MINNESOTA MOTOR VEHICLE CRASH FACTS 2011

Suggestions for Using *Crash Facts*

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

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

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

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

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

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

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

Such requests should be directed to:

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

MINNESOTA MOTOR VEHICLE

CRASH FACTS

2011

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:
Minnesota Department of Public Safety
444 Cedar Street, Suite 150
St. Paul, MN 55101-5150
(651) 201-7076
[TTY (651) 282-6555]
dps.mn.gov

For additional copies contact:
Office of Communications
Phone (651) 201-7575

Acknowledgements:
Many thanks to the Crash Records Section of the Driver and Vehicle Services Division at the Department of Public Safety for their excellent data quality control work. Thanks also to the State Patrol, the Bureau of Criminal Apprehension, Sheriffs, Police Chiefs, and Medical Examiners for their assistance regarding alcohol-related crashes. And many thanks to all of the Minnesota officers and troopers who were on the scene of these traffic crashes. Their hard work and data reporting make this book a valuable document to traffic safety researchers, legislators, the media, and the public.

Note:
The Minnesota Department of Public Safety is working to create an accessible electronic version of this document that meets the State of Minnesota Accessibility Standard and Minnesota State Statutes Section 16E.03. The most up-to-date version of this document will be posted on the Minnesota Department of Public Safety Website:
https://dps.mn.gov/divisions/ots/
Click on the "Reports and Statistics" tab.
This site also includes yearly archived Crash Facts reports.

Alcohol and Gambling Enforcement

Bureau of Criminal Apprehension

Driver and Vehicle Services

Emergency Communication Networks

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

Office of Justice Programs

Office of Traffic Safety

State Fire Marshal

Office of the Commissioner

445 Minnesota Street • Suite 1000 • Saint Paul, Minnesota 55101-5100
Phone: 651.201.7160 • Fax: 651.297.5728 • TTY: 651.282.6555
www.dps.mn.gov

June 2012

There were 368 traffic deaths on Minnesota roads in 2011. This number is very significant as it points to the fourth consecutive annual decrease in traffic deaths and the first time since 1944 that there have been fewer than 400 deaths.

But for all the progress Minnesota has made to limit these tragedies, it is little consolation for the families and communities that have been torn apart as a result of a preventable traffic crash. These victims are in our hearts as we develop and conduct our traffic safety initiatives.

This publication, *Minnesota Motor Vehicle Crash Facts*, takes an in-depth and detailed look at crashes on our state roads to present how and why these crashes happened, where they occurred and who was involved.

The data presented here will help steer DPS initiatives — helping us effectively focus enforcement and education campaigns, identify emerging problems and track existing, ongoing issues, especially related to seat belt use and impaired driving.

Key 2011 Crash Data:

- 368 traffic deaths — a 10.5 percent decrease in deaths from 2010.
- 271 motor vehicle occupants killed — only 126 (46 percent) were buckled up.
- 136 alcohol-related deaths — representing 37 percent of all deaths.

These statistics clearly demonstrate there is a long road left to reach a goal that is truly acceptable: zero deaths. This road to reducing deaths and injuries starts with each of us. We all have a responsibility to drive at safe speeds, be courteous and patient, pay attention, and of course be buckled up and sober behind the wheel.

Thank you for being a partner for traffic safety and embracing these life-saving messages. I hope these data reinforce the need that we all take the privilege of driving seriously.

Sincerely,

Ramona L Dohman

Mona Dohman
Commissioner, Department of Public Safety

Minnesota Traffic Crashes in 2011
OVERVIEW

This edition of *Minnesota Motor Vehicle Crash Facts* summarizes the crashes, deaths, and injuries that occurred on Minnesota roadways during 2011. The information provided in this book will assist you in traveling our roadways safely.

In 2011

- 72,117 traffic crashes were reported to the Minnesota Department of Public Safety (DPS)
- 130,102 motor vehicles and 175,583 people were involved in these crashes
- 368 people died and 30,295 people were injured
- Estimated economic cost to Minnesota: $1,481,240,300

On an average day in 2011

- 198 crashes
- 1 death and 83 injuries
- Average daily cost: $4,058,192

2011 crashes that were known to be alcohol involved

- 3,571 crashes
- 136 deaths and 2,375 injuries
- Estimated economic cost: $262,111,800

Highlights from the 2011 *Crash Facts* edition

- **Traffic fatalities decrease.**
  In 2011, Minnesota experienced a decrease in traffic fatalities of 10.5 percent from the previous year. There are many factors for the continued drop in fatalities, but much can be credited to enhanced enforcement, education and outreach, engineering and emergency trauma care. These elements are all part of the state's *Toward Zero Deaths* (*TZD*) initiative — a multidisciplinary program addressing traffic issues at the local level. However, traffic fatalities in Minnesota remain at epidemic levels - serving as a call-to-action for all motorists to buckle up, drive at safe speeds, pay attention, and never drive impaired.

- **Safety belt use in Minnesota is 93 percent.**
  An observational study in August, 2011 showed that belt use by front seat drivers and passengers was 93%. It is a known fact that seat belts save lives. All motor vehicle occupants are urged to buckle up, every seat, and every ride.

- **The fatality rate in Minnesota per 100 million vehicle miles traveled (VMT) remains low.**
  The VMT-based fatality rate for 2011 is 0.65, one of the lowest in the nation. The VMT fatality rate has shown dramatic improvement in the last five decades (it was 5.52 in 1966).

CRASH FACTS ORGANIZATION

Crash Facts has a wealth of statistical information about traffic crashes in Minnesota. Follow this basic user's guide to navigate the book.

Introduction

Beginning on page 1, you will find introductory information including the history, societal costs, and general cause of crashes. You can use this information to find:

- How crash costs are estimated
- Contributing factors in crashes
- Historical analysis of traffic deaths over the last 35 to 40 years
- Licensed drivers by age (Table 2)
- Registered motor vehicles by category (Table 3)

Section I: All Crashes
Beginning on page 7, you will find the aggregate of all traffic crashes that occurred in Minnesota in 2011. Information provided includes:

- Historical information dating back to 1965 (Table 1.01)
- Contributing factors to crashes (Tables 1.09, 1.10 and 1.17)
- Holiday crashes, deaths and injuries (Table 1.28)

Section II: Alcohol-Related Crashes
Beginning on page 38, you will 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 (Tables 2.02, 2.03, and 2.04)
- Persons killed and injured in alcohol-related crashes by age (Table 2.05)

Section III: Safety Equipment Use by Vehicle Occupants in Crashes
Beginning on page 51, you will find information on belt use by people in cars and trucks.

- This section includes a table showing observational seat belt use rates since 1986 (Table 3.01)

Section IV: Motorcycle Crashes
Beginning on page 60, you will find information on crashes involving motorcycles.

- Crashes involving all-terrain vehicles or mopeds are not included in this section.

Section V: Truck Crashes
Beginning on page 69, you will find information on crashes that involved a heavy commercial vehicle.

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

Section VI: Pedestrian Crashes
Beginning on page 77, you will find information on motor-vehicle/pedestrian crashes.

- Crashes involving a pedestrian/train or pedestrian/bicycle are not included in this section.

Section VII: Bicycle Crashes
Beginning on page 86, you will find information on motor-vehicle/bicycle crashes.

- Bicycle crashes not on public highways and roadways are not included in this section.
- Bicycle crashes not involving a motor vehicle are not included in this section.

Section VIII: School Bus Crashes
Beginning on page 91, you will find information pertaining to school bus crashes.

- This section focuses on crashes that involved a school bus as a "contact vehicle."
- Crashes where a school bus was indirectly involved are not included in this section. (Note: this data collection began in 2003; please see narrative for discussion)

Section IX: Motor Vehicle/Train Crashes
Beginning on page 96, you will find information pertaining to train crashes.

- Crashes that do not involve a motor vehicle are not included in this section.

Section X: Motor Vehicle Teen Crashes
Beginning on page 100, you will find information pertaining to teen involved traffic crashes.

- This section focuses of teen drivers aged 15 through 19.

TABLE OF CONTENTS

INTRODUCTION 1

Figure 1 Chart of Vehicles, Drivers, and Fatality Rates, Minnesota, 1966 - 2011 3
Table 1 Number of Traffic Fatalities in Minnesota, 1910 - 2011 4
Figure 2 Chart of Traffic Fatalities in Minnesota, 1910 - 2011 4
Table 2 Number of Licensed Drivers in Minnesota, 2006 - 2011 5
Table 3 Number of Registered Motor Vehicles in Minnesota, 2006 - 2011 6

I: ALL CRASHES 7

WHO was involved

Table 1.01 Traffic Safety Statistics Summary, 1965 - 2011 9
Table 1.02 Traffic Crash Trends, 2006 - 2011 10
Table 1.03 2011 Fatalities by Traffic Role, Gender, and Age 11
Table 1.04 Age and Gender of Persons Killed or Injured in 2011 Crashes 12
Table 1.05 Age and Gender of Drivers in 2011 Crashes 13
Table 1.06 Licensed vs. Crash-Involved Drivers by Age, 2011 14
Figure 1.01 Age and Gender of Persons Killed or Injured, 2011 15
Figure 1.02 Licensed vs. Crash-Involved Drivers by Age, 2011 15
Table 1.07 Drivers in 2011 Crashes by Age and First Harmful Event 16
Table 1.08 Drivers in 2011 Crashes by Physical Condition 16
Table 1.09 Single-Vehicle Crashes: Contributing Factors by Percent, Within Driver Age Groups, 2011 17
Table 1.10 Multiple-Vehicle Crashes: Contributing Factors by Percent, Within Driver Age Groups, 2011 18
Table 1.11 Persons Involved in Crashes by Type of Vehicle Occupied and Injury Severity, 2011 19

WHAT the conditions were

Table 1.12 Types of Motor Vehicles in 2011 Crashes 20
Table 1.13 2011 Crashes and Injuries by First Harmful Event 21
Table 1.14 2011 "Hit-and-Run" Crashes by First Harmful Event 21
Table 1.15 2011 Crashes by Traffic Control Device 22
Table 1.16 2011 Crashes by Weather Condition 22
Table 1.17 Contributing Factors in 2011 Crashes 23
Table 1.18 2011 Crashes by Light Condition 24
Table 1.19 2011 Crashes by Road Surface Condition 24
Table 1.20 2011 Crashes by Road Design 24
Table 1.21 2011 Crashes by Diagram 25

WHERE they happened

Table 1.22 2011 Crashes by Population of Area 25
Table 1.23 2011 Crashes by Type of Roadway 26
Table 1.24 2011 County Crash Report 27
Table 1.25 2011 Crashes in Cities of 2,500 or More Population 30

WHEN they happened

Table 1.26 2011 Crashes by Time and Day 35
Figure 1.03 Total Crashes vs. Fatal Crashes by Time, 2011 36
Table 1.27 2011 Crashes, Fatalities, and Injuries by Month 36
Table 1.28 Holiday Crash Summary, 2006 - 2011 37

II: ALCOHOL - RELATED CRASHES 38

Table 2.01 Alcohol-Related Fatal Crash Summary, 1980 - 2011 40
Table 2.02 Impaired Driving Incidents ("DWIs") by Gender and by Area of State where Arrest was made, 1995 - 2011 41
Table 2.03 Impaired Driving Incidents ("DWIs") for Selected Age Groups, 1995 - 2011 41
Figure 2.01 Percent of Impaired Driving Incidents ("DWIs") Committed by Offenders in Four Age Groups, 1990 - 2011 42
Table 2.04 Impaired Driving Incidents ("DWIs") by Age, 1995 - 2011 42
Table 2.05 Ages of Persons Killed and Injured in all Crashes and in Alcohol-Related Crashes, 2011 43
Table 2.06 2011 Alcohol-Related Fatalities' Level of Alcohol Concentration by Traffic Role 44
Table 2.07 Percent of Deaths, Injuries, and Property Damage Crashes Determined to be Alcohol-Related, 2002 - 2011 44
Table 2.08 First Harmful Event in Alcohol-Related Fatal Crashes and all Fatal Crashes, 2011 44
Table 2.09 Test Results of Drivers Killed, 2002 - 2011 45
Table 2.10 Drivers Killed Who Tested .01 or Higher, 2002 - 2011 ("Any Alcohol") 45
Table 2.11 Drivers Killed Who Tested Over the Legal Limit, 2002 - 2011 ("Over Limit") 45
Figure 2.02 Killed Drivers Tested for Alcohol: Percent Over .01 Alcohol Level and Percent Over the Legal Limit, 1980-2011 46
Figure 2.03 Percent of Drivers Killed Who Had Been Drinking by Age, 2011 46
Table 2.12 2011 Driver Fatalities' Level of Alcohol Concentration by Age 47
Table 2.13 2011 Alcohol-Related Crashes by Month 48
Table 2.14 2011 Alcohol-Related Crashes by Roadway Type 48
Figure 2.04 2011 Alcohol-Related Crashes by Time of Day 49
Figure 2.05 2011 Alcohol-Related Crashes by Day of Week 49
Table 2.15 2011 Alcohol-Related Crashes by Time of Day and Day of Week 50

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2011 CRASHES 51

Table 3.01 Percent of Front Seat Occupants Wearing Safety Belts, by Date of Observation Study, 1986 - 2011 52
Table 3.02 Motor Vehicle Occupants Killed or Injured by Ejection Status and Injury Severity, 2011 53
Table 3.03 Motor Vehicle Occupants Killed or Injured, by Age and Injury Severity, 2011 53
Figure 3.01 Safety Equipment Use among Motor Vehicle Occupants Killed and Injured by Age, 2011 54
Table 3.04 Safety Equipment Use by Vehicle Occupants, by Gender and Injury Severity, 2011 54
Table 3.05 Safety Equipment Use by Vehicle Occupants Killed or Injured, by Age and Injury Severity, 2011 55
Table 3.06 Percent of Injured or Killed Motor Vehicle Occupants Who Used Safety Equipment by Injury Severity and Year, 2002 - 2011 57
Table 3.07 Safety Equipment Use by Motor Vehicle Occupants Killed and Injured, by Roadway Type, 2011 57
Table 3.08 Safety Equipment Use by Motor Vehicle Occupants Killed and Injured by Region of State, 2011 58
Table 3.09 Airbag Deployments, 2004 - 2011 59

IV: MOTORCYCLE CRASHES 60

Table 4.01 Motorcycle Crash Summary, 1981 - 2011 61
Table 4.02 2011 Motorcycle Crashes by First Harmful Event 62
Table 4.03 2011 Motorcycle Crashes by Population of Area 62
Table 4.04 2011 Motorcycle Crashes by Month 63
Figure 4.01 2011 Motorcycle Crashes by Time of Day 63
Table 4.05 2011 Motorcycle Crashes by Time and Day 64
Table 4.06 Motorcyclists Killed or Injured by Age and Gender, 2011 65
Figure 4.02 Motorcyclists Killed and Injured by Age and Gender, 2011 65
Table 4.07 Helmet Use by Motorcyclists Killed or Injured, 2002 - 2011 66
Table 4.08 Endorsement Status of Motorcycle Operators Involved in Fatal Crashes, 2002 - 2011 66
Table 4.09 Alcohol Use by Motorcycle Drivers, 2002 - 2011 67
Table 4.10 2011 Motorcycle Driver Fatalities' Level of Alcohol Concentration by Age 67
Table 4.11 Contributing Factors in 2011 Motorcycle Crashes 68

V: TRUCK CRASHES 69

Table 5.01 Truck Crash Summary, 2002 - 2011 70
Table 5.02 Persons Killed or Injured in 2011 Truck Crashes by Vehicle Occupied 70
Table 5.03 Contributing Factors in 2011 Truck Crashes 71
Table 5.04 Ages of Truck Drivers in 2011 Crashes 72
Table 5.05 Drivers in 2011 Truck Crashes by Physical Condition 72
Table 5.06 2011 Truck Crashes by First Harmful Event 73
Table 5.07 2011 Truck Crashes by Month 73
Table 5.08 2011 Truck Crashes by Time and Day 74
Figure 5.01 2011 Truck Crashes by Time of Day 74
Table 5.09 2011 Truck Crashes by Road Surface Condition 75
Table 5.10 2011 Truck Crashes by Weather Condition 75
Table 5.11 2011 Truck Crashes by Population of Area 76
Table 5.12 2011 Truck Crashes by Type of Roadway 76

VI: PEDESTRIAN CRASHES 77

Table 6.01 Pedestrian Crash Summary, 2002 - 2011 78
Table 6.02 Pedestrians Killed or Injured by Age and Gender, 2011 78
Figure 6.01 Pedestrian Fatalities by Age Group, 2002 - 2011 Combined 79
Figure 6.02 Pedestrians Killed and Injured by Age and Gender, 2011 79
Table 6.03 2011 Pedestrian Crashes by Month 80
Table 6.04 2011 Pedestrian Crashes by Population of Area 80
Table 6.05 2011 Pedestrian Crashes by Time and Day 81
Figure 6.03 2011 Pedestrian Crashes by Time of Day 81
Table 6.06 Prior Action of Vehicles in 2011 Pedestrian Crashes 82
Table 6.07 Prior Action of Pedestrians Killed or Injured in 2011 82
Table 6.08 Contributing Factors in 2011 Pedestrian Crashes 83
Table 6.09 Pedestrian Fatalities' Level of Alcohol Concentration, 2002 - 2011 84
Table 6.10 2011 Pedestrian Fatalities' Level of Alcohol Concentration by Age 84
Table 6.11 2011 Pedestrian Fatalities' Level of Alcohol Concentration by Time of Day 85

VII: BICYCLE CRASHES 86

Table 7.01 Bicycle Crash Summary, 2002 - 2011 87
Table 7.02 2011 Bicycle Crashes by Month 87
Figure 7.01 2011 Bicycle Crashes by Time of Day 87
Table 7.03 2011 Bicycle Crashes by Time and Day 88
Table 7.04 2011 Bicycle Crashes by Population of Area 88
Figure 7.02 Bicyclists Killed and Injured by Age and Gender, 2011 88
Table 7.05 Bicyclists Killed or Injured by Age and Gender, 2011 89
Table 7.06 Prior Action of Bicyclists Involved in 2011 Crashes 89
Table 7.07 Contributing Factors in 2011 Bicycle Crashes 90

VIII: SCHOOL BUS CRASHES 91

Table 8.01 School Bus Crash Summary, 2002 - 2011 92
Table 8.02 2011 School Bus Crashes by Time of Day 92
Table 8.03 2011 School Bus Crashes by Month 92
Table 8.04 Age and Gender of Persons Injured in 2011 School Bus Crashes 93
Table 8.05 Persons Killed or Injured in 2011 School Bus Crashes by Population of Area 93
Table 8.06 2011 School Bus Crashes by First Harmful Event 94
Table 8.07 2011 School Bus Crashes by Traffic Control Device 94
Table 8.08 Contributing Factors in 2011 School Bus Crashes 95

IX: MOTOR VEHICLE/TRAIN CRASHES 96

Table 9.01 Motor Vehicle/Train Crash Summary, 2002 - 2011 97
Table 9.02 2011 Motor Vehicle/Train Crashes by Month 97
Table 9.03 2011 Motor Vehicle/Train Crashes by Time and Day 97
Table 9.04 2011 Motor Vehicle/Train Crashes by Traffic Control Device 98
Table 9.05 Ages of Persons Killed or Injured in 2011 Motor Vehicle/Train Crashes 98
Table 9.06 2011 Motor Vehicle/Train Crashes by Population of Area 99
Table 9.07 Contributing Factors in 2011 Motor Vehicle/Train Crashes 99

IX: CRASHES INVOLVING TEEN DRIVERS 100

Table 10.01 Teen Crash Summary, 2005 - 2011 101
Table 10.02 Teen Motor Vehicle Occupant Driver Crash Involvement, 2005 - 2011 101
Table 10.03 2011 Teen Involved Crashes by Month 102
Table 10.04 2011 Teen Involved Crashes by Day of Week 102
Table 10.05 2011 Teen Involved Crashes by Time of Day 103
Figure 10.01 Total Teen Involved Crashes, By Time of Day, 2011 103
Table 10.06 Contributing Factors in 2011 Teen Involved Crashes 104

DEFINITIONS 105

Introduction

At the end of the 2011 calendar year, 4,007,753 people held Minnesota driver licenses and 4,975,146 motor vehicles were registered in the state. Vehicles traveled almost 57 billion miles on public roadways. There were 72,117 traffic crashes; 368 people died and 30,295 people were injured in those crashes. This report provides a statistical summary of those crashes.

The purpose of *Crash Facts* is to provide summary statistical information about the crashes reported to the state each year. The term "crash" is used in preference to "accident"." The latter term suggests there is a random, unavoidable quality about the events in question. In fact, the experience of the last three decades strongly demonstrates that advances in engineering and technology, coupled with changes in public policy and individual human behavior, can dramatically reduce the number and severity of traffic crashes.

Cost of traffic crashes

The necessity of getting from one place to another and the efficiency of motor vehicles for this purpose result in significant costs to society. The National Safety Council reports that crashes (from all causes) are the leading cause of death among persons aged 1 to 34 and the fifth leading cause of death among all persons (*Injury Facts, 2005-2006 Edition,* p. 10-11).

It is possible to estimate economic costs of traffic crashes, although the results can vary depending on definitions and estimating procedures. Many states use cost figures released by the National Safety Council, the most recent of which use 2010 data. Based upon those, the total economic loss from 2011 traffic crashes in Minnesota was $1,481,240,300, a figure that is calculated as follows:

Cost of Motor Vehicle Crashes in 2011:

368	deaths	@ $1,410,000	= $518,880,000
1,159	severe injuries	@ $69,200	= $ 80,202,800
7,110	moderate injuries	@ $22,300	= $158,553,000
22,026	minor injuries	@ $12,600	= $277,527,600
50,121	PDO crashes	@ $8,900	= $446,076,900
		Total	= $1,481,240,300

Factors affecting traffic crashes

Many factors may contribute to even a single crash. Cell phone use or playing with the radio may lead to driver distraction, which together with wet, slippery pavement and high traffic congestion at an intersection causes a traffic crash. Public policy cannot address the infinite number of individual causes imaginable.

There are a more limited number of factors that significantly affect the aggregate of traffic crashes. These can be organized into logical groups, such as human behavior factors or vehicle safety factors. The following paragraphs outline some of the factors most frequently thought to affect crash incidence and severity.

Vehicle Safety Factors: Engineering and design standards for vehicle performance can help prevent crashes from occurring. When there is a crash, vehicles designed for safety can increase survivability. For example, the design of windshield glass and the location and durability of gas tanks can increase safety. The "passenger packaging" inside a vehicle can reduce injury severity through means such as padded dashboards and collapsible steering wheel columns. Passenger protection systems in vehicles (airbags, safety belts, etc.), if used, can eliminate injuries or reduce their severity.

