15,477	52.0	14,262	48.0
1995	30,255	23,206	76.7	5,416	17.9	1,633	5.4	15,678	51.8	14,577	48.2
1996	30,515	23,527	77.1	5,371	17.6	1,617	5.3	15,774	51.7	14,741	48.3
1997	30,905	23,612	76.4	5,717	18.5	1,576	5.1	15,954	51.6	14,951	48.4
1998	32,001	24,161	75.5	6,048	18.9	1,792	5.6	16,537	51.7	15,464	48.3
1999	34,529	25,897	75.0	6,491	18.8	2,141	6.2	17,126	49.6	17,403	50.4
2000	34,803	25,685	73.8	6,752	19.4	2,366	6.8	16,739	48.1	18,064	51.9
2001	33,305	24,379	73.2	6,495	19.5	2,431	7.3	16,284	48.9	17,021	51.1
2002	32,948	23,775	72.2	6,518	19.8	2,655	8.1	16,147	49.0	16,801	51.0
2003	32,193	22,915	71.2	6,482	20.1	2,796	8.7	15,972	49.6	16,221	50.4
2004	34,199	24,098	70.5	7,141	20.9	2,960	8.7	16,762	49.0	17,437	51.0

* Note: The above table corrects errors reported in the 1998--2002 versions of this publication. In 2004, a programming error was discovered and corrected. If a person does not have a Minnesota driver's license, and incurs an impaired driving incident, a record is created. The new record does *not show* the person's gender. The programming error was that all such persons were classified as female. The error was corrected beginning in 2004. However, now it appears that the proportion of violators with gender "not stated" is increasing over time. This is *not so*. Rather, as violator's age, many do eventually get Minnesota driver's licenses, which do 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 - 2004

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	

FIGURE 2.01
PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs")
COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990 - 2004

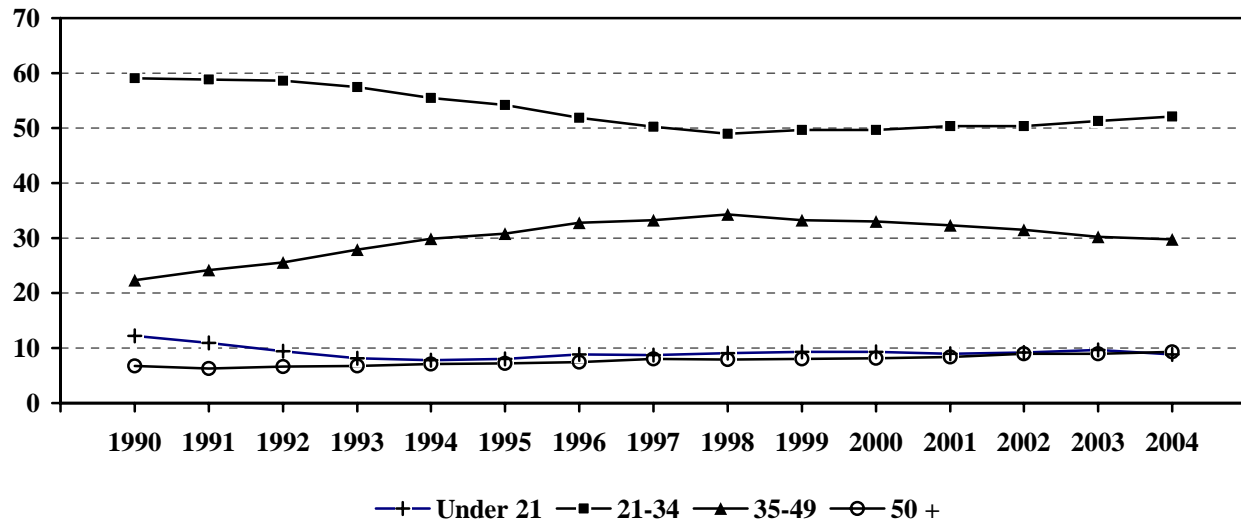


TABLE 2.04

IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1990 - 2004

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

TABLE 2.05
AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES
AND IN ALCOHOL - RELATED CRASHES, 2004

Age Group	Persons Killed		Persons Injured by Severity						Total Persons Injured	
	All	Alcohol-Related ¹	Severe	Alcohol-Related ²	Moderate	Alcohol-Related ²	Minor	Alcohol-Related ²	All	Alcohol-Related ²
0 - 4	9	2	22	1	164	12	469	26	655	39
5 - 9	9	1	38	3	272	12	575	20	885	35
10 - 14	15	3	73	9	407	21	799	33	1,279	63
15	2	0	38	5	195	16	353	18	586	39
16	15	2	84	6	504	28	904	33	1,492	67
17	20	5	84	13	469	36	944	36	1,497	85
18	21	9	81	19	535	55	873	64	1,489	138
19	20	7	64	20	434	70	862	65	1,360	155
20	11	7	71	15	391	65	771	62	1,233	142
Total Under 21	122	36	555	91	3,371	315	6,550	357	10,476	763
0 - 14	33	6	133	13	843	45	1,843	79	2,819	137
15 - 19	78	23	351	63	2,137	205	3,936	216	6,424	484
20 - 24	71	31	385	143	1,910	416	3,393	355	5,688	914
25 - 29	42	19	230	66	1,143	200	2,315	208	3,688	474
30 - 34	32	16	197	45	935	129	2,005	147	3,137	321
35 - 39	37	17	178	37	941	126	1,851	129	2,970	292
40 - 44	37	10	209	47	912	135	2,052	124	3,173	306
45 - 49	40	15	159	27	826	110	1,748	109	2,733	246
50 - 54	44	15	139	18	686	45	1,435	79	2,260	142
55 - 59	24	2	119	13	525	39	1,130	43	1,774	95
60 - 64	27	7	72	5	332	19	746	30	1,150	54
65 - 69	19	6	58	7	234	13	501	15	793	35
70 - 74	15	3	59	1	216	8	417	7	692	16
75 - 79	26	4	43	4	209	3	364	13	616	20
80 - 84	25	2	28	0	151	1	252	3	431	4
85 & Older	17	1	15	1	118	2	183	6	316	9
Not Stated	0	0	49	8	298	20	1,062	45	1,409	73
Total	567	177	2,424	498	12,416	1,516	25,233	1,608	40,073	3,622

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

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

* As shown, there were 177 alcohol-related traffic deaths in the year 2004. Fourteen of those deaths were to pedestrians, and 12 of those 14 pedestrians were drinking. In 2 of the 12 crashes involving drinking pedestrians, the motor vehicle driver had also been drinking. Additionally, 3 bicyclists were among the 177 alcohol-related deaths. In all 3 of those fatal crashes it was the motor vehicle driver who had been drinking, not the 3 bicyclists.

TABLE 2.06

**2004 ALCOHOL - RELATED FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY TRAFFIC ROLE**

Traffic Role	Killed	Tested	Alcohol Concentration		
			(.00)	(.01 - .09)	(.10 or more)
Car or Truck Driver	121	118	11	12	95
Car or Truck Passenger	26	15	3	3	9
Motorcycle Driver	11	11	1	3	7
Motorcycle Passenger	1	1	0	1	0
Snowmobile Driver	1	1	0	0	1
Pedestrian	14	14	2	2	10
Bicyclist	3	1	1	0	0
Total	177	161	18	21	122

TABLE 2.07

**PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES
DETERMINED TO BE ALCOHOL - RELATED, 1995 - 2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Deaths* (Known)	41%	36%	30%	42%	31%	39%	37%	36%	39%	31%
(Estimated)	45%	38%	33%	44%	33%	41%	40%	39%	41%	NA
Injuries**	11%	11%	11%	11%	10%	10%	10%	10%	NA	9%
PDO Crashes**	4%	4%	4%	4%	4%	4%	4%	4%	NA	3%

* Based on alcohol test results plus officer's perception of possible alcohol involvement as noted on crash report. See pp. 37-38 regarding known and estimated alcohol-related fatalities.

** 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, 2004**

First Harmful Event	All Fatal Crashes		Alcohol-Related Fatal Crashes *	
	Number	Percent	Number	Percent
Collision with:				
Another Motor Vehicle	252	48.5%	47	28.7%
Parked Motor Vehicle	3	0.6	0	0.0
Railroad Train	12	2.3	5	3.0
Bicycle	10	1.9	3	1.8
Pedestrian	36	6.9	14	8.5
Deer	7	1.4	1	0.6
Fixed Object	84	16.2	30	18.3
Other Collision Type	9	1.7	7	4.3
Non-Collision:				
Overturn	96	18.5	54	32.9
Submersion	1	0.2	0	0.0
Other Type Non-Collision	5	1.0	2	1.2
Other/Unknown	5	1.0	1	0.6
Total	520	100.0%	164	100.0%

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

TABLE 2.09
TEST RESULTS OF DRIVERS KILLED, 1995 - 2004

Year	Killed	Tested	Alcohol Concentration*		
			(.00)	(.01 - .09)	(.10 or more)
1995	383	343	198 (58%)	30 (9%)	115 (34%)
1996	359	314	209 (67%)	22 (7%)	83 (26%)
1997	384	345	226 (66%)	19 (5%)	100 (29%)
1998	406	369	218 (59%)	29 (8%)	122 (33%)
1999	426	370	254 (69%)	16 (4%)	100 (27%)
2000	403	375	226 (60%)	22 (6%)	127 (34%)
2001	361	322	198 (61%)	23 (7%)	101 (31%)
2002	430	365	223 (61%)	24 (7%)	118 (32%)
2003	435	376	219 (58%)	23 (6%)	134 (36%)
2004	389	337	219 (65%)	15 (4%)	103 (31%)

* Percents based on drivers tested.

TABLE 2.10
DRIVERS KILLED WHO TESTED .01 OR HIGHER, 1995 - 2004
("Any Alcohol")

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
1995	145	121	(83%)	24	(17%)	43	(30%)	12	(8%)
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%)

TABLE 2.11
DRIVERS KILLED WHO TESTED .10 OR HIGHER, 1995 - 2004
("Over Limit")

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
1995	115	97	(84%)	18	(16%)	38	(33%)	6	(5%)
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%)

Figure 2.02
Killed Drivers Tested for Alcohol: Percent over .01
Alcohol Level and Percent over .10 Alcohol Level, 1975 - 2004

