

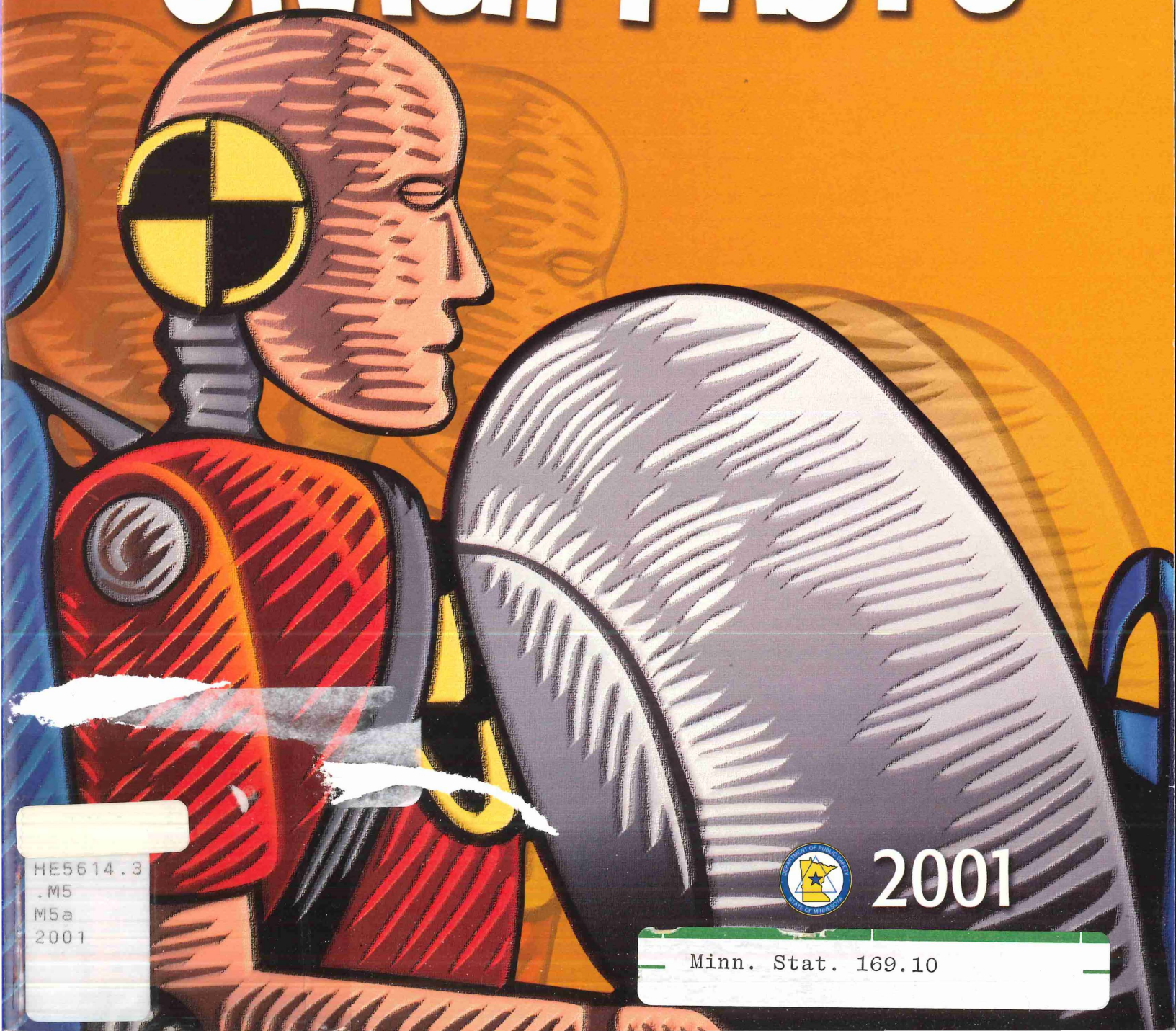


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Minnesota Motor Vehicle

CRASH FACTS



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2001

Minn. Stat. 169.10

Suggestions for Using *Crash Facts*

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

Legislators:

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

Students studying traffic safety issues:

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

Law Enforcement Community:

There are over 500 city, county, and state law enforcement agencies in Minnesota. Each agency has access to its own reports on traffic crashes, but the data are brought together here. Table 1.26 shows statistical information arranged by county. Table 1.27 reports on the traffic crash experience of almost 200 cities with populations over 2,500.

Public Health:

Traffic crashes cause deaths and injuries; they are the leading cause of death to people from age 1 to 33 (people generally thought of as "too young to die"). *Crash Facts* is filled with tables that show age and sex of drivers and victims, and many tables focus on the contributing factors in crashes. Section II is relevant to chemical dependency issues.

City and county government agencies:

Information about your county will be found in Tables 1.26; your city's statistics may be listed in Table 1.27. The Office of Traffic Safety can provide additional information on traffic crashes in your county or city; just contact us at the address shown below.

Data Availability:

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

Such requests should be directed to:

Department of Public Safety
Office of Traffic Safety
444 Cedar Street, Suite 150
St. Paul, MN 55101-5150
(651) 296-9489 or 297-4516

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MINNESOTA MOTOR VEHICLE CRASH FACTS 2001

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

Produced by:
Office of Traffic Safety
Minnesota Department of Public Safety
444 Cedar Street, Suite 150
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This material is available in alternative format, upon request.

(Special thanks to Office of Communications for cover design.)

MINNESOTA DEPARTMENT OF PUBLIC SAFETY



Office of the Commissioner

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June 2002

There were 568 traffic deaths last year. In a way, we can feel good that the number dropped below 600 for the first time in five years. But there are still far more deaths from traffic crashes than from murder, or suicide, or from any other cause except for disease. It is clear to me, as Commissioner of Public Safety, that traffic safety awareness affords the most potential for saving lives and preventing severe injuries in Minnesota.

Last May, the Department of Public Safety coordinated a large-scale campaign to strongly urge Minnesotans to buckle up when they are in a vehicle. Wearing a seat belt is the easiest and most important thing you can do to save your life or prevent a serious injury in a crash. Last year, more than 150 lives were saved because people buckled up. But almost the same number of people died because they were not wearing safety belts, or did not take the time to properly fasten their children in child safety seats. Please protect yourself by taking the simple precaution of buckling up. In addition to protecting yourself, the law requires seat belt use. Law enforcement officers will vigorously enforce the law whenever they can.

Here is another fundamental safe-driving behavior: Drive sober. If you drink and drive, you are putting yourself, loved ones, and innocent strangers at risk by your behavior. State law provides felony penalties (and properly so) if you cause injury or death to others in this way. Do not take this risk. Do not drink and drive.

There are other common-sense safe-driving practices: Obey the speed limit. Be courteous to other drivers. Pay attention to your driving. Drive defensively, not aggressively. Remember, driving is a cooperative venture, not a competitive sport. After all, the objective of driving is to get where you're going safely.

Thank you for doing everything you can to keep Minnesota safe.

Sincerely,

Charlie Weaver
Commissioner

Alcohol &
Gambling
Enforcement

Bureau of
Criminal
Apprehension

Capitol Security

Driver & Vehicle
Services

Emergency
Management/
Emergency
Response
Commission

State Fire
Marshal/
Pipeline Safety

State Patrol

Traffic Safety

Minnesota Traffic Crashes in 2001 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 2001. We hope that the information contained within this book will help you and others use our roadways more safely.

In 2001,

- 98,984 traffic crashes occurred
- 180,209 motor vehicles were involved
- 263,553 people were involved
- 568 people died
- 42,223 people were injured
- \$1,619,010,900 estimated economic cost to Minnesota

On an average day in 2001,

- 271 crashes
- 1.6 deaths
- 116 people injured
- \$4,435,646 average daily cost

2001 crashes that involved alcohol

- 5,384 crashes
- 211 deaths
- 4,034 people injured
- \$299,099,400 estimated economic cost

Highlights from the 2001 Crash Facts edition

- **Traffic fatalities decreased 9.1 percent (from 625 in 2000 to 568 in 2001).**
We hope that the 2001 figure represents a downward trend in severe traffic crashes in Minnesota. We also hope that tougher seat belt and drinking/driving laws, and increased enforcement remain a high priority for all Minnesotans.
- **Safety belt use increased to a record high of 74% (from 73% in 2000).**
This good news means that more people, in 2001 compared to prior years, escaped severe injury or death because they were wearing their safety belts.
- **The fatality rate per 100 million Vehicle Miles Traveled (VMT) is at a record low.**
The preliminary estimate of the VMT-based fatality rate was 1.10, the lowest ever. This compares with a rate of 1.47 in 1990, 3.03 in 1980, and 4.41 in 1970. This means that, even though more drivers travel more miles each year, the number of people killed in proportion to the number of miles driven continues to decrease. This is great news for the average driver, but it is no comfort to the families of the 568 people killed on our highways last year.

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 the 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)
- "DWT" 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 2001 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 will be changed beginning in 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 book.

Definitions

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

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INTRODUCTION

At the end of the 2001 calendar year, 3,685,499 people held Minnesota driver licenses and 4,376,815 motor vehicles were registered in the state. Vehicles traveled approximately fifty-two billion miles on public roadways in the state. There were 98,984 traffic crashes; 568 people died and 42,223 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, though, 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 33 and the fifth leading cause of death among all persons (*Accident Facts*, 2001 Edition, p. 10).

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 2000 data. Based on those, the total economic loss from 2001 traffic crashes in Minnesota was \$1,619,010,900 a figure that is calculated as follows:

Cost of Motor Vehicle Crashes in 2000

568	deaths	@	\$1,000,000	=	\$568,000,000
2,949	severe injuries	@	\$47,900	=	\$141,257,100
14,861	moderate injuries	@	\$16,000	=	\$237,776,000
24,413	minor injuries	@	\$9,100	=	\$222,158,300
69,203	property damage				
	crashes	@	\$6,500	=	\$449,819,500
	Total	=			\$1,619,010,900

Factors Affecting Traffic Crashes

Many factors may contribute to even a single crash. A domestic quarrel 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 physical impairment (usually by alcohol). Reducing these behaviors would reduce crashes. 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.

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.

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 41,821 traffic fatalities (preliminary estimate) throughout the country and 568 in Minnesota. The respective rates per hundred million miles of travel were 1.5 and 1.1. 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 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 has been 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

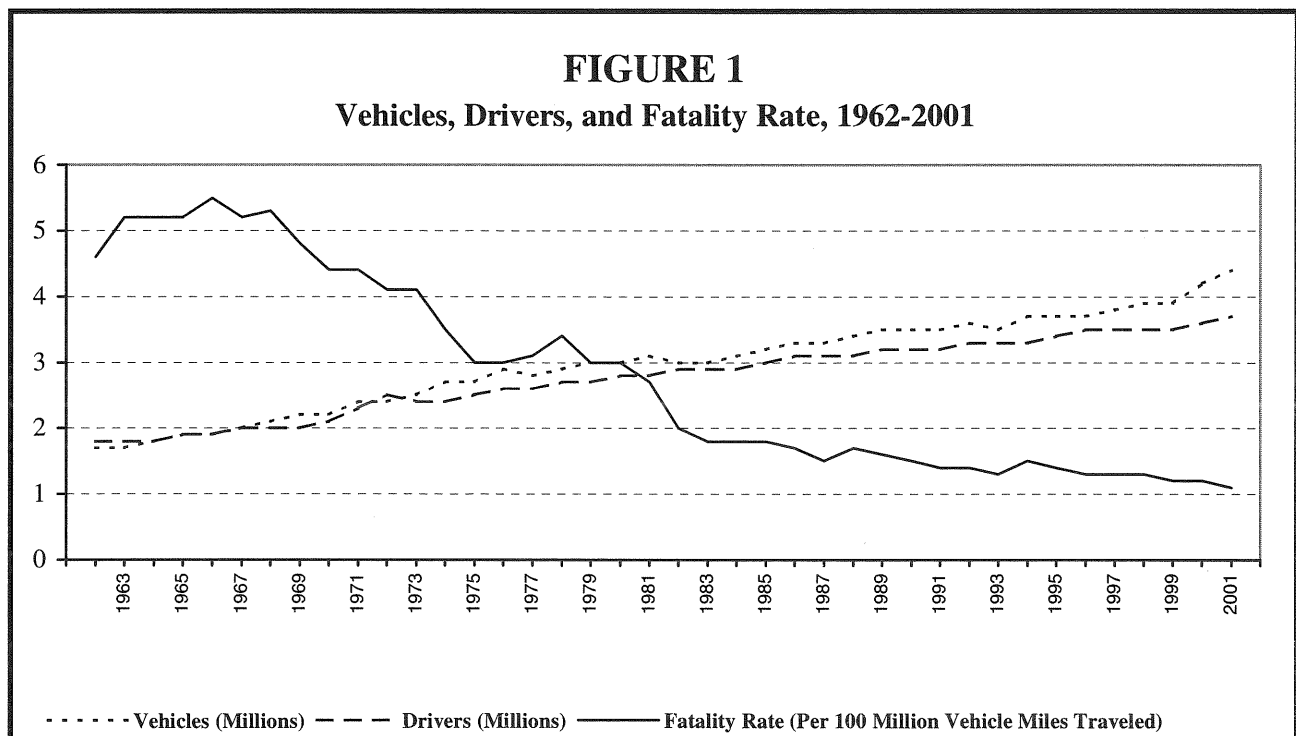
Minnesota Motor Vehicle Crash Facts is produced annually by the Office of Traffic Safety, Minnesota Department of Public Safety, in accordance with state law. Minnesota Statutes, Section 169.10, requires that traffic crashes be reported to the Department. Section 169.10 then requires the Department to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

Section 169.09 specifies that a driver involved in an accident 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 8-1-77, and then to \$500 on 8-1-81. The current minimum of \$1,000 took effect August 1, 1994.

Crash Facts is divided into nine sections. The first presents information on the aggregate of all crashes reported to the state during the preceding calendar year. The remaining eight sections focus on specific areas of interest to policy makers and the public. Section II deals with alcohol-related crashes. Section III is about the use of safety equipment by occupants of vehicles required to be equipped with passenger protection systems, including child safety seats and safety belts. The following five sections focus on crashes that involved motorcycles (section IV), trucks (section V), pedestrians (section VI), bicycles (section VII), and school buses (section VIII). The final section (IX) summarizes information on collisions between motor vehicles and trains.

FIGURE 1
Vehicles, Drivers, and Fatality Rate, 1962-2001



I: ALL CRASHES

Overview of 2001 traffic crashes

The 2001 calendar year differed markedly from the preceding year. Almost all categories of crashes and injuries underwent a dramatic percentage decrease. For example, there were 98,984 traffic crashes in the year 2001. This figure represents a 4.4% drop from the previous year. Also, there were 568 traffic fatalities in 2001, which are 57 fewer than in the year 2000. This is a very large 9.1% decrease in fatalities. More crash and injury categories can be seen in Table 1.02 on page 7, where the percent change is represented as an increase or decrease from the previous 5-year average in that category. (Property Damage Only crashes, Motorcycle Fatalities, and Economic Loss are the only three categories to experience an increase).

Weather factors and the September 11th tragedy may have indirectly played a role in these statistics by lowering the amount of vehicle miles traveled in the State of Minnesota. In 2001, Minnesota experienced harsh winter weather in the first part of the year. Of the total of 57 fewer fatalities in 2001, 45 fewer fatalities were recorded from January through April in 2001 than from the same time period in 2000 (which had warmer winter weather). The fatality rate per hundred million miles of travel was 1.10 (preliminary estimate). This is the lowest rate ever recorded in Minnesota, and one of the lowest rates in the country. The fatality rate per 100,000 population was 11.4, and the fatality rate per 100,000 registered motor vehicles was 13.0. Both of these rates are also substantial decreases from the year 2000. In addition to the weather and the events of September 11th, the favorable across the board decreases in crashes and injuries in 2001 may be attributed also to the work of traffic safety professionals nationally and here in Minnesota. The rising percentage of seat belt users in Minnesota (now at 74% in 2001), suggests that in-state programs such as "Safe and Sober," coupled with increased enforcement of strong traffic safety laws, have served to change the behavior of Minnesota's drivers for the better.

The following sections give an overview of crash statistics, focusing especially on who was involved and what the conditions were, and then more briefly describing where, why, and when the crashes occurred.

WHO was involved

Among drivers, young people and males are over represented in traffic crashes in Minnesota. There are 3,685,499 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 2001, they represented 8% of the licensed drivers, but 15% of the crash-involved drivers. By contrast drivers over 65 made up 14% of the driving population, but accounted for just 7% of the crash-involved drivers in 2001. 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 a leading cause of death to young people. In the state last year, 233 people aged less than 30 died in crashes. That represents 41% 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 citizens make up 12% of the state's population, but accounted for 19% of the traffic fatalities.

Among people injured, young people especially pay a price. There were 20,219 people aged less than 30 who were injured; that represents 48% of the total number of people injured. People aged 65 and over accounted for just 7% of all traffic injuries.

WHY they happened

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. "Physical 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, or van occupants. Of the 568 traffic fatalities, 451 (79%) were passenger car, van, or pickup truck occupants. There were also 46 pedestrians, 42 motorcyclists, and 7 bicyclists who died in traffic crashes. There were no deaths among school bus occupants, and only 9 fatalities among truck occupants. There is a similar pattern among people who were injured: of the 42,223 injured, 88% were car, van, 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 almost two-thirds (65%) of all crashes involve one vehicle colliding with another vehicle. In fatal and injury crashes, collisions with fixed objects and overturns are also common. For property damage crashes, the other leading crash types are collision with fixed object (10% of the total), collision with a parked motor vehicle (9% of the total), and collision with deer (7% of the total).

Most crashes occur in good driving conditions. Over half (51%) of fatal crashes, and 63% of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half (56%) of fatal crashes, and 56% of nonfatal crashes occurred during "clear" weather. Road surface conditions where crashes occurred were usually good. For fatal crashes, 74% were on dry roads, 11% were on wet roads, and only 11% were on snowy or icy roads. For nonfatal crashes, 64% were on dry roads, 14% on wet roads, and 18% on snowy or icy roads.

WHERE they happened

Fatal crashes tend to occur on roads in rural areas that permit high speeds and do not have interstate-type safety designs. In the year 2001, 348 (68%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. And, 364 (72%) of all fatal crashes occurred on trunk or county state aid highways, and 276 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 33% of the fatal crashes, but 60% of all crashes.

WHEN they occurred

In the year 2001, fatal crashes occurred most often in the afternoon hours between 4:00-7:00pm. In fact, one out of every five fatal crashes occurs during that time period. This observable fact has changed since the early 90's. Then, most fatal crashes occurred during the time period of 10:00pm-1:00am at night. This phenomenon may be explained by the increased awareness by the public of the dangers of drinking and driving. Total crashes were also concentrated in the late afternoon: 25% occurred in the three hours from 3:00 to 6:00 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 32%). Total crashes are more evenly distributed across days of the week, though Fridays had the most (17%) and Sundays had the least (10%).

As a general rule, harsh winter weather results in more, but less severe, traffic crashes. And, in most years, fatal crashes follow a strong seasonal pattern, peaking in the late summer and fall months. The year 2001 was similar in this respect. The whole second half of the year was high for fatal crashes: 57% of them occurred from July through December. The three highest months for nonfatal crashes were February, November, and December.

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. Epidemics that kill and injure fewer people are attacked vigorously until they are no longer a public threat.

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 - 2001

Year	Total Crashes	Persons		Licensed Drivers (million)	Motor Vehicles (MV) (million)	State Popu- lation (million)	Vehicle Miles Travelled (VMT) (billion)	Crash Rates			Fatality Rates		
		Killed	In- jured					Per 100,000 MV	Per 100,000 Popu- lation	Per 100 Mil VMT	Per 100,000 MV	Per 100,000 Popu- lation	Per 100 Mil VMT
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
1965	83,329	875	50,847	1.85	1.86	3.57	16.8	4,480	2,334	496	47.0	24.5	5.2
1970	99,404	987	38,538	2.05	2.24	3.80	22.4	4,438	2,616	444	44.1	26.0	4.4
1975	123,206	777	41,931	2.51	2.69	3.92	25.6	4,580	3,143	481	28.9	19.8	3.0
1980	103,612	863	45,227	2.77	3.01	4.08	28.5	3,446	2,546	364	28.7	21.2	3.03
1981	97,879	763	43,739	2.83	3.09	4.10	28.6	3,163	2,387	342	24.7	18.6	2.67
1982	89,443	581	38,692	2.87	3.01	4.13	29.2	2,972	2,181	304	19.3	14.2	1.98
1983	97,371	558	41,086	2.90	3.03	4.15	30.5	3,214	2,356	319	18.4	13.5	1.83
1984	93,741	584	41,808	2.91	3.13	4.16	32.2	2,995	2,262	291	18.7	14.1	1.81
1985	99,168	610	44,316	3.04	3.22	4.19	33.1	3,080	2,380	300	18.9	14.7	1.84
1986	95,460	572	42,130	3.07	3.25	4.21	34.2	2,937	2,266	279	17.6	13.6	1.67
1987	94,095	530	42,091	3.10	3.31	4.25	35.1	2,840	2,233	268	16.0	12.6	1.51
1988	102,094	615	44,415	3.13	3.39	4.31	36.4	3,012	2,371	280	18.1	14.3	1.69
1989	105,996	605	45,404	3.16	3.46	4.35	37.6	3,060	2,435	282	17.5	13.9	1.61
1990	99,236	568	44,634	3.18	3.52	4.38	38.8	2,817	2,268	256	16.1	13.0	1.47
1991	101,419	531	42,748	3.22	3.51	4.43	39.3	2,890	2,288	258	15.1	12.0	1.35
1992	96,808	581	43,249	3.27	3.55	4.48	41.3	2,730	2,161	235	16.4	13.0	1.41
1993	100,907	538	44,987	3.28	3.48	4.52	42.3	2,899	2,234	239	15.5	11.9	1.27
1994	99,701	644	46,403	3.34	3.67	4.57	43.4	2,720	2,183	230	17.6	14.1	1.48
1995	96,022	597	47,161	3.39	3.68	4.61	44.1	2,606	2,083	218	16.2	13.0	1.35
1996	105,332	576	48,963	3.46	3.70	4.66	45.9	2,845	2,261	230	15.6	12.4	1.26
1997	98,625	600	46,064	3.49	3.77	4.69	46.9	2,065	2,105	210	12.6	12.8	1.28
1998	92,926	650	45,115	3.53	3.90	4.74	48.5	2,380	1,962	192	16.6	13.7	1.34
1999	96,813	626	44,538	3.54	3.92	4.78	50.7	2,470	2,027	191	16.0	13.1	1.24
2000	103,591	625	44,740	3.65	4.20	4.92	52.4	2,469	2,106	198	14.9	12.7	1.19
2001	98,984	568	42,223	3.69	4.38	4.97	53.2	2,262	1,991	186	13.0	11.4	1.07

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 travelled 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
1996 - 2001

	1996	1997	1998	1999	2000	1996- 2000 Average	2001	%change from 5 Yr Average	Record High	
Total Crashes	105,332	98,626	92,926	96,813	103,591	99,457.6	98,984	-0.5	123,106	(1975)
Fatal Crashes	503	528	575	567	557	546.0	508	-7.0	878	(1973)
Injury Crashes	33,283	31,290	30,571	30,279	30,830	31,250.6	29,273	-6.3	33,686	(1978)
Severe	2,960	2,855	2,702	2,677	2,471	2,733.0	2,274	-16.8	5,109	(1984) ¹
Moderate	11,745	11,227	11,391	11,352	11,445	11,432.0	10,851	-5.1	12,326	(1985) ¹
Minor	18,578	17,208	16,478	16,250	16,914	17,085.6	16,148	-5.5	18,578	(1996) ¹
Property Damage Crashes	71,546	66,808	61,780	65,967	72,204	67,661.0	69,203	+2.3	94,810	(1975)
Total Injuries	48,963	46,064	45,115	44,538	44,740	45,884.0	42,223	-8.0	50,332	(1978)
Severe	3,813	3,673	3,409	3,460	3,174	3,505.8	2,949	-15.9	6,573	(1984) ¹
Moderate	16,519	15,948	16,189	16,002	15,903	16,112.2	14,861	-7.8	17,670	(1985) ¹
Minor	28,631	26,443	25,517	25,076	25,663	26,266.0	24,413	-7.1	28,631	(1996) ¹
Total Fatalities	576	600	650	626	625	615.4	568	-7.7	1,060	(1968)
Pedestrian	46	58	56	51	41	50.4	46	-8.7	157	(1971)
Motor Vehicle/Train ²	8	6	11	10	4	7.8	6	-23.1	62	(1932)
Bicycle	6	7	9	8	14	8.8	7	-20.5	24	(1977)
Motorcycle	42	24	40	29	35	34.0	42	+23.5	121	(1980)
All Terrain Vehicle	1	6	7	7	5	5.2	4	-23.1	9	(1986)
Snowmobile	5	5	2	8	5	5.0	3	-40.0	9	(1984)
Motor Vehicle Occupants	462	488	532	516	520	503.6	460	-8.7	532	(1998) ¹
Minnesota Fatality Rate ³	1.26	1.28	1.34	1.24	1.19	1.26	1.07	-12.8	23.6	(1934)
U.S. Fatality Rate ³	1.7	1.6	1.6	1.5	1.6	1.60	1.5	-6.3	18.0	(1925)
Minnesota Economic Loss (millions)	\$1,578.1	\$1,456.8	\$1,620.7	\$1,635.4	\$1,680.3	1,594.3	1,619.0	+1.6	\$1,680.3	(2000) ⁴

¹ The available records on which these "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

2001 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	31	55	36	32	14	16	34	218
		Female	0	13	21	13	18	12	5	15	97
	Passenger	Male	9	12	20	6	3	5	4	8	67
		Female	5	11	8	4	3	2	4	18	55
	Unknown	Male	0	3	8	4	2	0	0	0	17
		Female	0	0	1	0	2	0	3	0	6
Motorcycle	Operator	Male	0	2	11	6	8	7	2	0	36
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	1	0	2	1	2	0	0	6
Motorscooter or Moped	Driver	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	0	0
All Terrain Vehicle	Driver	Male	0	1	0	1	1	0	0	0	3
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	1	0	0	0	0	0	1
Snowmobile	Driver	Male	0	1	0	1	0	1	0	0	3
		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	1	0	2	3
		Female	0	1	0	0	0	0	0	0	1
	Passenger	Male	0	0	1	0	0	0	0	0	1
		Female	0	0	0	0	0	0	0	0	0
	Unknown	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	1	1
Bicyclist		Male	0	2	0	1	2	1	0	1	7
		Female	0	0	0	0	0	0	0	0	0
Pedestrian		Male	0	3	6	5	4	2	3	5	28
		Female	2	1	3	1	1	2	2	6	18
Total Fatalities			9	55	101	60	52	31	25	50	383
			7	27	34	20	25	18	14	40	185
Total			16	82	135	80	77	49	39	90	568

Note: The six people who died who had been occupants of an "other motor vehicle" type included: two farm equipment operators, one driver and one occupant of "other privately owned vehicle," (i.e., other than car, truck, motorcycle, etc.) one person of unknown seating position who was associated with farm equipment, and one operator of an "other" vehicle type.