Behavior factors: For all crashes, the driver behaviors police cite most often as contributing factors are, in order of frequency, driver inattention or distraction, failure to yield right of way, and illegal or unsafe speed. In fatal crashes, illegal or unsafe speed is cited most often, followed by driver inattention or distraction. Reducing these behaviors would reduce crashes. Further, when there is a crash, using safety equipment will reduce severity. Motorcyclists and bicyclists should wear helmets. Vehicle occupants should use safety belts. Infants and toddlers should always be placed in child safety seats, and booster seats should be used for older children.

Roadway characteristics: Limited access highways carry about a fifth of the traffic volume in Minnesota, yet account for only about a twelfth of fatal accidents. They are built to high roadway engineering standards and are very safe, relatively speaking. In general, roadway characteristics conducive to safety include wide lanes, clearly visible striping, flared guardrails, wide shoulders of good quality, shoulders and roadsides free of obstacles, well-located crash attenuation devices, well-planned use of traffic signals, and effective communication to roadway users through clear and visible signing.

Environmental factors: Weather conditions affect crash incidence and severity. Clear dry roads are conducive to high speeds; consequently, fatal crashes have a pronounced seasonal variation, peaking in the warm summer months and falling in the winter months. The total number of crashes is driven by the incidence of the less serious property damage crashes, which tend to have a reverse seasonal variation, peaking in the winter months.

Volume of traffic, or vehicle miles traveled (VMT), is a predictor of crash incidence. All other things being equal, as VMT increases, so will traffic crashes. The relationship may not be simple, however; after a point, increasing congestion leads to reduced speeds, changing the proportion of crashes that occur at different severity levels.

The quality and availability of emergency medical services might be classified as an environmental factor. The first hour after a traumatic episode, such as a traffic crash, has been called the "golden hour"." Victims who receive emergency services within that time have markedly improved chances of survival.

The age structure of the population has a strong effect on crash incidence, although it is not generally thought about since demographic changes are so gradual. In Minnesota, about one in 18 teenage drivers are involved in crashes each year. The involvement rate drops off for successive age groups. For example, it is about 1 in 36 for drivers in their 40s. The aging of the 'baby boom' has reduced crash incidence, however, their children who are now driving may cause an increase.

Historical perspective

In 1966, there were 53,041 traffic fatalities in the country, or 5.7 for every hundred million miles of travel. In Minnesota in 1968, there were 1,060 traffic fatalities, or 5.3 per hundred million miles of travel. Those were the worst years. Since then, both the rate and the number of fatalities have declined in a fairly steady pattern. In 2011, there were 32,310 traffic fatalities throughout the country and 368 in Minnesota. The respective fatality rates per hundred million miles of travel were 1.09 and 0.65. A dramatic benefit has been achieved.

The benefit is in large part the result of conscious decision-making on traffic safety issues. The National Highway Traffic Safety Administration (originally called the National Highway Safety Bureau) was established in the US Department of Transportation in 1967. Since then it has promoted, and Congress has passed, legislation mandating the manufacture of safer cars. At the same time, the federal interstate highway system has expanded, contributing to a safer roadway environment.

Simultaneously there has been an effort to change human behavior factors. Minnesota was a leader among the states in the development of innovative drunk driving countermeasures. The Legislature made significant amendments to the DWI law in 1971, 1976, 1978, and in almost every year of the 1980s. It also passed the child passenger protection law in 1981 and the secondary 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 Minnesota Department of Public Safety Office of Traffic Safety, in accordance with state law. Minnesota Statutes, Section 169.10, requires that traffic crashes be reported to the Department. Section 169.10 then requires the Department to "…tabulate all crash reports and publish annually statistical information based thereon as to the number and circumstances of traffic crashes…"

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

The minimum dollar amount for crashes involving only property damage has changed over the years. The first minimum was set at $50 in 1939. It was raised to $100 in 1965, to $300 on August 1, 1977, and then to $500 on August 1, 1981. The current minimum of $1,000 took effect August 1, 1994.

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

FIGURE 1
Vehicles, Drivers, and Fatality Rate, 1966-2011

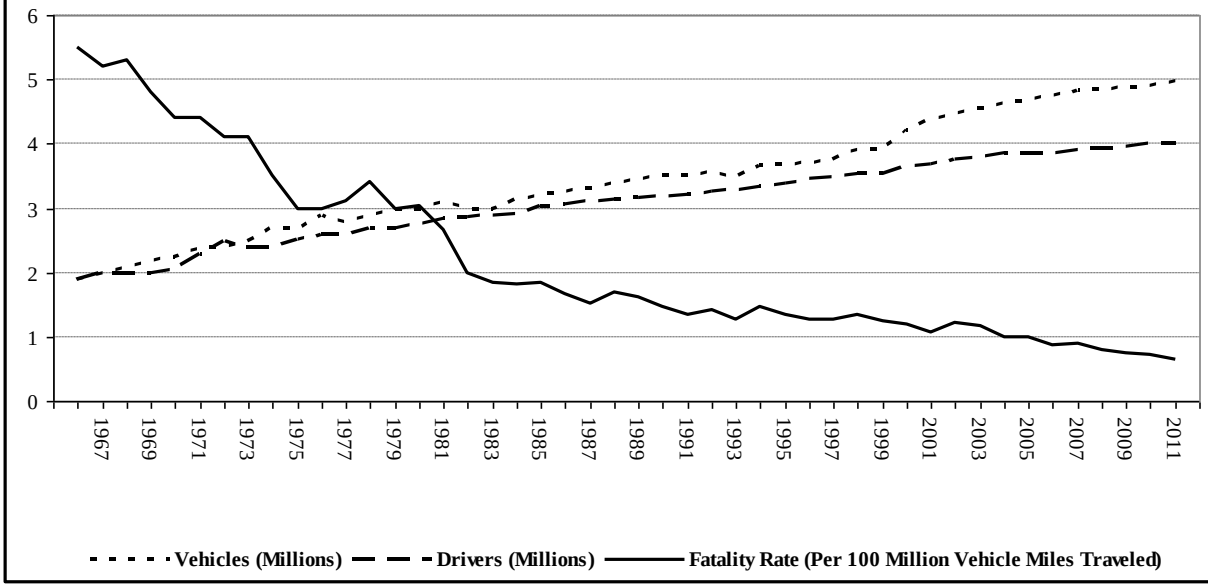

TABLE 1

Minnesota Traffic Fatalities, 1910 – 2011

Since 1961: Vehicle Miles Traveled (Billions) and Fatality Rates (Per 100 Million VMT)

YEAR (1)	Fatalities (2)	YEAR (3)	Fatalities (4)	YEAR (5)	Fatalities (6)	YEAR (7)	Fatalities (8)	Vehicle Miles (9)	Fatal Rate (10)	YEAR (11)	Fatalities (12)	Vehicle Miles (13)	Fatal Rate (14)	YEAR (15)	Fatalities (16)	Vehicle Miles (17)	Fatal Rate (18)
1910	23	**1927**	369	**1944**	356	**1961**	724	14.5	4.99	**1978**	980	28.8	3.40	**1995**	597	44.1	1.35
1911	26	**1928**	435	**1945**	449	**1962**	692	15.1	4.58	**1979**	881	29.0	3.04	**1996**	576	45.9	1.26
1912	39	**1929**	505	**1946**	536	**1963**	798	15.3	5.22	**1980**	863	28.5	3.03	**1997**	600	46.9	1.28
1913	46	**1930**	561	**1947**	572	**1964**	841	16.2	5.19	**1981**	763	28.6	2.67	**1998**	650	48.5	1.34
1914	88	**1931**	622	**1948**	552	**1965**	875	16.8	5.21	**1982**	581	29.2	1.98	**1999**	626	50.7	1.24
1915	85	**1932**	486	**1949**	540	**1966**	977	17.7	5.52	**1983**	558	30.5	1.83	**2000**	625	52.4	1.19
1916	143	**1933**	525	**1950**	532	**1967**	965	18.7	5.16	**1984**	584	32.2	1.81	**2001**	568	53.2	1.07
1917	161	**1934**	641	**1951**	610	**1968**	1,060	19.9	5.33	**1985**	610	33.1	1.84	**2002**	657	54.4	1.21
1918	183	**1935**	596	**1952**	534	**1969**	988	20.8	4.75	**1986**	572	34.2	1.67	**2003**	655	55.4	1.18
1919	171	**1936**	649	**1953**	637	**1970**	987	22.4	4.41	**1987**	530	35.1	1.51	**2004**	567	56.5	1.00
1920	178	**1937**	630	**1954**	639	**1971**	1,024	23.4	4.38	**1988**	615	36.4	1.69	**2005**	559	56.5	0.99
1921	216	**1938**	609	**1955**	577	**1972**	1,031	24.9	4.14	**1989**	605	37.6	1.61	**2006**	494	56.6	0.87
1922	260	**1939**	576	**1956**	637	**1973**	1,024	25.2	4.06	**1990**	568	38.8	1.47	**2007**	510	57.4	0.89
1923	328	**1940**	577	**1957**	684	**1974**	852	24.6	3.46	**1991**	531	39.3	1.35	**2008**	455	57.3	0.79
1924	366	**1941**	626	**1958**	708	**1975**	777	25.6	3.04	**1992**	581	41.3	1.41	**2009**	421	56.9	0.74
1925	361	**1942**	439	**1959**	662	**1976**	809	27.0	3.00	**1993**	538	42.3	1.27	**2010**	411	56.7	0.72
1926	326	**1943**	274	**1960**	724	**1977**	856	28.1	3.05	**1994**	644	43.4	1.48	**2011**	368	56.7	0.65

FIGURE 2

Minnesota Traffic Fatalities, 1910 - 2011

Since 1961: Miles Traveled (in Ten Billions) and Fatality Rates (per 100 Million VMT)

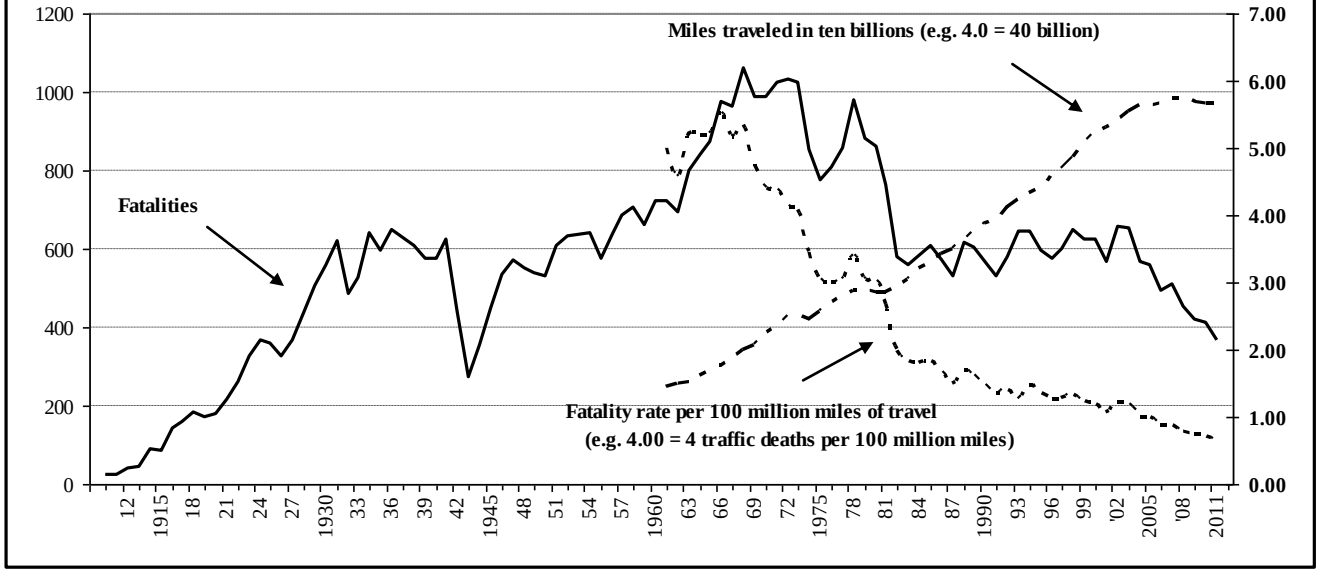

TABLE 2

DRIVER LICENSE* SUMMARY BY AGE, 2006 - 2011

Age	2006	2007	2008	2009	2010	2011
15	26,360	26,029	26,141	28,126	28,020	25,422
16	53,520	51,499	49,801	49,884	49,634	48,260
17	60,695	59,766	57,875	56,554	55,885	54,781
18	64,617	64,910	64,337	62,707	61,526	59,722
19	67,917	67,664	68,050	67,701	66,272	63,997
20	68,826	69,091	68,920	69,074	69,495	67,176
Under 21	341,935	338,959	335,124	334,046	330,832	319,358
15 – 19	273,109	269,868	266,204	264,972	261,337	252,182
20 – 24	353,949	351,877	350,535	347,193	348,937	343,942
25 – 29	353,241	360,944	365,501	364,228	366,813	358,738
30 – 34	311,685	316,410	324,694	330,073	342,756	351,489
35 – 39	342,520	336,604	327,911	319,456	311,858	306,985
40 – 44	372,638	358,091	347,387	339,999	340,906	336,514
45 – 49	401,715	401,496	399,215	391,392	380,685	365,193
50 – 54	361,197	369,195	376,096	382,435	389,685	392,410
55 – 59	306,185	314,238	324,589	332,705	343,840	350,359
60 – 64	226,262	239,650	251,756	265,450	282,820	293,833
65 – 69	168,693	178,918	187,347	193,513	198,777	213,587
70 – 74	132,725	136,026	140,879	143,738	149,002	155,347
75 – 79	114,750	114,678	113,740	113,517	114,320	116,871
80 – 84	86,274	88,606	89,045	87,672	88,821	90,620
85 & Older	66,217	71,373	73,502	71,997	74,678	79,683
Total	3,871,160	3,907,974	3,938,401	3,948,340	3,995,235	4,007,753

* This information is provided by the Department of Public Safety, Driver and Vehicle Services Division (DVS). Counts of licensed drivers include drivers who only hold learner's permits.

TABLE 3

MOTOR VEHICLE REGISTRATIONS, 2006 - 2011

Type of Vehicle*	2006	2007	2008	2009	2010	2011
Passenger Vehicles	3,353,858	3,406,848	3,455,451	3,478,218	3,527,503	3,579,033
Pickup Trucks	883,623	872,057	849,627	833,329	828,305	832,463
Commercial Trucks	215,542	217,059	215,107	213,489	214,680	216,532
Recreational Vehicles	37,978	37,399	34,998	35,042	34,797	33,070
Motorcycles	197,735	209,591	224,625	226,675	229,912	232,274
Motorized Bicycles	10,726	12,343	15,601	15,559	15,682	16,016
School Buses	6,257	6,399	6,766	6,810	6,940	6,951
Other Buses	5,235	5,312	5,076	4,996	5,067	5,161
Van Pool	197	199	205	165	174	226
Tax Exempt Vehicles	49,721	51,483	51,045	52,480	52,061	53,420
Motor Vehicle Subtotal	4,760,872	4,818,690	4,858,501	4,866,763	4,915,121	4,975,146
Other Registrations*						
Trailers	1,445,556	1,508,157	1,564,054	1,610,989	1,665,491	1,715,404
Classic Motor Vehicles	153,594	160,195	166,472	172,858	179,771	186,586
Classic Motorcycles	6,855	7,511	8,124	8,778	9,487	10,489
Other Subtotal	1,606,005	1,675,863	1,738,650	1,792,625	1,854,749	1,912,479
Total Registrations	6,366,877	6,494,553	6,597,151	6,659,388	6,769,870	6,887,625

* Information provided by Department of Public Safety, Driver and Vehicle Services Division.

Minnesota license plates on a vehicle signify that it has been registered with the state and that the owner has paid the registration fee. The vehicle classification used for registration purposes is similar, but not identical, to the vehicle classification (shown in Tables 1.11 and 1.12) police use in reporting accidents. Following are some notes on the registration categories shown above:

- Passenger Vehicles include cars, SUV's, and 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 (Moped).
- Tax exempt Vehicles are vehicles owned by city, county, or state offices. They have license plates but no registration fees are paid on them. (Police and fire department vehicles are tax exempt but are not included since they do not have state license plates and are not registered.)
- Trailers (such as utility trailers pulled by cars, or semi or twin trailers pulled by trucks) are pulled by motorized vehicles and do not themselves have motors.
- Classic Motor Vehicles and Classic Motorcycles must be at least 20 years old and cannot be used for normal transportation purposes. They can only be driven, for example, to car shows.

I. ALL CRASHES

Overview of Traffic Crashes in Minnesota

If a traffic crash in Minnesota meets certain criteria, the law states that data concerning that crash must be reported to the Department of Public Safety. In the recent past, about 73,000 traffic crashes each year have been reported. This is a very large number that is commensurate with the critical dependence we have placed upon motor vehicles for all sorts of transportation needs. Preventing the number of traffic crashes remains a challenge each year for public safety officials because; by the end of the calendar year 2011:

- The population of Minnesota increased to 5.31 million.
- Almost 5 million motor vehicles were registered.
- There were 4 million licensed drivers.
- Almost 57 *billion* miles were driven.

These numbers increase steadily. And, as more and more roads are constructed, the citizens of Minnesota face an extreme challenge in reducing this dependence on the motor vehicle, and with it, the high number and severity of traffic crashes.

Crashes and Fatalities Decrease in 2011

There were 72,117 traffic crashes reported to Public Safety in 2011, a decrease of 2.6% from 2010. And, there were 368 deaths on Minnesota roads, an amazing 10.5% decrease from the previous year. The total number of deaths in 2011 was the lowest amount recorded in Minnesota since 1944. There are many factors for the continued improvement in traffic safety, but much can be credited to strengthened traffic safety laws, enhanced enforcement, education and outreach, engineering and emergency trauma care. These elements are all part of the state's *Toward Zero Deaths* (*TZD*) initiative — a multidisciplinary program addressing traffic issues at the local level.

Traffic Crashes in 2011

The following facts give an overall picture of 2011 traffic crashes; In addition to the 368 killed…

- 30,295 were injured.
- 1,159 of these were severe injuries.
- 7,110 of these were moderate injuries.
- 22,026 of these were minor injuries.

- In all crashes, 175,583 people were involved.
- In all crashes, 130,132 motor vehicles were involved.
- There were 963 crashes that involved at least 1 bicyclist.
- There were 871 crashes that involved at least 1 pedestrian.

- One-third of all crashes involved just one vehicle.
- One-fourth of all fatalities were less than 25 years of age.
- 2 of 3 fatalities occurred in rural areas (< 5,000 pop.).
- In all, 6,267 crashes were "hit-and-run".
- The economic loss to Minnesota was almost $1.5 billion.

WHO was involved?

Among drivers, young people and males are over represented in traffic crashes in Minnesota. There are 4,007,753licensed drivers in the state. People aged 15- 24 make up 14.9% of the licensed drivers, yet they accounted for 24.2% of the crash-involved drivers. Drivers aged 20-24 are the worst, from this perspective. In 2011, they represented just 8.6% of the licensed drivers, but 13.7% of all crash-involved drivers. By contrast drivers over 65 made up 16.6% of the driving population, but accounted for just 8.1% of the crash-involved drivers. Crash-involved drivers are also more likely to be males: 72.7% of drivers in fatal crashes were male; 53.6% of drivers in all crashes were male.

Traffic crashes are the leading cause of death to young people. In the state last year, 135 people under age 30 died in crashes, representing 37% of all traffic deaths. As mentioned previously, people over 65 are safe drivers as a general rule, but are more likely to be killed if they are involved in a traffic crash. Senior citizen drivers were involved in only 8% of all traffic crashes in 2011 but accounted for 21% of the traffic fatalities.

Among people injured, young people especially pay the price. There were 12,719 people under age 30 who were injured, representing 42% of the total number of people injured. People aged 65 and over accounted for just 8% of all traffic injuries.

WHY they happened

Because defective equipment (such as a flat tire) may be a contributing factor in a particular traffic crash, an officer at the scene will list 0, 1, or 2 contributing factors for each 'vehicle' involved. Thus, the 'cause' of a crash is sometimes not entirely clear as multiple vehicular factors in a crash may be listed alongside multiple human factors. However, vehicular factors are not cited as often as human factors. Human behavior factors usually give us a clear indication of why a traffic crash occurs.

About one-third of all crashes involve only one vehicle and about two-thirds involve two or more vehicles. Single-vehicle and multiple-vehicle crashes have different characteristics. In single vehicle crashes, illegal or unsafe speed is the contributing factor cited most often for all drivers less than 80 years old. For them, driver inattention or distraction is the most cited factor. In multiple-vehicle crashes, for drivers through age 64, driver inattention or distraction is cited most often, and failure to yield right of way is cited second most often. After age 65, the pattern reverses: failing to yield is most common, and inattention or distraction is second most common.

WHAT the conditions were

Victims of traffic crashes are mostly car, pickup, sport utility vehicle (SUV) or van occupants. Of the 368 traffic fatalities, 264 (72%) were from these 4 vehicle types. There were also 40 pedestrians, 42 motorcyclists, and 5 bicyclists who died in traffic crashes. There were 8 deaths to ATV riders, and 4 fatalities among commercial truck occupants.

A collision with another vehicle is the leading crash type. Almost half (43%) of the fatal crashes and almost two-thirds (64%) of all crashes involve one vehicle colliding with another vehicle. In fatal and injury crashes, collisions with fixed objects and overturns are also common. For property damage crashes, the other leading crash types are collision with fixed object, and collision with a parked motor vehicle.

Most crashes occur in good driving conditions. Over half of fatal crashes, and two-thirds of nonfatal crashes occurred during daylight hours. A majority of crashes occur also in good weather conditions. Over half of all crashes occur during "clear" weather. Road surface conditions where crashes occurred were usually good. For fatal crashes, 77% were on dry roads, 8% were on wet roads, and 12% were on snowy or icy roads.

WHERE they happened

Fatal crashes tend to occur on roads in rural areas that permit high speeds and do not have interstate-type safety designs. Last year, 225 (67%) of all fatal crashes occurred in rural areas, which are defined as having a population of less than 5,000 people. And, 116 (35%) of all fatal crashes occurred on county state aid highways, and 83 of those were in rural areas. Injury and property damage crashes are more common in urban areas. Over two-thirds of them happened inside cities of 5,000 or more population. The seven county metro area, with over half the state's population, accounted for only 29% of the fatal crashes, but 59% of all crashes.

WHEN they occurred

A fatal traffic crash is most likely to occur during the morning and afternoon rush-hour time periods (6:00-9:00 a.m. and 3:00-6:00 p.m.). This observable fact has changed since the early 1990's when most fatal crashes occurred during the time period of 10:00 p.m.-2:00 a.m. at night. This phenomenon may be explained by the smarter deployment of law enforcement, increased seat belt usage, and the public's awareness of the dangers of drinking and driving. As for total crashes, the six hour time period of 12:00-6:00 p.m. had the most. In that time frame, 43% of all crashes occurred. This event has not changed over the years. Indeed, Figure 1.03 on page 36 shows that the afternoon time period is truly a dangerous time to be driving.