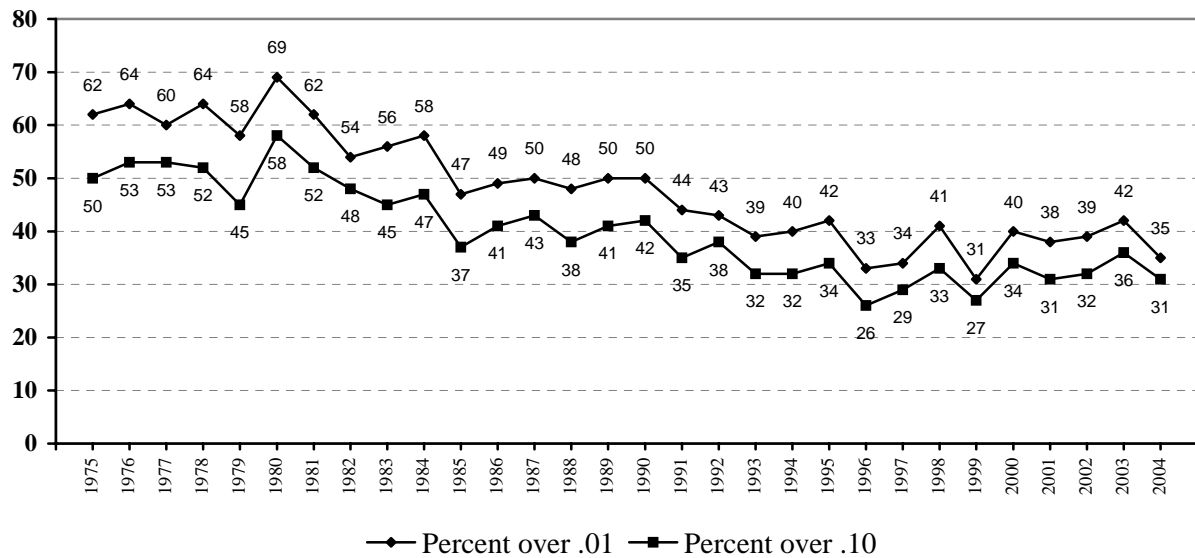


FIGURE 2.03
Percent of Drivers Killed Who Had Been Drinking, by Age, 2004

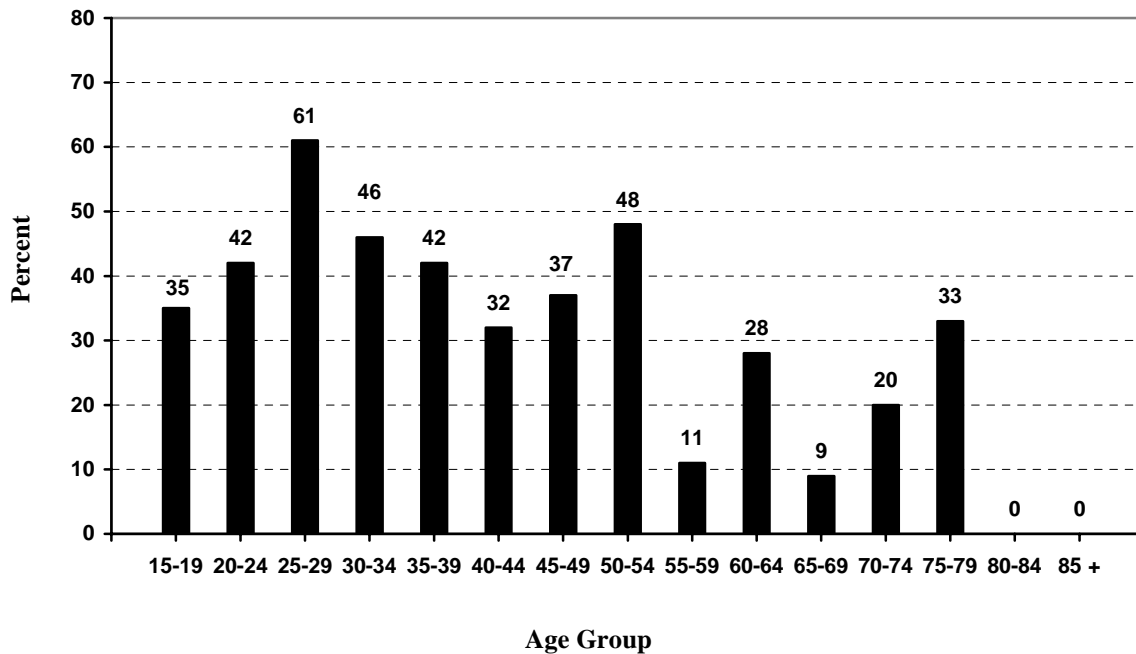


TABLE 2.12

2004 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration						Alcohol Concentration						
			(.00)		(.01 - .09)		(.10 or more)		.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-.24	.25& over
			num- ber	per- cent	num- ber	per- cent	num- ber	per- cent							
14 & Younger	1	0	0		0		0		0	0	0	0	0	0	0
15	1	1	1		0		0		1	0	0	0	0	0	0
16	11	10	10		0		0		10	0	0	0	0	0	0
17	9	8	6		1		1		6	0	1	1	0	0	0
18	11	11	4		1		6		4	0	1	3	2	0	1
19	17	16	9		0		7		9	0	0	4	1	0	2
20	7	7	4		1		2		4	0	1	0	1	1	0
Under 21	57	53	34		3		16		34	0	3	8	4	1	3
14 & Younger	1	0	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0	0
15 - 19	49	46	30	65.2	2	4.4	14	30.4	30	0	2	8	3	0	3
20 - 24	52	50	29	58.0	3	6.0	18	36.0	29	0	3	1	9	5	3
25 - 29	28	23	9	39.1	2	8.7	12	52.2	9	0	2	2	4	3	3
30 - 34	26	24	13	54.2	0	0.0	11	45.8	13	0	0	1	5	4	1
35 - 39	27	26	15	57.7	1	3.8	10	38.5	15	1	0	1	4	3	2
40 - 44	28	25	17	68.0	0	0.0	8	32.0	17	0	0	0	1	6	1
45 - 49	33	27	17	63.0	1	3.7	9	33.3	17	1	0	0	2	3	4
50 - 54	35	29	15	51.7	1	3.4	13	44.8	15	1	0	2	3	4	4
55 - 59	20	18	16	88.9	0	0.0	2	11.1	16	0	0	1	1	0	0
60 - 64	20	18	13	72.2	2	11.1	3	16.7	13	1	1	0	1	2	0
65 - 69	13	11	10	90.9	1	9.1	0	0.0	10	1	0	0	0	0	0
70 - 74	12	10	8	80.0	0	0.0	2	20.0	8	0	0	0	2	0	0
75 - 79	16	9	6	66.7	2	22.2	1	11.1	6	0	2	0	1	0	0
80 - 84	16	13	13	100.0	0	0.0	0	0.0	13	0	0	0	0	0	0
85 +	13	8	8	100.0	0	0.0	0	0.0	8	0	0	0	0	0	0
Total	389	337	219	65.0	15	4.4	103	30.6	219	5	10	16	36	30	21

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

TABLE 2.13

2004 ALCOHOL - RELATED CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	9	165	210	384	10	228
February	7	145	188	340	7	194
March	9	169	191	369	11	233
April	25	222	143	390	27	297
May	12	223	177	412	13	321
June	16	191	161	368	16	297
July	17	266	162	445	17	404
August	15	275	170	460	15	401
September	9	214	162	385	10	299
October	13	216	181	410	17	310
November	14	214	206	434	16	300
December	18	210	216	444	18	338
Total	164	2,510	2,167	4,841	177	3,622

TABLE 2.14

2004 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban Interstate	6	204	229	439	7	275
Rural Interstate	3	31	43	77	3	39
Urban Trunk Hwy	13	309	310	632	13	480
Rural Trunk Hwy	42	401	212	655	51	623
County State Aid Hwy	66	766	512	1,344	66	1,082
County Road	11	97	54	162	13	153
Township Road	8	132	65	205	9	183
Local Street	12	556	724	1,292	12	769
Other	3	14	18	35	3	18
Total	164	2,510	2,167	4,841	177	3,622

FIGURE 2.04

2004 Alcohol-Related Crashes by Time of Day

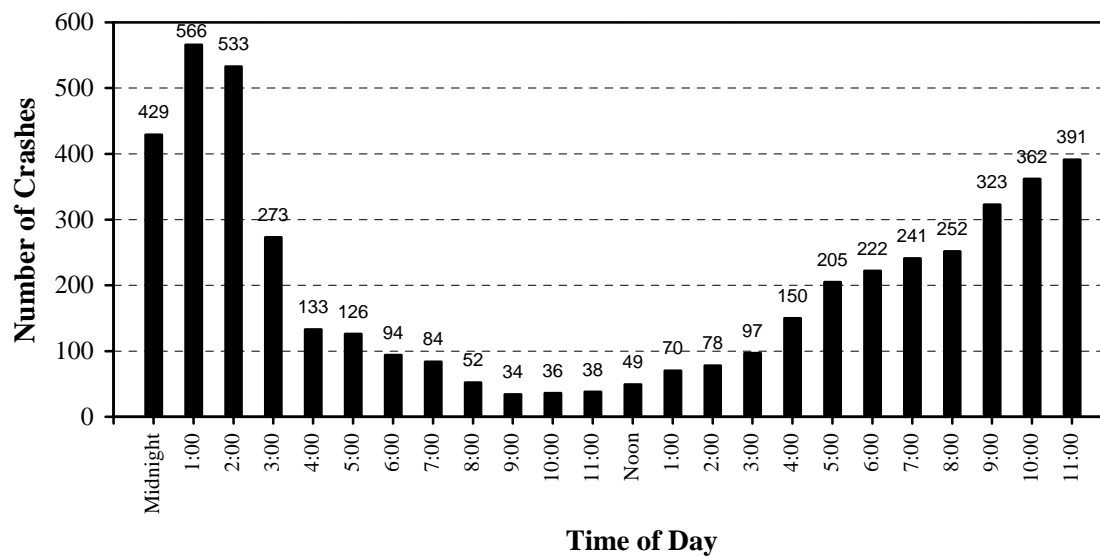


FIGURE 2.05

2004 Alcohol-Related Crashes by Day of Week

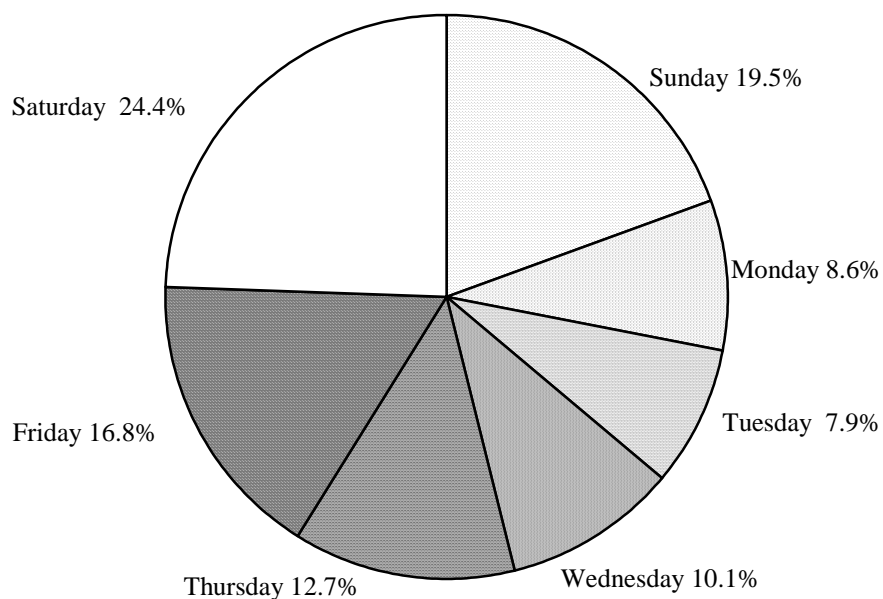


TABLE 2.15

2004 ALCOHOL-RELATED CRASHES BY TIME OF DAY AND DAY OF WEEK

Hour Beginning	Sun- day	Mon- day	Tues- day	Wednes- day	Thurs- day	Fri- day	Satur- day	Total Crashes	Total Killed	Total Injured
Midnight	103	37	35	36	60	52	106	429	14	273
1:00 AM	149	38	32	40	70	81	156	566	17	378
2:00 AM	141	31	20	54	75	71	141	533	16	394
3:00 AM	76	8	20	20	22	36	91	273	10	196
4:00 AM	45	9	7	10	11	9	42	133	4	101
5:00 AM	33	7	5	13	6	22	40	126	2	75
6:00 AM	28	9	1	4	7	14	31	94	1	81
7:00 AM	30	3	10	5	8	9	19	84	4	57
8:00 AM	15	3	5	4	6	9	10	52	3	33
9:00 AM	11	1	2	1	6	6	7	34	0	30
10:00 AM	5	6	2	3	2	6	12	36	2	28
11:00 AM	3	6	5	11	4	5	4	38	0	31
Noon	5	5	4	6	4	9	16	49	2	33
1:00 PM	9	7	7	11	9	9	18	70	3	53
2:00 PM	18	10	8	10	7	14	11	78	3	59
3:00 PM	16	13	9	11	11	16	21	97	3	76
4:00 PM	20	22	16	22	24	23	23	150	3	125
5:00 PM	23	25	21	22	29	41	44	205	11	173
6:00 PM	32	28	23	26	37	33	43	222	13	160
7:00 PM	37	21	17	32	29	50	55	241	15	183
8:00 PM	32	30	31	27	31	55	46	252	16	204
9:00 PM	38	23	49	34	51	55	73	323	8	258
10:00 PM	36	34	34	44	51	80	83	362	16	281
11:00 PM	35	43	22	45	52	107	87	391	11	318
Unknown	9	2	2	0	5	4	9	31	0	22
Total	949	421	387	491	617	816	1,188	4,869	177	3,622

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2004 CRASHES

Safety benefits and legislation

Studies estimate that using safety restraint devices reduces the risk of death and serious injury by 40% to 60%. In view of this, the Minnesota Legislature enacted laws mandating safety equipment use. The Child Passenger Protection Act took effect in 1982, and was amended in 1983 and 1987. It requires children under the age of four to be properly restrained in a federally approved child car seat. In 1993, the Legislature increased the fine for not using a child car seat from \$25 to \$50. The state's safety belt law went into effect in 1986 and was amended in 1988 and 1991. It requires all front seat occupants (and children ages four through ten, regardless of seating position) to wear safety belts.

Tables in this section focus on the use of safety equipment by people in crashes who were occupants of vehicles normally equipped with safety equipment (e.g., passenger cars and trucks rather than motorcycles). The data pose a problem in that safety equipment use was reported as "unknown" for 9% of the persons killed and 12% of the persons injured in 2004. 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 2004

In 2004, 461 motor vehicle occupants died in crashes --a 12% decrease from the previous year 2003. Also, vehicle occupants injured (36,408) decreased slightly from the year 2002 (injury data for 2003 is not available). 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 2004, that number decreased to 1,908. 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 2004

According to the August 2004 observational survey, belt use among front-seat occupants averaged 82% across all of Minnesota--an overall increase of three percentage points from 2003.

Northwest region/Township roads

Among the motor vehicle occupants that were killed or injured in the northwest region of Minnesota, 27% 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 10%. Concerning types of roadway, 'Township Roads' had the highest percentage of non seat belt use. Thirty percent of those killed or injured on these roads in 2004 were not wearing a belt.

Airbag update: always wear your seat belt

In 2004, airbag deployment was reported 14,273 times when the occupant was also wearing a seat belt. Fifty-two percent of these incidents resulted in no apparent injury. Airbags deployed 1,501 times when occupants were not wearing seat belts. Only 28% 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	
	Whole State	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
August 2003	79	NA	NA	NA	NA
August 2004	82	NA	NA	NA	NA

The seat belt law, which requires all front seat passengers and all passengers under the age of eleven to wear safety belts, became effective in Minnesota on August 1, 1986. The June 1986 survey was conducted prior to the implementation of the law; all other studies were conducted after the law went into effect.

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. The new survey design uses different sites and is not strictly comparable to the prior design.

TABLE 3.02

**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED
BY EJECTION STATUS AND INJURY SEVERITY, 2004**

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	315	1.0	1,502	4.5	9,817	29.6	21,519	64.9	33,153	100.0%
Partly Ejected	20	18.9	31	29.2	31	29.2	24	22.6	106	100.0
Ejected	116	13.3	233	26.6	271	31.0	255	29.1	875	100.0
Not Stated	10	0.4	142	5.2	693	25.3	1,890	69.1	2,735	100.0
Total	461	1.3	1,908	5.2	10,812	29.3	23,688	64.2	36,869	100.0

TABLE 3.03

**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED,
BY AGE AND INJURY SEVERITY, 2004**

Age Group	Killed	Severe	Injured		Total
			Moderate	Minor	
0 - 4	9	16	147	447	610
5 - 9	6	19	198	487	704
10 - 14	10	46	273	608	927
15 - 19	67	290	1958	3767	6,015
20 - 24	61	329	1691	3236	5,256
25 - 29	34	182	1016	2202	3,400
30 - 34	25	160	825	1914	2,899
35 - 39	29	132	802	1741	2,675
40 - 44	28	156	775	1939	2,870
45 - 49	26	115	685	1650	2,450
50 - 54	35	102	571	1324	1,997
55 - 59	21	79	443	1077	1,599
60 - 64	22	60	294	705	1,059
65 - 69	16	48	216	484	748
70 - 74	14	54	200	403	657
75 - 79	22	39	199	353	591
80 - 84	20	26	144	247	417
85 & Older	15	13	110	177	300
Not Stated	1	42	265	927	1,234
Total	461	1,908	10,812	23,688	36,408

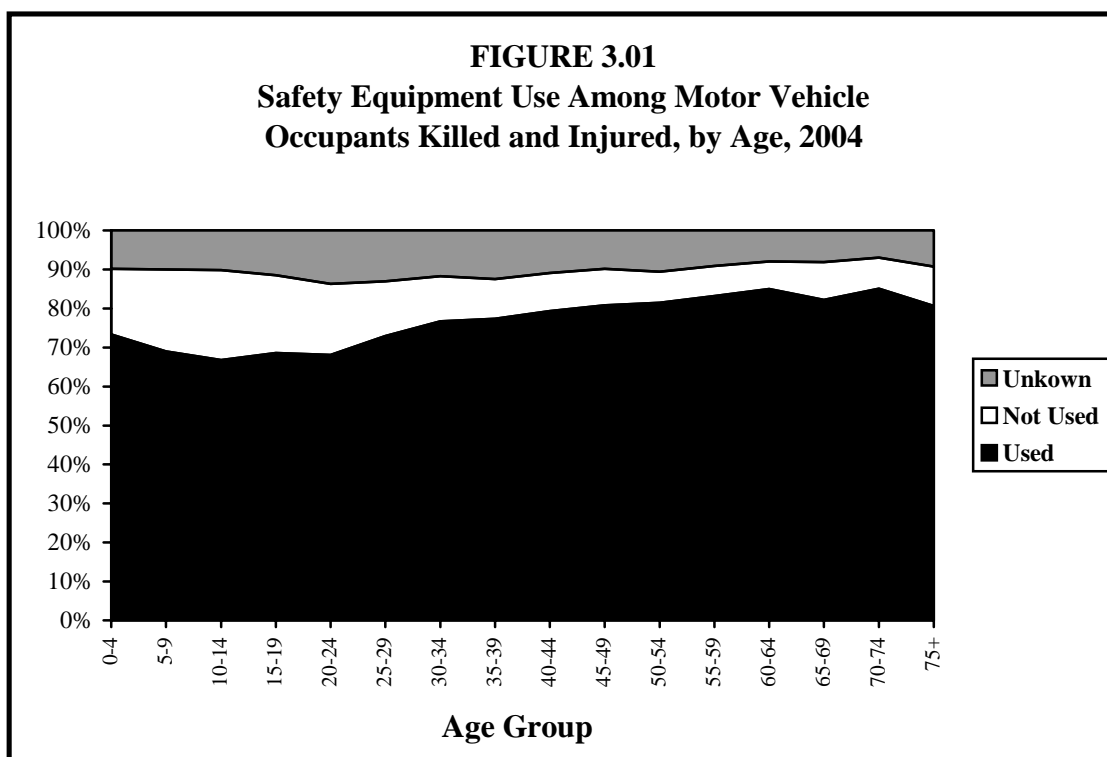


TABLE 3.04

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS,
 BY GENDER AND INJURY SEVERITY, 2004**

