# Minnesota Motor Vehicle Crash Facts

2000

Minnesota Department of Public Safety

# Suggestions for Using *Crash Facts*

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

**Legislators:**

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

**Students studying traffic safety issues:**

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

**Law Enforcement Community:**

There are over 500 city, county, and state law enforcement agencies in Minnesota. Each agency has access to its own reports on traffic crashes, but the data are brought together here. Table 1.26 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 35 (people general 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) 297-4516 or 296-9489

# MINNESOTA MOTOR VEHICLE CRASH FACTS 2000

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
St. Paul, MN 55101-5150
Phone (651) 296-9489
or (651) 297-4516
[TTY (651) 282-6555]
< http://www.dps.state.mn.us/trafsafe >



For more copies, contact:

Office of Communications
Minnesota Department of Public Safety
444 Cedar Street, Suite 155
St. Paul, MN 55101-5155
Phone (651) 296-6652
[TTY (651) 282-6555]

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 Traffic Safety

444 Cedar Street, Suite 150, St. Paul, Minnesota 55101-5150
Phone: 651.215.9091 FAX: 651.297.4844 TTY: 651.282.6555
Internet: http://www.dps.state.mn.us


June 2001


Alcohol & Gambling Enforcement

Bureau of Criminal Apprehension

Capitol Security

Crime Victim Services

Driver & Vehicle Services

Drug Policy & Violence Prevention

Emergency Management/ Emergency Response Commission

State Fire Marshal/ Pipeline Safety

State Patrol

Traffic Safety


A traffic death often seems more shocking than deaths from other causes. A traffic crash unfolds in seconds, and death is often immediate. There is no anticipation of the event, no time to prepare -- either by the victim or the victim's family. Diseases mostly claim lives at a later age. Just the reverse is true for traffic crashes -- the victims are often young and in good health. They die not just before their lives' dreams are fulfilled, but perhaps even before their dreams are developed.

Traffic crashes are not inevitable and the deaths associated with them are unconscionable. Last year, there were 41,800 traffic deaths in the United States and 625 in Minnesota. In the last century, more than three million people died in crashes in the country. Traffic crashes cause terrible injury as well. They are a common cause of permanent brain injury, and they are the most frequent cause of paraplegia, quadriplegia, and adult-onset epilepsy.

The Department of Public Safety will do all it can to enforce traffic safety laws and reduce traffic crash costs. As Commissioner of Public Safety, I urge you, likewise, to do all you can to drive responsibly and safely:

- Buckle up.
- Don't drink and drive.
- Obey the speed limit.
- Be courteous to other drivers.
- Pay attention.

Follow these rules, and protect your life, avoid injury, and avoid expensive automobile repairs. Do this for yourself and for others too. Our combined efforts will cut down on the unnecessary deaths and suffering from traffic crashes.

Sincerely,

Charlie Weaver
Commissioner

# Minnesota Traffic Crashes in 2000
# 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 2000. We hope that the information contained within this book will help you and others use our roadways more safely.

**In 2000,**

- 103,591 traffic crashes occurred
- 189,541 motor vehicles were involved
- 277,242 people were involved
- 625 people died
- 44,740 people were injured
- $1,680,308,800 estimated economic cost to Minnesota

**On an average day in 2000,**

- 283 crashes
- 1.7 deaths
- 122 people injured
- $4,591,008 average daily cost

**2000 crashes that involved alcohol**

- 5,750 crashes
- 245 deaths
- 4,402 people injured
- $329,769,400 estimated economic cost

**Highlights from the 2000 Crash Facts edition**

- **Alcohol-related fatalities increased, from 195 (31% of 626 total) to 245 (39% of 625 total).**
  We hope that the 2000 figure does not represent an upward trend in alcohol-related crashes. We also hope that tougher drinking and driving laws, and increased enforcement remain a high priority for all Minnesotan's.

- **Safety belt use increased to record high of 73% (from 72% in 1999).**
  This good news means that more people, in 2000 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 is at a record low.**
  The VMT-based fatality rate was 1.20, 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, as 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 625 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 1.11)
- Registered vehicles by category (Table 1.12)
- 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 36, you'll find data about impaired driving and traffic crashes. This section focuses on crashes involving alcohol and spells out answers to commonly-raised questions, including:

- Historical overview since 1980 (Table 2.01)
- "DWI" arrest statistics since 1990 (Tables 2.02, 2.03, and 2.04)
- Persons killed and injured in alcohol-related crashes by age (2.05)

**Section III: Safety Equipment Use by Vehicle Occupants in 1999 Crashes**
Seat belt and related information can be found starting on page 49. 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 58; 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 67, 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 75. 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 84.

- 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 89. 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 94. 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.

# TABLE OF CONTENTS

# INTRODUCTION

At the end of the 2000 calendar year, 3,649,444 people held Minnesota driver licenses and 4,196,026 motor vehicles were registered in the state. Vehicles traveled almost fifty-three billion miles on public roadways in the state. There were 103,591 traffic crashes; 625 people died and 44,740 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 accidents (from all causes) are the leading cause of death among persons aged 1 to 34 and the fifth leading cause of death among all persons (*Accident Facts, 1997 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 1999 data. Based on those, the total economic loss from 2000 traffic crashes in Minnesota was $1,680,308,800 a figure that is calculated as follows:

### Cost of Motor Vehicle Crashes in 2000

| | | | |
|---|---|---|---|
| 625 | deaths | @$970,000 | =$606,250,000 |
| 3,174 | severe injuries | @ $45,800 | =$145,369,200 |
| 15,903 | moderate injuries | @ $15,300 | =$243,315,900 |
| 25,663 | minor injuries | @ $8,700 | =$223,268,100 |
| 72,204 | property damage crashes | @ $6,400 | =$462,105,600 |
| | | Total = | $1,680,308,800 |

## 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 41,800 traffic fatalities (preliminary estimate) throughout the country and 625 in Minnesota. The respective rates per hundred million miles of travel were 1.6 and 1.2. 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 accident reports . . . and publish annually . . . statistical information based thereon as to the number and circumstances of traffic accidents."

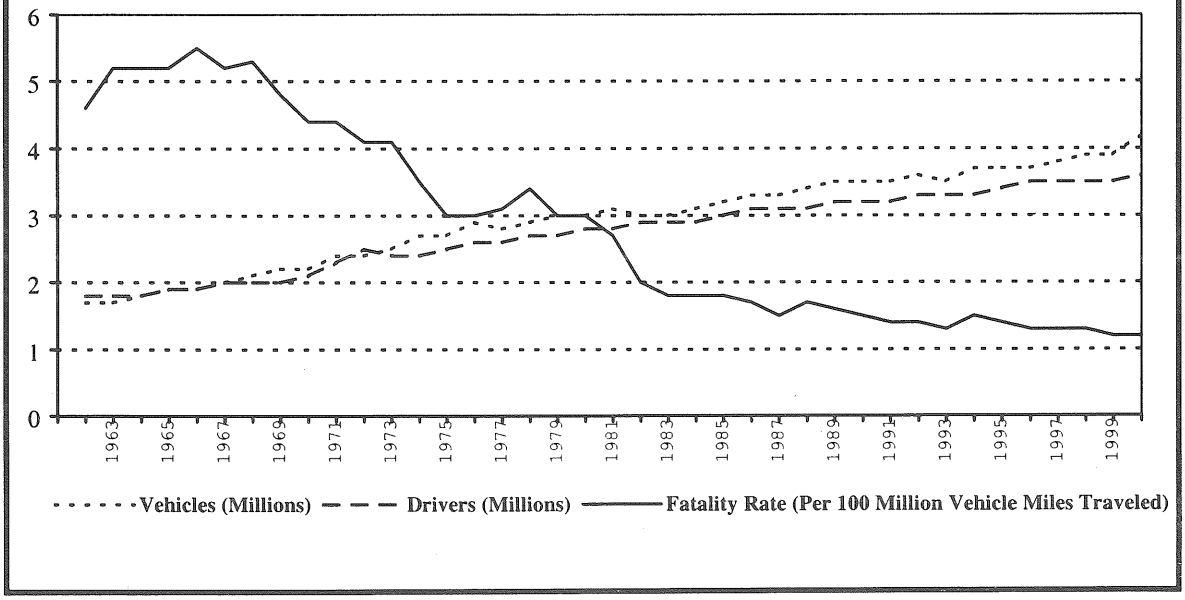
Section 169.09 specifies that a driver involved in an accident that results in injury to or death of any person or total property damage of $1,000 or more must submit a report within ten days of the crash. The law enforcement officer who investigates the crash must also submit a report within ten days.

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, 1962-2000



# I: ALL CRASHES

**Overview of 2000 traffic crashes**

For almost two decades, the total number of reported traffic crashes in Minnesota has been approximately 100,000 per year. In the absence of some dramatic societal change, this total will not change abruptly. In 2000, there were 103,591 traffic crashes reported to the state. There is a cost associated with such a large number. Of the reported crashes in 2000, 557 were fatal crashes in which 625 people died. Also, there were 30,830 injury crashes where no one died but one or more people sustained injuries. In all, 44,740 people were injured. Finally, there were 72,204 "property damage only crashes" (PDO) in which there was at least $1,000 in property damage but no one was killed or injured. There was a 9% increase in these PDO crashes from the previous year. The severe winter weather late in the year helps to explain this increase. In all, based upon National Safety Council cost estimates, the total economic loss to Minnesota from traffic crashes was 1.68 billion dollars.

One certainty in Minnesota is that the number of licensed drivers, the number of registered motor vehicles, and the number of vehicle miles traveled will all increase every year. In 2000, the number of licensed drivers topped 3.6 million. The number of registered motor vehicles was 4.2 million. And, the Minnesota Department of Transportation estimates that there were 52.4 billion vehicle miles traveled.

As mentioned, the high number of crashes last year seems related to the inclement weather in November and December 2000. Indeed, there were 24,520 traffic crashes in those two months alone. This number represents almost 25% of all crashes in 2000.

Last year, 68,759 crashes (66%) involved two or more moving vehicles colliding with one another. The remaining 35,012 were single-vehicle crashes, including 12,527 collisions with fixed objects, 6,234 collisions with parked vehicles, 5,357 overturn crashes, and 5,309 car-deer crashes, and.

As a general rule, a majority of people killed or injured in traffic crashes are occupants of motor vehicles. The year 2000 was no different. In fact, 83% of the fatalities, and 90% of the injuries in 2000 were motor vehicle occupants. Unfortunately, only 29% of those occupants killed, and 68% of those occupants injured were known to be wearing restraint equipment. Minnesota does not have a primary seat belt law. Without one, deaths and injuries to motor vehicle occupants will likely remain high.

**WHO was involved?**

**Drivers and victims are disproportionately young**

Few relationships in human behavior are as simple and clear as that between age and motor vehicle crash involvement. Crash involvement decreases with age and driving experience and, in a word, teenagers tend to be terrible drivers. In 2000, one in ten licensed teenage drivers was in a reported motor vehicle crash. Among 20-to-24 year-olds, the number was one in twelve. The number declines steadily across successive five-year age groups: 1 in 16 for 25-to-29 year-olds, 1 in 29 for 50-to-54 year-olds, and 1 in 52 among those over 85. (For the oldest driver age groups, experts recognize that the low crash involvement rate comes more from reduced driving than from increased driving skill).

In the event of a crash, young people gain an advantage owing to their normally good health, but even so they suffer a large portion of the deaths and injuries each year. In 2000, one in seven (or 91) of the 625 traffic deaths occurred to a 15-to-19 year-old. There were 80 deaths among 20-to-24 year-olds, and 58 among 25-to-29 year-olds. The pattern is the same among those injured: 15-to-19 year-olds made up almost 1 out of every 6 injured.

With respect to gender, there is an interesting difference. Males are much more likely to be the drivers in crashes: they made up 71% of the drivers in fatal crashes and about 57% of the drivers in non-fatal crashes. Males also were killed more often--almost twice as often as females (405 to 220). But females suffered injury slightly more often -- about 51% to 49%.

**WHY the crashes occurred**

**Inattention/distraction, failing to yield, and speed**

The three contributing factors that investigating officers check off most frequently, considering all crashes together, are driver inattention or distraction (about 23% of all factors cited), failing to yield right-of-way (about 14%), and illegal or unsafe speed (about 12%). The likelihood that a particular factor was involved varies however with the age of the driver, the severity of the crash, and whether the crash was a single-vehicle or multiple-vehicle crash.

In single-vehicle crashes, speed is cited more often than any other factor, except among drivers over age 65, for whom inattention/distraction is cited most often. For the under-65 drivers (excluding teens) in these single vehicle crashes, inattention/distraction is

cited second most often, then physical impairment. For the teenagers, speed is cited most, then driver inexperience, then inattention/distraction.

In multiple-vehicle crashes, officers most often check off inattention/distraction for under-65 drivers, then failing to yield right-of-way, then following to closely, then speed. For the over-65 drivers, two factors predominate over all the others: most often, failure to yield right-of-way and, second most often, driver inattention or distraction.

Overlaying these variations is a relationship between crash severity and contributing factors. For the less severe injury and property damage crashes, driver inattention or distraction is cited most often, then failing to yield right-of-way, then speed. For the fatal crashes, speed is cited most, then inattention/distraction, then physical impairment and failing to yield right-of-way. It is important to note that police can cite up to two contributing factors for each vehicle in a crash and in multiple vehicle crashes, they will frequently associate one or two factors with one vehicle and none with the other vehicles. Also, especially in fatal crashes, alcohol, as reflected in the factor "physical impairment," will be associated with other factors such as speed and failing to yield right-of-way.

## WHAT the conditions were

### Deaths in summer, property damage crashes in winter

Over many years, two seasonal patterns became evident. Specifically, the numbers of fatal traffic crashes and people killed were highest in the warm summer months, while the less severe injury and property damage crashes (which are much more numerous and thus drive statistics on total crashes) peaked in the inclement-weather months of the winter. This pattern seems to hold in the year 2000. For example, the most deaths (70) occurred in July, and the most total crashes occurred in December (14,144).

The consistency of these patterns over years leads to one interpretation: that although bad weather and bad road-surface conditions are unpleasant, they at least have the benefit of greatly slowing down traffic so that--although there are more minor crashes--there are fewer fatal crashes. However, another interpretation is possible. Bad weather and road surface conditions may depress driving volume so much (compared to a warm summer day) that the number of fatal crashes goes down substantially. The vehicles still driving continue to get into many more crashes than they would in good conditions. Bad road surface conditions in winter may still cause many fatal crashes that would not otherwise have occurred. This interpretation avoids the rather counter-intuitive concept that bad driving conditions can paradoxically have the benefit of reducing traffic deaths. In 2000, 85 deaths (14% of the total) resulted from crashes that occurred on roads shown to be covered with snow or slush, or with ice or packed snow.

## WHERE they occurred

### Total crashes follow population density, fatal crashes just the reverse

An urban area is defined as a town or city with a population of 5,000 or more people. A rural area is any other area, and often designates open country outside of any city of town. In 2000, 70% of all crashes occurred in urban areas. Minneapolis and St. Paul accounted for 24% of the total 103,591 crashes, Hennepin and Ramsey County for 42%. It's just the reverse for fatal crashes: Twenty-nine percent occurred in urban areas, the remainder in rural areas. And when fatal crashes do occur, it is usually on two-lane, two-way highways. In 2000, 472 out of 625 deaths occurred on such roadways.

## WHEN they occurred

Twenty years ago there were two distinctly different patterns for traffic crashes across the hours of the day. In 1980, fatal traffic crashes rose to a peak between 1:00 to 2:00 AM, while total traffic crashes rose to their main peak between 4:00 and 5:00 PM, and had a second, but much lower, peak between 1:00 and 2:00 AM. In 2000, fatal crashes had a minor peak from 1:00 to 2:00 AM, but mostly they followed the same pattern across the day as total traffic crashes, with a pronounced main peak during the afternoon rush hour (5:00 to 6:00 PM).

*TABLE 1.01*

# TRAFFIC SAFETY STATISTICS SUMMARY, 1965 - 2000

| Year | Total Crashes | Persons Killed | Persons Injured | Licensed Drivers (million) | Motor Vehicles (MV) (million) | State Population (million) | Vehicle Miles Travelled (VMT) (billion) | Crash Rates Per 100,000 MV | Crash Rates Per 100,000 Population | Crash Rates Per 100 Mil VMT | Fatality Rates Per 100,000 MV | Fatality Rates Per 100,000 Population | Fatality Rates 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 |

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. The year 2000 number is a preliminary estimate.

(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
## 1995 - 2000

| | 1995 | 1996 | 1997 | 1998 | 1999 | *1995-1999 Average* | 2000 | %change from 5 Yr Average | Record High | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Crashes** | **96,022** | **105,332** | **98,626** | **92,926** | **96,813** | **97,943.8** | **103,591** | **+5.8** | **123,106** | **(1975)** |
| **Fatal Crashes** | **515** | **503** | **528** | **575** | **567** | **537.6** | **557** | **+3.6** | **878** | **(1973)** |
| **Injury Crashes** | **31,611** | **33,283** | **31,290** | **30,571** | **30,279** | **31,406.8** | **30,830** | **-1.8** | **33,686** | **(1978)** |
| Severe | 2,967 | 2,960 | 2,855 | 2,702 | 2,677 | 2,832.2 | 2,471 | -12.8 | 5,109 | (1984)[1] |
| Moderate | 11,294 | 11,745 | 11,277 | 11,391 | 11,352 | 11,411.8 | 11,445 | +0.3 | 12,326 | (1985)[1] |
| Minor | 17,350 | 18,578 | 17,208 | 16,478 | 16,250 | 17,172.8 | 16,914 | -1.5 | 18,578 | (1996)[1] |
| **Property Damage Crashes** | **63,896** | **71,546** | **66,808** | **61,780** | **65,967** | **65,999.4** | **72,204** | **+9.4** | **94,810** | **(1975)** |
| **Total Injuries** | **47,161** | **48,963** | **46,064** | **45,115** | **44,538** | **46,368.2** | **44,740** | **-3.5** | **50,332** | **(1978)** |
| Severe | 3,826 | 3,813 | 3,673 | 3,409 | 3,460 | 3,636.2 | 3,174 | -12.7 | 6,573 | (1984)[1] |
| Moderate | 16,053 | 16,519 | 15,948 | 16,189 | 16,002 | 16,142.2 | 15,903 | -1.5 | 17,670 | (1985)[1] |
| Minor | 27,282 | 28,631 | 26,443 | 25,517 | 25,076 | 26,589.8 | 25,663 | -3.5 | 28,631 | (1996)[1] |
| **Total Fatalities** | **597** | **576** | **600** | **650** | **626** | **609.8** | **625** | **+2.5** | **1,060** | **(1968)** |
| Pedestrian | 49 | 46 | 58 | 56 | 51 | 52.0 | 41 | -21.2 | 157 | (1971) |
| Motor Vehicle/Train[2] | 16 | 8 | 6 | 11 | 10 | 10.2 | 4 | -60.8 | 62 | (1932) |
| Bicycle | 5 | 6 | 7 | 9 | 8 | 7.0 | 14 | +100.0 | 24 | (1977) |
| Motorcycle | 35 | 42 | 24 | 40 | 29 | 34.0 | 35 | +2.9 | 121 | (1980) |
| All Terrain Vehicle | 2 | 1 | 6 | 7 | 7 | 4.6 | 5 | +8.7 | 9 | (1986) |
| Snowmobile | 7 | 5 | 5 | 2 | 8 | 5.4 | 5 | -7.4 | 9 | (1984) |
| Motor Vehicle Occupants | 495 | 462 | 488 | 532 | 516 | 498.6 | 520 | +4.3 | 532 | (1998)[1] |
| Minnesota Fatality Rate[3] | 1.35 | 1.26 | 1.28 | 1.34 | 1.24 | 1.29 | 1.19 | -7.5 | 23.6 | (1934) |
| U.S. Fatality Rate[3] | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.66 | 1.6 | -1.2 | 18.0 | (1925) |
| Minnesota Economic Loss (millions) | $1,611.8 | $1,578.1 | $1,456.8 | $1,620.7 | $1,635.4 | $1,580.6 | $1,680.3 | +6.3 | $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*

## 2000 FATALITIES BY TRAFFIC ROLE, GENDER, AND AGE

| Type of Vehicle | Position in Vehicle | Gender | Age 0-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70 & Older | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Car or Truck | Driver | Male | 0 | 26 | 53 | 46 | 45 | 22 | 14 | 34 | 240 |
| | | Female | 0 | 17 | 31 | 16 | 18 | 13 | 7 | 17 | 119 |
| | Passenger | Male | 7 | 21 | 22 | 5 | 5 | 2 | 1 | 8 | 71 |
| | | Female | 7 | 17 | 10 | 5 | 5 | 5 | 7 | 22 | 78 |
| | Unknown | Male | 0 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 7 |
| | | Female | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 5 |
| Motorcycle | Operator | Male | 0 | 0 | 9 | 5 | 10 | 5 | 0 | 0 | 29 |
| | | Female | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| | Passenger | Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Female | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Motorscooter or Moped | Driver | Male | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Passenger | Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| All Terrain Vehicle | Driver | Male | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 4 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Passenger | Male | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Snowmobile | Driver | Male | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 5 |
| | | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Passenger | Male | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Female | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | Unknown | Male | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bicyclist | | Male | 0 | 5 | 3 | 0 | 0 | 1 | 1 | 2 | 12 |
| | | Female | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Pedestrian | | Male | 0 | 6 | 5 | 6 | 6 | 1 | 1 | 7 | 32 |
| | | Female | 1 | 1 | 1 | 0 | 1 | 2 | 1 | 2 | 9 |
| Total Fatalities | | Male | 8 | 64 | 95 | 66 | 68 | 31 | 19 | 54 | 405 |
| | | Female | 8 | 38 | 43 | 24 | 29 | 21 | 16 | 41 | 220 |
| | | Total | 16 | 102 | 138 | 90 | 97 | 52 | 35 | 95 | 625 |

Note: The three people who died who had been occupants of an "other motor vehicle" type included: one farm equipment operator, one occupant of a privately owned vehicle, and one person of unknown seating position who was associated with farm equipment.

*TABLE 1.04*

## AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2000 CRASHES

| | Persons Killed | | | Persons Injured | | | |
|---|---|---|---|---|---|---|---|
| Age Group | Male | Female | Total | Male | Female | Unknown | Total |
| 0 – 4 | 3 | 3 | 6 | 352 | 372 | 2 | 726 |
| 5 – 9 | 5 | 5 | 10 | 633 | 552 | 15 | 1,200 |
| 10 – 14 | 8 | 3 | 11 | 857 | 815 | 13 | 1,685 |
| 15 – 19 | 56 | 35 | 91 | 3,695 | 4,366 | 26 | 8,087 |
| 20 – 24 | 57 | 23 | 80 | 3,088 | 2,886 | 26 | 6,000 |
| 25 – 29 | 38 | 20 | 58 | 2,049 | 2,063 | 13 | 4,125 |
| 30 – 34 | 36 | 12 | 48 | 1,833 | 1,764 | 9 | 3,606 |
| 35 – 39 | 30 | 12 | 42 | 1,776 | 1,887 | 10 | 3,673 |
| 40 – 44 | 33 | 12 | 45 | 1,626 | 1,740 | 8 | 3,374 |
| 45 – 49 | 35 | 17 | 52 | 1,317 | 1,357 | 14 | 2,688 |
| 50 – 54 | 16 | 12 | 28 | 992 | 1,141 | 1 | 2,134 |
| 55 – 59 | 15 | 9 | 24 | 673 | 771 | 6 | 1,450 |
| 60 – 64 | 12 | 12 | 24 | 488 | 540 | 6 | 1,034 |
| 65 – 69 | 7 | 4 | 11 | 386 | 465 | 2 | 853 |
| 70 – 74 | 13 | 9 | 22 | 332 | 425 | 2 | 759 |
| 75 – 79 | 12 | 15 | 27 | 319 | 405 | 3 | 727 |
| 80 – 84 | 17 | 11 | 28 | 197 | 252 | 1 | 450 |
| 85 & Older | 12 | 6 | 18 | 119 | 165 | 1 | 285 |
| Not Stated | 0 | 0 | 0 | 527 | 794 | 563 | 1,884 |
| Total | 405 | 220 | 625 | 21,259 | 22,760 | 721 | 44,740 |

## FIGURE 1.01

### Age and Gender of Persons Killed or Injured, 2000

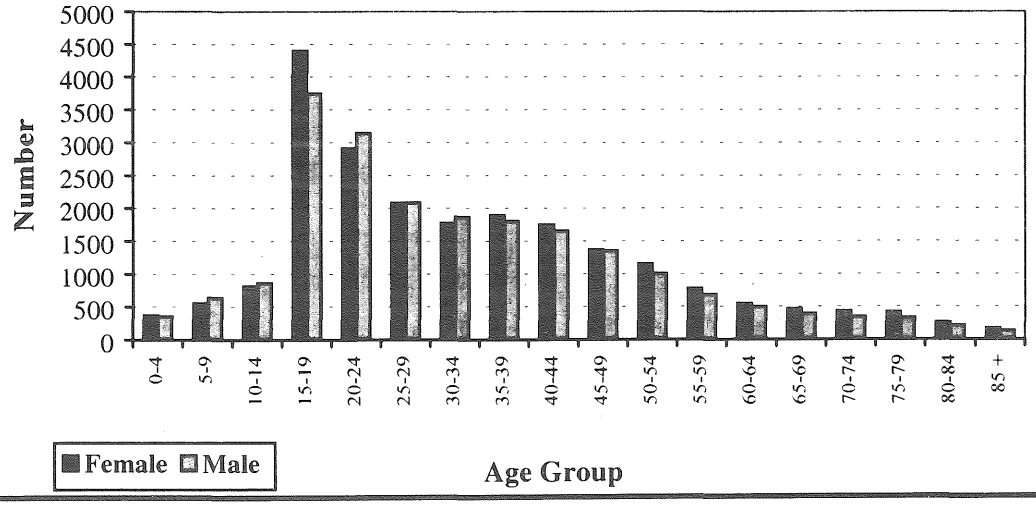


*TABLE 1.05*

## DRIVERS IN 2000 CRASHES BY PHYSICAL CONDITION*

| Physical Condition | Drivers in Fatal Crashes | Drivers in Injury Crashes | Drivers in Property Damage Crashes | Drivers in All Crashes |
|---|---|---|---|---|
| Normal | 452 | 45,968 | 88,863 | 135,283 |
| Under the Influence | 74 | 1,780 | 1,710 | 3,564 |
| Had Been Drinking | 58 | 1,062 | 966 | 2,086 |
| Had Been Using Drugs | 4 | 68 | 45 | 117 |
| Asleep | 5 | 295 | 313 | 613 |
| Fatigued | 2 | 131 | 151 | 284 |
| Ill | 3 | 152 | 105 | 260 |
| Other | 18 | 304 | 247 | 569 |
| Unknown | 273 | 5,639 | 31,857 | 37,769 |
| Total | 889 | 55,399 | 124,257 | 180,545 |

* 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 1.06*

## PERCENTAGE OF DRIVERS IN 2000 CRASHES BY AGE AND FIRST HARMFUL EVENT

| First Harmful Event | Drivers 15-19 | Drivers 20-24 | Drivers 25-29 | Drivers 30-34 | Drivers 35-64 | Drivers 65-79 | Drivers 80 & Older |
|---|---|---|---|---|---|---|---|
| **Collision With:** | | | | | | | |
| Other Motor Vehicle | 77.0 | 78.5 | 81.2 | 82.5 | 82.8 | 85.7 | 84.8 |
| Parked Motor Vehicle | 3.0 | 2.4 | 2.4 | 2.1 | 1.8 | 2.1 | 4.5 |
| Railroad Train | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 |
| Bicycle | 0.4 | 0.5 | 0.5 | 0.5 | 0.7 | 0.7 | 0.9 |
| Pedestrian | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Deer | 1.9 | 2.5 | 2.6 | 2.9 | 4.0 | 3.0 | 1.0 |
| Other Animal | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 |
| Fixed Object | 9.7 | 9.4 | 7.6 | 6.9 | 5.4 | 4.8 | 5.3 |
| Other Object | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.1 |
| **Non-Collision:** | | | | | | | |
| Overturn | 5.4 | 3.8 | 3.1 | 2.5 | 2.4 | 1.2 | 1.1 |
| Other Non-Collision | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 |
| **Other or Unknown** | 1.5 | 1.6 | 1.4 | 1.3 | 1.5 | 1.3 | 1.5 |
| Total Percent | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Total Drivers | 28,006 | 25,411 | 18,980 | 17,814 | 69,938 | 9,362 | 2,666 |

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

*TABLE 1.07*

## AGE AND GENDER OF DRIVERS IN 2000 CRASHES

| | Drivers in Fatal Crashes | | | | Drivers in All Crashes | | | |
|---|---|---|---|---|---|---|---|---|
| Age Group | Male | Female | Not Stated | Total | Male | Female | Not Stated | Total |
| 14 & Younger | 1 | 0 | 0 | 1 | 124 | 63 | 0 | 187 |
| 15 - 19 | 75 | 45 | 0 | 120 | 15,913 | 11,926 | 167 | 28,006 |
| 20 - 24 | 87 | 37 | 0 | 124 | 15,099 | 10,112 | 200 | 25,411 |
| 25 - 29 | 70 | 24 | 0 | 94 | 11,485 | 7,368 | 127 | 18,980 |
| 30 - 34 | 56 | 21 | 0 | 77 | 10,552 | 7,126 | 136 | 17,814 |
| 35 - 39 | 58 | 24 | 0 | 82 | 10,553 | 7,355 | 131 | 18,039 |
| 40 - 44 | 63 | 23 | 0 | 86 | 9,669 | 6,708 | 125 | 16,502 |
| 45 - 49 | 52 | 18 | 0 | 70 | 7,900 | 5,281 | 104 | 13,285 |
| 50 - 54 | 52 | 15 | 0 | 67 | 6,243 | 4,039 | 69 | 10,351 |
| 55 - 59 | 27 | 10 | 0 | 37 | 4,223 | 2,679 | 53 | 6,955 |
| 60 - 64 | 17 | 11 | 0 | 28 | 2,995 | 1,764 | 47 | 4,806 |
| 65 - 69 | 14 | 5 | 1 | 20 | 2,204 | 1,356 | 14 | 3,574 |
| 70 - 74 | 17 | 7 | 0 | 24 | 1,888 | 1,208 | 22 | 3,118 |
| 75 - 79 | 13 | 8 | 0 | 21 | 1,557 | 1,101 | 12 | 2,670 |
| 80 - 84 | 16 | 6 | 0 | 22 | 931 | 731 | 9 | 1,671 |
| 85 & Older | 11 | 3 | 0 | 14 | 587 | 401 | 7 | 995 |
| Not Stated | 0 | 0 | 2 | 2 | 960 | 420 | 6,801 | 8,181 |
| Total | 629 | 257 | 3 | 889 | 102,883 | 69,638 | 8,024 | 180,545 |

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 1.08*

## LICENSED VS. CRASH-INVOLVED DRIVERS BY AGE, 2000

| Age Group | Percentage of All Licensed Drivers | Percentage of Drivers in Fatal Crashes | Injury Crashes | Property Damage Crashes | All Crashes |
|---|---|---|---|---|---|
| 14 & Younger | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| 15 - 19 | 7.7 | 13.5 | 16.2 | 15.2 | 15.5 |
| 20 - 24 | 9.0 | 14.0 | 14.4 | 13.9 | 14.1 |
| 25 - 29 | 8.5 | 10.6 | 10.8 | 10.4 | 10.5 |
| 30 - 34 | 9.5 | 8.7 | 10.1 | 9.8 | 9.9 |
| 35 - 39 | 10.7 | 9.2 | 10.2 | 9.9 | 10.0 |
| 40 - 44 | 11.1 | 9.7 | 9.3 | 9.1 | 9.1 |
| 45 - 49 | 9.9 | 7.9 | 7.5 | 7.3 | 7.4 |
| 50 - 54 | 8.4 | 7.5 | 5.7 | 5.7 | 5.7 |
| 55 - 59 | 6.1 | 4.2 | 3.8 | 3.9 | 3.9 |
| 60 - 64 | 4.8 | 3.2 | 2.7 | 2.6 | 2.7 |
| 65 - 69 | 4.0 | 2.2 | 2.0 | 2.0 | 2.0 |
| 70 - 74 | 3.7 | 2.7 | 1.8 | 1.7 | 1.7 |
| 75 - 79 | 3.1 | 2.4 | 1.6 | 1.4 | 1.5 |
| 80 - 84 | 2.1 | 2.5 | 1.0 | 0.9 | 0.9 |
| 85 & Older | 1.4 | 1.6 | 0.6 | 0.5 | 0.6 |
| Age Not Stated | 0.0 | 0.2 | 2.0 | 5.7 | 4.5 |
| Total Percent* | 100.0% | 100.0% | 100.0% | 100.0% | 100.0 |
| Total Number** | 3,649,444 | | | | |