TABLE 1.04

AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2001 CRASHES

Age Group	Persons Killed			Persons Injured			
	Male	Female	Total	Male	Female	Unknown	Total
0 - 3	3	2	5	240	202	8	450
4 - 10	6	6	12	751	666	17	1,434
11 - 14	5	3	8	642	620	13	1,275
Total Under 15	14	11	25	1,633	1,488	38	3,159
15	6	4	10	326	328	5	659
16	2	4	6	775	962	6	1,743
17	9	5	14	765	1,004	6	1,775
18	15	8	23	868	848	5	1,721
19	18	2	20	799	754	3	1,556
20	15	2	17	705	694	4	1,403
Total 15 - 20	65	25	90	4,238	4,590	29	8,857
Total Under 21	79	36	115	5,871	6,078	67	12,016
0 - 4	4	4	8	338	278	10	626
5 - 9	5	3	8	543	469	14	1,026
10 - 14	5	4	9	752	741	14	1,507
15 - 19	50	23	73	3,533	3,896	25	7,454
20 - 24	60	21	81	2,958	2,787	22	5,767
25 - 29	41	13	54	1,964	1,864	11	3,839
30 - 34	26	8	34	1,726	1,780	10	3,516
35 - 39	34	12	46	1,578	1,755	5	3,338
40 - 44	27	12	39	1,523	1,659	10	3,192
45 - 49	25	13	38	1,259	1,388	8	2,655
50 - 54	18	7	25	1,006	1,180	2	2,188
55 - 59	13	11	24	638	752	0	1,390
60 - 64	12	8	20	452	531	1	984
65 - 69	13	6	19	387	415	7	809
70 - 74	12	10	22	328	388	5	721
75 - 79	17	13	30	310	374	3	687
80 - 84	11	9	20	190	256	1	447
85 & Older	10	8	18	121	164	0	285
Not Stated	0	0	0	507	745	540	1,792
Total	383	185	568	20,113	21,422	688	42,223

See Figure 1.01 on page 12 for a graphic depiction of how many persons are killed and injured by age and gender groups.

TABLE 1.05

AGE AND GENDER OF DRIVERS IN 2001 CRASHES

Age Group	Drivers in Fatal Crashes				Drivers in All Crashes			
	Male	Female	Not Stated	Total	Male	Female	Not Stated	Total
14 & Younger	0	1	0	1	130	68	1	199
15	6	0	0	6	207	202	5	414
16	11	10	0	21	3,250	2,786	28	6,064
17	10	6	0	16	3,639	2,962	41	6,642
18	20	10	0	30	3,789	2,710	44	6,543
19	23	8	0	31	3,538	2,549	36	6,123
20	15	4	0	19	3,368	2,267	34	5,669
Total Under 21	85	39	0	124	17,921	13,544	189	31,654
5 - 9	0	0	0	0	1	1	0	2
10 - 14	0	1	0	1	129	67	1	197
15 - 19	70	34	0	104	14,423	11,209	154	25,786
20 - 24	80	24	0	104	14,355	9,894	189	24,438
25 - 29	62	22	1	85	10,546	6,806	171	17,523
30 - 34	42	25	0	67	9,910	6,606	131	16,647
35 - 39	70	20	0	90	9,563	6,751	113	16,427
40 - 44	42	17	0	59	9,203	6,458	105	15,766
45 - 49	46	24	1	71	7,571	5,172	97	12,840
50 - 54	31	10	0	41	6,020	4,050	83	10,153
55 - 59	21	12	0	33	4,252	2,645	42	6,939
60 - 64	17	5	0	22	2,844	1,625	33	4,502
65 - 69	17	4	0	21	2,120	1,237	14	3,371
70 - 74	20	6	0	26	1,840	1,184	19	3,043
75 - 79	22	7	0	29	1,447	1,054	20	2,521
80 - 84	9	6	0	15	947	718	9	1,674
85 & Older	5	5	0	10	586	394	8	988
Not Stated	0	0	3	3	999	402	6,879	8,280
Total	554	222	5	781	96,756	66,273	8,068	171,097

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, 2001

Age Group	Percentage of All Licensed Drivers	Percentage of Drivers in			
		Fatal Crashes	Injury Crashes	Property Damage Crashes	All Crashes
14 & Younger	0.0	0.1	0.2	0.1	0.1
15	0.8	0.8	0.3	0.2	0.2
16	1.5	2.7	3.9	3.4	3.5
17	1.7	2.0	4.1	3.8	3.9
18	1.8	3.8	4.0	3.7	3.8
19	1.9	4.0	3.7	3.5	3.6
20	1.9	2.4	3.4	3.3	3.3
Total Under 21	9.5	15.9	19.6	18.1	18.5
15 - 19	7.6	13.3	16.0	14.7	15.1
20 - 24	9.2	13.3	14.6	14.2	14.3
25 - 29	8.4	10.9	10.5	10.1	10.2
30 - 34	9.4	8.6	9.8	9.7	9.7
35 - 39	10.3	11.5	10.0	9.4	9.6
40 - 44	11.1	7.6	9.4	9.1	9.2
45 - 49	10.0	9.1	7.6	7.4	7.5
50 - 54	8.6	5.2	6.1	5.9	5.9
55 - 59	6.5	4.2	4.0	4.1	4.1
60 - 64	4.9	2.8	2.6	2.6	2.6
65 - 69	4.0	2.7	2.1	1.9	2.0
70 - 74	3.6	3.3	1.8	1.8	1.8
75 - 79	3.0	3.7	1.6	1.4	1.5
80 - 84	2.1	1.9	1.1	0.9	1.0
85 & Older	1.4	1.3	0.6	0.6	0.6
Age Not Stated	0.0	0.4	2.1	6.1	4.8
Total Percent*	100.0%	100.0%	100.0%	100.0%	100.0
Total Number**	3,685,499				

See Figure 1.02 on page 12 for a graphic depiction of crash-involved drivers compared to licensed drivers by age group.

FIGURE 1.01
Age and Gender of Persons Killed or Injured, 2001

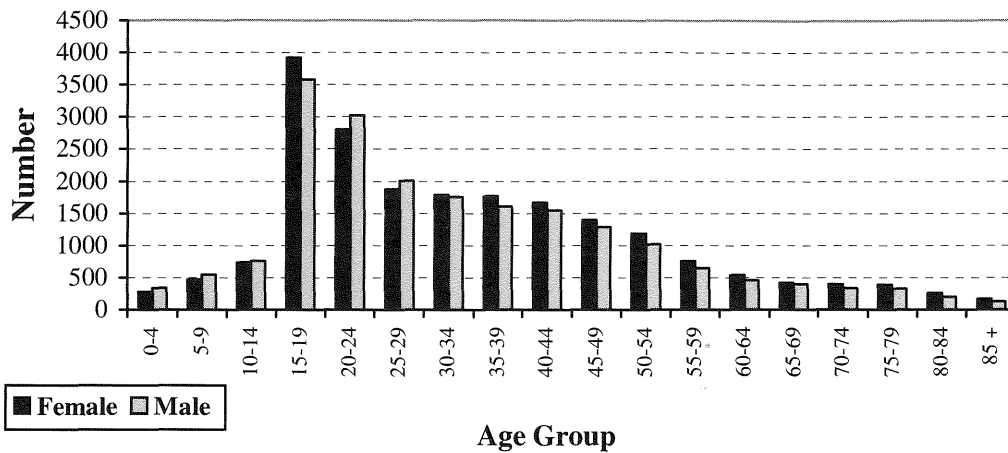


FIGURE 1.02
Licensed vs Crash-Involved Drivers by Age, 2001

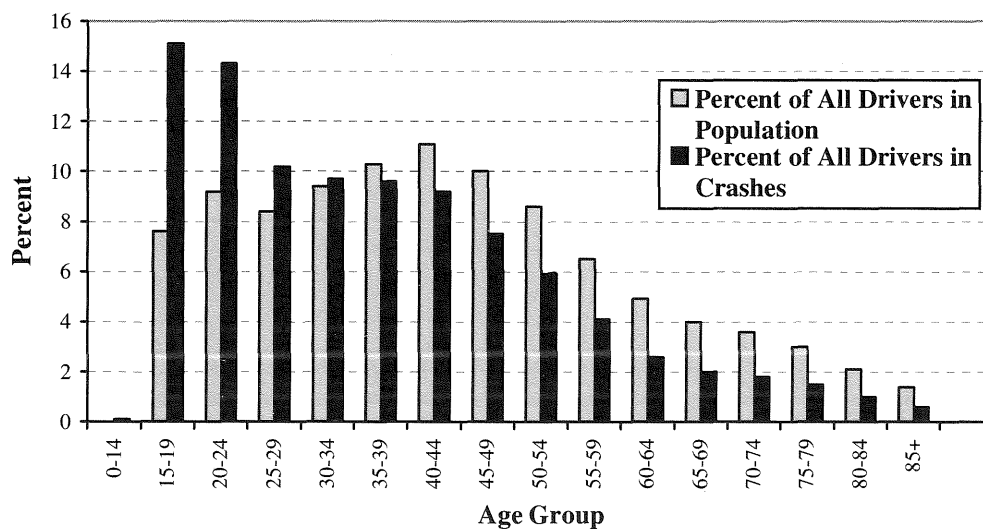


TABLE 1.07

**PERCENTAGE OF DRIVERS IN 2001 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	76.9	77.7	80.2	81.8	81.9	84.0	86.3	79.1
Parked Motor Vehicle	2.8	2.5	2.4	2.2	2.0	2.6	3.8	3.8
Railroad Train	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Bicycle	0.4	0.5	0.5	0.4	0.6	0.7	0.8	0.6
Pedestrian	0.5	0.6	0.6	0.6	0.6	0.6	0.8	0.6
Deer	1.9	2.8	2.9	3.5	4.4	3.5	1.3	3.2
Other Animal	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
Fixed Object	8.3	8.0	6.0	5.4	4.4	4.4	4.3	6.0
Other Object	0.1	0.2	0.3	0.2	0.3	0.1	0.0	0.2
Non-Collision:								
Overturn	7.2	5.7	4.8	4.0	3.6	2.2	0.9	4.4
Other Non-Collision	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2
Other or Unknown	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.6
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0
Total Drivers	25,786	24,438	17,523	16,647	66,627	8,935	2,662	171,097

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 2001 CRASHES BY PHYSICAL CONDITION*

Physical Condition	Drivers in Fatal Crashes	Drivers in Injury Crashes	Drivers in Property Damage Crashes	Drivers in All Crashes
Normal	417	43,149	84,962	128,528
Under the Influence	42	1,668	1,627	3,337
Had Been Drinking	51	968	937	1,956
Had Been Using Drugs	2	68	58	128
Asleep	8	315	321	644
Fatigued	3	155	184	342
Ill	7	141	100	248
Other	16	297	255	568
Unknown	235	5,231	29,880	35,346
Total	781	51,992	118,324	171,097

* 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, 2001**

Contributing Factor	Age Group							All
	15-19	20-24	25-29	30-34	35-64	65-79	80+	Ages
Human Factors								
Illegal/Unsafe Speed	24.3	25.6	24.7	23.7	20.2	12.2	7.4	22.2
Driver Inattention/Distracted	18.3	17.3	17.3	18.2	17.6	20.4	29.6	18.1
Physical Impairment	5.2	11.7	10.6	9.7	9.8	9.6	9.0	8.5
Driver Inexperience	17.0	4.1	3.2	2.4	1.8	1.0	0.8	5.9
Improper/Unsafe Lane Use	2.3	4.0	4.5	3.2	3.4	3.5	7.1	4.6
Failure to Yield Right of Way	1.3	1.9	2.3	2.3	2.7	3.8	6.1	2.4
Unsafe Backing	1.4	1.2	1.5	1.8	1.6	2.8	5.6	2.0
Vision Obscured	1.1	1.4	1.2	1.3	2.0	4.1	3.2	1.5
Improper Turn	0.5	0.8	1.0	1.0	1.2	1.2	1.6	1.2
Driving Left of Center--Not Passing	1.0	0.9	0.8	0.8	0.7	1.0	1.6	1.0
Improper Passing/Overtaking	0.6	0.6	0.5	0.7	0.6	0.7	1.1	0.8
Improper Parking/Starting/Stopping	0.3	0.4	0.5	0.6	0.7	1.8	1.8	0.7
Disregard for Traffic Control Device	0.4	0.8	0.8	0.7	0.7	1.0	1.3	0.7
Following Too Closely	0.4	0.4	0.4	0.5	0.5	0.1	0.8	0.4
Driver on CB Radio or Cell Phone	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.2
Impeding Traffic	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Failure to Use Lights	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.1
Other Human Factors	2.7	3.0	3.0	2.7	2.8	6.2	7.9	2.9
Vehicular Factors								
Skidding	8.0	7.5	8.3	8.2	9.0	6.3	3.4	7.6
Defective Equipment	1.1	1.3	1.3	1.6	1.4	1.7	0.5	1.2
Other Vehicular Factor	0.8	1.0	0.8	1.5	1.4	1.5	1.1	1.0
Miscellaneous Factors								
Weather	8.8	11.3	11.7	13.6	14.9	14.1	4.5	11.2
Other	4.2	4.6	5.4	5.1	6.5	6.7	5.6	6.0
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	7,365	5,945	3,454	2,830	9,447	1,057	378	33,361
Drivers for Whom There Was								
"No Clear Contributing Factor"	722	878	644	645	3,098	325	40	6,544
Total Number of Drivers	5,625	5,042	3,152	2,724	10,876	1,284	335	33,184

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, 2001**

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	27.3	26.8	26.9	26.7	24.6	24.0	26.2
Failure to Yield Right of Way	19.7	17.2	16.3	16.1	18.9	30.0	36.5	19.2
Following Too Closely	10.0	11.7	11.9	12.1	10.8	6.0	3.8	10.5
Illegal or Unsafe Speed	8.7	10.0	10.1	8.4	6.8	3.3	2.3	8.0
Improper or Unsafe Lane Use	3.4	4.8	4.6	5.1	5.2	5.8	5.0	4.9
Disregard of Traffic Control Device	3.6	5.2	4.9	5.0	4.5	6.1	7.8	4.8
Vision Obscured	3.1	2.4	2.6	2.6	3.1	3.8	3.1	2.8
Improper Turn	2.5	2.5	2.3	2.4	2.8	3.7	5.5	2.8
Driver Inexperience	7.4	1.6	1.1	1.0	0.4	0.2	0.2	2.2
Improper Passing or Overtaking	1.4	1.6	1.7	1.9	1.6	1.4	0.8	1.7
Physical Impairment	0.5	1.8	2.0	2.1	2.0	1.4	1.0	1.6
Improper Parking, Starting, or Stopping	1.0	1.1	1.2	1.4	1.4	1.6	1.4	1.3
Unsafe Backing	0.9	0.9	1.2	1.3	1.7	1.6	1.2	1.3
Driving Left of Center (Not Passing)	1.0	0.7	0.9	1.0	0.9	0.8	1.0	0.9
Improper or No Signal	0.3	0.2	0.3	0.4	0.4	0.5	0.7	0.4
Impeding Traffic	0.1	0.2	0.3	0.2	0.3	0.5	0.2	0.3
Failure to Use Lights	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
Driver on Cell Phone or CB Radio	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1
Other Human Factors	0.6	0.8	0.9	1.1	1.0	1.3	1.6	0.9
Vehicular Factors								
Skidding	3.0	2.7	3.0	2.8	2.8	1.5	0.8	2.6
Defective Equipment	0.8	0.8	0.5	0.7	0.6	0.5	0.2	0.7
Other Vehicular Factor	0.2	0.2	0.3	0.4	0.3	0.2	0.1	0.3
Miscellaneous Factors								
Weather	3.4	3.7	4.1	3.9	4.0	2.5	1.2	3.5
Other	1.7	2.5	2.6	2.9	3.3	2.7	1.6	2.7
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	18,133	14,254	9,012	8,047	29,857	5,087	2,192	89,956
Drivers for Whom There Was								
"No Clear Contributing Factor"	6,041	6,947	5,993	6,195	26,296	2,918	577	55,255
Total Number of Drivers	20,110	19,307	14,301	13,857	55,493	7,616	2,318	137,953

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, 2001**

Vehicle Type	Killed	Injured				Not Injured	Total Persons
		Severe	Moder-ate	Minor	Total		
Automobile	305	1,683	9,541	16,860	28,084	132,820	161,209
Pickup Truck	104	397	1,981	3,050	5,428	32,858	38,390
Van	42	246	1,203	2,283	3,732	22,440	26,214
Motorhome/Camper	0	1	12	24	37	856	893
Taxicab	0	6	29	66	101	419	520
Police Vehicle	0	6	41	56	103	424	527
Fire Department Vehicle	0	1	2	3	6	157	163
School Bus	0	1	20	159	180	8,549	8,729
Other Bus	0	0	25	29	54	2,443	2,497
Ambulance	0	0	3	16	19	143	162
Military Vehicle	0	0	2	2	4	40	44
Snowmobile	3	21	28	23	72	45	120
All Terrain Vehicle	4	11	22	14	47	23	74
Farm Tractor or Equipment	3	13	27	12	52	139	194
Motorcycle*	42	251	561	282	1,094	239	1,375
Motorscooter/Motorbike*	0	5	17	12	34	0	34
Motorized Bicycle (Moped)*	0	3	5	6	14	0	14
Hit and Run Vehicle	0	9	66	96	171	9,844	10,015
Road Maintenance Vehicle	0	0	1	4	5	203	208
Single Truck (2-axle, 6-tire)	2	4	42	81	127	1,275	1,404
Single Truck (3 or more axles)	2	2	31	33	66	538	606
Single Truck with Trailer	1	1	16	19	36	502	539
Truck Tractor with No Trailer	0	0	3	3	6	99	105
Truck Tractor with Semi Trailer	4	9	69	92	170	2,675	2,849
Truck Tractor with Double Trailers	0	0	0	1	1	52	53
Other or Unknown Truck Type	0	0	1	3	4	234	238
Other or Unknown Motor Vehicle	3	13	154	265	432	3,676	4,111
Bicycle	7	78	505	377	960	69	1,036
Pedestrian	46	188	454	542	1,184	0	1,230
Total	568	2,949	14,861	24,413	42,223	220,762	263,553

* On the accident report form, police may show that a vehicle is a "motorcycle," a "motorscooter/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 pedalcycle, which is the same as motorized bicycle.

TABLE 1.12

DRIVER LICENSE* SUMMARY BY AGE, 1992 - 2001

Age	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
15	16,626	18,047	16,031	20,660	24,783	27,514	24,610	24,944	28,479	27,878
16	45,744	47,600	48,754	52,205	54,657	55,564	50,028	52,576	55,792	56,361
17	50,796	51,688	54,960	57,426	60,864	61,052	60,389	59,336	60,724	62,068
18	54,442	53,894	55,472	58,307	61,788	63,711	64,337	60,177	65,830	64,963
19	53,307	55,417	55,793	57,139	61,058	63,460	66,023	67,779	68,697	69,232
20	54,591	53,645	56,765	56,902	58,964	61,875	64,484	67,816	69,306	70,351
Under 21	275,506	280,291	287,775	302,639	322,114	333,176	329,871	332,629	348,828	350,853
15 - 19	220,915	226,646	231,010	245,737	263,150	271,301	265,387	264,812	279,522	280,502
20 - 24	307,139	297,918	290,752	283,027	284,532	291,004	302,019	316,452	327,545	339,486
25 - 29	345,255	336,007	330,676	331,259	330,844	325,020	318,360	316,642	310,399	309,079
30 - 34	404,717	401,155	393,253	381,403	368,340	356,278	347,382	346,159	347,932	344,952
35 - 39	383,109	386,805	396,206	402,366	407,794	407,334	405,914	401,755	391,515	377,905
40 - 44	335,328	342,988	355,845	364,629	373,405	381,214	389,126	398,519	405,043	408,621
45 - 49	266,872	276,715	296,176	313,384	323,114	330,259	340,673	352,585	362,105	368,930
50 - 54	210,453	216,632	225,468	230,114	248,979	260,406	273,059	290,428	306,566	316,321
55 - 59	169,769	173,423	178,920	183,763	191,853	201,963	210,483	218,555	222,828	238,022
60 - 64	157,248	156,044	156,192	156,652	158,537	160,789	165,519	170,263	174,735	180,723
65 - 69	149,867	149,118	148,961	149,004	148,228	146,590	144,903	145,284	145,334	146,107
70 - 74	128,653	128,828	132,442	132,842	134,127	133,750	134,081	134,225	133,774	133,205
75 - 79	98,605	98,970	101,494	103,558	107,144	107,838	108,977	111,888	112,404	111,876
80 - 84	60,829	60,181	65,022	68,506	71,501	71,267	73,848	76,147	76,888	78,351
85 & Older	35,198	32,723	38,158	42,107	44,957	42,757	46,310	51,903	52,854	51,419
Total	3,273,957	3,284,153	3,340,575	3,388,351	3,456,505	3,487,770	3,526,041	3,595,617	3,649,444	3,685,499

* 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. DVS has recently provided revisions to the 1999 totals for ages 15, 16, and 17.

TABLE 1.13

MOTOR VEHICLE REGISTRATIONS, 1992 - 2001

Type of Vehicle*	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Passenger Cars	2,670,885	2,615,602	2,728,963	2,709,986	2,707,168	2,724,529	2,798,548	2,774,170	2,957,883	3,072,081
Pickups	525,205	511,677	584,044	615,068	640,308	674,547	723,543	747,650	821,148	866,434
Trucks	141,144	144,367	145,413	151,188	156,511	159,939	165,491	172,487	182,469	190,314
Recreational Vehicles	36,290	36,826	37,049	37,775	37,683	37,731	39,034	39,569	39,827	39,649
Motorcycles	116,124	114,548	113,337	113,981	112,551	113,443	118,275	122,676	132,352	142,822
Motorized Bicycles	7,947	7,304	6,752	6,441	6,088	5,784	5,643	5,656	5,819	6,277
School Buses	5,058	5,052	5,168	5,319	5,474	5,788	5,887	6,012	6,017	5,926
Buses	3,804	4,039	4,103	4,282	4,145	4,260	4,648	4,860	5,018	5,037
Van Pool	256	319	300	295	289	291	287	315	260	267
Tax Exempt Vehicles	38,829	40,773	40,263	40,511	31,648	43,533	42,978	45,476	45,233	48,008
Motor Vehicle Subtotal	3,545,542	3,480,507	3,665,392	3,684,846	3,701,865	3,769,845	3,904,334	3,918,871	4,196,026	4,376,815
Trailers	830,527	807,187	894,909	849,482	956,629	897,794	1,028,612	1,000,730	1,122,330	1,052,751
Classic Motor Vehicles	80,835	85,893	91,011	95,775	100,703	105,659	111,492	116,863	121,934	127,239
Classic Motorcycles	1,281	1,512	1,764	2,064	2,327	2,595	2,966	3,314	3,666	4,077
Total Registrations	4,458,185	4,375,099	4,653,076	4,632,167	4,761,524	4,775,893	5,047,404	5,039,778	5,443,956	5,560,882

* 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 2001 CRASHES

Motor Vehicle Type*	Vehicles in			
	Fatal Crashes	Injury Crashes	Property Damage Crashes	All Crashes
Automobile	416	34,810	79,993	115,219
Pickup Truck	173	8,450	20,544	29,167
Van	69	4,667	10,577	15,313
Motorhome/Camper	1	61	456	518
Taxicab	0	106	234	340
Police Vehicle	2	117	363	482
Fire Department Vehicle	0	17	65	82
School Bus	4	184	669	857
Other Bus	1	82	248	331
Ambulance	1	18	51	70
Military Vehicle	0	8	25	33
Snowmobile**	6	67	38	111
All Terrain Vehicle**	4	39	19	62
Farm Tractor or Equipment	5	68	83	156
Motorcycle*	41	1,017	179	1,237
Motorscooter/Motorbike*	0	31	0	31
Motorized Bicycle (Moped)*	0	15	0	15
Hit and Run Vehicle	8	1,175	7,211	8,394
Road Maintenance Vehicle	0	49	148	197
Single Truck (2-axle, 6-tire)	12	365	806	1,183
Single Truck (3 or more axles)	7	186	385	578
Single Truck with Trailer	2	99	301	402
Truck Tractor with No Trailer	0	26	75	101
Truck Tractor with Semi Trailer	43	623	1,977	2,643
Truck Tractor with Double Trailers	0	10	35	45
Other or Unknown Truck Type	0	40	180	220
Other or Unknown Motor Vehicle	3	671	1,748	2,422
Total***	798	53,001	126,410	180,209

* On the accident report form, police may show that a vehicle is a "motorcycle," a "motorscooter/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 pedalcycle, 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

2001 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	242	19,041	45,323	64,606	283	29,584	4.4
Parked Motor Vehicle	5	514	5,733	6,252	5	619	0.8
Railroad Train	5	22	43	70	6	28	85.7
Bicycle	6	920	59	985	6	952	6.1
Pedestrian	42	1,064	1	1,107	43	1,134	38.8
Deer	4	424	5,092	5,520	5	497	0.9
Other Animal	1	78	285	364	1	105	2.7
Fixed Object	91	3,111	6,820	10,022	96	3,882	9.6
Other Object	0	49	202	251	0	55	0.0
Non-Collision:							
Overturn	104	3,413	3,919	7,436	113	4,580	15.2
Fire/Explosion	1	3	233	237	1	3	4.2
Submersion	0	13	78	91	0	18	0.0
Other or Unknown	7	621	1,415	2,043	9	766	4.4
Total	508	29,273	69,203	98,984	568	42,223	5.7

TABLE 1.16

2001 "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	1	738	3,332	4,071	1	974
Parked Motor Vehicle	0	44	2,881	2,925	0	48
Railroad Train	0	0	2	2	0	0
Bicycle	0	110	18	128	0	111
Pedestrian	7	174	0	181	7	184
Deer	0	0	4	4	0	0
Other Animal	0	0	1	1	0	0
Fixed Object	0	64	712	776	0	84
Other Object	0	1	25	26	0	1
Non-Collision:						
Overturn	0	15	67	82	0	20
Fire/Explosion	0	0	3	3	0	0
Other or Unknown	0	17	126	143	0	18
Total	8	1,163	7,171	8,342	8	1,440

TABLE 1.17

2001 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Not Applicable	363	16,275	38,696	55,334	405	22,803
Traffic Signal	38	6,731	12,707	19,476	39	9,840
Overhead Flashers	2	74	131	207	2	122
Stop Sign-All Approaches	5	492	1,356	1,853	6	658
Other Stop Sign	70	3,936	7,151	11,157	79	6,221
Yield Sign	11	528	960	1,499	14	854
Flagman, Officer, or School Patrol	0	40	91	131	0	67
School Bus Stop Arm	0	17	43	60	0	59
School Zone Sign	0	7	26	33	0	8
No Passing Zone	6	160	307	473	7	262
RR Crossing Gate	0	7	35	42	0	9
RR Flashing Lights	0	12	22	34	0	17
RR Crossing Stop Sign	1	6	15	22	1	7
RR Other	2	16	44	62	2	23
Other	4	322	1,762	2,088	4	455
Unknown	6	650	5,857	6,513	9	818
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.18