Fridays, Saturdays, and Sundays accounted for 158 of the 334 total fatal crashes (47%). Total crashes are more evenly distributed across days of the week, although Fridays had the most (16%) and Sundays had the least (10%).

As a general rule, harsh winter weather results in more traffic crashes. In other words, there are more 'fender-benders' during icy and snowy conditions. January of 2011 followed this axiom. Because of severe weather, January had the most crashes reported of any month (10,061). As a general rule, warmer weather produces more fatalities. July and October had the most with 47 and 50 respectively. As mentioned earlier, though, other factors are involved than strictly the weather. These include speeding, drinking and driving, not wearing a seat belt, and not paying attention while driving.

Can traffic crashes be prevented?

Each year over the past decade, about 500 people were killed and 35,000 people were injured on our roadways. We must acknowledge the fact that Minnesota is still experiencing an "epidemic" concerning traffic crashes. In a public health sense, epidemics that kill and injure fewer people are usually attacked vigorously until they are no longer a threat to public safety.

The Department of Public Safety (DPS) uses the term "crash" instead of "accident." This is because a traffic crash can be prevented. Coupled with enforcement, education, engineering, and emergency trauma solutions, changes in the behavior of all drivers will surely help attack the public threat of tragic roadway fatalities and injuries.

DPS implores the reader to spread the word: Driving is a privilege; aggressive driving is not. Buckle up. Drive at safe speeds. Pay attention and never drive impaired.

TABLE 1.01

TRAFFIC SAFETY STATISTICS SUMMARY, 1965 - 2011

Year (a)	Total Crashes (b)	Persons Killed (c)	Persons Injured (d)	Licensed Drivers (million) (e)	Motor Vehicles (MV) (million) (f)	State Popu-lation (million) (g)	Vehicle Miles Traveled (VMT) (billion) (h)	Crash Rates Per 100,000 MV (i)	Crash Rates Per 100,000 Popu-lation (j)	Crash Rates Per 100 Mil VMT (k)	Fatality Rates Per 100,000 MV (l)	Fatality Rates Per 100,000 Popu-lation (m)	Fatality Rates Per100 Mil VMT (n)
1965	83,329	875	50,847	1.85	1.86	3.57	16.8	4,480	2,334	496	47.0	24.5	5.20
1970	99,404	987	38,538	2.05	2.24	3.80	22.4	4,438	2,616	444	44.1	26.0	4.40
1975	123,206	777	41,931	2.51	2.69	3.92	25.6	4,580	3,143	481	28.9	19.8	3.00
1980	103,612	863	45,227	2.77	3.01	4.08	28.5	3,446	2,546	364	28.7	21.2	3.03
1981	97,879	763	43,739	2.83	3.09	4.10	28.6	3,163	2,387	342	24.7	18.6	2.67
1982	89,443	581	38,692	2.87	3.01	4.13	29.2	2,972	2,181	304	19.3	14.2	1.98
1983	97,371	558	41,086	2.90	3.03	4.15	30.5	3,214	2,356	319	18.4	13.5	1.83
1984	93,741	584	41,808	2.91	3.13	4.16	32.2	2,995	2,262	291	18.7	14.1	1.81
1985	99,168	610	44,316	3.04	3.22	4.19	33.1	3,080	2,380	300	18.9	14.7	1.84
1986	95,460	572	42,130	3.07	3.25	4.21	34.2	2,937	2,266	279	17.6	13.6	1.67
1987	94,095	530	42,091	3.10	3.31	4.25	35.1	2,840	2,233	268	16.0	12.6	1.51
1988	102,094	615	44,415	3.13	3.39	4.31	36.4	3,012	2,371	280	18.1	14.3	1.69
1989	105,996	605	45,404	3.16	3.46	4.35	37.6	3,060	2,435	282	17.5	13.9	1.61
1990	99,236	568	44,634	3.18	3.52	4.38	38.8	2,817	2,268	256	16.1	13.0	1.47
1991	101,419	531	42,748	3.22	3.51	4.43	39.3	2,890	2,288	258	15.1	12.0	1.35
1992	96,808	581	43,249	3.27	3.55	4.48	41.3	2,730	2,161	235	16.4	13.0	1.41
1993	100,907	538	44,987	3.28	3.48	4.52	42.3	2,899	2,234	239	15.5	11.9	1.27
1994	99,701	644	46,403	3.34	3.67	4.57	43.4	2,720	2,183	230	17.6	14.1	1.48
1995	96,022	597	47,161	3.39	3.68	4.61	44.1	2,606	2,083	218	16.2	13.0	1.35
1996	105,332	576	48,963	3.46	3.70	4.66	45.9	2,845	2,261	230	15.6	12.4	1.26
1997	98,625	600	46,064	3.49	3.77	4.69	46.9	2,065	2,105	210	12.6	12.8	1.28
1998	92,926	650	45,115	3.53	3.90	4.74	48.5	2,380	1,962	192	16.6	13.7	1.34
1999	96,813	626	44,538	3.54	3.92	4.78	50.7	2,470	2,027	191	16.0	13.1	1.24
2000	103,591	625	44,740	3.65	4.20	4.92	52.4	2,469	2,106	198	14.9	12.7	1.19
2001	98,984	568	42,223	3.69	4.38	4.97	53.2	2,262	1,991	186	13.0	11.4	1.07
2002	94,969	657	40,677	3.76	4.49	5.02	54.4	2,115	1,892	175	14.6	13.1	1.21
2003	N/A	655	N/A	3.79	4.56	5.09	55.4	N/A	N/A	N/A	14.4	12.9	1.18
2004	91,274	567	40,073	3.85	4.63	5.14	56.5	1,971	1,774	162	12.2	11.0	1.00
2005	87,813	559	37,686	3.87	4.69	5.21	56.5	1,873	1,687	155	11.9	10.7	0.99
2006	78,745	494	35,025	3.87	4.76	5.23	56.6	1,654	1,505	139	10.4	9.4	0.87
2007	81,505	510	35,318	3.91	4.82	5.26	57.4	1,691	1,548	142	10.6	9.7	0.89
2008	79,095	455	33,379	3.94	4.86	5.29	57.3	1,628	1,494	138	9.4	8.6	0.79
2009	73,498	421	31,074	3.95	4.87	5.30	57.0	1,510	1,387	129	8.7	7.9	0.74
2010	74,073	411	31,176	4.00	4.92	5.30	56.8	1,507	1,397	130	8.4	7.5	0.72
2011	72,117	368	30,295	4.01	4.98	5.31	56.7	1,450	1,359	127	7.4	6.9	0.65

Note:

(1) By State statute, information on traffic crashes must be reported to the Department of Public Safety if the crashes involve motor vehicles in transport on Minnesota roadways, and have at least $1,000 in property damage, or a motor vehicle occupant, pedestrian, or bicyclist is injured or killed.

(2) The numbers shown for licensed drivers includes those who have only permits.

(3) Vehicle miles traveled are provided by Minnesota Department of Transportation.

(4) Numbers of licensed drivers and registered motor vehicles are provided by the Driver and Vehicle Services Division, Minnesota Department of Public Safety.

TABLE 1.02

TRAFFIC CRASH TRENDS
2006 - 2011

	2006	2007	2008	2009	2010	2011	Record High	
Fatal Crashes	**456**	**463**	**420**	**371**	**364**	**334**	**878**	**(1973)**
Injury Crashes	**24,663**	**24,978**	**23,914**	**22,159**	**22,013**	**21,662**	**33,686**	**(1978)**
Severe	1,528	1,441	1,248	1,036	974	954	5,109	(1984)[1]
Moderate	7,111	7,099	6,493	5,942	5,792	5,581	12,326	(1985)[1]
Minor	16,024	16,438	16,173	15,181	15,247	15,127	18,578	(1996)[1]
PDO Crashes	**53,626**	**56,064**	**54,761**	**50,968**	**51,696**	**50,121**	**94,810**	**(1975)**
Total Crashes	**78,745**	**81,505**	**79,095**	**73,498**	**74,073**	**72,117**	**123,106**	**(1975)**
Total Injuries	**35,025**	**35,318**	**33,379**	**31,074**	**31,176**	**30,295**	**50,332**	**(1978)**
Severe	1,844	1,736	1,553	1,271	1,191	1,159	6,573	(1984)[1]
Moderate	9,323	9,365	8,334	7,714	7,445	7,110	17,670	(1985)[1]
Minor	23,858	24,217	23,492	22,089	22,540	22,026	28,631	(1996)[1]
Total Fatalities	**494**	**510**	**455**	**421**	**411**	**368**	**1,060**	**(1968)**
Motor Vehicle Occupant	373	399	325	302	305	271	544	(2002)[1]
Motorcycle	70	61	72	53	45	42	121	(1980)
Pedestrian	38	33	25	41	36	40	157	(1971)
Bicycle	8	4	13	10	9	5	24	(1977)
All Terrain Vehicle	2	4	10	9	8	8	10	(2008)
Snowmobile	3	3	1	0	3	0	9	(1984)
Farm Equipment	0	3	0	3	2	2	N/A	N/A
Other Vehicle Type	0	3	9	3	3	0	N/A	N/A
Minnesota Fatality Rate[3]	0.87	0.89	0.79	0.74	0.72	0.65	23.6	(1934)
U.S. Fatality Rate[3]	1.42	1.36	1.26	1.15	1.11	1.09	18.0	(1925)
Minnesota Economic Loss (millions)	$1,529	$1,654	$1,480	$1,496	$1,477	$1,481	$1,769	(2004)[4]

[1] The available records on which these categories "record highs" are based only go back to 1984.
[2] Fatalities occurring in motor vehicle/train crashes are included in other categories as well.
[3] Rate is based on 100 million vehicle miles of travel.
[4] Economic cost estimates are based upon wage and productivity losses, medical expenses, administrative expenses, motor vehicle damage, and employers' uninsured costs, among other factors.

TABLE 1.03

2011 FATALITIES BY TRAFFIC ROLE, GENDER, AND AGE

Type of Vehicle	Position in Vehicle	Gender	Age 0-9	Age 10-19	Age 20-29	Age 30-39	Age 40-49	Age 50-59	Age 60-69	Age 70 and Older	Total
Car	Driver	Male	0	10	24	6	7	5	6	15	73
		Female	0	7	10	7	3	3	4	13	47
	Passenger	Male	1	3	11	0	0	2	2	0	19
		Female	1	4	5	1	0	1	2	8	22
Pickup	Driver	Male	0	2	5	3	6	9	5	2	32
		Female	0	0	0	0	0	1	0	0	1
	Passenger	Male	0	1	5	0	0	1	0	0	7
		Female	0	0	0	0	0	0	0	1	1
SUV	Driver	Male	0	4	4	1	2	3	2	2	18
		Female	0	0	1	2	3	1	2	0	9
	Passenger	Male	2	3	1	1	0	0	1	0	8
		Female	1	2	0	0	0	1	0	1	5
Van	Driver	Male	0	1	1	1	1	2	4	2	12
		Female	0	0	0	0	0	3	0	0	3
	Passenger	Male	1	1	0	0	1	1	0	1	5
		Female	0	1	0	0	2	0	0	1	4
Truck	Driver	Male	0	0	1	1	1	0	1	0	4
	Passenger	Female	0	0	0	0	0	0	0	0	0
Motorcycle	Driver	Male	0	1	4	6	6	8	6	0	31
		Female	0	0	1	1	0	0	1	0	3
	Passenger	Male	0	0	0	0	0	0	0	0	0
		Female	0	0	1	0	2	4	1	0	8
Other Motor Vehicle	Driver	Male	0	1	1	1	0	4	2	1	10
		Female	0	0	0	0	0	0	0	0	0
	Passenger	Male	0	0	1	0	0	0	0	0	1
		Female	0	0	0	0	0	0	0	0	0
Bicyclist		Male	0	0	0	0	1	0	1	0	2
		Female	0	0	1	0	0	0	0	2	3
Pedestrian		Male	0	1	7	1	5	5	6	4	29
		Female	0	1	2	1	1	0	2	4	11
Total Fatalities		Male	4	28	65	21	30	40	36	27	251
		Female	2	15	21	12	11	14	12	30	117
		Total	6	43	86	33	41	54	48	57	368

Note: The vehicle types for the 11 fatalities in the 'Other Motor Vehicle' category consisted of: Eight ATV, 1 motorhome, and 2 farm equipment.

TABLE 1.04

AGE AND GENDER OF PERSONS KILLED OR INJURED IN 2011 CRASHES

Age Group	Males Killed	Females Killed	Total Killed	Males Injured	Females Injured	Unknown Injured	Total Injured
00 - 03	2	1	3	172	170	0	342
04 - 10	2	2	4	455	489	2	946
11 - 14	3	2	5	321	387	1	709
Total < 15:	7	5	12	948	1,046	3	1,997
15	0	1	1	140	154	1	295
16	4	3	7	308	413	0	721
17	1	1	2	324	453	0	777
18	8	3	11	448	438	0	886
19	12	4	16	388	440	0	828
20	5	3	8	403	450	1	854
Total 15-20:	30	15	45	2,011	2,348	2	4,361
Total < 21:	37	20	57	2,959	3,394	5	6,358
00 – 04	2	1	3	237	231	0	468
05 – 09	2	1	3	303	343	2	648
10 – 14	3	3	6	408	472	1	881
15 – 19	25	12	37	1,608	1,898	1	3,507
20 – 24	37	12	49	1,801	2,127	2	3,930
25 – 29	28	9	37	1,495	1,786	4	3,285
30 – 34	13	4	17	1,230	1,416	0	2,646
35 – 39	8	8	16	995	1,100	3	2,098
40 – 44	13	6	19	991	1,133	2	2,126
45 – 49	17	5	22	1,102	1,176	1	2,279
50 – 54	18	9	27	1,024	1,115	1	2,140
55 – 59	22	5	27	775	931	1	1,707
60 – 64	25	4	29	681	689	0	1,370
65 – 69	11	8	19	353	501	0	854
70 – 74	5	7	12	253	329	0	582
75 – 79	8	8	16	184	251	1	436
80 – 84	5	5	10	170	173	0	343
85 & Older	9	10	19	110	162	0	272
Not Stated	0	0	0	203	235	285	723
Total:	251	117	368	13,923	16,068	304	30,295

See Figure 1.01 on page 15 for a graphical depiction of how many persons were killed and injured by age and gender groups.

TABLE 1.05

AGE AND GENDER OF DRIVERS IN 2011 CRASHES

Age Group	Male Drivers in Fatal Crashes	Female Drivers in Fatal Crashes	Drivers Gender Not Stated in Fatal Crashes	Total in Fatal Crashes	Male Drivers in All Crashes	Female Drivers in All Crashes	Drivers Gender Not Stated Drivers in All Crashes	Total in All Crashes
14 & Younger	2	0	0	2	21	11	0	32
15	1	1	0	2	109	82	0	191
16	5	5	0	10	1,297	1,279	2	2,578
17	3	0	0	3	1,642	1,624	2	3,268
18	7	5	0	12	1,937	1,585	8	3,530
19	16	6	0	22	1,847	1,625	5	3,477
20	4	1	0	5	1,931	1,631	14	3,576
Total < 21	38	18	0	56	8,784	7,837	31	16,652
00 – 04	0	0	0	0	1	1	0	2
05 – 09	0	0	0	0	1	0	0	1
10 – 14	2	0	0	2	19	10	0	29
15 – 19	32	17	0	49	6,832	6,195	17	13,044
20 – 24	41	21	0	62	8,883	8,037	78	16,998
25 – 29	34	12	0	46	7,565	6,621	88	14,274
30 – 34	24	8	0	32	6,540	5,237	54	11,831
35 – 39	24	10	0	34	5,445	4,317	40	9,802
40 – 44	21	8	0	29	5,740	4,342	34	10,116
45 – 49	28	10	0	38	5,718	4,224	25	9,967
50 – 54	37	10	0	47	5,500	3,883	33	9,416
55 – 59	32	8	0	40	4,402	3,182	23	7,607
60 – 64	34	4	0	38	3,550	2,416	11	5,977
65 – 69	21	9	0	30	2,097	1,476	18	3,591
70 – 74	9	5	0	14	1,418	981	6	2,405
75 – 79	12	4	0	16	999	768	12	1,779
80 – 84	6	3	0	9	729	606	5	1,340
85 & Older	10	8	0	18	537	414	4	955
Not Stated	1	0	1	2	520	248	4,176	4,944
Total	368	137	1	506	66,496	52,958	4,624	124,078

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 counted in this table.)

TABLE 1.06

LICENSED VS. CRASH-INVOLVED DRIVERS BY AGE, 2011

Age Group	Percentage of All Licensed Drivers	Percentage of Drivers in Fatal Crashes	Percentage of Drivers in Injury Crashes	Percentage of Drivers in Property Damage Crashes	Percentage of Drivers in All Crashes
14 & Younger	0.0%	0.4%	0.0%	0.0%	0.0%
15	0.6	0.4	0.2	0.1	0.2
16	1.2	2.0	2.0	2.1	2.1
17	1.4	0.6	2.6	2.7	2.6
18	1.5	2.4	2.8	2.9	2.8
19	1.6	4.3	2.8	2.8	2.8
20	1.7	1.0	2.8	2.9	2.9
Total < 21	8.0%	11.1%	13.3%	13.5%	13.4%
15 - 19	6.3%	9.7%	10.4%	10.6%	10.5%
20 - 24	8.6	12.2	13.4	13.9	13.7
25 - 29	9.0	9.1	11.7	11.4	11.5
30 - 34	8.8	6.3	9.8	9.4	9.5
35 - 39	7.7	6.7	8.0	7.8	7.9
40 - 44	8.4	5.7	8.3	8.1	8.2
45 - 49	9.1	7.5	8.4	7.9	8.0
50 - 54	9.8	9.3	7.9	7.4	7.6
55 - 59	8.7	7.9	6.3	6.1	6.1
60 - 64	7.3	7.5	4.9	4.8	4.8
65 - 69	5.3	5.9	3.1	2.8	2.9
70 - 74	3.9	2.8	2.1	1.9	1.9
75 - 79	2.9	3.2	1.4	1.4	1.4
80 - 84	2.3	1.8	1.2	1.0	1.1
85 & Older	2.0	3.6	0.8	0.7	0.8
Age Not Stated	0.0	0.4	2.1	4.8	4.0
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%
Total Number	4,007,753				

See Figure 1.02 on page 15 for a graphical depiction of crash-involved drivers compared to licensed drivers by age group.

FIGURE 1.01
Age and Gender of Persons Killed or Injured, 2011

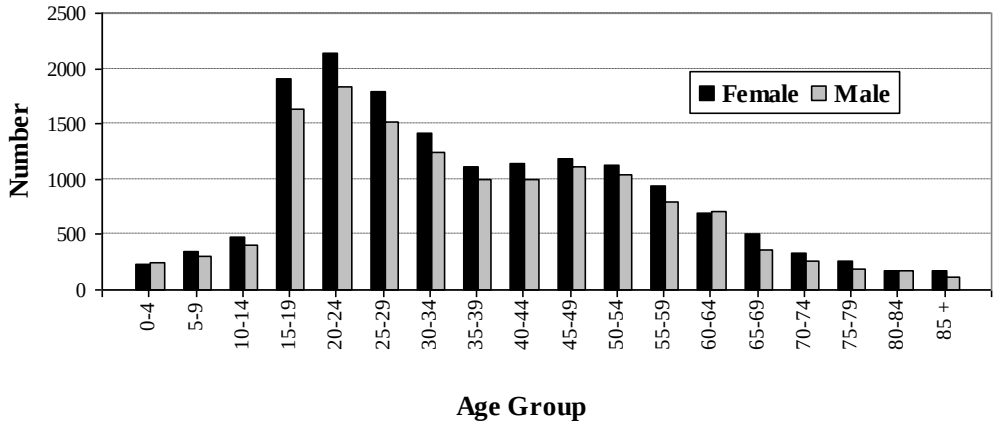

FIGURE 1.02
Licensed vs Crash-Involved Drivers by Age, 2011

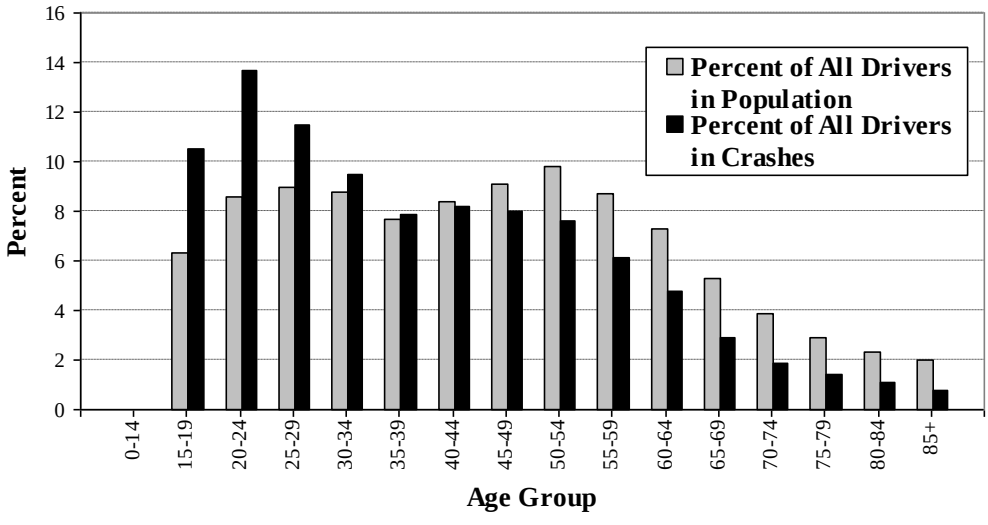

TABLE 1.07

PERCENTAGE OF DRIVERS IN 2011 CRASHES BY AGE AND FIRST HARMFUL EVENT

First Harmful Event	Age Group 15-19	Age Group 20-24	Age Group 25-29	Age Group 30-34	Age Group 35-64	Age Group 65-79	Age Group 80 +	All Ages
Collision With:								
Other Motor Vehicle	75.1%	77.0%	79.2%	80.1%	81.0%	81.6%	83.2%	78.4%
Parked Motor Vehicle	3.4	3.4	3.0	3.2	2.9	3.0	4.9	4.4
Bicycle	0.5	0.5	0.6	0.7	0.8	1.0	1.1	0.8
Pedestrian	0.5	0.6	0.5	0.5	0.6	0.8	0.8	0.7
Deer	1.1	1.4	1.6	1.7	2.7	2.5	0.7	2.0
Other Animal	0.1	0.2	0.2	0.1	0.2	0.2	0.0	0.2
Railroad Train	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Fixed Object	10.7	10.2	8.9	7.7	6.2	6.4	6.6	7.8
Other Object	0.3	0.3	0.2	0.4	0.4	0.3	0.2	0.3
Non-Collision:								
Overturn	7.0	5.4	4.5	4.5	3.7	3.0	1.5	4.3
Other Non-Collision	0.3	0.3	0.4	0.4	0.5	0.4	0.1	0.4
Other or Unknown	0.9	0.7	0.7	0.7	0.8	0.8	0.7	0.8
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Drivers	13,044	16,998	14,274	11,831	52,885	7,775	2,303	124,078

Percentages are based on the number of crash-involved drivers in each age group (some driver ages are not available). Bicyclists and pedestrians are not counted as drivers in this table.