	Killed			Injured						
				Severe		Moderate		Minor		
	Female	Male	Total	Female	Male	Female	Male	Female	Male	Total
Used	84	98	182	526	412	4,226	3,354	10,831	7,783	27,219
Not Used	66	173	239	233	388	780	1,086	1,056	1,233	4,805
Unknown	16	24	40	133	209	547	774	1,229	1,273	4,384
Total	166	295	461	892	1,009	5,553	5,214	13,116	10,289	36,408

Note: Gender was not reported for 335 persons injured (mostly those with minor injuries), causing the "Total" to be 335 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, 2004**

Age Group	Restraint Use	<u>Killed</u>		<u>Severe</u>		<u>Moderate</u>		<u>Minor</u>		<u>Total</u>	
		#	%	#	%	#	%	#	%	#	%
0 – 3 Years	Used	2	28.6	6	50.0	73	65.2	273	79.6	352	75.4
	Not Used	3	42.9	6	50.0	32	28.6	35	10.2	73	15.6
	Unknown	<u>2</u>	<u>28.6</u>	<u>0</u>	<u>0.0</u>	<u>7</u>	<u>6.2</u>	<u>35</u>	<u>10.2</u>	<u>42</u>	<u>9.0</u>
	Subtotal	7	100.0	12	100.0	112	100.0	343	100.0	467	100.0
4 – 10 Years	Used	2	25.0	16	51.6	160	58.0	507	72.8	683	68.1
	Not Used	4	50.0	12	38.7	86	31.2	117	16.8	215	21.4
	Unknown	<u>2</u>	<u>25.0</u>	<u>3</u>	<u>9.7</u>	<u>30</u>	<u>10.9</u>	<u>72</u>	<u>10.3</u>	<u>105</u>	<u>10.5</u>
	Subtotal	8	100.0	31	100.0	276	100.0	696	100.0	1,003	100.0
Total	Used	4	26.7	22	51.2	233	60.0	780	75.1	1,035	70.4
0 – 10 Years	Not Used	7	46.7	18	41.9	118	30.4	152	14.6	288	19.6
	Unknown	<u>4</u>	<u>26.7</u>	<u>3</u>	<u>7.0</u>	<u>37</u>	<u>9.5</u>	<u>107</u>	<u>10.3</u>	<u>147</u>	<u>10.0</u>
	Subtotal	15	100.0	43	100.0	388	100.0	1,039	100.0	1,470	100.0
<hr/>											
0 – 4 Years	Used	2	22.2	7	43.8	96	65.3	349	78.1	452	74.1
	Not Used	5	55.6	7	43.8	42	28.6	50	11.2	99	16.2
	Unknown	<u>2</u>	<u>22.2</u>	<u>2</u>	<u>12.5</u>	<u>9</u>	<u>6.1</u>	<u>48</u>	<u>10.7</u>	<u>59</u>	<u>9.7</u>
	Subtotal	9	100.0	16	100.0	147	100.0	447	100.0	610	100.0
5 – 9 Years	Used	2	33.3	11	57.9	116	58.6	361	74.1	488	69.3
	Not Used	2	33.3	8	42.1	63	31.8	76	15.6	147	20.9
	Unknown	<u>2</u>	<u>33.3</u>	<u>0</u>	<u>0.0</u>	<u>19</u>	<u>9.6</u>	<u>50</u>	<u>10.3</u>	<u>69</u>	<u>9.8</u>
	Subtotal	6	100.0	19	100.0	198	100.0	487	100.0	704	100.0
10 – 14 Years	Used	2	20.0	23	50.0	172	63.0	429	70.6	624	67.3
	Not Used	5	50.0	12	26.1	75	27.5	124	20.4	211	22.8
	Unknown	<u>3</u>	<u>30.0</u>	<u>11</u>	<u>23.9</u>	<u>26</u>	<u>9.5</u>	<u>55</u>	<u>9.0</u>	<u>92</u>	<u>9.9</u>
	Subtotal	10	100.0	46	100.0	273	100.0	608	100.0	927	100.0
15 – 19 Years	Used	22	32.8	127	43.8	1,265	64.6	2,758	73.2	4,150	69.0
	Not Used	42	62.7	107	36.9	441	22.5	623	16.5	1,171	19.5
	Unknown	<u>3</u>	<u>4.5</u>	<u>56</u>	<u>19.3</u>	<u>252</u>	<u>12.9</u>	<u>386</u>	<u>10.2</u>	<u>694</u>	<u>11.5</u>
	Subtotal	67	100.0	290	100.0	1,958	100.0	3,767	100.0	6,015	100.0
20 – 24 Years	Used	20	32.8	114	34.6	1,083	64.0	2,402	74.2	3,599	68.5
	Not Used	35	57.4	144	43.8	373	22.1	416	12.9	933	17.8
	Unknown	<u>6</u>	<u>9.8</u>	<u>71</u>	<u>21.6</u>	<u>235</u>	<u>13.9</u>	<u>418</u>	<u>12.9</u>	<u>724</u>	<u>13.8</u>
	Subtotal	61	100.0	329	100.0	1,691	100.0	3,236	100.0	5,256	100.0
25 – 29 Years	Used	10	29.4	86	47.2	666	65.6	1,743	79.2	2,495	73.4
	Not Used	20	58.8	62	34.1	192	18.9	208	9.4	462	13.6
	Unknown	<u>4</u>	<u>11.8</u>	<u>34</u>	<u>18.7</u>	<u>158</u>	<u>15.6</u>	<u>251</u>	<u>11.4</u>	<u>443</u>	<u>13.0</u>
	Subtotal	34	100.0	182	100.0	1,016	100.0	2,202	100.0	3,400	100.0
30 – 34 Years	Used	11	44.0	73	45.6	587	71.2	1,571	82.1	2,231	77.0
	Not Used	14	56.0	60	37.5	115	13.9	149	7.8	324	11.2
	Unknown	<u>0</u>	<u>0.0</u>	<u>27</u>	<u>16.9</u>	<u>123</u>	<u>14.9</u>	<u>194</u>	<u>10.1</u>	<u>344</u>	<u>11.9</u>
	Subtotal	25	100.0	160	100.0	825	100.0	1,914	100.0	2,899	100.0
35 – 39 Years	Used	5	17.2	66	50.0	583	72.7	1,437	82.5	2,086	78.0
	Not Used	22	75.9	42	31.8	115	14.3	98	5.6	255	9.5
	Unknown	<u>2</u>	<u>6.9</u>	<u>24</u>	<u>18.2</u>	<u>104</u>	<u>13.0</u>	<u>206</u>	<u>11.8</u>	<u>334</u>	<u>12.5</u>
	Subtotal	29	100.0	132	100.0	802	100.0	1,741	100.0	2,675	100.0

TABLE 3.05 CONTINUED

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED
OR INJURED, BY AGE AND INJURY SEVERITY, 2004**

Age Group	Restraint Use	<u>Killed</u>		<u>Severe</u>		<u>Moderate</u>		<u>Minor</u>		<u>Total</u>	
		#	%	#	%	#	%	#	%	#	%
40 – 44 Years	Used	13	46.4	76	48.7	589	76.0	1,621	83.6	2,286	79.6
	Not Used	13	46.4	52	33.3	105	13.6	114	5.9	271	9.4
	Unknown	<u>2</u>	<u>7.1</u>	<u>28</u>	<u>18.0</u>	<u>81</u>	<u>10.4</u>	<u>204</u>	<u>10.5</u>	<u>313</u>	<u>10.9</u>
	Subtotal	28	100.0	156	100.0	775	100.0	1,939	100.0	2,870	100.0
45 – 49 Years	Used	13	50.0	58	50.4	533	77.8	1,397	84.7	1,988	81.1
	Not Used	12	46.2	38	33.0	87	12.7	94	5.7	219	8.9
	Unknown	<u>1</u>	<u>3.8</u>	<u>19</u>	<u>16.5</u>	<u>65</u>	<u>9.5</u>	<u>159</u>	<u>9.6</u>	<u>243</u>	<u>9.9</u>
	Subtotal	26	100.0	115	100.0	685	100.0	1,650	100.0	2,450	100.0
50 – 54 Years	Used	12	34.3	70	68.6	456	79.9	1,117	84.4	1,643	82.3
	Not Used	19	54.3	17	16.7	49	8.6	77	5.8	143	7.2
	Unknown	<u>4</u>	<u>11.4</u>	<u>15</u>	<u>14.7</u>	<u>66</u>	<u>11.6</u>	<u>130</u>	<u>9.8</u>	<u>211</u>	<u>10.6</u>
	Subtotal	35	100.0	102	100.0	571	100.0	1,324	100.0	1,997	100.0
55 – 59 Years	Used	10	47.6	49	62.0	349	78.8	940	87.3	1,338	83.7
	Not Used	8	38.1	19	24.0	52	11.7	46	4.3	117	7.3
	Unknown	<u>3</u>	<u>14.3</u>	<u>11</u>	<u>13.9</u>	<u>42</u>	<u>9.5</u>	<u>91</u>	<u>8.4</u>	<u>144</u>	<u>9.0</u>
	Subtotal	21	100.0	79	100.0	443	100.0	1,077	100.0	1,599	100.0
60 – 64 Years	Used	12	54.6	46	76.7	238	81.0	623	88.4	907	85.6
	Not Used	8	36.7	6	10.0	23	7.8	39	5.5	68	6.4
	Unknown	<u>2</u>	<u>9.1</u>	<u>8</u>	<u>13.3</u>	<u>33</u>	<u>11.2</u>	<u>43</u>	<u>6.1</u>	<u>84</u>	<u>7.9</u>
	Subtotal	22	100.0	60	100.0	294	100.0	705	100.0	1,059	100.0
65 – 69 Years	Used	8	50.0	27	56.2	173	80.1	420	86.8	620	82.9
	Not Used	5	31.2	12	25.0	30	13.9	27	5.6	69	9.2
	Unknown	<u>3</u>	<u>18.8</u>	<u>9</u>	<u>18.8</u>	<u>13</u>	<u>6.0</u>	<u>37</u>	<u>7.6</u>	<u>59</u>	<u>7.9</u>
	Subtotal	16	100.0	48	100.0	216	100.0	484	100.0	748	100.0
70 – 74 Years	Used	11	78.6	37	68.5	175	87.5	348	86.4	560	85.2
	Not Used	3	21.4	11	20.4	15	7.5	24	6.0	50	7.6
	Unknown	<u>0</u>	<u>0.0</u>	<u>6</u>	<u>11.1</u>	<u>10</u>	<u>5.0</u>	<u>31</u>	<u>7.7</u>	<u>47</u>	<u>7.2</u>
	Subtotal	14	100.0	54	100.0	200	100.0	403	100.0	657	100.0
75 & Older	Used	28	49.1	54	69.2	364	79.6	668	84.7	1,086	82.0
	Not Used	26	45.6	14	18.0	48	10.5	51	6.5	113	8.5
	Unknown	<u>3</u>	<u>5.3</u>	<u>10</u>	<u>12.8</u>	<u>45</u>	<u>9.8</u>	<u>70</u>	<u>8.9</u>	<u>125</u>	<u>9.4</u>
	Subtotal	57	100.0	78	100.0	457	100.0	789	100.0	1,324	100.0
Age Not Stated	Used	1	100.0	17	40.5	154	59.0	495	54.1	666	54.7
	Not Used	0	0.0	14	33.3	51	19.5	88	9.6	153	12.6
	Unknown	<u>0</u>	<u>0.0</u>	<u>11</u>	<u>26.2</u>	<u>56</u>	<u>21.5</u>	<u>332</u>	<u>36.3</u>	<u>399</u>	<u>32.8</u>
	Subtotal	1	100.0	42	100.0	261	100.0	915	100.0	1,218	100.0
All Ages	Used	182	39.5	941	49.3	7,599	70.3	18,679	78.8	27,219	74.8
	Not Used	239	51.8	625	32.8	1,876	17.4	2,304	9.7	4,805	13.2
	Unknown	<u>40</u>	<u>8.7</u>	<u>342</u>	<u>17.9</u>	<u>1,337</u>	<u>12.4</u>	<u>2,705</u>	<u>11.4</u>	<u>4,384</u>	<u>12.0</u>
	Subtotal	461	100.0	1,908	100.0	10,812	100.0	23,688	100.0	36,408	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, 1995 - 2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Killed										
Used	27.1	30.3	37.5	30.3	31.6	29.4	31.1	37.9	39.4	39.5
Not Used	48.3	52.6	45.9	48.7	50.0	54.4	54.8	55.0	48.9	51.8
Unknown	24.6	17.1	16.6	21.0	18.4	16.2	14.1	7.2	11.8	8.7
Injured										
Severe Injuries										
Used	41.7	44.8	45.4	43.8	44.9	45.7	47.1	46.0	NA	49.3
Not Used	37.2	35.9	35.2	36.0	34.2	33.5	34.4	34.5	NA	32.8
Unknown	21.1	19.3	19.4	20.1	20.9	20.8	18.5	19.5	NA	17.9
Moderate Injuries										
Used	55.3	57.5	59.0	59.3	61.0	63.1	65.3	65.1	NA	70.3
Not Used	28.4	27.4	25.7	26.0	24.6	22.9	21.1	21.1	NA	17.4
Unknown	16.2	15.1	15.3	14.7	14.4	14.0	13.5	13.8	NA	12.4
Minor Injuries										
Used	66.8	67.9	69.5	69.9	71.1	72.6	73.6	73.7	NA	78.8
Not Used	15.2	14.6	13.1	13.4	12.7	11.9	11.2	10.6	NA	9.7
Unknown	18.0	17.5	17.4	16.7	16.2	15.5	15.2	15.7	NA	11.4
Total Injured										
Used	61.1	62.9	64.2	64.4	65.7	67.6	69.2	69.0	NA	74.8
Not Used	21.2	20.3	18.9	19.4	18.4	17.1	16.0	15.7	NA	13.2
Unknown	17.6	16.8	16.8	16.2	15.9	15.3	14.8	15.3	NA	12.0