2001 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	284	16,839	38,011	55,134	319	24,210
Cloudy	135	7,284	16,081	23,500	146	10,694
Rain	28	2,033	4,564	6,625	30	2,978
Snow	14	1,496	4,865	6,375	19	2,095
Sleet/Hail/Freezing Rain	8	432	1,276	1,716	9	624
Fog/Smog/Smoke	12	314	660	986	13	477
Blowing Sand/Dust	9	362	937	1,308	10	494
Severe Crosswinds	2	31	83	116	2	41
Other	5	63	174	242	9	78
Not Stated/Unknown	11	419	2,552	2,982	11	532
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.19
CONTRIBUTING FACTORS IN 2001 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	14.2	24.0	23.6	113	10,066	18,233	124	14,957
Failure to Yield Right of Way	11.3	16.0	13.9	90	6,845	10,898	101	10,785
Illegal/Unsafe Speed	17.9	12.2	11.4	144	5,163	8,949	158	7,672
Following Too Closely	1.2	6.5	8.4	9	2,627	6,286	10	3,771
Improper/Unsafe Lane Use	5.2	3.4	5.7	40	1,441	4,461	46	2,093
Disregard Traf Contr Device	5.3	5.0	3.0	42	2,183	2,346	47	3,589
Physical Impairment	9.8	5.2	2.4	78	2,245	1,926	91	3,230
Driver Inexperience	3.2	3.3	3.0	26	1,452	2,396	31	2,246
Vision Obscured	1.8	2.5	2.4	13	1,001	1,762	13	1,412
Improper Turn	1.1	1.7	2.7	9	734	2,161	9	1,095
Improper Passing/Overtaking	1.0	1.0	1.7	8	412	1,383	12	602
Unsafe Backing	0.0	0.4	2.1	0	165	1,647	0	215
Improper Park/Start/Stop	0.1	1.1	1.4	1	455	1,100	1	664
Driving Left of Center (Not Passing)	6.1	1.2	0.8	49	504	609	62	923
Pedestrian Violation or Error	3.1	0.8	0.0	24	330	0	25	349
Improper or No Signal	0.1	0.2	0.3	1	96	248	1	138
Impeding Traffic	0.2	0.2	0.2	2	96	170	2	137
Failure to Use Lights	0.4	0.2	0.1	3	64	90	3	104
Driver on CB/Cell Phone	0.4	0.2	0.1	3	80	94	4	123
Other Human Factor	2.2	1.8	1.3	18	763	997	19	1,056
Vehicular Factors								
Skidding	4.0	3.5	4.2	32	1,450	3,152	39	2,047
Defective Equipment	0.6	0.8	0.8	5	358	664	5	514
Other Vehicular Factor	0.2	0.4	0.6	2	160	467	2	211
Miscellaneous Factors								
Weather	4.4	4.7	6.0	32	1,817	4,310	39	2,524
Other	6.0	3.7	3.9	44	1,338	2,565	48	1,911
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	815	43,771	80,832					
Vehicles Where There Was "No								
Clear Contributing Factor"	292	21,766	46,110					
Total Number of Vehicles	854	55,127	126,471					

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
2001 CRASHES BY LIGHT CONDITION

Light Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Daylight	257	19,104	42,569	61,930	291	27,630
Dawn (Morning)	16	785	1,974	2,775	16	1,043
Dusk (Evening)	18	1,305	3,223	4,546	21	1,909
Dark/Street Lights On	72	4,573	11,172	15,817	80	6,544
Dark/No Street Lights	131	3,012	7,160	10,303	146	4,402
Other/Unknown	14	494	3,105	3,613	14	695
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.21
2001 CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	378	20,168	43,173	63,719	423	29,418
Wet	56	4,212	9,480	13,748	62	6,108
Snow/Slush	14	1,389	4,351	5,754	20	1,906
Ice or Packed Snow	44	2,896	9,551	12,491	47	3,979
Other	11	359	672	1,042	11	500
Not Stated/Unknown	5	249	1,976	2,230	5	312
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.22
2001 CRASHES BY ROAD DESIGN

Road Design	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Freeway (Including Ramps)	68	3,592	9,844	13,504	77	5,007
Other Divided Highway	84	4,485	7,545	12,114	92	6,924
One-Way Street	4	830	1,515	2,349	4	1,172
4-6 Lanes Undivided	29	5,277	9,414	14,720	30	7,566
3 Lanes	5	297	573	875	5	421
2-Lane--2-Way	304	12,535	26,269	39,108	346	18,212
Alley/Driveway	0	145	514	659	0	162
Other	11	608	1,218	1,837	11	870
Not Stated/Unknown	3	1,504	12,311	13,818	3	1,889
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.23

2001 CRASHES BY DIAGRAM

Diagram	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Rear End	26	7,278	14,732	22,036	26	10,679
Sideswipe Passing	11	791	5,681	6,483	12	1,085
Left Turn -- Oncoming Traffic	17	1,889	2,932	4,838	17	2,960
Ran Off Road - Left	102	2,316	3,285	5,703	111	3,013
Right Angle	90	6,674	10,461	17,225	101	10,427
Right Turn -- Cross Street Traffic	81	140	382	603	88	193
Ran Off Road - Right	80	2,854	4,646	7,580	106	3,742
Head On	11	1,125	1,496	2,632	12	2,013
Sideswipe Opposing	90	397	1,099	1,586	95	602
Other / Unknown / Incomplete	0	5,809	24,489	30,298	0	7,509
Total	508	29,273	69,203	98,984	568	42,223

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

2001 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	37	5,743	16,801	22,581	40	7,900
50,000 - 99,999	29	3,351	6,794	10,174	31	4,795
25,000 - 49,999	31	3,937	9,192	13,160	32	5,423
10,000 - 24,999	43	4,411	10,550	15,004	48	6,321
5,000 - 9,999	20	1,929	4,442	6,391	22	2,792
2,500 - 4,999	18	1,042	2,732	3,792	25	1,535
1,000 - 2,499	5	666	1,778	2,449	6	957
Under 1,000	325	8,194	16,914	25,433	364	12,500
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.25

2001 CRASHES BY TYPE OF ROADWAY

Type of Roadway	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	34	2,045	6,343	8,422	39	2,778
Trunk Highway	52	4,657	9,993	14,702	55	6,772
County State Aid Highway	36	5,943	12,261	18,240	40	8,544
County Road	2	162	338	502	2	230
Local Street	36	6,564	18,844	25,444	37	8,907
Total	160	19,371	47,779	67,310	173	27,231
Rural						
Interstate	22	817	2,306	3,145	24	1,187
Trunk Highway	168	4,157	8,415	12,740	195	6,631
County State Aid Highway	108	2,958	5,454	8,520	122	4,349
County Road	16	517	825	1,358	16	733
Township Road	26	618	1,024	1,668	29	989
Local Street	5	604	2,338	2,947	6	807
Other Road	3	231	1,062	1,296	3	296
Total	348	9,902	21,424	31,674	395	14,992
All Roadways						
Interstate	56	2,862	8,649	11,567	63	3,965
Trunk Highway	220	8,814	18,408	27,442	250	13,403
County State Aid Highway	144	8,901	17,715	26,760	162	12,893
County Road	18	679	1,163	1,860	18	963
Township Road	26	618	1,024	1,668	29	989
Local Street	41	7,168	21,182	28,391	43	9,714
Other Road	3	231	1,062	1,296	3	296
Total	508	29,273	69,203	98,984	568	42,223

("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

2001 COUNTY CRASH REPORT

County	Crashes				Average Crashes 1996-2000	Number Killed 2001	Average Killed 1996-2000	Number Injured 2001	Average Injured 1996-2000
	Fatal	Injury	Property Damage	Total					
Aitkin	5	73	236	314	312	5	5	104	143
Anoka	24	1,568	3,005	4,597	4,895	26	23	2,323	2,697
Becker	2	150	213	365	384	2	9	222	225
Beltrami	1	214	538	753	803	1	8	307	354
Benton	9	218	431	658	655	9	9	330	366
Big Stone	1	31	63	95	92	1	1	47	36
Blue Earth	3	353	1,067	1,423	1,371	3	10	506	555
Brown	0	136	345	481	467	0	4	170	221
Carlton	3	136	246	385	437	3	6	189	227
Carver	12	367	852	1,231	1,108	14	10	566	532
Cass	12	148	272	432	459	14	10	268	278
Chippewa	0	61	121	182	191	0	4	99	114
Chisago	1	262	560	823	798	2	10	405	389
Clay	9	250	646	905	1,074	9	8	360	397
Clearwater	2	25	59	86	108	4	4	42	60
Cook	1	32	86	119	147	1	2	45	71
Cottonwood	2	42	125	169	169	2	3	65	91
Crow Wing	11	395	816	1,222	1,192	12	14	635	603
Dakota	27	1,797	3,971	5,795	5,459	30	26	2,533	2,556
Dodge	5	89	181	275	266	5	4	150	139
Douglas	4	256	759	1,019	878	4	5	389	356
Faribault	2	76	153	231	184	2	2	117	103
Fillmore	1	95	205	301	325	1	4	141	146
Freeborn	5	198	619	822	765	6	5	267	325
Goodhue	9	295	651	955	1,059	12	9	451	468
Grant	1	35	80	116	101	1	1	47	43
Hennepin	62	7,884	20,569	28,515	28,967	67	55	10,879	12,597
Houston	3	74	213	290	337	3	2	109	155
Hubbard	10	82	140	232	261	10	5	124	157
Isanti	3	197	434	634	589	4	5	302	307
Itasca	8	224	420	652	748	10	8	352	381
Jackson	1	61	134	196	207	1	3	90	102
Kanabec	4	75	153	232	243	5	5	118	139
Kandiyohi	6	262	508	776	819	6	8	417	465

TABLE 1.26 CONTINUED

2001 COUNTY CRASH REPORT

County	Crashes				Average Crashes 1996-2000	Number Killed 2001	Average Killed 1996-2000	Number Injured 2001	Average Injured 1996-2000
	Fatal	Injury	Property Damage	Total					
Kittson	1	9	69	79	88	1	1	15	28
Koochiching	4	77	91	172	203	4	1	110	119
Lac Qui Parle	1	21	45	67	84	1	2	24	50
Lake	1	72	118	191	220	1	2	105	94
Lake of the Woods	1	9	25	35	54	1	3	12	27
Le Sueur	8	136	298	442	489	10	4	208	232
Lincoln	1	26	74	101	97	1	2	33	32
Lyon	5	120	283	408	449	5	5	183	214
McLeod	2	198	477	677	654	2	8	292	322
Mahnomen	1	28	42	71	66	1	3	43	56
Marshall	2	28	60	90	97	3	3	39	52
Martin	6	116	260	382	377	6	4	178	169
Meeker	2	141	224	367	308	3	5	216	195
Mille Lacs	6	153	275	434	406	6	6	294	248
Morrison	7	154	329	490	495	7	9	247	280
Mower	2	211	554	767	671	2	6	301	266
Murray	1	51	88	140	125	1	2	75	54
Nicollet	7	166	419	592	468	7	3	231	189
Nobles	6	94	312	412	424	6	4	154	192
Norman	1	29	64	94	107	2	1	33	48
Olmsted	11	799	1,530	2,340	2,362	12	20	1,222	1,165
Otter Tail	12	323	680	1,015	940	14	12	483	470
Pennington	1	77	92	170	244	1	2	110	148
Pine	6	159	350	515	550	7	6	245	296
Pipestone	1	39	75	115	138	1	3	64	65
Polk	4	133	309	446	490	4	5	190	247
Pope	3	28	117	148	145	3	3	49	70
Ramsey	25	3,601	10,440	14,066	14,071	27	29	4,938	5,467
Red Lake	0	10	38	48	63	0	2	12	27
Redwood	3	98	142	243	220	3	5	137	134
Renville	1	90	172	263	243	1	6	130	137
Rice	11	368	762	1,141	1,107	13	10	531	555
Rock	1	55	201	257	239	2	2	76	95

TABLE 1.26 CONTINUED

2001 COUNTY CRASH REPORT

County	Crashes				Average Crashes 1996-2000	Number Killed 2001	Average Killed 1996-2000	Number Injured 2001	Average Injured 1996-2000
	Fatal	Injury	Property Damage	Total					
Roseau	5	70	160	235	181	6	4	110	82
St. Louis	22	957	1,533	2,512	2,960	27	26	1,389	1,600
Scott	11	494	1,115	1,620	1,429	15	16	750	732
Sherburne	10	402	830	1,242	997	10	10	626	502
Sibley	1	66	147	214	238	1	4	101	103
Stearns	18	875	1,477	2,370	2,571	19	17	1,232	1,464
Steele	2	161	637	800	781	2	7	221	272
Stevens	0	45	75	120	132	0	1	61	55
Swift	3	47	69	119	121	3	2	74	64
Todd	4	112	282	398	415	5	6	175	188
Traverse	1	14	28	43	41	1	0	23	21
Wabasha	2	99	221	322	354	5	6	154	169
Wadena	5	71	134	210	239	5	3	101	119
Waseca	2	110	213	325	305	2	4	159	149
Washington	9	928	2,244	3,181	3,088	13	12	1,400	1,338
Watsonwan	1	56	135	192	157	1	1	70	71
Wilkin	3	50	87	140	170	3	2	74	77
Winona	7	308	719	1,034	1,132	8	10	418	448
Wright	8	558	1,088	1,654	1,428	8	14	824	805
Yellow Medicine	1	59	99	159	153	1	4	90	83
Unknown	0	11	24	35	0	0	0	22	0
Minnesota Total	508	29,273	69,203	98,984	99,457	568	615	42,223	45,884

TABLE 1.27

2001 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes			Total	Persons	
	Fatal	Personal Injury	Property Damage		Killed	Injured
Afton	1	13	31	45	1	20
Albert Lea	1	88	274	363	2	114
Albertville	0	38	66	104	0	54
Alexandria	0	120	318	438	0	176
Andover	1	87	104	192	1	123
Annandale	0	6	12	18	0	6
Anoka	0	141	349	490	0	222
Apple Valley	2	195	349	546	2	290
Arden Hills	2	133	291	426	2	186
Aurora	0	2	18	20	0	3
Austin	0	119	334	453	0	176
Baxter	0	49	119	168	0	78
Bayport	0	7	23	30	0	10
Becker	2	13	32	47	2	22
Belle Plaine	1	16	54	71	4	29
Bemidji	0	96	297	393	0	129
Benson	0	9	28	37	0	18
Big Lake	1	20	46	67	1	32
Blaine	6	248	379	633	6	386
Bloomington	5	623	1,680	2,308	6	860
Blue Earth	0	7	29	36	0	8
Brainerd	1	138	357	496	1	198
Breckenridge	0	15	36	51	0	20
Brooklyn Center	3	285	629	917	3	402
Brooklyn Park	2	375	608	985	2	572
Buffalo	0	66	124	190	0	113
Burnsville	4	349	820	1,173	4	478
Byron	0	6	21	27	0	8
Caledonia	0	10	27	37	0	16
Cambridge	0	43	143	186	0	61
Cannon Falls	0	14	56	70	0	19
Centerville	0	6	17	23	0	10
Champlin	1	73	124	198	1	92
Chanhassen	2	117	276	395	2	162
Chaska	0	62	175	237	0	89
Chisago City	0	5	27	32	0	9
Chisholm	0	10	37	47	0	12
Circle Pines	0	17	32	49	0	23
Cloquet	0	32	54	86	0	43
Cokato	0	4	10	14	0	5
Cold Spring	0	10	23	33	0	14
Columbia Heights	2	76	169	247	2	116
Coon Rapids	4	407	778	1,189	4	599
Corcoran	0	21	46	67	0	30
Cottage Grove	0	71	202	273	0	103
Crookston	1	28	74	103	1	38

TABLE 1.27

2001 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Crystal	0	136	145	281	0	190
Dayton	1	18	59	78	1	25
Deephaven	0	8	14	22	0	11
Delano	0	15	29	44	0	21
Detroit Lakes	0	54	56	110	0	69
Dilworth	1	9	21	31	1	14
Duluth	6	387	412	805	6	537
Eagan	4	314	703	1,021	4	423
East Bethel	1	47	82	130	1	74
East Grand Forks	0	19	94	113	0	28
Eden Prairie	4	238	655	897	6	342
Edina	0	191	579	770	0	252
Elk River	1	145	242	388	1	218
Ely	0	9	40	49	0	14
Eveleth	1	21	38	60	1	31
Fairmont	0	44	143	187	0	66
Falcon Heights	0	18	59	77	0	25
Faribault	1	157	322	480	1	222
Farmington	0	36	80	116	0	48
Fergus Falls	2	94	241	337	2	149
Forest Lake	0	85	175	260	0	126
Forest Lake Twsp	0	28	34	62	0	36
Fridley	1	177	278	456	1	245
Gilbert	0	8	27	35	0	8
Glencoe	0	20	56	76	0	25
Glenwood	0	4	44	48	0	8
Golden Valley	2	188	503	693	3	272
Goodview	0	8	13	21	0	11
Grand Rapids	0	68	186	254	0	111
Granite Falls	0	10	30	40	0	19
Grant	2	11	38	51	5	18
Greenfield	0	16	33	49	0	26
Ham Lake	2	68	145	215	2	114
Hastings	2	91	237	330	3	133
Hermantown	2	46	50	98	2	81
Hibbing	1	105	245	351	1	152
Hopkins	2	82	197	281	2	107
Hoyt Lakes	0	1	9	10	0	2
Hugo	0	27	62	89	0	44
Hutchinson	0	69	199	268	0	104
Independence	1	21	52	74	1	28
International Falls	0	43	40	83	0	59
Inver Grove Heights	2	121	330	453	2	174
Jackson	0	10	16	26	0	19
Jordan	0	3	61	64	0	3

TABLE 1.27

2001 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Kasson	0	17	43	60	0	30
La Crescent	0	6	32	38	0	8
Lake City	1	14	57	72	2	19
Lake Elmo	0	70	106	176	0	111
Lakeville	0	149	296	445	0	224
Le Sueur	0	13	40	53	0	16
Lindstrom	0	18	30	48	0	21
Lino Lakes	3	62	158	223	4	94
Litchfield	0	40	79	119	0	56
Little Canada	0	106	269	375	0	133
Little Falls	1	31	96	128	1	46
Long Prairie	0	8	19	27	0	14
Luverne	0	14	82	96	0	16
Mahtomedi	0	18	49	67	0	37
Mankato	2	231	723	956	2	316
Maple Grove	2	216	596	814	2	304
Maplewood	1	300	686	987	1	414
Marshall	1	60	139	200	1	92
May Township	0	15	34	49	0	18
Medina	0	26	78	104	0	39
Melrose	0	5	39	44	0	7
Mendota Heights	1	87	175	263	1	109
Minneapolis	20	3,716	10,471	14,207	21	5,081
Minnnetonka	1	244	571	816	1	319
Minnetrista	1	18	66	85	1	24
Montevideo	0	17	64	81	0	24
Monticello	0	50	151	201	0	73
Moorhead	1	137	435	573	1	179
Mora	0	16	43	59	0	18
Morris	0	18	45	63	0	22
Mound	0	16	72	88	0	19
Mounds View	0	39	88	127	0	60
Mountain Iron	1	23	32	56	1	37
New Brighton	1	109	232	342	1	141
New Hope	0	81	136	217	0	117
Newport	0	71	164	235	0	101
New Prague	0	9	42	51	0	14
New Scandia Twsp	0	12	51	63	0	33
New Ulm	0	71	198	269	0	87
North Branch	0	50	100	150	0	72
Northfield	0	44	118	162	0	63
North Mankato	0	41	125	166	0	52
North Oaks	0	9	23	32	0	12
North St. Paul	0	67	146	213	0	92
Oakdale	0	89	224	313	0	133

TABLE 1.27

2001 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
Oak Park Heights	0	24	45	69	0	39
Olivia	0	7	27	34	0	7
Orono	1	53	124	178	1	76
Ortonville	0	9	22	31	0	14
Otsego	0	28	64	92	0	36
Owatonna	0	77	376	453	0	99
Park Rapids	0	11	30	41	0	17
Pine City	0	16	39	55	0	18
Pipestone	0	10	29	39	0	20
Plainview	0	7	27	34	0	8
Plymouth	5	311	700	1,016	5	443
Princeton	1	34	83	118	1	80
Prior Lake	0	72	67	139	0	126
Proctor	1	5	20	26	1	6
Ramsey	0	69	219	288	0	89
Red Wing	2	80	260	342	2	122
Redwood Falls	0	26	55	81	0	38
Richfield	3	282	724	1,009	3	375
Robbinsdale	0	107	185	292	0	158
Rochester	2	584	1,132	1,718	2	847
Rockford	1	18	22	41	1	26
Rogers	0	25	92	117	0	30
Roseau	0	10	33	43	0	16
Rosemount	1	76	157	234	1	107
Roseville	0	294	779	1,073	0	390
St. Anthony	0	16	58	74	0	26
St. Charles	0	7	15	22	0	11
St. Cloud	2	464	639	1,105	2	660
St. Francis	0	34	36	70	0	38
St. James	0	22	40	62	0	25
St. Joseph	0	13	28	41	0	22
St. Louis Park	2	252	704	958	2	329
St. Michael	0	26	66	92	0	36
St. Paul	17	2,101	6,824	8,942	19	2,899
St. Paul Park	0	18	45	63	0	27
St. Peter	0	31	90	121	0	36
Sartell	0	15	50	65	0	20
Sauk Centre	0	16	53	69	0	25
Sauk Rapids	0	39	90	129	0	54
Savage	2	97	187	286	2	146
Shakopee	4	125	375	504	4	170
Shoreview	0	116	282	398	0	157
Shorewood	2	35	78	115	2	51
Silver Bay	0	4	8	12	0	4
Sleepy Eye	0	10	55	65	0	18

TABLE 1.27

2001 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Crashes				Persons	
	Fatal	Personal Injury	Property Damage	Total	Killed	Injured
South St. Paul	2	117	281	400	2	153
Spring Lake Park	2	39	73	114	2	55
Spring Valley	0	10	20	30	0	13
Staples	0	10	30	40	0	17
Stewartville	0	8	25	33	0	9
Stillwater	0	62	239	301	0	82
Stillwater Township	1	15	39	55	1	31
Thief River Falls	0	56	60	116	0	80
Two Harbors	0	8	30	38	0	9
Vadnais Heights	2	86	232	320	2	112
Victoria	0	15	54	69	0	23
Virginia	0	45	112	157	0	61
Waconia	1	25	62	88	1	30
Wadena	0	28	59	87	0	37
Waite Park	1	49	142	192	1	67
Waseca	1	41	91	133	1	62
Watertown	0	4	18	22	0	5
Wayzata	1	49	116	166	1	66
Wells	0	6	22	28	0	7
W. Lakeland Twmsp	0	7	36	43	0	9
West St. Paul	1	101	230	332	1	141
White Bear Lake	1	169	428	598	1	238
White Bear Twmsp	0	17	44	61	0	24
Willmar	2	133	333	468	2	213
Windom	0	17	62	79	0	26
Winona	0	152	419	571	0	191
Woodbury	4	210	485	699	5	322
Worthington	0	36	164	200	0	51
Wyoming	0	26	39	65	0	43
Zimmerman	0	18	40	58	0	22

TABLE 1.28

2001 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	1,491	22	372	8	138	1	123	4	119	0	143	1	188	0	408	8
1:00	1,945	24	528	7	150	2	143	2	156	1	213	3	265	4	490	5
2:00	1,070	13	278	4	102	0	87	2	89	1	103	2	153	1	258	3
3:00	734	7	182	2	85	0	66	1	69	0	74	1	89	1	169	2
4:00	740	7	145	3	97	0	89	0	85	1	70	0	101	2	153	1
5:00	1,216	11	146	5	194	1	187	0	172	2	196	1	157	0	164	2
6:00	2,593	14	156	0	478	1	457	3	479	2	423	2	393	3	207	3
7:00	5,149	21	173	0	867	5	1,069	3	988	2	852	3	896	4	304	4
8:00	4,699	21	236	3	913	3	822	4	838	1	726	4	779	4	385	2
9:00	3,683	13	322	1	630	2	538	1	641	4	500	2	559	3	493	0
10:00	3,881	17	455	3	662	1	489	2	550	2	471	4	598	1	656	4
11:00	4,746	27	508	4	776	1	642	3	658	4	654	6	724	3	784	6
Noon	5,139	24	596	2	821	3	693	5	712	4	649	2	810	5	858	3
1:00	5,461	20	626	2	849	4	655	3	763	0	749	3	895	4	924	4
2:00	6,284	26	670	2	1,022	5	909	4	860	5	870	1	1,150	4	803	5
3:00	8,233	24	692	5	1,378	4	1,180	3	1,261	1	1,238	2	1,551	8	933	1
4:00	8,150	35	673	3	1,377	6	1,195	5	1,294	3	1,296	8	1,522	4	793	6
5:00	8,187	36	660	7	1,307	5	1,260	6	1,373	3	1,358	3	1,421	9	808	3
6:00	5,778	33	572	10	875	7	825	1	829	2	904	5	1,090	3	683	5
7:00	4,107	29	521	4	550	2	564	6	558	4	586	7	730	2	598	4
8:00	3,321	19	417	1	439	1	469	3	452	1	471	6	601	5	472	2
9:00	3,541	20	392	1	464	0	462	1	484	3	502	3	674	6	563	6
10:00	2,886	24	331	4	343	2	356	2	383	4	368	3	593	6	512	3
11:00	2,263	16	221	1	250	0	248	1	262	1	269	4	518	2	495	7
Unknow n	3,687	5	421	1	516	2	578	0	540	0	548	0	581	2	503	0
Total	98,984	508	10,293	83	15,283	58	14,106	65	14,615	51	14,233	76	17,038	86	13,416	89