TABLE 1.08

DRIVERS IN 2011 CRASHES BY PHYSICAL CONDITION*

Physical Condition	Drivers in Fatal Crashes	Drivers in Injury Crashes	Drivers in Property Damage Crashes	Drivers in All Crashes
Normal	291	32,018	70,265	102,574
Under the Influence	34	1,134	1,334	2,502
Had Been Drinking	32	464	449	945
Commercial Driver .04+	0	0	4	4
Had Been Using Drugs	1	71	76	148
Aggressive	0	17	44	61
Fatigued/Asleep	5	161	240	406
Physical Disability	0	36	32	68
Ill	1	58	44	103
Other	3	180	125	308
Unknown	139	3,544	13,276	16,959
Total	506	37,683	85,889	124,078

* As noted by police officer on accident report. Note that in the absence of alcohol or drug test results (not usually available at the time the crash report is completed); officers are conservative in reporting impairment. Compare these figures with those from Section II. Pedestrians and bicyclists are excluded from this table.

TABLE 1.09

SINGLE-VEHICLE CRASHES: CONTRIBUTING FACTORS, BY PERCENT, WITHIN DRIVER AGE GROUPS, 2011

Contributing Factor	Age Group 15-19	Age Group 20-24	Age Group 25-29	Age Group 30-34	Age Group 35-64	Age Group 65-79	Age Group 80+	All Ages
Human Factors								
Illegal/Unsafe Speed	23.9%	29.0%	28.0%	26.2%	23.5%	19.2%	10.2%	25.2%
Driver Inattention/Distraction	13.8	12.7	12.0	11.6	12.0	16.9	16.6	12.7
Overcorrecting	10.4	7.7	7.7	8.1	7.4	7.3	7.7	8.0
Chemical Impairment	4.0	10.6	11.0	9.8	7.1	3.0	2.6	7.7
Driver Inexperience	13.5	3.8	2.0	1.5	1.7	0.7	0.8	4.1
Improper/Unsafe Lane Use	1.8	2.4	3.2	2.4	2.8	3.2	5.5	2.7
Improper Turn	0.7	0.9	0.7	0.4	1.1	1.2	1.3	0.9
Disregard for Traffic Control Device	0.6	0.5	0.6	0.4	0.6	0.6	0.4	0.6
Following Too Closely	0.3	0.7	0.5	0.8	0.7	0.3	0.0	0.6
Driving Left of Center-Not Passing	0.5	0.4	0.4	0.2	0.4	0.3	0.8	0.4
Vision Obscured	0.3	0.4	0.2	0.2	0.5	1.2	3.0	0.4
Improper Passing/Overtaking	0.3	0.4	0.3	0.2	0.3	0.0	0.0	0.3
Unsafe Backing	0.1	0.2	0.4	0.3	0.2	0.3	1.3	0.3
Failure to Yield Right of Way	0.1	0.1	0.3	0.2	0.3	0.4	0.4	0.2
Driver on Cell Phone or CB Radio	0.1	0.2	0.3	0.2	0.1	0.0	0.0	0.2
Improper Parking, Starting, Stopping	0.1	0.1	0.1	0.2	0.1	0.4	0.4	0.1
Other Human Factor	4.2	3.7	3.7	4.6	5.5	12.4	22.1	5.1
Vehicular Factors								
Skidding	8.2	7.6	8.0	8.8	9.9	8.2	6.0	8.6
Defective Equipment	1.1	1.2	1.3	1.8	1.8	0.6	0.8	1.4
Other Vehicular Factor	0.9	0.9	0.9	1.0	1.2	1.4	0.4	1.0
Miscellaneous Factors								
Weather	11.4	13.0	13.4	16.3	16.0	15.4	14.9	14.2
Other	3.8	3.6	5.1	4.9	7.0	6.7	4.7	5.3
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	3,486	3,702	2,686	1,995	7,102	900	235	20,358
Drivers for Whom There Was "No Clear Contributing Factor"	227	288	246	212	1,295	141	17	2,443
Total Number of Drivers	2,550	2,969	2,244	1,692	7,066	968	207	18,452

Percentages are based on all contributing factors cited within each age group (some driver ages are not available). Zero, one, or two contributing factors may be associated with each driver. The percentages may not sum to 100% due to rounding. Contributing factors for bicyclists and pedestrians are excluded.

For contributing factors in multiple-vehicle crashes, see Table 1.10. For contributing factors in crashes at different levels of severity, see Table 1.17.

TABLE 1.10

MULTIPLE-VEHICLE CRASHES: CONTRIBUTING FACTORS, BY PERCENT, WITHIN DRIVER AGE GROUPS, 2011

Contributing Factor	Age Group 15-19	Age Group 20-24	Age Group 25-29	Age Group 30-34	Age Group 35-64	Age Group 65-79	Age Group 80 +	All Ages
Human Factors								
Driver Inattention or Distraction	24.4%	25.0%	23.4%	23.3%	22.2%	20.9%	18.0%	22.7%
Failure to Yield Right of Way	20.0	16.7	17.1	18.2	19.0	29.1	37.4	19.6
Following Too Closely	11.7	14.1	13.3	13.2	12.3	7.8	4.8	12.1
Illegal or Unsafe Speed	7.4	8.9	8.3	7.6	5.8	3.7	2.1	6.7
Improper or Unsafe Lane Use	3.7	4.6	5.2	5.0	5.8	6.4	6.2	5.5
Disregard for Traffic Control Device	4.0	4.4	4.8	4.7	4.9	7.1	6.9	4.9
Vision Obscured	2.5	2.1	2.3	1.8	2.9	2.8	3.0	2.5
Improper turn	1.8	2.0	1.9	1.8	2.5	3.1	3.2	2.3
Unsafe Backing	1.0	1.2	1.2	1.7	2.0	2.1	2.0	1.8
Chemical Impairment	0.7	2.1	2.7	2.4	2.1	0.6	0.1	1.8
Driver Inexperience	6.9	1.4	0.8	0.6	0.4	0.1	0.1	1.6
Improper Passing or Overtaking	1.0	1.0	1.6	1.4	1.5	1.9	1.5	1.5
Improper Parking, Starting, Stopping	1.1	1.0	1.2	1.3	1.4	1.6	1.1	1.3
Driving Left of Center-Not Passing	0.5	0.7	0.6	0.6	0.7	1.0	1.1	0.7
Overcorrecting	0.6	0.9	0.8	0.8	0.6	0.2	0.4	0.7
Impeding Traffic	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2
Improper or No Signal	0.2	0.1	0.0	0.2	0.2	0.4	0.1	0.2
Driver on Cell Phone or CB Radio	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.1
Failure to Use Lights	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Other Human Factor	1.3	1.6	1.9	1.8	2.1	2.6	4.4	1.9
Vehicular Factors								
Skidding	3.3	3.5	3.2	3.2	3.2	1.5	1.1	3.0
Defective Equipment	0.8	0.7	0.9	0.6	0.6	0.4	0.3	0.6
Other Vehicular Factor	0.3	0.6	0.4	1.0	0.7	0.5	0.2	0.6
Miscellaneous Factors								
Weather	4.0	4.4	4.7	4.9	4.6	2.8	2.0	4.2
Other	2.3	2.5	3.0	3.2	3.8	3.0	3.4	3.2
Total Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Contributing Factors Cited	9,728	10,638	7,801	5,935	24,298	4,195	1,763	66,598
Drivers for Whom There Was "No Clear Contributing Factor"	2,993	5,171	5,364	4,885	23,878	3,038	605	46,330
Total Number of Drivers	10,492	14,023	12,027	10,138	45,791	6,805	2,096	105,996

Percentages are based on all contributing factors cited within each age group (some driver ages are not available). Zero, one, or two contributing factors may be associated with each driver. The percentages may not sum to 100% due to rounding. Contributing factors for bicyclists and pedestrians are excluded.

For contributing factors in single-vehicle crashes, see Table 1.09. For contributing factors in crashes at different levels of severity, see Table 1.17.

TABLE 1.11

PERSONS INVOLVED IN CRASHES BY TYPE OF VEHICLE OCCUPIED AND INJURY SEVERITY, 2011

Vehicle Type	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total Injured	Not Injured	Total Persons
Automobile	160	467	3,452	12,250	16,169	75,200	91,529
Pickup Truck	41	120	617	1,831	2,568	15,595	18,204
Sport Utility Vehicle	40	139	1,080	3,800	5,019	27,064	32,123
Van	23	55	521	1,900	2,476	13,469	15,968
Motor Home/Camper	1	0	3	3	6	92	99
Limousine	0	0	0	17	17	60	77
Taxi Cab	1	1	19	128	148	628	777
Police Vehicle	0	1	27	81	109	375	484
Fire Department Vehicle	0	0	5	2	7	41	48
School bus	0	0	4	103	107	3,074	3,181
Other Bus	0	1	13	97	111	1,023	1,134
Ambulance	0	0	3	3	6	63	69
Military Vehicle	0	0	0	1	1	21	22
Snowmobile	0	5	8	5	18	16	34
All-Terrain Vehicle	8	8	8	7	23	6	37
Farm Tractor of Equipment	2	1	8	10	19	128	149
Motorcycle	42	184	580	418	1,182	174	1,398
Motor Scooter/Motorbike*	0	8	27	27	62	2	64
Motorized Bicycle (Moped)	0	3	26	22	51	6	57
Hit and Run Vehicle	1	3	16	34	53	2,163	2,217
Road Maintenance Vehicle	0	0	10	35	45	609	654
Other Public Owned Vehicle	0	0	5	18	23	149	172
Single Truck (2-axle, 6 tire)	2	3	13	38	54	754	810
Single Truck (3 or more axles)	0	1	11	19	31	324	355
Single Truck with Trailer	0	0	6	10	16	249	265
Truck Tractor with No Trailer	0	0	4	2	6	86	92
Truck Tractor with Semi Trailer	2	5	44	93	142	1,955	2,099
Truck Tractor with Double Trailers	0	0	1	1	2	31	33
Other or Unknown Truck Type	0	1	2	7	10	220	230
Other Vehicle Type	0	0	7	9	16	219	235
Unknown Vehicle Type	0	0	0	2	2	1,074	1,076
Bicycle	5	58	288	591	937	33	975
Pedestrian	40	95	302	462	859	17	916
Total	368	1,159	7,110	22,026	30,295	144,920	175,583

* On the accident report form, police may show that a vehicle is a "motorcycle," a "motor scooter/motorbike," or a "moped or motorized bicycle." Since 1986, however, the law recognizes just two categories. If the vehicle has an engine capacity of more than 50 cc, it is classified as a motorcycle; if it has 50 cc or smaller engine capacity, it is classified as a motorized bicycle. The term moped is short for motorized pedal cycle, which is the same as motorized bicycle. (Section 4 of this book now combines “motorcycle” and “motor scooter/motorbike”).

TABLE 1.12

TYPES OF MOTOR VEHICLES IN 2011 CRASHES

Motor Vehicle Type*	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in Property Damage Crashes	Vehicles in All Crashes
Automobile	223	21,021	49,696	70,940
Pickup Truck	72	3,981	10,187	14,240
Sport Utility Vehicle	61	6,938	16,003	23,002
Van	36	3,188	6,871	10,095
Motor Home/Camper	1	9	51	61
Limousine	0	16	34	50
Taxi Cab	3	200	343	546
Police Vehicle	0	145	324	469
Fire Department Vehicle	0	6	18	24
School Bus	1	114	506	621
Other Bus	1	120	378	499
Ambulance	0	7	25	32
Military Vehicle	0	1	13	14
Snowmobile	0	20	14	34
All-Terrain Vehicle*	9	20	4	33
Farm Tractor or Equipment	5	45	60	110
Motorcycle	45	1,095	135	1,275
Motor scooter/Motorbike**	0	61	2	63
Motorized Bicycle (Moped)	0	51	5	56
Hit and Run Vehicle	3	313	1,873	2,189
Road Maintenance Vehicle	4	118	504	626
Other Public Owned Vehicle	0	38	116	154
Single Truck (2-axle, 6-tire)	5	179	561	745
Single Truck (3 or more axles)	5	91	244	340
Single Truck with Trailer	3	54	181	238
Truck Tractor with No Trailer	0	24	66	90
Truck Tractor with Semi Trailer	36	480	1,517	2,033
Truck Tractor with Double Trailers	0	7	23	30
Other or Unknown Truck Type	0	41	181	222
Other Vehicle Type	0	46	162	208
Unknown Vehicle Type	1	38	1,024	1,063
Total* **	514	38,467	91,121	130,102

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

** On the accident report form, police may show that a vehicle is a "motorcycle," a "motor scooter/motorbike," or a "moped or motorized bicycle." Since 1986, however, the law recognizes just two categories. If the vehicle has an engine capacity of more than 50 cc, it is classified as a motorcycle; if it has 50 cc or smaller engine capacity, it is classified as a motorized bicycle. The term moped is short for motorized pedal cycle, which is the same as motorized bicycle. (Section 4 of this book now combines "motorcycle" and "motor scooter/motorbike").

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

TABLE 1.13

2011 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	144	13,433	32,846	46,423	170	20,305	3.7
Parked Motor Vehicle	3	502	4,442	4,947	3	658	0.6
Bicycle	5	927	27	959	5	950	5.2
Pedestrian	39	791	1	831	40	842	48.1
Deer	5	304	2,117	2,426	5	352	2.1
Other Animal	0	58	164	222	0	78	0.0
Railroad Train	4	16	28	48	4	18	83.3
Fixed Object	61	2,688	6,758	9,507	66	3,290	6.9
Non-Fixed Object	1	69	242	312	1	93	3.2
Other Collision Type	0	147	224	371	0	179	0.0
Unk Collision Type	0	8	11	19	0	10	0.0
Non-Collision:							
Overturn	60	2,400	2,785	5,245	61	3,147	11.6
Submersion	5	12	43	60	6	14	100.0
Fire/Explosion	2	6	46	54	2	8	37.0
Other Non-Collision	2	150	171	323	2	170	6.2
Unknown Crash Type	3	151	216	370	3	181	8.1
Total	334	21,662	50,121	72,117	368	30,295	5.1

TABLE 1.14

2011 "HIT-AND-RUN" CRASHES BY FIRST HARMFUL EVENT

First Harmful Event	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	2	612	2,333	2,947	2	843
Parked Motor Vehicle	0	72	2,041	2,113	0	83
Bicycle	1	107	3	111	1	108
Pedestrian	4	163	1	168	4	176
Deer	0	0	3	3	0	0
Other Animal	0	0	1	1	0	0
Railroad Train	0	0	1	1	0	0
Fixed Object	0	126	665	791	0	157
Non-Fixed Object	0	2	11	13	0	6
Other Collision Type	0	9	20	29	0	9
Unk Collision Type	0	0	2	2	0	0
Non-Collision:						
Overturn	1	19	21	41	1	28
Other Non-Collision	0	2	1	3	0	2
Unknown Crash Type	0	7	37	44	0	7
Total	8	1,119	5,140	6,267	8	1,419

TABLE 1.15

2011 CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Traffic Signal	24	5,424	10,859	16,307	27	7,668
Overhead Flashers	0	22	34	56	0	40
Stop Sign-All Approaches	6	440	988	1,434	6	625
Other Stop Sign	53	3,279	6,397	9,729	58	4,937
Yield Sign	9	335	830	1,174	10	484
Flagman, Officer, School Patrol	0	18	48	66	0	25
School Bus Stop Arm	0	11	17	28	0	13
School Zone Sign	0	1	12	13	0	2
No Passing Zone	10	106	134	250	12	162
RR Crossing Gate	0	8	37	45	0	14
RR Flashing Lights	0	3	14	17	0	3
RR Crossing Stop Sign	0	3	9	12	0	3
RR Overhead Flashing Lights	0	1	3	4	0	1
RR Overhead Lights and Gate	1	11	24	36	1	14
RR Crossbuck	0	11	14	25	0	17
Other Device	2	192	562	756	2	250
Not Applicable	221	11,704	29,719	41,644	244	15,917
Unknown	8	93	420	521	8	120
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.16

2011 CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	204	13,032	28,106	41,342	223	18,159
Cloudy	76	5,421	12,560	18,057	88	7,734
Rain	11	830	1,899	2,740	11	1,167
Snow	13	1,646	5,370	7,029	13	2,190
Sleet/Hail/Freezing Rain	6	179	499	684	8	262
Fog/Smog/Smoke	12	101	183	296	12	141
Blowing Sand/Dust/Snow	4	266	609	879	4	391
Severe Crosswinds	1	22	60	83	1	26
Other	0	43	102	145	0	61
Not Stated/Unknown	7	122	733	862	8	164
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.17

CONTRIBUTING FACTORS IN 2011 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	14.4%	20.5%	20.0%	66	5,688	11,308	72	8,225
Failure to Yield Right of Way	11.4	16.9	14.2	52	4,608	7,936	58	7,000
Illegal/Unsafe Speed	16.1	11.1	11.0	75	3,101	6,325	83	4,416
Following Too Closely	1.3	8.0	9.9	6	2,112	5,455	6	2,968
Improper/Unsafe Lane Use	4.5	3.2	5.6	21	902	3,187	27	1,267
Disregard Traffic Cntl Device	4.1	5.4	3.2	19	1,490	1,831	23	2,391
Driver Inexperience	1.1	2.2	2.1	5	628	1,229	5	906
Chemical Impairment	9.9	4.4	2.5	45	1,243	1,433	52	1,742
Improper Turn	1.3	1.4	2.2	6	409	1,256	6	594
Vision Obscured	1.1	1.8	2.0	5	484	1,071	5	680
Unsafe Backing	0.4	0.3	1.9	2	89	1,064	2	118
Improper Passing/Overtaking	1.1	0.8	1.4	5	214	813	5	289
Overcorrecting	4.3	2.9	2.1	20	827	1,210	20	1,142
Improper Park/Start/Stop	0.2	0.9	1.2	1	245	699	1	348
Driving Left of Ctr(Not Passing)	7.3	0.8	0.5	34	232	277	42	448
Improper/No Signal	0.0	0.1	0.2	0	23	91	0	30
Impeding Traffic	0.2	0.3	0.2	1	83	108	1	108
Driver on Phone/CB Radio	0.0	0.2	0.1	0	55	61	0	74
Failure to Use Lights	0.4	0.1	0.1	2	31	40	2	41
Non-Motorist Error	2.2	0.9	0.2	10	231	80	10	247
Other Human Factor	5.2	3.5	2.3	22	939	1,279	24	1,261
Vehicular Factors								
Skidding	3.9	3.6	4.7	18	988	2,571	21	1,330
Defective Equipment	0.9	0.7	0.7	4	207	425	4	302
Other Vehicular Factor	0.2	0.6	0.9	1	167	469	1	243
Miscellaneous Factors								
Weather	3.2	5.4	7.0	12	1,376	3,645	13	1,829
Other	5.6	3.9	3.8	23	968	1,905	25	1,270
Total Percent	100.0%	100.0%	100.0%					
Total Contributing Factors	466	28,823	59,230					
Vehicles Where There Was "No Clear Contributing Factor"	221	16,644	36,066					
Total Number of Vehicles	564	40,256	91,164					

Zero, one, or two contributing factors may be associated with a vehicle, causing the number of factors cited to vary from the number of crashes, vehicles, and persons affected by the factors. Note that in the absence of alcohol or drug test results (not usually available at the time the crash report is completed); officers are conservative in reporting impairment. Compare these figures with those from Section II. Bicyclists and pedestrians are considered as vehicles in this table, and factors associated with them are included. For contributing factors by age of drivers, see tables 1.09 and 1.10.

TABLE 1.18

2011 CRASHES BY LIGHT CONDITION

Light Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Daylight	185	15,144	33,883	49,212	201	21,219
Dawn (Morning)	9	510	1,249	1,768	10	686
Dusk (Evening)	4	564	1,276	1,844	4	796
Dark/Street Lights On	42	3,445	8,702	12,189	47	4,759
Dark/No Street Lights	86	1,919	4,378	6,383	98	2,724
Other/Unknown	8	80	633	721	8	111
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.19

2011 CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	256	14,850	30,556	45,662	279	20,964
Wet	28	2,538	6,101	8,667	31	3,595
Snow/Slush	13	1,718	5,645	7,376	14	2,298
Ice or Packed Snow	27	2,233	7,055	9,315	33	3,010
Other	3	238	340	581	3	324
Not Stated/Unknown	7	85	424	516	8	104
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.20

2011 CRASHES BY ROAD DESIGN

Road Design	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Freeway (Including Ramps)	36	3,468	9,451	12,955	39	4,695
Other Divided Highway	49	3,290	6,170	9,509	54	4,821
One-Way Street	3	473	1,177	1,653	3	627
4-6 Lanes Undivided	21	3,965	8,282	12,268	24	5,525
3 Lanes Undivided	5	251	487	743	6	350
2 Lane—2 Way	202	8,370	18,173	26,745	224	11,775
Alley	0	75	251	326	0	82
Other Road Design	11	715	1,545	2,271	11	1,026
Not Stated/Unknown	7	1,055	4,585	5,647	7	1,394
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.21

2011 CRASHES BY DIAGRAM

Diagram	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Rear End	16	6,189	14,458	20,663	16	8,809
Sideswipe Passing	6	924	6,828	7,758	6	1,194
Left Turn – Oncoming Traffic	4	1,069	2,190	3,263	5	1,510
Ran Off Road – Left	46	1,918	3,626	5,590	48	2,442
Right Angle	73	4,745	8,361	13,179	78	7,150
Right Turn – Cross Street Traffic	0	211	659	870	0	253
Ran Off Road – Right	62	2,369	4,135	6,566	69	3,014
Head On	59	1,236	2,239	3,534	75	1,958
Sideswipe Opposing	5	434	1,245	1,684	5	643
Other Diagram	49	1,907	4,175	6,131	52	2,514
Not Applicable	6	514	1,327	1,847	6	623
Unknown / Incomplete	8	146	878	1,032	8	185
Total	334	21,662	50,121	72,117	368	30,295

Note: It is known that there is significant error in the "diagram" field on the Police Accident Report. Two specific types of error are most common: First, the field is often left blank. Second, a large proportion (estimated by some traffic engineers to be as high as one-half) of crashes coded as "right-angle" are not right angle crashes, but are some other type of crash--most frequently "left turn into oncoming traffic."