TABLE 3.07

**SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS
KILLED AND INJURED, BY ROADWAY TYPE, 2004**

Roadway Type	Used		Not Used		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Interstate	3,484	82.3	431	10.2	316	7.5	4,231	100.0%
US Trunk Hwy	3,931	79.6	672	13.6	335	6.8	4,938	100.0%
MN Trunk Hwy	5,528	76.4	1,030	14.2	677	9.4	7,235	100.0%
CSAH	7,770	72.4	1,430	13.3	1,527	14.2	10,727	100.0%
County Road	468	60.6	190	24.6	114	14.8	772	100.0%
Township Road	532	56.0	284	29.9	134	14.1	950	100.0%
Local Street	5,532	70.9	973	12.5	1,301	16.7	7,806	100.0%
Other Road	156	74.3	34	16.2	20	9.5	210	100.0%
Total	27,401	74.3	5,044	13.7	4,424	12.0	36,869	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, 2004**

EMS Region	Percent Used	Percent Not Used	Percent Unknown	Number of People
Metropolitan	76.6	10.0	13.4	20,048
Central	72.8	17.2	10.0	5,189
Northeast	73.4	18.1	8.6	2,200
Northwest	60.0	27.3	12.7	1,025
South Central	69.6	18.8	11.6	1,545
Southeast	74.7	15.3	10.0	3,486
Southwest	68.5	20.2	11.3	1,882
West Central	70.9	18.3	10.8	1,484
Unknown	100.0	0.0	0.0	10
Statewide	74.3	13.7	12.0	36,869

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



TABLE 3.09

AIRBAG DEPLOYMENTS, 1997 - 2004

Year	Injury Severity	<u>Airbag Deployed</u>		<u>Deployment Not Indicated</u>		Belt Use Unknown	Total
		Belt Used	Belt Not Used	Belt Used	Belt Not Used		
1997	Killed	12	15	171	209	81	488
	Severe Injury	73	30	1,273	1,012	576	2,964
	Moderate Injury	443	63	7,785	3,524	2,140	13,955
	Minor Injury	457	44	16,549	3,164	4,250	24,464
	No Apparent Injury	<u>1,142</u>	<u>66</u>	<u>98,069</u>	<u>7,600</u>	<u>89,634</u>	<u>196,511</u>
	Total	2,127	218	123,847	15,509	96,681	238,382
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

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 and injuries hit ten year high

In 2004, there were 1,344 crashes that involved at least one motorcycle. This is the highest number of motorcycle crashes observed in Minnesota in the past ten years. In 1994, there were 1,381 motorcycle crashes and in 1992 there were 1,361.

In 2004, 1,251 motorcyclists were injured. This is the highest number of motorcyclist injuries since 1994 when 1,324 motorcyclists were injured.

Fatalities decrease

Despite the increase in motorcycle crashes, fatal motorcycle crashes and motorcyclist fatalities decreased in 2004. There were 50 motorcyclist fatalities and 50 fatal motorcycle crashes in 2004 compared with 62 motorcyclist fatalities and 58 fatal motorcycle crashes in 2003.

Alcohol use among fatalities at all time low

State law requires that drivers who die in traffic crashes be tested for blood alcohol level. In 2004, 46 motorcycle drivers were killed and 37 of them were tested. Ten (27%) of the 37 drivers tested positive for alcohol, and nearly one out of five tested at .10 or greater. This represents the lowest number of killed motorcycle drivers with a positive blood alcohol concentration in recent Minnesota history.

Greater crash severity

When a motorcycle is involved in a traffic crash, the chances of severe injury are greatly increased. In fact, 3.7 of every 100 motorcycle crashes in 2004 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 2004, 14 (28%) of the 50 motorcycle riders killed were known to be wearing a helmet. Of the 1,251 motorcyclists injured, only 418 (33%) were recorded as wearing a helmet.

Operator training is essential

In 2004, 53% 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 2004, 43 of the 50 motorcyclists killed, and 1,005 of the 1,251 injured, were male. Males account for a full 81% 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 (17%), driver inexperience (12%), driver inattention or distraction (9%), and chemical impairment (5%). 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 (24%) and driver inattention or distraction (26%) are cited most frequently.

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1980 - 2004

Year	Motorcycle Crashes				Killed		Injured		Licensed Oper- ators	Regis- tered Motor- Cycles	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
Record													
High*	112	2,728	537	3,308	121	9	3,359	207	346,169	174,195	7.7	4.0	0.8
(year)	(1980)	(1980)	(1976)	(1980)	(1980)	(1975)	(1980)	(1984)	(2004)	(2004)	(1980)	(2002)	(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

2004 MOTORCYCLE CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
Collision With:						
Other Motor Vehicle	25	494	111	630	26	565
Parked Motor Vehicle	0	17	15	32	0	17
Bicycle	0	4	1	5	0	3
Pedestrian	1	0	1	2	0	0
Deer	3	88	1	92	3	112
Other Animal	0	9	10	19	0	11
Train	0	0	1	1	0	0
Fixed Object	11	98	7	116	11	106
Other Object	0	13	3	16	0	13
Non-Collision:						
Overturn/Rollover	6	183	10	199	6	199
Fire/Explosion	0	1	0	1	0	1
Submersion	0	1	0	1	0	1
Other / Unknown	4	204	22	230	4	223
Total	50	1,112	182	1,344	50	1,251

TABLE 4.03

2004 MOTORCYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
100,000 and Over	5	125	43	173	4	138
50,000 - 99,999	4	134	21	159	4	144
25,000 - 49,999	1	124	24	149	1	139
10,000 - 24,999	5	194	36	235	5	209
5,000 - 9,999	3	75	10	88	3	84
2,500 - 4,999	2	42	11	55	2	44
1,000 - 2,499	0	18	9	27	0	20
Under 1,000	30	400	28	458	31	473
Total	50	1,112	182	1,344	50	1,251

TABLE 4.04

2004 MOTORCYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
January	0	0	0	0	0	0
February	0	0	0	0	0	0
March	0	17	2	19	0	19
April	3	105	29	137	3	110
May	4	123	17	144	5	130
June	11	224	34	269	11	276
July	12	203	37	252	12	236
August	5	175	26	206	5	189
September	12	173	17	202	11	187
October	1	67	16	84	1	79
November	2	22	4	28	2	22
December	0	3	0	3	0	3
Total	50	1,112	182	1,344	50	1,251

FIGURE 4.01
2004 Motorcycle Crashes by Time of Day

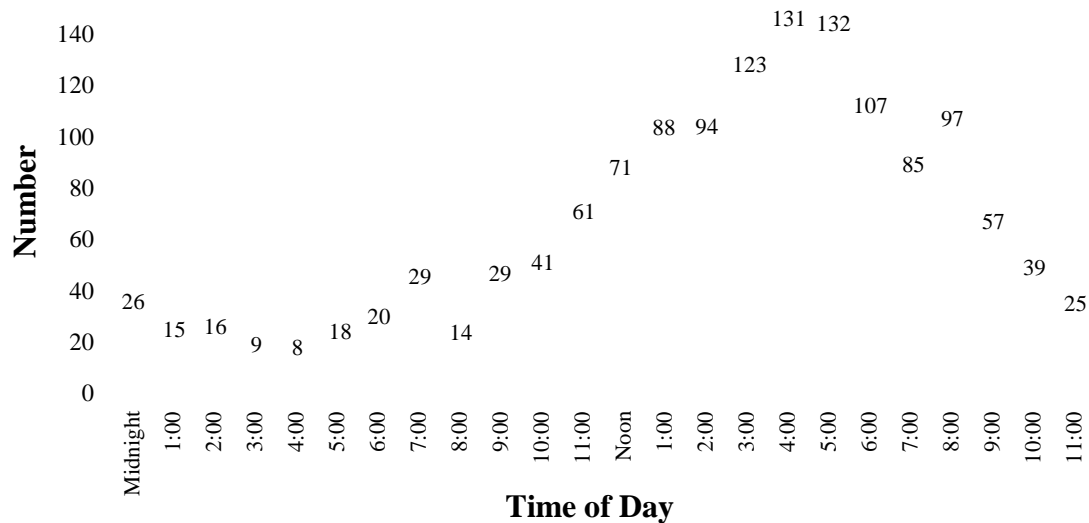


TABLE 4.05

2004 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	26	3	8	0	5	0	2	1	2	0	3	1	3	1	3	0
1:00	15	2	4	2	2	0	1	0	0	0	1	0	2	0	5	0
2:00	16	0	4	0	0	0	0	0	1	0	3	0	2	0	6	0
3:00	9	0	5	0	2	0	1	0	0	0	0	0	1	0	0	0
4:00	8	0	1	0	1	0	1	0	2	0	1	0	0	0	2	0
5:00	18	1	1	0	2	0	2	0	3	0	6	1	2	0	2	0
6:00	20	0	2	0	3	0	1	0	2	0	6	0	5	0	1	0
7:00	29	0	1	0	4	0	6	0	9	0	4	0	4	0	1	0
8:00	14	1	0	0	2	0	1	0	4	1	2	0	4	0	1	0
9:00	29	0	15	0	3	0	1	0	0	0	3	0	3	0	4	0
10:00	41	2	9	0	5	0	1	0	1	0	9	1	5	0	11	1
11:00	61	2	16	0	2	0	6	0	2	0	10	0	8	0	17	2
Noon	71	2	16	0	8	1	6	0	8	0	4	0	9	0	20	1
1:00	88	3	21	0	6	0	8	0	5	0	6	0	9	1	33	2
2:00	94	5	18	0	5	1	7	0	7	0	11	1	21	0	25	3
3:00	123	3	21	0	13	0	12	0	18	1	17	2	20	0	22	0
4:00	131	4	24	3	14	1	13	0	19	0	19	0	17	0	25	0
5:00	132	3	23	0	10	0	19	0	23	1	20	0	17	1	20	1
6:00	107	6	21	2	9	0	10	0	12	0	17	1	12	1	26	2
7:00	85	4	11	1	12	0	11	0	17	0	10	0	11	2	13	1
8:00	97	4	14	0	13	0	11	2	17	1	8	0	16	1	18	0
9:00	57	3	4	1	5	0	6	0	7	0	15	1	5	0	15	1
10:00	39	2	4	0	6	0	3	0	3	0	5	1	12	0	6	1
11:00	25	0	2	0	1	0	1	0	4	0	3	0	4	0	10	0
Unknown	9	0	0	0	1	0	1	0	1	0	5	0	0	0	1	0
Total	1,344	50	245	9	134	3	131	3	167	4	188	9	192	7	287	15

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2004

Age Group	Killed			Severe			Moderate			Injured Minor			Total		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total*
0 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 9	0	0	0	0	0	0	1	0	1	0	1	1	1	1	2
10 - 14	0	0	0	0	1	1	1	2	3	0	1	1	1	4	5
15 - 19	3	0	3	7	3	10	39	8	47	14	2	16	60	13	73
20 - 24	6	0	6	21	3	24	107	12	119	49	6	55	177	21	198
25 - 29	4	0	4	24	4	28	58	8	66	45	7	52	127	19	146
30 - 34	5	0	5	20	2	22	44	7	51	19	6	25	83	15	98
35 - 39	2	2	4	20	3	23	50	24	74	31	5	36	101	32	133
40 - 44	6	0	6	34	6	40	52	28	80	25	12	37	111	46	157
45 - 49	9	4	13	21	5	26	60	24	84	30	7	37	111	36	147
50 - 54	4	1	5	19	7	26	56	16	72	32	11	43	107	34	141
55 - 59	2	0	2	20	5	25	46	3	49	16	4	21	82	12	97
60 - 64	1	0	1	0	2	2	18	0	18	11	2	13	29	4	34
65 - 69	0	0	0	2	0	2	1	0	1	5	0	5	8	0	8
70 & Older	1	0	1	0	0	0	4	0	4	2	0	2	6	0	7
Not Stated	0	0	0	0	1	1	0	1	1	1	4	7	1	6	9
Total	43	7	50	188	42	230	537	133	670	280	68	351	1,005	243	1,251

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

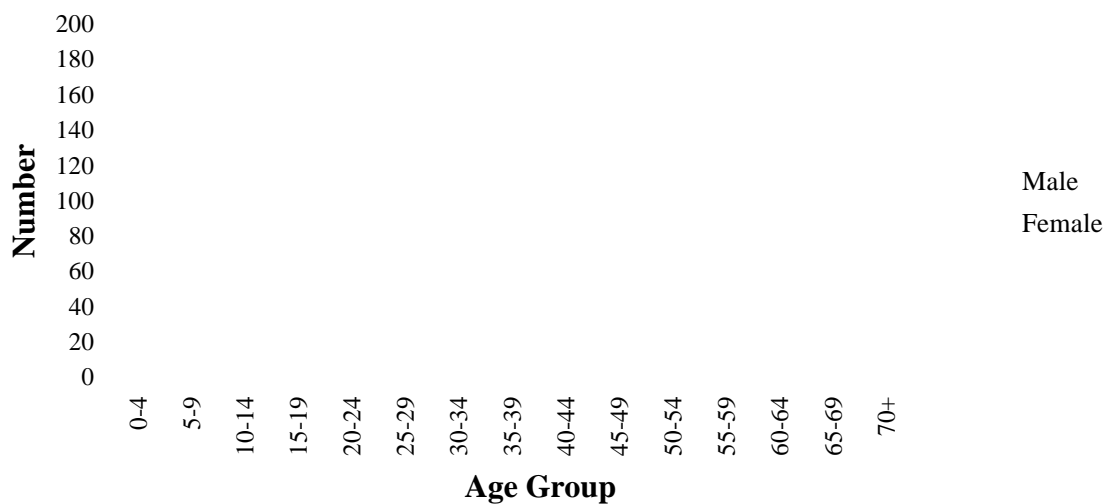
FIGURE 4.02**Motorcyclists Killed or Injured by Age and Gender, 2004**

TABLE 4.07

HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 1995 - 2004

	Helmet Used		Helmet Not Used		Helmet Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Killed								
1995	1	2.9	30	85.7	4	11.4	35	100.0
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
Injured								
1995	279	26.3	544	51.2	240	22.6	1,063	100.0
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

TABLE 4.08

ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 1995 - 2004

Year	Valid Endorsement*		Permit Only		Canceled, Suspended, Revoked		No Endorsement		Total** For Year	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1995	21	65.6	0	0.0	5	15.6	6	18.8	32	100.0
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

* 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, 1990 - 2004

Year	Killed	Tested	Alcohol Concentration*		
			(.00)	(.01 - .09)	(.10 or more)
1990	43	35	10 (29%)	5 (14%)	20 (57%)
1991	36	30	13 (43%)	3 (10%)	14 (47%)
1992	23	21	10 (48%)	0 (0%)	11 (52%)
1993	29	26	9 (35%)	3 (12%)	14 (54%)
1994	36	27	17 (63%)	2 (7%)	8 (30%)
1995	25	22	7 (32%)	2 (9%)	13 (59%)
1996	38	36	22 (61%)	4 (11%)	10 (28%)
1997	22	19	7 (37%)	3 (16%)	9 (47%)
1998	36	35	15 (43%)	2 (6%)	18 (51%)
1999	28	22	12 (55%)	2 (9%)	8 (36%)
2000	32	32	22 (69%)	1 (3%)	9 (28%)
2001	36	31	17 (55%)	6 (19%)	8 (26%)
2002	41	40	24 (60%)	3 (8%)	13 (32%)
2003	53	46	27 (59%)	6 (13%)	13 (28%)
2004	46	37	27 (73%)	3 (8%)	7 (19%)

*Percentages are based on those motorcycle drivers tested.