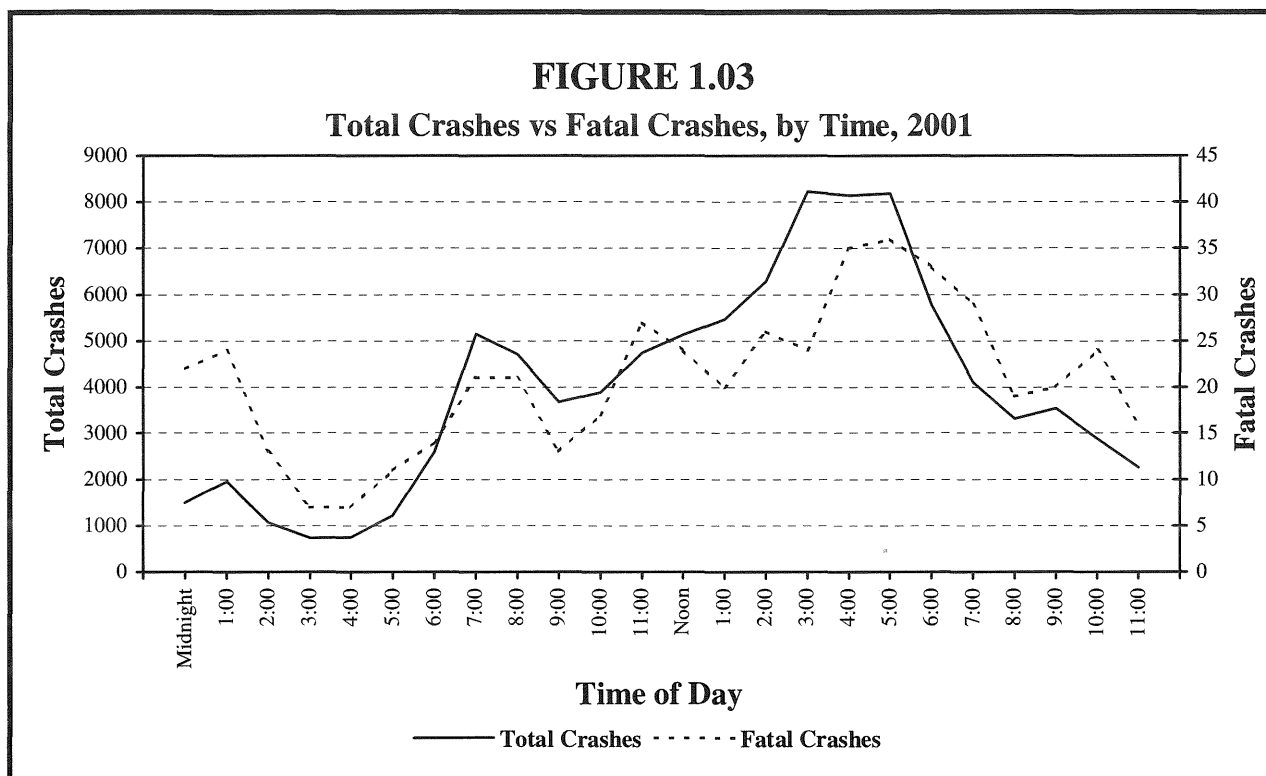


TABLE 1.29
2001 CRASHES, FATALITIES, AND INJURIES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	38	2,432	6,481	8,951	42	3,425
February	22	2,493	7,850	10,365	24	3,470
March	30	2,051	5,584	7,665	35	2,928
April	36	1,984	4,230	6,250	42	2,932
May	56	2,431	5,167	7,654	58	3,489
June	37	2,561	5,242	7,840	41	3,749
July	51	2,485	5,065	7,601	57	3,660
August	55	2,690	5,084	7,829	66	3,973
September	34	2,434	4,951	7,419	35	3,488
October	52	2,617	5,739	8,408	55	3,783
November	54	2,620	7,070	9,744	58	3,734
December	43	2,475	6,740	9,258	55	3,592
Total	508	29,273	69,203	98,984	568	42,223

TABLE 1.30

HOLIDAY CRASH SUMMARY, 1996 - 2001

Holiday Period	Year	Hours*	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Memorial Day (For 2001, the holiday period was 6 PM Fri., May 25 - midnight Monday, May 28.)	1996	78	9	208	330	547	13	346
	1997	78	4	223	353	580	4	357
	1998	78	6	214	356	576	8	332
	1999	78	5	215	375	595	8	347
	2000	78	4	215	441	660	4	327
	2001	78	7	169	388	564	7	260
July 4th (For 2001, the holiday period was 6 PM Tue., July 3 - midnight Wednesday, July 4.)	1996	102	13	389	554	956	17	649
	1997	78	3	228	390	621	3	358
	1998	78	8	287	432	727	10	473
	1999	78	5	236	376	617	6	358
	2000	102	12	302	524	838	14	503
	2001	30	2	122	161	285	3	189
Labor Day (For 2001, the holiday period was 6 PM Fri., Aug 31 - midnight Monday, Sep. 3.)	1996	78	10	243	365	618	12	395
	1997	78	6	264	364	634	6	455
	1998	78	7	212	344	563	10	360
	1999	78	7	212	344	563	7	348
	2000	78	6	218	426	650	8	347
	2001	78	4	220	394	618	4	326
Thanksgiving (For 2001, the holiday period was 6 PM Wed., Nov. 21 - midnight Sunday, Nov. 25.)	1996	102	7	345	998	1,350	8	537
	1997	102	7	307	652	966	7	474
	1998	102	11	292	637	940	17	447
	1999	102	6	309	729	1,044	6	564
	2000	102	8	252	658	918	10	393
	2001	102	9	309	698	1,016	10	473
Christmas (For 2001, the holiday period was 6 PM Fri., Dec 21 - midnight Tuesday, Dec. 25.)	1996	30	1	80	281	362	1	123
	1997	102	4	293	625	922	7	455
	1998	78	6	227	514	747	8	365
	1999	78	12	285	854	1,151	14	435
	2000	78	2	245	812	1,059	2	351
	2001	102	9	491	1,552	2,052	10	719
New Year's (For 2001-2002, the holiday period was 6 PM Fri., Dec. 28 - midnight Tuesday, Jan 1, 2002.)	1996/97	30	1	95	220	316	1	141
	1997/98	102	10	362	872	1,244	11	528
	1998/99	78	2	296	937	1,235	3	419
	1999/00	78	6	240	564	810	6	380
	2000/01	78	6	196	684	886	7	300
	2001/02	102	8	213	760	981	11	342

* Holiday period hours vary depending on the day of the week on which the holiday falls. Also note that 1999 Labor Day crashes were identical to 1998 Labor Day crashes due to coincidence, not to error.

II: ALCOHOL - RELATED CRASHES

Impaired driving incidents on record declines for first time in 8 years

Impaired driving incidents on record had increased seven years in a row, from 1994 through year 2000. Then they declined 4 percent last year, to 33,305. Most age groups experienced this decline. An exception was the 20-to-24 years-olds, for whom incidents on record increased by more than 100 (from 7,725 in 2000 to 7,839 in 2001).

Males and young people especially incur the incidents

Males made up 73% of the offenders last year. Females are getting arrested more and more often though. In 2001, they accounted for 27% of the incidents. (Ten years ago, they were 20% of the offenders.) Impaired driving is especially a problem among young adults. A person can legally buy alcohol at age 21 (raised from 19 in 1986), and drinking and driving too often follows that. Last year, 21-to-34 year-olds committed fully 50% of the incidents on record. Drivers under age 21 accounted for 9%.

Alcohol-related crashes in Minnesota

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. (This is true even allowing for the fact that non-fatal alcohol-related crashes are significantly under-reported, as explained on page 38.) Last year, 6% of minor injuries, 13% of moderate injuries, 19% of severe injuries, and 37% of deaths were alcohol-related. In all, 211 people died and 4,034 were injured in crashes classified as alcohol-related.

Who pays the price? Mainly young people and the drinking drivers themselves

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 43% (242) of all traffic deaths, and for fully 56% (117) 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, 145 (69%) of the 211 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 66 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

Fridays, Saturdays, and Sundays, combined, accounted for 41% of all traffic crashes, but 62% of the alcohol-related crashes. The late night hours from 9:00 PM to 3:00 AM accounted for 13% of all crashes, but 51% 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 28% of alcohol fatal crashes. Most of the alcohol fatal crashes involved a single vehicle colliding with a fixed object (25%), or a single vehicle losing control and overturning (33%).

Why does the proportion of all deaths that are alcohol-related fluctuate erratically?

A troubling problem arises in the data: Across the five years 1996 through 2000, the percentage of all deaths that were alcohol-related started at 36%, then dropped to 30%, then soared to 42%, then plummeted to 31%, and then soared back to 39%. Finally, in 2001, the percentage showed a more plausible deviation, declining by two points, to 37%. The base for this percentage--the total number of deaths--is large enough, at around 600 per year, that there should not be 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.

To date, we have no explanation that feels immediately or overwhelmingly persuasive. Still, here is a conjecture: In recent years, Minnesota experienced sharply contrasting winters. Early 2000 is remembered for its mildness and early 1999 is remembered for its harshness. Again, the early months of 1998 were mild. Perhaps the climate--the mere niceness of the weather--causes drinking drivers to be out in greater numbers. Perhaps also drinking drivers respond to nice weather differently than sober drivers: feeling even more relaxed and stepping on the gas even more than their sober counterparts. It is proper to approach all hypotheses with skepticism, but this may still be one that warrants study.

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. (Last year, 82% of killed drivers who tested positive were at the .10-or-higher level.) 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. For example, using only officers' reported perceptions, there were only 107 alcohol-related deaths in 2001. When alcohol test results are also used, the figure increases to 211. 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. The alcohol-related non-fatal crashes, therefore, 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 2001, eleven drinking pedestrians and one drinking bicyclists died after colliding with a vehicle driven by a non-drinking driver. (One more drinking pedestrian died after colliding with a drinking driver.)

Additionally, the definition given above makes an assumption that the person drinking caused, or contributed significantly to, the crash. Experts who study fatal traffic crashes in detail confirm that this is almost always true, but it is important to recognize that the assumption is not invariably true. There will be exceptions to the rule.

Sometimes a crash is alcohol-related, but is not classified as such due to inadequate data. For example, a drunk driver may die in a fiery crash and the body may be incinerated. In this case, there may be no evidence remaining evidence 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. 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 estimates are slightly 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.

TABLE 2.01
ALCOHOL-RELATED FATAL CRASH SUMMARY, 1980 - 2001

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			317	55
1983	345	258	75	113	44	28	11	117	45	558			307	55
1984	383	318	83	133	42	36	11	149	47	584	305	52	326	56
1985	372	295	79	156	53	31	10	108	37	610	261	43	283	46
1986	347	281	81	143	51	24	8	114	41	572	264	46	278	49
1987	297	265	89	132	50	18	7	115	43	530	224	42	240	45
1988	361	313	87	163	52	32	10	118	38	615	277	45	289	47
1989	368	313	85	158	51	26	8	129	41	605	275	45	291	48
1990	334	260	78	129	50	23	9	108	41	568	235	41	254	45
1991	327	242	74	135	56	22	9	85	35	531	212	40	231	43
1992	344	237	69	135	57	13	5	89	38	581	229	39	237	41
1993	355	283	80	174	61	19	7	90	32	538	196	36	212	39
1994	377	303	80	183	60	23	8	97	32	644	226	35	244	38
1995	383	343	90	198	58	30	9	115	34	597	246	41	265	44
1996	359	314	87	209	67	22	7	83	26	576	205	36	218	38
1997	384	345	90	226	66	19	6	100	29	600	178	30	193	32
1998	406	369	91	218	59	29	8	122	33	650	273	42	280	43
1999	426	370	87	254	69	16	4	100	27	626	195	31	201	32
2000	403	375	93	226	60	22	6	127	34	625	245	39	255	41
2001	361	322	89	198	62	23	7	101	31	568	211	37	NA	NA

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

TABLE 2.02

**IMPAIRED DRIVING INCIDENTS ("DWIs") BY GENDER
AND BY AREA OF STATE WHERE ARREST WAS MADE, 1990-2001**

Year	Total	Gender				Area of State			
		Male		Female		Metro Area		Non-Metro	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
1990	36,884	29,304	79.4	7,580	20.6	20,709	56.1	16,175	43.9
1991	32,466	25,741	79.3	6,725	20.7	17,591	54.2	14,875	45.8
1992	30,834	24,706	80.1	6,128	19.9	16,315	52.9	14,519	47.1
1993	30,111	24,108	80.1	6,003	19.9	15,595	51.8	14,516	48.2
1994	29,739	22,999	77.3	6,740	22.7	15,477	52.0	14,262	48.0
1995	30,255	22,956	75.9	7,299	24.1	15,678	51.8	14,577	48.2
1996	30,515	23,182	76.0	7,333	24.0	15,774	51.7	14,741	48.3
1997	30,905	23,219	75.1	7,686	24.9	15,954	51.6	14,951	48.4
1998	32,001	23,852	74.5	8,149	25.5	16,537	51.7	15,464	48.3
1999	34,529	25,710	74.5	8,819	25.5	17,126	49.6	17,403	50.4
2000	34,803	25,406	73.0	9,397	27.0	16,739	48.1	18,064	51.9
2001	33,305	24,170	72.6	9,135	27.4	16,284	48.9	17,021	51.1

TABLE 2.03

IMPAIRED DRIVING INCIDENTS ("DWIs") FOR SELECTED AGE GROUPS, 1990-2001

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	

FIGURE 2.01
PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs")
COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990-2001

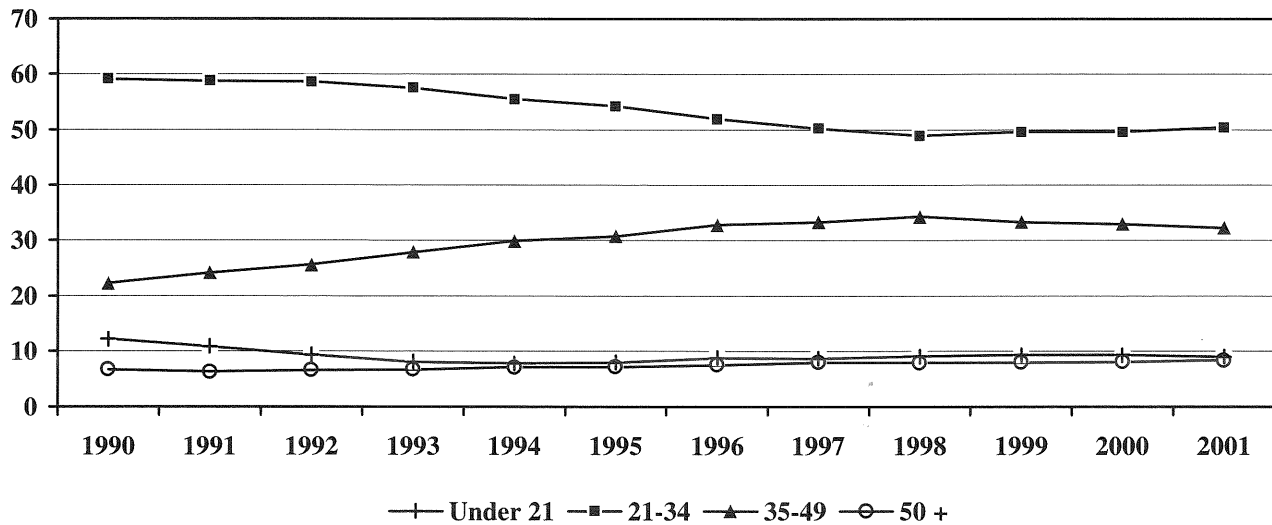


TABLE 2.04

IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1990-2001

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

TABLE 2.05
AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES
AND IN ALCOHOL - RELATED CRASHES, 2001

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	8	1	38	4	186	17	402	14	626	35
5 - 9	8	1	51	1	362	32	613	25	1,026	58
10 - 14	9	1	81	7	550	30	876	28	1,507	65
15	10	2	49	0	293	16	317	13	659	29
16	6	1	119	6	744	38	880	39	1,743	83
17	14	2	118	13	720	57	937	39	1,775	109
18	23	5	115	23	722	82	884	53	1,721	158
19	20	10	106	21	643	93	807	80	1,556	194
20	17	6	98	28	548	91	757	42	1,403	161
Total Under 21	115	29	775	103	4,768	456	6,473	333	12,016	892
0 - 14	25	3	170	12	1,098	79	1,891	67	3,159	158
15 - 19	73	20	507	63	3,122	286	3,825	224	7,454	573
20 - 24	81	47	422	125	2,151	433	3,194	303	5,767	861
25 - 29	54	28	275	94	1,335	222	2,229	186	3,839	502
30 - 34	34	22	264	81	1,127	188	2,125	145	3,516	414
35 - 39	46	22	265	66	1,073	172	2,000	146	3,338	384
40 - 44	39	25	192	34	1,051	165	1,949	137	3,192	336
45 - 49	38	17	205	32	890	111	1,560	83	2,655	226
50 - 54	25	7	148	19	722	82	1,318	69	2,188	170
55 - 59	24	4	109	11	448	38	833	32	1,390	81
60 - 64	20	6	74	7	321	13	589	27	984	47
65 - 69	19	6	63	3	291	14	455	24	809	41
70 - 74	22	3	49	3	293	19	379	17	721	39
75 - 79	30	0	64	3	252	6	371	7	687	16
80 - 84	20	0	41	3	174	5	232	6	447	14
85 & Older	18	1	25	1	112	3	148	4	285	8
Not Stated	0	0	76	11	401	43	1,315	110	1,792	164
Total	568	211	2,949	568	14,861	1,879	24,413	1,587	42,223	4,034

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 211 alcohol-related traffic deaths in year 2001. Fourteen of those deaths were to pedestrians, and 12 of those 14 pedestrians were drinking. In 1 of the 12 crashes involving drinking pedestrians, the motor vehicle driver had also been drinking. Additionally, 1 bicyclist was among the 211 alcohol-related deaths, and it was the bicyclist (not the driver) who had been drinking.

TABLE 2.06

**2001 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	122	119	12	17	90
Car or Truck Passenger	36	25	5	7	13
Motorcycle Driver	14	14	0	6	8
Motorcycle Passenger	3	3	0	1	2
Snowmobile Driver	1	0	0	0	0
ATV Driver	2	2	0	0	2
Pedestrian	14	11	1	1	9
Bicyclist	1	1	0	1	0
Other/Unknown	18	15	3	1	11
Total	211	190	21	34	135

TABLE 2.07

**PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES
DETERMINED TO BE ALCOHOL - RELATED, 1992- 2001**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Deaths* (Known)	39%	36%	35%	41%	36%	30%	42%	31%	39%	37%
(Estimated)	41%	39%	38%	44%	38%	32%	43%	32%	41%	NA
Injuries**	13%	12%	11%	11%	11%	11%	11%	10%	10%	10%
Property Damage Crashes**	5%	4%	4%	4%	4%	4%	4%	4%	4%	4%

* Based on alcohol test results plus officer's perception of possible alcohol involvement as noted on crash report. See pp. 37-38 regarding known and estimated alcohol-related fatalities. Estimated deaths are not available for 2001.

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

TABLE 2.08

**FIRST HARMFUL EVENT IN ALCOHOL-RELATED
FATAL CRASHES AND ALL FATAL CRASHES, 2001**

First Harmful Event	All Fatal Crashes		Alcohol-Related Fatal Crashes *	
	Number	Percent	Number	Percent
Collision with:				
Another Motor Vehicle	242	47.6	51	28.2
Parked Motor Vehicle	5	1.0	4	2.2
Railroad Train	5	1.0	1	0.6
Bicycle	6	1.2	0	0.0
Pedestrian	42	8.3	13	7.2
Deer	4	0.8	1	0.6
Other Animal	1	0.2	0	0.0
Fixed Object	91	17.9	46	25.4
Non-Collision:				
Overturn	104	20.5	60	33.2
Fire/Explosion	1	0.2	0	0.0
Other/Unknown	7	1.4	5	2.8
Total	508	100.0%	181	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, 1992 - 2001

Year	Killed	Tested	Alcohol Concentration*		
			(.00)	(.01 - .09)	(.10 or more)
1992	344	237	135 (57%)	13 (5%)	89 (38%)
1993	355	283	174 (61%)	19 (7%)	90 (32%)
1994	377	303	183 (60%)	23 (8%)	97 (32%)
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%)

* Percents based on drivers tested.

TABLE 2.10
DRIVERS KILLED WHO TESTED .01 OR HIGHER, 1992 - 2001
("Any Alcohol")

Year	Total	Male		Female		Occurred Between		Under	
						Midnight - 3 AM		Legal Age	
1992	102	82	(80%)	20	(20%)	39	(38%)	13	(13%)
1993	109	92	(84%)	17	(16%)	35	(32%)	11	(10%)
1994	120	100	(83%)	20	(17%)	24	(20%)	15	(13%)
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%)

TABLE 2.11
DRIVERS KILLED WHO TESTED .10 OR HIGHER, 1992 - 2001
("Over Limit")

Year	Total	Male		Female		Occurred Between		Under	
						Midnight - 3 AM		Legal Age	
1992	89	77	(87%)	12	(13%)	36	(40%)	12	(13%)
1993	90	75	(83%)	15	(17%)	32	(36%)	7	(8%)
1994	97	83	(86%)	14	(14%)	20	(21%)	8	(8%)
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%)

Figure 2.02

**Killed Drivers Tested for Alcohol: Percent over .01
Alcohol Level and Percent over .10 Alcohol Level, 1970 - 2001**

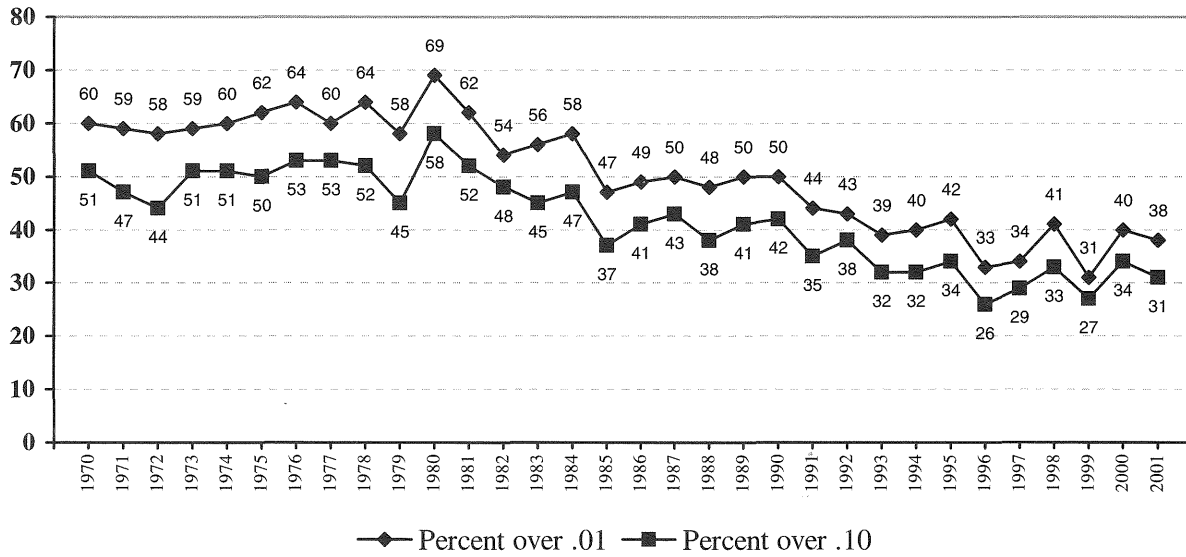


FIGURE 2.03

Percent of Drivers Killed Who Had Been Drinking, by Age, 2001

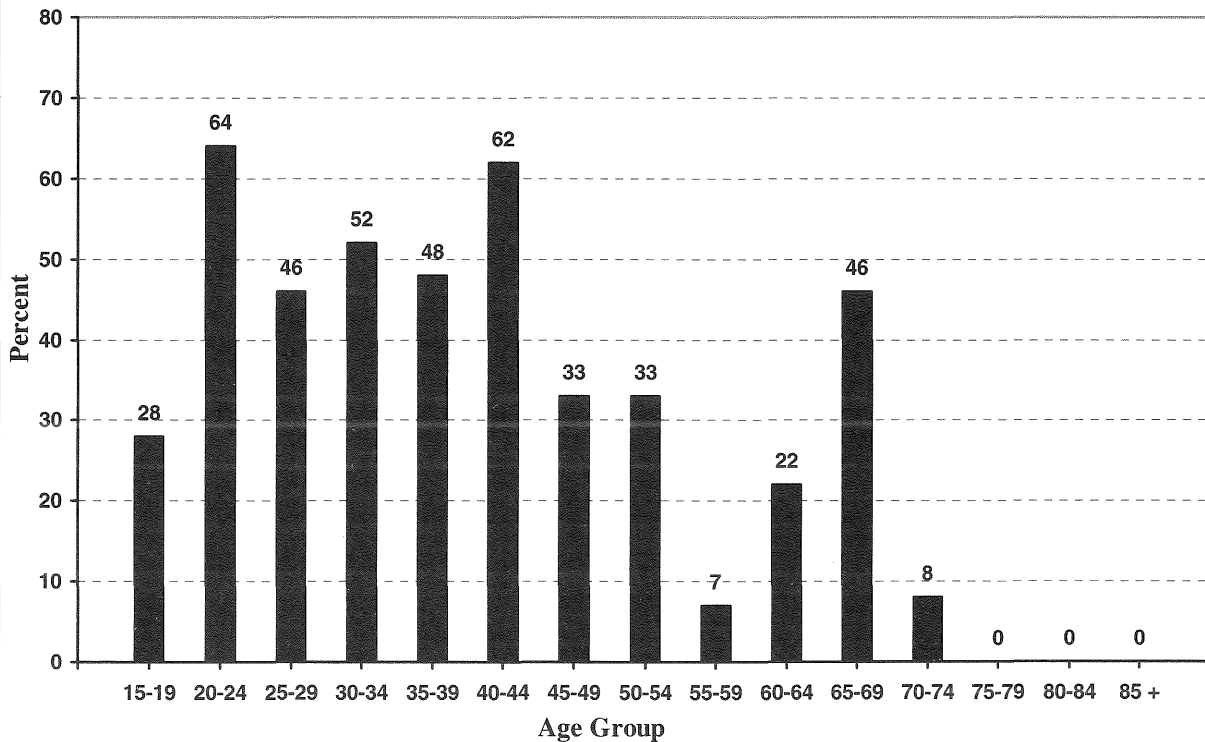


TABLE 2.12

2001 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age	Killed	Tested	Alcohol Concentration						Alcohol Concentration						
			(.00)		(.01 - .09)		(.10 or more)								
			num- ber	per- cent	num- ber	per- cent	num- ber	per- cent	.00	.01- .04	.05- .09	.10- .14	.15- .19	.20- .24	.25 & over
14 & Younger	0	0	0		0		0		0	0	0	0	0	0	0
15	4	3	2		1		0		2	0	1	0	0	0	0
16	2	2	2		0		0		2	0	0	0	0	0	0
17	9	8	8		0		0		8	0	0	0	0	0	0
18	18	17	13		0		4		13	0	0	3	1	0	0
19	16	16	8		1		7		8	1	0	0	4	2	1
20	10	10	6		0		4		6	0	0	1	2	1	0
Under 21	59	56	39		2		15		39	1	1	4	7	3	1
14 & Younger	0	0	0	0.0	0	0.0	0	0.0	0	0	0	0	0	0	0
15 - 19	49	46	33	71.7	2	4.4	11	23.9	33	1	1	3	5	2	1
20 - 24	49	45	16	35.6	5	11.1	24	53.3	16	1	4	5	7	8	4
25 - 29	38	35	19	54.3	5	14.3	11	31.4	19	2	3	1	5	1	4
30 - 34	22	21	10	47.6	2	9.5	9	42.9	10	0	2	5	1	2	1
35 - 39	35	31	16	51.6	2	6.5	13	41.9	16	1	1	1	2	6	4
40 - 44	27	26	10	38.5	1	3.9	15	57.7	10	0	1	2	6	3	4
45 - 49	32	30	20	60.7	1	3.3	9	30.0	20	1	0	0	3	2	4
50 - 54	17	15	10	66.7	1	6.7	4	26.7	10	0	1	2	0	0	2
55 - 59	18	14	13	92.9	0	0.0	1	7.1	13	0	0	0	1	0	0
60 - 64	9	9	7	77.8	0	0.0	2	22.2	7	0	0	0	1	0	1
65 - 69	14	11	6	54.6	4	36.4	1	9.1	6	3	1	0	1	0	0
70 - 74	16	13	12	92.3	0	0.0	1	7.7	12	0	0	1	0	0	0
75 - 79	19	12	12	100.0	0	0.0	0	0.0	12	0	0	0	0	0	0
80 - 84	8	8	8	100.0	0	0.0	0	0.0	8	0	0	0	0	0	0
85 +	8	6	6	100.0	0	0.0	0	0.0	6	0	0	0	0	0	0
Total	361	322	198	61.5	23	7.1	101	31.4	198	9	14	20	32	24	25