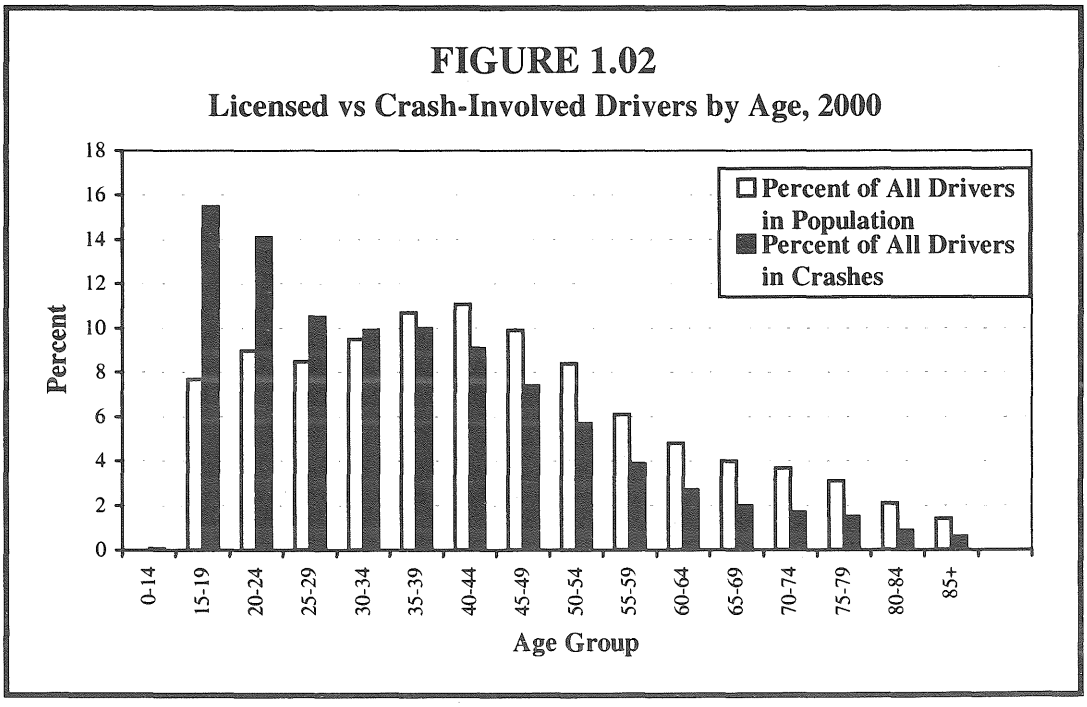


*TABLE 1.09*

## SINGLE-VEHICLE CRASHES:
## CONTRIBUTING FACTORS, BY PERCENT, WITHIN DRIVER AGE GROUPS, 2000

| Contributing Factors | Drivers 15-19 | Drivers 20-24 | Drivers 25-29 | Drivers 30-34 | Drivers 35-64 | Drivers 65-79 | Drivers 80 & Older |
|---|---|---|---|---|---|---|---|
| **Human Factors** | | | | | | | |
| Illegal/Unsafe Speed | 24.6 | 26.9 | 24.9 | 23.4 | 19.4 | 12.4 | 5.2 |
| Driver Inattention/Distraction | 17.1 | 17.2 | 17.9 | 18.7 | 19.3 | 22.7 | 28.2 |
| Physical Impairment | 4.7 | 11.5 | 11.6 | 10.1 | 9.6 | 10.6 | 9.6 |
| Driver Inexperience | 17.9 | 3.7 | 2.8 | 2.3 | 1.8 | 1.6 | 1.2 |
| Improper/Unsafe Lane Use | 2.9 | 3.9 | 3.4 | 4.0 | 3.8 | 3.9 | 7.3 |
| Failure to Yield Right of Way | 1.5 | 2.0 | 2.5 | 2.2 | 3.2 | 3.2 | 5.2 |
| Unsafe Backing | 1.3 | 1.1 | 0.9 | 1.6 | 1.6 | 2.2 | 5.2 |
| Vision Obscured | 1.6 | 1.1 | 1.3 | 1.5 | 2.2 | 3.0 | 4.7 |
| Driving Left of Center--Not Passing | 1.0 | 0.9 | 0.8 | 0.8 | 0.6 | 0.8 | 0.5 |
| Improper Turn | 0.8 | 1.5 | 1.0 | 0.9 | 1.3 | 1.7 | 2.1 |
| Improper Parking/Starting/Stopping | 0.4 | 0.4 | 0.6 | 0.8 | 0.6 | 1.5 | 3.1 |
| Disregard for Traffic Control Device | 0.5 | 0.8 | 0.9 | 0.7 | 0.8 | 0.6 | 1.2 |
| Improper Passing/Overtaking | 0.4 | 0.5 | 0.5 | 0.4 | 0.5 | 0.9 | 1.2 |
| Following Too Closely | 0.3 | 0.6 | 0.7 | 0.6 | 0.5 | 0.8 | 0.2 |
| Failure to Use Lights | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 |
| Driver on CB Radio or Cell Phone | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 |
| Impeding Traffic | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 |
| Other Human Factors | 2.2 | 3.0 | 2.8 | 2.3 | 3.3 | 6.3 | 7.8 |
| **Vehicular Factors** | | | | | | | |
| Skidding | 8.8 | 7.0 | 8.4 | 8.4 | 8.2 | 6.8 | 3.5 |
| Defective Equipment | 0.9 | 1.2 | 1.5 | 1.6 | 1.8 | 1.7 | 0.7 |
| Other Vehicular Factor | 0.6 | 0.8 | 1.1 | 1.2 | 1.6 | 1.4 | 1.2 |
| **Miscellaneous Factors** | | | | | | | |
| Weather | 8.5 | 11.5 | 11.3 | 13.5 | 13.9 | 12.8 | 7.5 |
| Other | 3.9 | 4.3 | 4.7 | 4.8 | 5.9 | 5.1 | 4.2 |
| Total Percent | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Total Contributing Factors Cited | 7,886 | 5,952 | 3,508 | 2,880 | 9,083 | 1,022 | 425 |
| Drivers for Whom There Was "No Clear Contributing Factor" | 806 | 855 | 704 | 661 | 3,098 | 311 | 48 |
| Total Number of Drivers | 6,067 | 4,998 | 3,236 | 2,789 | 10,640 | 1,208 | 367 |

Percentages are based on all contributing factors cited within each age group. 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, 2000

| Contributing Factors | Drivers 15-19 | Drivers 20-24 | Drivers 25-29 | Drivers 30-34 | Drivers 35-64 | Drivers 65-79 | Drivers 80 & Older |
|---|---|---|---|---|---|---|---|
| **Human Factors** | | | | | | | |
| Driver Inattention or Distraction | 25.6 | 26.9 | 26.2 | 26.1 | 25.6 | 25.6 | 25.2 |
| Failure to Yield Right of Way | 19.0 | 16.1 | 16.6 | 16.4 | 18.4 | 29.7 | 36.5 |
| Following Too Closely | 10.2 | 12.4 | 12.3 | 12.2 | 10.5 | 5.7 | 4.3 |
| Illegal or Unsafe Speed | 9.3 | 10.8 | 10.3 | 10.1 | 7.8 | 3.2 | 2.4 |
| Disregard of Traffic Control Device | 3.8 | 4.7 | 5.1 | 4.4 | 4.5 | 5.8 | 6.3 |
| Improper or Unsafe Lane Use | 3.4 | 4.5 | 4.4 | 4.8 | 4.9 | 5.3 | 4.6 |
| Vision Obscured | 2.8 | 2.2 | 2.6 | 2.6 | 3.0 | 3.4 | 3.5 |
| Improper Turn | 2.2 | 2.3 | 2.2 | 2.3 | 2.7 | 4.0 | 4.0 |
| Driver Inexperience | 7.8 | 1.6 | 1.0 | 0.7 | 0.4 | 0.1 | 0.1 |
| Physical Impairment | 0.6 | 1.7 | 2.2 | 2.0 | 2.2 | 1.6 | 1.6 |
| Improper Passing or Overtaking | 1.3 | 1.8 | 1.6 | 1.5 | 1.6 | 1.6 | 1.1 |
| Improper Parking, Starting, or Stopping | 1.1 | 1.1 | 1.2 | 1.1 | 1.4 | 1.6 | 1.4 |
| Unsafe Backing | 0.8 | 0.8 | 1.1 | 1.3 | 1.4 | 1.7 | 0.8 |
| Driving Left of Center (Not Passing) | 0.8 | 0.8 | 0.7 | 0.6 | 0.8 | 0.8 | 1.0 |
| Improper or No Signal | 0.3 | 0.2 | 0.4 | 0.3 | 0.5 | 0.5 | 0.2 |
| Impeding Traffic | 0.2 | 0.1 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |
| Failure to Use Lights | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Driver on Cell Phone or CB Radio | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.0 |
| Other Human Factors | 0.7 | 0.7 | 0.9 | 1.0 | 1.0 | 1.1 | 1.8 |
| **Vehicular Factors** | | | | | | | |
| Skidding | 3.2 | 3.3 | 2.8 | 3.5 | 3.2 | 1.5 | 1.0 |
| Defective Equipment | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.4 | 0.4 |
| Other Vehicular Factor | 0.3 | 0.2 | 0.2 | 0.4 | 0.4 | 0.3 | 0.3 |
| **Miscellaneous Factors** | | | | | | | |
| Weather | 4.1 | 4.3 | 4.5 | 5.0 | 5.1 | 3.1 | 1.3 |
| Other | 1.7 | 2.3 | 2.5 | 2.8 | 3.3 | 2.3 | 1.7 |
| Total Percent | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| Total Contributing Factors Cited | 19,933 | 15,076 | 9,835 | 8,683 | 31,981 | 5,563 | 2,020 |
| Drivers for Whom There Was "No Clear Contributing Factor" | 6,436 | 7,244 | 6,532 | 6,619 | 27,585 | 3,030 | 598 |
| Total Number of Drivers | 21,893 | 20,349 | 15,663 | 14,943 | 59,011 | 8,129 | 2,289 |

Percentages are based on all contributing factors cited within each age group. 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, 2000

| Vehicle Type | Killed | Injured | | | | Not Injured | Total Persons |
|---|---|---|---|---|---|---|---|
| | | Severe | Moder-ate | Minor | Total | | |
| Automobile | 383 | 1,796 | 10,366 | 17,891 | 30,053 | 142,521 | 172,957 |
| Pickup Truck | 90 | 452 | 2,117 | 3,018 | 5,587 | 34,038 | 39,715 |
| Van | 40 | 246 | 1,292 | 2,429 | 3,967 | 23,221 | 27,228 |
| Motorhome/Camper | 0 | 1 | 12 | 14 | 27 | 258 | 285 |
| Taxicab | 0 | 0 | 13 | 63 | 76 | 520 | 596 |
| Police Vehicle | 0 | 2 | 49 | 66 | 117 | 492 | 609 |
| Fire Department Vehicle | 0 | 0 | 3 | 0 | 3 | 142 | 145 |
| School Bus | 0 | 2 | 44 | 141 | 187 | 8,278 | 8,465 |
| Other Bus | 0 | 1 | 30 | 63 | 94 | 3,023 | 3,117 |
| Ambulance | 0 | 1 | 4 | 15 | 20 | 124 | 144 |
| Military Vehicle | 0 | 0 | 4 | 4 | 8 | 35 | 43 |
| Snowmobile | 5 | 10 | 20 | 19 | 49 | 54 | 108 |
| All Terrain Vehicle | 5 | 16 | 26 | 9 | 51 | 13 | 69 |
| Farm Tractor or Equipment | 2 | 3 | 9 | 8 | 20 | 150 | 172 |
| Motorcycle* | 35 | 221 | 521 | 297 | 1,039 | 224 | 1,298 |
| Motorscooter/Motorbike* | 2 | 6 | 10 | 1 | 17 | 3 | 22 |
| Motorized Bicycle (Moped)* | 0 | 4 | 6 | 3 | 13 | 2 | 15 |
| Hit and Run Vehicle | 0 | 13 | 77 | 94 | 184 | 8,886 | 9,070 |
| Road Maintenance Vehicle | 0 | 0 | 2 | 7 | 9 | 197 | 206 |
| Single Truck (2-axle, 6-tire) | 0 | 8 | 40 | 67 | 115 | 1,447 | 1,562 |
| Single Truck (3 or more axles) | 0 | 3 | 26 | 35 | 64 | 598 | 662 |
| Single Truck with Trailer | 0 | 2 | 14 | 21 | 37 | 505 | 542 |
| Truck Tractor with No Trailer | 0 | 0 | 3 | 8 | 11 | 105 | 116 |
| Truck Tractor with Semi Trailer | 6 | 14 | 67 | 109 | 190 | 2,880 | 3,076 |
| Truck Tractor with Double Trailers | 0 | 0 | 2 | 0 | 2 | 44 | 46 |
| Other or Unknown Truck Type | 1 | 0 | 2 | 6 | 8 | 236 | 245 |
| Other or Unknown Motor Vehicle | 1 | 31 | 142 | 270 | 443 | 3,809 | 4,253 |
| Bicycle | 14 | 97 | 533 | 450 | 1,080 | 70 | 1,164 |
| Pedestrian | 41 | 245 | 469 | 555 | 1,269 | 2 | 1,312 |
| Total | 625 | 3,174 | 15,903 | 25,663 | 44,740 | 231,877 | 277,242 |

* 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, 1991 - 2000

| Age | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 15,075 | 16,626 | 18,047 | 16,031 | 20,660 | 24,783 | 27,514 | 24,610 | 24,944 | 28,479 |
| 16 | 43,708 | 45,744 | 47,600 | 48,754 | 52,205 | 54,657 | 55,564 | 50,028 | 52,576 | 55,792 |
| 17 | 51,161 | 50,796 | 51,688 | 54,960 | 57,426 | 60,864 | 61,052 | 60,389 | 59,336 | 60,724 |
| 18 | 51,293 | 54,442 | 53,894 | 55,472 | 58,307 | 61,788 | 63,711 | 64,337 | 60,177 | 65,830 |
| 19 | 53,876 | 53,307 | 55,417 | 55,793 | 57,139 | 61,058 | 63,460 | 66,023 | 67,779 | 68,697 |
| 20 | 57,902 | 54,591 | 53,645 | 56,765 | 56,902 | 58,964 | 61,875 | 64,484 | 67,816 | 69,306 |
| Under 21 | 273,015 | 275,506 | 280,291 | 287,775 | 302,639 | 322,114 | 333,176 | 329,871 | 332,629 | 348,828 |
| 15 – 19 | 215,113 | 220,915 | 226,646 | 231,010 | 245,737 | 263,150 | 271,301 | 265,387 | 264,812 | 279,522 |
| 20 – 24 | 312,463 | 307,139 | 297,918 | 290,752 | 283,027 | 284,532 | 291,004 | 302,019 | 316,452 | 327,545 |
| 25 – 29 | 357,464 | 345,255 | 336,007 | 330,676 | 331,259 | 330,844 | 325,020 | 318,360 | 316,642 | 310,399 |
| 30 – 34 | 402,273 | 404,717 | 401,155 | 393,253 | 381,403 | 368,340 | 356,278 | 347,382 | 346,159 | 347,932 |
| 35 – 39 | 371,856 | 383,109 | 386,805 | 396,206 | 402,366 | 407,794 | 407,334 | 405,914 | 401,755 | 391,515 |
| 40 – 44 | 324,986 | 335,328 | 342,988 | 355,845 | 364,629 | 373,405 | 381,214 | 389,126 | 398,519 | 405,043 |
| 45 – 49 | 252,944 | 266,872 | 276,715 | 296,176 | 313,384 | 323,114 | 330,259 | 340,673 | 352,585 | 362,105 |
| 50 – 54 | 197,122 | 210,453 | 216,632 | 225,468 | 230,114 | 248,979 | 260,406 | 273,059 | 290,428 | 306,566 |
| 55 – 59 | 165,779 | 169,769 | 173,423 | 178,920 | 183,763 | 191,853 | 201,963 | 210,483 | 218,555 | 222,828 |
| 60 – 64 | 158,552 | 157,248 | 156,044 | 156,192 | 156,652 | 158,537 | 160,789 | 165,519 | 170,263 | 174,735 |
| 65 – 69 | 148,934 | 149,867 | 149,118 | 148,961 | 149,004 | 148,228 | 146,590 | 144,903 | 145,284 | 145,334 |
| 70 – 74 | 126,115 | 128,653 | 128,828 | 132,442 | 132,842 | 134,127 | 133,750 | 134,081 | 134,225 | 133,774 |
| 75 – 79 | 96,235 | 98,605 | 98,970 | 101,494 | 103,558 | 107,144 | 107,838 | 108,977 | 111,888 | 112,404 |
| 80 – 84 | 58,863 | 60,829 | 60,181 | 65,022 | 68,506 | 71,501 | 71,267 | 73,848 | 76,147 | 76,888 |
| 85 & Older | 34,455 | 35,198 | 32,723 | 38,158 | 42,107 | 44,957 | 42,757 | 46,310 | 51,903 | 52,854 |
| Total | 3,223,154 | 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 |

* 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, 1991 - 2000

| Type of Vehicle* | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Passenger Cars | 2,638,572 | 2,670,885 | 2,615,602 | 2,728,963 | 2,709,986 | 2,707168 | 2,724,529 | 2,798,548 | 2,774,170 | 2,957,883 |
| Pickups | 520,339 | 525,205 | 511,677 | 584,044 | 615,068 | 640,308 | 674,547 | 723,543 | 747,650 | 821,148 |
| Trucks | 139,263 | 141,144 | 144,367 | 145,413 | 151,188 | 156,511 | 159,939 | 165,491 | 172,487 | 182,469 |
| Recreational Vehicles | 35,515 | 36,290 | 36,826 | 37,049 | 37,775 | 37,683 | 37,731 | 39,034 | 39,569 | 39,827 |
| Motorcycles | 117,492 | 116,124 | 114,548 | 113,337 | 113,981 | 112,551 | 113,443 | 118,275 | 122,676 | 132,352 |
| Motorized Bicycles | 8,703 | 7,947 | 7,304 | 6,752 | 6,441 | 6,088 | 5,784 | 5,643 | 5,656 | 5,819 |
| School Buses | 5,109 | 5,058 | 5,052 | 5,168 | 5,319 | 5,474 | 5,788 | 5,887 | 6,012 | 6,017 |
| Buses | 3,822 | 3,804 | 4,039 | 4,103 | 4,282 | 4,145 | 4,260 | 4,648 | 4,860 | 5,018 |
| Van Pool | 264 | 256 | 319 | 300 | 295 | 289 | 291 | 287 | 315 | 260 |
| Tax Exempt Vehicles | 39,727 | 38,829 | 40,773 | 40,263 | 40,511 | 31,648 | 43,533 | 42,978 | 45,476 | 45,233 |
| Motor Vehicle Subtotal | 3,508,806 | 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 |
| Trailers | 754,942 | 830,527 | 807,187 | 894,909 | 849,482 | 956,629 | 897,794 | 1,028,612 | 1,000,730 | 1,122,330 |
| Classic Motor Vehicles | 75,867 | 80,835 | 85,893 | 91,011 | 95,775 | 100,703 | 105,659 | 111,492 | 116,863 | 121,934 |
| Classic Motorcycles | 1,080 | 1,281 | 1,512 | 1,764 | 2,064 | 2,327 | 2,595 | 2,966 | 3,314 | 3,666 |
| Total Registrations | 4,340,695 | 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 |

* 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 2000 CRASHES

| Motor Vehicle Type* | Vehicles in Fatal Crashes | Vehicles in Injury Crashes | Vehicles in Property Damage Crashes | Vehicles in All Crashes |
|---|---|---|---|---|
| Automobile | 508 | 37,530 | 85,404 | 123,442 |
| Pickup Truck | 172 | 8,832 | 21,346 | 30,350 |
| Van | 65 | 4,957 | 10,809 | 15,831 |
| Motorhome/Camper | 3 | 26 | 97 | 126 |
| Taxicab | 0 | 95 | 281 | 376 |
| Police Vehicle | 2 | 150 | 371 | 523 |
| Fire Department Vehicle | 0 | 12 | 47 | 59 |
| School Bus | 3 | 207 | 693 | 903 |
| Other Bus | 5 | 104 | 288 | 397 |
| Ambulance | 1 | 23 | 43 | 67 |
| Military Vehicle | 0 | 11 | 24 | 35 |
| Snowmobile** | 7 | 54 | 38 | 99 |
| All Terrain Vehicle** | 5 | 47 | 9 | 61 |
| Farm Tractor or Equipment | 6 | 57 | 99 | 162 |
| Motorcycle* | 36 | 963 | 167 | 1,166 |
| Motorscooter/Motorbike* | 2 | 17 | 1 | 20 |
| Motorized Bicycle (Moped)* | 0 | 14 | 0 | 14 |
| Hit and Run Vehicle | 4 | 1,139 | 6,500 | 7,643 |
| Road Maintenance Vehicle | 0 | 46 | 155 | 201 |
| Single Truck (2-axle, 6-tire) | 13 | 363 | 918 | 1,294 |
| Single Truck (3 or more axles) | 8 | 209 | 406 | 623 |
| Single Truck with Trailer | 1 | 99 | 316 | 416 |
| Truck Tractor with No Trailer | 1 | 33 | 72 | 106 |
| Truck Tractor with Semi Trailer | 50 | 694 | 2,107 | 2,851 |
| Truck Tractor with Double Trailers | 0 | 7 | 34 | 41 |
| Other or Unknown Truck Type | 4 | 38 | 173 | 215 |
| Other or Unknown Motor Vehicle | 6 | 749 | 1,765 | 2,520 |
| Total*** | 902 | 56,476 | 132,163 | 189,541 |

* 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*

## 2000 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 | 278 | 20,516 | 47,965 | 68,759 | 338 | 31,942 | 4.9 |
| Parked Motor Vehicle | 3 | 574 | 5,657 | 6,234 | 3 | 726 | 0.5 |
| Railroad Train | 3 | 32 | 44 | 79 | 4 | 43 | 50.6 |
| Bicycle | 13 | 1,020 | 54 | 1,087 | 13 | 1,052 | 12.0 |
| Pedestrian | 36 | 1,141 | 1 | 1,178 | 37 | 1,197 | 31.4 |
| Deer | 2 | 388 | 4,919 | 5,309 | 2 | 453 | 0.4 |
| Other Animal | 0 | 85 | 298 | 383 | 0 | 111 | 0.0 |
| Fixed Object | 124 | 3,637 | 8,766 | 12,527 | 128 | 4,688 | 10.2 |
| Other Object | 0 | 43 | 207 | 250 | 0 | 53 | 0.0 |
| **Non-Collision:** | | | | | | | |
| Overturn | 90 | 2,729 | 2,538 | 5,357 | 92 | 3,662 | 17.2 |
| Fire/Explosion | 0 | 7 | 262 | 269 | 0 | 7 | 0.0 |
| Submersion | 0 | 17 | 48 | 65 | 0 | 19 | 0.0 |
| **Other or Unknown** | 8 | 641 | 1,445 | 2,094 | 8 | 787 | 3.8 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 | 6.0 |

*TABLE 1.16*

## 2000 "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 | 713 | 2,900 | 3,614 | 1 | 936 |
| Parked Motor Vehicle | 0 | 55 | 2,677 | 2,732 | 0 | 59 |
| Railroad Train | 0 | 1 | 1 | 2 | 0 | 2 |
| Bicycle | 0 | 110 | 9 | 119 | 0 | 114 |
| Pedestrian | 3 | 162 | 0 | 165 | 3 | 166 |
| Deer | 0 | 0 | 2 | 2 | 0 | 0 |
| Other Animal | 0 | 0 | 4 | 4 | 0 | 0 |
| Fixed Object | 0 | 63 | 728 | 791 | 0 | 80 |
| Other Object | 0 | 3 | 5 | 8 | 0 | 6 |
| **Non-Collision:** | | | | | | |
| Overturn | 0 | 6 | 40 | 46 | 0 | 11 |
| Fire/Explosion | 0 | 0 | 5 | 5 | 0 | 0 |
| **Other or Unknown** | 0 | 18 | 90 | 108 | 0 | 26 |
| Total | 4 | 1,131 | 6,461 | 7,596 | 4 | 1,400 |

*TABLE 1.17*

## 2000 CRASHES BY TRAFFIC CONTROL DEVICE

| Traffic Control Device | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Not Applicable | 407 | 16,947 | 40,449 | 57,803 | 441 | 24,042 |
| Traffic Signal | 42 | 7,184 | 13,339 | 20,565 | 44 | 10,456 |
| Overhead Flashers | 2 | 101 | 183 | 286 | 2 | 179 |
| Stop Sign-All Approaches | 2 | 530 | 1,354 | 1,886 | 2 | 742 |
| Other Stop Sign | 73 | 4,196 | 7,486 | 11,755 | 101 | 6,690 |
| Yield Sign | 7 | 482 | 1,018 | 1,507 | 9 | 751 |
| Flagman, Officer, or School Patrol | 1 | 53 | 78 | 132 | 1 | 80 |
| School Bus Stop Arm | 0 | 26 | 34 | 60 | 0 | 44 |
| School Zone Sign | 0 | 10 | 18 | 28 | 0 | 14 |
| No Passing Zone | 12 | 185 | 281 | 478 | 13 | 291 |
| RR Crossing Gate | 0 | 13 | 50 | 63 | 0 | 21 |
| RR Flashing Lights | 0 | 9 | 26 | 35 | 0 | 15 |
| RR Crossing Stop Sign | 2 | 9 | 16 | 27 | 3 | 11 |
| RR Other | 0 | 28 | 37 | 65 | 0 | 33 |
| Other | 4 | 311 | 1,783 | 2,098 | 4 | 439 |
| Unknown | 5 | 746 | 6,052 | 6,803 | 5 | 932 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

*TABLE 1.18*

## 2000 CRASHES BY WEATHER CONDITION

| Weather Condition | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Clear | 286 | 16,758 | 36,882 | 53,926 | 322 | 24,316 |
| Cloudy | 167 | 8,193 | 18,153 | 26,513 | 190 | 12,077 |
| Rain | 32 | 2,003 | 4,413 | 6,448 | 36 | 2,958 |
| Snow | 33 | 2,359 | 7,611 | 10,003 | 34 | 3,252 |
| Sleet/Hail/Freezing Rain | 2 | 338 | 722 | 1,062 | 2 | 496 |
| Fog/Smog/Smoke | 13 | 348 | 609 | 970 | 15 | 509 |
| Blowing Sand/Dust | 10 | 291 | 872 | 1,173 | 11 | 441 |
| Severe Crosswinds | 0 | 29 | 67 | 96 | 0 | 40 |
| Other | 1 | 61 | 176 | 238 | 1 | 83 |
| Not Stated/Unknown | 13 | 450 | 2,699 | 3,162 | 14 | 568 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

*TABLE 1.19*

## CONTRIBUTING FACTORS IN 2000 CRASHES

| Contributing Factors | Percent of Factors Cited in Crashes by Severity of Crash: Fatal Crashes | Injury Crashes | Property Damage Crashes | Number of Crashes in which the Factor was Cited: Fatal Crashes | Injury Crashes | Property Damage Crashes | Number of People Affected: Killed | Injured |
|---|---|---|---|---|---|---|---|---|
| **Human Factors** | | | | | | | | |
| Driver Inattention/Distraction | 13.8 | 23.8 | 23.4 | 131 | 10,549 | 18,889 | 152 | 15,729 |
| Failure to Yield Right of Way | 11.0 | 16.5 | 13.4 | 105 | 7,435 | 11,037 | 126 | 11,815 |
| Illegal/Unsafe Speed | 17.0 | 11.9 | 12.2 | 158 | 5,336 | 9,936 | 175 | 8,049 |
| Following Too Closely | 0.6 | 6.7 | 8.7 | 5 | 2,806 | 6,752 | 6 | 3,944 |
| Improper/Unsafe Lane Use | 3.9 | 3.3 | 5.5 | 38 | 1,498 | 4,508 | 40 | 2,251 |
| Disregard Traf Contr Device | 3.7 | 5.1 | 2.9 | 36 | 2,342 | 2,430 | 46 | 3,841 |
| Physical Impairment | 12.5 | 5.2 | 2.3 | 118 | 2,351 | 1,960 | 132 | 3,467 |
| Driver Inexperience | 2.3 | 3.6 | 3.1 | 22 | 1,619 | 2,559 | 22 | 2,501 |
| Vision Obscured | 1.8 | 2.6 | 2.3 | 15 | 1,103 | 1,801 | 17 | 1,590 |
| Improper Turn | 1.1 | 1.8 | 2.5 | 11 | 839 | 2,108 | 11 | 1,283 |
| Improper Passing/Overtaking | 1.6 | 0.9 | 1.6 | 15 | 419 | 1,364 | 17 | 665 |
| Unsafe Backing | 0.2 | 0.4 | 1.9 | 2 | 168 | 1,550 | 2 | 221 |
| Improper Park/Start/Stop | 0.2 | 1.1 | 1.4 | 2 | 494 | 1,132 | 3 | 719 |
| Driving Left of Center (Not Passing) | 7.0 | 1.0 | 0.7 | 67 | 448 | 592 | 82 | 838 |
| Pedestrian Violation or Error | 1.8 | 0.8 | 0.0 | 17 | 375 | 0 | 18 | 391 |
| Improper or No Signal | 0.1 | 0.2 | 0.4 | 1 | 92 | 292 | 1 | 134 |
| Impeding Traffic | 0.0 | 0.2 | 0.2 | 0 | 93 | 185 | 0 | 148 |
| Failure to Use Lights | 0.0 | 0.2 | 0.1 | 0 | 71 | 69 | 0 | 111 |
| Driver on CB/Cell Phone | 0.2 | 0.2 | 0.1 | 2 | 68 | 110 | 3 | 101 |
| Other Human Factor | 1.4 | 1.7 | 1.3 | 14 | 764 | 1,018 | 16 | 999 |
| **Vehicular Factors** | | | | | | | | |
| Skidding | 5.1 | 3.7 | 4.3 | 45 | 1,593 | 3,438 | 46 | 2,220 |
| Defective Equipment | 0.8 | 0.8 | 0.8 | 8 | 375 | 708 | 8 | 555 |
| Other Vehicular Factor | 0.5 | 0.4 | 0.6 | 5 | 168 | 483 | 6 | 239 |
| **Miscellaneous Factors** | | | | | | | | |
| Weather | 5.3 | 4.9 | 6.6 | 42 | 1,920 | 4,760 | 44 | 2,703 |
| Other | 7.9 | 3.2 | 3.8 | 59 | 1,262 | 2,640 | 64 | 1,806 |
| Total Percent | 100.0% | 100.0% | 100.0% | | | | | |
| Total Contributing Factors | 973 | 46,407 | 84,704 | | | | | |
| Vehicles Where There Was "No Clear Contributing Factor" | 332 | 23,439 | 47,661 | | | | | |
| Total Number of Vehicles | 960 | 58,815 | 132,222 | | | | | |

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*

## 2000 CRASHES BY LIGHT CONDITION

| Light Condition | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Daylight | 294 | 20,580 | 44,824 | 65,698 | 332 | 29,964 |
| Dawn/Dusk | 37 | 2,037 | 5,326 | 7,400 | 39 | 2,891 |
| Dark/Street Lights On | 66 | 4,788 | 11,785 | 16,639 | 71 | 6,986 |
| Dark/No Street Lights | 149 | 2,896 | 6,996 | 10,041 | 172 | 4,197 |
| Other/Unknown | 11 | 529 | 3,273 | 3,813 | 11 | 702 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

*TABLE 1.21*

## 2000 CRASHES BY ROAD SURFACE CONDITION

| Road Surface Condition | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Dry | 404 | 20,287 | 42,125 | 62,816 | 453 | 29,871 |
| Wet | 61 | 4,605 | 10,269 | 14,935 | 71 | 6,727 |
| Snow/Slush | 22 | 1,826 | 5,891 | 7,739 | 24 | 2,502 |
| Ice or Packed Snow | 55 | 3,451 | 11,236 | 14,742 | 61 | 4,731 |
| Other | 10 | 377 | 649 | 1,036 | 11 | 562 |
| Not Stated/Unknown | 5 | 284 | 2,034 | 2,323 | 5 | 347 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

*TABLE 1.22*

## 2000 CRASHES BY ROAD DESIGN

| Road Design | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Freeway (Including Ramps) | 53 | 3,500 | 10,899 | 14,452 | 56 | 4,874 |
| Other Divided Highway | 64 | 4,565 | 7,992 | 12,621 | 75 | 6,956 |
| One-Way Street | 5 | 912 | 1,451 | 2,368 | 5 | 1,276 |
| 4-6 Lanes Undivided | 42 | 5,878 | 9,697 | 15,617 | 45 | 8,581 |
| 3 Lanes | 3 | 322 | 611 | 936 | 4 | 480 |
| 2-Lane--2-Way | 378 | 13,189 | 26,568 | 40,135 | 428 | 19,408 |
| Alley/Driveway | 0 | 172 | 578 | 750 | 0 | 191 |
| Other | 8 | 613 | 1,132 | 1,753 | 8 | 856 |
| Not Stated/Unknown | 4 | 1,679 | 13,276 | 14,959 | 4 | 2,118 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

*TABLE 1.23*

## 2000 CRASHES BY DIAGRAM

| Diagram | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Rear End | 29 | 7,792 | 15,546 | 23,367 | 33 | 11,350 |
| Sideswipe Passing | 6 | 860 | 5,761 | 6,627 | 7 | 1,157 |
| Left Turn -- Oncoming Traffic | 21 | 1,976 | 3,048 | 5,045 | 22 | 3,204 |
| Ran Off Road - Left | 79 | 2,176 | 3,292 | 5,547 | 82 | 2,913 |
| Right Angle | 94 | 7,328 | 10,988 | 18,410 | 125 | 11,590 |
| Right Turn -- Cross Street Traffic | 0 | 158 | 404 | 562 | 0 | 226 |
| Ran Off Road - Right | 119 | 2,893 | 4,900 | 7,912 | 122 | 3,784 |
| Head On | 110 | 1,158 | 1,613 | 2,881 | 130 | 2,074 |
| Sideswipe Opposing | 11 | 398 | 1,040 | 1,449 | 12 | 608 |
| Other / Unknown / Incomplete | 88 | 6,091 | 25,612 | 31,791 | 92 | 7,834 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

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*

## 2000 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 | 39 | 6,468 | 17,994 | 24,501 | 41 | 9,029 |
| 50,000 - 99,999 | 25 | 3,277 | 6,459 | 9,761 | 30 | 4,608 |
| 25,000 - 49,999 | 29 | 4,548 | 10,577 | 15,154 | 31 | 6,414 |
| 10,000 - 24,999 | 42 | 4,727 | 11,535 | 16,304 | 46 | 6,848 |
| 5,000 - 9,999 | 25 | 2,098 | 4,795 | 6,918 | 28 | 3,029 |
| 2,500 - 4,999 | 11 | 1,142 | 2,837 | 3,990 | 11 | 1,643 |
| 1,000 - 2,499 | 8 | 772 | 2,042 | 2,822 | 8 | 1,116 |
| Under 1,000 | 378 | 7,798 | 15,965 | 24,141 | 430 | 12,053 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

*TABLE 1.25*

## 2000 CRASHES BY TYPE OF ROADWAY

| Type of Roadway | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| **Urban** | | | | | | |
| Interstate | 25 | 2,134 | 7,583 | 9,742 | 27 | 2,920 |
| Trunk Highway | 44 | 5,007 | 11,206 | 16,257 | 47 | 7,260 |
| County State Aid Highway | 49 | 6,417 | 12,636 | 19,102 | 55 | 9,332 |
| County Road | 1 | 191 | 389 | 581 | 1 | 282 |
| Local Street | 41 | 7,369 | 19,546 | 26,956 | 46 | 10,134 |
| Total | 160 | 21,118 | 51,360 | 72,638 | 176 | 29,928 |
| **Rural** | | | | | | |
| Interstate | 22 | 693 | 2,117 | 2,832 | 23 | 1,044 |
| Trunk Highway | 187 | 4,126 | 8,453 | 12,766 | 222 | 6,593 |
| County State Aid Highway | 134 | 2,910 | 5,348 | 8,392 | 148 | 4,375 |
| County Road | 22 | 435 | 788 | 1,245 | 22 | 656 |
| Township Road | 28 | 789 | 1,305 | 2,122 | 30 | 1,163 |
| Local Street | 3 | 502 | 1,823 | 2,328 | 3 | 660 |
| Other Road | 1 | 257 | 1,010 | 1,268 | 1 | 321 |
| Total | 397 | 9,712 | 20,844 | 30,953 | 449 | 14,812 |
| **All Roadways** | | | | | | |
| Interstate | 47 | 2,827 | 9,700 | 12,574 | 50 | 3,964 |
| Trunk Highway | 231 | 9,133 | 19,659 | 29,023 | 269 | 13,853 |
| County State Aid Highway | 183 | 9,327 | 17,984 | 27,494 | 203 | 13,707 |
| County Road | 23 | 626 | 1,177 | 1,826 | 23 | 938 |
| Township Road | 28 | 789 | 1,305 | 2,122 | 30 | 1,163 |
| Local Street | 44 | 7,871 | 21,369 | 29,284 | 49 | 10,794 |
| Other Road | 1 | 257 | 1,010 | 1,268 | 1 | 321 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,740 |