TABLE 1.22

2011 CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
250,000 & Over	25	4,094	11,713	15,832	27	5,592
100,000-249,999	2	429	889	1,320	2	607
50,000 - 99,999	25	3,714	8,296	12,035	29	5,025
25,000 - 49,999	20	2,756	6,252	9,028	21	3,774
10,000 - 24,999	21	3,600	8,556	12,177	22	5,027
5,000 - 9,999	16	1,030	2,519	3,565	19	1,441
2,500 - 4,999	7	638	1,732	2,377	7	915
1,000 - 2,499	7	399	1,011	1,417	8	566
Under 1,000	211	5,002	9,153	14,366	233	7,348
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.23

2011 CRASHES BY TYPE OF ROADWAY

Type of Roadway	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	21	2,138	6,145	8,304	23	2,904
US Trunk Hwy	10	1,377	3,314	4,701	12	1,894
MN Trunk Hwy	17	2,338	5,039	7,394	17	3,252
County State Aid Hwy	33	4,413	8,871	13,317	39	6,200
County Road	1	107	184	292	1	137
Township Road	0	2	5	7	0	3
Municipal State Aid Hwy	18	3,569	8,636	12,223	19	4,885
Municipal Street	8	1,630	5,774	7,412	8	2,131
Other Road	1	49	257	307	1	60
Urban Total	109	15,623	38,225	53,957	120	21,466
Rural						
Interstate	9	634	1,717	2,360	10	919
US Trunk Hwy	40	1,133	2,258	3,431	44	1,755
MN Trunk Hwy	58	1,569	2,762	4,389	67	2,377
County State Aid Hwy	83	1,827	3,133	5,043	91	2,555
County Road	12	254	394	660	13	360
Township Road	17	350	536	903	17	498
Municipal State Aid Hwy	0	7	17	24	0	9
Municipal Street	3	251	1,000	1,254	3	333
Other Road	3	14	79	96	3	23
Rural Total	225	6,039	11,896	18,160	248	8,829
All Roadways						
Interstate	30	2,772	7,862	10,664	33	3,823
US Trunk Hwy	50	2,510	5,572	8,132	56	3,649
MN Trunk Hwy	75	3,907	7,801	11,783	84	5,629
County State Aid Hwy	116	6,240	12,004	18,360	130	8,755
County Road	13	361	578	952	14	497
Township Road	17	352	541	910	17	501
Municipal State Aid Hwy	18	3,576	8,653	12,247	19	4,894
Municipal Street	11	1,881	6,774	8,666	11	2,464
Other Road	4	63	336	403	4	83
Total	334	21,662	50,121	72,117	368	30,295

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

TABLE 1.24

2011 COUNTY CRASH REPORT

County	2011 Crashes Fatal	2011 Crashes Injury	2011 Crashes Property Damage	2011 Crashes Total	Total Crashes 2010	Number Killed 2011	Number Killed 2010	Number Injured 2011	Number Injured 2010
Aitkin	2	59	101	162	154	2	3	85	61
Anoka	11	1,082	1,939	3,032	3,271	11	14	1,508	1,626
Becker	4	119	156	279	271	4	1	167	140
Beltrami	4	160	309	473	455	4	7	260	185
Benton	3	176	365	544	541	4	3	256	250
Big Stone	0	24	35	59	53	0	0	31	23
Blue Earth	6	347	833	1,186	1,222	8	9	477	496
Brown	5	91	233	329	325	6	2	138	149
Carlton	6	116	259	381	280	6	3	159	137
Carver	6	236	639	881	976	6	3	330	411
Cass	4	115	152	271	283	5	6	161	191
Chippewa	3	41	78	122	117	3	2	50	78
Chisago	3	241	342	586	578	5	4	347	342
Clay	2	203	629	834	844	2	8	273	280
Clearwater	2	12	33	47	66	2	0	19	23
Cook	1	21	27	49	69	1	0	33	31
Cottonwood	3	39	87	129	137	3	0	57	73
Crow Wing	7	244	421	672	644	7	8	361	371
Dakota	14	1,477	3,170	4,661	4,571	16	21	2,029	2,003
Dodge	2	55	134	191	216	2	2	68	102
Douglas	1	192	417	610	625	1	4	273	239
Faribault	4	59	94	157	210	4	1	91	77
Fillmore	3	66	130	199	163	3	1	92	76
Freeborn	2	150	307	459	607	2	6	205	207
Goodhue	4	200	553	757	770	5	5	284	298
Grant	1	20	48	69	74	1	0	34	38
Hennepin	38	6,111	13,732	19,881	20,307	45	38	8,338	8,476
Houston	1	46	181	228	233	1	2	55	67
Hubbard	4	59	92	155	159	4	2	83	92
Isanti	2	116	207	325	341	2	13	171	190
Itasca	5	171	347	523	511	5	5	238	248
Jackson	1	45	89	135	185	1	4	57	92
Kanabec	2	47	97	146	159	2	2	73	81
Kandiyohi	4	191	446	641	648	6	2	291	347

TABLE 1.24 CONTINUED

2011 COUNTY CRASH REPORT

County	2011 Crashes Fatal	2011 Crashes Injury	2011 Crashes Property Damage	2011 Crashes Total	Total Crashes 2010	Number Killed 2011	Number Killed 2010	Number Injured 2011	Number Injured 2010
Kittson	1	9	6	16	20	1	1	10	11
Koochiching	0	38	87	125	103	0	1	55	56
Lac Qui Parle	2	13	30	45	52	2	2	19	41
Lake	6	41	62	109	87	7	2	68	46
Lake of the Woods	0	14	17	31	19	0	1	23	8
Le Sueur	3	81	227	311	320	3	2	127	117
Lincoln	1	13	60	74	97	1	0	16	36
Lyon	0	85	271	356	353	0	0	126	145
McLeod	1	119	309	429	472	1	7	162	183
Mahnomen	0	23	21	44	40	0	3	33	17
Marshall	1	23	19	43	38	1	2	34	26
Martin	0	80	165	245	307	0	10	119	150
Meeker	6	78	137	221	211	7	7	122	113
Mille Lacs	7	99	122	228	235	7	5	151	191
Morrison	5	105	223	333	332	8	1	161	171
Mower	2	127	313	442	498	2	3	160	194
Murray	1	26	58	85	90	1	1	39	55
Nicollet	4	118	308	430	526	5	3	184	148
Nobles	3	131	297	431	451	3	5	210	205
Norman	4	19	37	60	60	4	0	27	30
Olmsted	8	574	1,198	1,780	2,074	9	2	827	836
Otter Tail	11	235	438	684	646	11	14	324	290
Pennington	1	54	69	124	118	1	3	71	78
Pine	6	145	230	381	262	6	8	219	170
Pipestone	1	26	64	91	92	2	3	37	50
Polk	6	66	199	271	328	7	7	106	153
Pope	1	29	62	92	91	1	0	40	45
Ramsey	14	2,411	7,966	10,391	10,719	14	11	3,293	3,366
Red Lake	1	4	16	21	13	2	2	6	6
Redwood	3	53	113	169	162	4	1	80	111
Renville	2	45	105	152	152	2	3	57	99
Rice	2	214	436	652	731	2	4	318	334
Rock	2	53	105	160	174	3	4	88	69

TABLE 1.24 CONTINUED

2011 COUNTY CRASH REPORT

County	2011 Crashes Fatal	2011 Crashes Injury	2011 Crashes Property Damage	2011 Crashes Total	Total Crashes 2010	Number Killed 2011	Number Killed 2010	Number Injured 2011	Number Injured 2010
Roseau	2	28	50	80	86	2	1	56	55
St. Louis	11	838	2,252	3,101	3,179	12	16	1,100	1,097
Scott	9	378	733	1,120	1,128	9	8	559	582
Sherburne	3	326	760	1,089	1,080	3	15	456	491
Sibley	0	49	101	150	142	0	5	70	73
Stearns	11	722	1,803	2,536	2,392	13	15	966	957
Steele	2	140	343	485	450	2	7	197	220
Stevens	1	21	76	98	115	1	1	25	48
Swift	0	21	46	67	82	0	4	32	35
Todd	1	76	137	214	232	1	3	105	158
Traverse	0	14	14	28	29	0	0	14	13
Wabasha	7	59	120	186	220	7	2	98	111
Wadena	0	41	72	113	125	0	1	66	76
Waseca	2	53	123	178	204	2	3	75	88
Washington	6	751	1,586	2,343	2,531	6	11	1,079	1,150
Watonwan	1	33	100	134	151	1	1	49	63
Wilkin	0	23	81	104	128	0	4	31	57
Winona	6	222	412	640	669	6	9	311	299
Wright	6	352	787	1,145	1,092	6	6	547	503
Yellow Medicine	1	33	73	107	97	1	0	53	48
Unknown	0	0	0	0	1	0	0	0	0
Minnesota Totals	334	21,662	50,121	72,117	74,073	368	411	30,295	31,176

TABLE 1.25

2011 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Persons Killed	Persons Injured
Afton	1	16	29	46	1	33
Albert Lea	0	66	140	206	0	87
Albertville	1	29	80	110	1	47
Alexandria	0	87	193	280	0	109
Andover	0	38	49	87	0	57
Annandale	0	1	7	8	0	1
Anoka	0	102	294	396	0	125
Apple Valley	2	204	325	531	2	277
Arden Hills	1	97	376	474	1	134
Austin	0	71	227	298	0	86
Baxter	1	59	92	152	1	85
Bayport	0	9	32	41	0	12
Becker	0	13	27	40	0	22
Belle Plaine	1	4	22	27	1	7
Bemidji	0	74	161	235	0	108
Benson	0	4	21	25	0	8
Big Lake	0	16	45	61	0	24
Blaine	1	178	256	435	1	259
Bloomington	1	508	1,026	1,535	1	696
Blue Earth	0	11	23	34	0	15
Brainerd	0	63	149	212	0	86
Breckenridge	0	4	34	38	0	5
Brooklyn Center	4	224	383	611	5	332
Brooklyn Park	0	308	411	719	0	427
Buffalo	0	60	71	131	0	105
Burnsville	3	295	679	977	4	399
Byron	0	5	22	27	0	11
Caledonia	0	5	19	24	0	6
Cambridge	0	36	76	112	0	50
Cannon Falls	0	14	62	76	0	19
Carver	1	4	4	9	1	5
Centerville	0	6	4	10	0	6
Champlin	0	41	63	104	0	59
Chanhassen	0	50	208	258	0	61
Chaska	1	59	133	193	1	91
Chatfield	0	3	15	18	0	3
Chisago City	0	17	25	42	0	26
Chisholm	0	16	29	45	0	25
Circle Pines	0	10	17	27	0	15
Cloquet	1	32	52	85	1	50
Cohasset	0	7	12	19	0	11
Cokato	0	2	9	11	0	2
Cold Spring	0	7	32	39	0	8
Columbia Heights	0	64	78	142	0	84
Columbus	1	27	54	82	1	38
Coon Rapids	1	269	561	831	1	379
Corcoran	1	17	38	56	1	22
Cottage Grove	0	55	180	235	0	82

TABLE 1.25 CONTINUED

2011 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Persons Killed	Persons Injured
Crookston	1	11	65	77	1	20
Crystal	0	87	173	260	0	124
Dayton	0	20	46	66	0	27
Deephaven	0	7	12	19	0	9
Delano	0	5	26	31	0	8
Detroit Lakes	0	36	57	93	0	52
Dilworth	0	5	21	26	0	6
Dodge Center	0	1	10	11	0	1
Duluth	1	401	1,400	1,802	1	501
Eagan	2	236	574	812	2	311
East Bethel	1	25	17	43	1	39
East Grand Forks	0	14	55	69	0	20
Eden Prairie	0	174	462	636	0	235
Edina	0	178	413	591	0	231
Elko/New Market	1	3	11	15	1	4
Elk River	0	98	223	321	0	124
Ely	0	3	13	16	0	5
Eveleth	0	4	27	31	0	5
Fairmont	0	43	78	121	0	63
Falcon Heights	0	13	45	58	0	14
Faribault	1	69	128	198	1	99
Farmington	0	33	67	100	0	38
Fergus Falls	0	44	126	170	0	64
Foley	0	9	12	21	0	14
Forest Lake	0	82	171	253	0	123
Fridley	1	141	199	341	1	205
Glencoe	0	10	34	44	0	12
Glenwood	0	4	14	18	0	5
Golden Valley	0	144	347	491	0	184
Goodview	0	8	16	24	0	9
Grand Rapids	0	57	202	259	0	81
Granite Falls	0	8	25	33	0	13
Grant	0	10	16	26	0	13
Greenfield	0	7	27	34	0	12
Ham Lake	0	45	34	79	0	64
Hanover	0	6	8	14	0	10
Hastings	0	71	197	268	0	105
Hermantown	0	34	76	110	0	42
Hibbing	0	65	179	244	0	86
Hopkins	0	57	112	169	0	82
Hugo	0	32	47	79	0	53
Hutchinson	1	35	128	164	1	51
Independence	0	14	47	61	0	19
International Falls	0	24	51	75	0	30
Inver Grove Heights	1	83	215	299	1	113
Isanti	0	14	38	52	0	19
Jackson	0	2	26	28	0	3
Jordan	1	7	31	39	1	15

TABLE 1.25 CONTINUED

2011 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Persons Killed	Persons Injured
Kasson	0	10	29	39	0	11
La Crescent	0	8	45	53	0	9
Lake City	1	13	48	62	1	21
Lake Crystal	0	4	17	21	0	6
Lake Elmo	1	52	50	103	1	70
Lakeville	1	106	110	217	1	172
Le Sueur	0	6	35	41	0	8
Lindstrom	0	14	15	29	0	23
Lino Lakes	2	52	143	197	2	67
Litchfield	0	14	38	52	0	18
Little Canada	1	88	178	267	1	119
Little Falls	0	25	54	79	0	34
Long Prairie	1	4	18	23	1	6
Lonsdale	0	1	4	5	0	1
Luverne	0	11	30	41	0	11
Mahtomedi	0	7	20	27	0	7
Mankato	1	264	589	854	1	353
Maple Grove	4	200	525	729	5	277
Maplewood	0	228	561	789	0	324
Marshall	0	35	157	192	0	61
Medina	2	15	71	88	3	24
Melrose	0	6	41	47	0	10
Mendota Heights	0	70	149	219	0	93
Milaca	0	3	14	17	0	3
Minneapolis	19	2,845	6,692	9,556	21	3,881
Minnetonka	1	192	354	547	1	238
Minnetrista	0	12	40	52	0	19
Montevideo	0	16	40	56	0	17
Montgomery	0	5	13	18	0	8
Monticello	1	47	133	181	1	77
Montrose	0	1	5	6	0	2
Moorhead	1	141	387	529	1	180
Mora	0	10	30	40	0	14
Morris	0	4	50	54	0	5
Mound	0	13	28	41	0	13
Mounds View	0	43	95	138	0	66
Mountain Iron	1	19	26	46	1	38
New Brighton	0	76	219	295	0	101
New Hope	0	46	75	121	0	68
Newport	0	28	57	85	0	37
New Prague	0	11	20	31	0	17
New Ulm	2	50	134	186	3	70
North Branch	0	45	86	131	0	56
Northfield	0	27	52	79	0	45
North Mankato	1	26	97	124	1	36
North Oaks	0	8	17	25	0	18
North St. Paul	1	55	69	125	1	71
Norwood	0	5	16	21	0	7

TABLE 1.25 CONTINUED

2011 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Persons Killed	Persons Injured
Nowthen	0	9	9	18	0	11
Oakdale	0	84	215	299	0	108
Oak Grove	0	13	21	34	0	19
Oak Park Heights	0	20	49	69	0	33
Olivia	0	5	13	18	0	9
Orono	1	28	64	93	3	37
Otsego	0	39	51	90	0	49
Owatonna	1	84	205	290	1	115
Park Rapids	0	6	15	21	0	6
Perham	0	10	14	24	0	14
Pine City	0	12	14	26	0	20
Pine Island	0	7	16	23	0	7
Pipestone	0	5	26	31	0	5
Plainview	0	4	11	15	0	5
Plymouth	1	173	382	556	1	216
Princeton	0	14	28	42	0	22
Prior Lake	1	37	16	54	1	61
Proctor	0	4	30	34	0	4
Ramsey	2	55	125	182	2	82
Red Wing	0	65	226	291	0	88
Redwood Falls	1	15	44	60	1	25
Richfield	3	225	458	686	3	333
Robbinsdale	0	53	140	193	0	73
Rochester	2	429	889	1,320	2	607
Rockford	0	5	7	12	0	6
Rockville	0	11	24	35	0	12
Rogers	0	60	169	229	0	87
Roseau	0	4	15	19	0	5
Rosemount	0	66	154	220	0	94
Roseville	0	197	558	755	0	249
Rush City	0	5	8	13	0	8
St. Anthony	0	27	43	70	0	36
St. Augusta	0	9	14	23	0	10
St. Charles	0	3	13	16	0	3
St. Cloud	3	405	1,009	1,417	5	542
St. Francis	0	17	12	29	0	22
St. James	0	8	18	26	0	11
St. Joseph	0	17	28	45	0	24
St. Louis Park	0	238	602	840	0	313
St. Michael	0	24	69	93	0	34
St. Paul	6	1,249	5,021	6,276	6	1,711
St. Paul Park	0	11	22	33	0	20
St. Peter	0	25	85	110	0	38
Sandstone	0	2	3	5	0	3
Sartell	0	27	70	97	0	31
Sauk Center	0	10	37	47	0	16
Sauk Rapids	0	36	70	106	0	51
Savage	0	77	172	249	0	103

TABLE 1.25 CONTINUED

2011 CRASHES IN CITIES OF 2,500 OR MORE POPULATION

City	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Persons Killed	Persons Injured
Scandia	0	11	15	26	0	15
Shakopee	1	117	328	446	1	157
Shoreview	1	80	208	289	1	105
Shorewood	0	21	67	88	0	22
Sleepy Eye	0	6	38	44	0	9
South St. Paul	0	91	218	309	0	130
Spring Lake Park	1	24	60	85	1	29
Spring Valley	0	12	12	24	0	19
Staples	0	9	16	25	0	14
Stewartville	0	7	27	34	0	12
Stillwater	0	48	99	147	0	74
Thief River Falls	0	34	46	80	0	44
Two Harbors	0	3	26	29	0	4
Vadnais Heights	2	74	179	255	2	101
Victoria	0	14	34	48	0	22
Virginia	0	43	112	155	0	52
Wabasha	0	2	8	10	0	3
Waconia	0	17	47	64	0	26
Wadena	0	16	29	45	0	24
Waite Park	2	59	143	204	2	97
Waseca	1	19	64	84	1	26
Watertown	1	0	9	10	1	0
Wayzata	0	25	87	112	0	26
West St. Paul	0	112	196	308	0	143
White Bear Lake	2	166	357	525	2	226
Willmar	0	96	305	401	0	137
Windom	0	13	47	60	0	20
Winona	4	98	205	307	4	137
Woodbury	2	193	401	596	2	268
Worthington	0	56	188	244	0	94
Wyoming	0	49	69	118	0	73
Zimmerman	0	8	45	53	0	9
Zumbrota	0	6	20	26	0	6

TABLE 1.26

2011 CRASHES BY TIME AND DAY

Hour Beginning	All Days Total	All Days Fatal	Sun. Total	Sun. Fatal	Mon. Total	Mon. Fatal	Tues. Total	Tues. Fatal	Wed. Total	Wed. Fatal	Thurs. Total	Thurs. Fatal	Fri. Total	Fri. Fatal	Sat. Total	Sat. Fatal
Midnight	1,073	11	214	1	121	1	124	1	104	1	109	3	125	2	276	2
1 am	1,051	13	231	3	108	1	119	1	98	1	99	0	126	3	270	4
2 am	1,062	14	237	5	114	1	92	2	90	0	95	2	135	1	299	3
3 am	732	6	160	2	79	0	59	0	85	1	78	1	98	0	173	2
4 am	680	8	102	2	84	1	92	1	79	2	94	0	83	1	146	1
5 am	1,056	6	118	0	162	1	169	3	220	0	134	0	120	0	133	2
6 am	2,045	20	136	1	358	2	377	5	401	2	324	5	263	4	186	1
7 am	4,277	15	161	1	757	3	844	3	901	2	763	2	576	1	275	3
8 am	4,110	19	172	1	781	4	773	3	782	0	680	4	539	3	383	4
9 am	3,222	9	261	4	523	1	543	2	523	0	451	1	431	1	490	0
10 am	3,347	13	348	1	555	0	443	0	447	2	434	3	529	3	591	4
11 am	3,813	14	396	2	601	2	502	3	538	0	509	4	622	1	645	2
Noon	4,266	22	472	4	597	6	561	5	590	0	530	3	715	3	801	1
1 pm	4,053	15	486	1	606	4	505	4	506	0	505	3	675	2	770	1
2 pm	4,681	16	468	1	764	3	650	2	611	1	641	2	801	2	746	5
3 pm	5,593	15	487	1	873	2	856	1	842	3	794	2	1,019	3	722	3
4 pm	6,032	22	472	4	921	2	939	2	957	7	888	2	1,087	3	768	2
5 pm	6,315	13	462	2	963	2	1,053	2	1,019	3	1,008	2	1,113	1	697	1
6 pm	4,060	13	411	2	626	2	600	0	604	3	596	1	721	5	502	0
7 pm	2,819	18	364	2	404	7	356	2	420	1	388	1	486	2	401	3
8 pm	2,422	16	297	2	348	0	327	0	337	2	303	2	425	4	385	6
9 pm	2,159	10	239	1	267	0	293	2	283	0	284	2	412	3	381	2
10 pm	1,816	13	207	2	228	0	227	2	202	0	217	2	368	4	367	3
11 pm	1,233	13	144	0	137	2	151	3	130	0	138	2	252	2	281	4
Unk	200	0	33	0	24	0	21	0	32	0	25	0	28	0	37	0
Total	72,117	334	7,078	45	11,001	47	10,676	49	10,801	31	10,087	49	11,749	54	10,725	59