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

TABLE 2.13

2001 ALCOHOL - RELATED CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	11	183	208	402	15	274
February	4	149	241	394	4	205
March	13	180	212	405	14	265
April	11	199	139	349	13	301
May	21	228	191	440	21	364
June	16	233	215	464	18	338
July	23	256	185	464	26	416
August	19	260	186	465	27	411
September	10	253	202	465	10	367
October	16	248	216	480	17	362
November	19	250	252	521	21	377
December	18	243	274	535	25	354
Total	181	2,682	2,521	5,384	211	4,034

TABLE 2.14

2001 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban Interstate	16	209	254	479	18	296
Rural Interstate	3	46	51	100	3	71
Urban Trunk Hwy	17	322	332	671	19	479
Rural Trunk Hwy	39	439	287	765	51	711
County State Aid Hwy	64	824	625	1,513	74	1,237
County Road	11	113	81	205	11	155
Township Road	13	109	80	202	16	206
Local Street	18	590	776	1,384	19	833
Other	0	30	35	65	0	46
Total	181	2,682	2,521	5,384	211	4,034

FIGURE 2.04

2001 Alcohol-Related Crashes by Time of Day

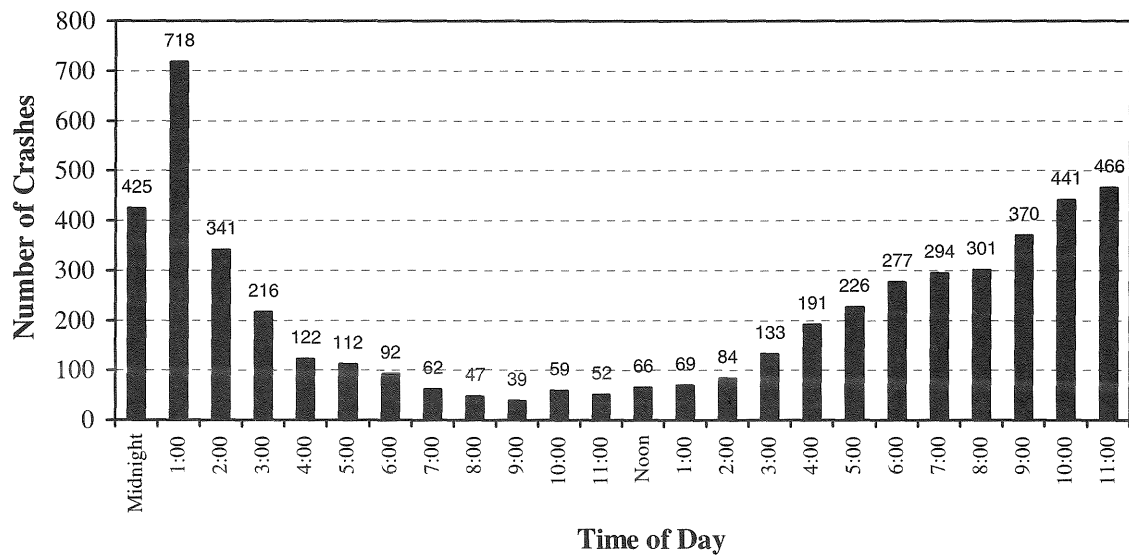


FIGURE 2.05

2001 Alcohol-Related Crashes by Day of Week

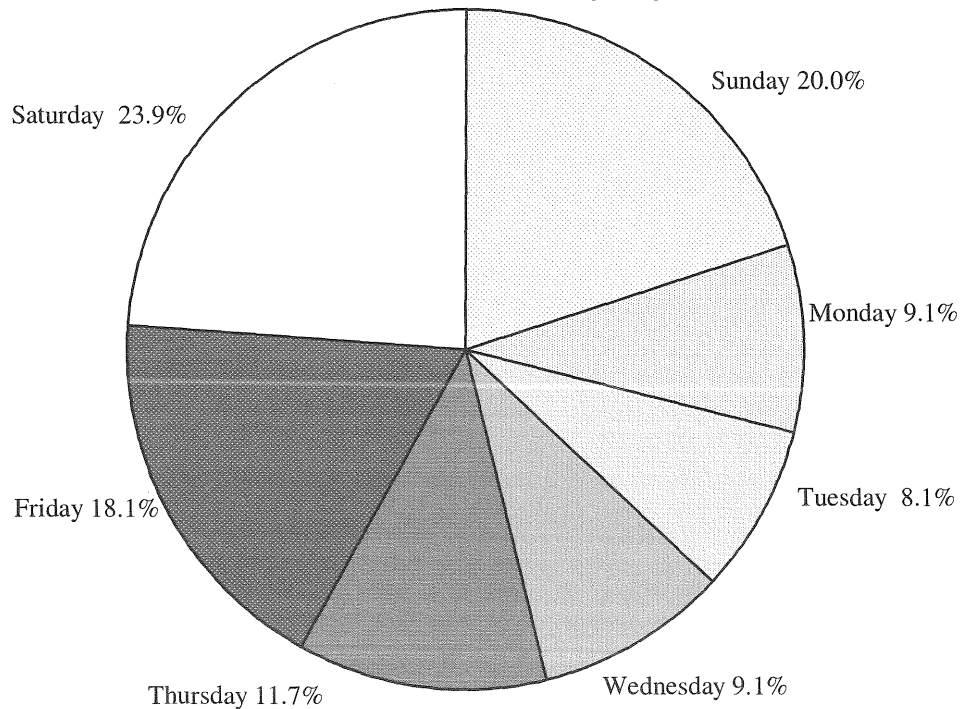


TABLE 2.15

2001 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	120	30	29	24	37	54	131	425	22	289
1:00 AM	216	49	32	48	69	103	201	718	27	486
2:00 AM	110	20	19	21	29	40	102	341	16	238
3:00 AM	68	24	10	10	13	30	61	216	5	169
4:00 AM	38	6	6	9	10	14	39	122	8	92
5:00 AM	35	5	7	6	13	8	38	112	7	69
6:00 AM	25	8	7	8	8	8	28	92	3	69
7:00 AM	11	3	6	4	4	12	22	62	3	44
8:00 AM	15	9	1	3	7	1	11	47	2	38
9:00 AM	7	4	4	4	8	5	7	39	1	26
10:00 AM	11	5	3	3	5	7	25	59	1	37
11:00 AM	10	6	6	9	5	7	9	52	2	52
Noon	15	9	2	7	7	10	16	66	4	55
1:00 PM	9	9	10	8	6	7	20	69	3	46
2:00 PM	10	10	12	13	10	17	12	84	4	56
3:00 PM	18	17	17	14	12	28	27	133	7	102
4:00 PM	30	24	20	20	24	41	32	191	14	116
5:00 PM	37	26	22	28	29	38	46	226	7	206
6:00 PM	52	33	25	24	40	56	47	277	13	250
7:00 PM	42	28	29	29	47	58	61	294	11	266
8:00 PM	42	29	33	35	44	64	54	301	5	223
9:00 PM	42	39	26	48	58	84	73	370	18	309
10:00 PM	38	39	40	56	65	113	90	441	10	329
11:00 PM	36	42	44	48	59	138	99	466	13	342
Unknown	43	16	25	9	21	32	35	181	5	125
Total	1,080	490	435	488	630	975	1,286	5,384	211	4,034

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2001 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 about 1 in 7 of the persons killed or injured in 2001. The proportion of "unknowns" decreased slightly in recent few years. Assuming, however, that reporting behavior does not change radically from year to year, the data presented here are useful in indicating general trends in usage.

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 decline in 2001

In 2001, 460 motor vehicle occupants died in crashes --a 12% decrease from year 2000. Also, vehicle occupants injured (37,929) decreased 6% from 2000. 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 as the less severe injuries are increasing in the decade and a half since the seat belt legislation of the mid-1980s. In 1987, 4,176 motor vehicle occupants suffered severe injuries. In 2001, that number decreased to 2,356. This is excellent 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, dismemberment, or epilepsy.

Seat belt use increases only marginally in 2001

According to the August 2001 observational survey, belt use among front-seat occupants averaged 74% across all of Minnesota--an increase of only one percentage point over 2000. It appears that without a primary seat belt law, the proportion of Minnesotan's who buckle up may continue to rise, but only very slowly.

Airbag update: always wear your seat belt

In 2001, airbag deployment was reported 4,203 times when the occupant was also wearing a seat belt. Fifty-one percent of these incidents resulted in no apparent injury. Airbags deployed 400 times when occupant were not wearing seat belts. Only 26% 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

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. Only the use of shoulder belts could be observed in the observation studies. The June 1986 survey was conducted prior to the implementation of this law; all other studies were conducted after the law went into effect. The August 1988 study was conducted after the amendment adding a \$10.00 fine went into effect. The August 1991 study was conducted after an amendment increasing the fine to \$25.00 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, 2001**

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	310	1.1	1,680	5.9	9,965	35.2	16,386	57.8	28,341	100.0
Partly Ejected	30	18.1	39	23.5	52	31.3	45	27.1	166	100.0
Ejected	110	15.9	212	30.6	222	32.0	149	21.5	693	100.0
Not Stated	10	0.1	425	4.6	2,738	29.8	6,016	65.5	9,189	100.0
Total	460	1.2	2,356	6.1	12,977	33.8	22,596	58.9	38,389	100.0

TABLE 3.03

**MOTOR VEHICLE OCCUPANTS KILLED OR INJURED,
BY AGE AND INJURY SEVERITY, 2001**

Age Group	Killed	Injured			Total
		Severe	Moderate	Minor	
0 - 4	6	25	158	371	554
5 - 9	8	32	245	484	761
10 - 14	6	45	349	632	1,026
15 - 19	64	457	2,851	3,639	6,947
20 - 24	67	357	1,927	3,023	5,307
25 - 29	46	221	1,164	2,089	3,474
30 - 34	28	208	988	1,990	3,186
35 - 39	35	206	933	1,874	3,013
40 - 44	30	149	900	1,815	2,864
45 - 49	30	139	761	1,462	2,362
50 - 54	15	102	624	1,227	1,953
55 - 59	18	80	396	790	1,266
60 - 64	16	59	286	558	903
65 - 69	16	57	264	436	757
70 - 74	20	42	274	363	679
75 - 79	24	55	241	366	662
80 - 84	16	39	166	222	427
85 & Older	15	24	105	147	276
Not Stated	0	59	345	1,108	1,512
Total	460	2,356	12,977	22,596	37,929

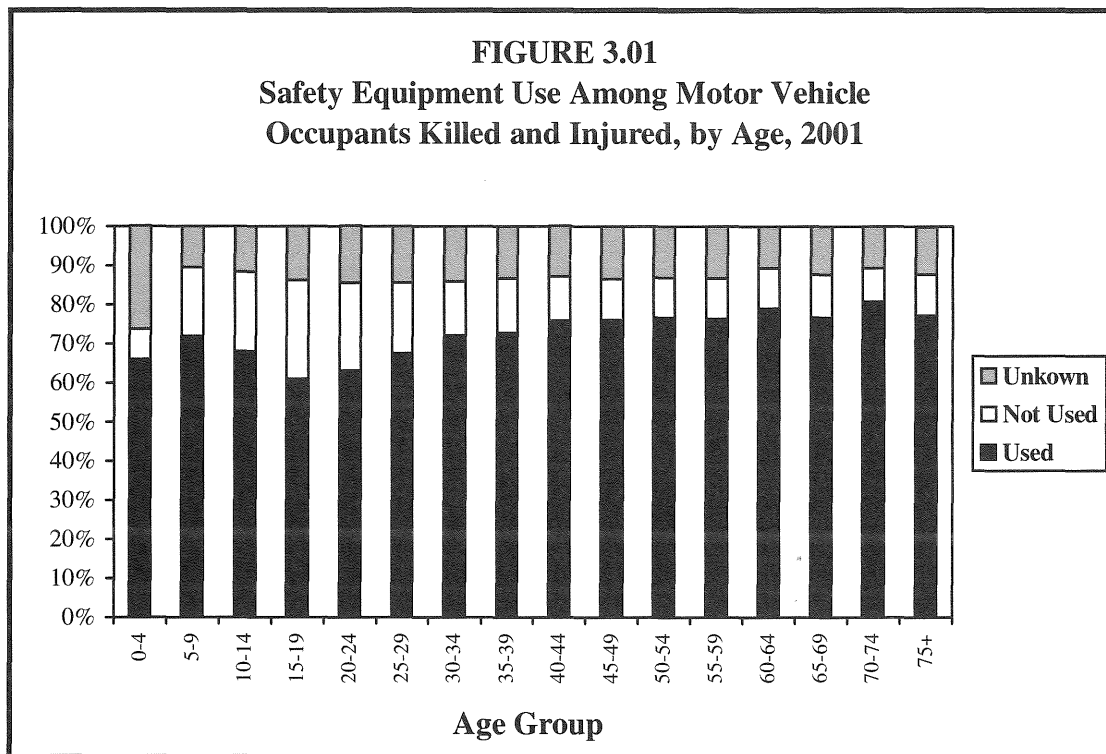


TABLE 3.04

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS,
 BY GENDER AND INJURY SEVERITY, 2001**

	Killed			Injured						
				Severe		Moderate		Minor		
	Female	Male	Total	Female	Male	Female	Male	Female	Male	Total
Used	70	73	143	614	493	4,633	3,834	9,675	6,914	26,163
Not Used	71	181	252	311	500	1,113	1,623	1,208	1,301	6,056
Unknown	17	48	65	183	247	803	918	1,561	1,469	5,181
Total	158	302	460	1108	1240	6,549	6,375	12,444	9,684	37,400

Note: Gender was not reported for 529 persons injured (mostly those with minor injuries), causing the "Total" to be 529 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, 2001**

Age Group	Restraint Use	Injured									
		Killed		Severe		Moderate		Minor		Total	
		#	%	#	%	#	%	#	%	#	%
0 – 3 Years	Used	1	33.3	11	61.1	72	65.5	203	72.2	286	69.9
	Not Used	1	33.3	6	33.3	18	16.4	15	5.3	39	9.5
	Unknown	<u>1</u>	<u>33.3</u>	<u>1</u>	<u>5.6</u>	<u>20</u>	<u>18.2</u>	<u>63</u>	<u>22.4</u>	<u>84</u>	<u>20.5</u>
	Subtotal	3	100.0	18	100.0	110	100.0	281	100.0	409	100.0
4 – 10 Years	Used	6	50.0	29	59.2	208	61.7	504	73.9	741	69.4
	Not Used	2	16.7	16	32.7	67	19.9	85	12.5	168	15.7
	Unknown	<u>4</u>	<u>33.3</u>	<u>4</u>	<u>8.2</u>	<u>62</u>	<u>18.4</u>	<u>93</u>	<u>13.6</u>	<u>159</u>	<u>14.9</u>
	Subtotal	12	100.0	49	100.0	337	100.0	682	100.0	1068	100.0
Total 0 – 10 Years	Used	7	46.7	40	59.7	280	62.6	707	73.4	1,027	69.5
	Not Used	3	20.0	22	32.8	85	19.0	100	10.4	207	14.0
	Unknown	<u>5</u>	<u>33.3</u>	<u>5</u>	<u>7.5</u>	<u>82</u>	<u>18.3</u>	<u>156</u>	<u>16.2</u>	<u>243</u>	<u>16.5</u>
	Subtotal	15	100.0	67	100.0	447	100.0	963	100.0	1,477	100.0
0 – 4 Years	Used	1	16.7	16	64.0	97	61.4	256	69.0	369	66.6
	Not Used	1	16.7	7	28.0	18	11.4	17	4.6	42	7.6
	Unknown	<u>4</u>	<u>66.7</u>	<u>2</u>	<u>8.0</u>	<u>43</u>	<u>27.2</u>	<u>98</u>	<u>26.4</u>	<u>143</u>	<u>25.8</u>
	Subtotal	6	100.0	25	100.0	158	100.0	371	100.0	554	100.0
5 – 9 Years	Used	5	62.5	19	59.4	155	63.3	375	77.5	549	72.1
	Not Used	2	25.0	11	34.4	59	24.1	63	13.0	133	17.5
	Unknown	<u>1</u>	<u>12.5</u>	<u>2</u>	<u>6.3</u>	<u>31</u>	<u>12.7</u>	<u>46</u>	<u>9.5</u>	<u>79</u>	<u>10.4</u>
	Subtotal	8	100.0	32	100.0	245	100.0	484	100.0	761	100.0
10 – 14 Years	Used	4	66.7	22	48.9	226	64.8	451	71.4	699	68.1
	Not Used	2	33.3	19	42.2	81	23.2	107	16.9	207	20.2
	Unknown	<u>0</u>	<u>0.0</u>	<u>4</u>	<u>8.9</u>	<u>42</u>	<u>12.0</u>	<u>74</u>	<u>11.7</u>	<u>120</u>	<u>11.7</u>
	Subtotal	6	100.0	45	100.0	349	100.0	632	100.0	1,026	100.0
15 – 19 Years	Used	18	28.1	161	35.2	1,668	58.5	2,428	66.7	4,257	61.3
	Not Used	32	50.0	209	45.7	805	28.2	723	19.9	1,737	25.0
	Unknown	<u>14</u>	<u>21.9</u>	<u>87</u>	<u>19.0</u>	<u>378</u>	<u>13.3</u>	<u>488</u>	<u>13.4</u>	<u>953</u>	<u>13.7</u>
	Subtotal	64	100.0	457	100.0	2,851	100.0	3,639	100.0	6,947	100.0
20 – 24 Years	Used	18	26.9	148	41.5	1,102	57.2	2,122	70.2	3,372	63.5
	Not Used	45	67.2	147	41.2	530	27.5	485	16.0	1,162	21.9
	Unknown	<u>4</u>	<u>6.0</u>	<u>62</u>	<u>17.4</u>	<u>295</u>	<u>15.3</u>	<u>416</u>	<u>13.8</u>	<u>773</u>	<u>14.6</u>
	Subtotal	67	100.0	357	100.0	1,927	100.0	3,023	100.0	5,307	100.0
25 – 29 Years	Used	11	23.9	89	40.3	740	63.5	1,541	73.8	2,370	68.2
	Not Used	29	63.0	86	38.9	269	23.1	248	11.9	603	17.4
	Unknown	<u>6</u>	<u>13.0</u>	<u>46</u>	<u>20.8</u>	<u>155</u>	<u>13.3</u>	<u>300</u>	<u>14.4</u>	<u>501</u>	<u>14.4</u>
	Subtotal	46	100.0	221	100.0	1,164	100.0	2,089	100.0	3,474	100.0
30 – 34 Years	Used	4	14.3	110	52.9	647	65.5	1,557	78.2	2,314	72.6
	Not Used	20	71.4	59	28.4	194	19.6	171	8.6	424	13.3
	Unknown	<u>4</u>	<u>14.3</u>	<u>39</u>	<u>18.8</u>	<u>147</u>	<u>14.9</u>	<u>262</u>	<u>13.2</u>	<u>448</u>	<u>14.1</u>
	Subtotal	28	100.0	208	100.0	988	100.0	1,990	100.0	3,186	100.0
35 – 39 Years	Used	6	17.1	99	48.1	642	68.8	1,473	78.6	2,214	73.5
	Not Used	24	68.6	68	33.0	166	17.8	168	9.0	402	13.3
	Unknown	<u>5</u>	<u>14.3</u>	<u>39</u>	<u>18.9</u>	<u>125</u>	<u>13.4</u>	<u>233</u>	<u>12.4</u>	<u>397</u>	<u>13.2</u>
	Subtotal	35	100.0	206	100.0	933	100.0	1,874	100.0	3,013	100.0

TABLE 3.05 CONTINUED

**SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED
OR INJURED, BY AGE AND INJURY SEVERITY, 2001**

Age Group	Restraint Use	Killed		Severe		Moderate		Minor		Total	
		#	%	#	%	#	%	#	%	#	%
40 – 44	Used	6	20.0	83	55.7	643	71.4	1,468	80.9	2,194	76.6
Years	Not Used	20	66.7	35	23.5	147	16.3	120	6.6	302	10.5
	Unknown	4	13.3	31	20.8	110	12.2	227	12.5	368	12.9
	Subtotal	30	100.0	149	100.0	900	100.0	1,815	100.0	2,864	100.0
45–49	Used	8	26.7	77	55.4	558	73.3	1,177	80.5	1,812	76.7
Years	Not Used	14	46.7	40	28.8	120	15.8	77	5.3	237	10.0
	Unknown	8	26.7	22	15.8	83	10.9	208	14.2	313	13.3
	Subtotal	30	100.0	139	100.0	761	100.0	1,462	100.0	2,362	100.0
50 – 54	Used	5	33.3	57	55.9	464	74.4	986	80.4	1,507	77.2
Years	Not Used	9	60.0	24	23.5	86	13.8	80	6.5	190	9.7
	Unknown	1	6.8	21	20.6	74	11.9	161	13.1	256	13.1
	Subtotal	15	100.0	102	100.0	624	100.0	1,227	100.0	1,953	100.0
55 – 59	Used	7	38.9	43	53.8	293	74.0	638	80.8	974	76.9
Years	Not Used	8	44.4	23	28.8	60	15.2	42	5.3	125	9.9
	Unknown	3	16.7	14	17.5	43	10.9	110	13.9	167	13.2
	Subtotal	18	100.0	80	100.0	396	100.0	790	100.0	1,266	100.0
60 – 64	Used	5	31.3	33	55.9	231	80.8	458	82.1	722	80.0
Years	Not Used	8	50.0	16	27.1	34	11.9	36	6.5	86	9.5
	Unknown	3	18.8	10	17.0	21	7.3	64	11.5	95	10.5
	Subtotal	16	100.0	59	100.0	286	100.0	558	100.0	903	100.0
65 – 69	Used	5	31.2	34	59.6	202	76.5	353	81.0	589	77.8
Years	Not Used	10	62.5	14	24.6	31	11.7	29	6.6	74	9.8
	Unknown	1	6.2	9	15.8	31	11.7	54	12.4	94	12.4
	Subtotal	16	100.0	57	100.0	264	100.0	436	100.0	757	100.0
70 – 74	Used	12	60.0	25	59.5	223	81.4	305	84.0	553	81.4
Years	Not Used	6	30.0	10	23.8	27	9.9	17	4.7	54	8.0
	Unknown	2	10.0	7	16.7	24	8.8	41	11.3	72	10.6
	Subtotal	20	100.0	42	100.0	274	100.0	363	100.0	679	100.0
75 & Older	Used	28	50.9	71	60.2	400	78.1	597	81.3	1,068	78.3
	Not Used	22	40.0	27	22.9	63	12.3	39	5.3	129	9.5
	Unknown	5	9.1	20	17.0	49	9.6	98	13.4	167	12.2
	Subtotal	55	100.0	118	100.0	512	100.0	734	100.0	1,364	100.0
Age	Used	0	0.0	22	37.3	187	54.2	455	41.0	664	43.9
Not	Not Used	0	0.0	16	27.1	53	15.4	101	9.1	170	11.2
Stated	Unknown	0	0.0	21	35.6	105	30.4	553	49.9	679	44.9
	Subtotal	0	0.0	59	100.0	345	100.0	1,109	100.0	1,513	100.0
All	Used	143	31.1	1,109	47.1	8,478	65.3	16,640	73.6	26,227	69.2
Ages	Not Used	252	54.8	811	34.4	2,743	21.1	2,523	11.2	6,077	16.0
	Unknown	65	14.1	436	18.5	1,756	13.5	3,433	15.2	5,625	14.8
	Subtotal	460	100.0	2,356	100.0	12,977	100.0	22,596	100.0	37,929	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, 1992 - 2001**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Killed										
Used	27.5	32.1	25.4	27.1	30.3	37.5	30.3	31.6	29.4	31.1
Not Used	58.5	52.6	56.3	48.3	52.6	45.9	48.7	50.0	54.4	54.8
Unknown	14.0	15.3	18.3	24.6	17.1	16.6	21.0	18.4	16.2	14.1
Injured										
Severe Injuries										
Used	36.6	40.7	43.0	41.7	44.8	45.4	43.8	44.9	45.7	47.1
Not Used	41.7	37.4	37.6	37.2	35.9	35.2	36.0	34.2	33.5	34.4
Unknown	21.7	21.9	19.4	21.1	19.3	19.4	20.1	20.9	20.8	18.5
Moderate Injuries										
Used	48.5	51.8	54.5	55.3	57.5	59.0	59.3	61.0	63.1	65.3
Not Used	34.0	31.9	29.6	28.4	27.4	25.7	26.0	24.6	22.9	21.1
Unknown	17.5	16.3	15.9	16.2	15.1	15.3	14.7	14.4	14.0	13.5
Minor Injuries										
Used	61.4	64.8	65.0	66.8	67.9	69.5	69.9	71.1	72.6	73.6
Not Used	19.9	17.0	16.0	15.2	14.6	13.1	13.4	12.7	11.9	11.2
Unknown	18.8	18.1	19.0	18.0	17.5	17.4	16.7	16.2	15.5	15.2
Total Injured										
Used	55.0	58.7	59.9	61.1	62.9	64.2	64.4	65.7	67.6	69.2
Not Used	26.4	23.5	22.1	21.2	20.3	18.9	19.4	18.4	17.1	16.0
Unknown	18.6	17.9	18.0	17.6	16.8	16.8	16.2	15.9	15.3	14.8

TABLE 3.07

**SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS
KILLED AND INJURED, BY ROADWAY TYPE, 2001**

Roadway Type	Used		Not Used		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Interstate	2,932	76.6	536	14.0	362	9.5	3,830	100.0
US Trunk Hwy	3,665	71.8	887	17.4	554	10.8	5,106	100.0
MN Trunk Hwy	5,446	71.4	1,249	16.4	935	12.2	7,630	100.0
CSAH	7,870	67.2	1,901	16.2	1,943	16.6	11,714	100.0
County Road	467	53.1	250	28.4	163	18.5	880	100.0
Township Road	409	45.4	327	36.3	164	18.2	900	100.0
Local Street	5,468	67.3	1,132	13.9	1,520	18.7	8,120	100.0
Other Road	113	54.1	47	22.5	49	23.4	209	100.0
Total	26,370	68.7	6,329	16.5	5,690	14.8	38,389	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, 2001**

EMS Region	Percent Used	Percent Not Used	Percent Unknown	Number of People
Metropolitan	72.4	12.0	15.7	20,873
Central	66.0	20.3	13.7	5,381
Northeast	66.5	21.2	12.4	2,135
Northwest	54.0	28.4	17.7	991
South Central	67.3	19.3	13.4	1,574
Southeast	66.1	20.3	13.5	3,655
Southwest	59.6	26.4	14.0	2,142
West Central	61.3	24.3	14.4	1,616
Unknown	81.8	13.6	4.6	22
Statewide	68.7	16.5	14.8	38,389

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

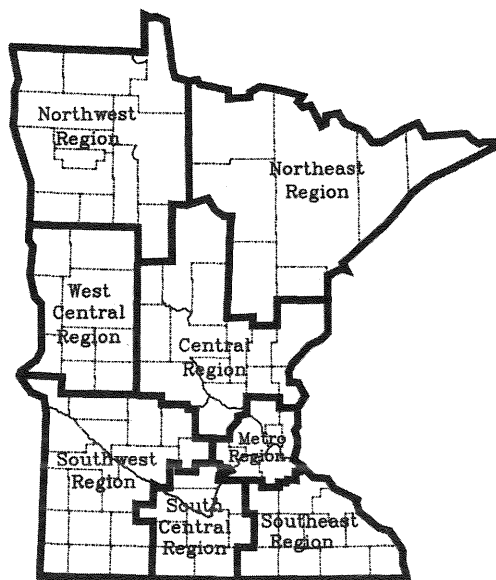


TABLE 3.09

AIRBAG DEPLOYMENTS, 1994 - 2001

Year	Injury Severity	Airbag Deployed		Deployment Not Indicated		Belt Use Unknown	Total
		Belt Used	Belt Not Used	Belt Used	Belt Not Used		
1994	Killed	5	5	127	287	95	519
	Severe Injury	33	5	1,367	1,217	632	3,254
	Moderate Injury	160	16	7,172	3,971	2,133	13,452
	Minor Injury	179	17	15,920	3,949	4,692	24,757
	No Apparent Injury	<u>465</u>	<u>28</u>	<u>95,102</u>	<u>9,189</u>	<u>96,345</u>	<u>201,129</u>
	Total	842	71	119,688	18,613	103,897	243,111
1995	Killed	7	4	127	235	122	495
	Severe Injury	38	14	1,242	1,126	647	3,067
	Moderate Injury	241	46	7,537	3,953	2,281	14,058
	Minor Injury	285	24	16,534	3,817	4,533	25,193
	No Apparent Injury	<u>668</u>	<u>32</u>	<u>93,028</u>	<u>8,393</u>	<u>89,646</u>	<u>191,767</u>
	Total	1,239	120	118,468	17,524	97,229	234,580
1996	Killed	11	8	129	235	79	462
	Severe Injury	67	21	1,298	1,074	590	3,050
	Moderate Injury	356	62	7,964	3,897	2,188	14,467
	Minor Injury	401	47	17,699	3,851	4,653	26,651
	No Apparent Injury	<u>973</u>	<u>51</u>	<u>103,909</u>	<u>8,574</u>	<u>98,418</u>	<u>211,925</u>
	Total	1,808	189	130,999	17,631	105,928	256,555
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

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 increase

In 2001, there were 1,213 crashes that involved at least one motorcycle. This number represents a 7% increase from the previous year. The increase is disappointing, as motorcycle crashes had been declining during the later 1990s. In fact, the average number of motorcycle crashes per year from 1996 through 2000 was 1,065.