TABLE 4.10

**2004 MOTORCYCLE DRIVER FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY AGE**

Age	Killed	Tested	Alcohol Concentration*		Alcohol Concentration						
			(.01 - .09)	(.10 or more)	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-.24	.25 & Over
14 & Younger	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	3	2	0	0	2	0	0	0	0	0	0
20	2	2	0	0	2	0	0	0	0	0	0
Under 21	5	4	0	0	4	0	0	0	0	0	0
14 & Younger	0	0	0	0	0	0	0	0	0	0	0
15 - 19	3	2	0	0	2	0	0	0	0	0	0
20 - 24	6	5	0	0	5	0	0	0	0	0	0
25 - 29	4	3	0	1	2	0	0	0	1	0	0
30 - 34	5	5	0	1	4	0	0	0	0	1	0
35 - 39	3	3	1	1	1	1	0	0	1	0	0
40 - 44	6	6	0	2	4	0	0	0	0	2	0
45 - 49	11	6	1	0	5	1	0	0	0	0	0
50 - 54	4	4	1	1	2	1	0	0	0	1	0
55 - 59	2	2	0	0	2	0	0	0	0	0	0
60 & Older	2	1	0	1	0	0	0	0	1	0	0
Total	46	37	3	7	27	3	0	0	3	4	0

* Percentages are based on those motorcycle drivers tested.

TABLE 4.11

CONTRIBUTING FACTORS IN 2004 MOTORCYCLE CRASHES

Contributing Factors	<i>Single Vehicle Crashes</i>		<i>Multi-Vehicle Crashes</i>			
	Attributed to Motorcycle Drivers		Attributed to Motorcycle Drivers		Attributed to Other Drivers	
	Number	Percent	Number	Percent	Number	Percent
Human Factors:						
Illegal/Unsafe Speed	132	16.8%	89	9.3%	13	1.4%
Driver Inexperience	96	12.2	36	3.8	14	1.5
Driver Inattention/Distracted	71	9.0	90	9.4	138	15.3
Chemical Impairment	40	5.1	20	2.1	11	1.2
Overcorrecting	20	2.5	6	0.6	1	0.1
Improper/Unsafe Lane Use	16	2.0	28	2.9	39	4.3
Following Too Closely	13	1.6	61	6.4	19	2.1
Improper Park/Start/Stop	7	0.9	3	0.3	17	1.9
Vision Obscured	6	0.8	9	0.9	30	3.3
Driving Left of Center	5	0.6	14	1.5	7	0.8
Failure to Yield Right of Way	4	0.5	33	3.4	215	23.8
Improper Passing/Overtaking	4	0.5	21	2.2	6	0.7
Improper Turn	3	0.4	9	0.9	28	3.1
Disregard Traffic Cntrl Device	0	0.0	4	0.4	19	2.1
Unsafe Backing	0	0.0	0	0.0	9	1.0
Improper or No Signal	0	0.0	1	0.1	3	0.3
Impeding Traffic	0	0.0	1	0.1	4	0.4
Driver on phone or CB radio	0	0.0	0	0.0	1	0.1
Other Human Factor	22	2.8	13	1.4	10	0.9
Vehicular Factors:						
Skidding	58	7.4	17	1.8	2	0.2
Defective Equipment	15	1.9	1	0.1	2	0.2
Other Vehicular Factors	13	1.6	2	0.2	0	0.0
Miscellaneous Factors:						
Weather Conditions	12	1.5	3	0.3	1	0.1
Other	78	9.9	21	2.2	19	2.1
Total	615	100.0%	482	100.0%	608	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	173		475		296	
Total Number Drivers	596		780		730	

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 increase significantly

There were 5,521 truck-involved traffic crashes in 2004—the highest number of truck crashes in the past ten years.

Fatalities and injuries increase

In 2004, there were 70 fatal truck crashes, killing 79 people. This was one more fatality than in the previous year. There were 1,935 persons injured in 2004. This was the highest number of persons injured in truck crashes in the past five years

Persons killed or injured are usually in other vehicles

In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only 9 of the 79 people killed in truck-involved crashes were in the trucks. The other 70 included 3 bicyclists, 4 pedestrians, 1 motorcyclist, and 61 people who were in cars, SUVs, pickups, or vans. Of the 1,935 people injured, only 432 (22%) were truck occupants.

Contributing factors for truck drivers compared to others.

Reporting officers indicated there was no clear contributing factor for 42% of the truck drivers and for 44% 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 (22% of the time). Illegal or unsafe speed was reported for 10% 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 2004, Monday through Friday averaged 1,000 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, 19% of the fatal crashes and 10% 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-three percent of injury crashes, and 79% of the fatal truck crashes occurred in the rural areas of Minnesota.

TABLE 5.01

TRUCK CRASH SUMMARY, 1995 - 2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Crashes	4,752	5,358	4,991	4,761	5,156	5,306	4,976	4,409	NA	5,521
Fatal Crashes	77	60	90	85	84	73	61	76	71	70
Persons Killed	86	79	105	97	94	90	67	87	78	79
Injury Crashes	1,277	1,473	1,389	1,408	1,400	1,371	1,287	1,179	NA	1,401
Severe	153	176	163	180	150	134	127	82	NA	107
Moderate	470	516	505	492	567	490	479	449	NA	443
Minor	654	781	721	736	683	747	681	648	NA	851
Persons Injured	1,869	2,074	2,042	2,031	2,026	1,903	1,785	1,674	NA	1,935
Severe	196	217	215	219	212	173	157	115	NA	131
Moderate	645	708	721	700	782	659	632	597	NA	585
Minor	1,028	1,149	1,106	1,112	1,032	1,071	996	962	NA	1,219
Property Damage Crashes	3,398	3,825	3,512	3,268	3,672	3,862	3,628	3,154	NA	4,050

TABLE 5.02

**PERSONS KILLED OR INJURED IN 2004 TRUCK CRASHES
BY VEHICLE OCCUPIED**

Vehicle Type	Killed	Severe	Injured		Total
			Moderate	Minor	
Automobile	46	64	232	544	840
Pickup Truck	5	18	72	124	214
SUV	5	10	70	120	200
Pedestrian	4	4	7	6	17
Bicycle	3	1	8	3	12
Van	5	8	36	96	140
Police Department Vehicle	1	0	3	6	9
School Bus	0	0	0	7	7
Motor Home/Camper	0	1	1	0	2
Farm Equipment	0	0	1	1	2
Motorcycle	1	3	1	5	9
Hit and Run Vehicle	0	0	2	0	2
Two-Axle, Six-Tire, Single Unit Truck or Stepvan	1	3	30	55	88
Three or More Axle Single Unit Truck	2	7	18	46	71
Single Unit Truck with Trailer	1	3	14	24	41
Truck Tractor with No Trailer	0	1	3	5	9
Truck Tractor with Semi Trailer	5	8	61	137	206
Truck Tractor with Twin Trailers	0	0	1	1	2
Heavy Truck--Other or Unknown Type	0	0	5	10	15
Other or Unknown Vehicle Type	0	0	20	29	49
Total	79	131	585	1,219	1,935

TABLE 5.03

CONTRIBUTING FACTORS IN 2004 TRUCK CRASHES

Contributing Factors	Attributed to Truck Vehicles		Attributed to Non-Truck Vehicles	
	Number	Percent	Number	Percent
Human Factors				
Driver Inattention/Distracted	955	22.6%	812	22.0%
Improper or Unsafe Lane Use	404	9.6	427	11.6
Illegal/Unsafe Speed	402	9.5	455	12.3
Following Too Closely	375	8.9	251	6.8
Failure to Yield Right of Way	345	8.2	474	12.8
Improper Turn	217	5.1	73	2.0
Unsafe Backing	187	4.4	24	0.6
Vision-Other	127	3.0	70	1.9
Disregard for Traffic Control Device	93	2.2	113	3.1
Improper Passing or Overtaking	77	1.8	165	4.5
Driver Inexperience	58	1.4	93	2.5
Improper Parking, Starting, or Stopping	51	1.2	40	1.1
Overcorrecting	46	1.1	36	1.0
Driving Left of Center (Not Passing)	21	0.5	68	1.8
Chemical Impairment	18	0.4	72	1.9
Improper/No Signal	16	0.4	5	0.1
Impeding Traffic	13	0.3	10	0.3
Vision Obscured-Windshield	5	0.1	7	0.2
Driver on Phone/CB/2-Way Radio	0	0.0	7	0.2
Failure to Use Lights	0	0.0	5	0.1
Other Human Factors	100	2.4	85	2.3
Vehicular Factors				
Skidding	102	2.4	97	2.6
Defective Brakes	67	1.6	9	0.2
Oversize/Overweight Vehicle	56	1.3	0	0.0
Defective Tire	26	0.6	9	0.2
Defective Lights	6	0.1	5	0.1
Other Vehicular Factor	57	1.3	11	0.3
Miscellaneous Factors				
Weather	206	5.1	171	4.6
Other	195	4.6	100	2.7
Total Contributing Factors Cited	4,225	100.0%	3,694	100.0%
Vehicles for Which There Was				
"No Clear Contributing Factor"	2,401		2,243	
Total Number of Vehicles	5,763		5,093	

Zero, one, or two contributing factors may be associated with each vehicle. This may cause 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 2004 CRASHES

Driver Age	Truck or Tractor	Truck with Semi-Trailer	Truck with Twin Trailer	Truck with Other Trailer	Total
10 - 14	1	0	0	0	1
15 - 19	51	12	0	14	77
20 - 24	244	143	2	42	431
25 - 29	272	247	2	45	566
30 - 34	310	274	4	34	622
35 - 39	300	336	3	50	689
40 - 44	372	383	6	60	821
45 - 49	258	392	5	38	693
50 - 54	241	315	12	32	600
55 - 59	158	229	2	23	412
60 - 64	74	172	2	19	267
65 & Older	61	102	1	14	178
Not Stated	99	167	1	10	277
Total*	2,441	2,772	40	381	5,634

* There were 5,763 trucks in crashes in 2004. However, 129 of these trucks were parked vehicles. This table tabulates the ages of drivers for the remaining 5,634 trucks where it was possible to identify a driver.

TABLE 5.05

**DRIVERS IN 2004 TRUCK CRASHES
BY PHYSICAL CONDITION***

Physical Condition	Truck Driver		Other Driver	
	Number	Percent	Number	Percent
Normal	5,120	90.9%	4,321	89.9%
Under the Influence	14	0.2	51	1.1
Had Been Drinking	7	0.1	24	0.5
Driver >.04 BAC	1	0.0	2	0.0
Had Been Using Drugs	3	0.0	8	0.2
Aggressive	0	0.0	1	0.0
Fatigued/Asleep	36	0.6	22	0.5
Physical Disability	1	0.0	2	0.0
Ill	1	0.0	2	0.0
Other	47	0.8	38	0.8
Unknown	404	7.2	341	7.1
Total **	5,634	100.0%	4,812	100.0%

* As noted by police officer on accident report.

** There were 5,763 trucks in crashes in 2004. However, 129 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 5,093 non-truck motor vehicles in 2004 truck crashes. However, 281 of them were parked, leaving 4,812 for which an apparent physical condition was recorded.

TABLE 5.06

2004 TRUCK CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	55	1,083	3,015	4,153	64	1,565
Parked Motor Vehicle	1	41	265	307	1	62
Train	2	6	5	13	2	6
Bicycle	3	11	0	14	3	12
Pedestrian	4	11	0	15	4	12
Deer	0	2	52	54	0	2
Other Animal	0	5	10	15	0	5
Fixed Object	2	64	290	356	2	76
Other Object	0	1	37	38	0	1
Non-Collision:						
Overturn	3	126	142	271	3	135
Jackknife	0	8	55	63	0	8
Fire or Explosion	0	0	11	11	0	0
Other	0	42	160	202	0	50
Total	70	1,400	4,042	5,512	79	1,934

TABLE 5.07

2004 TRUCK CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	1	129	365	495	1	174
February	5	113	428	546	8	145
March	4	106	270	380	4	150
April	4	73	241	318	5	96
May	4	106	271	381	4	153
June	6	135	365	506	6	188
July	7	122	350	479	7	173
August	14	139	351	504	15	215
September	7	119	310	436	8	158
October	9	135	349	493	12	185
November	4	101	359	464	4	134
December	5	123	391	519	5	164
Total	70	1,401	4,050	5,521	79	1,935

TABLE 5.08

2004 TRUCK CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	7	22	28	28	33	29	16	163
3:00 - 5:59 AM	5	31	30	35	30	47	22	200
6:00 - 8:59 AM	16	181	181	181	145	159	49	912
9:00 - 11:59 AM	25	319	209	196	213	240	67	1,269
Noon - 2:59 PM	58	236	244	199	223	252	66	1,278
3:00 - 5:59 PM	47	224	212	205	182	182	44	1,096
6:00 - 8:59 PM	35	57	69	55	66	65	22	369
9:00 - 11:59 PM	23	31	29	28	36	40	15	202
Unknown	2	8	2	7	7	5	1	32
Total	218	1,109	1,004	934	935	1,019	302	5,521