("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*

## 2000 COUNTY CRASH REPORT

| County | 2000 Crashes: Fatal Crashes | 2000 Crashes: Personal Injury Crashes | 2000 Crashes: Property Damage Crashes | 2000 Crashes: Total Crashes | Average Crashes 1995-1999 | Number Killed 2000 | Average Killed 1995-1999 | Number Injured 2000 | Average Injured 1995-1999 |
|---|---|---|---|---|---|---|---|---|---|
| Aitkin | 5 | 106 | 216 | 327 | 306 | 5 | 5 | 159 | 148 |
| Anoka | 23 | 1,745 | 3,187 | 4,955 | 4,824 | 23 | 24 | 2,612 | 2,697 |
| Becker | 10 | 149 | 209 | 368 | 395 | 11 | 9 | 235 | 232 |
| Beltrami | 7 | 227 | 613 | 847 | 777 | 8 | 8 | 359 | 336 |
| Benton | 6 | 201 | 412 | 619 | 683 | 8 | 10 | 296 | 388 |
| Big Stone | 1 | 22 | 63 | 86 | 96 | 1 | 1 | 26 | 36 |
| Blue Earth | 6 | 391 | 1,055 | 1,452 | 1,355 | 7 | 10 | 570 | 570 |
| Brown | 4 | 151 | 327 | 482 | 464 | 5 | 4 | 235 | 223 |
| Carlton | 6 | 154 | 302 | 462 | 432 | 6 | 6 | 233 | 227 |
| Carver | 11 | 357 | 834 | 1,202 | 1,086 | 11 | 11 | 520 | 537 |
| Cass | 17 | 197 | 269 | 483 | 447 | 18 | 8 | 323 | 264 |
| Chippewa | 1 | 69 | 106 | 176 | 201 | 1 | 4 | 116 | 119 |
| Chisago | 9 | 290 | 579 | 878 | 758 | 9 | 9 | 429 | 368 |
| Clay | 6 | 244 | 668 | 918 | 1,107 | 8 | 9 | 356 | 412 |
| Clearwater | 3 | 36 | 82 | 121 | 103 | 3 | 5 | 50 | 60 |
| Cook | 3 | 43 | 103 | 149 | 147 | 3 | 1 | 76 | 70 |
| Cottonwood | 1 | 50 | 108 | 159 | 170 | 1 | 3 | 78 | 95 |
| Crow Wing | 13 | 417 | 815 | 1,245 | 1,183 | 17 | 12 | 641 | 597 |
| Dakota | 29 | 1,779 | 4,218 | 6,026 | 5,262 | 35 | 24 | 2,552 | 2,538 |
| Dodge | 4 | 89 | 211 | 304 | 252 | 4 | 5 | 132 | 137 |
| Douglas | 6 | 220 | 681 | 907 | 873 | 6 | 5 | 351 | 358 |
| Faribault | 2 | 58 | 111 | 171 | 182 | 2 | 3 | 95 | 101 |
| Fillmore | 4 | 94 | 227 | 325 | 319 | 4 | 4 | 136 | 149 |
| Freeborn | 5 | 221 | 616 | 842 | 710 | 5 | 6 | 336 | 308 |
| Goodhue | 5 | 315 | 786 | 1,106 | 1,041 | 7 | 9 | 459 | 479 |
| Grant | 2 | 34 | 71 | 107 | 97 | 2 | 1 | 45 | 44 |
| Hennepin | 47 | 8,782 | 21,990 | 30,819 | 28,414 | 51 | 55 | 12,267 | 12,805 |
| Houston | 2 | 94 | 232 | 328 | 333 | 2 | 3 | 128 | 165 |
| Hubbard | 3 | 107 | 165 | 275 | 257 | 3 | 5 | 150 | 161 |
| Isanti | 4 | 184 | 408 | 596 | 571 | 4 | 5 | 275 | 302 |

*TABLE 1.26 CONTINUED*

## 2000 COUNTY CRASH REPORT

| County | 2000 Crashes: Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Average Crashes 1995-1999 | Number Killed 2000 | Average Killed 1995-1999 | Number Injured 2000 | Average Injured 1995-1999 |
|---|---|---|---|---|---|---|---|---|---|
| Itasca | 11 | 230 | 487 | 728 | 743 | 11 | 7 | 331 | 399 |
| Jackson | 3 | 69 | 130 | 202 | 201 | 3 | 3 | 110 | 97 |
| Kanabec | 7 | 86 | 167 | 260 | 238 | 7 | 4 | 158 | 139 |
| Kandiyohi | 6 | 243 | 510 | 759 | 843 | 7 | 9 | 368 | 497 |
| Kittson | 1 | 14 | 57 | 72 | 93 | 1 | 1 | 24 | 29 |
| Koochiching | 1 | 74 | 94 | 169 | 213 | 1 | 2 | 116 | 120 |
| Lac Qui Parle | 1 | 23 | 31 | 55 | 87 | 1 | 2 | 32 | 51 |
| Lake | 4 | 69 | 169 | 242 | 220 | 5 | 2 | 117 | 92 |
| Lake of The Woods | 1 | 16 | 47 | 64 | 52 | 1 | 3 | 24 | 25 |
| Le Sueur | 4 | 161 | 340 | 505 | 475 | 4 | 3 | 242 | 225 |
| Lincoln | 2 | 19 | 93 | 114 | 92 | 3 | 1 | 28 | 32 |
| Lyon | 3 | 136 | 287 | 426 | 448 | 3 | 6 | 206 | 214 |
| Mcleod | 3 | 195 | 424 | 622 | 655 | 3 | 9 | 285 | 333 |
| Mahnomen | 3 | 28 | 42 | 73 | 65 | 6 | 3 | 61 | 59 |
| Marshall | 2 | 36 | 46 | 84 | 101 | 2 | 2 | 50 | 53 |
| Martin | 2 | 107 | 223 | 332 | 383 | 2 | 5 | 163 | 177 |
| Meeker | 7 | 108 | 187 | 302 | 312 | 7 | 5 | 156 | 202 |
| Mille Lacs | 3 | 152 | 262 | 417 | 414 | 3 | 6 | 264 | 257 |
| Morrison | 11 | 167 | 322 | 500 | 508 | 13 | 9 | 275 | 275 |
| Mower | 7 | 192 | 558 | 757 | 654 | 7 | 6 | 274 | 265 |
| Murray | 1 | 36 | 97 | 134 | 120 | 1 | 2 | 56 | 53 |
| Nicollet | 1 | 127 | 370 | 498 | 456 | 1 | 3 | 181 | 191 |
| Nobles | 2 | 122 | 275 | 399 | 420 | 3 | 3 | 179 | 187 |
| Norman | 2 | 27 | 64 | 93 | 108 | 2 | 1 | 36 | 57 |
| Olmsted | 18 | 809 | 1,656 | 2,483 | 2,320 | 25 | 17 | 1,171 | 1,173 |
| Otter Tail | 15 | 276 | 671 | 962 | 915 | 18 | 10 | 416 | 472 |
| Pennington | 4 | 98 | 117 | 219 | 249 | 5 | 1 | 136 | 158 |
| Pine | 4 | 212 | 322 | 538 | 550 | 4 | 7 | 332 | 290 |
| Pipestone | 3 | 46 | 71 | 120 | 140 | 3 | 3 | 57 | 65 |
| Polk | 3 | 135 | 300 | 438 | 510 | 3 | 5 | 202 | 263 |

*TABLE 1.26 CONTINUED*

## 2000 COUNTY CRASH REPORT

| County | 2000 Crashes: Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Average Crashes 1995-1999 | Number Killed 2000 | Average Killed 1995-1999 | Number Injured 2000 | Average Injured 1995-1999 |
|---|---|---|---|---|---|---|---|---|---|
| Pope | 0 | 59 | 106 | 165 | 138 | 0 | 3 | 82 | 62 |
| Ramsey | 33 | 3,749 | 11,113 | 14,895 | 13,788 | 33 | 28 | 5,218 | 5,559 |
| Red Lake | 1 | 13 | 36 | 50 | 63 | 1 | 2 | 18 | 29 |
| Redwood | 3 | 72 | 124 | 199 | 225 | 3 | 5 | 119 | 141 |
| Renville | 7 | 87 | 127 | 221 | 240 | 11 | 4 | 142 | 128 |
| Rice | 18 | 406 | 770 | 1,194 | 1,062 | 20 | 7 | 623 | 527 |
| Rock | 1 | 48 | 187 | 236 | 236 | 4 | 2 | 75 | 99 |
| Roseau | 6 | 52 | 106 | 164 | 195 | 6 | 3 | 79 | 87 |
| St. Louis | 22 | 1,048 | 1,742 | 2,812 | 3,050 | 26 | 26 | 1,503 | 1,654 |
| Scott | 10 | 506 | 1,053 | 1,569 | 1,384 | 11 | 16 | 824 | 695 |
| Sherburne | 4 | 353 | 823 | 1,180 | 919 | 4 | 11 | 517 | 491 |
| Sibley | 6 | 66 | 164 | 236 | 237 | 9 | 3 | 95 | 108 |
| Stearns | 16 | 931 | 1,594 | 2,541 | 2,644 | 17 | 18 | 1,348 | 1,499 |
| Steele | 3 | 180 | 605 | 788 | 750 | 4 | 9 | 257 | 280 |
| Stevens | 0 | 37 | 80 | 117 | 135 | 0 | 1 | 48 | 62 |
| Swift | 1 | 36 | 60 | 97 | 127 | 1 | 2 | 44 | 67 |
| Todd | 5 | 116 | 297 | 418 | 401 | 6 | 5 | 181 | 182 |
| Traverse | 0 | 10 | 27 | 37 | 41 | 0 | 1 | 11 | 26 |
| Wabasha | 4 | 103 | 240 | 347 | 350 | 4 | 6 | 166 | 173 |
| Wadena | 3 | 69 | 144 | 216 | 253 | 3 | 3 | 99 | 128 |
| Waseca | 2 | 107 | 207 | 316 | 296 | 2 | 4 | 173 | 139 |
| Washington | 14 | 974 | 2,358 | 3,346 | 3,005 | 16 | 12 | 1,436 | 1,346 |
| Watonwan | 0 | 31 | 135 | 166 | 154 | 0 | 2 | 47 | 81 |
| Wilkin | 1 | 36 | 112 | 149 | 179 | 1 | 2 | 58 | 85 |
| Winona | 6 | 335 | 860 | 1,201 | 1,101 | 6 | 10 | 458 | 451 |
| Wright | 7 | 507 | 950 | 1,464 | 1,389 | 8 | 16 | 743 | 807 |
| Yellow Medicine | 4 | 60 | 101 | 165 | 149 | 4 | 3 | 86 | 82 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 97,944 | 625 | 610 | 44,740 | 46,368 |

*TABLE 1.27*

## 2000 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

| City | Crashes | | | | Persons | |
|---|---|---|---|---|---|---|
| | Fatal | Personal Injury | Property Damage | Total | Killed | Injured |
| Afton | 0 | 13 | 14 | 27 | 0 | 18 |
| Albert Lea | 1 | 119 | 320 | 440 | 1 | 177 |
| Albertville | 0 | 18 | 39 | 57 | 0 | 25 |
| Alexandria | 0 | 107 | 311 | 418 | 0 | 153 |
| Andover | 1 | 75 | 159 | 235 | 1 | 130 |
| Annandale | 0 | 6 | 22 | 28 | 0 | 10 |
| Anoka | 0 | 127 | 420 | 547 | 0 | 188 |
| Apple Valley | 4 | 198 | 321 | 523 | 5 | 279 |
| Arden Hills | 1 | 130 | 338 | 469 | 1 | 173 |
| Aurora | 0 | 5 | 15 | 20 | 0 | 8 |
| Austin | 2 | 112 | 334 | 448 | 2 | 155 |
| Baxter | 1 | 68 | 88 | 157 | 1 | 104 |
| Bayport | 0 | 4 | 33 | 37 | 0 | 5 |
| Becker | 0 | 16 | 19 | 35 | 0 | 31 |
| Belle Plaine | 0 | 13 | 50 | 63 | 0 | 25 |
| Bemidji | 1 | 104 | 314 | 419 | 1 | 145 |
| Benson | 0 | 9 | 24 | 33 | 0 | 11 |
| Big Lake | 1 | 25 | 54 | 80 | 1 | 36 |
| Blaine | 3 | 315 | 406 | 724 | 3 | 509 |
| Bloomington | 7 | 747 | 1,758 | 2,512 | 7 | 1,045 |
| Blue Earth | 0 | 9 | 16 | 25 | 0 | 15 |
| Brainerd | 0 | 160 | 404 | 564 | 0 | 216 |
| Breckenridge | 0 | 7 | 39 | 46 | 0 | 9 |
| Brooklyn Center | 5 | 271 | 590 | 866 | 6 | 368 |
| Brooklyn Park | 0 | 492 | 643 | 1,135 | 0 | 723 |
| Buffalo | 0 | 49 | 106 | 155 | 0 | 67 |
| Burnsville | 2 | 334 | 850 | 1,186 | 2 | 460 |
| Byron | 1 | 7 | 21 | 29 | 1 | 9 |
| Caledonia | 0 | 9 | 30 | 39 | 0 | 12 |
| Cambridge | 0 | 34 | 145 | 179 | 0 | 49 |
| Cannon Falls | 0 | 22 | 69 | 91 | 0 | 27 |
| Centerville | 0 | 3 | 15 | 18 | 0 | 5 |
| Champlin | 0 | 63 | 132 | 195 | 0 | 91 |
| Chanhassen | 0 | 122 | 289 | 411 | 0 | 176 |
| Chaska | 2 | 62 | 166 | 230 | 2 | 82 |
| Chisago City | 0 | 19 | 26 | 45 | 0 | 31 |
| Chisholm | 0 | 7 | 34 | 41 | 0 | 9 |
| Circle Pines | 0 | 19 | 41 | 60 | 0 | 29 |
| Cloquet | 1 | 63 | 80 | 144 | 1 | 95 |
| Cokato | 0 | 6 | 15 | 21 | 0 | 8 |
| Cold Spring | 0 | 10 | 39 | 49 | 0 | 15 |
| Columbia Heights | 1 | 88 | 195 | 284 | 1 | 113 |
| Coon Rapids | 5 | 462 | 799 | 1,266 | 5 | 685 |
| Corcoran | 0 | 26 | 43 | 69 | 0 | 39 |
| Cottage Grove | 0 | 82 | 258 | 340 | 0 | 116 |
| Crookston | 0 | 31 | 100 | 131 | 0 | 42 |

*TABLE 1.27*

## 2000 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

| City | Crashes | | | | Persons | |
|---|---|---|---|---|---|---|
| | Fatal | Personal Injury | Property Damage | Total | Killed | Injured |
| Crystal | 0 | 111 | 154 | 265 | 0 | 149 |
| Dayton | 0 | 16 | 39 | 55 | 0 | 29 |
| Deephaven | 0 | 5 | 20 | 25 | 0 | 7 |
| Delano | 0 | 12 | 23 | 35 | 0 | 19 |
| Detroit Lakes | 0 | 50 | 49 | 99 | 0 | 68 |
| Dilworth | 0 | 7 | 18 | 25 | 0 | 10 |
| Duluth | 1 | 409 | 524 | 934 | 1 | 551 |
| Eagan | 0 | 310 | 741 | 1,051 | 0 | 427 |
| East Bethel | 1 | 46 | 66 | 113 | 1 | 70 |
| East Grand Forks | 0 | 13 | 65 | 78 | 0 | 16 |
| Eden Prairie | 2 | 280 | 803 | 1,085 | 2 | 384 |
| Edina | 0 | 230 | 667 | 897 | 0 | 310 |
| Elk River | 1 | 113 | 253 | 367 | 1 | 160 |
| Ely | 0 | 10 | 36 | 46 | 0 | 17 |
| Eveleth | 0 | 21 | 48 | 69 | 0 | 29 |
| Fairmont | 1 | 60 | 132 | 193 | 1 | 87 |
| Falcon Heights | 1 | 29 | 62 | 92 | 1 | 44 |
| Faribault | 0 | 177 | 343 | 520 | 0 | 252 |
| Farmington | 0 | 44 | 93 | 137 | 0 | 62 |
| Fergus Falls | 0 | 82 | 267 | 349 | 0 | 120 |
| Forest Lake | 0 | 79 | 174 | 253 | 0 | 115 |
| Forest Lake Twsp | 2 | 41 | 80 | 123 | 2 | 58 |
| Fridley | 2 | 209 | 324 | 535 | 2 | 297 |
| Gilbert | 0 | 7 | 17 | 24 | 0 | 10 |
| Glencoe | 0 | 22 | 43 | 65 | 0 | 31 |
| Glenwood | 0 | 14 | 31 | 45 | 0 | 16 |
| Golden Valley | 1 | 206 | 503 | 710 | 1 | 263 |
| Goodview | 0 | 9 | 32 | 41 | 0 | 14 |
| Grand Rapids | 1 | 68 | 186 | 255 | 1 | 102 |
| Granite Falls | 0 | 11 | 28 | 39 | 0 | 15 |
| Grant | 1 | 9 | 43 | 53 | 1 | 9 |
| Greenfield | 0 | 14 | 24 | 38 | 0 | 18 |
| Ham Lake | 2 | 77 | 137 | 216 | 2 | 108 |
| Hastings | 0 | 81 | 288 | 369 | 0 | 112 |
| Hermantown | 3 | 45 | 54 | 102 | 3 | 83 |
| Hibbing | 1 | 119 | 280 | 400 | 1 | 178 |
| Hopkins | 0 | 116 | 229 | 345 | 0 | 163 |
| Hoyt Lakes | 0 | 3 | 11 | 14 | 0 | 4 |
| Hugo | 0 | 28 | 59 | 87 | 0 | 35 |
| Hutchinson | 0 | 72 | 184 | 256 | 0 | 97 |
| Independence | 0 | 22 | 58 | 80 | 0 | 31 |
| International Falls | 1 | 43 | 35 | 79 | 1 | 74 |
| Inver Grove Heights | 3 | 133 | 343 | 479 | 4 | 184 |
| Jackson | 0 | 14 | 25 | 39 | 0 | 25 |
| Jordan | 2 | 18 | 45 | 65 | 2 | 27 |

*TABLE 1.27*

## 2000 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

| City | Crashes | | | | Persons | |
|---|---|---|---|---|---|---|
| | Fatal | Personal Injury | Property Damage | Total | Killed | Injured |
| Kasson | 0 | 7 | 41 | 48 | 0 | 8 |
| La Crescent | 0 | 15 | 52 | 67 | 0 | 17 |
| Lake City | 0 | 17 | 56 | 73 | 0 | 21 |
| Lake Elmo | 1 | 48 | 105 | 154 | 1 | 85 |
| Lakeville | 5 | 139 | 333 | 477 | 6 | 213 |
| Le Sueur | 0 | 20 | 53 | 73 | 0 | 29 |
| Lindstrom | 0 | 11 | 39 | 50 | 0 | 14 |
| Lino Lakes | 3 | 58 | 171 | 232 | 3 | 80 |
| Litchfield | 0 | 25 | 71 | 96 | 0 | 29 |
| Little Canada | 0 | 95 | 267 | 362 | 0 | 116 |
| Little Falls | 1 | 37 | 97 | 135 | 1 | 49 |
| Long Prairie | 0 | 13 | 20 | 33 | 0 | 23 |
| Luverne | 0 | 15 | 60 | 75 | 0 | 22 |
| Mahtomedi | 0 | 25 | 39 | 64 | 0 | 38 |
| Mankato | 3 | 272 | 759 | 1,034 | 3 | 391 |
| Maple Grove | 2 | 201 | 593 | 796 | 2 | 282 |
| Maplewood | 1 | 318 | 742 | 1,061 | 1 | 467 |
| Marshall | 1 | 52 | 147 | 200 | 1 | 79 |
| May Township | 0 | 17 | 31 | 48 | 0 | 25 |
| Medina | 0 | 26 | 69 | 95 | 0 | 36 |
| Melrose | 0 | 6 | 34 | 40 | 0 | 9 |
| Mendota Heights | 1 | 71 | 247 | 319 | 1 | 116 |
| Minneapolis | 18 | 4,218 | 11,090 | 15,326 | 20 | 5,924 |
| Minnetonka | 2 | 264 | 635 | 901 | 2 | 352 |
| Minnetrista | 0 | 27 | 70 | 97 | 0 | 38 |
| Montevideo | 0 | 31 | 50 | 81 | 0 | 48 |
| Monticello | 0 | 56 | 174 | 230 | 0 | 73 |
| Moorhead | 0 | 147 | 474 | 621 | 0 | 191 |
| Mora | 1 | 11 | 39 | 51 | 1 | 21 |
| Morris | 0 | 18 | 52 | 70 | 0 | 23 |
| Mound | 1 | 25 | 64 | 90 | 1 | 45 |
| Mounds View | 1 | 45 | 104 | 150 | 1 | 61 |
| Mountain Iron | 0 | 21 | 43 | 64 | 0 | 31 |
| New Brighton | 1 | 84 | 261 | 346 | 1 | 113 |
| New Hope | 0 | 60 | 170 | 230 | 0 | 87 |
| Newport | 1 | 61 | 163 | 225 | 1 | 98 |
| New Prague | 0 | 19 | 32 | 51 | 0 | 27 |
| New Scandia Twsp | 1 | 26 | 52 | 79 | 1 | 41 |
| New Ulm | 0 | 82 | 183 | 265 | 0 | 127 |
| North Branch | 2 | 42 | 114 | 158 | 2 | 54 |
| Northfield | 2 | 66 | 98 | 166 | 2 | 98 |
| North Mankato | 0 | 38 | 139 | 177 | 0 | 54 |
| North Oaks | 1 | 5 | 24 | 30 | 1 | 7 |
| North St. Paul | 1 | 82 | 144 | 227 | 1 | 123 |
| Oakdale | 1 | 93 | 225 | 319 | 1 | 145 |

*TABLE 1.27*

## 2000 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

| City | Crashes | | | | Persons | |
|---|---|---|---|---|---|---|
| | Fatal | Personal Injury | Property Damage | Total | Killed | Injured |
| Oak Park Heights | 0 | 26 | 50 | 76 | 0 | 30 |
| Olivia | 1 | 6 | 19 | 26 | 1 | 9 |
| Orono | 2 | 48 | 129 | 179 | 3 | 70 |
| Ortonville | 0 | 6 | 21 | 27 | 0 | 6 |
| Otsego | 0 | 17 | 60 | 77 | 0 | 22 |
| Owatonna | 0 | 97 | 363 | 460 | 0 | 133 |
| Park Rapids | 0 | 16 | 40 | 56 | 0 | 17 |
| Pine City | 0 | 12 | 41 | 53 | 0 | 13 |
| Pipestone | 0 | 20 | 25 | 45 | 0 | 27 |
| Plainview | 0 | 5 | 26 | 31 | 0 | 5 |
| Plymouth | 3 | 289 | 775 | 1,067 | 3 | 397 |
| Princeton | 0 | 32 | 59 | 91 | 0 | 55 |
| Prior Lake | 1 | 86 | 60 | 147 | 1 | 164 |
| Proctor | 0 | 12 | 26 | 38 | 0 | 20 |
| Ramsey | 3 | 78 | 139 | 220 | 3 | 124 |
| Red Wing | 1 | 101 | 307 | 409 | 1 | 139 |
| Redwood Falls | 0 | 24 | 43 | 67 | 0 | 37 |
| Richfield | 0 | 341 | 893 | 1,234 | 0 | 486 |
| Robbinsdale | 1 | 105 | 202 | 308 | 1 | 159 |
| Rochester | 7 | 578 | 1,217 | 1,802 | 12 | 792 |
| Rockford | 0 | 12 | 32 | 44 | 0 | 18 |
| Rogers | 0 | 21 | 90 | 111 | 0 | 28 |
| Roseau | 0 | 10 | 19 | 29 | 0 | 13 |
| Rosemount | 2 | 79 | 146 | 227 | 4 | 125 |
| Roseville | 1 | 247 | 821 | 1,069 | 1 | 358 |
| St. Anthony | 0 | 19 | 67 | 86 | 0 | 26 |
| St. Charles | 0 | 5 | 28 | 33 | 0 | 12 |
| St. Cloud | 1 | 546 | 784 | 1,331 | 1 | 798 |
| St. Francis | 1 | 19 | 35 | 55 | 1 | 30 |
| St. James | 0 | 16 | 50 | 66 | 0 | 25 |
| St. Joseph | 0 | 12 | 31 | 43 | 0 | 22 |
| St. Louis Park | 2 | 268 | 726 | 996 | 2 | 342 |
| St. Michael | 0 | 30 | 58 | 88 | 0 | 43 |
| St. Paul | 21 | 2,302 | 7,213 | 9,536 | 21 | 3,164 |
| St. Paul Park | 0 | 19 | 32 | 51 | 0 | 22 |
| St. Peter | 0 | 20 | 70 | 90 | 0 | 27 |
| Sartell | 0 | 18 | 31 | 49 | 0 | 20 |
| Sauk Centre | 0 | 27 | 67 | 94 | 0 | 36 |
| Sauk Rapids | 0 | 42 | 84 | 126 | 0 | 62 |
| Savage | 0 | 91 | 184 | 275 | 0 | 130 |
| Shakopee | 1 | 129 | 341 | 471 | 1 | 205 |
| Shoreview | 0 | 110 | 288 | 398 | 0 | 174 |
| Shorewood | 0 | 46 | 104 | 150 | 0 | 69 |
| Silver Bay | 0 | 5 | 8 | 13 | 0 | 6 |
| Sleepy Eye | 0 | 16 | 58 | 74 | 0 | 17 |

*TABLE 1.27*

## 2000 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

| City | Crashes | | | | Persons | |
|---|---|---|---|---|---|---|
| | Fatal | Personal Injury | Property Damage | Total | Killed | Injured |
| South St. Paul | 0 | 112 | 310 | 422 | 0 | 148 |
| Spring Lake Park | 0 | 54 | 77 | 131 | 0 | 75 |
| Spring Valley | 0 | 13 | 25 | 38 | 0 | 19 |
| Staples | 0 | 7 | 27 | 34 | 0 | 13 |
| Stewartville | 0 | 13 | 39 | 52 | 0 | 20 |
| Stillwater | 1 | 65 | 230 | 296 | 1 | 94 |
| Stillwater Township | 0 | 12 | 59 | 71 | 0 | 16 |
| Thief River Falls | 1 | 72 | 86 | 159 | 1 | 103 |
| Two Harbors | 0 | 19 | 49 | 68 | 0 | 25 |
| Vadnais Heights | 1 | 90 | 276 | 367 | 1 | 120 |
| Victoria | 0 | 21 | 46 | 67 | 0 | 34 |
| Virginia | 0 | 76 | 123 | 199 | 0 | 95 |
| Waconia | 0 | 22 | 54 | 76 | 0 | 31 |
| Wadena | 0 | 30 | 59 | 89 | 0 | 39 |
| Waite Park | 2 | 54 | 116 | 172 | 2 | 78 |
| Waseca | 0 | 37 | 94 | 131 | 0 | 55 |
| Watertown | 0 | 8 | 15 | 23 | 0 | 8 |
| Wayzata | 0 | 53 | 117 | 170 | 0 | 73 |
| Wells | 0 | 11 | 20 | 31 | 0 | 15 |
| W. Lakeland Twnsp | 1 | 9 | 27 | 37 | 1 | 14 |
| West St. Paul | 1 | 109 | 196 | 306 | 1 | 162 |
| White Bear Lake | 0 | 167 | 437 | 604 | 0 | 243 |
| White Bear Twnsp | 3 | 11 | 54 | 68 | 3 | 13 |
| Willmar | 0 | 122 | 354 | 476 | 0 | 176 |
| Windom | 0 | 17 | 62 | 79 | 0 | 33 |
| Winona | 1 | 185 | 490 | 676 | 1 | 236 |
| Woodbury | 4 | 231 | 480 | 715 | 6 | 344 |
| Worthington | 1 | 65 | 175 | 241 | 1 | 90 |
| Wyoming | 0 | 20 | 53 | 73 | 0 | 30 |
| Zimmerman | 1 | 16 | 32 | 49 | 1 | 24 |

*TABLE 1.28*

## 2000 CRASHES BY TIME AND DAY

| Hour Beginning | Total Crashes | Fatal Crashes | Sunday | | Monday | | Tuesday | | Wednesday | | Thursday | | Friday | | Saturday | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | All | Fatal | All | Fatal | All | Fatal | All | Fatal | All | Fatal | All | Fatal | All | Fatal |
| Midnight | 1,718 | 20 | 407 | 5 | 140 | 1 | 172 | 2 | 137 | 2 | 216 | 2 | 200 | 2 | 446 | 6 |
| 1:00 | 1,992 | 32 | 551 | 9 | 140 | 3 | 157 | 3 | 167 | 2 | 229 | 3 | 241 | 3 | 507 | 9 |
| 2:00 | 1,179 | 18 | 312 | 2 | 81 | 2 | 102 | 1 | 88 | 1 | 150 | 2 | 144 | 4 | 302 | 6 |
| 3:00 | 797 | 14 | 215 | 8 | 79 | 2 | 68 | 0 | 57 | 2 | 78 | 2 | 101 | 0 | 199 | 0 |
| 4:00 | 714 | 10 | 155 | 3 | 78 | 1 | 80 | 1 | 78 | 0 | 98 | 3 | 81 | 1 | 144 | 1 |
| 5:00 | 1,326 | 14 | 162 | 3 | 201 | 2 | 201 | 0 | 171 | 3 | 227 | 1 | 187 | 3 | 177 | 2 |
| 6:00 | 2,708 | 9 | 185 | 2 | 466 | 1 | 488 | 0 | 456 | 0 | 543 | 2 | 402 | 1 | 168 | 3 |
| 7:00 | 5,636 | 31 | 201 | 4 | 938 | 7 | 1,197 | 4 | 981 | 4 | 1,141 | 7 | 954 | 4 | 224 | 1 |
| 8:00 | 5,236 | 27 | 283 | 3 | 816 | 7 | 989 | 6 | 915 | 3 | 1,039 | 2 | 833 | 3 | 361 | 3 |
| 9:00 | 4,142 | 20 | 365 | 4 | 582 | 2 | 641 | 3 | 673 | 3 | 691 | 2 | 629 | 3 | 561 | 3 |
| 10:00 | 4,259 | 10 | 487 | 1 | 566 | 1 | 603 | 0 | 603 | 1 | 649 | 2 | 611 | 2 | 740 | 3 |
| 11:00 | 4,922 | 30 | 538 | 3 | 638 | 4 | 618 | 4 | 718 | 4 | 728 | 4 | 788 | 5 | 894 | 6 |
| Noon | 5,825 | 22 | 647 | 3 | 781 | 3 | 789 | 1 | 803 | 2 | 888 | 5 | 986 | 2 | 931 | 6 |
| 1:00 | 5,387 | 26 | 624 | 3 | 704 | 3 | 692 | 6 | 775 | 2 | 794 | 3 | 917 | 5 | 881 | 4 |
| 2:00 | 6,378 | 26 | 636 | 3 | 937 | 4 | 892 | 3 | 1,014 | 5 | 957 | 6 | 1,118 | 2 | 824 | 3 |
| 3:00 | 8,244 | 23 | 709 | 3 | 1,118 | 6 | 1,295 | 0 | 1,329 | 5 | 1,408 | 3 | 1,587 | 5 | 798 | 1 |
| 4:00 | 8,187 | 23 | 677 | 2 | 1,141 | 1 | 1,259 | 2 | 1,384 | 3 | 1,414 | 5 | 1,551 | 5 | 761 | 5 |
| 5:00 | 8,455 | 46 | 695 | 7 | 1,234 | 7 | 1,363 | 4 | 1,520 | 5 | 1,491 | 7 | 1,394 | 9 | 758 | 7 |
| 6:00 | 5,950 | 31 | 684 | 6 | 782 | 3 | 877 | 3 | 969 | 5 | 917 | 4 | 1,011 | 5 | 710 | 5 |
| 7:00 | 4,407 | 28 | 521 | 2 | 596 | 1 | 590 | 4 | 648 | 4 | 624 | 5 | 745 | 4 | 683 | 8 |
| 8:00 | 3,521 | 21 | 415 | 2 | 463 | 0 | 504 | 5 | 557 | 3 | 519 | 0 | 529 | 3 | 534 | 8 |
| 9:00 | 3,560 | 21 | 380 | 2 | 445 | 3 | 533 | 0 | 533 | 4 | 517 | 4 | 598 | 5 | 554 | 3 |
| 10:00 | 2,909 | 27 | 325 | 5 | 365 | 4 | 372 | 3 | 401 | 0 | 377 | 2 | 563 | 8 | 506 | 5 |
| 11:00 | 2,412 | 20 | 298 | 1 | 249 | 2 | 211 | 1 | 326 | 3 | 297 | 3 | 515 | 8 | 516 | 2 |
| Unknown | 3,727 | 8 | 430 | 1 | 419 | 1 | 530 | 1 | 566 | 1 | 640 | 2 | 637 | 1 | 505 | 1 |
| Total | 103,591 | 557 | 10,902 | 87 | 13,959 | 71 | 15,223 | 57 | 15,869 | 67 | 16,632 | 81 | 17,322 | 93 | 13,684 | 101 |