Fatalities and injuries also increase

In 2001, 42 motorcyclists were killed in traffic crashes. There were only 35 motorcyclist fatalities in 2000. Motorcyclist injuries also increased. There were 1,094 recorded in the year 2001--a 5% increase from the previous year. The average number of motorcyclist injuries per year from 1996 through 2000 was 996.

Greater crash severity

When a motorcycle is involved in a traffic crash, the chances of a severe injury are greatly increased. In fact, for every 100 motorcycle crashes in 2001, 3.4 of them were fatal crashes. For all crashes in 2001, 0.5 of every 100 were fatal. Also, in 2001, 82% of motorcycle crashes resulted in a non-fatal injury. This compares with 30% for all types of motor vehicle crashes.

Risk factors: alcohol and no helmet

State law requires that drivers who die in traffic crashes be tested for blood alcohol level. In 2001, 36 motorcycle operators were killed and 31 of them were tested. Fourteen (45%) of the 31 drivers tested positive for alcohol, and 8 of those 14 tested at .10 or greater.

A second risk factor is helmet non-use. Currently, Minnesota does not have a mandatory helmet use law for motorcycle operators. The need for helmet

laws may be debated, but the benefits helmets offer are clear: they protect the head in the event of a collision. In 2001, only 9 (21%) of the 42 motorcycle riders killed were known to be wearing a helmet. Of the 1,094 motorcyclists injured, only 379 (35%) were recorded as wearing a helmet.

Operator training is essential

In 2001, 57% 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. Indeed, of the 41 motorcycle drivers in fatal crashes in 2001, 22% of them did not have a driver's license or a valid endorsement to drive a motorcycle.

Young males are most often victims

In 2001, 36 of the 42 motorcyclists killed, and 914 of the 1,094 injured, were male. Males account for a full 84% of all motorcyclists killed or injured.

Contributing factors:

Speed by motorcyclists

Failing to yield by other vehicles

As noted, over half of motorcycle crashes are single-vehicle crashes. They do not involve another moving vehicle. In these crashes, the factors that reporting officers cite most often are illegal or unsafe speed (25%), driver inexperience (16%), driver inattention or distraction (12%), and physical impairment (9%). 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 the other drivers, failure to yield right of way is cited most frequently (38% of all factors cited), then driver inattention or distraction (23%).

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1980 - 2001

Year	Motorcycle Crashes				Killed		Injured		Licensed Operators	Registered Motorcycles*	Fatal Crash Rate Per 100 Crashes	
	Fatal	Injury	PDO*	Total	Mcy*	Other	Mcy*	Other			For Mcy*	For all crashes
	1											
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1980	112	2,728	468	3,308	121	1	3,359	34	222,330	157,815	3.4	0.7
1981	92	2,516	455	3,063	96	0	2,874	196	238,926	166,151	3.0	0.7
1982	72	2,115	331	2,518	70	6	2,381	189	264,134	159,345	2.9	0.6
1983	70	2,377	364	2,811	73	0	2,678	191	252,808	155,502	2.5	0.5
1984	59	2,302	407	2,768	62	1	2,590	207	256,836	153,851	2.2	0.5
1985	75	2,238	435	2,748	77	1	2,500	204	272,317	151,449	2.7	0.5
1986	63	1,891	364	2,318	66	0	2,152	142	282,087	141,261	2.7	0.5
1987	51	1,692	378	2,121	51	3	1,853	145	288,424	134,590	2.4	0.5
1988	57	1,628	284	1,969	58	4	1,817	126	293,347	128,956	2.9	0.5
1989	37	1,463	248	1,748	37	0	1,617	104	290,000	123,308	2.1	0.5
1990	46	1,446	243	1,735	50	2	1,605	126	292,074	120,081	2.7	0.5
1991	38	1,198	225	1,461	40	0	1,357	104	296,624	117,492	2.6	0.5
1992	29	1,133	199	1,361	28	3	1,288	60	290,722	116,124	2.1	0.5
1993	33	1,022	190	1,245	34	3	1,151	104	291,756	114,548	2.7	0.5
1994	41	1,151	189	1,381	43	0	1,324	66	293,164	113,337	3.0	0.6
1995	32	941	153	1,126	35	2	1,063	76	295,849	113,981	2.8	0.5
1996	39	934	158	1,131	42	0	1,046	71	297,102	112,551	3.4	0.5
1997	23	821	127	971	24	1	916	65	298,863	113,443	2.4	0.5
1998	41	883	141	1,065	40	1	987	69	301,992	118,275	3.8	0.6
1999	30	867	127	1,024	29	2	991	64	307,009	122,676	2.9	0.6
2000	34	935	166	1,135	35	1	1,039	45	311,825	132,352	3.0	0.5
2001	41	997	175	1,213	42	1	1,094	54	317,421	142,882	3.4	0.5
Record												
High*	112	2,728	537	3,308	121	9	3,359	N/A	317,421	166,151	3.8	0.8
(year)	(1980)	(1980)	(1976)	(1980)	(1980)	(1975)	(1980)		(2001)	(1981)	(1998)	(1970)

* Notes: The abbreviation PDO stands for "property damage only" -- a crash in which no is killed or injured. The abbreviations 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

2001 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	14	408	103	525	14	444
Parked Motor Vehicle	1	14	26	41	1	15
Bicycle	1	6	0	7	0	4
Pedestrian	0	3	0	3	0	2
Deer	3	76	9	88	4	87
Other Animal	0	10	1	11	0	11
Fixed Object	12	81	3	96	13	92
Other Object	0	3	3	6	0	3
Non-Collision:						
Overturn	8	231	11	250	8	253
Other / Unknown	2	165	19	186	2	183
Total	41	997	175	1,213	42	1,094

TABLE 4.03

2001 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	7	133	49	189	7	140
50,000 - 99,999	2	99	25	126	2	107
25,000 - 49,999	4	130	19	153	4	131
10,000 - 24,999	4	147	25	176	4	162
5,000 - 9,999	3	59	7	69	3	64
2,500 - 4,999	2	42	12	56	2	47
1,000 - 2,499	1	30	3	34	2	31
Under 1,000	18	357	35	410	18	412
Total	41	997	175	1,213	42	1,094

TABLE 4.04

2001 MOTORCYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
January	0	2	0	2	0	2
February	0	0	0	0	0	0
March	0	5	2	7	0	5
April	2	60	10	72	1	70
May	5	138	26	169	5	149
June	3	155	25	183	3	185
July	11	204	27	242	11	224
August	8	206	36	250	10	224
September	6	120	17	143	6	120
October	3	59	19	81	3	65
November	3	44	11	58	3	46
December	0	4	2	6	0	4
Total	41	997	175	1,213	42	1,094

FIGURE 4.01

2001 Motorcycle Crashes by Time of Day

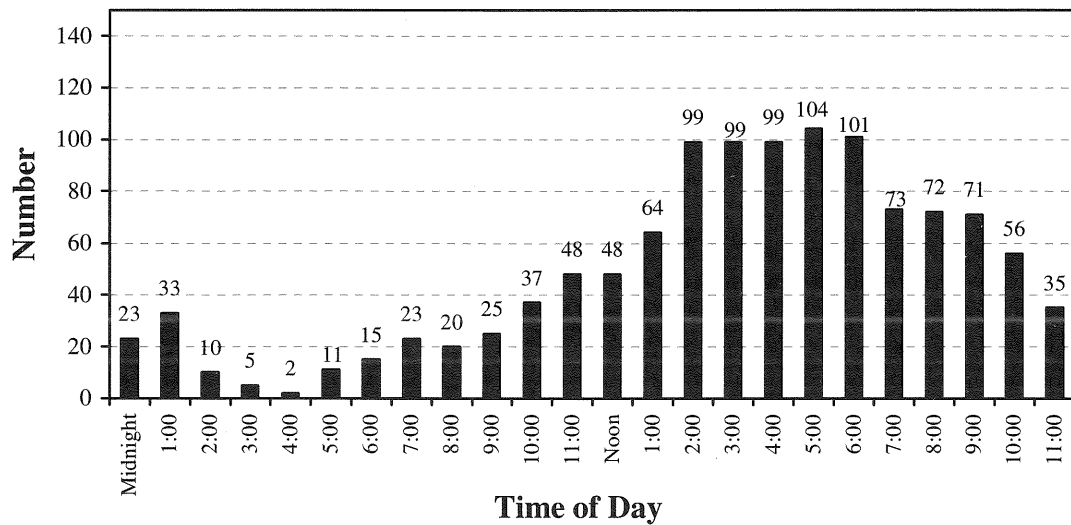


TABLE 4.05

2001 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	23	3	6	1	2	0	1	0	1	0	3	0	2	0	8	2
1:00	33	2	9	0	2	0	1	0	2	0	4	1	7	0	8	1
2:00	10	1	2	1	0	0	2	0	1	0	0	0	1	0	4	0
3:00	5	1	1	1	0	0	0	0	1	0	1	0	1	0	1	0
4:00	2	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
5:00	11	1	0	0	1	0	4	0	3	1	2	0	1	0	0	0
6:00	15	1	1	0	4	0	4	0	1	0	2	0	3	1	0	0
7:00	23	1	0	0	2	0	9	1	0	0	4	0	6	0	2	0
8:00	20	1	3	0	4	0	6	1	2	0	3	0	1	0	1	0
9:00	25	1	2	0	4	0	4	0	2	1	5	0	5	0	3	0
10:00	37	1	6	0	5	0	1	0	1	0	2	0	5	0	17	1
11:00	48	1	7	1	4	0	7	0	3	0	4	0	7	0	16	0
Noon	48	2	9	0	5	0	2	1	5	0	4	0	8	0	15	1
1:00	64	1	9	0	9	0	3	0	14	0	5	0	9	0	15	1
2:00	99	3	30	0	5	0	12	0	9	1	8	1	20	0	15	1
3:00	99	2	20	1	12	1	11	0	14	0	6	0	17	0	19	0
4:00	99	3	13	0	13	0	10	0	15	1	14	1	21	0	13	1
5:00	104	2	12	1	11	0	13	1	15	0	12	0	19	0	22	0
6:00	101	3	10	1	14	0	16	0	6	1	10	0	23	0	22	1
7:00	73	1	11	0	11	0	6	0	6	0	14	0	11	1	14	0
8:00	72	0	12	0	8	0	7	0	12	0	14	0	13	0	6	0
9:00	71	2	11	0	5	0	14	0	8	1	12	0	12	1	9	0
10:00	56	5	10	0	5	0	4	0	11	2	5	0	14	2	7	1
11:00	35	1	3	0	4	0	4	0	3	0	5	0	11	0	5	1
Unknown	40	2	13	0	6	1	7	0	6	0	2	0	4	1	2	0
Total	1,213	41	201	7	136	2	148	4	142	8	141	3	221	6	224	11

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2001

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	1	2	0	0	0	1	1	2
10 - 14	0	0	0	1	0	1	2	1	3	3	1	4	6	2	8
15 - 19	2	1	3	9	3	12	38	4	42	13	2	15	60	9	69
20 - 24	7	0	7	22	6	28	83	9	93	40	4	44	145	19	165
25 - 29	4	0	4	33	4	37	73	8	81	37	3	40	143	15	158
30 - 34	3	0	3	23	5	28	45	12	57	29	3	32	97	20	117
35 - 39	3	2	5	24	9	33	51	10	61	21	9	30	96	28	124
40 - 44	3	1	4	22	7	29	57	11	68	30	9	39	109	27	136
45 - 49	5	0	5	31	5	36	46	9	55	19	4	24	96	18	115
50 - 54	4	1	5	21	3	24	40	8	48	19	4	23	80	15	95
55 - 59	3	1	4	9	3	12	21	2	23	10	1	11	40	6	46
60 - 64	1	0	1	6	1	7	7	1	8	6	1	7	19	3	22
65 - 69	1	0	1	1	0	1	9	0	9	3	0	3	13	0	13
70 & Older	0	0	0	1	0	1	5	1	6	2	0	2	8	1	9
Not Stated	0	0	0	0	2	2	0	5	5	1	4	8	1	11	15
Total	36	6	42	203	48	251	478	82	561	233	45	282	914	175	1,094

* Where columns do not add across to total, gender was not reported on the accident report form.

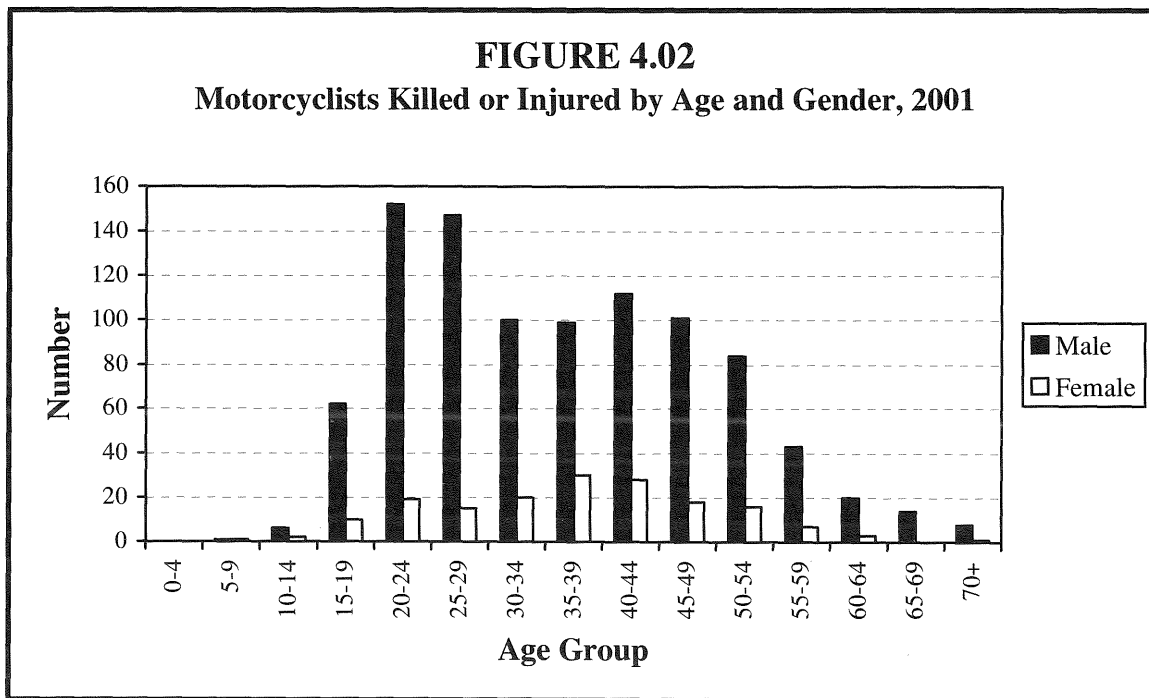


TABLE 4.07

HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 1991 - 2001

	<u>Helmet Used</u>		<u>Helmet Not Used</u>		<u>Helmet Use Unknown</u>		<u>Total</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Killed								
1992	2	7.1%	23	82.1%	3	10.7%	28	100.0%
1993	2	5.9	30	88.2	2	5.9	34	100.0
1994	3	7.0	30	69.8	10	23.3	43	100.0
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
Injured								
1992	349	27.1%	678	52.6%	261	20.3%	1,288	100.0%
1993	298	25.9	599	52.0	254	22.1	1,151	100.0
1994	375	28.3	641	48.4	308	23.3	1,342	100.0
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

TABLE 4.08

ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 1991 - 2001

Year	<u>Valid Endorsement*</u>		<u>Permit Only</u>		<u>Canceled, Suspended, Revoked</u>		<u>No Endorsement</u>		<u>Total** For Year</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1992	17	60.7	0	0.0	5	17.9	4	14.3	28	100.0
1993	21	65.6	1	3.1	4	12.5	4	12.5	32	100.0
1994	33	75.0	0	0.0	3	6.8	7	15.9	44	100.0
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

* 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, 1988 - 2001

Year	Killed	Tested	Alcohol Concentration*		
			(.00)	(.01 - .09)	(.10 or more)
1988	52	45	20 (44%)	8 (18%)	17 (38%)
1989	31	30	9 (30%)	3 (10%)	18 (60%)
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%)

*Percentages are based on those motorcycle drivers tested.

TABLE 4.10

2001 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	2	2	0	0	2	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	3	3	0	0	3	0	0	0	0	0	0
Under 21	5	5	0	0	5	0	0	0	0	0	0
14 & Younger	0	0	0	0	0	0	0	0	0	0	0
15 - 19	2	2	0	0	2	0	0	0	0	0	0
20 - 24	7	7	2	0	5	1	1	0	0	0	0
25 - 29	4	3	1	2	0	1	0	0	2	0	0
30 - 34	3	3	0	3	0	0	0	2	0	1	0
35 - 39	3	3	0	0	3	0	0	0	0	0	0
40 - 44	3	3	1	1	1	0	1	0	1	0	0
45 - 49	5	4	1	0	3	1	0	0	0	0	0
50 - 54	4	3	0	2	1	0	0	2	0	0	0
55 - 59	3	1	0	0	1	0	0	0	0	0	0
60 & Older	2	2	1	0	1	0	1	0	0	0	0
Total	36	31	6	8	17	3	3	4	3	1	0

* Percentages are based on those motorcycle drivers tested.

TABLE 4.11

CONTRIBUTING FACTORS IN 2001 MOTORCYCLE CRASHES

Contributing Factors	Single Vehicle Crashes Attributed to Motorcycle Drivers		Multi-Vehicle Crashes			
	Number	Percent	Attributed to Motorcycle Drivers		Attributed to Other Drivers	
			Number	Percent	Number	Percent
Human Factors:						
Illegal/Unsafe Speed	158	25.2%	45	13.4%	9	1.5%
Driver Inexperience	102	16.3	25	7.4	18	3.1
Driver Inattention/Distracted	77	12.3	76	22.6	132	22.6
Physical Impairment	57	9.1	8	2.4	7	1.2
Improper/Unsafe Lane Use	23	3.7	24	7.1	35	6.0
Following Too Closely	9	1.4	39	11.6	18	3.1
Failure to Yield Right of Way	6	1.0	13	3.9	220	37.7
Improper Turn	1	0.2	4	1.2	29	5.0
Vision Obscured	8	1.2	6	1.8	31	5.3
Improper Park/Start/Stop	5	0.8	2	0.6	14	2.4
Disregard Traffic Cntrl Device	1	0.2	9	2.7	16	2.7
Improper Passing/Overtaking	8	1.3	20	6.0	6	1.0
Driving Left of Center	4	0.6	9	2.7	6	1.0
Unsafe Backing	0	0.0	1	0.3	7	1.2
Improper or No Signal	0	0.0	0	0.0	4	0.7
Impeding Traffic	0	0.0	1	0.3	3	0.5
Failure to Use Lights	1	0.2	0	0.0	2	0.3
Driver on phone or CB radio	0	0.0	0	0.0	1	0.2
Other Human Factor	20	3.2	4	1.2	6	1.0
Vehicular Factors:						
Skidding	52	8.3	21	6.3	2	0.3
Defective Equipment	6	1.0	3	0.9	3	0.5
Other Vehicular Factors	11	1.8	2	0.6	2	0.3
Miscellaneous Factors:						
Weather Conditions	2	0.3	4	1.2	0	0.0
Other	76	12.1	20	6.0	12	2.1
Total	627	100.0%	336	100.0%	583	100.0%
Vehicles for Which There Was						
“No Clear Contributing Factor”	172		339		174	
Total Number Drivers	629		608		599	

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

V: TRUCK CRASHES

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

Truck crashes decrease from the prior year

There were 4,976 truck-involved traffic crashes in year 2001 -- a 6% drop from year 2000.

Deaths and injuries decrease significantly

There were 61 fatal truck crashes, killing 67 people, in 2001. That's the lowest number of deaths over the last ten years. The number of persons injured (1,785) was also close to a ten-year low. There were 3,628 property damage crashes in 2001, and this was about average over the last decade. In general, there were about as many truck crashes as usual, but they were less severe in 2001 than in recent prior years.

Persons killed or injured are usually in the other vehicles

In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only 9 of the 67 people killed in truck-involved crashes were in the trucks. The other 58 included 1 bicyclist, five pedestrians, two motorcyclists, and 50 people who were in cars, pickups, or vans. Of the 1,785 people injured, only 410 (23%) were truck occupants.

Contributing factors for truck drivers compared to others.

Reporting officers indicated there was no clear contributing factor for 41% of the truck drivers and for 45% of the others. Moreover, the contributing factors the officers do report 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 (24% of the time) as well as for non-truck drivers (24% of the time). Illegal or unsafe speed was reported for 9% of the trucks and for 10% of the other vehicles.

Here are the factors where the truck drivers differ some from the other drivers: The truck drivers are less likely to be reported for "failure to yield right of way" (8% versus 14%), and for "improper or unsafe lane use" (8% versus 11%), but they are more likely to be reported for "following too closely" (8% compared to 5%) 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 impairing physical condition, such as fatigue or the use of alcohol or drugs. Only 1% of the truckers and 4% 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 2001, Monday through Friday averaged 899 truck crashes per day, compared to just 240 on average for Saturdays or Sundays.

Driving conditions

Driving conditions are usually good in Minnesota, and most truck crashes occurred on dry roads in clear weather. However, 20% of the fatal crashes and 29% 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. Thirty-nine percent of property damage crashes, 47% of injury crashes, and fully 80% of the fatal truck crashes occurred in the rural areas of Minnesota.