FIGURE 5.01

2004 Truck Crashes by Time of Day

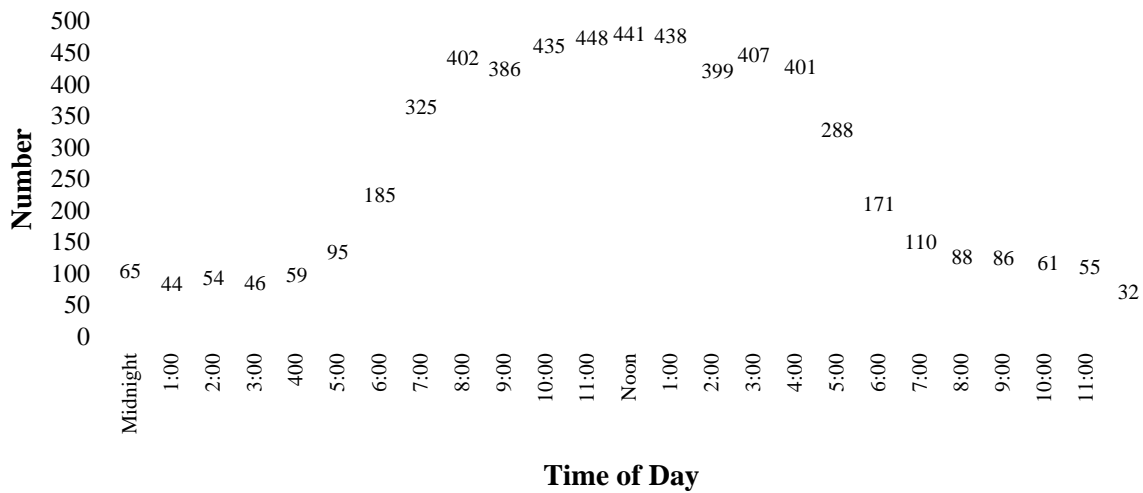


TABLE 5.09

2004 TRUCK CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	56	988	2,809	3,853	62	1,381
Wet	8	193	515	716	9	259
Snow or Slush	0	91	284	375	0	117
Ice or Packed Snow	5	116	382	503	7	158
Muddy	0	2	3	5	0	2
Debris	0	1	2	3	0	2
Other	0	6	27	33	0	9
Unknown	1	4	28	33	1	7
Total	70	1,401	4,050	5,521	79	1,935

TABLE 5.10

2004 TRUCK CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	42	732	2,170	2,944	46	1,007
Cloudy	22	432	1,145	1,599	24	607
Rain	2	82	213	297	3	109
Snow	1	90	342	433	1	117
Sleet/Hail/Freezing Rain	1	25	80	106	1	30
Fog/Smog/Smoke	1	15	22	38	1	23
Blowing Sand/Dust/Snow	1	14	23	38	3	27
Severe Cross Winds	0	5	9	14	0	8
Other	0	2	4	6	0	2
Unknown	0	4	42	46	0	5
Total	70	1,401	4,050	5,521	79	1,935

TABLE 5.11

2004 TRUCK CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
100,000 & Over	4	164	730	898	4	203
50,000 - 99,999	3	205	627	835	3	282
25,000 - 49,999	2	151	448	601	2	213
10,000 - 24,999	3	178	631	812	3	242
5,000 - 9,999	3	95	270	368	3	133
2,500 - 4,999	6	66	223	295	6	83
1,000 - 2,499	1	32	117	150	1	45
Under 1,000	48	510	1,004	1,562	57	734
Total	70	1,401	4,050	5,521	79	1,935

TABLE 5.12

2004 TRUCK CRASHES BY TYPE OF ROADWAY

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Interstate Highway	12	315	1,107	1,434	13	436
US Trunk Highway	13	286	640	939	18	415
State Trunk Highway	19	335	713	1,067	21	475
County State-Aid Highway	19	268	690	977	20	357
County Road	2	16	40	58	2	18
Township Road	0	20	49	69	0	26
Local Street	5	156	779	940	5	203
Other Road	0	5	32	37	0	5
Total	70	1,401	4,050	5,521	79	1,935

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 2004, there were 963 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 2004, 37 pedestrians were killed and 976 pedestrians were injured. In 2004, nearly 4% of pedestrian crashes resulted in a death, compared to about one-half of one percent for all traffic crashes.

Young people and males at greater risk

In all pedestrian crashes, persons less than 25 years of age accounted for 43% of the persons killed or injured. The numbers of people injured mostly decreased as age increased. Males were more likely than females to be killed or injured. Males accounted for 81% of all pedestrian fatalities and 56% of all pedestrian injuries in 2004.

Urban areas and rush-hours

In 2004, 87% of pedestrian crashes occurred in urban areas. However, 13 (35%) of the 37 fatalities occurred in rural areas (defined as less

than 5,000 population.) In 2004, nearly two out of five pedestrian crashes (37%) 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 the motor vehicles that were involved in pedestrian crashes in 2004, 50% of them were simply going straight ahead on the roadway prior to the crash. An additional 30% of the motor vehicles involved were making a right or left turn. As might be expected, one out of four 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 (26.0%).

Pedestrians and alcohol

Of the 37 pedestrians killed, 35 were tested for alcohol. Of those tested, 28% had concentrations over .10.

TABLE 6.01

PEDESTRIAN CRASH SUMMARY, 1995 - 2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Pedestrian Crashes	1,458	1,378	1,419	1,400	1,329	1,253	1,175	1,151	NA	963
Pedestrians Killed	49	46	58	56	51	41	46	50	52	37
Pedestrians Injured	1,471	1,388	1,434	1,410	1,330	1,269	1,184	1,149	NA	976

TABLE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2004

Age Group	Killed			Severe			Injured Moderate			Minor			Total		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total*
0 - 4	0	0	0	1	2	3	6	2	8	11	4	15	18	8	26
5 - 9	0	1	1	6	4	11	21	15	36	21	21	43	48	40	88
10 - 14	0	1	1	8	3	11	17	11	28	23	23	46	48	37	85
15 - 19	7	1	8	11	10	21	26	14	40	27	29	57	64	53	117
20 - 24	4	0	4	8	10	18	31	16	47	19	20	39	58	46	104
25 - 29	3	0	3	7	7	14	15	14	29	17	11	28	39	32	71
30 - 34	2	0	2	2	1	3	14	10	24	20	7	27	36	18	54
35 - 39	3	0	3	5	7	12	13	9	22	13	7	20	31	23	54
40 - 44	0	0	0	7	3	10	10	10	20	20	13	33	37	26	63
45 - 49	1	0	1	4	5	9	14	12	26	8	10	19	26	27	53
50 - 54	1	1	2	1	5	6	9	6	15	17	16	33	27	27	54
55 - 59	1	0	1	4	5	9	15	4	20	7	6	13	26	15	41
60 - 64	1	0	1	3	5	8	4	7	11	6	8	14	13	20	33
65 - 69	2	0	2	4	1	5	6	3	9	5	3	8	15	7	22
70 - 74	0	0	0	1	0	1	7	3	10	2	0	2	10	3	13
75 - 79	2	1	3	2	2	4	1	3	4	7	0	7	10	5	15
80 - 84	2	2	4	0	2	2	3	4	7	0	3	3	3	9	12
85 & Older	1	0	1	0	1	1	3	2	5	4	1	5	7	4	11
Not Stated	0	0	0	0	1	2	2	2	15	7	5	38	9	8	17
Total	30	7	37	74	74	150	217	147	376	234	187	450	525	408	933

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

FIGURE 6.01
Pedestrian Fatalities by Age Group, 1995-2004 Combined

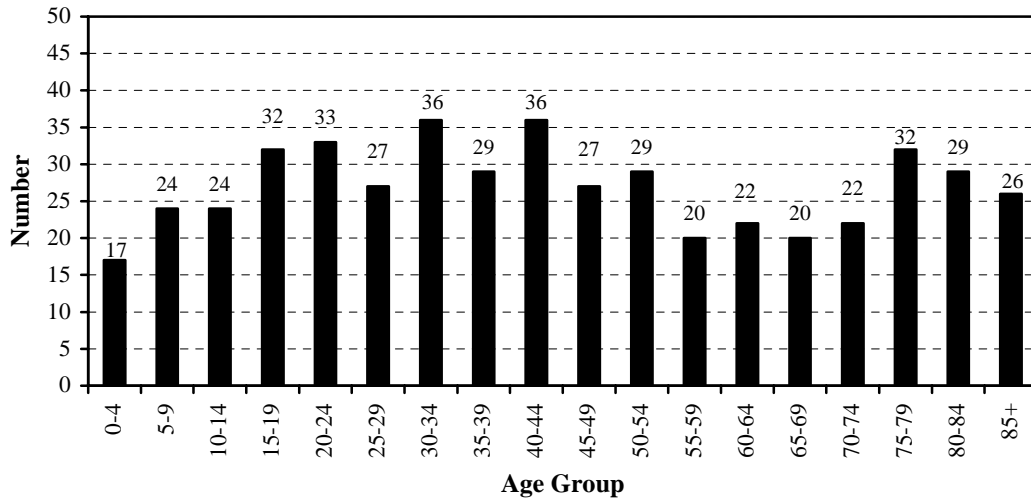


FIGURE 6.02
Pedestrians Killed and Injured by Age and Gender, 2004

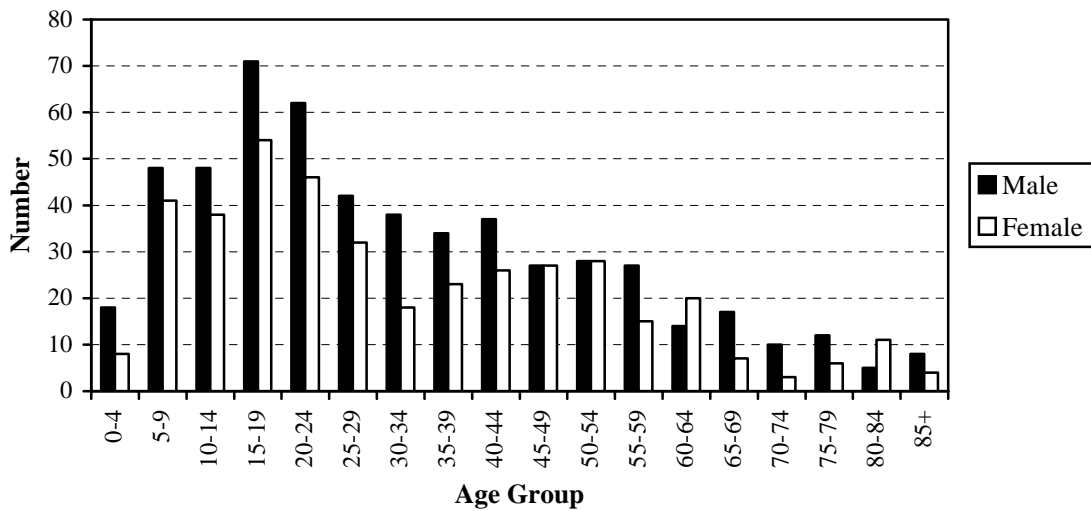


TABLE 6.03

2004 PEDESTRIAN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
January	2	76	78	2	78
February	2	67	69	2	71
March	2	55	57	2	56
April	3	76	79	3	78
May	0	73	73	0	75
June	2	66	68	2	69
July	3	67	70	3	68
August	4	70	74	4	73
September	3	87	90	3	90
October	4	97	101	4	103
November	3	101	104	3	110
December	9	91	100	9	105
Total	37	926	963	37	976

TABLE 6.04

2004 PEDESTRIAN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
100,000 and Over	8	459	467	8	480
50,000 - 99,999	6	104	110	6	109
25,000 - 49,999	6	86	92	6	88
10,000 - 24,999	3	120	123	3	126
5,000 - 9,999	1	43	44	1	46
2,500 - 4,999	3	34	37	3	35
1,000 - 2,499	1	23	24	1	23
Under 1,000	9	57	66	9	69
Total	37	926	963	37	976

TABLE 6.05

2004 PEDESTRIAN CRASHES BY TIME AND DAY

Time of Day	Fatal Crashes	Total Crashes	Sun	Mon	Tues	Wed	Thur	Fri	Sat
Midnight - 2:59 AM	4	61	20	1	3	2	8	6	21
3:00 - 5:59 AM	3	15	0	3	3	4	1	1	3
6:00 - 8:59 AM	1	95	1	16	21	20	15	18	4
9:00 - 11:59 AM	4	97	10	14	18	17	13	17	8
Noon - 2:59 PM	5	134	12	24	22	21	14	26	15
3:00 - 5:59 PM	6	266	11	35	54	51	39	55	21
6:00 - 8:59 PM	8	188	20	24	30	29	31	31	23
9:00 - 11:59 PM	6	95	6	11	15	14	15	15	19
Unknown	0	12	1	0	1	3	1	1	5
Total	37	963	81	128	167	161	137	170	119

FIGURE 6.03

2004 Pedestrian Crashes by Time of Day

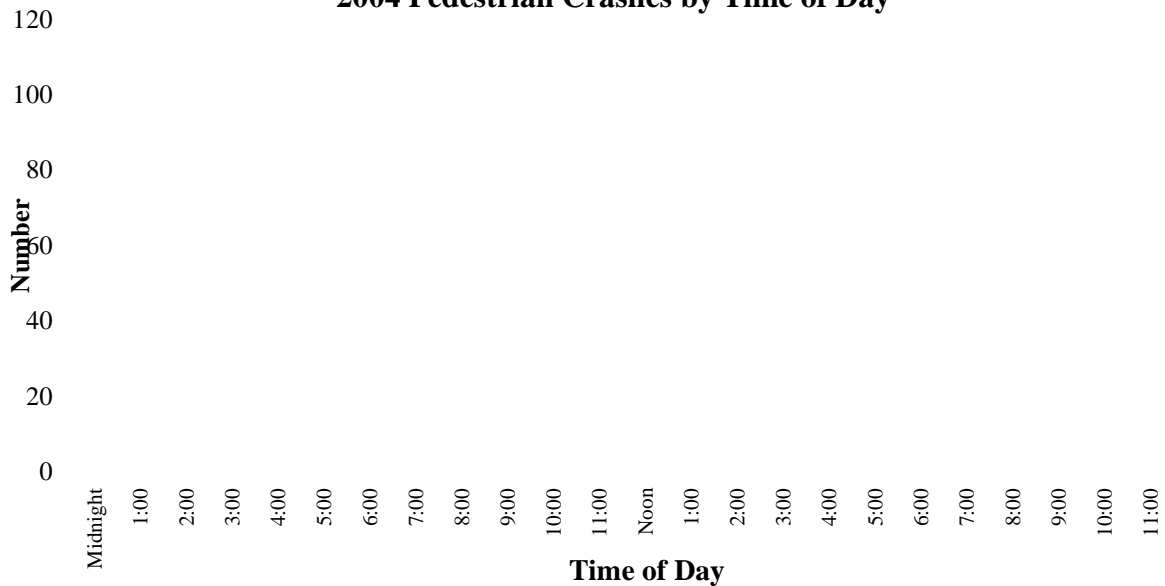


TABLE 6.06

PRIOR ACTION OF VEHICLES IN 2004 PEDESTRIAN CRASHES

Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes*
Going Straight	29	478	507
Wrong Way Opposing Traffic	0	5	5
Turning Right on Red	0	28	28
Turning Left on Red	0	3	3
Turning Right	0	87	87
Turning Left	2	196	198
Making U Turn	0	4	4
Starting From Parked	0	14	14
Starting in Traffic	0	11	11
Slowing in Traffic	3	13	16
Parking	0	5	5
Avoiding Object in Road	4	7	11
Changing Lanes	1	5	6
Passing	0	4	4
Backing	0	35	35
All Others	5	72	77
Unknown	0	10	10
Total	44	977	1021