## FIGURE 1.03

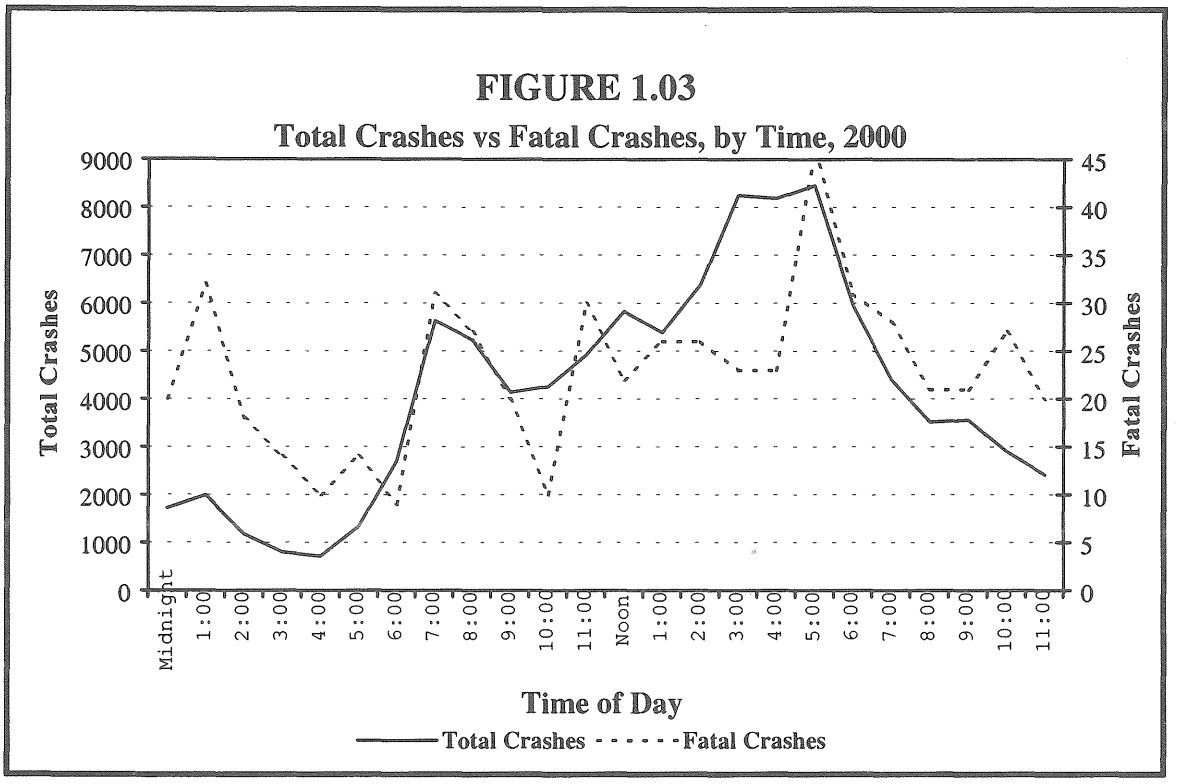



*TABLE 1.29*

## 2000 CRASHES, FATALITIES, AND INJURIES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| January | 41 | 2,639 | 7,780 | 10,460 | 53 | 3,723 |
| February | 41 | 2,291 | 5,673 | 8,005 | 45 | 3,345 |
| March | 34 | 1,947 | 4,153 | 6,134 | 38 | 2,811 |
| April | 50 | 2,253 | 4,472 | 6,775 | 52 | 3,312 |
| May | 44 | 2,644 | 5,155 | 7,843 | 47 | 3,879 |
| June | 36 | 2,764 | 5,441 | 8,241 | 40 | 3,996 |
| July | 65 | 2,563 | 4,904 | 7,532 | 70 | 3,867 |
| August | 59 | 2,663 | 4,957 | 7,679 | 68 | 3,959 |
| September | 37 | 2,618 | 5,311 | 7,966 | 43 | 3,766 |
| October | 44 | 2,520 | 5,872 | 8,436 | 55 | 3,693 |
| November | 64 | 2,701 | 7,611 | 10,376 | 69 | 3,903 |
| December | 42 | 3,227 | 10,875 | 14,144 | 45 | 4,486 |
| Total | 557 | 30,830 | 72,204 | 103,591 | 625 | 44,470 |

*TABLE 1.30*

## HOLIDAY CRASH SUMMARY, 1995 - 2000

| Holiday Period | Year | Hours* | Fatal Crashes | Personal Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|---|---|
| **Memorial Day** | 1995 | 78 | 7 | 312 | 470 | 789 | 9 | 507 |
| (For 2000, the holiday | 1996 | 78 | 9 | 208 | 330 | 547 | 13 | 346 |
| period was 6 PM Fri., | 1997 | 78 | 4 | 223 | 353 | 580 | 4 | 357 |
| May 26 - midnight | 1998 | 78 | 6 | 214 | 356 | 576 | 8 | 332 |
| Monday, May 29.) | 1999 | 78 | 5 | 215 | 375 | 595 | 8 | 347 |
| | 2000 | 78 | 4 | 215 | 441 | 660 | 4 | 327 |
| **July 4th** | 1995 | 102 | 13 | 365 | 532 | 910 | 20 | 588 |
| (For 2000, the holiday | 1996 | 102 | 13 | 389 | 554 | 956 | 17 | 649 |
| period was 6 PM Fri, | 1997 | 78 | 3 | 228 | 390 | 621 | 3 | 358 |
| June 30 - midnight | 1998 | 78 | 8 | 287 | 432 | 727 | 10 | 473 |
| Tuesday, July 4.) | 1999 | 78 | 5 | 236 | 376 | 617 | 6 | 358 |
| | 2000 | 102 | 12 | 302 | 524 | 838 | 14 | 503 |
| **Labor Day** | 1995 | 78 | 4 | 248 | 343 | 595 | 5 | 413 |
| (For 2000, the holiday | 1996 | 78 | 10 | 243 | 365 | 618 | 12 | 395 |
| period was 6 PM Fri., | 1997 | 78 | 6 | 264 | 364 | 634 | 6 | 455 |
| Sep 1 - midnight | 1998 | 78 | 7 | 212 | 344 | 563 | 10 | 360 |
| Monday, Sep. 4.) | 1999 | 78 | 7 | 212 | 344 | 563 | 7 | 348 |
| | 2000 | 78 | 6 | 218 | 426 | 650 | 8 | 347 |
| **Thanksgiving** | 1995 | 102 | 8 | 360 | 896 | 1,264 | 9 | 579 |
| (For 2000, the holiday | 1996 | 102 | 7 | 345 | 998 | 1,350 | 8 | 537 |
| period was 6 PM Wed., | 1997 | 102 | 7 | 307 | 652 | 966 | 7 | 474 |
| Nov. 22 - midnight | 1998 | 102 | 11 | 292 | 637 | 940 | 17 | 447 |
| Sunday, Nov. 26.) | 1999 | 102 | 6 | 309 | 729 | 1,044 | 6 | 564 |
| | 2000 | 102 | 8 | 252 | 658 | 918 | 10 | 393 |
| **Christmas** | 1995 | 78 | 5 | 166 | 364 | 535 | 6 | 260 |
| (For 2000, the holiday | 1996 | 30 | 1 | 80 | 281 | 362 | 1 | 123 |
| period was 6 PM Fri, | 1997 | 102 | 4 | 293 | 625 | 922 | 7 | 455 |
| Dec 22 - midnight | 1998 | 78 | 6 | 227 | 514 | 747 | 8 | 365 |
| Monday, Dec. 25.) | 1999 | 78 | 12 | 285 | 854 | 1,151 | 14 | 435 |
| | 2000 | 78 | 2 | 245 | 812 | 1,059 | 2 | 351 |
| **New Year's** | 1995/96 | 78 | 13 | 392 | 1,017 | 1,422 | 18 | 646 |
| (For 2000-2001, the | 1996/97 | 30 | 1 | 95 | 220 | 316 | 1 | 141 |
| holiday period was | 1997/98 | 102 | 10 | 362 | 872 | 1,244 | 11 | 528 |
| 6 PM Fri., Dec. 29 | 1998/99 | 78 | 2 | 296 | 937 | 1,235 | 3 | 419 |
| - midnight Monday, | 1999/00 | 78 | 6 | 240 | 564 | 810 | 6 | 380 |
| Jan 1, 2001.) | 2000/01 | 78 | 6 | 196 | 684 | 886 | 7 | 300 |

* 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

**2000 is 6th year of increase in impaired driving incidents**

Eleven years ago, in 1990, there were almost 37,000 impaired driving incidents in Minnesota. The number dropped to about 30,000 by 1994 and then started a gradual rise again. There were 34,803 in 2000.

**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 2000, they accounted for 27% of the incidents, compared to the 21% in 1991. 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. Underage drivers 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 circumstance that non-fatal alcohol-related crashes are significantly under-reported, as explained below). There were 105,391 traffic crashes reported last year; 72,204 of those were property-damage-only crashes, and 4% (2,632) of those involved alcohol. There were 30,830 injury crashes, causing injury to 44,740 persons. Nine percent (2,901) of the injury crashes--resulting in 10% (4,403) of the people injured--were alcohol-related. Finally, there were 557 fatal crashes causing 625 deaths; 39% (217) of those crashes -- resulting in 39% (245) of the deaths -- were alcohol-related.

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

Young people may have better reflexes than older people, but as drivers they take more risks and have less experience than older people. They pay a clear price for this. Fifteeen-to-34 year-olds accounted for 44% (277) of all traffic deaths, and for fully 54% (132) of the alcohol-related deaths. It is also the drinkers themselves who are more likely to pay the price for their drinking-driving behavior. Last year, 162 (66%) of the 245 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 83 people who died in 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, accounted for 40% of all traffic crashes, but 81% of the alcohol-related crashes. The late night hours from 9:00 PM to 3:00 AM accounted for 13% of all crashes, but 50% of the alcohol crashes.

**Alcohol crashes are usually single-vehicle crashes**

Sixty-one percent of non-alcohol-related fatal crashes involved collision with another motor vehicle in transport, compared to only 33% of alcohol fatal crashes. Most of the alcohol fatal crashes involved a single vehicle colliding with a fixed object (34%), or a single vehicle losing control and overturning (24%).

**Why are alcohol-related deaths fluctuating erratically in recent years?**

Across the five years starting in 1996, alcohol-related deaths were 36%, 30%, 42%, 31%, and 39% respectively, of total deaths. The percentage appears erratic, or unstable, and more so than in the preceding decade. One explanation might be that these changes reflect corresponding year-to-year changes in the total incidence of drinking-driving in the state. For example, maybe weather variations and economic shifts act to cause more people, or fewer people, to drink and drive in a given time period. There seems to be more evidence opposing such an explanation than supporting it, however. For example, alcohol-related property damage crashes have been stable at 4% of all property damage crashes for 8 years now. Alcohol-related injuries have been almost equally stable at 11% or 10%.

Another explanation is that the erratic changes are an artificial result of inconsistencies in recordkeeping or data collection from one year to the next. Evidence does not strongly support this explanation either, however. NHTSA's alcohol-related estimates (see below for a more thorough explanation) are designed to compensate for missing data, and they show the same erratic changes in recent years.

Another explanation is that the variation is random about a stable average, or random about a trend that is increasing or decreasing. There may be other and better explanations as well. More work is needed to understand the recent erratic changes.

## 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 showed "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. Arrests made are reported to the Bureau of Criminal Apprehension through manual or electronic means by several hundred law enforcement agencies in Minnesota. Law enforcement agencies and courts also report violations to Driver Licensing, making driver license records the most complete central source of data for accurate statistics. 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, 94% of killed drivers who tested positive were at the *.10*-or-higher level.) In the absence 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. When alcohol test results are combined with officers' reported perceptions, the number of alcohol-related deaths increases by about 25% from when officers' perceptions alone are used. 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 judgement 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 2000, eight drinking pedestrians and two drinking bicyclists died after colliding with a vehicle driven by a non-drinking driver. (Three more drinking pedestrians were killed 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 be incinerated. In this case, there may be no remaining evidence the crash involved alcohol. 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 (using the data that was 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 - 2000

| | Alcohol Concentration Test Results on Fatally Injured Drivers Only | | | | | | | | | All Traffic Fatalities | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Drivers Killed | | | Results on Drivers Tested | | | | | | | Alcohol-Related Fatalities | | | |
| | Total | Tested for Alcohol | | Negative for alcohol | | .01 to .09 alcohol | | .10 or higher alcohol | | Total | Known * | | Estimated * | |
| Year | | number | % of total | number | % of tested | number | % of tested | number | % of tested | | number | % of total | number | % of total |
| 1980 | 519 | 337 | 65 | 103 | 31 | 37 | 11 | 197 | 58 | 863 | | | | |
| 1981 | 437 | 288 | 66 | 110 | 38 | 28 | 10 | 150 | 52 | 763 | | | | |
| 1982 | 321 | 232 | 72 | 106 | 46 | 14 | 6 | 112 | 48 | 581 | | | 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 | NA | NA |

* For explanation of the difference between "known" and "estimated" alcohol-related fatalities, see page 37.

*TABLE 2.02*

## IMPAIRED DRIVING INCIDENTS ("DWIs") BY GENDER AND BY AREA OF STATE WHERE ARREST WAS MADE, 1990-2000

| | | Gender | | | | Area of State | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Male | | Female | | Metro Area | | Non-Metro | |
| Year | Total | 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 |

*TABLE 2.03*

## IMPAIRED DRIVING INCIDENTS ("DWIs") FOR SELECTED AGE GROUPS, 1990-2000

| | | Age | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| year | total | 0-14 | 15 | 16 | 17 | 18 | 19 | 20 | total under 21 | 21-34 | 35-49 | 50 & Older |
| 1990 | 36,884 | 3 | 19 | 184 | 454 | 989 | 1,346 | 1,477 | 4,472 | 21,778 | 8,191 | 2,443 |
| 1991 | 32,466 | 9 | 13 | 143 | 328 | 747 | 1,033 | 1,252 | 3,525 | 19,062 | 7,854 | 2,025 |
| 1992 | 30,834 | 3 | 12 | 111 | 290 | 594 | 830 | 1,036 | 2,876 | 18,055 | 7,887 | 2,016 |
| 1993 | 30,111 | 2 | 8 | 89 | 254 | 500 | 744 | 837 | 2,434 | 17,299 | 8,379 | 1,999 |
| 1994 | 29,739 | 5 | 7 | 108 | 233 | 545 | 644 | 761 | 2,303 | 16,481 | 8,871 | 2,084 |
| 1995 | 30,255 | 1 | 20 | 111 | 243 | 519 | 723 | 799 | 2,416 | 16,368 | 9,302 | 2,169 |
| 1996 | 30,515 | 2 | 10 | 135 | 300 | 608 | 791 | 826 | 2,672 | 15,815 | 9,762 | 2,266 |
| 1997 | 30,905 | 5 | 17 | 102 | 273 | 627 | 751 | 886 | 2,661 | 15,495 | 10,283 | 2,466 |
| 1998 | 32,001 | 2 | 17 | 102 | 297 | 675 | 888 | 911 | 2,892 | 15,624 | 10,973 | 2,512 |
| 1999 | 34,529 | 4 | 18 | 114 | 285 | 740 | 1,004 | 1,032 | 3,197 | 17,100 | 11,479 | 2,753 |
| 2000 | 34,803 | 5 | 10 | 124 | 330 | 691 | 984 | 1,104 | 3,248 | 17,245 | 11,472 | 2,838 |

## FIGURE 2.01

### PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs") COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990-2000

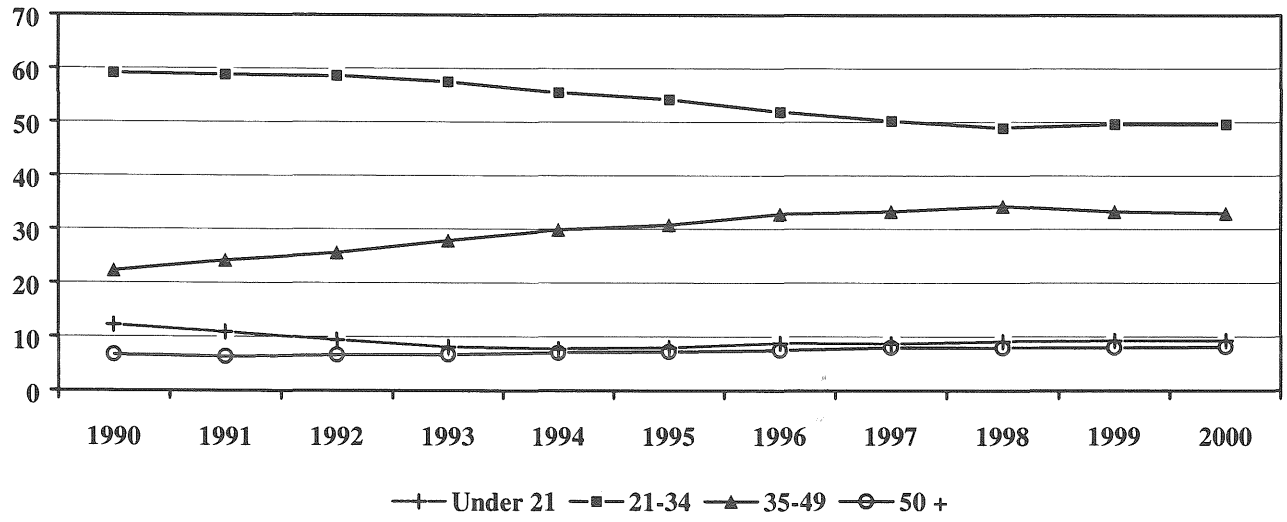



*TABLE 2.04*

## IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1990-2000

| | Age Group | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| year | 0-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75-79 | 80-84 | 85+ | total |
| 1990 | 3 | 2,992 | 8,287 | 8,548 | 6,420 | 4,073 | 2,629 | 1,489 | 997 | 591 | 420 | 238 | 127 | 52 | 15 | 3 | 36,884 |
| 1991 | 9 | 2,264 | 7,167 | 7,051 | 6,096 | 3,985 | 2,580 | 1,289 | 815 | 482 | 355 | 216 | 92 | 49 | 13 | 3 | 32,466 |
| 1992 | 3 | 1,837 | 6,940 | 6,284 | 5,867 | 3,916 | 2,498 | 1,473 | 828 | 510 | 357 | 173 | 100 | 35 | 9 | 4 | 30,834 |
| 1993 | 2 | 1,595 | 6,377 | 5,944 | 5,815 | 4,295 | 2,577 | 1,507 | 870 | 512 | 296 | 184 | 94 | 35 | 5 | 3 | 30,111 |
| 1994 | 5 | 1,537 | 5,819 | 5,608 | 5,815 | 4,224 | 2,891 | 1,756 | 849 | 567 | 339 | 188 | 81 | 44 | 12 | 4 | 29,739 |
| 1995 | 1 | 1,616 | 5,850 | 5,517 | 5,800 | 4,536 | 3,034 | 1,732 | 957 | 550 | 324 | 185 | 93 | 43 | 17 | 0 | 30,255 |
| 1996 | 2 | 1,844 | 5,731 | 5,507 | 5,403 | 4,719 | 3,144 | 1,899 | 991 | 589 | 317 | 213 | 96 | 43 | 16 | 1 | 30,515 |
| 1997 | 5 | 1,770 | 5,733 | 5,651 | 4,997 | 4,888 | 3,295 | 2,100 | 1,154 | 615 | 335 | 204 | 96 | 46 | 14 | 2 | 30,905 |
| 1998 | 2 | 1,979 | 6,176 | 5,513 | 4,846 | 5,160 | 3,591 | 2,222 | 1,137 | 671 | 333 | 192 | 102 | 57 | 18 | 2 | 32,001 |
| 1999 | 4 | 2,161 | 7,389 | 5,843 | 4,900 | 5,267 | 3,844 | 2,368 | 1,330 | 670 | 405 | 190 | 98 | 45 | 12 | 3 | 34,529 |
| 2000 | 5 | 2,139 | 7,725 | 5,819 | 4,805 | 5,071 | 3,922 | 2,479 | 1,396 | 692 | 368 | 191 | 118 | 55 | 18 | 0 | 34,803 |

*TABLE 2.05*

## AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES AND IN ALCOHOL - RELATED CRASHES, 2000

| | Persons Killed | | Persons Injured by Severity | | | | | | Total Persons Injured | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Severe | | Moderate | | Minor | | | |
| Age Group | All | Alcohol-Related[1] | All | Alcohol-Related[2] | All | Alcohol-Related[2] | All | Alcohol-Related[2] | All | Alcohol-Related[2] |
| 0 - 4 | 6 | 1 | 43 | 7 | 238 | 13 | 445 | 23 | 726 | 43 |
| 5 - 9 | 10 | 3 | 87 | 6 | 430 | 27 | 683 | 25 | 1,200 | 58 |
| 10 - 14 | 11 | 1 | 106 | 3 | 680 | 30 | 899 | 29 | 1,685 | 62 |
| 15 | 8 | 0 | 57 | 4 | 357 | 23 | 385 | 27 | 799 | 54 |
| 16 | 22 | 4 | 131 | 9 | 871 | 46 | 928 | 45 | 1,930 | 100 |
| 17 | 24 | 7 | 118 | 16 | 752 | 69 | 997 | 47 | 1,867 | 132 |
| 18 | 18 | 10 | 127 | 24 | 721 | 70 | 966 | 73 | 1,814 | 167 |
| 19 | 19 | 8 | 142 | 23 | 627 | 103 | 908 | 56 | 1,677 | 182 |
| 20 | 16 | 7 | 91 | 23 | 546 | 88 | 849 | 75 | 1,486 | 186 |
| Total Under 21 | 134 | 41 | 902 | 115 | 5,222 | 469 | 7,060 | 400 | 13,184 | 984 |
| 15 - 19 | 91 | 29 | 575 | 76 | 3,328 | 311 | 4,184 | 248 | 8,087 | 635 |
| 20 - 24 | 80 | 44 | 412 | 131 | 2,238 | 472 | 3,350 | 355 | 6,000 | 958 |
| 25 - 29 | 58 | 35 | 296 | 74 | 1,435 | 279 | 2,394 | 224 | 4,125 | 577 |
| 30 - 34 | 48 | 24 | 260 | 70 | 1,151 | 195 | 2,195 | 157 | 3,606 | 422 |
| 35 - 39 | 42 | 25 | 302 | 87 | 1,227 | 206 | 2,144 | 156 | 3,673 | 449 |
| 40 - 44 | 45 | 24 | 237 | 59 | 1,117 | 176 | 2,020 | 131 | 3,374 | 366 |
| 45 - 49 | 52 | 19 | 175 | 37 | 910 | 106 | 1,603 | 99 | 2,688 | 242 |
| 50 - 54 | 28 | 13 | 148 | 22 | 698 | 67 | 1,288 | 55 | 2,134 | 144 |
| 55 - 59 | 24 | 10 | 107 | 13 | 490 | 52 | 853 | 45 | 1,450 | 110 |
| 60 - 64 | 24 | 3 | 71 | 12 | 347 | 28 | 616 | 34 | 1,034 | 74 |
| 65 - 69 | 11 | 1 | 70 | 4 | 313 | 22 | 470 | 18 | 853 | 44 |
| 70 - 74 | 22 | 2 | 70 | 6 | 276 | 15 | 413 | 14 | 759 | 35 |
| 75 - 79 | 27 | 1 | 69 | 2 | 291 | 6 | 367 | 6 | 727 | 14 |
| 80 - 84 | 28 | 9 | 41 | 3 | 189 | 5 | 220 | 3 | 450 | 11 |
| 85 & Older | 18 | 1 | 28 | 2 | 114 | 0 | 143 | 1 | 285 | 3 |
| Not Stated | 0 | 0 | 77 | 18 | 431 | 40 | 1,376 | 97 | 1,884 | 155 |
| Total | 625 | 245* | 3,174 | 632 | 15,903 | 2,050 | 25,663 | 1,720 | 44,740 | 4,402 |

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 245 alcohol-related traffic deaths in 2000. Fifteen of those deaths were to pedestrians, and 11 of those 15 pedestrians were drinking. In 3 of the 11 crashes involving drinking pedestrians, the motor vehicle driver had also been drinking. Additionally, 4 bicyclists were among the 245 alcohol-related deaths, and for two of those crashes, it was the bicyclist who had been drinking.

*TABLE 2.06*

## 2000 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 | 152 | 152 | 17 | 21 | 114 |
| Car or Truck Passenger | 54 | 30 | 9 | 5 | 16 |
| Motorcycle Driver | 13 | 13 | 3 | 1 | 9 |
| Motorcycle Passenger | 1 | 0 | 0 | 0 | 0 |
| Snowmobile Driver | 1 | 1 | 0 | 0 | 1 |
| ATV Driver | 3 | 3 | 0 | 0 | 3 |
| Pedestrian | 15 | 13 | 2 | 1 | 10 |
| Bicyclist | 4 | 4 | 2 | 1 | 1 |
| Other/Unknown | 2 | 2 | 1 | 0 | 1 |
| Total | 245 | 218 | 34 | 29 | 155 |

*TABLE 2.07*

## PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES DETERMINED TO BE ALCOHOL - RELATED, 1991- 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Deaths* (Known) | 40% | 39% | 36% | 35% | 41% | 36% | 30% | 42% | 31% | 39% |
| (Estimated) | 43% | 41% | 39% | 38% | 44% | 38% | 32% | 43% | 32% | NA |
| Injuries** | 13% | 13% | 12% | 11% | 11% | 11% | 11% | 11% | 10% | 10% |
| Property Damage Crashes** | 5% | 5% | 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. 36-37 regarding known and estimated alcohol-related fatalities. Estimated deaths are not available for 2000.
** 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, 2000

| First Harmful Event | All Fatal Crashes Number | Percent | Alcohol-Related Fatal Crashes * Number | Percent |
|---|---|---|---|---|
| **Collision with:** | | | | |
| Another Motor Vehicle | 278 | 49.9% | 72 | 33.2% |
| Parked Motor Vehicle | 3 | 0.5 | 0 | 0.0 |
| Railroad Train | 3 | 0.5 | 0 | 0.0 |
| Bicycle | 13 | 2.3 | 4 | 1.8 |
| Pedestrian | 36 | 6.5 | 13 | 6.0 |
| Deer | 2 | 0.4 | 0 | 0.0 |
| Other Animal | 0 | 0.0 | 0 | 0.0 |
| Fixed Object | 124 | 22.3 | 73 | 33.6 |
| **Non-Collision:** | | | | |
| Overturn | 90 | 16.2 | 51 | 23.5 |
| Fire/Explosion | 0 | 0.0 | 0 | 0.0 |
| Submersion | 0 | 0.0 | 0 | 0.0 |
| **Other/Unknown** | 8 | 1.4 | 4 | 1.8% |
| Total | 557 | 100.0% | 217 | 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, 1991 - 2000

| Year | Killed | Tested | Alcohol Concentration* (.00) | (.01 - .09) | (.10 or more) |
|---|---|---|---|---|---|
| 1991 | 327 | 242 | 135 (56%) | 22 (9%0 | 85 (35%) |
| 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%) |

* Percents based on drivers tested.

*TABLE 2.10*

## DRIVERS KILLED WHO TESTED .01 OR HIGHER, 1991 - 2000
## ("Any Alcohol")

| Year | Total | Male | | Female | | Occurred Between Midnight - 3 AM | | Under Legal Age | |
|---|---|---|---|---|---|---|---|---|---|
| 1991 | 107 | 98 | (92%) | 9 | (8%) | 37 | (35%) | 23 | (21%) |
| 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%) |

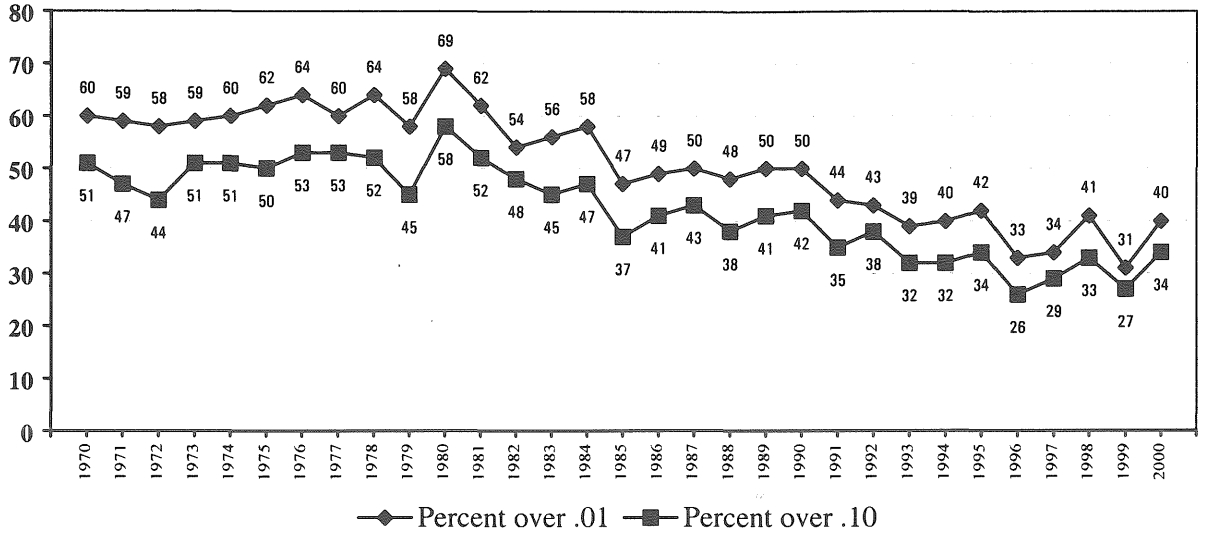
*TABLE 2.11*

## DRIVERS KILLED WHO TESTED .10 OR HIGHER, 1991 - 2000
## ("Over Limit")

| Year | Total | Male | | Female | | Occurred Between Midnight - 3 AM | | Under Legal Age | |
|---|---|---|---|---|---|---|---|---|---|
| 1991 | 85 | 79 | (93%) | 6 | (7%) | 30 | (35%) | 13 | (15%) |
| 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%) |

## Figure 2.02

**Killed Drivers Tested for Alcohol: Percent over .01 Alcohol Level and Percent over .10 Alcohol Level, 1970 - 2000**




## FIGURE 2.03

**Percent of Drivers Killed Who Had Been Drinking, by Age, 2000**

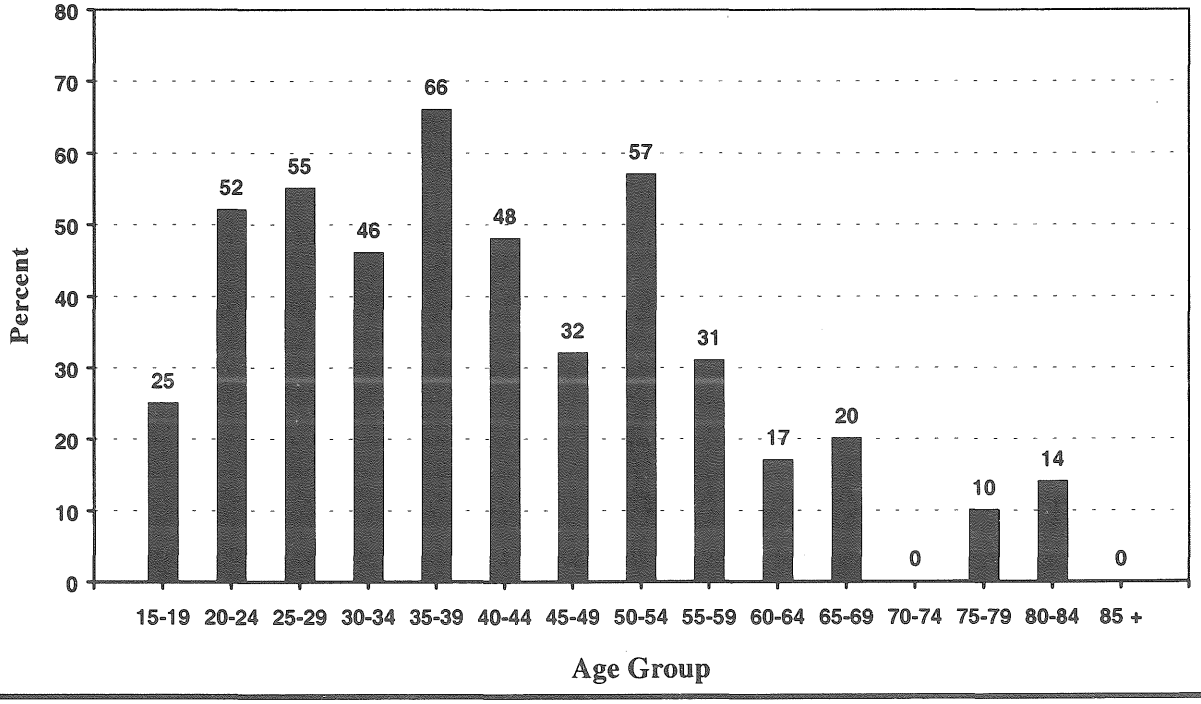


*TABLE 2.12*

## 2000 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

| | | | Alcohol Concentration (.00) | | (.01 - .09) | | (.10 or more) | | Alcohol Concentration | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | Killed | Tested | number | percent | number | percent | number | percent | .00 | .01-.04 | .05-.09 | .10-.14 | .15-.19 | .20-.24 | .25& over |
| 14 & Younger | 1 | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 1 | 1 | 1 | | 0 | | 0 | | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 11 | 10 | 10 | | 0 | | 0 | | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 12 | 12 | 11 | | 0 | | 1 | | 11 | 0 | 0 | 0 | 1 | 0 | 0 |
| 18 | 8 | 8 | 4 | | 1 | | 3 | | 4 | 1 | 0 | 0 | 2 | 1 | 0 |
| 19 | 14 | 13 | 7 | | 0 | | 6 | | 7 | 0 | 0 | 3 | 1 | 2 | 0 |
| 20 | 12 | 11 | 7 | | 0 | | 4 | | 7 | 0 | 0 | 1 | 1 | 2 | 0 |
| Under 21 | 59 | 55 | 40 | | 1 | | 14 | | 40 | 1 | 0 | 4 | 5 | 5 | 0 |
| 14 & Younger | 1 | 0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 - 19 | 46 | 44 | 33 | 75.0 | 1 | 2.3 | 10 | 22.7 | 33 | 1 | 0 | 3 | 4 | 3 | 0 |
| 20 - 24 | 51 | 50 | 24 | 48.0 | 0 | 0 | 26 | 52.0 | 24 | 0 | 0 | 5 | 7 | 12 | 2 |
| 25 - 29 | 43 | 42 | 19 | 45.2 | 3 | 7.1 | 20 | 47.6 | 19 | 1 | 2 | 2 | 6 | 7 | 5 |
| 30 - 34 | 39 | 39 | 21 | 53.9 | 4 | 10.3 | 14 | 35.9 | 21 | 1 | 3 | 3 | 6 | 3 | 2 |
| 35 - 39 | 34 | 32 | 11 | 34.4 | 2 | 6.3 | 19 | 59.4 | 11 | 0 | 2 | 4 | 6 | 3 | 6 |
| 40 - 44 | 34 | 31 | 16 | 51.6 | 4 | 12.9 | 11 | 35.5 | 16 | 4 | 0 | 1 | 7 | 2 | 1 |
| 45 - 49 | 41 | 38 | 26 | 68.4 | 1 | 2.6 | 11 | 29.0 | 26 | 0 | 1 | 2 | 2 | 2 | 5 |
| 50 - 54 | 23 | 21 | 9 | 42.9 | 3 | 14.3 | 9 | 42.9 | 9 | 3 | 0 | 1 | 4 | 1 | 3 |
| 55 - 59 | 17 | 16 | 11 | 68.8 | 1 | 6.3 | 4 | 25.0 | 11 | 1 | 0 | 2 | 0 | 1 | 1 |
| 60 - 64 | 14 | 12 | 10 | 83.3 | 1 | 8.3 | 1 | 8.3 | 10 | 1 | 0 | 0 | 0 | 0 | 1 |
| 65 - 69 | 7 | 5 | 4 | 80.0 | 0 | 0.0 | 1 | 20.0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 |
| 70 - 74 | 14 | 13 | 13 | 100.0 | 0 | 0.0 | 0 | 0.0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75 - 79 | 12 | 10 | 9 | 90.0 | 1 | 10.0 | 0 | 0.0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 |
| 80 - 84 | 16 | 14 | 12 | 85.7 | 1 | 7.1 | 1 | 7.1 | 12 | 1 | 0 | 0 | 1 | 0 | 0 |
| 85 + | 11 | 8 | 8 | 100.0 | 0 | 0.0 | 0 | 0.0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 403 | 375 | 226 | 60.3 | 22 | 5.9 | 127 | 33.9 | 226 | 14 | 8 | 23 | 43 | 35 | 26 |