FIGURE 1.03

Total Crashes vs Fatal Crashes, by Time, 2011

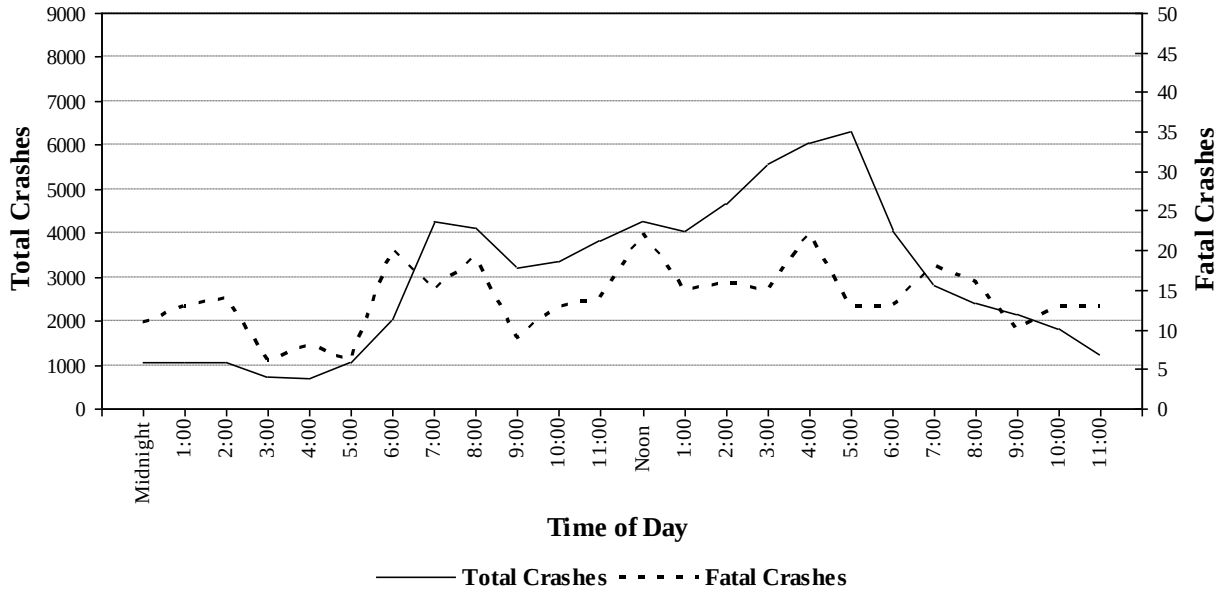

TABLE 1.27

2011 CRASHES, FATALITIES, AND INJURIES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	13	2,505	7,551	10,069	15	3,313
February	21	1,845	5,611	7,477	25	2,561
March	15	1,581	4,344	5,940	18	2,204
April	22	1,250	2,838	4,110	23	1,747
May	26	1,607	3,195	4,828	29	2,351
June	28	1,883	3,366	5,277	32	2,744
July	42	1,792	3,386	5,220	47	2,546
August	32	1,875	3,397	5,304	36	2,631
September	33	1,845	3,428	5,306	33	2,546
October	46	1,822	3,743	5,611	50	2,561
November	27	1,807	4,560	6,394	29	2,536
December	29	1,850	4,702	6,581	31	2,555
Total	334	21,662	50,121	72,117	368	30,295

TABLE 1.28

HOLIDAY CRASH SUMMARY, 2006 - 2011

Holiday Period	Year	Hours*	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Memorial Day	2006	78	3	188	344	535	4	287
(For 2011, the holiday	2007	78	5	167	259	431	5	243
period was 6 pm Fri,	2008	78	2	168	275	445	2	243
May 27 -- midnight	2009	78	9	168	259	436	13	254
Monday, May 30)	2010	78	8	167	244	419	9	245
	2011	78	0	130	258	388	0	189
July 4th	2006	102	5	266	389	660	5	377
(For 2011, the holiday	2007	30	0	73	134	207	0	103
period was 6 pm Fri,	2008	78	8	188	247	443	8	290
July 1 -- midnight	2009	78	7	191	263	461	10	303
Monday, July 4)	2010	78	4	165	268	437	5	246
	2011	78	4	170	268	442	6	255
Labor Day	2006	78	1	182	325	508	1	272
(For 2011, the holiday	2007	78	6	204	320	530	6	300
period was 6 pm Fri,	2008	78	4	197	252	453	4	286
Sept 2 -- midnight	2009	78	2	150	218	370	3	197
Monday, Sept 5)	2010	78	5	143	265	413	5	228
	2011	78	6	138	209	353	6	207
Thanksgiving	2006	102	8	200	469	677	8	299
(For 2011, the holiday	2007	102	4	203	561	768	4	298
period was 6 pm Wed,	2008	102	7	251	700	958	7	400
Nov 23 – midnight	2009	102	5	168	397	570	5	263
Sunday, Nov 27)	2010	102	4	201	589	794	4	281
	2011	102	2	161	334	497	2	232
Christmas	2006	78	0	150	333	483	0	214
(For 2011, the holiday	2007	102	10	456	1,480	1,946	11	682
period was 6 pm Fri,	2008	102	3	197	485	685	3	279
Dec 23—midnight	2009	78	1	168	669	838	1	261
Monday, Dec 26)	2010	78	0	135	555	690	0	197
	2011	78	3	125	206	334	3	186
New Year's	2006/07	78	8	286	735	1,029	9	451
(For 2011, the holiday period was	2007/08	102	4	174	525	703	4	263
	2008/09	102	3	305	989	1,297	3	467
6 pm Fri, Dec 30 --	2009/10	78	3	133	495	631	4	197
Midnight Monday,	2010/11	78	1	221	671	893	1	308
January 2, 2012)	2011/12	78	3	153	478	634	4	212

* Holiday period hours vary depending on the day of the week on which the holiday falls.

II: ALCOHOL - RELATED CRASHES

BACKGROUND AND DEFINITIONS

1. Impaired driving incidents.

As used here, an "impaired driving incident" is one where there was an arrest for driving while under the influence of alcohol or drugs and a violation from that incident was subsequently entered on the person's driving record. In prior years, tables in this section reported "DWI Arrests." "DWI" is an older term that usually connotes intoxication by alcohol. "Impaired driving" is a broader and thus more descriptive term, and it conforms better to current Minnesota law. Law enforcement agencies and courts report violations to Driver Licensing, making driver license records the most complete centralized source of data for statistics on impaired driving. Additionally, since it is almost impossible for a person, once arrested, to evade all of the criminal charges and administrative actions the law calls for, the number of impaired driving incidents on record is almost the same as the number of arrests.

(2) Alcohol-related crashes

While the term "impaired driving" covers many possible types of impairment, the term "alcohol-related" is restrictive: *only* alcohol-related crashes are counted. For example, if a driver tests positive for cocaine, but negative for alcohol, the crash will not be counted in this section. A crash is classified as "alcohol-related" if any driver, pedestrian, or bicyclist is shown by a chemical test to be positive for alcohol. Thus, alcohol at the *.01-or-higher* level or higher makes the crash alcohol-related. In the absence of test data, if the officer reports that he or she believes the person had been drinking, or was under the influence, the crash is also classified as alcohol-related. Though rare, an officer sometimes reports he or she believed a person had been drinking or was under the influence, but the alcohol test is negative. In these cases, the test result takes priority over the officer's perception, and the crash is not classified as alcohol-related.

Alcohol-related fatalities and injuries

Once a crash is so classified, no matter whether it was a driver, pedestrian, or bicyclist that was drinking, then every fatality and injury in the crash is classified as alcohol-related.

Officers' reported perceptions are conservative

Officers are conservative in reporting drinking and driving. However, officers' cautiousness is less a factor in fatal crashes, because every effort is made to obtain alcohol test results. For less severe crashes, though, the officer's judgment is all that is available. Therefore, alcohol-related non-fatal crashes are almost certain to be considerably underestimated.

Important caveats to the definition

Not all alcohol-related traffic fatalities are due to driving while intoxicated. If a drinking pedestrian or bicyclist is in a crash, and then he or she (or anyone in the crash) dies, the death is an alcohol-related traffic death. For example, in 2011, eleven drinking pedestrians died after colliding with a vehicle driven by a non-drinking driver. Additionally, the definition given above makes an assumption that the person drinking caused, or contributed significantly to the crash. Experts who study fatal traffic crashes in detail confirm that this is almost always true, but it is important to recognize that the assumption is not invariably true. There will be exceptions to the rule. Sometimes a crash is alcohol-related, but is not classified as such due to inadequate data. For example, a drunk driver may die in a fiery crash and the body may be incinerated. In this case, there may be no evidence remaining that the crash involved alcohol. Or a driver may die and lose all his or her blood from wounds received in the crash, which likewise prevents alcohol tests from being performed.

"Known" versus "estimated" alcohol-related deaths.

Testing drivers for alcohol is the key to accurately classifying crashes. Minnesota is much better at testing than most states. Because many drivers are still not tested, the National Highway Traffic Safety Administration (NHTSA) developed a sophisticated statistical procedure that estimates how many fatalities really were alcohol-related. The idea that a computerized statistical procedure can accurately make such estimates initially invites skepticism. However, NHTSA developed the procedure with the greatest care over many years. (This procedure was once again improved in 2002). Tests of the procedure, performed by having it make estimates for datasets from which critical data was removed and then comparing the estimates against the true parameters (putting back in the data that has been removed), show that the procedure is accurate to within about plus or minus one percentage point. Tables 2.01 and 2.07 show alcohol-related fatalities for Minnesota using the two procedures (NHTSA's estimating procedure and the state's procedure based on known data). NHTSA's estimate of the true percentage of alcohol-related fatalities is always higher than, but very close to, the state's numbers. The reason the two numbers are so close is that Minnesota does a good job of collecting test results on drivers, pedestrians, and bicyclists in fatal crashes.

Alcohol-related crashes in Minnesota 2011
Drinking and driving remains a serious problem in Minnesota and across the nation. For 2011, the National Safety Council has made a conservative estimate of $262 million as the cost of alcohol-related crashes in Minnesota. Predictably, there is a strong positive relationship between alcohol use and crash severity. That is, as crash severity increases, alcohol is more likely to have been a factor in the crash. Last year, 6% of minor injuries, 11% of moderate injuries, 25% of severe injuries, and 37% of deaths were alcohol-related. In all, 136 known people died and 2,375 known people were injured in crashes classified as alcohol-related. (NHTSA estimates will be higher).

Impaired driving incidents (DWIs) decrease
There were 29,257 impaired driving incidents last year in Minnesota. This number represents a 2% decrease from the previous year. There would surely be more impaired driving arrests each year if staffing levels of state troopers and police officers in Minnesota had not remained static over the past 30 years. These low staffing levels are inconsistent with the fact that the population and the number of roads continue to rise, and the fact that the number of licensed drivers in Minnesota is now over 4 million people.

Males and young people
When gender is stated, males made up 68% of the DWI offenders last year, however, females are getting arrested more often. In 2011, they accounted for 25% of the incidents. (10 years ago, they were 20% of the offenders.) Impaired driving is especially a problem among young adults. A person can legally buy alcohol at age 21 (raised from 19 in 1986), and drinking and driving too often follows that. Last year, 21-to-34 year-olds committed fully 52% of the incidents on record. Drivers under age 21 accounted for 7%.

Drinking drivers themselves pay the price
Young people may have better reflexes than their elders, but as drivers they take more risks and have less experience than older people. They pay a clear price for this. Motorists aged 15-34 accounted for 38% of all traffic deaths, and for fully 51% of the alcohol-related deaths. It is also the drinkers themselves who are more likely to pay the price for their dangerous behavior. Last year, 95 (70%) of the 136 people who died in alcohol-related crashes were themselves the people whose drinking behavior was a main factor which lead to the crash to be classified as alcohol-related. In short, drinking drivers, pedestrians, and bicyclists mostly kill and injure themselves. The remaining 37 people who died in the alcohol crashes were non-drinking drivers, pedestrians, or bicyclists, or were drinking or non-drinking vehicle passengers.

When the crashes occur: weekends, late night
Most alcohol-related crashes occur on Fridays, Saturdays, and Sundays. Combined, these three days accounted for 41% of all traffic crashes, but 60% of the alcohol-related crashes. The late night hours 9 p.m.-3 a.m. accounted for 12% of all crashes, but 48% of the alcohol crashes.

Fatal alcohol crashes usually involve just one vehicle
Of the 121 alcohol-related fatal crashes in 2011, 92 (76%) involved just one motor vehicle in transport. Of the 92 single vehicle alcohol-related fatal crashes, 34 involved a single vehicle colliding with a fixed object, and 35 involved a single vehicle losing control and overturning.

Test results for killed drivers
Minnesota is consistently at or near the top among the states in the proportion of drivers in fatal crashes who are tested for alcohol. Also, NHTSA developed a procedure (explained on page 38) that compensates for missing data. In 2011, there were 243 motor vehicle drivers who were killed. (Note that this total does not include pedestrians or bicyclists). Of the 243 killed drivers, the Department of Public Safety was able to get alcohol test results for 220 (91%). Of the 220 tested, 137 (62%) tested negative, 11 (5%) tested between .01 and .07, 6 (3%) tested between .08 and .09, and 66 (30%) tested .10 or greater.

Majority of alcohol-related fatalities test above the legal limit
The 136 alcohol-related fatalities in 2011 consisted of 81 car or truck drivers, 27 car or truck passengers, 8 motorcycle drivers, two motorcycle passengers, four ATV drivers, 14 pedestrians, and four ATV drivers. Of the 136, the Department of Public Safety was able to get alcohol test results for 121. Of these, 89 (65%) had a result above the legal limit of .08.

Success story in Minnesota
In reality, the percentage of alcohol-related traffic fatalities in Minnesota has steadily decreased in the past half century. In the 1960's, around 60% of all traffic deaths per year were alcohol-related. Today, this percentage hovers around 35% per year. This is a great success story for Minnesota and the nation as a whole. It is also proof that as drivers change their behavior, less tragedy occurs on our roadways. The implementation of the .08 legal limit law in mid-2005 will continue to help this downward trend.

TABLE 2.01

ALCOHOL-RELATED FATAL CRASH SUMMARY, 1980 - 2011

Year	Alcohol Concentration Test Results on Fatally Injured Drivers Only									All Traffic Fatalities				
	Drivers Killed			Results on Drivers Tested							Alcohol-Related Fatalities			
		Tested for Alcohol		Negative for Alcohol		.01 to .09 Alcohol		.10 or Higher Alcohol			Known *		Estimated **	
	Total	number	percent of total	number	percent of tested	number	percent of tested	number	percent of tested	Total	number	percent of total	number	percent of total
1980	519	337	65	103	31	37	11	197	58	863				
1981	437	288	66	110	38	28	10	150	52	763				
1982	321	232	72	106	46	14	6	112	48	581			322	56
1983	345	258	75	113	44	28	11	117	45	558			314	56
1984	383	318	83	133	42	36	11	149	47	584	305	52	332	57
1985	372	295	79	156	53	31	10	108	37	610	261	43	287	47
1986	347	281	81	143	51	24	8	114	41	572	264	46	284	50
1987	297	265	89	132	50	18	7	115	43	530	224	42	248	47
1988	361	313	87	163	52	32	10	118	38	615	277	45	294	48
1989	368	313	85	158	51	26	8	129	41	605	275	45	289	48

Year	Alcohol Concentration Test Results on Fatally Injured Drivers Only											All Traffic Fatalities				
	Drivers Killed			Results on Drivers Tested									Alcohol-Related Fatalities			
		Tested for Alcohol		Negative for Alcohol		.01 to .07 Alcohol		.08 to .09 Alcohol		.10 or Higher Alcohol			Known *		Estimated **	
	Total	number	percent of total	number	percent of tested	number	percent of tested	number	Percent of tested	number	percent of tested	Total	number	percent of total	number	percent of total
1990	334	260	78	129	50	19	7	4	2	108	41	568	235	41	258	46
1991	327	242	74	135	56	20	8	2	1	85	35	531	212	40	233	44
1992	344	237	69	135	57	9	3	6	2	89	38	581	229	39	240	41
1993	355	283	80	174	61	14	5	5	2	90	32	538	196	36	216	40
1994	377	303	80	183	60	16	5	7	3	97	32	644	226	35	250	39
1995	383	343	90	198	58	22	7	8	2	115	34	597	246	41	269	45
1996	359	314	87	209	67	16	5	6	2	83	26	576	205	36	222	38
1997	384	345	90	226	66	15	5	4	1	100	29	600	178	30	197	33
1998	406	369	91	218	59	23	6	6	2	122	33	650	273	42	285	44
1999	426	370	87	254	69	9	2	7	2	100	27	626	195	31	206	33
2000	403	375	93	226	60	16	4	6	2	127	34	625	245	39	258	41
2001	361	322	89	198	62	17	5	6	2	101	31	568	211	37	226	40
2002	430	365	85	223	61	21	6	3	1	118	32	657	239	36	255	39
2003	435	376	86	219	58	18	5	5	1	134	36	655	255	39	267	41
2004	389	337	87	219	65	11	3	4	1	103	31	567	177	31	184	32
2005	379	348	92	213	61	17	5	5	1	113	33	559	197	35	201	36
2006	346	321	93	207	64	15	5	5	2	94	29	494	166	34	183	37
2007	381	336	88	207	62	15	4	7	2	107	32	510	190	37	198	39
2008	316	286	90	176	62	15	5	6	2	89	31	455	163	36	171	38
2009	266	236	89	160	68	13	5	4	2	59	25	421	141	34	150	36
2010	270	237	88	156	66	6	3	2	1	73	31	411	131	32	140	34
2011	243	220	91	137	62	11	5	6	3	66	30	368	136	37	n/a	n/a

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

** NHTSA recently improved its method of estimating the true percentage of alcohol-related fatalities for each year. The above table reflects these changes back to the year 1982.

TABLE 2.02

IMPAIRED DRIVING INCIDENTS ("DWIs") BY GENDER AND BY AREA OF STATE WHERE ARREST WAS MADE, 1995 - 2011

Year	Total	Gender Male Number	Gender Male Per-cent	Gender Female Number	Gender Female Per-cent	Gender Not Stated Number	Gender Not Stated Per-cent	State Area Metro Number	State Area Metro Per-cent	State Area - Non-Metro Number	State Area - Non-Metro Per-cent
1995	30,255	23,217	76.7	5,425	17.9	1,613	5.3	15,678	51.8	14,577	48.2
1996	30,515	23,588	77.3	5,371	17.6	1,556	5.1	15,774	51.7	14,741	48.3
1997	30,905	23,636	76.5	5,733	18.6	1,536	5.0	15,954	51.6	14,951	48.4
1998	32,001	24,193	75.6	6,048	18.9	1,760	5.5	16,537	51.7	15,464	48.3
1999	34,529	25,938	75.1	6,505	18.8	2,086	6.0	17,126	49.6	17,403	50.4
2000	34,803	27,741	74.0	6,755	19.4	2,307	6.6	16,739	48.1	18,064	51.9
2001	33,305	24,479	73.5	6,494	19.5	2,331	7.0	16,284	48.9	17,021	51.1
2002	32,948	23,887	72.5	6,557	19.9	2,504	7.6	16,147	49.0	16,801	51.0
2003	32,193	23,082	71.7	6,535	20.3	2,575	8.0	15,972	49.6	16,221	50.4
2004	34,199	24,199	70.8	7,165	21.0	2,835	8.3	16,762	49.0	17,437	51.0
2005	36,870	25,712	69.7	7,989	21.7	3,169	8.6	17,837	48.4	19,033	51.6
2006	41,842	28,665	68.6	9,293	22.2	3,884	9.3	20,496	49.0	21,346	51.0
2007	38,635	26,365	68.2	8,809	22.8	3,461	9.0	18,764	48.6	19,871	51.4
2008	35,736	24,142	67.6	8,444	23.6	3,150	8.8	17,781	49.8	17,995	50.2
2009	32,756	22,078	67.4	7,906	24.1	2,772	8.5	16,253	49.6	16,503	50.4
2010	29,918	19,982	66.8	7,410	24.8	2,526	8.4	15,146	50.6	14,772	49.4
2011	29,257	19,851	67.8	7,280	24.9	2,126	7.3	14,888	50.9	14,369	49.1

* Note: The table above creates the impression that the proportion of violators with gender "not stated" is increasing over time. This is *not* so. If a person arrested for impaired driving does not have a Minnesota driver's license, then a record is created, but the new record does *not* show the person's gender. As years pass, many of these violators do eventually get a Minnesota driver's license, which does record gender. Thus, as time passes, the gender of more and more past violators becomes known. The table above merely uses current information that was not available at the time of the original violation.