* 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 2004

Action	Pedestrians Killed		Pedestrians Injured	
	Number	Percent	Number	Percent
Crossing Road (No Crosswalk and No Signal)	10	27.0%	119	12.2%
Crossing Against Signal	1	2.7	53	5.4
Crossing With Signal	0	0.0	134	13.7
Crossing In Crosswalk (No Signal)	2	5.4	134	13.7
Walking In Road With Traffic	0	0.0	28	2.9
Walking In Road Against Traffic	0	0.0	13	1.3
Standing In Road	4	10.8	44	4.5
Emerging From Front/Behind Parked Vehicle	0	0.0	16	1.6
Child Getting On/Off School Bus	0	0.0	2	0.2
Pushing/Working On Vehicle	1	2.7	3	0.3
Working In Road	1	2.7	9	0.9
Getting On/Off Vehicle	0	0.0	8	0.8
Playing In Road	0	0.0	6	0.6
Not In Road	0	0.0	35	3.6
Other Pedestrian Action	0	0.0	18	1.8
Unknown	18	48.6	354	36.3
Total*	37	100.0%	976	100.0%

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

TABLE 6.08

CONTRIBUTING FACTORS IN 2004 PEDESTRIAN CRASHES

Contributing Factors	Attributed to Motor Vehicle Drivers	
	Number	Percent
Human Factors		
Failure to Yield Right of Way	236	29.4%
Driver Inattention / Distraction	206	25.7
Vision Obscured	70	8.7
Illegal or Unsafe Speed	36	4.5
Unsafe Backing	28	3.5
Chemical Impairment	24	3.0
Improper / Unsafe Lane Use	21	2.6
Disregard for Traffic Control Device	18	2.2
Driver Inexperience	16	2.0
Improper Turn	14	1.7
Improper Parking/Starting/Stopping	7	0.9
Following Too Closely	5	0.6
Driving Left of Center	2	0.2
Improper Passing / Overtaking	2	0.2
Overcorrecting	2	0.2
Failure To Use Lights	1	0.1
Other Human Factors	29	3.6
Vehicular Factors		
Skidding	14	1.7
Defective Brakes	2	0.2
Miscellaneous Factors		
Weather Conditions	30	3.7
Other	40	5.0
Total Contributing Factors Cited	803	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	65	
Total Number of Drivers	1,021	

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, 1995 - 2004

Year	Killed	Tested	Alcohol Concentration*		
			(.00)	(.01 - .09)	(.10 or more)
1995	49	38	24 (63%)	2 (5%)	12 (32%)
1996	46	34	23 (68%)	0 (0%)	11 (32%)
1997	58	40	29 (73%)	2 (5%)	9 (23%)
1998	56	43	21 (49%)	2 (5%)	20 (47%)
1999	51	37	23 (62%)	3 (8%)	11 (30%)
2000	41	27	16 (59%)	1 (4%)	10 (37%)
2001	46	35	25 (71%)	1 (3%)	9 (26%)
2002	50	31	20 (65%)	0 (0%)	11 (35%)
2003	52	36	23 (64%)	3 (8%)	10 (28%)
2004	37	35	23 (66%)	2 (6%)	10 (28%)

* 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

2004 PEDESTRIAN FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age Group	Killed	Tested	Alcohol Concentration		
			(.00)	(.01 - .09)	(.10 or more)
14 & Younger	2	2	2	0	0
15 - 19	8	8	7	0	1
20 - 24	4	3	2	0	1
25 - 29	3	3	2	0	1
30 - 34	2	2	1	0	1
35 - 39	3	3	1	0	2
40 - 44	0	0	0	0	0
45 - 49	1	1	0	0	1
50 - 54	2	2	1	1	0
55 - 59	1	1	1	0	0
60 - 64	1	1	1	0	0
65 - 69	2	2	0	0	2
70 - 74	0	0	0	0	0
75 - 79	3	3	2	0	1
80 - 84	4	4	3	1	0
85 & Older	1	0	0	0	0
Total	37	35	23	2	10

TABLE 6.11

**2004 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL
CONCENTRATION BY TIME OF DAY**

Time of Day	Killed	Tested	Alcohol Concentration		
			(.00)	(.01 - .09)	(.10 or more)
Midnight - 2:59 AM	4	4	1	0	3
3:00 - 5:59 AM	3	3	1	0	2
6:00 - 8:59 AM	1	1	1	0	0
9:00 - 11:59 AM	4	4	3	0	1
Noon - 2:59 PM	5	4	4	0	0
3:00 - 5:59 PM	6	6	6	0	0
6:00 - 8:59 PM	8	7	5	0	2
9:00 - 11:59 PM	6	6	2	2	2
Unknown	0	0	0	0	0
Total	37	35	23	2	10

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 increase

In 2004, there were 985 bicycle crashes in Minnesota. This number represents a 7% increase from the 1998-2002 average. Also, it is 76 more bicycle crashes than reported in 2002.

Fatalities and injuries increase in 2004

Due to the increase in bicycle crashes the number of bicyclists injured increased in 2004. There were 937 injuries reported, with 92 (10%) of these being severe. There were 10 bicyclist fatalities in 2004, 4 more fatalities than the previous year.

Young people at risk

Of all the bicyclists injured in 2004, nearly half (46%) were less than 20 years of age. Half (5 of the 10) of the bicyclist fatalities were less than 15 years of age.

Warm weather

As expected, bicycle crashes are mostly a warm weather occurrence. In 2004, 7 of the 10 fatalities, 69% of the crashes, and 69% of the injuries occurred in the five-month period of May through September.

Afternoon rush-hour

Bicycle crashes in 2004 were most prevalent in the three-hour time period of 3:00-6:00 p.m. Nearly one-third (30%) 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 2004. Two out of five 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 three times more likely than females (691 to 219) to be injured in bicycle crashes. In 2004, all but three of the bicyclists killed and 74% 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 (for 241, or 26% of the total) was attempting to ride across the road. (However, the prior action was indicated as "other" or "unknown" for 55% of the bicyclists.)

Contributing factors

One contributing factor for both the bicyclists and the other motor vehicle drivers was cited most often in 2004, 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, 1993- 2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Bicycle Crashes	1,333	1,337	1,384	1,363	1,106	1,137	1,016	909	NA	985
Bicyclists Killed	5	6	7	9	8	14	7	7	6	10
Bicyclists Injured	1,283	1,281	1,348	1,310	1,060	1,080	960	860	NA	937

TABLE 7.02

2004 BICYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
January	0	8	0	8	0	8
February	0	9	0	9	0	9
March	0	34	0	34	0	34
April	2	81	4	87	2	84
May	0	82	4	86	0	82
June	0	140	13	153	0	140
July	4	157	7	168	4	159
August	2	139	4	145	2	138
September	1	126	4	131	1	126
October	0	90	2	92	0	92
November	1	40	4	45	1	40
December	0	25	2	27	0	25
Total	10	931	44	985	10	937

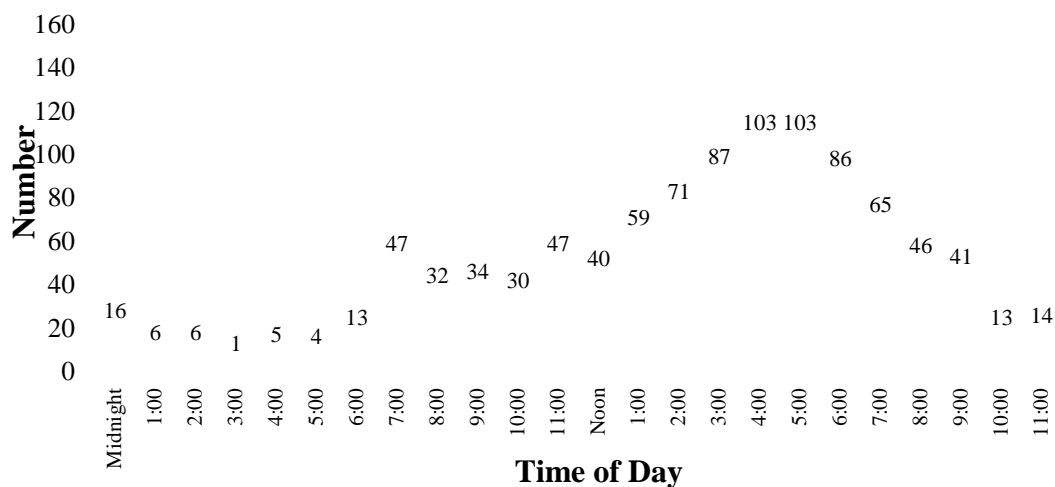
FIGURE 7.01**2004 Bicycle Crashes by Time of Day**

TABLE 7.03

2004 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	28	8	2	2	6	3	0	7
3:00 - 5:59 AM	10	2	4	1	2	0	1	0
6:00 - 8:59 AM	92	4	16	17	12	24	19	0
9:00 - 11:59 AM	111	9	14	19	16	22	15	16
Noon - 2:59 PM	170	17	26	23	19	26	35	24
3:00 - 5:59 PM	293	14	48	47	60	47	50	27
6:00 - 8:59 PM	197	11	28	26	36	32	40	24
9:00 - 11:59 PM	68	6	6	6	14	13	16	7
Unknown	16	1	2	1	4	4	2	2
Total	985	72	146	142	169	171	178	107

TABLE 7.04

2004 BICYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
100,000 and Over	2	386	17	405	2	388
50,000 - 99,999	1	135	5	141	1	135
25,000 - 49,999	0	120	6	126	0	121
10,000 - 24,999	3	170	5	178	3	172
5,000 - 9,999	1	42	5	48	1	43
2,500 - 4,999	0	22	1	23	0	22
1,000 - 2,499	0	16	0	16	0	16
Under 1,000	3	40	5	48	3	40
Total	10	931	44	985	10	937

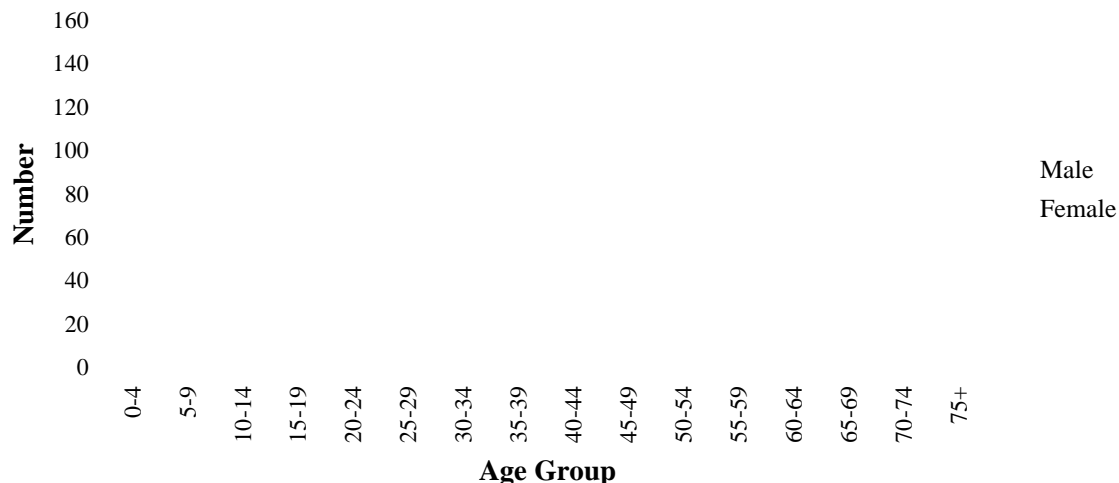
FIGURE 7.02**Bicyclists Killed and Injured by Age and Gender, 2004**

TABLE 7.05

BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2004

Age Group	Killed			Severe			Moderate			Minor			Total		
	M	F	Total	M	F	Total*	M	F	Total*	M	F	Total*	M	F	Total*
0 – 4	0	0	0	3	0	3	5	1	6	3	1	4	11	2	13
5 – 9	0	1	1	7	1	8	23	9	32	23	4	27	53	14	67
10 – 14	3	1	4	9	4	13	60	26	86	72	25	99	141	55	198
15 – 19	0	0	0	16	5	21	58	12	70	44	22	66	118	39	157
20 – 24	0	0	0	6	1	7	26	13	39	29	18	47	61	32	93
25 – 29	0	0	0	3	0	3	22	4	26	15	7	22	40	11	51
30 – 34	0	0	0	6	1	7	19	6	25	12	7	19	37	14	51
35 – 39	1	0	1	7	0	7	25	7	32	23	7	30	55	14	69
40 – 44	0	1	1	2	0	2	22	4	26	22	0	23	46	4	51
45 – 49	0	0	0	4	2	6	15	5	20	19	3	22	38	10	48
50 – 54	1	0	1	3	0	3	12	4	16	22	3	25	37	7	44
55 – 59	0	0	0	2	2	4	5	0	5	6	2	8	13	4	17
60 – 64	1	0	1	0	1	1	6	1	7	3	2	5	9	4	13
65 – 69	1	0	1	1	1	2	2	1	3	1	0	1	4	2	6
70 – 74	0	0	0	3	0	3	2	0	2	6	0	6	11	0	11
75 & Older	0	0	0	0	0	0	42	1	3	4	0	4	6	1	7
Not Stated	0	0	0	1	0	2	4	0	13	6	6	26	11	6	41
Total	7	3	10	73	18	92	308	94	411	310	107	434	691	219	937

* 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 2004 CRASHES

Prior Action	Bicyclists In Fatal Crashes	Bicyclists In Injury Crashes	Bicyclists In Property Damage Crashes	Bicyclists In All Crashes*
Riding With Traffic	2	101	4	107
Riding Across Road	1	227	13	241
Riding Against Traffic	1	94	3	98
Making Left Turn	0	11	0	11
Slowing/Stopping	0	8	2	10
Making Right Turn	0	6	0	6
Making U Turn	0	1	1	2
Other/Unknown	6	480	30	516
Total	10	928	53	991

* 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 2004 BICYCLE CRASHES

Contributing Factors	Attributed to Bicyclists		Attributed to Motor Vehicle Drivers	
	Number	Percent	Number	Percent
Human Factors				
Failure to Yield Right of Way	148	21.1%	243	36.5%
Non-Motorist Error	121	17.2	0	0.0
Disregard Traffic Control Device	86	12.2	24	3.6
Driver Inattention/Distracted	77	11.0	189	28.4
Improper/Unsafe Lane Use	61	8.7	16	2.4
Driver Inexperience	19	2.7	8	1.2
Vision Obscured	16	2.3	54	8.1
Illegal or Unsafe Speed	16	2.3	14	2.1
Failure to use Lights	16	2.3	2	0.3
Chemical Impairment	12	1.7	8	1.2
Improper Turn	11	1.6	20	3.0
Improper Park/Start/Stop	7	1.0	12	1.8
Driving Left of Center	5	0.7	2	0.3
Improper Passing/Overtaking	2	0.3	5	0.8
Improper or No Signal	1	0.1	3	0.5
Following Too Closely	1	0.1	2	0.3
Impeding Traffic	1	0.1	1	0.2
Unsafe Backing	0	0.0	7	1.1
Overcorrecting	0	0.0	2	0.3
Other Human Factors	23	3.3	14	2.1
Vehicular Factors				
Defective Brakes	16	2.3	2	0.3
Skidding	2	0.3	2	0.3
Other Vehicular Factors	1	0.1	1	0.2
Miscellaneous Factors				
Weather Conditions	4	0.6	5	0.8
Other	55	7.8	29	4.4
Total	701	100.0%	665	100.0%
Vehicles for Which There Was				
“No Clear Contributing Factor”	343		421	
Total Number of Bicyclists/Drivers	994		993	

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 2004, there were 210 crashes resulting in 2 fatalities and 112 injuries in which a school bus was indirectly involved.