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

*TABLE 2.13*

## 2000 ALCOHOL - RELATED CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| January | 10 | 233 | 264 | 507 | 14 | 347 |
| February | 16 | 202 | 182 | 400 | 19 | 313 |
| March | 16 | 209 | 180 | 405 | 17 | 300 |
| April | 20 | 261 | 184 | 465 | 22 | 396 |
| May | 20 | 238 | 177 | 435 | 21 | 345 |
| June | 14 | 236 | 186 | 436 | 15 | 349 |
| July | 31 | 264 | 222 | 517 | 33 | 419 |
| August | 19 | 231 | 198 | 448 | 23 | 352 |
| September | 11 | 284 | 192 | 487 | 14 | 416 |
| October | 19 | 242 | 244 | 505 | 24 | 396 |
| November | 28 | 240 | 272 | 540 | 30 | 372 |
| December | 13 | 261 | 331 | 605 | 13 | 397 |
| Total | 217 | 2,901 | 2,632 | 5,750 | 245 | 4,402 |

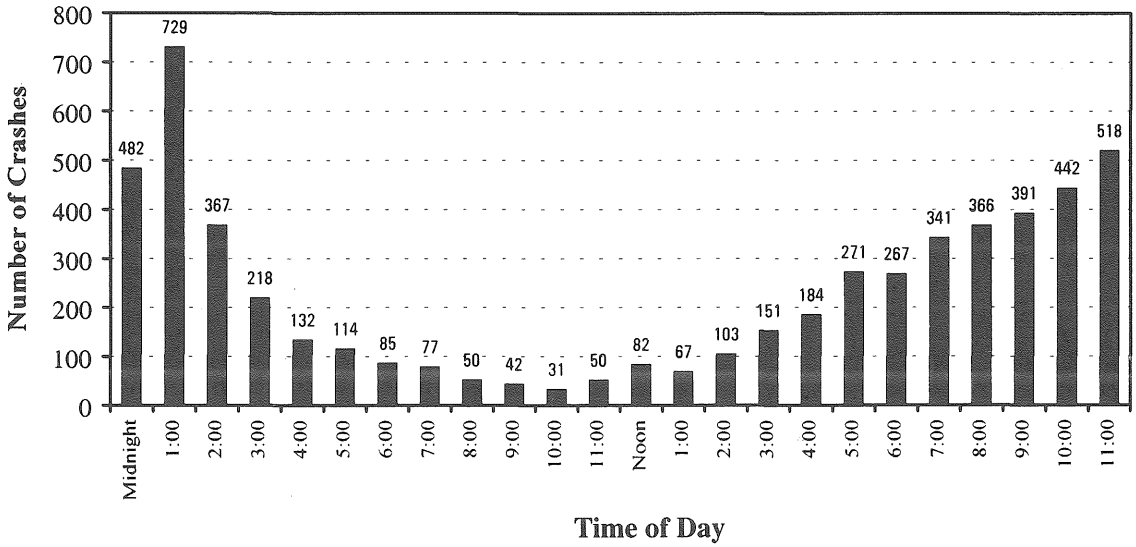
*TABLE 2.14*

## 2000 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE

| Roadway Type | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Urban Interstate | 11 | 213 | 257 | 481 | 11 | 306 |
| Rural Interstate | 5 | 44 | 58 | 107 | 6 | 67 |
| Urban Trunk Hwy | 15 | 333 | 358 | 706 | 17 | 532 |
| Rural Trunk Hwy | 62 | 491 | 324 | 877 | 79 | 798 |
| County State Aid Hwy | 84 | 913 | 635 | 1,632 | 90 | 1,392 |
| County Road | 10 | 121 | 55 | 186 | 10 | 183 |
| Township Road | 13 | 148 | 90 | 251 | 14 | 238 |
| Local Street | 16 | 607 | 814 | 1,437 | 17 | 841 |
| Other | 1 | 31 | 41 | 73 | 1 | 45 |
| Total | 217 | 2,901 | 2,632 | 5,750 | 245 | 4,402 |

# FIGURE 2.04

## 2000 Alcohol-Related Crashes by Time of Day




# FIGURE 2.05

## 2000 Alcohol-Related Crashes by Day of Week

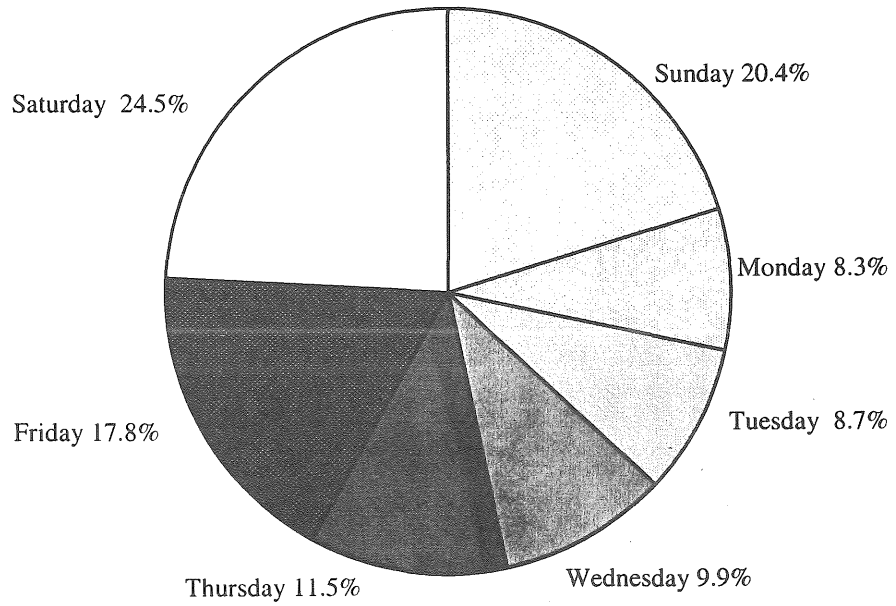


*TABLE 2.15*

## 2000 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 | 109 | 40 | 46 | 36 | 56 | 53 | 142 | 482 | 19 | 356 |
| 1:00 AM | 193 | 38 | 45 | 63 | 89 | 90 | 211 | 729 | 30 | 535 |
| 2:00 AM | 107 | 21 | 20 | 27 | 38 | 44 | 110 | 367 | 15 | 267 |
| 3:00 AM | 83 | 19 | 7 | 10 | 12 | 24 | 63 | 218 | 8 | 154 |
| 4:00 AM | 46 | 4 | 2 | 9 | 15 | 16 | 40 | 132 | 7 | 82 |
| 5:00 AM | 40 | 6 | 5 | 5 | 5 | 16 | 37 | 114 | 11 | 83 |
| 6:00 AM | 23 | 8 | 4 | 6 | 7 | 14 | 23 | 85 | 7 | 62 |
| 7:00 AM | 22 | 6 | 3 | 7 | 11 | 15 | 13 | 77 | 6 | 52 |
| 8:00 AM | 16 | 2 | 3 | 6 | 5 | 5 | 13 | 50 | 3 | 35 |
| 9:00 AM | 8 | 5 | 6 | 6 | 6 | 3 | 8 | 42 | 0 | 27 |
| 10:00 AM | 10 | 1 | 0 | 0 | 6 | 5 | 9 | 31 | 3 | 23 |
| 11:00 AM | 8 | 6 | 4 | 10 | 5 | 7 | 10 | 50 | 3 | 31 |
| Noon | 11 | 7 | 9 | 9 | 6 | 15 | 25 | 82 | 3 | 50 |
| 1:00 PM | 14 | 4 | 6 | 7 | 4 | 14 | 18 | 67 | 4 | 47 |
| 2:00 PM | 14 | 7 | 14 | 11 | 8 | 15 | 34 | 103 | 8 | 88 |
| 3:00 PM | 34 | 14 | 20 | 10 | 14 | 25 | 34 | 151 | 4 | 138 |
| 4:00 PM | 46 | 15 | 24 | 26 | 17 | 27 | 29 | 184 | 4 | 155 |
| 5:00 PM | 52 | 24 | 36 | 34 | 29 | 42 | 54 | 271 | 10 | 241 |
| 6:00 PM | 47 | 22 | 25 | 34 | 29 | 57 | 53 | 267 | 11 | 192 |
| 7:00 PM | 56 | 43 | 29 | 36 | 46 | 65 | 66 | 341 | 14 | 297 |
| 8:00 PM | 38 | 44 | 43 | 51 | 45 | 69 | 76 | 366 | 13 | 317 |
| 9:00 PM | 42 | 41 | 41 | 44 | 62 | 84 | 77 | 391 | 12 | 309 |
| 10:00 PM | 50 | 40 | 49 | 53 | 58 | 118 | 74 | 442 | 23 | 346 |
| 11:00 PM | 68 | 37 | 49 | 53 | 61 | 113 | 137 | 518 | 20 | 387 |
| Unknown | 36 | 20 | 9 | 15 | 24 | 37 | 49 | 190 | 7 | 128 |
| Total | 1,173 | 474 | 499 | 568 | 658 | 973 | 1,405 | 5,750 | 245 | 4,402 |

# III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2000 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 are problematic in that safety equipment use could not be determined by the reporting officer for almost one-sixth of the persons killed or injured in the year 2000. This proportion of unknown safety equipment use has been decreasing slightly over the past few years. Thus, assuming that reporting behavior does not change radically from year to year, the data can be useful in indicating general trends in usage.

**Safety belt use responds to legislation**

Observational surveys of safety belt use conducted yearly at random sites in the state provide strong evidence 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 may 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 remain steady**

In 2000, 520 people who were occupants of motor vehicles died in crashes. This number represents a 1% increase from the previous year. Also, the total number of vehicle occupants injured (40,294) increased slightly (1%) from 1999. But these figures conceal a very powerful, dramatic, and beneficial trend in evidence since the mid-1980s. Specifically, severe injuries have been "trading off" with moderate and minor injuries. They have steadily declined as the less severe injuries have increased in the decade since the seat belt legislation of the mid-1980s. In 1987, 4,176 motor vehicle occupants suffered severe injuries. In 2000, that number decreased to 2,525. This is especially beneficial. By definition, minor (or "possible") and moderate (or "non-incapacitating") injuries do not produce long-term and severe suffering, while severe injuries may often have such impacts, including consequences such as severe and permanent brain damage, paralysis, dismemberment, or epilepsy.

**Another seat belt increase in Minnesota**

According to the August 2000 observational survey, belt use among front-seat occupants averaged 73% across all of Minnesota. This is a welcome result, as this percentage had remained unchanged at 64% to 65% over the four years from 1995 through 1998. However, it appears that without a primary seat belt law, the percentage of Minnesotan's who buckle-up will continue to rise, but very slowly. This may be especially true in rural Minnesota. In 2000, the percentage of people who buckled-up in the non-metro area was only 69%, as compared to 74% in the seven county metro area.

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

In 2000, airbag deployment was recorded 4,052 times when the occupant was also wearing a seat belt. Fifty-two percent of these incidents resulted in no apparent injury. Airbags deployed 403 times when the occupant was not wearing a seat belt. Only 27% 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 |

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, 2000

| | Killed | | Severe Injury | | Moderate Injury | | Minor Injury | | Total Persons Killed or Injured | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ejection Status | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| **Not Ejected** | 363 | 1.2 | 1,813 | 6.1 | 10,678 | 35.7 | 17,036 | 57.0 | 29,890 | 100.0 |
| **Partly Ejected** | 30 | 17.0 | 47 | 26.7 | 66 | 37.5 | 33 | 18.8 | 176 | 100.0 |
| **Ejected** | 119 | 16.9 | 195 | 27.7 | 247 | 35.1 | 142 | 20.2 | 703 | 100.0 |
| **Not Stated** | 8 | 0.1 | 470 | 4.7 | 3,025 | 30.1 | 6,542 | 65.1 | 10,045 | 100.0 |
| **Total** | 520 | 1.3 | 2,525 | 6.2 | 14,016 | 34.3 | 23,753 | 58.2 | 40,814 | 100.0 |

*TABLE 3.03*

## MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2000

| | | Injured | | | |
|---|---|---|---|---|---|
| Age Group | Killed | Severe | Moderate | Minor | Total |
| 0 - 4 | 6 | 27 | 208 | 408 | 643 |
| 5 - 9 | 8 | 38 | 327 | 553 | 918 |
| 10 - 14 | 2 | 58 | 412 | 699 | 1,169 |
| 15 - 19 | 83 | 503 | 3,039 | 3,968 | 7,510 |
| 20 - 24 | 69 | 342 | 2,021 | 3,162 | 5,525 |
| 25 - 29 | 50 | 241 | 1,280 | 2,270 | 3,791 |
| 30 - 34 | 41 | 214 | 1,044 | 2,046 | 3,304 |
| 35 - 39 | 32 | 235 | 1,071 | 2,000 | 3,306 |
| 40 - 44 | 34 | 181 | 984 | 1,877 | 3,042 |
| 45 - 49 | 41 | 133 | 789 | 1,487 | 2,409 |
| 50 - 54 | 22 | 109 | 599 | 1,209 | 1,917 |
| 55 - 59 | 20 | 82 | 456 | 805 | 1,343 |
| 60 - 64 | 20 | 60 | 325 | 585 | 970 |
| 65 - 69 | 10 | 59 | 277 | 446 | 782 |
| 70 - 74 | 18 | 61 | 257 | 399 | 717 |
| 75 - 79 | 25 | 64 | 282 | 359 | 705 |
| 80 - 84 | 24 | 34 | 178 | 213 | 425 |
| 85 & Older | 15 | 23 | 107 | 135 | 265 |
| Not Stated | 0 | 61 | 360 | 1,132 | 1,553 |
| Total | 520 | 2,525 | 14,016 | 23,753 | 40,294 |

**FIGURE 3.01**
**Safety Equipment Use Among Motor Vehicle Occupants Killed and Injured, by Age, 2000**

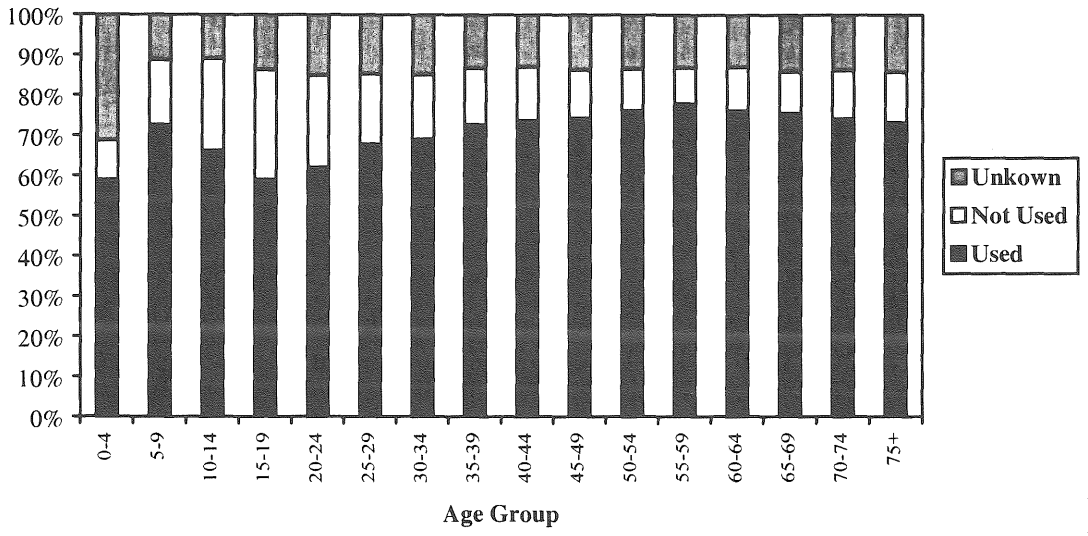



*TABLE 3.04*

## SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS, BY GENDER AND INJURY SEVERITY, 2000

| | | | | Injured | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Killed | | | Severe | | Moderate | | Minor | | |
| | Female | Male | Total | Female | Male | Female | Male | Female | Male | Total |
| Used | 94 | 59 | 153 | 668 | 486 | 4,796 | 4,039 | 10,102 | 7,119 | 27,255 |
| Not Used | 83 | 200 | 283 | 340 | 507 | 1,366 | 1,842 | 1,354 | 1,448 | 6,877 |
| Unknown | 25 | 59 | 84 | 237 | 281 | 854 | 1,061 | 1,691 | 1,574 | 6,162 |
| Total | 202 | 318 | 520 | 1,245 | 1,274 | 7,016 | 6,942 | 13,147 | 10,141 | 40,294 |

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, 2000

| Age Group | Restraint Use | Killed | | Injured | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Severe | | Moderate | | Minor | | Total | |
| | | # | % | # | % | # | % | # | % | # | % |
| 0 – 3 | Used | 2 | 50.0 | 8 | 53.3 | 96 | 62.8 | 200 | 69.4 | 304 | 66.7 |
| Years | Not Used | 2 | 50.0 | 3 | 20.0 | 24 | 15.7 | 27 | 9.4 | 54 | 11.8 |
| | Unknown | 0 | 0.0 | 4 | 26.7 | 33 | 21.6 | 61 | 21.2 | 98 | 21.5 |
| | Subtotal | 4 | 100.0 | 15 | 100.0 | 153 | 100.0 | 288 | 100.0 | 456 | 100.0 |
| 4 – 10 | Used | 7 | 70.0 | 29 | 49.2 | 287 | 65.4 | 559 | 71.0 | 875 | 68.1 |
| Years | Not Used | 1 | 10.0 | 13 | 22.0 | 86 | 19.6 | 88 | 11.2 | 187 | 14.6 |
| | Unknown | 2 | 20.0 | 17 | 28.8 | 66 | 15.0 | 140 | 17.8 | 223 | 17.4 |
| | Subtotal | 10 | 100.0 | 59 | 100.0 | 439 | 100.0 | 787 | 100.0 | 1,285 | 100.0 |
| Total | Used | 9 | 64.3 | 37 | 50.0 | 383 | 64.7 | 759 | 70.6 | 1,179 | 67.7 |
| 0 – 10 | Not Used | 3 | 21.4 | 16 | 21.6 | 110 | 18.6 | 115 | 10.7 | 241 | 13.8 |
| Years | Unknown | 2 | 14.3 | 21 | 28.4 | 99 | 16.7 | 201 | 18.7 | 321 | 18.4 |
| | Subtotal | 14 | 100.0 | 74 | 100.0 | 592 | 100.0 | 1,075 | 100.0 | 1,741 | 100.0 |
| | | | | | | | | | | | |
| 0 – 4 | Used | 3 | 50.0 | 10 | 37.0 | 118 | 56.7 | 252 | 61.8 | 380 | 59.1 |
| Years | Not Used | 2 | 33.3 | 4 | 14.8 | 26 | 12.5 | 31 | 7.6 | 61 | 9.5 |
| | Unknown | 1 | 16.7 | 13 | 48.2 | 64 | 30.8 | 125 | 30.6 | 202 | 31.4 |
| | Subtotal | 6 | 100.0 | 27 | 100.0 | 208 | 100.0 | 408 | 100.0 | 643 | 100.0 |
| 5 – 9 | Used | 6 | 75.0 | 23 | 60.5 | 229 | 70.0 | 415 | 75.0 | 667 | 72.7 |
| Years | Not Used | 1 | 12.5 | 8 | 21.0 | 66 | 20.2 | 73 | 13.2 | 147 | 16.0 |
| | Unknown | 1 | 12.5 | 7 | 18.4 | 32 | 9.8 | 65 | 11.8 | 104 | 11.3 |
| | Subtotal | 8 | 100.0 | 38 | 100.0 | 327 | 100.0 | 553 | 100.0 | 918 | 100.0 |
| 10 – 14 | Used | 0 | 0.0 | 24 | 41.4 | 247 | 60.0 | 505 | 72.2 | 776 | 66.4 |
| Years | Not Used | 2 | 100.0 | 30 | 51.7 | 118 | 28.6 | 116 | 16.6 | 264 | 22.6 |
| | Unknown | 0 | 0.0 | 4 | 6.9 | 47 | 11.4 | 78 | 11.2 | 129 | 11.0 |
| | Subtotal | 2 | 100.0 | 58 | 100.0 | 412 | 100.0 | 699 | 100.0 | 1,169 | 100.0 |
| 15 – 19 | Used | 16 | 19.3 | 178 | 35.4 | 1,692 | 55.7 | 2,603 | 65.6 | 4,473 | 59.6 |
| Years | Not Used | 53 | 63.9 | 224 | 44.5 | 951 | 31.3 | 832 | 21.0 | 2,007 | 26.7 |
| | Unknown | 14 | 16.9 | 101 | 20.1 | 396 | 13.0 | 533 | 13.4 | 1,030 | 13.7 |
| | Subtotal | 83 | 100.0 | 503 | 100.0 | 3,039 | 100.0 | 3,968 | 100.0 | 7,510 | 100.0 |
| 20 – 24 | Used | 12 | 17.4 | 131 | 38.3 | 1,122 | 55.5 | 2,211 | 69.9 | 3,464 | 62.7 |
| Years | Not Used | 42 | 60.9 | 135 | 39.5 | 609 | 30.1 | 483 | 15.3 | 1,227 | 22.2 |
| | Unknown | 15 | 21.7 | 76 | 22.2 | 290 | 14.4 | 468 | 14.8 | 834 | 15.1 |
| | Subtotal | 69 | 100.0 | 342 | 100.0 | 2,021 | 100.0 | 3,162 | 100.0 | 5,525 | 100.0 |
| 25 – 29 | Used | 9 | 18.0 | 110 | 45.6 | 804 | 62.8 | 1,685 | 74.2 | 2,599 | 68.6 |
| Years | Not Used | 31 | 62.0 | 75 | 31.1 | 294 | 23.0 | 263 | 11.6 | 632 | 16.7 |
| | Unknown | 10 | 20.0 | 56 | 23.2 | 182 | 14.2 | 322 | 14.2 | 560 | 14.8 |
| | Subtotal | 50 | 100.0 | 241 | 100.0 | 1,280 | 100.0 | 2,270 | 100.0 | 3,791 | 100.0 |
| 30 – 34 | Used | 8 | 19.5 | 101 | 47.2 | 686 | 65.7 | 1,518 | 74.2 | 2,305 | 69.8 |
| Years | Not Used | 24 | 58.5 | 79 | 36.9 | 212 | 20.3 | 217 | 10.6 | 508 | 15.4 |
| | Unknown | 9 | 22.0 | 34 | 15.9 | 146 | 14.0 | 311 | 15.2 | 491 | 14.9 |
| | Subtotal | 41 | 100.0 | 214 | 100.0 | 1,044 | 100.0 | 2,046 | 100.0 | 3,304 | 100.0 |
| 35 – 39 | Used | 6 | 18.8 | 115 | 48.9 | 738 | 68.9 | 1,569 | 78.4 | 2,422 | 73.3 |
| Years | Not Used | 22 | 68.8 | 69 | 29.4 | 199 | 18.6 | 173 | 8.6 | 441 | 13.3 |
| | Unknown | 4 | 12.5 | 51 | 21.7 | 134 | 12.5 | 258 | 12.9 | 443 | 13.4 |
| | Subtotal | 32 | 100.0 | 235 | 100.0 | 1,071 | 100.0 | 2,000 | 100.0 | 3,306 | 100.0 |

*TABLE 3.05 CONTINUED*

## SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2000

| Age Group | Restraint Use | Killed | | Injured | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Severe | | Moderate | | Minor | | Total | |
| | | # | % | # | % | # | % | # | % | # | % |
| 40 – 44 | Used | 10 | 29.4 | 91 | 50.3 | 657 | 66.8 | 1,512 | 80.6 | 2,260 | 74.3 |
| Years | Not Used | 18 | 52.9 | 54 | 29.8 | 190 | 19.3 | 142 | 7.6 | 386 | 12.7 |
| | Unknown | 6 | 17.6 | 36 | 19.9 | 137 | 13.9 | 223 | 11.9 | 396 | 13.0 |
| | Subtotal | 34 | 100.0 | 181 | 100.0 | 984 | 100.0 | 1,877 | 100.0 | 3,042 | 100.0 |
| 45 – 49 | Used | 10 | 24.4 | 63 | 47.4 | 568 | 72.0 | 1,180 | 79.4 | 1,811 | 75.2 |
| Years | Not Used | 26 | 63.4 | 47 | 35.3 | 115 | 14.6 | 101 | 6.8 | 263 | 10.9 |
| | Unknown | 5 | 12.2 | 23 | 17.3 | 106 | 13.4 | 206 | 13.8 | 335 | 13.9 |
| | Subtotal | 41 | 100.0 | 133 | 100.0 | 789 | 100.0 | 1,487 | 100.0 | 2,409 | 100.0 |
| 50 – 54 | Used | 9 | 40.9 | 57 | 52.3 | 440 | 73.5 | 973 | 80.5 | 1,470 | 76.7 |
| Years | Not Used | 11 | 50.0 | 26 | 23.8 | 80 | 13.4 | 80 | 6.6 | 186 | 9.7 |
| | Unknown | 2 | 9.1 | 26 | 23.8 | 79 | 13.2 | 156 | 12.9 | 261 | 13.6 |
| | Subtotal | 22 | 100.0 | 109 | 100.0 | 599 | 100.0 | 1,209 | 100.0 | 1,917 | 100.0 |
| 55 – 59 | Used | 4 | 20.0 | 53 | 64.6 | 336 | 73.7 | 669 | 83.1 | 1,058 | 78.8 |
| Years | Not Used | 11 | 55.0 | 16 | 19.5 | 58 | 12.7 | 35 | 4.4 | 109 | 8.1 |
| | Unknown | 5 | 25.0 | 13 | 15.8 | 62 | 13.6 | 101 | 12.6 | 176 | 13.1 |
| | Subtotal | 20 | 100.0 | 82 | 100.0 | 456 | 100.0 | 805 | 100.0 | 1,343 | 100.0 |
| 60 – 64 | Used | 10 | 50.0 | 28 | 46.7 | 239 | 73.5 | 478 | 81.7 | 745 | 76.8 |
| Years | Not Used | 7 | 35.0 | 22 | 36.7 | 45 | 13.8 | 32 | 5.5 | 99 | 10.2 |
| | Unknown | 3 | 15.0 | 10 | 16.7 | 41 | 12.6 | 75 | 12.8 | 126 | 13.0 |
| | Subtotal | 20 | 100.0 | 60 | 100.0 | 325 | 100.0 | 585 | 100.0 | 970 | 100.0 |
| 65 – 69 | Used | 9 | 90.0 | 42 | 71.2 | 202 | 72.9 | 346 | 77.6 | 590 | 75.4 |
| Years | Not Used | 1 | 10.0 | 6 | 10.2 | 38 | 13.7 | 35 | 7.8 | 79 | 10.1 |
| | Unknown | 0 | 0.0 | 11 | 18.6 | 37 | 13.4 | 65 | 14.6 | 113 | 14.4 |
| | Subtotal | 10 | 100.0 | 59 | 100.0 | 277 | 100.0 | 446 | 100.0 | 782 | 100.0 |
| 70 – 74 | Used | 8 | 44.4 | 39 | 63.9 | 185 | 72.0 | 314 | 78.7 | 538 | 75.0 |
| Years | Not Used | 6 | 33.3 | 10 | 16.4 | 39 | 15.2 | 32 | 8.0 | 81 | 11.3 |
| | Unknown | 4 | 22.2 | 12 | 19.7 | 33 | 12.8 | 53 | 13.3 | 98 | 13.7 |
| | Subtotal | 18 | 100.0 | 61 | 100.0 | 257 | 100.0 | 399 | 100.0 | 717 | 100.0 |
| 75 & | Used | 33 | 51.6 | 69 | 57.0 | 410 | 72.3 | 557 | 78.8 | 1,036 | 74.3 |
| Older | Not Used | 26 | 40.6 | 28 | 23.1 | 78 | 13.8 | 49 | 6.9 | 155 | 11.1 |
| | Unknown | 5 | 7.8 | 24 | 19.8 | 79 | 13.9 | 101 | 14.3 | 204 | 14.6 |
| | Subtotal | 64 | 100.0 | 121 | 100.0 | 567 | 100.0 | 707 | 100.0 | 1,395 | 100.0 |
| Age | Used | 0 | 0.0 | 20 | 32.8 | 172 | 47.8 | 469 | 41.4 | 661 | 42.6 |
| Not | Not Used | 0 | 0.0 | 14 | 23.0 | 96 | 26.7 | 122 | 10.8 | 232 | 14.9 |
| Stated | Unknown | 0 | 0.0 | 27 | 44.3 | 92 | 25.6 | 541 | 47.8 | 660 | 42.5 |
| | Subtotal | 0 | 0.0 | 61 | 100.0 | 360 | 100.0 | 1,132 | 100.0 | 1,553 | 100.0 |
| All | Used | 153 | 29.4 | 1,154 | 45.7 | 8,845 | 63.1 | 17,256 | 72.6 | 27,255 | 67.6 |
| Ages | Not Used | 283 | 54.4 | 847 | 33.5 | 3,214 | 22.9 | 2,816 | 11.8 | 6,877 | 17.1 |
| | Unknown | 84 | 16.2 | 524 | 20.8 | 1,957 | 14.0 | 3,681 | 15.5 | 6,162 | 15.3 |
| | Total | 520 | 100.0 | 2,525 | 100.0 | 14,016 | 100.0 | 23,753 | 100.0 | 40,294 | 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, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Killed** | | | | | | | | | | |
| Used | 24.4 | 27.5 | 32.1 | 25.4 | 27.1 | 30.3 | 37.5 | 30.3 | 31.6 | 29.4 |
| Not Used | 57.0 | 58.5 | 52.6 | 56.3 | 48.3 | 52.6 | 45.9 | 48.7 | 50.0 | 54.4 |
| Unknown | 18.5 | 14.0 | 15.3 | 18.3 | 24.6 | 17.1 | 16.6 | 21.0 | 18.4 | 16.2 |
| **Injured** | | | | | | | | | | |
| **Severe Injuries** | | | | | | | | | | |
| Used | 35.7 | 36.6 | 40.7 | 43.0 | 41.7 | 44.8 | 45.4 | 43.8 | 44.9 | 45.7 |
| Not Used | 40.7 | 41.7 | 37.4 | 37.6 | 37.2 | 35.9 | 35.2 | 36.0 | 34.2 | 33.5 |
| Unknown | 23.6 | 21.7 | 21.9 | 19.4 | 21.1 | 19.3 | 19.4 | 20.1 | 20.9 | 20.8 |
| **Moderate Injuries** | | | | | | | | | | |
| Used | 45.9 | 48.5 | 51.8 | 54.5 | 55.3 | 57.5 | 59.0 | 59.3 | 61.0 | 63.1 |
| Not Used | 33.7 | 34.0 | 31.9 | 29.6 | 28.4 | 27.4 | 25.7 | 26.0 | 24.6 | 22.9 |
| Unknown | 20.4 | 17.5 | 16.3 | 15.9 | 16.2 | 15.1 | 15.3 | 14.7 | 14.4 | 14.0 |
| **Minor Injuries** | | | | | | | | | | |
| Used | 54.3 | 61.4 | 64.8 | 65.0 | 66.8 | 67.9 | 69.5 | 69.9 | 71.1 | 72.6 |
| Not Used | 19.8 | 19.9 | 17.0 | 16.0 | 15.2 | 14.6 | 13.1 | 13.4 | 12.7 | 11.9 |
| Unknown | 25.9 | 18.8 | 18.1 | 19.0 | 18.0 | 17.5 | 17.4 | 16.7 | 16.2 | 15.5 |
| **Total Injured** | | | | | | | | | | |
| Used | 49.8 | 55.0 | 58.7 | 59.9 | 61.1 | 62.9 | 64.2 | 64.4 | 65.7 | 67.6 |
| Not Used | 26.3 | 26.4 | 23.5 | 22.1 | 21.2 | 20.3 | 18.9 | 19.4 | 18.4 | 17.1 |
| Unknown | 23.9 | 18.6 | 17.9 | 18.0 | 17.6 | 16.8 | 16.8 | 16.2 | 15.9 | 15.3 |

*TABLE 3.07*

## SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED AND INJURED, BY ROADWAY TYPE, 2000

| | Used | | Not Used | | Unknown | | Total | |
|---|---|---|---|---|---|---|---|---|
| Roadway Type | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Interstate | 2,906 | 76.2 | 592 | 15.5 | 314 | 8.2 | 3,812 | 100.0 |
| US Trunk Hwy | 3,611 | 71.0 | 912 | 17.9 | 561 | 11.0 | 5,084 | 100.0 |
| MN Trunk Hwy | 5,728 | 70.5 | 1,400 | 17.2 | 1,000 | 12.3 | 8,128 | 100.0 |
| CSAH* | 8,205 | 65.4 | 2,095 | 16.7 | 2,236 | 17.8 | 12,536 | 100.0 |
| County Road | 472 | 53.5 | 239 | 27.1 | 171 | 19.4 | 882 | 100.0 |
| Township Road | 512 | 47.2 | 368 | 33.9 | 205 | 18.9 | 1,085 | 100.0 |
| Local Street | 5,859 | 64.6 | 1,497 | 16.5 | 1,706 | 18.8 | 9,062 | 100.0 |
| Other Road | 115 | 51.1 | 57 | 25.3 | 53 | 23.6 | 225 | 100.0 |
| Total | 27,408 | 67.2 | 7,160 | 17.5 | 6,246 | 15.3 | 40,814 | 100.0 |

*County State Aid Highway

*TABLE 3.08*

## SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED AND INJURED, BY REGION OF THE STATE, 2000

| EMS Region | Percent Used | Percent Not Used | Percent Unknown | Number of People |
|---|---|---|---|---|
| Metropolitan | 70.9 | 12.9 | 16.1 | 22,746 |
| Central | 63.9 | 21.9 | 14.2 | 5,526 |
| Northeast | 64.4 | 22.5 | 13.1 | 2,363 |
| Northwest | 52.1 | 30.6 | 17.3 | 1,148 |
| South Central | 66.2 | 20.1 | 13.6 | 1,668 |
| Southeast | 65.0 | 22.0 | 13.0 | 3,829 |
| Southwest | 58.5 | 26.8 | 14.7 | 2,036 |
| West Central | 55.7 | 27.1 | 17.2 | 1,498 |
| Statewide | 67.2 | 17.5 | 15.3 | 40,814 |

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

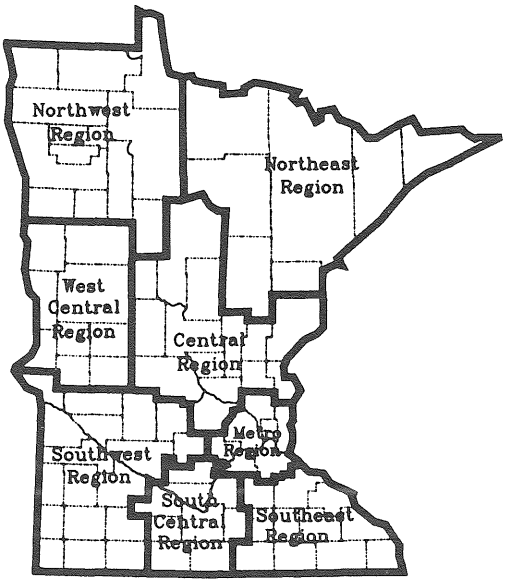


*TABLE 3.09*

# AIRBAG DEPLOYMENTS, 1993 - 2000

| Year | Injury Severity | Airbag Deployed: Belt Used | Airbag Deployed: Belt Not Used | Deployment Not Indicated: Belt Used | Deployment Not Indicated: Belt Not Used | Belt Use Unknown | Total |
|---|---|---|---|---|---|---|---|
| 1993 | Killed | 1 | 3 | 140 | 228 | 67 | 439 |
| | Severe Injury | 18 | 9 | 1,337 | 1,236 | 728 | 3,328 |
| | Moderate Injury | 116 | 15 | 6,618 | 4,125 | 2,122 | 12,996 |
| | Minor Injury | 124 | 16 | 15,518 | 4,093 | 4,375 | 24,126 |
| | No Apparent Injury | 274 | 22 | 85,736 | 10,508 | 106,902 | 203,442 |
| | Total | 533 | 65 | 109,349 | 20,190 | 114,194 | 244,331 |
| 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 | 465 | 28 | 95,102 | 9,189 | 96,345 | 201,129 |
| | 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 | 668 | 32 | 93,028 | 8,393 | 89,646 | 191,767 |
| | 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 | 973 | 51 | 103,909 | 8,574 | 98,418 | 211,925 |
| | 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 | 1,142 | 66 | 98,069 | 7,600 | 89,634 | 196,511 |
| | 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 | 1,436 | 89 | 93,842 | 7,044 | 83,677 | 186,088 |
| | 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 | 1,777 | 87 | 101,556 | 6,597 | 84,477 | 194,494 |
| | Total | 3,493 | 344 | 126,447 | 13,991 | 90,958 | 235,233 |
| 2000 | Killed | 28 | 27 | 125 | 256 | 84 | 520 |
| | Severe Injury | 132 | 38 | 1,022 | 809 | 524 | 2,525 |
| | Moderate Injury | 850 | 147 | 7,995 | 3,067 | 1,957 | 14,016 |
| | Minor Injury | 936 | 84 | 16,320 | 2,732 | 3,681 | 23,753 |
| | No Apparent Injury | 2,106 | 107 | 111,072 | 6,275 | 87,803 | 207,363 |
| | Total | 4,052 | 403 | 136,534 | 13,139 | 94,049 | 248,177 |

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 2000, there were 1,135 crashes that involved at least one motorcycle. This number represents an 11% increase from the previous year. This result is disturbing, as motorcycle crashes had been declining the past few years. In fact, the average number of motorcycle crashes per year from 1997 through 1999 was 1,020.