TABLE 2.03

IMPAIRED DRIVING INCIDENTS ("DWIs") FOR SELECTED AGE GROUPS, 1995 - 2011

Year	Total	Age 0-14	Age 15	Age 16	Age 17	Age 18	Age 19	Age 20	Total Under Age 21	Age 21-34	Age 35-49	Age 50 & Older
1995	30,255	1	20	111	243	519	723	799	2,416	16,368	9,302	2,169
1996	30,515	2	10	135	300	608	791	826	2,672	15,815	9,762	2,266
1997	30,905	5	17	102	273	627	751	886	2,661	15,495	10,283	2,466
1998	32,001	2	17	102	297	675	888	911	2,892	15,624	10,973	2,512
1999	34,529	4	18	114	285	740	1,004	1,032	3,197	17,100	11,479	2,753
2000	34,803	5	10	124	330	691	984	1,104	3,248	17,245	11,472	2,838
2001	33,305	2	14	118	277	636	911	1,030	2,988	16,791	10,740	2,786
2002	32,948	6	13	122	298	655	849	1,086	3,029	16,594	10,379	2,946
2003	32,193	3	21	117	279	689	904	1,064	3,077	16,518	9,732	2,866
2004	34,199	3	13	105	300	679	889	1,012	3,001	17,382	10,185	3,181
2005	36,870	5	16	118	335	705	1,028	1,236	3,443	19,505	10,557	3,365
2006	41,842	6	24	135	394	854	1,274	1,346	4,035	22,465	11,487	3,855
2007	38,635	4	11	126	325	712	1,064	1,209	3,451	20,518	10,743	3,922
2008	35,736	6	14	102	266	630	887	1,046	2,951	18,933	9,851	4,001
2009	32,756	6	6	75	197	524	801	896	2,505	17,165	9,196	3,889
2010	29,918	4	9	54	139	425	667	804	2,102	15,727	8,154	3,935
2011	29,257	1	5	55	154	362	578	748	1,903	15,489	7,842	4,020

FIGURE 2.01

PERCENT OF IMPAIRED DRIVING INCIDENTS ("DWIs")
COMMITTED BY OFFENDERS IN FOUR AGE GROUPS, 1990 - 2011

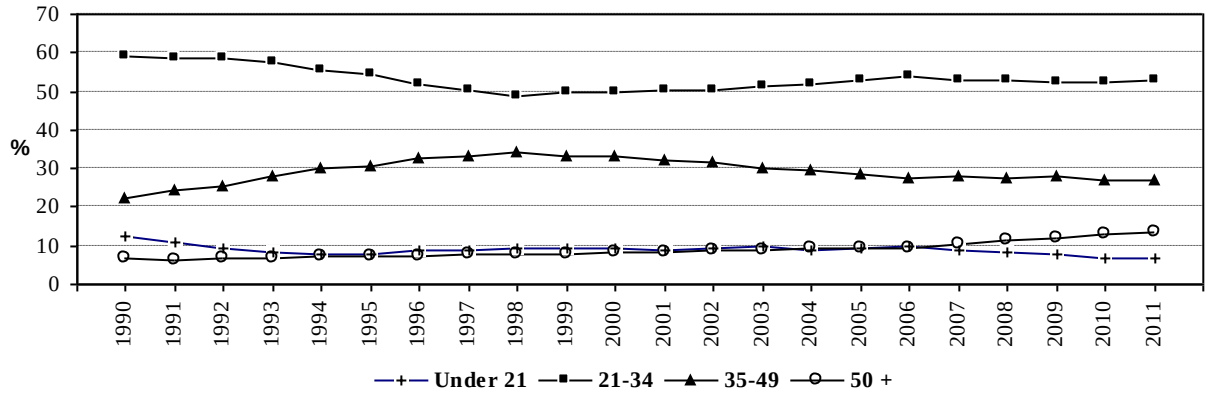

TABLE 2.04

IMPAIRED DRIVING INCIDENTS ("DWIs") BY AGE, 1995 - 2011

Year of Incident	Age 0-14	Age 15-19	Age 20-24	Age 25-29	Age 30-34	Age 35-39	Age 40-44	Age 45-49	Age 50-54	Age 55-59	Age 60-64	Age 65-69	Age 70-74	Age 75-79	Age 80-84	Age 85+	Total
1995	1	1,616	5,850	5,517	5,800	4,536	3,034	1,732	957	550	324	185	93	43	17	0	30,255
1996	2	1,844	5,731	5,507	5,403	4,719	3,144	1,899	991	589	317	213	96	43	16	1	30,515
1997	5	1,770	5,733	5,651	4,997	4,888	3,295	2,100	1,154	615	335	204	96	46	14	2	30,905
1998	2	1,979	6,176	5,513	4,846	5,160	3,591	2,222	1,137	671	333	192	102	57	18	2	32,001
1999	4	2,161	7,389	5,843	4,900	5,267	3,844	2,368	1,330	670	405	190	98	45	12	3	34,529
2000	5	2,139	7,725	5,819	4,805	5,071	3,922	2,479	1,396	692	368	191	118	55	18	0	34,803
2001	2	1,956	7,839	5,437	4,545	4,408	3,887	2,445	1,450	649	333	194	99	43	14	4	33,305
2002	6	1,937	8,080	5,255	4,345	4,030	3,849	2,500	1,451	754	355	198	105	60	18	5	32,948
2003	3	2,010	8,195	5,394	3,993	3,621	3,646	2,465	1,380	753	381	188	97	47	19	1	32,193
2004	3	1,986	8,689	5,895	4,260	3,660	3,817	2,708	1,641	789	425	166	93	38	26	3	34,199
2005	5	2,202	9,594	6,790	4,360	3,778	3,850	2,929	1,664	920	410	213	92	48	10	5	36,870
2006	6	2,681	11,021	8,043	4,749	4,134	4,011	3,342	1,985	1,030	447	225	107	39	18	4	41,842
2007	4	2,238	9,856	7,398	4,473	3,948	3,624	3,171	1,911	1,100	491	262	93	50	13	2	38,635
2008	6	1,899	8,609	6,868	4,502	3,579	3,278	2,994	1,937	1,114	554	229	101	47	13	6	35,736
2009	6	1,603	7,570	6,394	4,097	3,386	2,937	2,873	1,893	1,055	541	225	119	37	12	7	32,756
2010	4	1,294	6,821	5,776	3,934	2,918	2,671	2,565	1,914	1,086	543	234	98	41	17	2	29,918
2011	1	1,154	6,505	5,837	3,895	2,778	2,671	2,393	1,904	1,084	608	231	120	46	22	5	29,257

TABLE 2.05

AGE OF PERSONS KILLED AND INJURED IN ALL CRASHES AND IN ALCOHOL - RELATED CRASHES, 2011

Age Group	Total persons killed	Total persons killed – alcohol related	Total persons severely injured	Total alcohol related severe injuries	Total persons with moderately severe injuries	Total alcohol related moderate injuries	Total persons with minor injuries	Total alcohol related minor injuries	Total persons injured	Total alcohol related injuries
00 - 04	3	2	6	0	57	2	405	18	468	20
05 - 09	3	1	13	0	93	5	542	24	648	29
10 - 14	6	1	31	3	190	6	660	15	881	24
15	1	0	11	2	72	6	212	5	295	13
16	7	2	19	1	178	11	524	13	721	25
17	2	0	42	11	182	13	553	16	777	40
18	11	3	37	6	215	20	634	31	886	57
19	16	8	43	11	202	25	583	36	828	72
20	8	3	28	10	210	38	616	49	854	97
Under 21:	57	20	230	44	1,399	126	4,729	207	6,358	377
00 - 14	12	4	50	3	340	13	1,607	57	1,997	73
15 - 19	37	13	152	31	849	75	2,506	101	3,507	207
20 - 24	49	32	158	68	943	182	2,829	267	3,930	517
25 - 29	37	20	119	57	766	130	2,400	209	3,285	396
30 - 34	17	5	81	24	620	89	1,945	143	2,646	256
35 - 39	16	6	66	21	484	59	1,548	93	2,098	173
40 - 44	19	6	91	24	517	63	1,518	93	2,126	180
45 - 49	22	9	103	21	566	54	1,610	89	2,279	164
50 - 54	27	10	88	25	540	55	1,512	78	2,140	158
55 - 59	27	10	70	12	383	22	1,254	49	1,707	83
60 - 64	29	8	59	7	351	18	960	42	1,370	67
65 - 69	19	6	38	2	200	7	616	29	854	38
70 - 74	12	4	19	2	164	5	399	13	582	20
75 - 79	16	2	22	2	114	1	300	7	436	10
80 - 84	10	1	15	0	85	2	243	2	343	4
85 & Older	19	0	16	0	71	3	185	1	272	4
Not Stated	0	0	12	2	117	2	594	21	723	25
Total	368	136	1,159	301	7,110	780	22,026	1,294	30,295	2,375

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 136 alcohol-related traffic deaths in the year 2011. Fourteen of those deaths were to pedestrians, and 12 of them were drinking. In one of the 12 fatal crashes involving a drinking pedestrian, the motor vehicle driver had also been drinking. Note: Five bicyclists were killed in 2011. None of the 5 was alcohol-related.

TABLE 2.06

2011 ALCOHOL - RELATED FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY TRAFFIC ROLE

Traffic Role	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
Car or Truck Driver	81	81	10	9	5	57
Car or Truck Passenger	27	14	3	3	0	8
Motorcycle Driver	8	8	0	2	1	5
Motorcycle Passenger	2	0	0	0	0	0
ATV Driver	4	4	0	0	0	4
Snowmobile	0	0	0	0	0	0
Pedestrian	14	14	2	3	0	9
Bicyclist	0	0	0	0	0	0
Other Vehicle	0	0	0	0	0	0
Total	136	121	15	17	6	83

TABLE 2.07

PERCENT OF DEATHS, INJURIES, AND PROPERTY DAMAGE CRASHES DETERMINED TO BE ALCOHOL - RELATED, 2002 - 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Deaths* (Known)	36%	39%	31%	35%	34%	37%	36%	34%	32%	37%
(Estimated)	39%	41%	32%	36%	37%	39%	38%	36%	34%	n/a
Injuries**	10%	NA	9%	9%	10%	9%	9%	8%	8%	8%
PDO Crashes**	4%	NA	3%	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.

** Based only on police officer's perception of possible alcohol involvement. (PDO = Property Damage Only).

TABLE 2.08

FIRST HARMFUL EVENT IN ALCOHOL-RELATED FATAL CRASHES AND ALL FATAL CRASHES, 2011

First Harmful Event	Number of Fatal Crashes	Percent of Fatal Crashes	Number of Alcohol-Related Fatal Crashes *	Percent of Alcohol-Related Fatal Crashes
Collision with:				
Another Motor Vehicle	144	43.1%	29	24.0%
Parked Motor Vehicle	3	0.9	0	0.0
Train	4	1.2	1	0.8
Bicyclist	5	1.5	0	0.0
Pedestrian	39	11.7	14	11.6
Deer	5	1.5	1	0.8
Fixed Object	61	18.3	34	28.1
Other Collision Type	1	0.3	1	0.8
Non-Collision:				
Overturn	60	18.0	35	28.9
Submersion	5	1.5	3	2.5
Other Type Non-Collision	4	1.2	1	0.8
Unknown	3	0.9	2	1.6
Total	334	100.0%	121	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, 2002 - 2011

Year	Killed	Tested	.00	.01 - .07	.08 - .09	.10 +
2002	430	365	223 (61%)	21 (6%)	3 (1%)	118 (32%)
2003	435	376	219 (58%)	18 (5%)	5 (1%)	134 (36%)
2004	389	337	219 (65%)	11 (3%)	4 (1%)	103 (31%)
2005	379	348	213 (61%)	17 (5%)	5 (1%)	113 (33%)
2006	346	321	207 (64%)	15 (5%)	5 (2%)	94 (29%)
2007	381	336	207 (62%)	15 (4%)	7 (2%)	107 (32%)
2008	316	286	176 (62%)	15 (5%)	6 (2%)	89 (31%)
2009	266	236	160 (68%)	13 (5%)	4 (2%)	59 (25%)
2010	270	237	156 (66%)	6 (3%)	2 (1%)	73 (31%)
2011	243	220	137 (62%)	11 (5%)	6 (3%)	66 (30%)

* Percent's based on drivers tested.

TABLE 2.10

DRIVERS KILLED WHO TESTED .01 OR HIGHER, 2002 - 2011
("Any Alcohol")

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
2002	142	124	(87%)	18	(13%)	41	(29%)	23	(16%)
2003	157	135	(86%)	22	(14%)	42	(27%)	14	(9%)
2004	118	101	(86%)	17	(14%)	35	(30%)	19	(16%)
2005	135	120	(89%)	15	(11%)	34	(25%)	11	(8%)
2006	114	95	(83%)	19	(17%)	34	(30%)	14	(12%)
2007	129	110	(85%)	19	(15%)	28	(22%)	11	(9%)
2008	110	91	(83%)	19	(17%)	31	(28%)	9	(8%)
2009	76	63	(83%)	13	(17%)	12	(16%)	7	(9%)
2010	81	63	(78%)	18	(22%)	12	(15%)	7	(9%)
2011	83	70	(84%)	13	(16%)	24	(29%)	9	(11%)

TABLE 2.11

DRIVERS KILLED WHO TESTED OVER THE LEGAL LIMIT, 2002 - 2011
(The legal limit in Minnesota was lowered to .08 in mid-2005)

Year	Total	Male		Female		Occurred Between Midnight - 3 AM		Under Legal Age	
2002	118	102	(86%)	16	(14%)	34	(29%)	16	(14%)
2003	134	115	(86%)	19	(14%)	39	(29%)	9	(7%)
2004	103	90	(87%)	13	(13%)	34	(33%)	16	(16%)
2005	118	105	(89%)	13	(11%)	33	(28%)	9	(8%)
2006	99	84	(85%)	15	(15%)	32	(32%)	13	(13%)
2007	114	98	(86%)	16	(14%)	27	(24%)	10	(9%)
2008	95	81	(85%)	14	(15%)	31	(33%)	8	(8%)
2009	63	53	(84%)	10	(16%)	11	(17%)	6	(10%)
2010	75	58	(77%)	17	(23%)	12	(16%)	6	(8%)
2011	72	62	(86%)	10	(14%)	21	(29%)	8	(11%)

FIGURE 2.02

Killed Drivers Tested for Alcohol: 1980 - 2011
Percent Over .01 Alcohol Level and Percent Over Legal Limit
(The legal limit in Minnesota was lowered to .08 in 2005)

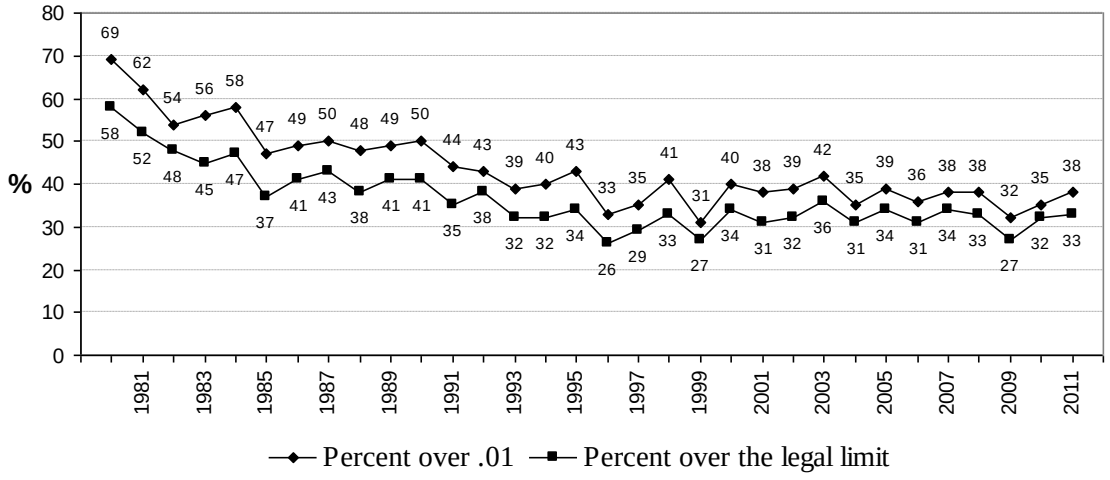

FIGURE 2.03

Percent of Drivers Killed Who Had Been Drinking, by Age, 2011

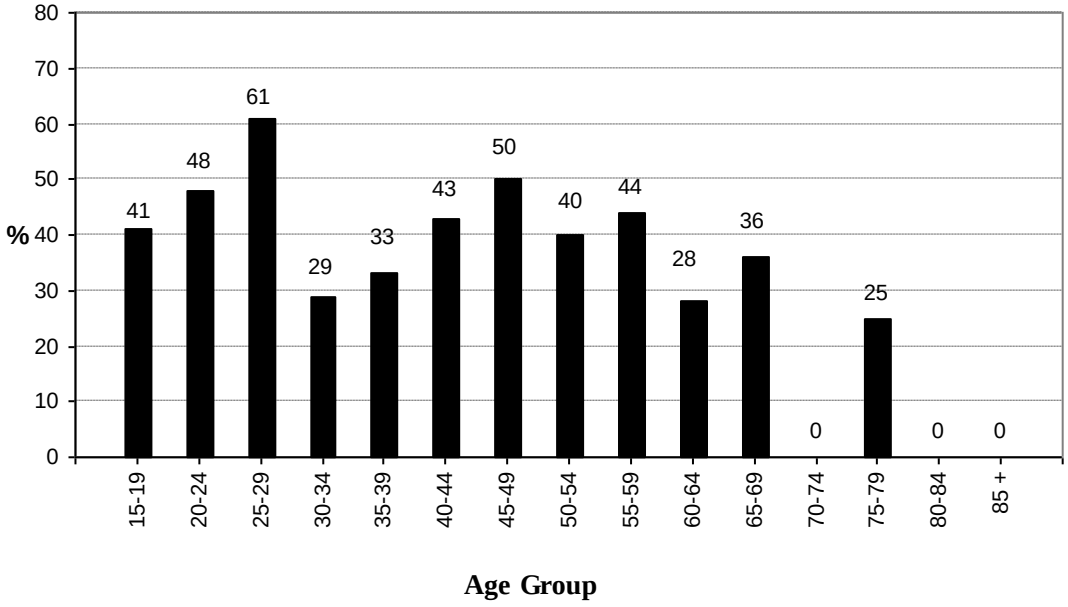

TABLE 2.12

2011 DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

			Alcohol Concentration														
			.00		.01 - .07		.08 - .09		.10 +		Alcohol Concentration						
Age	Killed	Tested	num-ber	per-cent	num-ber	per-cent	num-ber	per-cent	num-ber	per-cent	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20-.24	.25 +
00 - 14	1	1	1		0		0		0		1	0	0	0	0	0	0
15	0	0	0		0		0		0		0	0	0	0	0	0	0
16	5	5	3		0		0		2		3	0	0	0	1	1	0
17	1	0	0		0		0		0		0	0	0	0	0	0	0
18	7	6	5		0		0		1		5	0	0	0	0	1	0
19	12	11	5		1		1		4		5	0	2	2	1	1	0
20	2	2	2		0		0		0		2	0	0	0	0	0	0
Under 21	28	25	16		1		1		7		16	0	2	2	2	3	0
00 - 14	1	1	1	100.0	0	0.0	0	0.0	0	0.0	1	0	0	0	0	0	0
15 - 19	25	22	13	59.1	1	4.6	1	4.6	7	31.8	13	0	2	2	2	3	0
20 - 24	27	27	14	51.8	2	7.4	0	0.0	11	40.7	14	2	0	1	2	5	3
25 - 29	25	23	9	39.1	2	8.7	0	0.0	12	52.2	9	2	0	2	4	3	3
30 - 34	15	14	10	71.4	0	0.0	0	0.0	4	28.6	10	0	0	1	2	1	0
35 - 39	14	9	6	66.7	0	0.0	1	11.1	2	22.2	6	0	1	1	0	0	1
40 - 44	15	14	8	57.1	0	0.0	2	14.3	4	28.6	8	0	2	0	0	1	3
45 - 49	14	14	7	50.0	1	7.1	0	0.0	6	42.9	7	1	0	0	0	3	3
50 - 54	20	20	12	60.0	2	10.0	0	0.0	6	30.0	12	2	0	1	0	3	2
55 - 59	19	18	10	55.6	2	11.1	0	0.0	6	33.3	10	2	0	1	1	2	2
60 - 64	20	18	13	72.2	0	0.0	1	5.6	4	22.2	13	0	1	1	1	1	1
65 - 69	13	11	7	63.6	1	9.1	1	9.1	2	18.2	7	1	1	0	2	0	0
70 - 74	6	5	5	100.0	0	0.0	0	0.0	0	0.0	5	0	0	0	0	0	0
75 - 79	10	8	6	75.0	0	0.0	0	0.0	2	25.0	6	0	0	2	0	0	0
80 - 84	6	6	6	100.0	0	0.0	0	0.0	0	0.0	6	0	0	0	0	0	0
85 +	13	10	10	100.0	0	0.0	0	0.0	0	0.0	10	0	0	0	0	0	0
Total	243	220	137	62.3	11	5.0	6	2.7	66	30.0	137	10	7	12	14	22	18

* Percent's, based on drivers tested, may not add to 100.0% due to rounding.

TABLE 2.13

2011 ALCOHOL - RELATED CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage	Total Crashes	Killed	Injured
January	3	122	213	338	4	156
February	3	109	152	264	3	156
March	6	108	142	256	7	164
April	13	113	129	255	14	148
May	7	141	149	297	8	202
June	13	166	128	307	15	248
July	18	156	142	316	21	221
August	7	142	121	270	8	193
September	11	138	125	274	11	185
October	18	153	138	309	20	232
November	8	150	153	311	9	218
December	14	174	186	374	16	252
Total	121	1,672	1,778	3,571	136	2,375

TABLE 2.14

2011 ALCOHOL - RELATED CRASHES BY ROADWAY TYPE

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Urban Interstate	5	139	247	391	6	183
Rural Interstate	0	30	38	68	0	48
Urban US Trunk Hwy	4	88	111	203	4	123
Rural US Trunk Hwy	14	90	55	159	16	138
Urban MN Trunk Hwy	6	132	142	280	6	180
Rural MN Trunk Hwy	23	154	113	290	26	231
County State Aid Hwy	47	505	388	940	55	713
County Road	8	63	26	97	9	92
Township Road	5	66	41	112	5	92
Mun State Aid Hwy	4	227	300	531	4	328
Municipal Street	4	176	300	480	4	240
Other	1	2	17	20	1	7
Total	121	1,672	1,778	3,571	136	2,375

FIGURE 2.04
2011 Alcohol-Related Crashes by Time of Day

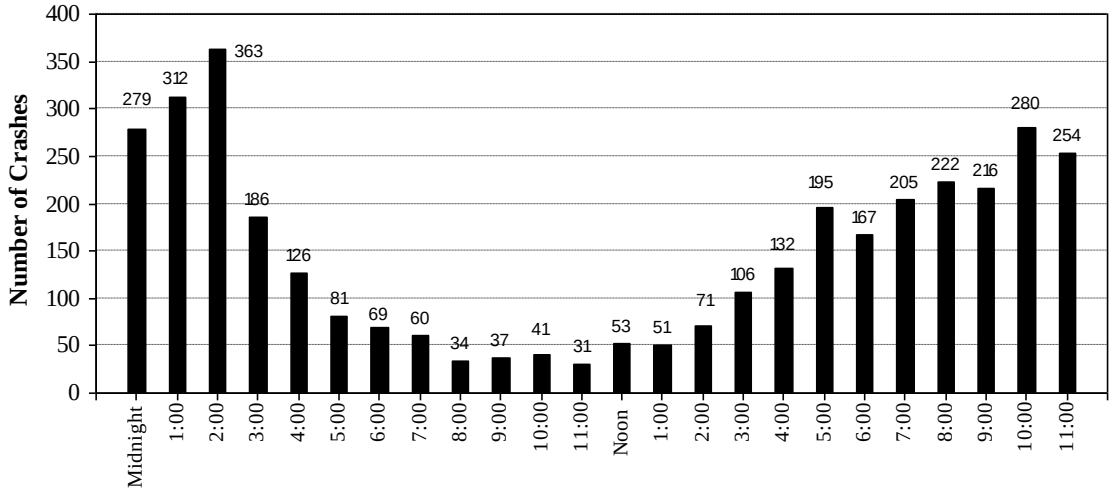

FIGURE 2.05
2011 Alcohol-Related Crashes by Day of Week

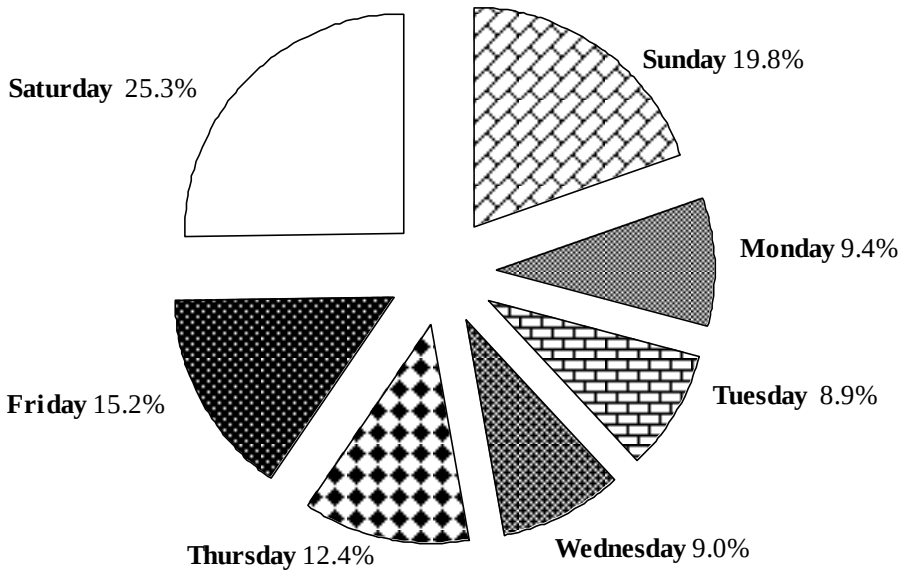

TABLE 2.15

2011 ALCOHOL-RELATED CRASHES BY TIME OF DAY AND DAY OF WEEK

Hour Beginning	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total Crashes	Total Killed	Total Injured
Midnight	67	29	19	27	29	36	72	279	10	131
1:00 AM	83	18	22	26	30	42	91	312	13	191
2:00 AM	99	26	33	25	28	50	102	363	17	235
3:00 AM	60	12	4	17	13	24	56	186	5	124
4:00 AM	36	11	7	5	18	8	41	126	3	87
5:00 AM	36	3	4	5	5	8	20	81	1	37
6:00 AM	17	10	9	0	8	10	15	69	5	47
7:00 AM	17	3	1	2	7	10	20	60	2	40
8:00 AM	8	2	7	3	3	4	7	34	3	19
9:00 AM	9	3	5	1	6	5	8	37	1	22
10:00 AM	6	6	3	3	6	7	10	41	2	38
11:00 AM	6	5	2	1	6	6	5	31	4	21
Noon	11	7	1	4	8	3	19	53	4	40
1:00 PM	13	3	2	5	9	3	16	51	1	34
2:00 PM	13	11	7	6	8	9	17	71	0	48
3:00 PM	14	11	10	9	18	17	27	106	0	74
4:00 PM	15	19	16	17	19	14	32	132	6	93
5:00 PM	27	21	24	18	31	42	32	195	5	154
6:00 PM	20	12	20	22	26	27	40	167	3	136
7:00 PM	36	24	14	26	28	34	43	205	12	154
8:00 PM	31	31	20	26	23	41	50	222	11	154
9:00 PM	31	20	30	22	35	32	46	216	7	162
10:00 PM	27	33	30	35	39	60	56	280	11	175
11:00 PM	26	16	27	18	41	49	77	254	10	159
Unknown	0	0	0	0	0	0	0	0	0	0
Total	708	336	317	323	444	541	902	3,571	136	2,375

III: SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS IN 2011 CRASHES

A brief history of restraint 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. The state's safety belt law went into effect in 1986 and was amended in 1988 and 1991. The law requires all front seat occupants (and children ages four through ten, regardless of seating position) to be restrained. The 1986 belt law was 'Secondary' in nature. Thus, an officer could not issue a citation for non-belt use unless there was another moving violation. In 2009 the law was updated to 'Primary'. In addition, children aged 4 through 7 must now be properly restrained in a 'booster seat'.