TABLE 5.01

TRUCK CRASH SUMMARY, 1992 - 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Crashes	4,463	4,931	5,132	4,752	5,358	4,991	4,761	5,156	5,306	4,976
Fatal Crashes	65	63	81	77	60	90	85	84	73	61
Persons Killed	84	77	94	86	79	105	97	94	90	67
Injury Crashes	1,213	1,268	1,369	1,277	1,473	1,389	1,408	1,400	1,371	1,287
Severe	167	148	151	153	176	163	180	150	134	127
Moderate	418	452	481	470	516	505	492	567	490	479
Minor	628	668	737	654	781	721	736	683	747	681
Persons Injured	1,721	1,764	1,902	1,869	2,074	2,042	2,031	2,026	1,903	1,785
Severe	222	198	203	196	217	215	219	212	173	157
Moderate	560	598	630	645	708	721	700	782	659	632
Minor	939	968	1,069	1,028	1,149	1,106	1,112	1,032	1,071	996
Property Damage Crashes	3,185	3,600	3,682	3,398	3,825	3,512	3,268	3,672	3,862	3,628

TABLE 5.02

PERSONS KILLED OR INJURED IN 2001 TRUCK CRASHES
BY VEHICLE OCCUPIED

Vehicle Type	Killed	Injured			Total
		Severe	Moderate	Minor	
Automobile	38	93	329	501	923
Pickup Truck	8	23	64	124	211
Van	4	16	50	103	169
Police Department Vehicle	0	0	0	0	0
School Bus	0	0	5	4	9
Snowmobile	0	1	0	0	1
Farm Equipment	0	0	1	0	1
Motorcycle	2	3	5	4	12
Hit and Run Vehicle	0	0	0	1	1
Two-Axle, Six-Tire, Single Unit Truck or Stepvan	2	4	42	81	127
Three or More Axle Single Unit Truck	2	2	31	33	66
Single Unit Truck with Trailer	1	1	16	19	36
Truck Tractor with No Trailer	0	0	3	3	6
Truck Tractor with Semi Trailer	4	9	69	92	170
Truck Tractor with Twin Trailers	0	0	0	1	1
Heavy Truck--Other or Unknown Type	0	0	1	3	4
Other or Unknown Vehicle Type	0	2	8	14	24
Bicycle	1	1	2	2	5
Pedestrian	5	2	6	11	19
Total	67	157	632	996	1,785

TABLE 5.03

CONTRIBUTING FACTORS IN 2001 TRUCK CRASHES

Contributing Factors	Attributed to Truck Vehicles		Attributed to Non-Truck Vehicles	
	Number	Percent	Number	Percent
Human Factors				
Driver Inattention/Distracted	978	23.7	793	23.9
Illegal/Unsafe Speed	385	9.3	345	10.4
Failure to Yield Right of Way	311	7.5	453	13.6
Improper or Unsafe Lane Use	326	7.9	374	11.3
Following Too Closely	344	8.3	175	5.3
Improper Turn	210	5.1	72	2.2
Unsafe Backing	185	4.5	18	0.5
Vision Obscured	134	3.3	74	2.2
Disregard for Traffic Control Device	81	2.0	96	2.9
Improper Passing or Overtaking	64	1.6	155	4.7
Driver Inexperience	58	1.4	82	2.5
Improper Parking, Starting, or Stopping	63	1.5	44	1.3
Physical Impairment	40	1.0	87	2.6
Driving Left of Center (Not Passing)	27	0.7	64	1.9
Improper/No Signal	18	0.4	10	0.3
Impeding Traffic	11	0.3	14	0.4
Driver on Phone/CB/2-Way Radio	5	0.1	8	0.2
Failure to Use Lights	2	0.0	8	0.2
Pedestrian Error/Violation	0	0.0	4	0.1
Other Human Factors	52	1.3	33	1.0
Vehicular Factors				
Skidding	108	2.6	95	2.9
Defective Brakes	70	1.7	16	0.5
Oversize/Overweight Vehicle	50	1.2	3	0.1
Defective Tire	25	0.6	5	0.2
Defective Lights	5	0.1	3	0.1
Other Vehicular Factor	83	2.0	12	0.4
Miscellaneous Factors				
Weather	277	6.7	159	4.8
Other	211	5.1	121	3.6
Total Contributing Factors Cited	4,123	100.0%	3,323	100.0%
Vehicles for Which There Was				
"No Clear Contributing Factor"	2,105		2,010	
Total Number of Vehicles	5,172		4,440	

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 2001 CRASHES

Driver Age	Truck or Truck Tractor	Truck with Semi-Trailer	Truck with Twin Trailer	Truck with Other Trailer	Total
10 - 14	0	0	0	0	0
15 - 19	64	10	0	14	88
20 - 24	262	176	1	51	490
25 - 29	261	248	3	51	563
30 - 34	267	315	8	38	628
35 - 39	277	339	4	50	670
40 - 44	245	391	7	53	696
45 - 49	195	360	3	40	598
50 - 54	145	279	10	33	467
55 - 59	134	233	4	21	392
60 - 64	67	130	2	7	206
65 & Older	64	102	1	20	187
Not Stated	9	16	0	1	26
Total*	1,990	2,599	43	379	5,011

* There were 5,172 trucks in crashes in 2001. However, 146 of these trucks were parked vehicles. The driver could not be identified for an additional 15 of these trucks. This table tabulates the ages of drivers for the remaining 5,011 trucks where it was possible to identify a driver.

TABLE 5.05

DRIVERS IN 2001 TRUCK CRASHES
BY PHYSICAL CONDITION*

Physical Condition	Truck Driver		Other Driver	
	Number	Percent	Number	Percent
Normal	4,685	93.5	3,758	89.5
Under the Influence	10	0.2	55	1.3
Had Been Drinking	10	0.2	33	0.8
Had Been Using Drugs	0	0.0	2	0.1
Asleep	14	0.3	20	0.5
Fatigued	21	0.4	10	0.2
Ill	2	0.0	9	0.2
Other	15	0.3	25	0.6
Unknown	254	5.1	286	6.8
Total **	5,011	100.0	4,198	100.0

* As noted by police officer on accident report.

** There were 5,172 trucks in crashes in 2001. However, 146 were parked. The driver could not be identified for an additional 15. This table tabulates the apparent physical condition of drivers for the remaining 5,011 trucks where it was possible to identify a driver. Also, there were 4,410 non-truck motor vehicles in 2001 truck crashes. However, 197 of them were parked, and there were 15 more for which a driver could not be identified, leaving 4,198 for which an apparent physical condition was recorded.

TABLE 5.06

2001 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	50	1,022	2,612	3,684	56	1,491
Parked Motor Vehicle	0	40	202	242	0	51
Railroad Train	1	2	9	12	1	2
Bicycle	0	5	0	5	0	5
Pedestrian	5	9	0	14	5	10
Deer	0	1	59	60	0	2
Other Animal	0	1	19	20	0	1
Fixed Object	2	38	308	348	2	40
Other Object	0	11	29	40	0	14
Non-Collision:						
Overturn	2	132	177	311	2	142
Fire or Explosion	0	0	15	15	0	0
Other	1	26	198	225	1	27
Total	61	1,287	3,628	4,976	67	1,785

TABLE 5.07

2001 TRUCK CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	8	99	342	449	8	133
February	3	99	336	438	4	129
March	2	93	268	363	2	125
April	5	76	239	320	7	114
May	8	99	268	375	9	139
June	7	99	319	425	7	140
July	6	117	293	416	6	171
August	6	139	332	477	6	191
September	2	116	278	396	2	159
October	4	142	349	495	4	195
November	6	124	347	477	8	169
December	4	84	257	345	4	120
Total	61	1,287	3,628	4,976	67	1,785

TABLE 5.08

2001 TRUCK CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	130	15	16	16	22	19	25	17
3:00 - 5:59 AM	159	4	25	37	30	21	22	20
6:00 - 8:59 AM	841	15	164	149	145	159	163	46
9:00 - 11:59 AM	1,087	28	245	185	183	182	191	73
Noon - 2:59 PM	1,108	32	225	194	167	203	222	65
3:00 - 5:59 PM	970	42	188	160	169	176	196	39
6:00 - 8:59 PM	357	20	66	62	66	71	51	21
9:00 - 11:59 PM	188	17	34	38	32	29	26	12
Unknown	136	5	23	29	29	23	19	8
Total	4,976	178	986	870	843	883	915	301

FIGURE 5.01
2001 Truck Crashes by Time of Day

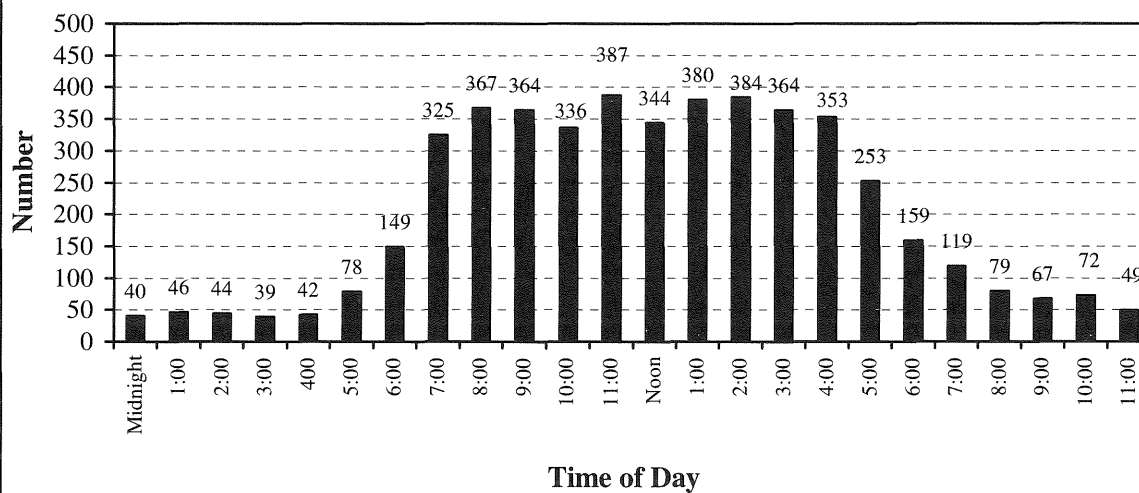


TABLE 5.09

2001 TRUCK CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	48	909	2,497	3,454	51	1,267
Wet	5	201	456	662	6	285
Snow or Slush	2	64	177	243	4	93
Ice or Packed Snow	5	103	444	552	5	128
Other	1	9	22	32	1	10
Unknown	0	1	32	33	0	2
Total	61	1,287	3,628	4,976	67	1,785

TABLE 5.10

2001 TRUCK CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	32	695	2,003	2,730	33	956
Cloudy	18	346	904	1,268	20	478
Rain	4	83	195	282	5	131
Snow	3	66	231	300	5	96
Sleet/Hail/Freezing Rain	0	16	77	93	0	21
Fog/Smog/Smoke	4	45	53	102	4	62
Blowing Sand/Dust/Snow	0	20	92	112	0	25
Severe Cross Winds	0	10	27	37	0	10
Other	0	1	5	6	0	1
Unknown	0	5	41	46	0	5
Total	61	1,287	3,628	4,976	67	1,785

TABLE 5.11

2001 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	159	654	817	5	216
50,000 - 99,999	2	143	342	487	2	196
25,000 - 49,999	2	137	504	643	3	174
10,000 - 24,999	4	174	481	659	5	238
5,000 - 9,999	0	75	242	317	0	101
2,500 - 4,999	3	58	178	239	3	79
1,000 - 2,499	1	32	90	123	1	47
Under 1,000	45	509	1,137	1,691	48	734
Total	61	1287	3,628	4,976	67	1,785

TABLE 5.12

2001 TRUCK CRASHES BY TYPE OF ROADWAY

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Interstate Highway	9	281	932	1,222	11	366
US Trunk Highway	12	235	581	828	12	353
State Trunk Highway	25	302	677	1,004	27	451
County State-Aid Highway	11	291	604	906	13	396
County Road	0	22	44	66	0	23
Township Road	0	14	29	43	0	18
Local Street	3	139	709	851	3	175
Other Road	1	3	52	56	1	3
Total	61	1,287	3,628	4,976	67	1,785

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.

Pedestrian crashes decline

In 2001, there were 1,175 crashes in which a pedestrian was injured or killed by a motor vehicle. The number of pedestrian crashes in 2001 represents a 6% decrease from the previous year and the lowest number of pedestrian crashes since traffic records have been kept.

Decrease in deaths and injuries

In 2001, forty-six pedestrians were killed, five more than in the previous year. There were 1,184 pedestrians injured, nearly a 7% decrease from the previous year. In 2001, nearly 4% of pedestrian crashes resulted in a death, compared to about one-half of one percent for all traffic crashes.

Young people at greater risk

In all pedestrian crashes, persons less than 25 years of age accounted for 40% 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. Males accounted for 61% of all pedestrian fatalities in 2001.

Urban areas and rush-hours

In 2001, 82% of pedestrian crashes occurred in urban areas. However, 13 (28%) of the 46 fatalities occurred in rural areas (defined as less

than 5,000 population). In 2001, nearly one out of three pedestrian crashes (32%) occurred during the weekday rush hour driving time periods. The rush hour driving time period is defined as 6:00-9:00 am and 3:00-6:00 pm.

Prior actions of vehicles and pedestrians

Regarding the motor vehicles that were involved in pedestrian crashes in 2001, 53% of them were simply going straight ahead on the roadway prior to the crash. An additional 25% of the motor vehicles involved were making a right or left turn. As might be expected, one out of four pedestrians injured, and one out of three pedestrians killed, were trying to cross a road where there was no crosswalk and no signal.

Contributing factors

For 35% of the motor vehicle drivers in pedestrian crashes, the reporting officer indicated that there had been "no clear contributing factor" to the crash. For those where a factor was cited, two were mentioned much more than the others: driver inattention or distraction and failure to yield the right of way (26.5% and 25.4% respectively).

Pedestrians and alcohol

Of the 46 pedestrians killed, 35 were tested for alcohol. Of those tested, 29% were positive, and 26% had concentrations over the legal driving limit of .10.

TABLE 6.01

PEDESTRIAN CRASH SUMMARY, 1992 - 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Pedestrian Crashes	1,420	1,383	1,409	1,458	1,378	1,419	1,400	1,329	1,253	1,175
Pedestrians Killed	46	47	53	49	46	58	56	51	41	46
Pedestrians Injured	1,424	1,390	1,400	1,471	1,388	1,434	1,410	1,330	1,269	1,184

TABLE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2001

Age Group	Injured														
	Killed			Severe			Moderate			Minor			Total		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
0 – 4	0	2	2	7	4	11	6	5	11	13	5	20	26	14	42
5 - 9	0	0	0	8	1	9	21	17	38	31	17	50	60	35	97
10 - 14	1	1	2	10	3	13	19	18	38	23	27	53	52	48	104
15 - 19	2	0	2	11	3	15	33	26	60	27	29	58	71	58	133
20 - 24	4	1	5	12	9	21	21	23	44	22	20	44	55	52	109
25 - 29	2	2	4	4	5	9	18	13	32	20	16	37	42	34	78
30 - 34	3	0	3	10	4	14	15	19	34	19	13	32	44	36	80
35 - 39	2	1	3	10	6	16	17	10	27	12	15	29	39	31	72
40 - 44	3	1	4	5	3	8	23	7	30	16	15	32	44	25	70
45 - 49	1	0	1	7	8	15	23	11	35	18	13	31	48	32	81
50 - 54	2	2	4	8	7	15	14	8	23	18	16	34	40	31	72
55 - 59	0	0	0	7	4	11	6	8	14	6	4	10	19	16	35
60 - 64	1	2	3	1	4	5	3	9	12	6	1	7	10	14	24
65 - 69	2	0	2	3	1	4	8	3	11	4	2	8	15	6	23
70 - 74	0	1	1	3	0	4	7	3	10	3	6	9	13	9	23
75 - 79	2	3	5	3	4	7	3	3	6	1	1	3	7	8	16
80 - 84	1	1	2	1	1	2	4	1	6	2	5	7	7	7	15
85 & Older	2	1	3	0	1	1	1	4	5	0	1	1	1	6	7
Not Stated	0	0	0	4	3	8	8	6	18	31	16	77	43	25	103
Total	28	18	46	114	71	188	250	194	454	272	222	542	636	487	1,184

* Where columns do not add across, gender was not stated on accident report.

FIGURE 6.01
Pedestrian Fatalities by Age Group, 1992-2001 Combined

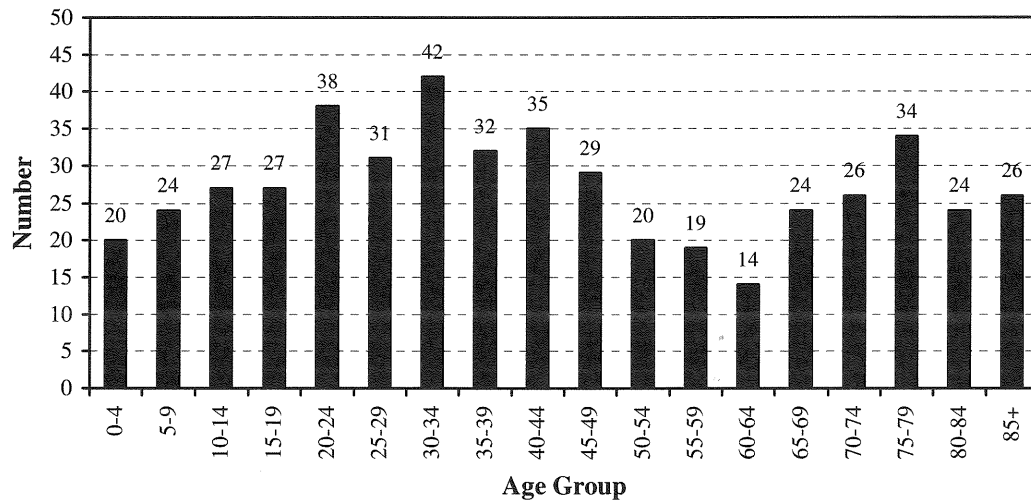


FIGURE 6.02
Pedestrians Killed and Injured by Age and Gender, 2001

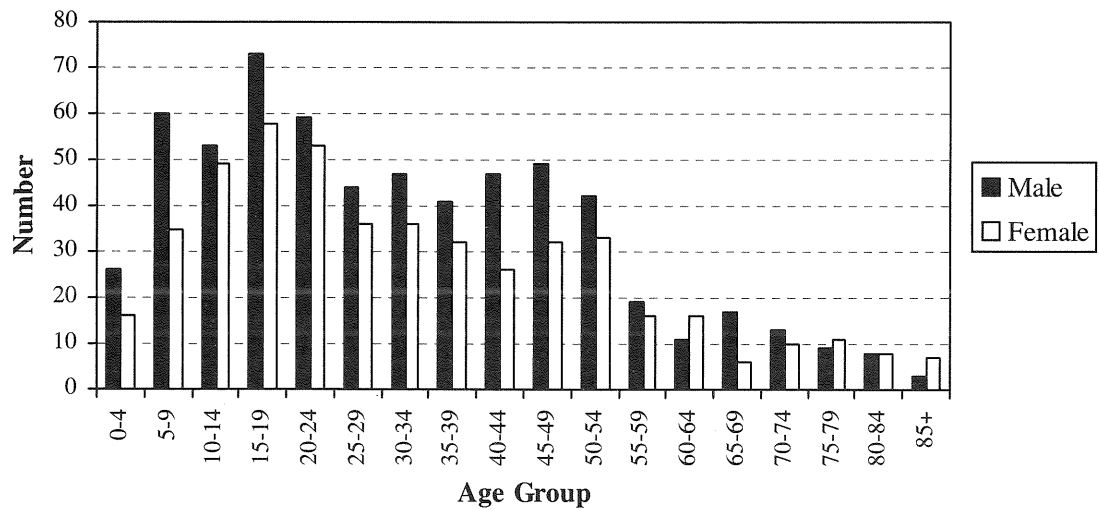


TABLE 6.03

2001 PEDESTRIAN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
January	1	104	105	1	110
February	2	77	79	2	81
March	4	84	88	4	88
April	2	87	89	2	88
May	4	92	96	4	97
June	2	94	96	2	101
July	3	82	85	3	90
August	5	86	91	5	90
September	5	112	117	5	120
October	5	103	108	5	108
November	9	114	123	9	115
December	4	94	98	4	96
Total	46	1,129	1,175	46	1,184

TABLE 6.04

2001 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	12	547	559	12	577
50,000 - 99,999	5	87	92	5	89
25,000 - 49,999	6	110	116	6	112
10,000 - 24,999	7	133	140	8	141
5,000 - 9,999	2	56	58	2	56
2,500 - 4,999	2	44	46	2	48
1,000 - 2,499	1	25	26	1	25
Under 1,000	11	127	138	10	136
Total	46	1,129	1,175	46	1,184

TABLE 6.05

2001 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	51	13	3	6	3	5	6	15
3:00 - 5:59 AM	3	17	0	2	2	1	1	3	8
6:00 - 8:59 AM	5	125	2	22	26	26	21	26	2
9:00 - 11:59 AM	5	137	10	27	20	19	29	18	14
Noon - 2:59 PM	4	162	14	23	26	29	22	24	24
3:00 - 5:59 PM	6	305	19	40	65	45	55	50	31
6:00 - 8:59 PM	13	202	21	31	32	26	31	36	25
9:00 - 11:59 PM	6	132	9	9	14	23	15	38	24
Unknown	0	44	3	6	4	9	3	11	8
Total	46	1,175	91	163	195	181	182	212	151

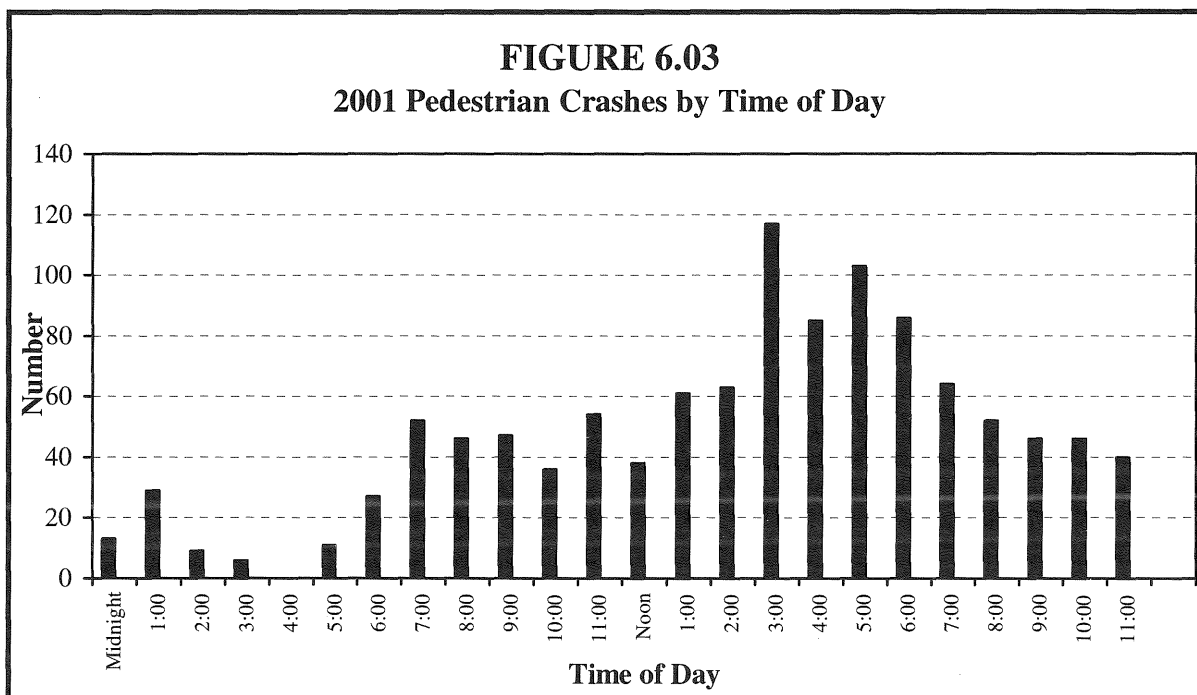


TABLE 6.06

PRIOR ACTION OF VEHICLES IN 2001 PEDESTRIAN CRASHES

Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes*
Going Straight	35	633	668
Wrong Way Opposing Traffic	0	8	8
Turning Right on Red	0	24	24
Turning Right	1	82	83
Turning Left	7	195	202
Starting From Parked	1	14	15
Starting in Traffic	1	12	13
Slowing in Traffic	0	20	20
Parking	0	3	3
Avoiding Object in Road	1	18	19
Changing Lanes	0	7	7
Passing	0	6	6
Backing	0	51	51
All Others	2	85	87
Unknown	1	53	54
Total	49	1,211	1,260

* 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 2001

Action	<u>Pedestrians Killed</u>		<u>Pedestrians Injured</u>	
	Number	Percent	Number	Percent
Crossing Road (No Crosswalk and No Signal)	15	32.6%	282	23.8%
Crossing Against Signal	2	4.3	63	5.3
Crossing With Signal	4	8.7	149	12.6
Crossing In Crosswalk (No Signal)	4	8.7	120	10.1
Walking In Road With Traffic	4	8.7	73	6.2
Walking In Road Against Traffic	4	8.7	41	3.5
Standing In Road	6	13.0	63	5.3
Emerging From Front/Behind Parked Vehicle	1	2.2	55	4.6
Child Getting On/Off School Bus	0	0.0	2	0.2
Pushing/Working On Vehicle	0	0.0	6	0.5
Working In Road	0	0.0	8	0.7
Getting On/Off Vehicle	0	0.0	8	0.7
Playing In Road	1	2.2	21	1.8
Not In Road	0	0.0	46	3.9
Other Pedestrian Action	4	8.7	125	10.6
Unknown	1	2.2	122	10.3
Total*	46	100.0%	1,184	100.0%

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

TABLE 6.08

CONTRIBUTING FACTORS IN 2001 PEDESTRIAN CRASHES

Contributing Factors	Attributed to Motor Vehicle Drivers	
	Number	Percent
Human Factors		
Driver Inattention / Distraction	267	26.5%
Failure to Yield Right of Way	256	25.4
Vision Obscured	91	9.0
Illegal or Unsafe Speed	65	6.5
Physical Impairment	32	3.2
Unsafe Backing	32	3.2
Improper / Unsafe Lane Use	28	2.8
Disregard for Traffic Control Device	27	2.7
Driver Inexperience	17	1.7
Improper Parking/Starting/Stopping	16	1.6
Improper Turn	12	1.2
Driving Left of Center	7	0.7
Following Too Closely	5	0.5
Improper Passing / Overtaking	4	0.4
Impeding Traffic	1	0.1
Failure To Use Lights	1	0.1
Driver on Phone/CB/Radio	1	0.1
Other Human Factors	21	2.1
Vehicular Factors		
Skidding	19	1.9
Defective Brakes	5	0.5
Other Vehicular Factors	4	0.4
Miscellaneous Factors		
Weather Conditions	33	3.3
Other	62	6.2
Total Contributing Factors Cited	1,006	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	438	
Total Number of Drivers	1,260	

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, 1992 - 2001**

Year	Killed	Tested	Alcohol Concentration*		
			(.00)	(.01 - .09)	(.10 or more)
1992	46	24	17 (71%)	1 (4%)	6 (25%)
1993	47	17	9 (53%)	0 (0%)	8 (47%)
1994	53	26	18 (69%)	1 (4%)	7 (27%)
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%)

* 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

**2001 PEDESTRIAN FATALITIES'
LEVEL OF ALCOHOL CONCENTRATION BY AGE**

Age Group	Killed	Tested	Alcohol Concentration		
			(.00)	(.01 - .09)	(.10 or more)
14 & Younger	4	1	1	0	0
15 - 19	2	2	2	0	0
20 - 24	5	5	3	0	2
25 - 29	4	4	2	0	2
30 - 34	3	3	1	0	2
35 - 39	3	3	1	0	2
40 - 44	4	1	0	0	1
45 - 49	1	0	0	0	0
50 - 54	4	3	3	0	0
55 - 59	0	0	0	0	0
60 - 64	3	3	3	0	0
65 - 69	2	2	2	0	0
70 - 74	1	1	1	0	0
75 - 79	5	3	3	0	0
80 - 84	2	2	2	0	0
85 & Older	3	2	1	1	0
Total	46	35	25	1	9

TABLE 6.11

**2001 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL
CONCENTRATION BY TIME OF DAY**

<u>Time of Day</u>	<u>Killed</u>	<u>Tested</u>	<u>Alcohol Concentration</u>		
			<u>(.00)</u>	<u>(.01 - .09)</u>	<u>(.10 or more)</u>
Midnight - 2:59 AM	3	3	1	0	2
3:00 - 5:59 AM	3	2	0	0	2
6:00 - 8:59 AM	5	4	4	0	0
9:00 - 11:59 AM	5	4	4	0	0
Noon - 2:59 PM	4	2	2	0	0
3:00 - 5:59 PM	6	4	3	1	0
6:00 - 8:59 PM	14	11	10	0	1
9:00 - 11:59 PM	6	5	1	0	4
Unknown	0	0	0	0	0
Total	46	35	25	1	9

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 decline

In 2001, there were 1,016 bicycle crashes in Minnesota. This number represents a 12% decrease from the previous year. Also, it is the second lowest number of bicycle crashes reported in the past ten years.