**Fatalities and injuries also increase**
In 2000, there were 35 motorcyclists killed in traffic crashes. There were only 29 motorcyclist fatalities in 1999. Motorcyclist injuries also increased. There were 1,039 recorded in the year 2000. This number represents a 5% increase from the previous year. The average number of motorcyclist injuries per year from 1997 through 1999 was 965.

**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 2000, 3.0 of them were fatal crashes. For all crashes in 2000, 0.5 of every 100 were fatal. Also, in 2000, 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 2000, 32 motorcycle operators were killed and all of them were tested. Ten of the 32 drivers (31%) tested positive for alcohol. And, 9 of those 10 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 2000, only six (17%) of the 35 motorcycle riders killed were known to be wearing a helmet. And, of the 1,039 motorcyclists injured, only 317 (30%) were recorded as wearing a helmet.

**Operator training is essential**
In 2000, 44% of all motorcycle crashes involved a collision with another motor vehicle in transport; 56% did not. This may indicate that further training is needed for a large segment of the motorcycle driver population. Indeed, of the 36 motorcycle drivers that were involved in fatal crashes in 2000, 17% of them did not have a driver's license or a valid endorsement to drive a motorcycle.

**Young males are most often victims**
In 2000, 29 out of the 35 motorcyclists killed, and 865 out of the 1,039 injured were male. Males account for a full 83% 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 (27%), driver inexperience (15%), driver inattention or distraction (13%), and physical impairment (10%). In crashes that do involve another motor vehicle, the reporting officers more often associate contributing factors with the other driver than with the motorcyclist. For the other drivers, failure to yield right of way is cited most commonly (35% of all factors cited), then driver inattention or distraction (25%).

*TABLE 4.01*

## MOTORCYCLE CRASH SUMMARY, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Record High (since 1970) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Crashes** | **1,461** | **1,361** | **1,245** | **1,381** | **1,126** | **1,131** | **971** | **1,065** | **1,024** | **1,135** | **3,308 (1980)** |
| Fatal Crashes | 38 | 29 | 33 | 41 | 32 | 39 | 23 | 41 | 30 | 34 | 112 (1980) |
| Personal Injury Crashes | 1,198 | 1,133 | 1,022 | 1,151 | 941 | 934 | 821 | 883 | 867 | 935 | 2,728 (1980) |
| Property Damage Crashes | 225 | 199 | 190 | 189 | 153 | 158 | 127 | 141 | 127 | 166 | 537 (1976) |
| **Persons Killed:** | | | | | | | | | | | |
| Motorcyclists | 40 | 28 | 34 | 43 | 35 | 42 | 24 | 40 | 29 | 35 | 121 (1980) |
| Non-Motorcyclists/Unknown | 0 | 3 | 3 | 0 | 2 | 0 | 1 | 1 | 2 | 1 | 9 (1975) |
| **Persons Injured:** | | | | | | | | | | | |
| Motorcyclists | 1,357 | 1,288 | 1,151 | 1,324 | 1,063 | 1,046 | 916 | 987 | 991 | 1,039 | 3,359 (1980) |
| Non-Motorcyclists/Unknown | 104 | 60 | 104 | 66 | 76 | 71 | 65 | 69 | 64 | 45 | N/A |
| Licensed Operators | 296,624 | 290,722 | 291,756 | 293,164 | 295,849 | 297,102 | 298,863 | 301,992 | 307,009 | 311,825 | 311,825 (2000) |
| Registered Motorcycles | 117,492 | 116,124 | 114,548 | 113,337 | 113,981 | 112,551 | 113,443 | 118,275 | 122,676 | 132,352 | 166,151 (1981) |
| Registered Classic Motorcycles | 1,080 | 1,281 | 1,512 | 1,764 | 2,064 | 2,327 | 2,595 | 2,966 | 3,314 | 3,666 | N/A |
| **Rates:** | | | | | | | | | | | |
| Fatal Motorcycle Crashes Per 100 Motorcycle Crashes | 2.6 | 2.1 | 2.7 | 3.0 | 2.8 | 3.4 | 2.4 | 3.8 | 2.9 | 3.0 | 3.8 (1998) |
| Fatal Crashes Per 100 Crashes (All Vehicles) | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 0.8 (1970) |

*TABLE 4.02*

## 2000 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 | 397 | 87 | 498 | 16 | 441 |
| Parked Motor Vehicle | 0 | 10 | 22 | 32 | 0 | 9 |
| Bicycle | 0 | 3 | 0 | 3 | 0 | 2 |
| Pedestrian | 1 | 1 | 0 | 2 | 0 | 0 |
| Deer | 1 | 46 | 4 | 51 | 1 | 51 |
| Other Animal | 0 | 19 | 2 | 21 | 0 | 27 |
| Fixed Object | 13 | 114 | 9 | 136 | 13 | 122 |
| Other Object | 0 | 3 | 1 | 4 | 0 | 3 |
| **Non-Collision:** | | | | | | |
| Overturn | 5 | 209 | 24 | 238 | 5 | 236 |
| **Other / Unknown** | 0 | 133 | 17 | 150 | 0 | 148 |
| Total | 34 | 935 | 166 | 1,135 | 35 | 1,039 |

*TABLE 4.03*

## 2000 MOTORCYCLE CRASHES BY POPULATION OF AREA

| Population of City or Township | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Motorcyclists Killed | Motorcyclists Injured |
|---|---|---|---|---|---|---|
| 100,000 and Over | 5 | 133 | 52 | 190 | 5 | 139 |
| 50,000 - 99,999 | 1 | 82 | 13 | 96 | 1 | 87 |
| 25,000 - 49,999 | 2 | 124 | 16 | 142 | 2 | 139 |
| 10,000 - 24,999 | 3 | 162 | 37 | 202 | 2 | 176 |
| 5,000 - 9,999 | 1 | 53 | 10 | 64 | 1 | 57 |
| 2,500 - 4,999 | 0 | 47 | 8 | 55 | 0 | 54 |
| 1,000 - 2,499 | 0 | 23 | 4 | 27 | 0 | 23 |
| Under 1,000 | 22 | 311 | 26 | 359 | 24 | 364 |
| Total | 34 | 935 | 166 | 1,135 | 35 | 1,039 |

*TABLE 4.04*

## 2000 MOTORCYCLE CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Motorcyclists Killed | Motorcyclists Injured |
|---|---|---|---|---|---|---|
| January | 0 | 1 | 0 | 1 | 0 | 1 |
| February | 0 | 2 | 0 | 2 | 0 | 2 |
| March | 1 | 36 | 6 | 43 | 0 | 40 |
| April | 3 | 100 | 16 | 119 | 3 | 110 |
| May | 1 | 112 | 16 | 129 | 1 | 127 |
| June | 6 | 149 | 27 | 182 | 6 | 158 |
| July | 6 | 174 | 19 | 199 | 6 | 202 |
| August | 11 | 153 | 36 | 200 | 13 | 174 |
| September | 4 | 123 | 24 | 151 | 4 | 133 |
| October | 2 | 78 | 20 | 100 | 2 | 84 |
| November | 0 | 7 | 2 | 9 | 0 | 8 |
| December | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 34 | 935 | 166 | 1,135 | 35 | 1,039 |

## FIGURE 4.01

### 2000 Motorcycle Crashes by Time of Day

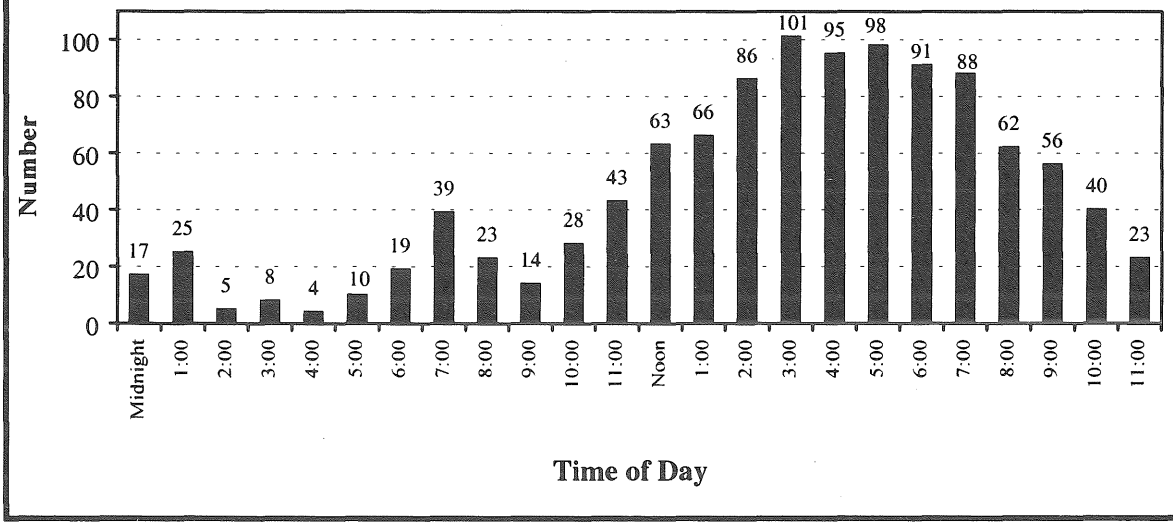


*TABLE 4.05*

## 2000 MOTORCYCLE CRASHES BY TIME AND DAY

| Hour Beginning | Total Crashes | Fatal Crashes | Sunday | | Monday | | Tuesday | | Wednesday | | Thursday | | Friday | | Saturday | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | All | Fatal | All | Fatal | All | Fatal | All | Fatal | All | Fatal | All | Fatal | All | Fatal |
| Midnight | 17 | 0 | 3 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 0 |
| 1:00 | 25 | 2 | 6 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 2 | 0 | 6 | 0 | 7 | 1 |
| 2:00 | 5 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 3:00 | 8 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 4:00 | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 5:00 | 10 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 2 | 0 |
| 6:00 | 19 | 1 | 1 | 0 | 3 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 2 | 0 | 2 | 1 |
| 7:00 | 39 | 1 | 1 | 0 | 5 | 1 | 8 | 0 | 6 | 0 | 6 | 0 | 7 | 0 | 6 | 0 |
| 8:00 | 23 | 0 | 1 | 0 | 4 | 0 | 1 | 0 | 4 | 0 | 4 | 0 | 7 | 0 | 2 | 0 |
| 9:00 | 14 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 1 | 3 | 0 | 1 | 0 | 5 | 0 |
| 10:00 | 28 | 1 | 3 | 0 | 4 | 0 | 4 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 11 | 1 |
| 11:00 | 43 | 3 | 7 | 0 | 5 | 1 | 5 | 0 | 3 | 0 | 7 | 1 | 6 | 0 | 10 | 1 |
| Noon | 63 | 0 | 11 | 0 | 5 | 0 | 7 | 0 | 4 | 0 | 10 | 0 | 10 | 0 | 16 | 0 |
| 1:00 | 66 | 1 | 14 | 1 | 11 | 0 | 2 | 0 | 6 | 0 | 11 | 0 | 9 | 0 | 13 | 0 |
| 2:00 | 86 | 1 | 14 | 0 | 8 | 0 | 12 | 0 | 5 | 0 | 10 | 0 | 15 | 0 | 22 | 1 |
| 3:00 | 101 | 1 | 21 | 0 | 14 | 1 | 8 | 0 | 10 | 0 | 10 | 0 | 25 | 0 | 13 | 0 |
| 4:00 | 95 | 4 | 16 | 0 | 7 | 0 | 10 | 0 | 15 | 1 | 16 | 0 | 13 | 2 | 18 | 1 |
| 5:00 | 98 | 1 | 13 | 0 | 16 | 0 | 14 | 0 | 10 | 1 | 11 | 0 | 16 | 0 | 18 | 0 |
| 6:00 | 91 | 2 | 17 | 1 | 10 | 0 | 12 | 0 | 8 | 0 | 8 | 0 | 14 | 1 | 22 | 0 |
| 7:00 | 88 | 6 | 13 | 1 | 9 | 1 | 9 | 0 | 7 | 1 | 8 | 0 | 18 | 2 | 24 | 1 |
| 8:00 | 62 | 3 | 5 | 0 | 12 | 0 | 13 | 1 | 4 | 0 | 7 | 0 | 11 | 1 | 10 | 1 |
| 9:00 | 56 | 2 | 7 | 0 | 4 | 0 | 8 | 0 | 5 | 0 | 9 | 0 | 13 | 2 | 10 | 0 |
| 10:00 | 40 | 2 | 2 | 1 | 5 | 0 | 8 | 0 | 8 | 0 | 6 | 0 | 8 | 1 | 3 | 0 |
| 11:00 | 23 | 1 | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 5 | 1 | 7 | 0 | 6 | 0 |
| Not Stated | 31 | 0 | 7 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 6 | 0 | 5 | 0 | 7 | 0 |
| Total | 1,135 | 34 | 174 | 4 | 133 | 4 | 134 | 1 | 110 | 5 | 148 | 2 | 203 | 10 | 233 | 8 |

*TABLE 4.06*

## MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2000

| | | | | Injured | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Killed | | | Severe | | | Moderate | | | Minor | | | Total | | |
| Age Group | M | F | Total | M | F | Total | M | F | Total* | M | F | Total* | M | F | Total* |
| 0 - 4 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 |
| 5 - 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - 14 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 3 | 7 | 3 | 1 | 4 | 8 | 4 | 12 |
| 15 - 19 | 0 | 0 | 0 | 13 | 6 | 19 | 48 | 5 | 53 | 21 | 2 | 24 | 82 | 13 | 96 |
| 20 - 24 | 5 | 0 | 5 | 24 | 7 | 31 | 73 | 7 | 80 | 27 | 0 | 28 | 124 | 14 | 139 |
| 25 - 29 | 4 | 0 | 4 | 16 | 4 | 20 | 59 | 5 | 64 | 26 | 6 | 32 | 101 | 15 | 116 |
| 30 - 34 | 1 | 1 | 2 | 18 | 2 | 20 | 31 | 7 | 38 | 39 | 5 | 44 | 88 | 14 | 102 |
| 35 - 39 | 4 | 1 | 5 | 29 | 5 | 34 | 59 | 13 | 72 | 27 | 9 | 37 | 115 | 27 | 143 |
| 40 - 44 | 5 | 2 | 7 | 30 | 5 | 35 | 45 | 11 | 56 | 34 | 12 | 46 | 109 | 28 | 137 |
| 45 - 49 | 5 | 2 | 7 | 21 | 6 | 27 | 44 | 13 | 57 | 25 | 5 | 31 | 90 | 24 | 115 |
| 50 - 54 | 4 | 0 | 4 | 14 | 3 | 17 | 49 | 7 | 56 | 16 | 3 | 19 | 79 | 13 | 92 |
| 55 - 59 | 1 | 0 | 1 | 9 | 2 | 11 | 14 | 2 | 16 | 14 | 0 | 14 | 37 | 4 | 41 |
| 60 - 64 | 0 | 0 | 0 | 2 | 0 | 2 | 7 | 1 | 8 | 6 | 2 | 8 | 15 | 3 | 18 |
| 65 - 69 | 0 | 0 | 0 | 2 | 0 | 2 | 3 | 0 | 3 | 2 | 0 | 2 | 7 | 0 | 7 |
| 70 & Older | 0 | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 6 | 1 | 0 | 1 | 8 | 0 | 8 |
| Not Stated | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 4 | 0 | 4 | 7 | 2 | 5 | 11 |
| Total | 29 | 6 | 35 | 180 | 41 | 221 | 444 | 76 | 521 | 241 | 49 | 297 | 865 | 166 | 1,039 |

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

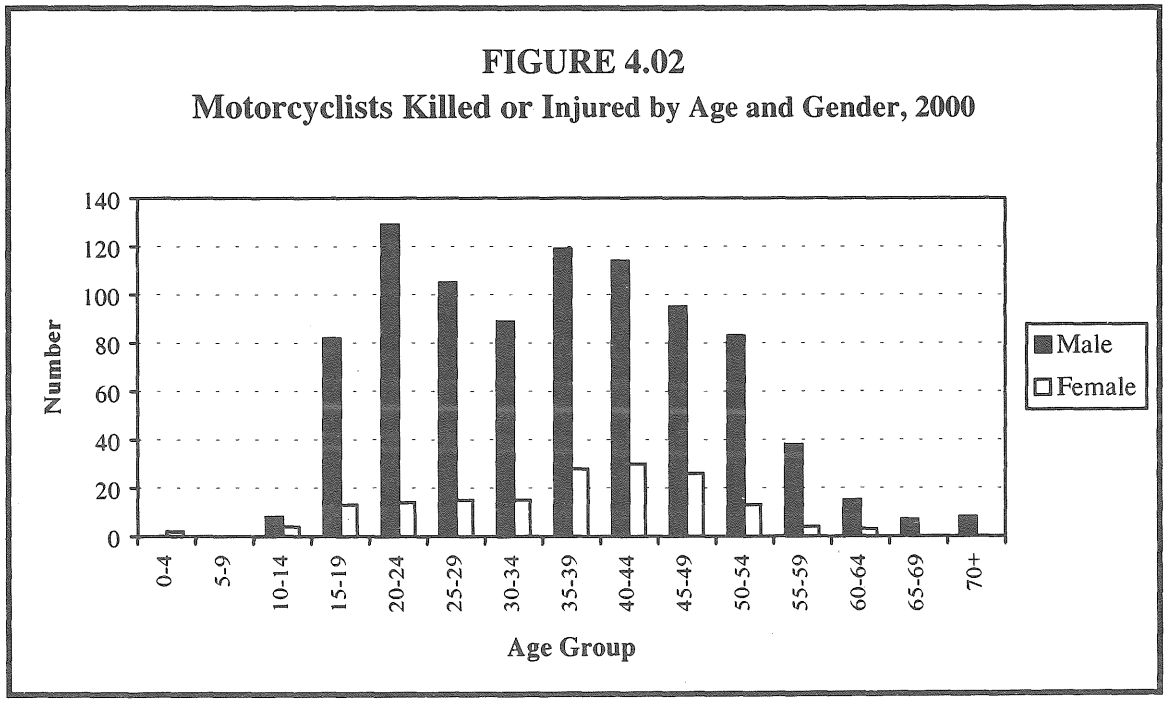


*TABLE 4.07*

## HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 1991 - 2000

| | | Helmet Used | | Helmet Not Used | | Helmet Use Unknown | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| | | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| **Killed** | | | | | | | | | |
| | 1991 | 11 | 27.5% | 24 | 60.0% | 5 | 12.5% | 40 | 100.0% |
| | 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 |
| **Injured** | | | | | | | | | |
| | 1991 | 310 | 22.8% | 594 | 43.8% | 453 | 33.4% | 1,357 | 100.0% |
| | 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 |

*TABLE 4.08*

## ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 1991 - 2000

| | Valid Endorsement* | | Permit Only | | Canceled, Suspended, Revoked | | No Endorsement | | Total** For Year | |
|---|---|---|---|---|---|---|---|---|---|---|
| Year | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 1991 | 28 | 71.8 | 1 | 2.6 | 4 | 10.3 | 5 | 12.8 | 39 | 100.0 |
| 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 |

* 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 - 2000

| 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%) |

*Percentages are based on those motorcycle drivers tested.

*TABLE 4.10*

## 2000 MOTORCYCLE DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

| Age | Killed | Tested | Alcohol Concentration (.01 - .09) | (.10 or more) | Alcohol Concentration .00 | .01-.04 | .05-.09 | .10-.14 | .15-.19 | .20-.24 | .25 & Over |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 & Younger | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Under 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 & Younger | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 - 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 - 24 | 5 | 5 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 1 |
| 25 - 29 | 4 | 4 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 0 |
| 30 - 34 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 - 39 | 5 | 5 | 0 | 4 | 1 | 0 | 0 | 2 | 2 | 0 | 0 |
| 40 - 44 | 6 | 6 | 0 | 2 | 4 | 0 | 0 | 1 | 1 | 0 | 0 |
| 45 - 49 | 5 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 - 54 | 4 | 4 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 0 |
| 55 - 59 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60 & Older | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 32 | 32 | 1 | 9 | 22 | 1 | 0 | 4 | 3 | 1 | 1 |

*TABLE 4.11*

## CONTRIBUTING FACTORS IN 2000 MOTORCYCLE CRASHES

| Contributing Factors | *Single Vehicle Crashes* Attributed to Motorcycle Drivers Number | Percent | *Multi-Vehicle Crashes* Attributed to Motorcycle Drivers Number | Percent | Attributed to Other Drivers Number | Percent |
|---|---|---|---|---|---|---|
| **Human Factors:** | | | | | | |
| Illegal/Unsafe Speed | 174 | 26.9% | 49 | 17.4% | 15 | 2.7% |
| Driver Inexperience | 100 | 15.4 | 16 | 5.7 | 7 | 1.3 |
| Driver Inattention/Distraction | 87 | 13.4 | 65 | 23.1 | 140 | 25.1 |
| Physical Impairment | 62 | 9.6 | 11 | 3.9 | 11 | 2.0 |
| Improper/Unsafe Lane Use | 23 | 3.5 | 20 | 7.1 | 32 | 5.7 |
| Following Too Closely | 7 | 1.1 | 29 | 10.3 | 19 | 3.4 |
| Failure to Yield Right of Way | 5 | 0.8 | 18 | 6.4 | 196 | 35.1 |
| Improper Turn | 5 | 0.8 | 4 | 1.4 | 35 | 6.3 |
| Vision Obscured | 4 | 0.7 | 6 | 2.2 | 30 | 5.4 |
| Improper Park/Start/Stop | 3 | 0.5 | 2 | 0.7 | 5 | 0.9 |
| Disregard Traffic Cntrl Device | 3 | 0.5 | 6 | 2.1 | 21 | 3.8 |
| Improper Passing/Overtaking | 2 | 0.3 | 16 | 5.7 | 4 | 0.7 |
| Driving Left of Center | 1 | 0.2 | 1 | 0.4 | 5 | 0.9 |
| Unsafe Backing | 0 | 0.0 | 2 | 0.7 | 2 | 0.4 |
| Improper or No Signal | 0 | 0.0 | 2 | 0.7 | 12 | 2.2 |
| Impeding Traffic | 0 | 0.0 | 0 | 0.0 | 5 | 0.9 |
| Failure to Use Lights | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other Human Factor | 19 | 2.9 | 5 | 1.8 | 4 | 0.7 |
| **Vehicular Factors:** | | | | | | |
| Skidding | 53 | 8.2 | 8 | 2.8 | 1 | 0.2 |
| Defective Equipment | 14 | 2.2 | 1 | 0.4 | 3 | 0.6 |
| Other Vehicular Factors | 20 | 3.1 | 3 | 1.1 | 3 | 0.5 |
| **Miscellaneous Factors:** | | | | | | |
| Weather Conditions | 6 | 0.9 | 6 | 2.1 | 2 | 0.4 |
| Other | 60 | 9.3 | 11 | 3.9 | 6 | 1.1 |
| Total | 648 | 100.0% | 281 | 100.0% | 558 | 100.0% |
| Vehicles for Which There Was "No Clear Contributing Factor" | 144 | | 350 | | 145 | |
| Total Number Drivers | 589 | | 577 | | 554 | |

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

# V: TRUCK CRASHES

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

**Truck crashes increase**
There were 5,306 traffic crashes in the year 2000 where at least one large truck was involved. This number represents a 3% increase from the previous year. Also, the number of truck related crashes in the year 2000 was the highest recorded in Minnesota since 1996 when 5,358 occurred.

**Deaths and injuries decrease slightly**
There were 73 fatal crashes involving a truck in 2000, resulting in 90 fatalities. In addition, 1,903 people were injured. These numbers represent decreases from the previous year, indicating an increase in Property Damage Only (PDO) truck crashes in the year 2000. Indeed, there were 190 more PDO truck crashes, which may be due to harsher weather conditions late in the year.

**Persons killed or injured usually in other vehicles**
In a two-vehicle collision, relative vehicle weight is a recognized safety advantage. Of the 90 people killed in truck-involved crashes, only 7 were truck occupants. And, of the 1,903 people injured, only 427 (23%) were truck occupants.

**Contributing factors similar for truck and non-truck drivers**
Reporting officers indicated they could determine no clear contributing factor for 42% of the truck drivers and for 43% of the other vehicle drivers. Likewise, contributing factors were similar for the two groups. Driver inattention or distraction (24% for truck drivers and 23% for non-truck drivers) was the top factor cited for both.

However, defective equipment and other vehicular factors were far more common on trucks than on the other vehicles. Not including "skidding", vehicular factors were reported 243 times compared to just 57 times for the other vehicles.

Truck drivers were less likely to be alcohol-impaired than non-truck drivers. For the truck drivers, 16 were reported as positive for alcohol at the time of the crash, as compared to 83 for the non-truck drivers.

**Colder weather and workday-related**
Because of the harsh winter weather in the year 2000, one-third (1,728) of all truck crashes occurred in the months of January, November, or December.

Also, truck crashes are very strongly tied to the workday. In 2000, Monday through Friday averaged 974 truck crashes per day, compared to just 218 on the average per day for Saturday or Sunday.

**Driving conditions**
Driving conditions are usually good in Minnesota, and most truck crashes occurred on dry roads in clear weather. However, 32% of the 73 fatal crashes and 32% of the 1,371 injury crashes occurred on road surfaces reported to be wet, or to be covered with snow or slush, or with ice or packed snow.

**Truck crashes in rural areas**
For this report, rural is defined as an area that has less than 5,000 population. Seventy-seven percent of the fatal truck crashes, and 43% of the injury crashes occurred in rural areas. A majority (64%) of the fatal truck crashes occurred on U.S. Trunk or State Trunk Highways.

*TABLE 5.01*

## TRUCK CRASH SUMMARY, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Crashes** | **5,152** | **4,463** | **4,931** | **5,132** | **4,752** | **5,358** | **4,991** | **4,761** | **5,156** | **5,306** |
| Fatal Crashes | 72 | 65 | 63 | 81 | 77 | 60 | 90 | 85 | 84 | 73 |
| Persons Killed | 85 | 84 | 77 | 94 | 86 | 79 | 105 | 97 | 94 | 90 |
| Injury Crashes | 1,250 | 1,213 | 1,268 | 1,369 | 1,277 | 1,473 | 1,389 | 1,408 | 1,400 | 1,371 |
| Severe | 137 | 167 | 148 | 151 | 153 | 176 | 163 | 180 | 150 | 134 |
| Moderate | 477 | 418 | 452 | 481 | 470 | 516 | 505 | 492 | 567 | 490 |
| Minor | 636 | 628 | 668 | 737 | 654 | 781 | 721 | 736 | 683 | 747 |
| Persons Injured | 1,762 | 1,721 | 1,764 | 1,902 | 1,869 | 2,074 | 2,042 | 2,031 | 2,026 | 1,903 |
| Severe | 179 | 222 | 198 | 203 | 196 | 217 | 215 | 219 | 212 | 173 |
| Moderate | 667 | 560 | 598 | 630 | 645 | 708 | 721 | 700 | 782 | 659 |
| Minor | 916 | 939 | 968 | 1,069 | 1,028 | 1,149 | 1,106 | 1,112 | 1,032 | 1,071 |
| Property Damage Crashes | 3,830 | 3,185 | 3,600 | 3,682 | 3,398 | 3,825 | 3,512 | 3,268 | 3,672 | 3,862 |

*TABLE 5.02*

## PERSONS KILLED OR INJURED IN 2000 TRUCK CRASHES BY VEHICLE OCCUPIED

| | | Injured | | | |
|---|---|---|---|---|---|
| **Vehicle Type** | **Killed** | **Severe** | **Moderate** | **Minor** | **Total** |
| Automobile | 57 | 96 | 339 | 605 | 1,040 |
| Pickup Truck | 9 | 19 | 89 | 105 | 213 |
| Van | 9 | 19 | 50 | 87 | 156 |
| Police or Fire Department Vehicle | 0 | 1 | 1 | 1 | 3 |
| School Bus | 0 | 0 | 0 | 3 | 3 |
| Snowmobile | 1 | 0 | 1 | 0 | 1 |
| Farm Equipment | 0 | 0 | 0 | 0 | 0 |
| Motorcycle | 1 | 4 | 2 | 2 | 8 |
| Hit and Run Vehicle | 0 | 0 | 1 | 0 | 1 |
| Two-Axle, Six-Tire, Single Unit Truck or Stepvan | 0 | 8 | 40 | 67 | 115 |
| Three or More Axle Single Unit Truck | 0 | 3 | 26 | 35 | 64 |
| Single Unit Truck with Trailer | 0 | 2 | 14 | 21 | 37 |
| Truck Tractor with No Trailer | 0 | 0 | 3 | 8 | 11 |
| Truck Tractor with Semi Trailer | 6 | 14 | 67 | 109 | 190 |
| Truck Tractor with Twin Trailers | 0 | 0 | 2 | 0 | 2 |
| Heavy Truck--Other or Unknown Type | 1 | 0 | 2 | 6 | 8 |
| Other or Unknown Vehicle Type | 1 | 3 | 7 | 16 | 26 |
| Bicycle | 2 | 1 | 3 | 3 | 7 |
| Pedestrian | 3 | 3 | 12 | 3 | 18 |
| Total | 90 | 173 | 659 | 1,071 | 1,903 |

*TABLE 5.03*

## CONTRIBUTING FACTORS IN 2000 TRUCK CRASHES

| Contributing Factors | Attributed to Truck Vehicles Number | Attributed to Truck Vehicles Percent | Attributed to Non-Truck Vehicles Number | Attributed to Non-Truck Vehicles Percent |
|---|---|---|---|---|
| **Human Factors** | | | | |
| Driver Inattention/Distraction | 1,032 | 23.8% | 889 | 22.8% |
| Illegal/Unsafe Speed | 404 | 9.3 | 505 | 13.0 |
| Failure to Yield Right of Way | 373 | 8.6 | 449 | 11.5 |
| Improper or Unsafe Lane Use | 342 | 7.9 | 364 | 9.3 |
| Following Too Closely | 317 | 7.3 | 273 | 7.0 |
| Improper Turn | 210 | 4.8 | 73 | 1.9 |
| Unsafe Backing | 188 | 4.3 | 19 | 0.5 |
| Vision Obscured | 147 | 3.4 | 93 | 2.4 |
| Disregard for Traffic Control Device | 98 | 2.3 | 97 | 2.5 |
| Improper Passing or Overtaking | 77 | 1.8 | 167 | 4.3 |
| Driver Inexperience | 57 | 1.3 | 102 | 2.6 |
| Improper Parking, Starting, or Stopping | 57 | 1.3 | 39 | 1.0 |
| Physical Impairment | 42 | 1.0 | 80 | 2.1 |
| Driving Left of Center (Not Passing) | 23 | 0.5 | 59 | 1.5 |
| Improper/No Signal | 20 | 0.5 | 19 | 0.5 |
| Impeding Traffic | 15 | 0.3 | 15 | 0.4 |
| Driver on Phone/CB/2-Way Radio | 6 | 0.1 | 1 | 0.0 |
| Failure to Use Lights | 1 | 0.0 | 3 | 0.1 |
| Pedestrian Error/Violation | 0 | 0.0 | 7 | 0.2 |
| Other Human Factors | 64 | 1.5 | 41 | 1.1 |
| **Vehicular Factors** | | | | |
| Skidding | 120 | 2.8 | 160 | 4.1 |
| Defective Brakes | 70 | 1.6 | 18 | 0.5 |
| Oversize/Overweight Vehicle | 55 | 1.3 | 4 | 0.1 |
| Defective Tire | 31 | 0.7 | 13 | 0.3 |
| Defective Lights | 8 | 0.2 | 7 | 0.2 |
| Other Vehicular Factor | 79 | 1.8 | 15 | 0.4 |
| **Miscellaneous Factors** | | | | |
| Weather | 306 | 7.0 | 262 | 6.7 |
| Other | 199 | 4.6 | 121 | 3.1 |
| Total Contributing Factors Cited | 4,341 | 100% | 3,895 | 100% |
| Vehicles for Which There Was "No Clear Contributing Factor" | 2,332 | | 2,132 | |
| Total Number of Vehicles | 5,546 | | 4,903 | |

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 2000 CRASHES

| Driver Age | Truck or Truck Tractor | Truck with Semi-Trailer | Truck with Twin Trailer | Truck with Other Trailer | Total |
|---|---|---|---|---|---|
| 10 - 14 | 1 | 0 | 0 | 0 | 1 |
| 15 - 19 | 87 | 24 | 0 | 14 | 125 |
| 20 - 24 | 275 | 195 | 0 | 43 | 513 |
| 25 - 29 | 295 | 329 | 5 | 54 | 683 |
| 30 - 34 | 290 | 318 | 10 | 49 | 667 |
| 35 - 39 | 333 | 375 | 6 | 54 | 768 |
| 40 - 44 | 277 | 422 | 8 | 58 | 765 |
| 45 - 49 | 197 | 379 | 5 | 37 | 618 |
| 50 - 54 | 148 | 302 | 2 | 24 | 476 |
| 55 - 59 | 118 | 227 | 3 | 25 | 373 |
| 60 - 64 | 66 | 121 | 2 | 14 | 203 |
| 65 & Older | 47 | 81 | 0 | 28 | 156 |
| Not Stated | 12 | 31 | 0 | 0 | 43 |
| Total* | 2,146 | 2,804 | 41 | 400 | 5,391 |

* There were 5,546 trucks in crashes in 2000. However, 135 of these trucks were parked vehicles. Driver age could not be determined for an additional 20 of these trucks. This table tabulates the ages of drivers for the remaining 5,391 trucks where it was possible to identify a driver.