Number of crashes continues to decrease

School bus crashes have decreased the past five years. In 2004, there were 708 traffic crashes involving at least one school bus. This is a 13% decrease from the 1998-2002 average.

Three deaths in 2004

In 2004, there were three fatal school bus crashes resulting in three deaths. All of the fatalities were drivers of other vehicles that collided with school buses.

Number of injuries goes down

In 2004, 266 people were injured in school bus crashes, the lowest number of injuries in the past ten years. Of the 266 total injuries in 2004, 97 were occupants of a school bus, 163 were occupants of other motor vehicles, and 6 were pedestrians.

Morning and afternoon rush hours

As would be expected, nearly two out of three school bus crashes in 2004 (65%) occurred during the time periods of 6:00-9:00 a.m. and 3:00-6:00 p.m. In addition, all three fatalities and 76% of the injuries occurred during these two time periods. Not surprisingly, few crashes (6% 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 4% of the crashes occurred when the school bus stop arm was deployed. Fifteen injuries occurred in crashes where the school bus stop arm was in use.

Contributing factors

Although there were 702 school bus crashes in 2004, a few involved more than one school bus. In all there were 711 school buses in crashes. For 49% of the school buses, police showed there was "no clear contributing factor." This compares favorably to the 29% 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 driver inattention or distraction (24%), and failure to yield the right of way (19%). The third most frequently cited contributing factor was improper turn (6%).

TABLE 8.01

SCHOOL BUS CRASH SUMMARY, 1995 - 2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Crashes	898	1,041	961	782	782	890	852	719	NA	702
Fatal Crashes	2	6	4	3	5	2	4	3	3	3
Persons Killed	2	8	7	3	5	2	4	5	3	3
Injury Crashes	216	241	211	197	172	203	182	144	NA	150
Persons Injured	457	472	408	371	328	388	355	299	NA	266
Property Damage Crashes	680	794	746	582	605	685	666	572	NA	549
School Buses Involved	906	1,050	979	790	789	903	857	731	NA	708

TABLE 8.02

2004 SCHOOL BUS CRASHES BY TIME OF DAY

Time of Day	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Midnight - 2:59 AM	0	0	6	6	0	0
3:00 - 5:59 AM	0	1	8	9	0	2
6:00 - 8:59 AM	2	45	191	238	2	95
9:00 - 11:59 AM	0	19	69	88	0	30
Noon - 2:59 PM	0	19	107	126	0	30
3:00 - 5:59 PM	1	64	156	221	1	107
6:00 - 8:59 PM	0	1	6	7	0	1
9:00 - 11:59 PM	0	0	1	1	0	0
Unknown	0	1	5	6	0	1
Total	3	150	549	702	3	266

TABLE 8.03

2004 SCHOOL BUS CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	1	17	83	101	1	22
February	0	24	95	119	0	48
March	0	16	64	80	0	28
April	1	11	36	48	1	17
May	0	16	38	54	0	28
June	0	8	20	28	0	9
July	0	2	5	7	0	4
August	0	1	5	6	0	1
September	1	16	64	81	1	51
October	0	17	46	63	0	31
November	0	10	38	48	0	12
December	0	12	55	67	0	15
Total	3	150	549	702	3	266

TABLE 8.04

**AGE AND GENDER OF PERSONS INJURED
IN 2004 SCHOOL BUS CRASHES**

Age Group	Total*	In Bus	Pedestrian	In Other Vehicle	Male	Female
0 - 4	3	1	1	1	2	1
5 - 9	20	13	1	6	8	12
10 - 14	33	21	0	12	19	14
15 - 19	38	5	0	33	20	18
20 - 24	23	5	2	16	18	5
25 - 29	16	2	0	14	9	7
30 - 34	18	1	0	17	10	8
35 - 39	15	2	0	13	3	12
40 - 44	11	1	0	10	6	5
45 - 54	13	3	0	10	6	7
55 - 64	15	5	1	9	8	7
65 & Older	10	3	0	7	3	7
Unknown	51	35	1	15	16	22
Total	266	97	6	163	128	125

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

TABLE 8.05

**PERSONS KILLED OR INJURED
IN 2004 SCHOOL BUS CRASHES BY POPULATION OF AREA**

Population of City or Township	Killed	Severe	Injured Moderate	Minor	Total
100,000 and Over	0	6	17	69	92
50,000 - 99,999	0	3	12	22	37
25,000 - 49,999	0	0	8	23	31
10,000 - 24,999	1	0	7	22	29
5,000 - 9,999	0	0	2	7	9
2,500 - 4,999	1	0	4	1	5
1,000 - 2,499	0	0	0	4	4
Under 1,000	1	4	5	50	59
Total	3	13	55	198	266

TABLE 8.06

2004 SCHOOL BUS CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	3	126	446	575	3	230
Parked Motor Vehicle	0	8	71	79	0	18
Bicycle	0	5	2	7	0	5
Pedestrian	0	6	0	6	0	6
Deer or Other Animal	0	0	1	1	0	0
Fixed Object	0	2	17	19	0	2
Non-collision:						
Overturn	0	1	0	1	0	2
Other/Unknown	0	2	12	14	0	3
Total	3	150	549	702	3	266

TABLE 8.07

2004 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Not Applicable	1	54	252	307	1	97
Traffic Signal	0	42	101	143	0	73
Stop Sign--All Approaches	1	1	17	19	1	1
Other Stop Sign	0	33	116	149	0	62
Yield Sign	0	3	8	11	0	7
Officer/Flag Person	0	0	2	2	0	0
School Bus Stop Arm	0	9	17	26	0	15
No Passing Zone	1	1	1	3	1	1
Railroad Crossing Device	0	3	10	13	0	5
Other	0	3	11	14	0	4
Unknown	0	1	14	15	0	1
Total	3	150	549	702	3	266

TABLE 8.08

CONTRIBUTING FACTORS IN 2004 SCHOOL BUS CRASHES

Contributing Factors	Attributed to School Bus Drivers		Attributed to Drivers of Other Vehicles	
	Number	Percent	Number	Percent
Human Factors				
Driver Inattention /Distraction	84	23.5%	145	24.2%
Failure to Yield Right of Way	69	19.3	87	14.5
Unsafe Backing	23	6.4	14	2.3
Improper Turn	22	6.1	6	1.0
Improper/Unsafe Lane Use	21	5.9	29	4.8
Vision Obscured	17	4.7	20	3.3
Following Too Closely	14	3.9	53	8.8
Illegal/Unsafe Speed	10	2.8	60	10.0
Improper Passing/Overtaking	9	2.5	11	1.8
Improper Park/Start/Stop	9	2.5	7	1.2
Disregard Traffic Control Device	6	1.7	28	4.7
Driver Inexperience	5	1.4	18	3.0
Driving Left of Center	4	1.1	9	1.5
Overcorrecting	3	0.8	3	0.5
Impeding Traffic	2	0.6	1	0.2
Chemical Impairment	0	0.0	3	0.5
Improper or No Signal	0	0.0	2	0.3
Failure to Use Lights	0	0.0	1	0.2
Non-Motorist Error	0	0.0	1	0.2
Driver on Phone/CB	0	0.0	1	0.2
Other Human Factors	6	1.7	4	0.7
Vehicular Factors				
Skidding	10	2.8	39	6.5
Defective Brakes	5	1.4	2	0.3
Other Vehicular Factors	3	0.8	2	0.3
Miscellaneous Factors				
Weather Conditions	20	5.6	36	6.0
Other	16	4.5	18	3.0
Total	358	100%	600	100%
Vehicles for Which There Was				
“No Clear Contributing Factor”	347		208	
Total Number of Drivers	711		730	

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 2004, 17% 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 2004 was no exception. Seventy-two crashes were reported in 2004, an 18% decrease from the 1995-2002 average of 87.

Number of fatalities increases

Although the number of train crashes decreased, the number of vehicle/train crash fatalities increased: thirteen people were killed in 2004 compared to eight in 2003. One of the thirteen vehicle/train fatalities resulted from a vehicle crash with the Hiawatha light rail.

Railroad crossbuck sites dangerous

Fourteen of the 72 motor-vehicle/train crashes, including 3 of the 12 fatal crashes, occurred at a railroad crossing signed by a railroad crossbuck. An additional 11 crashes (including 3 fatal crashes) occurred at crossings with a railroad crossing stop sign. Combined, these two types of traffic control devices were present at 35% of the crashes and accounted for nearly half of the fatalities.

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 2004, 69% of the total crashes, 74% of the injuries, and 85% 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 74% of all contributing factors cited.

TABLE 9.01

MOTOR VEHICLE / TRAIN CRASH SUMMARY, 1995 - 2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Crashes	132	124	107	108	84	79	70	77	NA	72
Fatal Crashes	15	8	6	9	8	3	5	6	5	12
Persons Killed	16	8	6	11	10	4	6	9	8	13
Injury Crashes	30	45	36	47	32	32	22	27	NA	21
Persons Injured	34	50	46	64	50	43	28	37	NA	27
Property Damage Crashes	87	71	65	52	44	44	43	44	NA	39

TABLE 9.02

2004 MOTOR VEHICLE / TRAIN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total	Killed	Injured
January	1	2	7	10	1	3
February	1	3	2	6	2	4
March	0	2	3	5	0	2
April	0	2	1	3	0	2
May	1	1	1	3	1	1
June	1	1	2	4	1	1
July	1	3	4	8	1	4
August	3	0	2	5	3	1
September	1	3	6	10	1	3
October	0	2	3	5	0	2
November	2	0	4	6	2	1
December	1	2	4	7	1	3
Total	12	21	39	72	13	27

TABLE 9.03

2004 MOTOR VEHICLE / TRAIN CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	10	2	0	1	2	1	2	2
3:00 - 5:59 AM	3	2	0	0	0	1	0	0
6:00 - 8:59 AM	10	0	4	1	1	2	0	2
9:00 - 11:59 AM	12	1	2	2	3	1	0	3
Noon - 2:59 PM	12	1	2	2	0	2	3	2
3:00 - 5:59 PM	16	0	4	2	1	1	4	4
6:00 - 8:59 PM	3	0	0	0	1	0	1	1
9:00 - 11:59 PM	6	1	1	3	0	0	1	0
Unknown	0	0	0	0	0	0	0	0
Total	72	7	13	11	8	8	11	14

TABLE 9.04

**2004 MOTOR VEHICLE / TRAIN CRASHES
BY TRAFFIC CONTROL DEVICE**

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
RR Crossing Stop Sign	3	1	7	11	3	3
RR Crossbuck	3	7	4	14	3	7
RR Flashing Lights	0	4	5	9	0	4
RR Overhead Flashers						
Plus Gate	2	0	3	5	3	1
RR Overhead Flashers	0	0	1	1	0	0
RR Crossing Gate	1	0	1	2	1	0
Stop Sign	3	4	4	11	3	6
Other Device	0	3	5	8	0	4
Unknown	0	0	3	3	0	0
Not Applicable	0	2	6	8	0	2
Total	12	21	39	72	13	27

TABLE 9.05

**AGE OF PERSONS KILLED OR INJURED IN 2004
MOTOR VEHICLE / TRAIN CRASHES**

Age Group	Killed	Severe	Injured		Total
			Moderate	Minor	
0-4	0	0	0	0	0
5-9	1	0	0	1	1
10-14	0	0	0	0	0
15-19	0	0	0	0	0
20-24	1	0	0	3	3
25-29	1	1	0	3	4
30-34	1	0	1	1	2
35-39	2	2	0	1	3
40-44	1	0	2	2	4
45-49	1	0	1	0	1
50-54	1	1	1	0	2
55-59	0	0	1	0	1
60-69	1	0	0	1	1
70-79	1	0	0	2	2
80 & Older	2	0	1	0	1
Not Stated	0	0	0	2	2
Total	13	4	7	16	27

TABLE 9.06

2004 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	1	2	6	9	1	2
50,000 - 99,999	0	1	3	4	0	1
25,000 - 49,999	0	0	0	0	0	0
10,000 - 24,999	1	2	5	8	1	4
5,000 - 9,999	0	0	1	1	0	0
2,500 - 4,999	2	3	1	6	2	4
1,000 - 2,499	1	1	0	2	2	2
Under 1,000	7	12	23	42	7	14
Total	12	21	39	72	13	27

TABLE 9.07

**CONTRIBUTING FACTORS
IN 2004 MOTOR VEHICLE / TRAIN CRASHES**

Contributing Factor	Number	Percent
Human Factors		
Failure to Yield Right of Way	33	33.0%
Driver Inattention/Distracted	21	21.0
Disregard for Traffic Control Device	20	20.0
Illegal or Unsafe Speed	7	7.0
Improper Park/Start/Stop	5	5.0
Chemical Impairment	4	4.0
Improper/Unsafe Lane Usage	1	1.0
Impeding Traffic	1	1.0
Driver Inexperience	1	1.0
Failure to Use Lights	1	1.0
Vision Obscured	1	1.0
Other Human Factor	2	2.0
Vehicular Factors		
Skidding	2	2.0
Other Vehicular Factor	1	1.0
Total	100	100.0%
Vehicles for Which There Was		
“No Clear Contributing Factor”	5	
Number of Drivers	74	

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.