Injuries and fatalities decrease in 2001

Due to the decrease in bicycle crashes the number of bicyclists injured decreased in 2001. There were 960 injuries reported, with 78 (8%) of these being severe. There were 7 bicyclist fatalities in 2001, half as many as the prior year.

Young people at risk

Of all the bicyclists injured or killed in 2001, nearly 2 out of 3 (65%) were less than 25 years of age. This percentage includes 2 of the 7 bicyclist fatalities.

Warm weather

As expected, bicycle crashes are mostly a warm weather occurrence. In 2001, 4 of the 7 fatalities, 76% of the crashes, and 77% of the injuries occurred in the five-month period of May through September.

Afternoon rush-hour

Bicycle crashes in 2001 were most prevalent in the three-hour time period of 3:00-6:00 p.m. More than one-third (34%) 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 2001. Nearly two out of five bicycle crashes occurred in cities where the population was over 100,000 people. Only 14% of all bicycle crashes occurred in rural (defined as less than 5,000 people) areas.

Males injured and killed most often

Males were nearly three times more likely than females (689 to 250) to be injured in bicycle crashes. In 2001, all of the bicyclists killed and 72% of the bicyclists injured were male.

Actions by bicyclists prior to crash

Bicyclists are supposed to ride with traffic. The most commonly occurring action by bicyclists prior to the crash (for 362, or 36% of the total) was attempting to ride across the trafficway. (However, the prior action was indicated as "other" or "unknown" for 40% of the bicyclists.)

Contributing factors

There were two contributing factors for both the bicyclists and the other motor vehicle drivers that were significant in 2001. These were failure to yield the right of way and driver inattention or distraction. For the bicyclists, two other factors were cited often. These were disregard for traffic control device and improper/unsafe lane use. For the motor vehicle drivers, one other factor was cited often; vision obscured.

TABLE 7.01

BICYCLE CRASH SUMMARY, 1992 - 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Bicycle Crashes	1,343	1,321	1,436	1,333	1,337	1,384	1,363	1,106	1,137	1,016
Bicyclists Killed	11	9	16	5	6	7	9	8	14	7
Bicyclists Injured	1,249	1,240	1,359	1,283	1,281	1,348	1,310	1,060	1,080	960

TABLE 7.02

2001 BICYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
January	0	7	1	8	0	7
February	0	4	2	6	0	4
March	0	11	0	11	0	11
April	3	49	7	59	3	50
May	1	123	7	131	1	123
June	1	176	4	181	1	178
July	0	157	8	165	0	159
August	2	156	20	178	2	160
September	0	114	3	117	0	115
October	0	76	8	84	0	78
November	0	52	1	53	0	52
December	0	23	0	23	0	23
Total	7	948	61	1,016	7	960

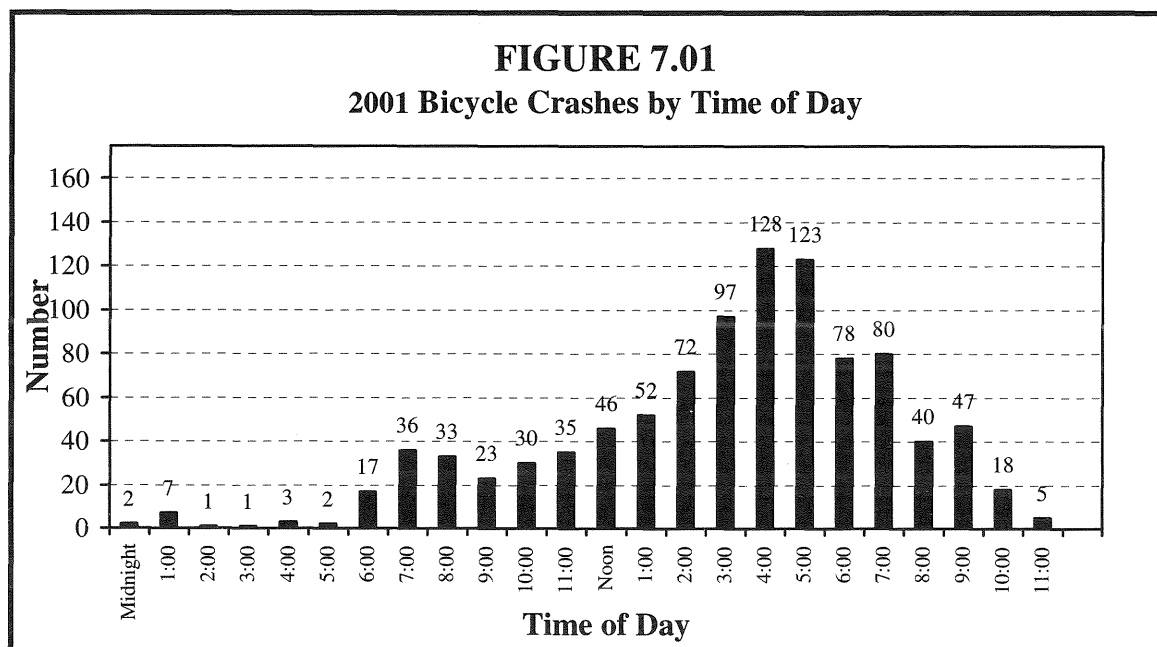


TABLE 7.03

2001 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	10	2	1	2	3	0	1	1
3:00 - 5:59 AM	6	3	1	0	1	0	1	0
6:00 - 8:59 AM	86	1	19	15	18	15	15	3
9:00 - 11:59 AM	88	10	11	13	16	8	13	17
Noon - 2:59 PM	170	21	19	31	22	26	29	22
3:00 - 5:59 PM	348	25	67	63	51	56	58	28
6:00 - 8:59 PM	198	16	27	38	36	35	29	17
9:00 - 11:59 PM	70	10	8	12	12	10	8	10
Unknown	40	1	3	11	5	9	6	5
Total	1,016	89	156	185	164	159	160	103

TABLE 7.04

2001 BICYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
100,000 and Over	0	338	38	376	0	341
50,000 - 99,999	1	94	1	96	1	95
25,000 - 49,999	0	135	3	138	0	135
10,000 - 24,999	0	183	14	197	0	187
5,000 - 9,999	1	64	1	66	1	63
2,500 - 4,999	1	34	2	37	1	36
1,000 - 2,499	0	23	0	23	0	23
Under 1,000	4	77	2	83	4	80
Total	7	948	61	1,016	7	960

FIGURE 7.02

Bicyclists Killed and Injured by Age and Gender, 2001

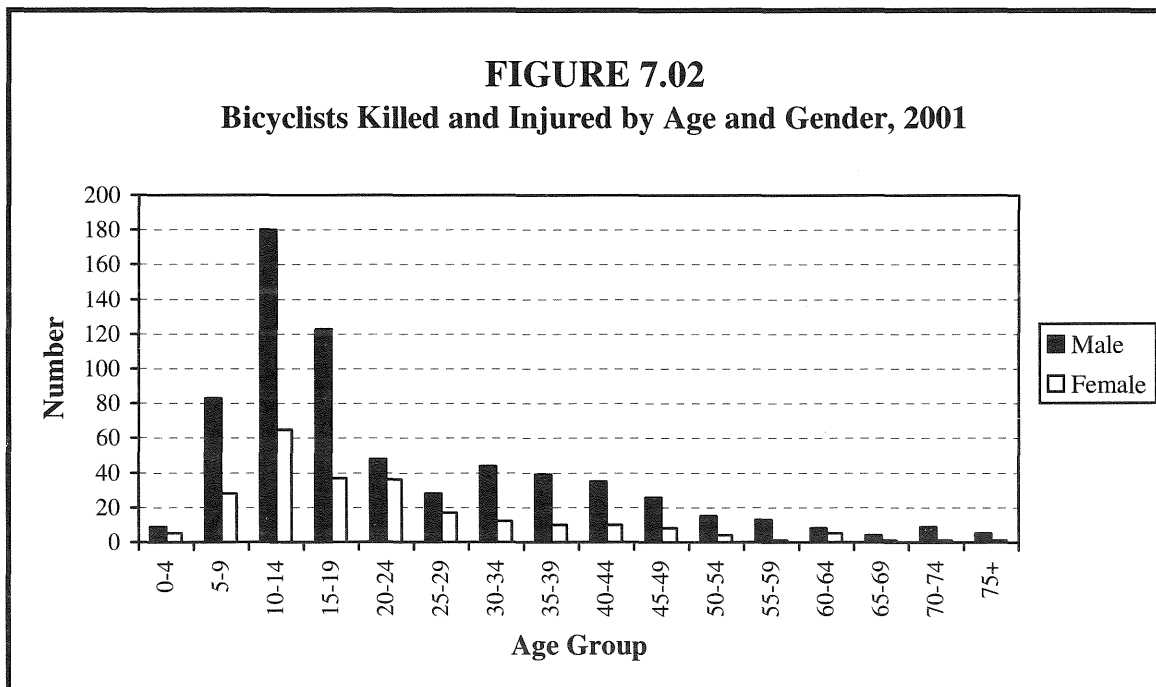


TABLE 7.05

BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2001

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	2	0	2	4	3	7	3	2	5	9	5	14
5-9	0	0	0	8	1	9	45	16	62	30	11	43	83	28	114
10-14	1	0	1	13	3	16	91	36	127	75	26	104	179	65	247
15-19	1	0	1	10	1	11	72	26	98	40	10	51	122	37	160
20-24	0	0	0	3	2	5	24	21	46	21	13	34	48	36	85
25-29	0	0	0	0	3	3	17	4	21	11	10	21	28	17	45
30-34	0	0	0	3	2	5	23	6	29	18	4	22	44	12	56
35-39	1	0	1	2	0	2	20	6	26	16	4	20	38	10	48
40-44	0	0	0	1	2	3	19	4	24	15	4	19	35	10	46
45-49	2	0	2	5	4	9	9	4	13	10	0	10	24	8	32
50-54	0	0	0	3	2	5	6	2	8	6	0	6	15	4	19
55-59	1	0	1	2	0	2	7	1	8	3	0	3	12	1	13
60-64	0	0	0	0	0	0	5	4	9	3	1	4	8	5	13
65-69	0	0	0	0	0	0	3	1	4	1	0	1	4	1	5
70-74	0	0	0	3	0	3	2	1	3	4	0	4	9	1	10
75 & Older	1	0	1	1	0	1	2	1	3	1	0	1	4	1	5
Not Stated	0	0	0	2	0	2	12	4	17	13	5	29	27	9	48
Total	7	0	7	58	20	78	361	140	505	270	90	377	689	250	960

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

TABLE 7.06

PRIOR ACTION OF BICYCLISTS INVOLVED IN 2001 CRASHES

Prior Action	Bicyclists In Fatal Crashes	Bicyclists In Injury Crashes	Bicyclists In Property Damage Crashes	Bicyclists In All Crashes*
Riding With Traffic	3	116	11	130
Riding Against Traffic	0	91	6	97
Making Left Turn	2	11	0	13
Making Right Turn	0	9	2	11
Making U Turn	0	0	1	1
Riding Across Road	2	347	13	362
Other/Unknown	0	377	28	405
Total	7	951	61	1,019

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

TABLE 7.07

CONTRIBUTING FACTORS IN 2001 BICYCLE CRASHES

Contributing Factors	Attributed to Bicyclists		Attributed to Motor Vehicle Drivers	
	Number	Percent	Number	Percent
Human Factors				
Failure to Yield Right of Way	158	23.2%	225	32.1%
Driver Inattention/Distracted	100	14.7	209	29.9
Disregard Traffic Control Device	77	11.3	21	3.0
Improper/Unsafe Lane Use	74	10.9	17	2.4
Vision Obscured	29	4.3	96	13.7
Driver Inexperience	24	3.5	13	1.9
Illegal or Unsafe Speed	22	3.2	14	2.0
Driving Left of Center	14	2.1	9	1.3
Improper Turn	11	1.6	9	1.3
Failure to use Lights	11	1.6	1	0.1
Physical Impairment	10	1.5	4	0.6
Improper Park/Start/Stop	7	1.0	12	1.7
Impeding Traffic	7	1.0	1	0.1
Following Too Closely	5	0.7	5	0.7
Improper/No Signal	5	0.7	1	0.1
Improper Passing/Overtaking	4	0.6	5	0.7
Unsafe Backing	0	0.0	4	0.6
Driver on Phone/CB Radio	0	0.0	2	0.3
Other Human Factors	25	3.7	12	1.7
Vehicular Factors				
Defective Brakes	21	3.1	2	0.3
Skidding	2	0.3	0	0.0
Other Vehicular Factors	3	0.4	1	0.1
Miscellaneous Factors				
Weather Conditions	4	0.6	7	1.0
Other	67	9.9	30	4.3
Total	680	100.0%	700	100.0%
Vehicles for Which There Was				
“No Clear Contributing Factor”	311		434	
Total Number of Bicyclists/Drivers	1,019		1,029	

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, 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.

Number of crashes down from last year

There were 852 traffic crashes involving at least one school bus in Minnesota in 2001. This is a 4% decrease from the number of traffic crashes that occurred the previous year and 39 less than the past five-year average.

Four deaths in 2001

In 2001, there were four fatal school bus crashes resulting in four deaths. Three of the fatalities were the drivers of other vehicles that collided with school buses. The other fatality was a forty-four-year-old pedestrian who was struck by the bus at an intersection (The pedestrian was not a student who had been on the bus.)

Number of injuries goes down

In 2001, 355 people were injured in school bus crashes, representing nearly a 9% decrease from 2000. Of the 355 total injuries in 2001, 180 were occupants of a school bus, 165 were occupants of other motor vehicles, and 10 were pedestrians.

Morning and Afternoon Rush Hours

As would be expected, two out of three school bus crashes in 2001 (66%) occurred during the time periods of 6:00-9:00am and 3:00-6:00pm. In addition, three or the four fatalities and 68% of the injuries occurred during these two time periods. Not surprisingly, fewer crashes (7% of the total) occurred during the summer months of June, July, and August.

School Bus Stop Arm

Forty-five percent of school bus crashes occurred where there was no traffic control device and less than 3% of the crashes occurred when the school bus stop arm was deployed. However, thirty-seven injuries did occur in crashes where the school bus stop arm was in use.

Contributing factors

Though there were 852 school bus crashes in 2001, a few involved more than one school bus. In all, there were 857 school buses in crashes. For 48% of the school buses, police showed there was "no clear contributing factor." This compares favorably to the 35% 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 (22%), and failure to yield the right of way (16%). The third most frequently cited contributing factor was improper or unsafe lane use (7%).

TABLE 8.01

SCHOOL BUS CRASH SUMMARY, 1992 - 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Crashes	741	894	821	898	1,041	961	782	782	890	852
Fatal Crashes	1	3	2	2	6	4	3	5	2	4
Persons Killed	1	3	2	2	8	7	3	5	2	4
Injury Crashes	169	212	210	216	241	211	197	172	203	182
Persons Injured	425	432	401	457	472	408	371	328	388	355
Property Damage Crashes	571	679	609	680	794	746	582	605	685	666
School Buses Involved	756	909	884	906	1,050	979	790	789	903	857

TABLE 8.02

2001 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	0	0	0	0
3:00 - 5:59 AM	0	3	2	5	0	4
6:00 - 8:59 AM	1	49	202	252	1	113
9:00 - 11:59 AM	1	20	97	118	1	31
Noon - 2:59 PM	0	33	89	122	0	59
3:00 - 5:59 PM	2	68	239	309	2	128
6:00 - 8:59 PM	0	5	14	19	0	12
9:00 - 11:59 PM	0	1	3	4	0	1
Unknown	0	3	20	23	0	7
Total	4	182	666	852	4	355

TABLE 8.03

2001 SCHOOL BUS CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	20	88	108	0	35
February	0	25	142	167	0	31
March	1	20	95	116	1	41
April	0	9	31	40	0	42
May	1	28	59	88	1	57
June	0	8	20	28	0	24
July	0	6	13	19	0	7
August	0	3	10	13	0	3
September	0	16	52	68	0	40
October	1	19	47	67	1	23
November	1	19	68	88	1	41
December	0	9	41	50	0	11
Total	4	182	666	852	4	355

TABLE 8.04

**AGE AND GENDER OF PERSONS INJURED
IN 2001 SCHOOL BUS CRASHES**

Age Group	Total*	In Other			Male	Female
		In Bus	Pedestrian	Vehicle		
0 - 4	5	0	1	4	3	2
5 - 9	32	28	1	3	10	22
10 - 14	72	66	0	6	32	39
15 - 19	58	23	2	33	29	29
20 - 24	21	1	0	20	12	9
25 - 29	19	2	1	16	9	10
30 - 34	16	1	0	15	9	7
35 - 39	19	5	2	12	8	10
40 - 44	17	5	0	12	6	11
45 - 54	24	6	1	17	12	12
55 - 64	15	4	0	11	8	7
65 & Older	14	2	1	11	6	8
Unknown	43	37	1	5	8	5
Total	355	180	10	165	152	171

* There were 32 cases where the gender of the person was not stated.

TABLE 8.05

**PERSONS KILLED OR INJURED
IN 2001 SCHOOL BUS CRASHES BY POPULATION OF AREA**

Population of City or Township	Killed	Injured			Total
		Severe	Moderate	Minor	
100,000 and Over	2	3	25	95	123
50,000 - 99,999	0	4	5	4	13
25,000 - 49,999	0	2	6	27	35
10,000 - 24,999	0	0	10	21	31
5,000 - 9,999	1	1	4	16	21
2,500 - 4,999	0	0	1	28	29
1,000 - 2,499	0	1	2	5	8
Under 1,000	1	7	34	54	95
Total	4	18	87	250	355

TABLE 8.06

2001 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	167	539	709	3	340
Parked Motor Vehicle	0	4	98	102	0	4
Bicycle	0	3	0	3	0	3
Pedestrian	1	7	0	8	1	7
Deer or Other Animal	0	0	1	1	0	0
Fixed Object	0	0	17	17	0	0
Non-collision:						
Overturn	0	0	1	1	0	0
Other/Unknown	0	1	10	11	0	1
Total	4	182	666	852	4	355

TABLE 8.07

2001 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Not Applicable	0	78	309	387	0	137
Traffic Signal	2	46	120	168	2	81
Overhead Flashers	0	0	2	2	0	0
Stop Sign--All Approaches	0	11	21	32	0	16
Other Stop Sign	1	35	119	155	1	72
Yield Sign	1	2	6	9	1	2
School Zone Sign	0	0	4	4	0	0
School Bus Stop Arm	0	3	15	18	0	37
No Passing Zone	0	1	5	6	0	1
Railroad Crossing Device	0	2	6	8	0	5
Other	0	2	19	21	0	2
Unknown	0	2	40	42	0	2
Total	4	182	666	852	4	355

TABLE 8.08

CONTRIBUTING FACTORS IN 2001 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	101	22.1%	142	20.1%
Failure to Yield Right of Way	74	16.2	83	11.8
Improper/Unsafe Lane Use	32	7.0	32	4.5
Improper Turn	29	6.4	22	3.1
Unsafe Backing	24	5.3	13	1.8
Illegal/Unsafe Speed	18	3.9	58	8.2
Improper Passing/Overtaking	16	3.5	25	3.5
Vision Obscured	16	3.5	22	3.1
Following Too Closely	15	3.3	53	7.5
Disregard Traffic Control Device	12	2.6	29	4.1
Driver Inexperience	9	2.0	31	4.4
Driving Left of Center	7	1.5	10	1.4
Improper Park/Start/Stop	6	1.3	24	3.4
Impeding Traffic	3	0.7	4	0.6
Improper or No Signal	2	0.4	2	0.3
Physical Impairment	1	0.2	8	1.1
Pedestrian Violation/Error	0	0.0	3	0.4
Failure to Use Lights	0	0.0	1	0.1
Driver on Phone/CB	0	0.0	2	0.3
Other Human Factors	4	0.9	7	1.0
Vehicular Factors				
Skidding	19	4.2	47	6.7
Defective Brakes	7	1.5	7	1.0
Other Vehicular Factors	0	0.0	3	0.4
Miscellaneous Factors				
Weather Conditions	30	6.6	51	7.2
Other	31	6.8	26	3.7
Total	456	100%	705	100%
Vehicles for Which There Was "No Clear Contributing Factor"	412		319	
Total Number of Drivers	857		916	

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, about one-half of one percent of all motor vehicle crashes result in a fatality. In 2001, 7% of all motor-vehicle/train crashes in Minnesota resulted in a fatality. That is fourteen times the rate for all crashes. Motor vehicle/train crashes may be few in number, but they are more likely to be serious. Thus, these types of crashes are a cause for concern.

Number of train crashes decline

Over the years, the number of motor-vehicle/train crashes in Minnesota has been declining. The calendar year 2001 was no exception. Only 70 crashes were reported in 2001, an 11% decline from the previous year.

Number of injuries drops substantially

In 2001, 28 people were injured in motor-vehicle/train crashes compared to 43 people the previous year. The number of fatalities increased slightly: six people were killed in 2001 compared to four in 2000.

January had the most crashes

In 2001, motor vehicle/train crashes were most numerous in the month of January. Twenty percent of the crashes occurred in that month. Five of them were injury crashes, resulting in 6 persons being injured.

Railroad crossbuck sites remain dangerous

Seventeen of the 70 motor-vehicle/train crashes, including 7 of the 22 injury crashes, occurred at a crossing signed by a railroad crossbuck. An additional 12 crashes (including 1 fatal and 2 injury crashes), occurred at a railroad crossing stop sign. Combined, those two types of traffic control devices were present at 41% of the crashes, accounted for 17% of the fatalities and 36% of the injuries.

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 2001, 57% of the total crashes, 93% of the injuries, and all fatalities occurred in rural areas.

Contributing Factors

For the motor vehicles involved in train crashes, driver inattention or distraction, failure to yield right of way, and disregard for traffic control device were the three contributing factors cited most often by officers at the scene. These three accounted for nearly 68% of all contributing factors cited.

TABLE 9.01

MOTOR VEHICLE/TRAIN CRASH SUMMARY, 1992 - 2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Crashes	111	128	144	132	124	107	108	84	79	70
Fatal Crashes	7	11	14	15	8	6	9	8	3	5
Persons Killed	9	15	17	16	8	6	11	10	4	6
Injury Crashes	39	45	51	30	45	36	47	32	32	22
Persons Injured	54	63	75	34	50	46	64	50	43	28
Property Damage Crashes	65	72	79	87	71	65	52	44	44	43

TABLE 9.02

2001 MOTOR VEHICLE/TRAIN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total	Killed	Injured
January	0	5	9	14	0	6
February	0	3	6	9	0	4
March	0	2	1	3	0	3
April	2	0	0	2	3	1
May	0	0	5	5	0	0
June	1	1	3	5	1	1
July	1	2	1	4	1	4
August	0	2	7	9	0	2
September	0	2	3	5	0	2
October	0	2	2	4	0	2
November	0	0	1	1	0	0
December	1	3	5	9	1	3
Total	5	22	43	70	6	28

TABLE 9.03

2001 MOTOR VEHICLE/TRAIN CRASHES BY TIME AND DAY

Time of Day	Total	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Midnight - 2:59 AM	7	1	2	1	0	1	1	1
3:00 - 5:59 AM	2	0	0	2	0	0	0	0
6:00 - 8:59 AM	11	2	1	2	3	0	0	3
9:00 - 11:59 AM	11	0	3	1	1	5	0	1
Noon - 2:59 PM	15	1	3	2	3	1	4	1
3:00 - 5:59 PM	11	1	2	1	1	1	3	2
6:00 - 8:59 PM	7	0	3	1	1	1	1	0
9:00 - 11:59 PM	5	0	1	2	1	0	0	1
Unknown	1	0	0	0	1	0	0	0
Total	70	5	15	12	11	9	9	9

TABLE 9.04

**2001 MOTOR VEHICLE/TRAIN CRASHES
BY TRAFFIC CONTROL DEVICE**

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
RR Crossbuck	0	7	10	17	0	7
RR Crossing Stop Sign	1	2	9	12	1	3
RR Flashing Lights	0	3	6	9	0	3
RR Overhead Flashers						
Plus Gate	2	1	2	5	2	4
RR Overhead Flashers	0	2	1	3	0	3
RR Crossing Gate	0	1	6	7	0	2
Stop Sign	2	3	2	7	3	3
Unknown	0	2	2	4	0	2
Not Applicable	0	1	5	6	0	1
Total	5	22	43	70	6	28

TABLE 9.05

**AGE OF PERSONS KILLED OR INJURED IN 2001
MOTOR VEHICLE/TRAIN CRASHES**

Age Group	Killed	Injured			Total
		Severe	Moderate	Minor	
0-4	0	0	1	0	1
5-9	0	0	0	0	0
10-14	0	0	0	0	0
15-19	0	0	1	0	1
20-24	1	3	0	2	5
25-29	1	1	1	1	3
30-34	0	1	1	2	4
35-39	1	0	1	1	2
40-44	0	0	0	0	0
45-49	0	0	2	0	2
50-54	0	0	0	0	0
55-59	0	0	0	0	0
60-69	2	0	1	1	2
70-79	1	0	1	0	1
80 & Older	0	0	2	3	5
Not Stated	0	0	2	0	2
Total	6	5	13	10	28

TABLE 9.06

2001 MOTOR VEHICLE/TRAIN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
100,000 and Over	0	0	10	10	0	0
50,000 - 99,999	0	2	0	2	0	3
25,000 - 49,999	0	1	4	5	0	1
10,000 - 24,999	0	6	5	11	0	7
5,000 - 9,999	0	1	1	2	0	1
2,500 - 4,999	1	1	1	3	2	3
1,000 - 2,499	0	0	1	1	0	0
Under 1,000	4	11	21	36	4	13
Total	5	22	43	70	6	28

TABLE 9.07

CONTRIBUTING FACTORS
IN 2001 MOTOR VEHICLE/TRAIN CRASHES

Contributing Factor	Number	Percent
Human Factors		
Driver Inattention / Distraction	22	23.7%
Failure to Yield Right of Way	21	22.6
Disregard for Traffic Control Device	20	21.5
Illegal or Unsafe Speed	6	6.5
Vision Obscured	5	5.4
Physical Impairment	4	4.3
Improper/Unsafe Lane Usage	1	1.1
Other Human Factor	1	1.1
Vehicular Factors		
Skidding	4	4.3
Defective Brakes	2	2.2
Other Vehicular Factor	1	1.1
Miscellaneous Factors		
Weather Conditions	3	3.2
Other	3	3.2
Total	93	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	11	
Number of Drivers	75	

Zero, one, or two contributing factors may be attributed to a single driver. This may cause the sum of the factors cited to differ from the number of drivers. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding. No contributing factors are cited for train operators.

DEFINITIONS

Accident -- See motor vehicle crash.

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

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

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

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

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

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

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

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

Crash -- See motor vehicle crash.

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

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

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

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

Injury Severity

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Rural -- Having a population of under 5,000.

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

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

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

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

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



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