*TABLE 5.05*

## DRIVERS IN 2000 TRUCK CRASHES BY PHYSICAL CONDITION*

| | Truck Driver | | Other Driver | |
|---|---|---|---|---|
| Physical Condition | Number | Percent | Number | Percent |
| Normal | 5,076 | 94.2% | 4,216 | 90.2% |
| Under the Influence | 11 | 0.2 | 56 | 1.2 |
| Had Been Drinking | 3 | 0.1 | 27 | 0.6 |
| Driver >.04 BAC | 2 | 0.0 | 0 | 0.0 |
| Had Been Using Drugs | 1 | 0.0 | 2 | 0.0 |
| Asleep | 14 | 0.3 | 15 | 0.3 |
| Fatigued | 16 | 0.3 | 9 | 0.2 |
| Ill | 6 | 0.1 | 5 | 0.1 |
| Other | 8 | 0.2 | 18 | 0.4 |
| Unknown | 254 | 4.7 | 324 | 6.9 |
| Total ** | 5,391 | 100% | 4,672 | 100% |

* As noted by police officer on accident report.

** There were 5,546 trucks in crashes in 2000. However, 135 were parked. The driver could not be identified for an additional 20. This table tabulates the apparent physical condition of drivers for the remaining 5,391 trucks where it was possible to identify a driver. Also, there were 4,872 non-truck motor vehicles in 2000 truck crashes. However, 187 of them were parked, and there were 13 more for which a driver could not be identified, leaving 4,672 for which an apparent physical condition was recorded.

*TABLE 5.06*

## 2000 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 | 62 | 1,118 | 2,866 | 4,046 | 79 | 1,619 |
| Parked Motor Vehicle | 1 | 28 | 176 | 205 | 1 | 39 |
| Railroad Train | 0 | 5 | 9 | 14 | 0 | 5 |
| Bicycle | 2 | 6 | 1 | 9 | 2 | 6 |
| Pedestrian | 2 | 13 | 0 | 15 | 2 | 13 |
| Deer | 0 | 1 | 54 | 55 | 0 | 1 |
| Other Animal | 0 | 3 | 15 | 18 | 0 | 3 |
| Fixed Object | 4 | 47 | 374 | 425 | 4 | 58 |
| Other Object | 0 | 8 | 36 | 44 | 0 | 8 |
| **Non-Collision:** | | | | | | |
| Overturn | 2 | 121 | 165 | 288 | 2 | 127 |
| Fire or Explosion | 0 | 1 | 9 | 10 | 0 | 1 |
| **Other** | 0 | 20 | 157 | 177 | 0 | 23 |
| Total | 73 | 1,371 | 3,862 | 5,306 | 90 | 1,903 |

*TABLE 5.07*

## 2000 TRUCK CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| January | 8 | 115 | 409 | 532 | 10 | 161 |
| February | 7 | 96 | 280 | 383 | 8 | 128 |
| March | 1 | 75 | 214 | 290 | 1 | 110 |
| April | 8 | 80 | 201 | 289 | 8 | 116 |
| May | 4 | 108 | 304 | 416 | 5 | 149 |
| June | 8 | 127 | 318 | 453 | 11 | 174 |
| July | 9 | 127 | 308 | 444 | 9 | 190 |
| August | 9 | 130 | 324 | 463 | 11 | 189 |
| September | 4 | 126 | 261 | 391 | 6 | 159 |
| October | 3 | 111 | 335 | 449 | 9 | 142 |
| November | 9 | 115 | 392 | 516 | 9 | 171 |
| December | 3 | 161 | 516 | 680 | 3 | 214 |
| Total | 73 | 1,371 | 3,862 | 5,306 | 90 | 1,903 |

*TABLE 5.08*

## 2000 TRUCK CRASHES BY TIME AND DAY

| Time of Day | Total | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|---|---|
| Midnight - 2:59 AM | 122 | 13 | 14 | 16 | 11 | 29 | 20 | 19 |
| 3:00 - 5:59 AM | 151 | 8 | 25 | 23 | 18 | 35 | 25 | 17 |
| 6:00 - 8:59 AM | 919 | 15 | 161 | 199 | 170 | 188 | 159 | 27 |
| 9:00 - 11:59 AM | 1,182 | 18 | 214 | 199 | 227 | 273 | 191 | 60 |
| Noon - 2:59 PM | 1,164 | 27 | 233 | 193 | 228 | 222 | 190 | 71 |
| 3:00 - 5:59 PM | 1,073 | 34 | 203 | 200 | 225 | 167 | 203 | 41 |
| 6:00 - 8:59 PM | 374 | 21 | 68 | 53 | 73 | 64 | 65 | 30 |
| 9:00 - 11:59 PM | 205 | 14 | 34 | 36 | 46 | 40 | 24 | 11 |
| Unknown | 116 | 3 | 19 | 20 | 30 | 19 | 19 | 6 |
| Total | 5,306 | 153 | 971 | 939 | 1,028 | 1,037 | 896 | 282 |

## FIGURE 5.01

### 2000 Truck Crashes by Time of Day

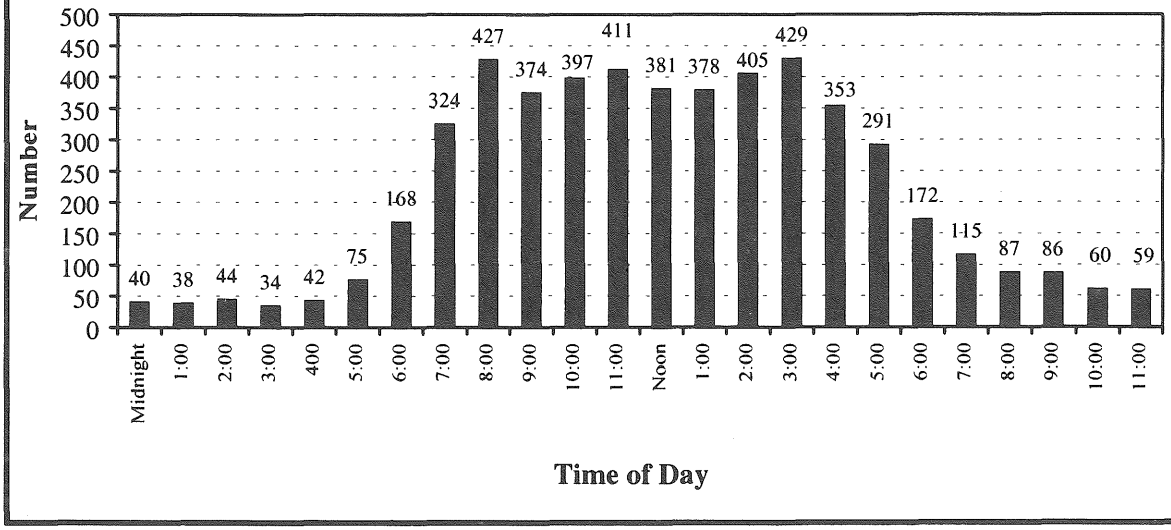


*TABLE 5.09*

## 2000 TRUCK CRASHES BY ROAD SURFACE CONDITION

| Road Surface Condition | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Dry | 49 | 907 | 2,415 | 3,371 | 62 | 1,268 |
| Wet | 11 | 193 | 543 | 747 | 14 | 253 |
| Snow or Slush | 3 | 91 | 300 | 394 | 3 | 133 |
| Ice or Packed Snow | 9 | 161 | 544 | 714 | 10 | 226 |
| Other | 0 | 14 | 32 | 46 | 0 | 18 |
| Unknown | 1 | 5 | 28 | 34 | 1 | 5 |
| Total | 73 | 1,371 | 3,862 | 5,306 | 90 | 1,903 |

*TABLE 5.10*

## 2000 TRUCK CRASHES BY WEATHER CONDITION

| Weather Condition | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Clear | 38 | 706 | 1,935 | 2,679 | 48 | 1,000 |
| Cloudy | 17 | 380 | 1,039 | 1,436 | 21 | 515 |
| Rain | 5 | 78 | 201 | 284 | 8 | 95 |
| Snow | 9 | 139 | 470 | 618 | 9 | 196 |
| Sleet/Hail/Freezing Rain | 0 | 10 | 27 | 37 | 0 | 17 |
| Fog/Smog/Smoke | 3 | 26 | 49 | 78 | 3 | 31 |
| Blowing Sand/Dust/Snow | 1 | 18 | 76 | 95 | 1 | 34 |
| Severe Cross Winds | 0 | 4 | 17 | 21 | 0 | 4 |
| Other | 0 | 0 | 3 | 3 | 0 | 0 |
| Unknown | 0 | 10 | 45 | 55 | 0 | 11 |
| Total | 73 | 1,371 | 3,862 | 5,306 | 90 | 1,903 |

*TABLE 5.11*

## 2000 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 | 3 | 194 | 728 | 925 | 3 | 252 |
| 50,000 - 99,999 | 2 | 139 | 343 | 484 | 5 | 198 |
| 25,000 - 49,999 | 4 | 162 | 559 | 725 | 6 | 218 |
| 10,000 - 24,999 | 6 | 189 | 616 | 811 | 6 | 235 |
| 5,000 - 9,999 | 2 | 103 | 283 | 388 | 3 | 141 |
| 2,500 - 4,999 | 1 | 64 | 168 | 233 | 1 | 94 |
| 1,000 - 2,499 | 1 | 49 | 116 | 166 | 1 | 66 |
| Under 1,000 | 54 | 471 | 1,049 | 1,574 | 65 | 699 |
| Total | 73 | 1,371 | 3,862 | 5,306 | 90 | 1,903 |

*TABLE 5.12*

## 2000 TRUCK CRASHES BY TYPE OF ROADWAY

| Roadway Type | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Interstate Highway | 10 | 286 | 1,048 | 1,344 | 11 | 400 |
| US Trunk Highway | 24 | 266 | 577 | 867 | 28 | 387 |
| State Trunk Highway | 23 | 322 | 676 | 1,021 | 27 | 459 |
| County State-Aid Highway | 15 | 300 | 705 | 1,020 | 23 | 404 |
| County Road | 0 | 16 | 46 | 62 | 0 | 26 |
| Township Road | 0 | 14 | 53 | 67 | 0 | 16 |
| Local Street | 1 | 159 | 721 | 881 | 1 | 198 |
| Other Road | 0 | 8 | 36 | 44 | 0 | 13 |
| Total | 73 | 1,371 | 3,862 | 5,306 | 90 | 1,903 |

# 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 2000, there were 1,253 crashes in which a pedestrian was injured or killed by a motor vehicle. The number of pedestrian crashes in 2000 represents nearly 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**
The lower number of crashes resulted in a decrease in the number of pedestrians killed and injured in 2000. Forty-one pedestrians were killed, nearly a 20% decrease, and 1,269 were injured, more than a 4% decrease from the previous year. In 2000, 3% 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 nearly 45% 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 78% of all pedestrian fatalities in 2000.

**Urban areas and rush-hours**
In 2000, 82% of pedestrian crashes occurred in urban areas. However, 19 of the 41 fatalities (46%) occurred in rural areas (defined as less than 5,000 population). In 2000, nearly 30% of all pedestrian crashes 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 2000, 54% of them were simply going straight ahead on the roadway prior to the crash. An additional 22% of the motor vehicles involved were making a right or left turn. As might be expected, more than one out of four pedestrians injured or killed were trying to cross a road where there was no crosswalk and no signal.

**Contributing factors**
For 38% 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: failure to yield the right of way and driver inattention or distraction (26.4% and 26.3% respectively).

**Pedestrians and alcohol**
Of the 41 pedestrians killed, 27 were tested for alcohol. Of those tested, 41% were positive, and 37% had concentrations over the legal driving limit of .10.

*TABLE 6.01*

## PEDESTRIAN CRASH SUMMARY, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pedestrian Crashes | 1,338 | 1,420 | 1,383 | 1,409 | 1,458 | 1,378 | 1,419 | 1,400 | 1,329 | 1,253 |
| Pedestrians Killed | 61 | 46 | 47 | 53 | 49 | 46 | 58 | 56 | 51 | 41 |
| Pedestrians Injured | 1,339 | 1,424 | 1,390 | 1,400 | 1,471 | 1,388 | 1,434 | 1,410 | 1,330 | 1,269 |

*TABLE 6.02*

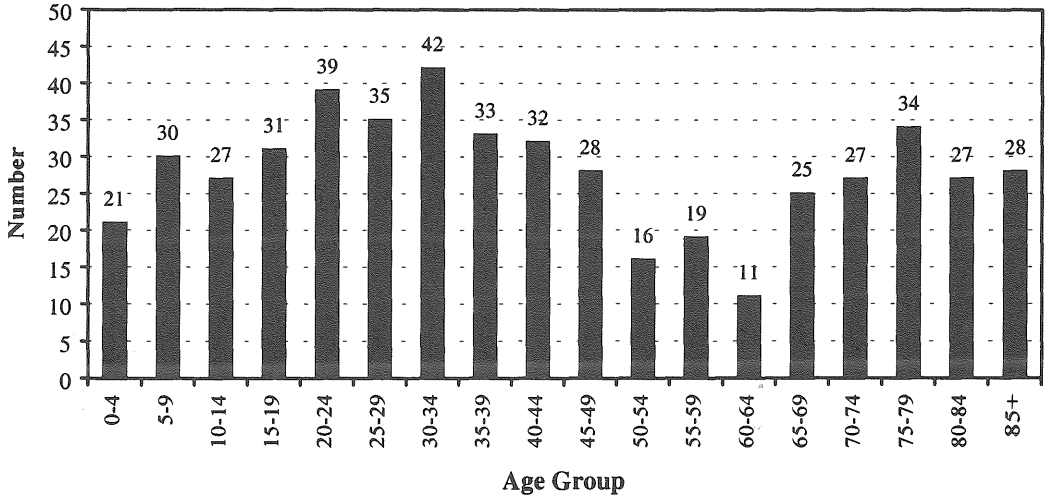
## PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2000

| | | | | Injured | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | Killed | | | Severe | | | Moderate | | | Minor | | | Total | | |
| Group | M | F | Total* | M | F | Total* | M | F | Total* | M | F | Total* | M | F | Total* |
| 0 – 4 | 0 | 0 | 0 | 9 | 4 | 13 | 10 | 9 | 19 | 16 | 8 | 25 | 35 | 21 | 57 |
| 5 - 9 | 0 | 1 | 1 | 23 | 8 | 33 | 28 | 9 | 37 | 25 | 23 | 50 | 76 | 41 | 121 |
| 10 - 14 | 3 | 0 | 3 | 10 | 9 | 19 | 37 | 34 | 72 | 24 | 22 | 48 | 74 | 65 | 142 |
| 15 - 19 | 3 | 1 | 4 | 12 | 10 | 22 | 28 | 29 | 59 | 27 | 35 | 63 | 70 | 75 | 148 |
| 20 - 24 | 2 | 1 | 3 | 11 | 7 | 19 | 18 | 18 | 37 | 30 | 23 | 56 | 61 | 49 | 115 |
| 25 - 29 | 3 | 0 | 3 | 9 | 6 | 15 | 16 | 17 | 33 | 16 | 14 | 30 | 44 | 37 | 81 |
| 30 - 34 | 2 | 0 | 2 | 10 | 2 | 12 | 17 | 7 | 24 | 24 | 19 | 44 | 53 | 28 | 82 |
| 35 - 39 | 4 | 0 | 4 | 10 | 7 | 17 | 18 | 9 | 28 | 22 | 12 | 35 | 54 | 28 | 84 |
| 40 - 44 | 4 | 0 | 4 | 9 | 5 | 14 | 13 | 13 | 28 | 19 | 24 | 43 | 45 | 42 | 89 |
| 45 - 49 | 2 | 1 | 3 | 4 | 5 | 10 | 21 | 7 | 28 | 14 | 12 | 27 | 41 | 25 | 68 |
| 50 - 54 | 1 | 0 | 1 | 7 | 8 | 15 | 11 | 11 | 22 | 16 | 11 | 27 | 35 | 30 | 65 |
| 55 - 59 | 0 | 2 | 2 | 7 | 4 | 12 | 4 | 4 | 8 | 6 | 9 | 16 | 17 | 19 | 38 |
| 60 - 64 | 0 | 1 | 1 | 4 | 2 | 6 | 3 | 1 | 4 | 3 | 3 | 6 | 10 | 7 | 17 |
| 65 - 69 | 1 | 0 | 1 | 4 | 2 | 6 | 10 | 8 | 18 | 8 | 4 | 12 | 23 | 14 | 37 |
| 70 - 74 | 1 | 1 | 2 | 3 | 4 | 7 | 4 | 5 | 9 | 3 | 4 | 7 | 11 | 14 | 25 |
| 75 - 79 | 1 | 1 | 2 | 2 | 3 | 5 | 4 | 3 | 7 | 2 | 5 | 7 | 9 | 12 | 21 |
| 80 - 84 | 3 | 0 | 3 | 3 | 4 | 7 | 3 | 5 | 8 | 2 | 4 | 6 | 11 | 13 | 24 |
| 85 & Older | 2 | 0 | 2 | 1 | 4 | 5 | 1 | 4 | 5 | 4 | 1 | 5 | 8 | 9 | 17 |
| Not Stated | 0 | 0 | 0 | 4 | 1 | 8 | 11 | 6 | 23 | 19 | 12 | 48 | 34 | 19 | 79 |
| Total | 32 | 9 | 41 | 142 | 95 | 245 | 257 | 199 | 469 | 280 | 245 | 555 | 711 | 548 | 1,310 |

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

## FIGURE 6.01

**Pedestrian Fatalities by Age Group, 1991-2000 Combined**




## FIGURE 6.02

**Pedestrians Killed and Injured by Age and Gender, 2000**

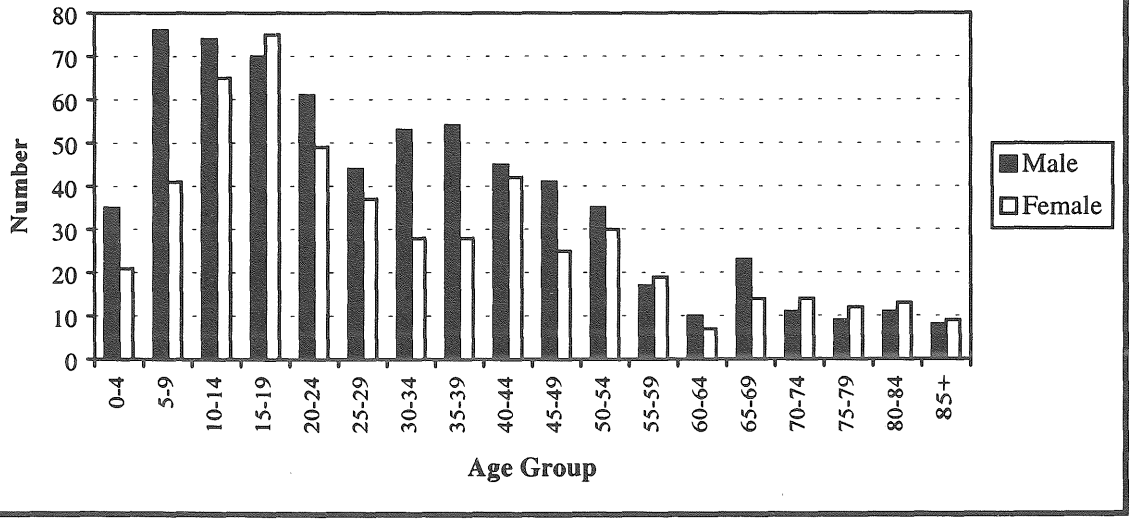


*TABLE 6.03*

## 2000 PEDESTRIAN CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Total Crashes | Pedestrians Killed | Pedestrians Injured |
|---|---|---|---|---|---|
| January | 4 | 104 | 108 | 4 | 110 |
| February | 2 | 91 | 93 | 2 | 99 |
| March | 5 | 91 | 96 | 5 | 98 |
| April | 3 | 92 | 95 | 3 | 95 |
| May | 2 | 100 | 102 | 2 | 105 |
| June | 1 | 84 | 85 | 1 | 86 |
| July | 4 | 112 | 116 | 4 | 116 |
| August | 2 | 108 | 110 | 2 | 112 |
| September | 4 | 95 | 99 | 4 | 97 |
| October | 5 | 104 | 109 | 5 | 107 |
| November | 4 | 134 | 138 | 4 | 144 |
| December | 4 | 98 | 102 | 5 | 100 |
| Total | 40 | 1,213 | 1,253 | 41 | 1,269 |

*TABLE 6.04*

## 2000 PEDESTRIAN CRASHES BY POPULATION OF AREA

| Population of City or Township | Fatal Crashes | Injury Crashes | Total Crashes | Pedestrians Killed | Pedestrians Injured |
|---|---|---|---|---|---|
| 100,000 and Over | 8 | 583 | 591 | 8 | 600 |
| 50,000 - 99,999 | 3 | 98 | 101 | 3 | 101 |
| 25,000 - 49,999 | 2 | 124 | 126 | 2 | 130 |
| 10,000 - 24,999 | 7 | 152 | 159 | 7 | 165 |
| 5,000 - 9,999 | 2 | 51 | 53 | 2 | 55 |
| 2,500 - 4,999 | 0 | 47 | 47 | 0 | 50 |
| 1,000 - 2,499 | 2 | 38 | 40 | 2 | 38 |
| Under 1,000 | 16 | 120 | 136 | 17 | 130 |
| Total | 40 | 1,213 | 1,253 | 41 | 1,269 |

*TABLE 6.05*

## 2000 PEDESTRIAN CRASHES BY TIME AND DAY

| Time of Day | Fatal Crashes | Total Crashes | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|---|---|---|
| Midnight - 2:59 AM | 5 | 63 | 21 | 2 | 5 | 2 | 3 | 6 | 24 |
| 3:00 - 5:59 AM | 2 | 21 | 3 | 1 | 2 | 6 | 2 | 2 | 5 |
| 6:00 - 8:59 AM | 2 | 116 | 3 | 18 | 25 | 21 | 21 | 23 | 5 |
| 9:00 - 11:59 AM | 4 | 123 | 8 | 17 | 20 | 19 | 20 | 21 | 18 |
| Noon - 2:59 PM | 6 | 200 | 19 | 35 | 24 | 26 | 29 | 29 | 38 |
| 3:00 - 5:59 PM | 6 | 318 | 23 | 50 | 51 | 53 | 53 | 60 | 28 |
| 6:00 - 8:59 PM | 9 | 239 | 25 | 38 | 35 | 37 | 32 | 50 | 22 |
| 9:00 - 11:59 PM | 6 | 130 | 14 | 16 | 22 | 15 | 14 | 31 | 18 |
| Unknown | 0 | 43 | 5 | 9 | 8 | 3 | 5 | 8 | 5 |
| Total | 40 | 1,253 | 121 | 186 | 192 | 182 | 179 | 230 | 163 |

**FIGURE 6.03**

**2000 Pedestrian Crashes by Time of Day**

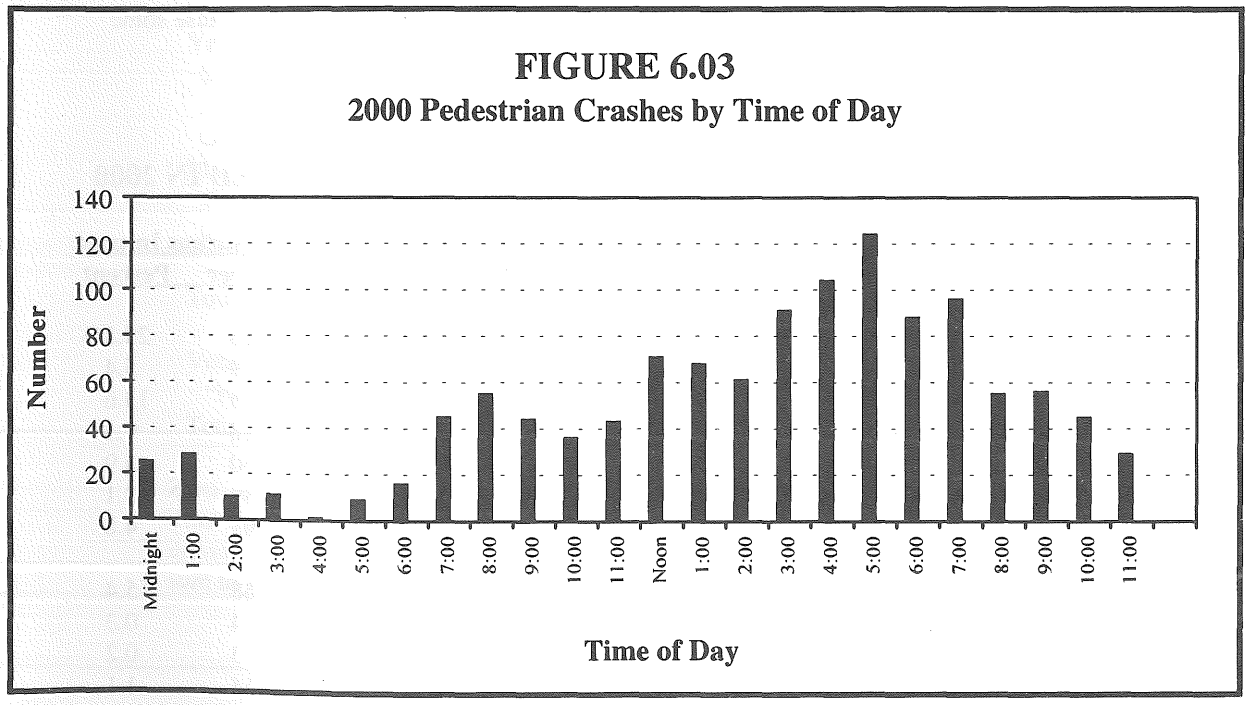


*TABLE 6.06*

## PRIOR ACTION OF VEHICLES IN 2000 PEDESTRIAN CRASHES

| Action | Vehicles in Fatal Crashes | Vehicles in Injury Crashes | Vehicles in All Crashes* |
|---|---|---|---|
| Going Straight | 27 | 694 | 721 |
| Wrong Way Opposing Traffic | 1 | 5 | 6 |
| Turning Right on Red | 1 | 31 | 32 |
| Turning Left on Red | 0 | 3 | 3 |
| Turning Right | 2 | 86 | 88 |
| Turning Left | 3 | 205 | 208 |
| Making U Turn | 0 | 1 | 1 |
| Starting From Parked | 0 | 18 | 18 |
| Starting in Traffic | 0 | 21 | 21 |
| Slowing in Traffic | 0 | 16 | 16 |
| Parking | 0 | 1 | 1 |
| Avoiding Object in Road | 1 | 21 | 22 |
| Changing Lanes | 0 | 7 | 7 |
| Passing | 2 | 10 | 12 |
| Backing | 0 | 39 | 39 |
| All Others | 6 | 99 | 105 |
| Unknown | 2 | 39 | 41 |
| Total | 45 | 1,296 | 1,341 |

* 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 2000

| Action | Pedestrians Killed | | Pedestrians Injured | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Crossing Road (No Crosswalk and No Signal) | 6 | 14.6% | 328 | 25.8% |
| Crossing Against Signal | 6 | 14.6 | 69 | 5.4 |
| Crossing With Signal | 2 | 4.9 | 173 | 13.6 |
| Crossing In Crosswalk (No Signal) | 4 | 9.8 | 118 | 9.3 |
| Walking In Road With Traffic | 6 | 14.6 | 50 | 3.9 |
| Walking In Road Against Traffic | 3 | 7.3 | 39 | 3.1 |
| Standing In Road | 7 | 17.1 | 61 | 4.8 |
| Emerging From Front/Behind Parked Vehicle | 0 | 0.0 | 68 | 5.4 |
| Child Getting On/Off School Bus | 0 | 0.0 | 4 | 0.3 |
| Pushing/Working On Vehicle | 0 | 0.0 | 3 | 0.2 |
| Working In Road | 0 | 0.0 | 14 | 1.1 |
| Getting On/Off Vehicle | 1 | 2.4 | 14 | 1.1 |
| Playing In Road | 0 | 0.0 | 24 | 1.9 |
| Not In Road | 4 | 9.8 | 57 | 4.5 |
| Other Pedestrian Action | 2 | 4.9 | 112 | 8.8 |
| Unknown | 0 | 0.0 | 135 | 10.6 |
| Total* | 41 | 100.0% | 1,269 | 100.0% |

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

*TABLE 6.08*

## CONTRIBUTING FACTORS IN 2000 PEDESTRIAN CRASHES

| Contributing Factors | Attributed to Motor Vehicle Drivers Number | Percent |
|---|---|---|
| **Human Factors** | | |
| Failure to Yield Right of Way | 276 | 26.4% |
| Driver Inattention / Distraction | 275 | 26.3 |
| Vision Obscured | 103 | 9.9 |
| Illegal or Unsafe Speed | 55 | 5.3 |
| Physical Impairment | 41 | 3.9 |
| Improper / Unsafe Lane Use | 26 | 2.5 |
| Disregard for Traffic Control Device | 25 | 2.4 |
| Unsafe Backing | 23 | 2.2 |
| Driver Inexperience | 22 | 2.1 |
| Improper Parking / Starting / Stopping | 20 | 1.9 |
| Improper Turn | 16 | 1.5 |
| Following Too Closely | 8 | 0.8 |
| Improper Passing / Overtaking | 8 | 0.8 |
| Driving Left of Center | 5 | 0.5 |
| Impeding Traffic | 4 | 0.4 |
| Failure To Use Lights | 2 | 0.2 |
| Other Human Factors | 24 | 2.3 |
| **Vehicular Factors** | | |
| Skidding | 13 | 1.2 |
| Defective Brakes | 5 | 0.5 |
| Other Vehicular Factors | 6 | 0.6 |
| **Miscellaneous Factors** | | |
| Weather Conditions | 37 | 3.5 |
| Other | 50 | 4.8 |
| Total Contributing Factors Cited | 1,044 | 100.0% |
| Vehicles for Which There Was "No Clear Contributing Factor" | 514 | |
| Total Number of Drivers | 1,341 | |

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, 1991 - 2000

| | | | Alcohol Concentration* | | |
|---|---|---|---|---|---|
| Year | Killed | Tested | (.00) | (.01 - .09) | (.10 or more) |
| 1991 | 61 | 32 | 20 (63%) | 1 (3%) | 11 (34%) |
| 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%) |

* 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*

## 2000 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

| | | | Alcohol Concentration | | |
|---|---|---|---|---|---|
| Age Group | Killed | Tested | (.00) | (.01 - .09) | (.10 or more) |
| 14 & Younger | 4 | 3 | 3 | 0 | 0 |
| 15 - 19 | 4 | 2 | 2 | 0 | 0 |
| 20 – 24 | 3 | 3 | 1 | 0 | 2 |
| 25 - 29 | 3 | 2 | 2 | 0 | 0 |
| 30 - 34 | 2 | 2 | 0 | 0 | 2 |
| 35 - 39 | 4 | 2 | 1 | 0 | 1 |
| 40 - 44 | 4 | 3 | 0 | 0 | 3 |
| 45 - 49 | 3 | 3 | 1 | 0 | 2 |
| 50 - 54 | 1 | 1 | 1 | 0 | 0 |
| 55 - 59 | 2 | 1 | 1 | 0 | 0 |
| 60 - 64 | 1 | 0 | 0 | 0 | 0 |
| 65 - 69 | 1 | 1 | 1 | 0 | 0 |
| 70 - 74 | 2 | 0 | 0 | 0 | 0 |
| 75 - 79 | 2 | 2 | 2 | 0 | 0 |
| 80 - 84 | 3 | 2 | 1 | 1 | 0 |
| 85 & Older | 2 | 0 | 0 | 0 | 0 |
| Total | 41 | 27 | 16 | 1 | 10 |

*TABLE 6.11*

## 2000 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY TIME OF DAY

| Time of Day | Killed | Tested | Alcohol Concentration (.00) | (.01 - .09) | (.10 or more) |
|---|---|---|---|---|---|
| Midnight - 2:59 AM | 5 | 5 | 0 | 0 | 5 |
| 3:00 - 5:59 AM | 2 | 2 | 2 | 0 | 0 |
| 6:00 - 8:59 AM | 2 | 2 | 2 | 0 | 0 |
| 9:00 - 11:59 AM | 4 | 1 | 1 | 0 | 0 |
| Noon - 2:59 PM | 7 | 2 | 2 | 0 | 0 |
| 3:00 - 5:59 PM | 6 | 5 | 5 | 0 | 0 |
| 6:00 - 8:59 PM | 9 | 5 | 4 | 1 | 0 |
| 9:00 - 11:59 PM | 6 | 5 | 0 | 0 | 5 |
| Unknown | 0 | 0 | 0 | 0 | 0 |
| Total | 41 | 27 | 16 | 1 | 10 |

# VII: BICYCLE CRASHES

Bicycles are subject to the same traffic laws as motor vehicles, but bicycle crashes are reported to the Minnesota Department of Public Safety only if they involve collision with a motor vehicle. Therefore, this section represents only a portion of the total number of bicycle crashes.

**Number of bicycle crashes increases**
In 2000, there were 1,137 bicycle crashes in Minnesota. This number represents nearly a 3% increase from the previous year. Despite the increase in 2000, the number of crashes is still well below the past nine year average of 1,315.

**Injuries and fatalities rise in 2000**
Due to the increase in bicycle crashes the number of bicyclists injured increased slightly in 2000. There were 1,080 injuries reported, with 97 of these (9%) being severe. There were 14 bicyclist fatalities in 2000, twice as many as the prior five-year (1995-1999) average.

**Young people at risk**
Of all the bicyclists injured or killed in 2000, 66% (or 2 out of 3) were less than 25 years of age. This percentage includes 7 of the 14 bicyclist fatalities.

**Warm weather**
As expected, bicycle crashes are mostly a warm weather occurrence. In 2000, 8 of the 14 fatalities, 75% of the crashes, and 76% of the injuries occurred in the five-month period of May through September.

**Afternoon rush-hour**
Bicycle crashes in 2000 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 2000. Slightly more than 38% of all 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 three times more likely than females (791 to 258) to be injured in bicycle crashes. In 2000, 12 of the 14 bicyclists killed and 73% 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 442, or 39% of the total) was attempting to ride across the trafficway. (However, the prior action was indicated as "other" or "unknown" for 39% of the bicyclists.)

**Contributing factors**
There were two contributing factors for both the bicyclists and the other motor vehicle drivers that were significant in 2000. 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, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Bicycle Crashes | 1,208 | 1,343 | 1,321 | 1,436 | 1,333 | 1,337 | 1,384 | 1,363 | 1,106 | 1,137 |
| Bicyclists Killed | 8 | 11 | 9 | 16 | 5 | 6 | 7 | 9 | 8 | 14 |
| Bicyclists Injured | 1,157 | 1,249 | 1,240 | 1,359 | 1,283 | 1,281 | 1,348 | 1,310 | 1,060 | 1,080 |

*TABLE 7.02*

## 2000 BICYCLE CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Bicyclists Killed | Bicyclists Injured |
|---|---|---|---|---|---|---|
| January | 0 | 7 | 0 | 7 | 0 | 7 |
| February | 1 | 7 | 1 | 9 | 1 | 7 |
| March | 1 | 56 | 1 | 58 | 1 | 57 |
| April | 1 | 54 | 6 | 61 | 1 | 54 |
| May | 1 | 134 | 6 | 141 | 1 | 139 |
| June | 0 | 160 | 8 | 168 | 0 | 163 |
| July | 4 | 175 | 7 | 186 | 3 | 178 |
| August | 4 | 176 | 12 | 192 | 4 | 178 |
| September | 0 | 161 | 7 | 168 | 0 | 164 |
| October | 1 | 91 | 6 | 98 | 1 | 91 |
| November | 1 | 33 | 3 | 37 | 1 | 33 |
| December | 1 | 10 | 1 | 12 | 1 | 9 |
| Total | 15 | 1,064 | 58 | 1,137 | 14 | 1,080 |

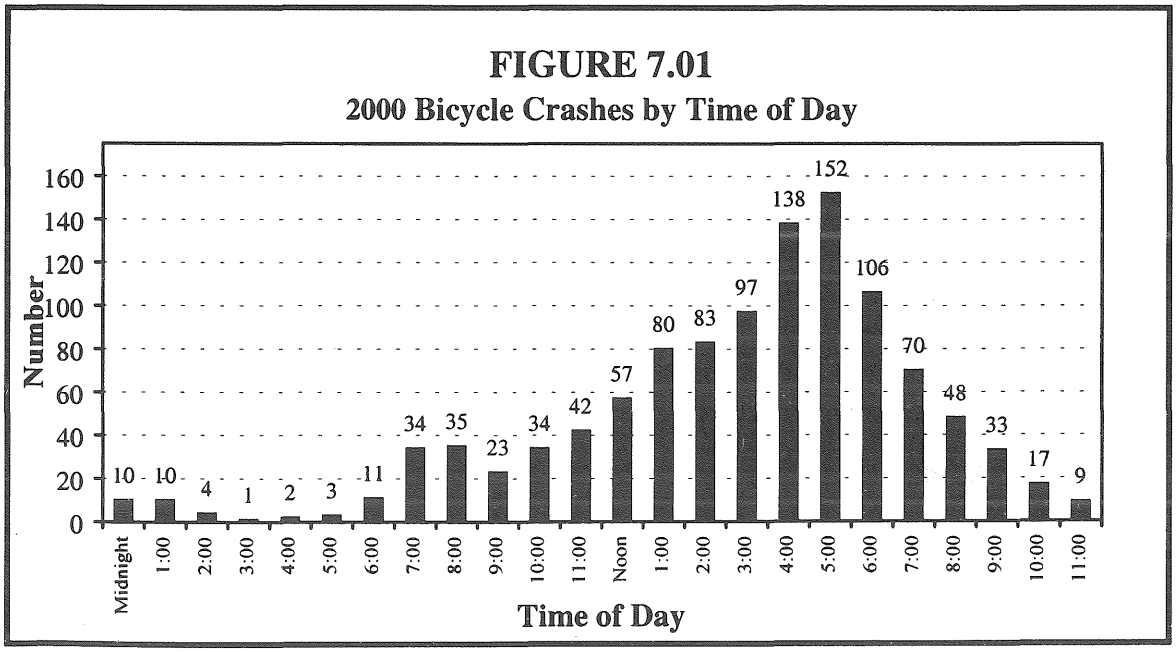


*TABLE 7.03*

## 2000 BICYCLE CRASHES BY TIME AND DAY

| Time of Day | Total | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|---|---|
| Midnight - 2:59 AM | 24 | 4 | 4 | 2 | 6 | 4 | 1 | 3 |
| 3:00 - 5:59 AM | 6 | 0 | 0 | 3 | 1 | 1 | 0 | 1 |
| 6:00 - 8:59 AM | 80 | 3 | 23 | 9 | 21 | 11 | 10 | 3 |
| 9:00 - 11:59 AM | 99 | 8 | 17 | 17 | 14 | 16 | 17 | 10 |
| Noon - 2:59 PM | 220 | 21 | 30 | 39 | 30 | 28 | 43 | 29 |
| 3:00 - 5:59 PM | 387 | 32 | 62 | 80 | 61 | 63 | 62 | 27 |
| 6:00 - 8:59 PM | 224 | 19 | 34 | 34 | 39 | 41 | 24 | 33 |
| 9:00 - 11:59 PM | 59 | 1 | 11 | 11 | 9 | 8 | 13 | 6 |
| Unknown | 38 | 4 | 3 | 3 | 5 | 8 | 8 | 7 |
| Total | 1,137 | 92 | 184 | 198 | 186 | 180 | 178 | 119 |

*TABLE 7.04*

## 2000 BICYCLE CRASHES BY POPULATION OF AREA

| Population of City or Township | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Bicyclists Killed | Bicyclists Injured |
|---|---|---|---|---|---|---|
| 100,000 and Over | 2 | 400 | 34 | 436 | 1 | 403 |
| 50,000 - 99,999 | 1 | 105 | 2 | 108 | 1 | 109 |
| 25,000 - 49,999 | 2 | 150 | 4 | 156 | 2 | 152 |
| 10,000 - 24,999 | 2 | 186 | 12 | 200 | 2 | 188 |
| 5,000 - 9,999 | 0 | 71 | 2 | 73 | 0 | 72 |
| 2,500 - 4,999 | 2 | 31 | 2 | 35 | 2 | 33 |
| 1,000 - 2,499 | 1 | 27 | 1 | 29 | 1 | 27 |
| Under 1,000 | 5 | 94 | 1 | 100 | 5 | 96 |
| Total | 15 | 1,064 | 58 | 1,137 | 14 | 1,080 |

## FIGURE 7.02

**Bicyclists Killed and Injured by Age and Gender, 2000**

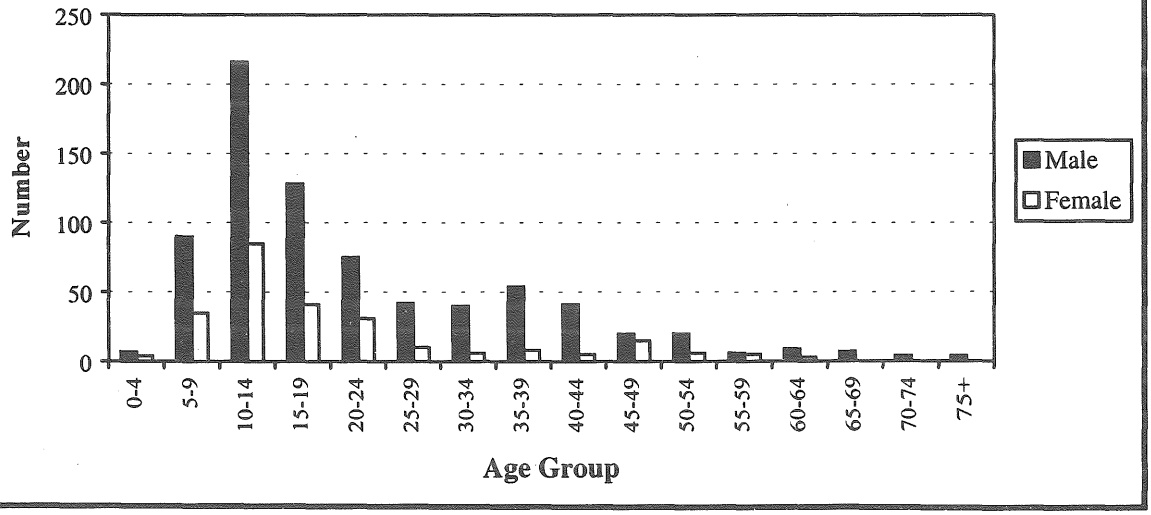


*TABLE 7.05*

## BICYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2000

| | Killed | | | Injured | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Severe | | | Moderate | | | Minor | | | Total | | |
| Age Group | M | F | Total | M | F | Total* | M | F | Total* | M | F | Total* | M | F | Total* |
| 0 – 4 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 2 | 6 | 3 | 0 | 3 | 7 | 4 | 11 |
| 5 – 9 | 0 | 0 | 0 | 11 | 2 | 14 | 37 | 18 | 55 | 42 | 15 | 59 | 90 | 35 | 128 |
| 10 – 14 | 5 | 0 | 5 | 15 | 8 | 23 | 122 | 42 | 166 | 74 | 35 | 113 | 211 | 85 | 302 |
| 15 – 19 | 0 | 0 | 0 | 13 | 3 | 16 | 68 | 24 | 95 | 47 | 14 | 61 | 128 | 41 | 172 |
| 20 – 24 | 2 | 0 | 2 | 10 | 0 | 10 | 35 | 12 | 47 | 28 | 19 | 49 | 73 | 31 | 106 |
| 25 – 29 | 1 | 0 | 1 | 5 | 3 | 8 | 20 | 4 | 25 | 16 | 3 | 20 | 41 | 10 | 53 |
| 30 – 34 | 0 | 0 | 0 | 2 | 1 | 3 | 24 | 2 | 27 | 14 | 3 | 18 | 40 | 6 | 48 |
| 35 – 39 | 0 | 0 | 0 | 5 | 0 | 5 | 26 | 6 | 32 | 23 | 2 | 26 | 54 | 8 | 63 |
| 40 – 44 | 0 | 0 | 0 | 4 | 0 | 4 | 19 | 4 | 23 | 18 | 1 | 19 | 41 | 5 | 46 |
| 45 – 49 | 0 | 0 | 0 | 2 | 0 | 2 | 10 | 9 | 20 | 8 | 6 | 14 | 20 | 15 | 36 |
| 50 – 54 | 0 | 1 | 1 | 3 | 1 | 4 | 6 | 1 | 7 | 11 | 3 | 14 | 20 | 5 | 25 |
| 55 – 59 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 4 | 4 | 2 | 6 | 5 | 5 | 10 |
| 60 – 64 | 1 | 1 | 2 | 1 | 0 | 1 | 2 | 2 | 4 | 5 | 0 | 5 | 8 | 2 | 10 |
| 65 – 69 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 4 | 0 | 4 | 7 | 0 | 7 |
| 70 – 74 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 3 |
| 75 & Older | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 3 | 0 | 3 |
| Not Stated | 0 | 0 | 0 | 3 | 0 | 3 | 13 | 1 | 17 | 24 | 5 | 37 | 40 | 6 | 57 |
| Total | 12 | 2 | 14 | 76 | 20 | 97 | 392 | 130 | 533 | 323 | 108 | 450 | 791 | 258 | 1,080 |

* 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 2000 CRASHES

| Prior Action | Bicyclists In Fatal Crashes | Bicyclists In Injury Crashes | Bicyclists In Property Damage Crashes | Bicyclists In All Crashes* |
|---|---|---|---|---|
| Riding With Traffic | 4 | 113 | 10 | 127 |
| Riding Against Traffic | 0 | 92 | 5 | 97 |
| Making Left Turn | 2 | 14 | 0 | 16 |
| Making Right Turn | 0 | 13 | 0 | 13 |
| Making U Turn | 0 | 1 | 0 | 1 |
| Riding Across Road | 7 | 419 | 16 | 442 |
| Other/Unknown | 2 | 421 | 27 | 450 |
| Total | 15 | 1,073 | 58 | 1,146 |

* 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 2000 BICYCLE CRASHES

| Contributing Factors | Attributed to Bicyclists Number | Attributed to Bicyclists Percent | Attributed to Motor Vehicle Drivers Number | Attributed to Motor Vehicle Drivers Percent |
|---|---|---|---|---|
| **Human Factors** | | | | |
| Failure to Yield Right of Way | 174 | 22.1% | 250 | 32.9% |
| Driver Inattention/Distraction | 137 | 17.4 | 242 | 31.8 |
| Disregard Traffic Control Device | 99 | 12.6 | 20 | 2.6 |
| Improper/Unsafe Lane Use | 69 | 8.8 | 17 | 2.2 |
| Driver Inexperience | 41 | 5.2 | 9 | 1.2 |
| Vision Obscured | 30 | 3.8 | 85 | 11.2 |
| Driving Left of Center | 20 | 2.5 | 2 | 0.3 |
| Illegal or Unsafe Speed | 17 | 2.2 | 15 | 2.0 |
| Improper Turn | 12 | 1.5 | 16 | 2.1 |
| Failure to use Lights | 11 | 1.4 | 2 | 0.3 |
| Physical Impairment | 10 | 1.3 | 5 | 0.7 |
| Improper Park/Start/Stop | 6 | 0.8 | 16 | 2.1 |
| Improper Passing/Overtaking | 5 | 0.6 | 11 | 1.4 |
| Impeding Traffic | 4 | 0.5 | 1 | 0.1 |
| Improper/No Signal | 3 | 0.4 | 0 | 0.0 |
| Unsafe Backing | 2 | 0.3 | 3 | 0.4 |
| Following Too Closely | 1 | 0.1 | 10 | 1.3 |
| Driver on Phone/CB Radio | 0 | 0.0 | 2 | 0.3 |
| Other Human Factors | 29 | 3.7 | 14 | 1.8 |
| **Vehicular Factors** | | | | |
| Defective Brakes | 22 | 2.8 | 0 | 0.0 |
| Skidding | 3 | 0.4 | 1 | 0.1 |
| Oversize/Overweight Vehicle | 1 | 0.1 | 1 | 0.1 |
| **Miscellaneous Factors** | | | | |
| Weather Conditions | 5 | 0.6 | 7 | 0.9 |
| Other | 85 | 10.8 | 32 | 4.2 |
| Total | 786 | 100.0% | 761 | 100.0% |
| Vehicles for Which There Was "No Clear Contributing Factor" | 336 | | 510 | |
| Total Number of Bicyclists/Drivers | 1,146 | | 1,142 | |

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 up from last year**
There were 890 traffic crashes involving at least one school bus in Minnesota in 2000. This is nearly a 14% increase from the number of traffic crashes that occurred the previous year but only three more than the past five-year average.

**Two deaths in 2000**
Despite the increase in the number of traffic crashes, there was a decrease in the number of fatal crashes. In 2000 there were two fatal school bus crashes resulting in two deaths. The two fatalities were the drivers of other vehicles that collided with school buses.

Unfortunately, there was one additional incident that resulted in a child fatality. However, due to the location (in a parking lot and not on a Minnesota roadway) it did not meet the standard criteria to be considered a traffic crash and is not in the database used to generate *Crash Facts*.

**Number of injuries goes up**
While fatalities decreased in 2000, there were more people injured this year than last. In 2000, 388 people were injured in school bus crashes, representing an 18% increase from 1999. Of the 388 total injuries in 2000, 187 were occupants of a school bus, 188 were occupants of other motor vehicles, and 13 were pedestrians.

**Morning and Afternoon Rush Hours**
As would be expected, more than half of school bus crashes in 2000 (59%) occurred during the time periods of 6:00-9:00am and 3:00-6:00pm. In addition, the two fatalities and 62% of the injuries occurred during these two time periods. Not surprisingly, fewer crashes (less than 12% of the total) occurred during the summer months of June, July, and August.

**School Bus Stop Arm**
Forty-two percent of school bus crashes occurred where there was no traffic control device and less than 2% of the crashes occurred when the school bus stop arm was deployed. However, seven injuries did occur in crashes where the school bus stop arm was in use.

**Contributing factors**
Though there were 890 school bus crashes in 2000, a few involved more than one school bus. In all, there were 903 school buses in crashes. For nearly 49% of the school buses, police showed there was "no clear contributing factor." This compares favorably to the 32% of other motor vehicle drivers for whom there was "no clear contributing factor." For the school bus drivers, the two contributing factors mentioned most often were driver inattention or distraction (24%), and failure to yield the right of way (17%). The third most frequently cited contributing factor was improper turn (9%).

*TABLE 8.01*

## SCHOOL BUS CRASH SUMMARY, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Crashes | 857 | 741 | 894 | 821 | 898 | 1,041 | 961 | 782 | 782 | 890 |
| Fatal Crashes | 4 | 1 | 3 | 2 | 2 | 6 | 4 | 3 | 5 | 2 |
| Persons Killed | 4 | 1 | 3 | 2 | 2 | 8 | 7 | 3 | 5 | 2 |
| Injury Crashes | 181 | 169 | 212 | 210 | 216 | 241 | 211 | 197 | 172 | 203 |
| Persons Injured | 383 | 425 | 432 | 401 | 457 | 472 | 408 | 371 | 328 | 388 |
| Property Damage Crashes | 672 | 571 | 679 | 609 | 680 | 794 | 746 | 582 | 605 | 685 |
| School Buses Involved | 867 | 756 | 909 | 884 | 906 | 1,050 | 979 | 790 | 789 | 903 |

*TABLE 8.02*

## 2000 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 | 2 | 2 | 0 | 0 |
| 3:00 - 5:59 AM | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:00 - 8:59 AM | 2 | 69 | 200 | 271 | 2 | 141 |
| 9:00 - 11:59 AM | 0 | 28 | 111 | 139 | 0 | 82 |
| Noon - 2:59 PM | 0 | 39 | 128 | 167 | 0 | 51 |
| 3:00 - 5:59 PM | 0 | 57 | 197 | 254 | 0 | 100 |
| 6:00 - 8:59 PM | 0 | 6 | 20 | 26 | 0 | 10 |
| 9:00 - 11:59 PM | 0 | 0 | 4 | 4 | 0 | 0 |
| Unknown | 0 | 4 | 23 | 27 | 0 | 4 |
| Total | 2 | 203 | 685 | 890 | 2 | 388 |

*TABLE 8.03*

## 2000 SCHOOL BUS CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| January | 0 | 39 | 129 | 168 | 0 | 72 |
| February | 0 | 28 | 74 | 102 | 0 | 84 |
| March | 0 | 12 | 50 | 62 | 0 | 21 |
| April | 2 | 12 | 42 | 56 | 2 | 20 |
| May | 0 | 23 | 55 | 78 | 0 | 34 |
| June | 0 | 9 | 23 | 32 | 0 | 16 |
| July | 0 | 5 | 15 | 20 | 0 | 9 |
| August | 0 | 2 | 5 | 7 | 0 | 3 |
| September | 0 | 17 | 60 | 77 | 0 | 21 |
| October | 0 | 16 | 66 | 82 | 0 | 53 |
| November | 0 | 16 | 64 | 80 | 0 | 22 |
| December | 0 | 24 | 102 | 126 | 0 | 33 |
| Total | 2 | 203 | 685 | 890 | 2 | 388 |

*TABLE 8.04*

## AGE AND GENDER OF PERSONS INJURED IN 2000 SCHOOL BUS CRASHES

| Age Group | Total* | In Bus | Pedestrian | In Other Vehicle | Male | Female |
|---|---|---|---|---|---|---|
| 0 – 4 | 10 | 3 | 0 | 7 | 7 | 3 |
| 5 - 9 | 19 | 15 | 1 | 3 | 8 | 11 |
| 10 - 14 | 44 | 37 | 1 | 6 | 18 | 26 |
| 15 - 19 | 52 | 16 | 2 | 34 | 21 | 31 |
| 20 - 24 | 25 | 2 | 0 | 23 | 15 | 10 |
| 25 - 29 | 16 | 3 | 0 | 13 | 5 | 11 |
| 30 - 34 | 29 | 7 | 3 | 19 | 12 | 17 |
| 35 - 39 | 21 | 7 | 0 | 14 | 13 | 8 |
| 40 - 44 | 22 | 8 | 1 | 13 | 9 | 13 |
| 45 - 54 | 35 | 8 | 1 | 26 | 22 | 13 |
| 55 - 64 | 14 | 5 | 2 | 7 | 6 | 7 |
| 65 & Older | 16 | 2 | 2 | 12 | 8 | 8 |
| Unknown | 85 | 74 | 0 | 11 | 7 | 16 |
| Total | 388 | 187 | 13 | 188 | 151 | 174 |

* There were 63 cases where the gender of the person was not stated.

*TABLE 8.05*

## PERSONS KILLED OR INJURED IN 2000 SCHOOL BUS CRASHES BY POPULATION OF AREA

| Population of City or Township | Killed | Injured | | | |
|---|---|---|---|---|---|
| | | Severe | Moderate | Minor | Total |
| 100,000 and Over | 1 | 11 | 25 | 85 | 121 |
| 50,000 - 99,999 | 0 | 0 | 9 | 5 | 14 |
| 25,000 - 49,999 | 0 | 1 | 18 | 28 | 47 |
| 10,000 - 24,999 | 0 | 0 | 11 | 58 | 69 |
| 5,000 - 9,999 | 1 | 1 | 3 | 15 | 19 |
| 2,500 - 4,999 | 0 | 2 | 2 | 12 | 16 |
| 1,000 - 2,499 | 0 | 0 | 1 | 3 | 4 |
| Under 1,000 | 0 | 5 | 40 | 53 | 98 |
| Total | 2 | 20 | 109 | 259 | 388 |

*TABLE 8.06*

## 2000 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 | 2 | 179 | 588 | 769 | 2 | 358 |
| Parked Motor Vehicle | 0 | 5 | 68 | 73 | 0 | 7 |
| Bicycle | 0 | 3 | 0 | 3 | 0 | 3 |
| Pedestrian | 0 | 12 | 0 | 12 | 0 | 12 |
| Deer or Other Animal | 0 | 0 | 4 | 4 | 0 | 0 |
| Fixed Object | 0 | 1 | 16 | 17 | 0 | 4 |
| Other Object | 0 | 0 | 2 | 2 | 0 | 0 |
| **Non-collision:** | | | | | | |
| Overturn | 0 | 1 | 0 | 1 | 0 | 1 |
| **Other/Unknown** | 0 | 2 | 7 | 9 | 0 | 3 |
| Total | 2 | 203 | 685 | 890 | 2 | 388 |

*TABLE 8.07*

## 2000 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

| Traffic Control Device | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| Not Applicable | 2 | 84 | 292 | 378 | 2 | 169 |
| Traffic Signal | 0 | 55 | 133 | 188 | 0 | 84 |
| Overhead Flashers | 0 | 0 | 1 | 1 | 0 | 0 |
| Stop Sign--All Approaches | 0 | 5 | 32 | 37 | 0 | 5 |
| Other Stop Sign | 0 | 45 | 133 | 178 | 0 | 112 |
| Yield Sign | 0 | 2 | 12 | 14 | 0 | 2 |
| School Zone Sign | 0 | 0 | 1 | 1 | 0 | 0 |
| School Bus Stop Arm | 0 | 4 | 9 | 13 | 0 | 7 |
| No Passing Zone | 0 | 1 | 0 | 1 | 0 | 1 |
| Officer/Flag-person | 0 | 1 | 0 | 1 | 0 | 1 |
| Railroad Crossing Device | 0 | 3 | 6 | 9 | 0 | 3 |
| Other | 0 | 1 | 18 | 19 | 0 | 1 |
| Unknown | 0 | 2 | 48 | 50 | 0 | 3 |
| Total | 2 | 203 | 685 | 890 | 2 | 388 |

*TABLE 8.08*

## CONTRIBUTING FACTORS IN 2000 SCHOOL BUS CRASHES

| Contributing Factors | Attributed to School Bus Drivers Number | Attributed to School Bus Drivers Percent | Attributed to Drivers of Other Vehicles Number | Attributed to Drivers of Other Vehicles Percent |
|---|---|---|---|---|
| **Human Factors** | | | | |
| Driver Inattention /Distraction | 113 | 24.3% | 162 | 21.4% |
| Failure to Yield Right of Way | 78 | 16.8 | 109 | 14.4 |
| Improper Turn | 41 | 8.8 | 20 | 2.6 |
| Improper/Unsafe Lane Use | 39 | 8.4 | 34 | 4.5 |
| Unsafe Backing | 29 | 6.2 | 8 | 1.1 |
| Following Too Closely | 26 | 5.6 | 55 | 7.3 |
| Vision Obscured | 21 | 4.5 | 19 | 2.5 |
| Illegal/Unsafe Speed | 16 | 3.4 | 83 | 10.9 |
| Improper Park/Start/Stop | 15 | 3.2 | 19 | 2.5 |
| Disregard Traffic Control Device | 7 | 1.5 | 35 | 4.6 |
| Driver Inexperience | 6 | 1.3 | 24 | 3.2 |
| Improper Passing/Overtaking | 6 | 1.3 | 18 | 2.4 |
| Impeding Traffic | 3 | 0.6 | 1 | 0.1 |
| Improper or No Signal | 2 | 0.4 | 0 | 0.0 |
| Driving Left of Center | 1 | 0.2 | 5 | 0.7 |
| Physical Impairment | 1 | 0.2 | 10 | 1.3 |
| Pedestrian Violation/Error | 0 | 0.0 | 1 | 0.1 |
| Failure to Use Lights | 0 | 0.0 | 1 | 0.1 |
| Driver on Phone/CB | 0 | 0.0 | 2 | 0.3 |
| Other Human Factors | 6 | 1.3 | 2 | 0.3 |
| **Vehicular Factors** | | | | |
| Skidding | 14 | 3.0 | 60 | 7.9 |
| Defective Brakes | 3 | 0.6 | 4 | 0.5 |
| Other Vehicular Factors | 2 | 0.4 | 0 | 0.0 |
| **Miscellaneous Factors** | | | | |
| Weather Conditions | 24 | 5.2 | 64 | 8.4 |
| Other | 12 | 2.6 | 22 | 2.9 |
| Total | 465 | 100% | 758 | 100% |
| Vehicles for Which There Was "No Clear Contributing Factor" | 438 | | 300 | |
| Total Number of Drivers | 903 | | 926 | |

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 2000, about 3.8% of all motor-vehicle/train crashes in Minnesota resulted in a fatality. That is nearly eight times the rate for all crashes. Motor vehicle/train crashes may be few in numbers, but they are more likely to be serious. Thus, these types of crashes are a cause for concern.

**Number of train crashes decline**
Over the years, the number of motor-vehicle/train crashes in Minnesota has been declining. The calendar year 2000 was no exception. Only 79 crashes were reported in 2000, nearly a 6% decline from the previous year.

**Number of injuries and fatalities drops**
In 2000, 43 people were injured in motor-vehicle/train crashes compared to 50 people in 1999. The number of fatalities also declined substantially: four people were killed in 2000 compared to ten in 1999.

**January had the most crashes**
In 2000, motor vehicle/train crashes were most numerous in the month of December. Nearly 28% of the crashes occurred in that month, with a total of 10 crashes resulting in 12 injured.

**Railroad crossbuck sites remain dangerous**
Twenty-four of the 79 motor-vehicle/train crashes, including 12 of the 43 injuries, occurred at a crossing signed by a railroad crossbuck. An additional 21 crashes, including 3 fatalities and 11 injuries, occurred at a railroad crossing stop sign. Combined, those two types of traffic control devices were present at 57% of the crashes, 75% of the fatalities, and 53% of the injuries.

**15-to-24-year-olds at higher risk**
In 2000, two persons from the 15-19 age group were killed in motor-vehicle/train crashes. This figure represents 50% of all fatalities. Ten out of the 43 injuries came from the 20-24 age group.

**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 2000, 63% of the total crashes, 79% of the injuries, and all fatalities occurred in rural areas.

**Contributing Factors**
For the motor vehicles involved in train crashes, failure to yield the right of way, driver inattention or distraction, and disregard for traffic control device were the three contributing factors cited most often by officers at the scene. These three accounted for slightly more than 72% of all contributing factors cited.

*TABLE 9.01*

## MOTOR VEHICLE / TRAIN CRASH SUMMARY, 1991 - 2000

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Crashes | 147 | 111 | 128 | 144 | 132 | 124 | 107 | 108 | 84 | 79 |
| Fatal Crashes | 10 | 7 | 11 | 14 | 15 | 8 | 6 | 9 | 8 | 3 |
| Persons Killed | 10 | 9 | 15 | 17 | 16 | 8 | 6 | 11 | 10 | 4 |
| Injury Crashes | 49 | 39 | 45 | 51 | 30 | 45 | 36 | 47 | 32 | 32 |
| Persons Injured | 70 | 54 | 63 | 75 | 34 | 50 | 46 | 64 | 50 | 43 |
| Property Damage Crashes | 88 | 65 | 72 | 79 | 87 | 71 | 65 | 52 | 44 | 44 |

*TABLE 9.02*

## 2000 MOTOR VEHICLE / TRAIN CRASHES BY MONTH

| Month | Fatal Crashes | Injury Crashes | Property Damage Crashes | Total Crashes | Killed | Injured |
|---|---|---|---|---|---|---|
| January | 0 | 3 | 8 | 11 | 0 | 3 |
| February | 0 | 0 | 7 | 7 | 0 | 0 |
| March | 1 | 1 | 2 | 4 | 1 | 1 |
| April | 0 | 1 | 3 | 4 | 0 | 1 |
| May | 0 | 0 | 3 | 3 | 0 | 0 |
| June | 0 | 2 | 3 | 5 | 0 | 2 |
| July | 0 | 8 | 2 | 10 | 0 | 9 |
| August | 0 | 3 | 2 | 5 | 0 | 4 |
| September | 1 | 5 | 4 | 10 | 2 | 7 |
| October | 0 | 1 | 4 | 5 | 0 | 1 |
| November | 1 | 2 | 2 | 5 | 1 | 3 |
| December | 0 | 6 | 4 | 10 | 0 | 12 |
| Total | 3 | 32 | 44 | 79 | 4 | 43 |

*TABLE 9.03*

## 2000 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 | 1 | 2 | 1 | 0 | 0 | 2 |
| 3:00 - 5:59 AM | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 6:00 - 8:59 AM | 11 | 0 | 2 | 2 | 3 | 0 | 4 | 0 |
| 9:00 - 11:59 AM | 17 | 3 | 1 | 7 | 2 | 2 | 2 | 0 |
| Noon - 2:59 PM | 12 | 2 | 2 | 2 | 1 | 5 | 0 | 0 |
| 3:00 - 5:59 PM | 12 | 3 | 1 | 4 | 2 | 2 | 0 | 0 |
| 6:00 - 8:59 PM | 6 | 1 | 0 | 1 | 1 | 2 | 1 | 0 |
| 9:00 - 11:59 PM | 9 | 1 | 2 | 0 | 2 | 2 | 1 | 1 |
| Unknown | 3 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| Total | 79 | 11 | 10 | 19 | 14 | 14 | 8 | 3 |

*TABLE 9.04*

## 2000 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 | 11 | 13 | 24 | 0 | 12 |
| RR Crossing Stop Sign | 2 | 9 | 10 | 21 | 3 | 11 |
| RR Flashing Lights | 0 | 3 | 11 | 14 | 0 | 3 |
| RR Overhead Flashers Plus Gate | 0 | 3 | 0 | 3 | 0 | 5 |
| RR Overhead Flashers | 0 | 2 | 2 | 4 | 0 | 2 |
| RR Crossing Gate | 0 | 0 | 3 | 3 | 0 | 0 |
| Stop Sign | 1 | 2 | 1 | 4 | 1 | 3 |
| Unknown | 0 | 1 | 2 | 3 | 0 | 1 |
| Not Applicable | 0 | 1 | 2 | 3 | 0 | 6 |
| Total | 3 | 32 | 44 | 79 | 4 | 43 |

*TABLE 9.05*

## AGE OF PERSONS KILLED OR INJURED IN 2000 MOTOR VEHICLE / TRAIN CRASHES

| | | Injured | | | |
|---|---|---|---|---|---|
| Age Group | Killed | Severe | Moderate | Minor | Total |
| 0-4 | 0 | 0 | 0 | 3 | 3 |
| 5-9 | 1 | 0 | 0 | 1 | 1 |
| 10-14 | 0 | 0 | 0 | 0 | 0 |
| 15-19 | 2 | 2 | 2 | 0 | 4 |
| 20-24 | 0 | 3 | 3 | 4 | 10 |
| 25-29 | 0 | 0 | 0 | 0 | 0 |
| 30-34 | 0 | 0 | 3 | 0 | 3 |
| 35-39 | 0 | 1 | 0 | 2 | 3 |
| 40-44 | 0 | 2 | 3 | 0 | 5 |
| 45-49 | 0 | 1 | 1 | 0 | 2 |
| 50-54 | 0 | 0 | 1 | 2 | 3 |
| 55-59 | 0 | 1 | 1 | 0 | 2 |
| 60-69 | 0 | 0 | 0 | 0 | 0 |
| 70-79 | 1 | 1 | 1 | 1 | 3 |
| 80 & Older | 0 | 0 | 0 | 2 | 2 |
| Not Stated | 0 | 0 | 0 | 2 | 2 |
| Total | 4 | 11 | 15 | 17 | 43 |

*TABLE 9.06*

## 2000 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 | 6 | 6 | 0 | 0 |
| 50,000 - 99,999 | 0 | 4 | 1 | 5 | 0 | 4 |
| 25,000 - 49,999 | 0 | 0 | 2 | 2 | 0 | 0 |
| 10,000 - 24,999 | 0 | 4 | 9 | 13 | 0 | 5 |
| 5,000 - 9,999 | 0 | 0 | 3 | 3 | 0 | 0 |
| 2,500 - 4,999 | 0 | 0 | 1 | 1 | 0 | 0 |
| 1,000 - 2,499 | 0 | 1 | 2 | 3 | 0 | 2 |
| Under 1,000 | 3 | 23 | 20 | 46 | 4 | 32 |
| Total | 3 | 32 | 44 | 79 | 4 | 43 |

*TABLE 9.07*

## CONTRIBUTING FACTORS IN 2000 MOTOR VEHICLE / TRAIN CRASHES

| Contributing Factor | Number | Percent |
|---|---|---|
| **Human Factors** | | |
| Failure to Yield Right of Way | 33 | 28.4% |
| Driver Inattention / Distraction | 30 | 25.9 |
| Disregard for Traffic Control Device | 21 | 18.1 |
| Illegal or Unsafe Speed | 4 | 3.4 |
| Physical Impairment | 3 | 2.6 |
| Improper Parking/Stopping/Starting | 3 | 2.6 |
| Vision Obscured | 3 | 2.6 |
| Improper Turn | 2 | 1.7 |
| Driver Inexperience | 2 | 1.7 |
| Other Human Factor | 2 | 1.7 |
| **Vehicular Factors** | | |
| Skidding | 4 | 3.4 |
| Defective Brakes | 1 | 0.9 |
| **Miscellaneous Factors** | | |
| Weather Conditions | 6 | 5.2 |
| Other | 2 | 1.7 |
| Total | 116 | 100.0% |
| Vehicles for Which There Was "No Clear Contributing Factor" | 5 | |
| Number of Drivers | 83 | |

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.

MINNESOTA DEPARTMENT OF PUBLIC SAFETY

Traffic Safety
444 Cedar Street, Suite 150
St. Paul, Minnesota 55101-5150

PRESORT
STANDARD
U.S. Postage
PAID
Permit No. 171
St. Paul, MN