Tables in this section focus on restraint use by people in crashes who were occupants of motor vehicles normally equipped with seat belts. The data pose one problem in that restraint use was reported as "unknown" for 9.2% of the persons killed and 9.8% of the persons injured in 2011.

Restraint use responds to legislation

Observational surveys of safety belt use conducted annually at random sites around Minnesota show that legislation affects safety belt wearing behavior, thus, saving lives and preventing injuries. In June 1986, before the first safety belt law took effect, 20% of front seat vehicle occupants used belts. The usage rate jumped to 33% after the 1986 law took effect; to 47% after a $10 fine was added in 1988; and to 55% after the fine was increased to $25 in 1991. In 1993 the fine for a child safety seat violation was raised to $50 which also helped increase the overall seat belt usage rate. Minnesota's 'Primary' seat belt law took effect on June 9th, 2009. In August, 2011, the observational seat belt study revealed a 93% usage rate.

Occupant fatalities in 2011

In 2011, 271 motor vehicle occupants were killed in traffic crashes which represents an 11% decrease from the previous year. And, vehicle occupants injured (26,891) decreased slightly (3%) from 2010. However, these figures also reveal a beneficial trend that started in the mid-1980s. Specifically, fatalities and severe injuries have been "trading off" with moderate and minor injuries. They are steadily declining due to the seat belt legislation of the mid-1980s. In 1987, 4,176 motor vehicle occupants suffered severe injuries. In 2011, that number decreased to 796. This is encouraging news. By definition, minor (or "possible") and moderate (or "non-incapacitating") injuries do not produce long-term and severe suffering, while severe injuries often cause such suffering, including consequences such as permanent brain damage and dismemberment.

Northwest region/Township roads

Among the motor vehicle occupants that were killed or injured in the Northwest region of Minnesota, only 71% were known to be using a restraint. This is the lowest rate of use of any region. The Southwest region was second lowest: 76%. Concerning types of roadway, 'Township Roads' had the lowest percentage of seat belt use (64%).

Ejection update: always wear your seat belt

Of the 271 occupants killed in 2011, almost one-fourth were ejected or partially ejected from the vehicles they were riding in. And, 95% of these ejected fatalities were not wearing a seat belt.

Airbag update: always wear your seat belt

In 2011, airbag deployment was reported 14,306 times when the occupant was also wearing a seat belt. Fifty-five percent of these incidents resulted in no apparent injury. Airbags deployed 818 times when occupants were not wearing seat belts. Only 29% of these cases resulted in no apparent injury.

TABLE 3.01

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

		Area of State		Class of Roadway	
Date of Survey	**Overall**	**Metro**	**Non-Metro**	**Major Roads**	**Local Roads**
June 1986	20%	30%	15%	23%	17%
August 1986	33	43	26	35	31
August 1987	32	40	28	35	29
August 1988	47	51	45	48	46
August 1989	44	52	40	44	45
August 1990	47	54	42	49	46
August 1991	53	62	47	53	52
August 1992	51	62	46	55	48
August 1993	55	59	52	57	53
August 1994*	57	58	54	65	54
August 1995	65	68	56	68	64
August 1996	64	67	58	68	62
August 1997	65	67	59	69	63
August 1998	64	67	56	68	63
August 1999	72	73	68	72	68
August 2000	73	74	69	75	71
August 2001	74	75	72	75	69
August 2002	80	83	72	81	76

		Vehicle Type				Gender	
Date of Survey	**Overall**	**Car**	**SUV**	**Van**	**Pickup**	**Male**	**Female**
August 2003	79.4%	82%	79%	83%	69%	76%	83%
August 2004	82.1	83	87	87	71	78	88
August 2005	83.9	86	87	83	75	80	89
August 2006	83.3	83	87	88	76	79	88
August 2007**	87.8	89	90	90	81	84	92
August 2008	86.7	88	92	88	76	83	92
August 2009	90.2	91	91	95	84	89	92
August 2010	92.3	94	94	95	83	89	96
August 2011	92.7	94	92	96	88	90	95

*A new survey design was initiated in August 1994. In 2003 the survey was completely redesigned and collected more information on vehicle occupants.

** The 2007 observational study was conducted after the 35W bridge crash.

TABLE 3.02

MOTOR VEHICLE OCCUPANTS KILLED OR INJURED BY EJECTION STATUS AND INJURY SEVERITY, 2011

	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	209	0.8	655	2.6	5,488	21.4	19,271	75.2	25,623	100%
Partly Ejected	14	22.2	8	12.7	25	39.7	16	25.4	63	100%
Ejected	46	12.6	100	27.5	105	28.8	113	31.0	364	100%
Not Stated	2	0.2	33	3.0	219	19.7	858	77.2	1,112	100%
Total	271	1.0%	796	2.9%	5,837	21.5%	20,258	74.6%	27,162	100%

TABLE 3.03

MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2011

Age Group	Killed	Severe	Injured Moderate	Injured Minor	Total
00 - 04	3	5	50	388	443
05 - 09	3	6	65	452	523
10 - 14	5	14	114	492	620
15 - 19	34	119	736	2,293	3,148
20 - 24	42	130	793	2,605	3,528
25 - 29	27	87	633	2,226	2,946
30 - 34	12	58	517	1,817	2,392
35 - 39	11	50	405	1,455	1,910
40 - 44	12	51	417	1,409	1,877
45 - 49	14	57	454	1,480	1,991
50 - 54	18	53	412	1,393	1,858
55 - 59	15	42	295	1,161	1,498
60 - 64	15	38	282	881	1,201
65 - 69	14	31	170	576	777
70 - 74	8	11	142	382	535
75 - 79	12	19	103	284	406
80 - 84	9	7	82	236	325
85 & Older	17	14	65	179	258
Not Stated	0	4	102	549	655
Total	271	796	5,837	20,258	26,891

FIGURE 3.01
Safety Equipment Use Among Motor Vehicle Occupants Killed or Injured, by Age, 2011

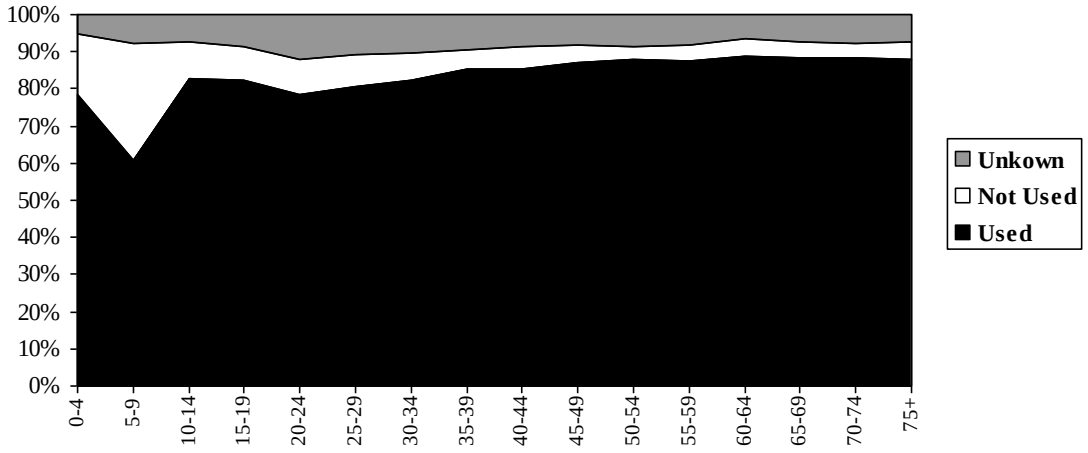

TABLE 3.04

SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS, BY GENDER AND INJURY SEVERITY, 2011

	Killed			Injured						
				Severe		Moderate		Minor		
	Female	Male	Total	Female	Male	Female	Male	Female	Male	Total
Used	59	67	126	252	219	2,569	2,024	10,248	6,942	22,399
Not Used	26	94	120	74	157	237	368	478	542	1,870
Unknown	7	18	25	28	66	256	350	920	883	2,622
Total	92	179	271	354	442	3,062	2,742	11,646	8,367	26,891

Note: Gender was not reported for 278 persons injured (mostly those with minor injuries), causing the "Total" to be 278 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, 2011

Age Group	Restraint Use	No. Killed	Percent Killed	No. Severely Injured	Percent Severely Injured	No. Moderately Injured	Percent of Moderately Injured	No. of Minor Injuries	Percent of Minor Injuries	Total No. Injured	Total Percent Injured
00 - 03	Used	0	0.0	1	33.3	23	59.0	238	84.4	262	80.9
Years	Not Used	2	66.7	2	66.7	12	30.8	32	11.4	46	14.2
	Unknown	1	33.3	0	0.0	4	10.3	12	4.3	16	4.9
	Subtotal	3	100.0	3	100.0	39	100.0	282	100.0	324	100.0
04 – 07	Used	1	50.0	1	16.7	27	52.9	204	55.4	232	54.6
Years	Not Used	1	50.0	5	83.3	22	43.1	134	36.4	161	37.9
	Unknown	0	0.0	0	0.0	2	3.9	30	8.2	32	7.5
	Subtotal	2	100.0	6	100.0	51	100.0	368	100.0	425	100.0
Total	Used	1	20.0	2	22.2	50	55.6	442	68.0	494	66.0
00 - 07	Not Used	3	60.0	7	77.8	34	37.8	166	25.5	207	27.6
Years	Unknown	1	20.0	0	0.0	6	6.7	42	6.5	48	6.4
	Subtotal	5	100.0	9	100.0	90	100.0	650	100.0	749	100.0
00 - 04	Used	0	0.0	2	40.0	31	62.0	316	81.4	349	78.8
Years	Not Used	2	66.7	3	60.0	15	30.0	53	13.7	71	16.0
	Unknown	1	33.3	0	0.0	4	8.0	19	4.9	23	5.2
	Subtotal	3	100.0	5	100.0	50	100.0	388	100.0	443	100.0
05 - 09	Used	2	66.7	1	16.7	38	58.5	279	61.7	318	60.8
Years	Not Used	1	33.3	5	83.3	25	38.5	134	29.6	164	31.4
	Unknown	0	0.0	0	0.0	2	3.1	39	8.6	41	7.8
	Subtotal	3	100.0	6	100.0	65	100.0	452	100.0	523	100.0
10 - 14	Used	2	40.0	9	64.3	90	79.0	417	84.8	516	83.2
Years	Not Used	3	60.0	4	28.6	17	14.9	37	7.5	58	9.4
	Unknown	0	0.0	1	7.1	7	6.1	38	7.7	46	7.4
	Subtotal	5	100.0	14	100.0	114	100.0	492	100.0	620	100.0
15 - 19	Used	11	32.4	70	58.8	567	77.0	1,971	86.0	2,608	82.8
Years	Not Used	20	58.8	38	31.9	93	12.6	143	6.2	274	8.7
	Unknown	3	8.8	11	9.2	76	10.3	179	7.8	266	8.4
	Subtotal	34	100.0	119	100.0	736	100.0	2,293	100.0	3,148	100.0
20 - 24	Used	14	33.3	56	43.1	589	74.3	2,140	82.2	2,785	78.9
Years	Not Used	23	54.8	51	39.2	98	12.4	165	6.3	314	8.9
	Unknown	5	11.9	23	17.7	106	13.4	300	11.5	429	12.2
	Subtotal	42	100.0	130	100.0	793	100.0	2,605	100.0	3,528	100.0
25 - 29	Used	11	40.7	40	46.0	475	75.0	1,876	84.3	2,391	81.2
Years	Not Used	14	51.8	34	39.1	89	14.1	111	5.0	234	7.9
	Unknown	2	7.4	13	14.9	69	10.9	239	10.7	321	10.9
	Subtotal	27	100.0	87	100.0	633	100.0	2,226	100.0	2,946	100.0
30 - 34	Used	1	8.3	37	63.8	385	74.5	1,557	85.7	1,979	82.7
Years	Not Used	10	83.3	14	24.1	68	13.2	79	4.4	161	6.7
	Unknown	1	8.3	7	12.1	64	12.4	181	10.0	252	10.5
	Subtotal	12	100.0	58	100.0	517	100.0	1,817	100.0	2,392	100.0
35 - 39	Used	5	45.4	36	72.0	324	80.0	1,271	87.4	1,631	85.4
Years	Not Used	6	54.6	8	16.0	39	9.6	48	3.3	95	5.0
	Unknown	0	0.0	6	12.0	42	10.4	136	9.4	184	9.6
	Subtotal	11	100.0	50	100.0	405	100.0	1,455	100.0	1,910	100.0

TABLE 3.05 CONTINUED

SAFETY EQUIPMENT USE BY VEHICLE OCCUPANTS KILLED OR INJURED, BY AGE AND INJURY SEVERITY, 2011

Age Group	Restraint Use	No. Killed	Percent Killed	No. Severely Injured	Percent Severely Injured	No. Moderately Injured	Percent of Moderately Injured	No. of Minor Injuries	Percent of Minor Injuries	Total No. In-jured	Total Percent Injured
40 - 44	Used	7	58.3	25	49.0	336	80.6	1,244	88.3	1,605	85.5
Years	Not Used	5	41.7	18	35.3	36	8.6	53	3.8	107	5.7
	Unknown	0	0.0	8	15.7	45	10.8	112	8.0	165	8.8
	Subtotal	12	100.0	51	100.0	417	100.0	1,409	100.0	1,877	100.0
45 - 49	Used	1	7.1	41	71.9	383	84.4	1,318	89.0	1,742	87.5
Years	Not Used	13	92.9	13	22.8	29	6.4	43	2.9	85	4.3
	Unknown	0	0.0	3	5.3	42	9.2	119	8.0	164	8.2
	Subtotal	14	100.0	57	100.0	454	100.0	1,480	100.0	1,991	100.0
50 - 54	Used	10	55.6	40	75.5	346	84.0	1,251	89.8	1,637	88.1
Years	Not Used	6	33.3	11	20.8	23	5.6	31	2.2	65	3.5
	Unknown	2	11.1	2	3.8	43	10.4	111	8.0	156	8.4
	Subtotal	18	100.0	53	100.0	412	100.0	1,393	100.0	1,858	100.0
55 - 59	Used	7	46.7	24	57.1	256	86.8	1,040	89.6	1,320	88.1
Years	Not Used	5	33.3	10	23.8	18	6.1	32	2.8	60	4.0
	Unknown	3	20.0	8	19.0	21	7.1	89	7.7	118	7.9
	Subtotal	15	100.0	42	100.0	295	100.0	1,161	100.0	1,498	100.0
60 - 64	Used	8	53.3	26	68.4	247	87.6	798	90.6	1,071	89.2
Years	Not Used	5	33.3	10	26.3	15	5.3	26	2.9	51	4.2
	Unknown	2	13.3	2	5.3	20	7.1	57	6.5	79	6.6
	Subtotal	15	100.0	38	100.0	282	100.0	881	100.0	1,201	100.0
65 - 69	Used	11	78.6	23	74.2	142	83.5	524	91.0	689	88.7
Years	Not Used	2	14.3	4	12.9	12	7.1	16	2.8	32	4.1
	Unknown	1	7.1	4	12.9	16	9.4	36	6.2	56	7.2
	Subtotal	14	100.0	31	100.0	170	100.0	576	100.0	777	100.0
70 - 74	Used	5	62.5	9	81.8	123	86.6	342	89.5	474	88.6
Years	Not Used	0	0.0	1	9.1	12	8.4	10	2.6	23	4.3
	Unknown	3	37.5	1	9.1	7	4.9	30	7.8	38	7.1
	Subtotal	8	100.0	11	100.0	142	100.0	382	100.0	535	100.0
75 &	Used	31	81.6	29	72.5	213	85.2	635	89.9	877	88.0
Older	Not Used	5	13.2	6	15.0	14	5.6	22	3.1	42	4.2
	Unknown	2	5.3	5	12.5	23	9.2	49	6.9	77	7.7
	Subtotal	38	100.0	40	100.0	250	100.0	706	100.0	996	100.0
Age	Used	0	0.0	3	75.0	73	71.6	331	61.1	407	62.8
Not	Not Used	0	0.0	1	25.0	3	2.9	30	5.5	34	5.2
Stated	Unknown	0	0.0	0	0.0	26	25.5	181	33.4	207	31.9
	Subtotal	0	0.0	4	100.0	102	100.0	542	100.0	648	100.0
All	**Used**	126	46.5	471	59.2	4,618	79.1	17,310	85.4	22,399	83.3
Ages	**Not Used**	120	44.3	231	29.0	606	10.4	1,033	5.1	1,870	7.0
	Unknown	25	9.2	94	11.8	613	10.5	1,915	9.4	2,622	9.8
	Subtotal	271	100.0	796	100.0	5,837	100.0	20,258	100.0	26,891	100.0

Percentages may not sum to 100.0% due to rounding. Persons aged 0 through 3 and 4 through 7 years old are categorized in separate groups because Minnesota law makes special provisions for these age groups.

TABLE 3.06

PERCENT OF KILLED OR INJURED MOTOR VEHICLE OCCUPANTS WHO USED SAFETY EQUIPMENT, BY INJURY SEVERITY AND YEAR, 2002 - 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Killed										
Used	37.9	39.4	39.5	40.2	40.0	41.4	45.2	42.4	48.5	46.5
Not Used	55.0	48.9	51.8	51.2	52.0	48.9	46.2	43.7	41.0	44.3
Unknown	7.2	11.8	8.7	8.6	8.0	9.8	8.6	13.9	10.5	9.2
Injured										
Severe Injuries										
Used	46.0	NA	49.3	49.6	49.9	52.2	51.4	55.2	58.3	59.2
Not Used	34.5	NA	32.8	30.8	32.8	31.6	29.8	27.9	27.2	29.0
Unknown	19.5	NA	17.9	19.6	17.3	16.2	18.8	16.9	14.5	11.8
Moderate Injuries										
Used	65.1	NA	70.3	70.9	69.0	71.6	72.4	74.6	79.1	79.1
Not Used	21.1	NA	17.4	15.9	16.8	15.4	14.8	12.8	10.8	10.4
Unknown	13.8	NA	12.4	13.2	14.2	13.0	12.8	12.6	10.1	10.5
Minor Injuries										
Used	73.7	NA	78.8	80.6	80.2	81.6	81.8	83.0	84.7	85.4
Not Used	10.6	NA	9.7	8.8	8.6	7.6	7.4	6.5	5.5	5.1
Unknown	15.7	NA	11.4	10.6	11.3	10.8	10.8	10.4	9.8	9.5
Total Injured										
Used	69.0	NA	74.8	76.6	76.1	78.0	78.5	80.1	82.7	83.3
Not Used	15.7	NA	13.2	11.7	11.6	10.4	10.0	8.7	7.3	7.0
Unknown	15.3	NA	12.0	11.7	12.3	11.6	11.6	11.2	10.0	9.7

TABLE 3.07

SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY ROADWAY TYPE, 2011

Roadway Type	Used Number	Used Percent	Not Used Number	Not Used Percent	Unknown Number	Unknown Percent	Total Number	Total Percent
Interstate	3,356	91.2	190	5.2	135	3.7	3,681	100.0%
US Trunk Hwy	3,030	87.3	247	7.1	193	5.6	3,470	100.0%
MN Trunk Hwy	4,499	85.6	378	7.2	379	7.2	5,256	100.0%
CSAH	6,275	81.4	608	7.9	822	10.7	7,705	100.0%
County Road	342	75.7	60	13.3	50	11.1	452	100.0%
Township Road	306	64.0	95	19.9	77	16.1	478	100.0%
MSAH	3,239	79.6	241	5.9	589	14.5	4,069	100.0%
Municipal Street	1,445	72.4	162	8.1	388	19.4	1,995	100.0%
Other Road	33	58.9	9	16.1	14	25.0	56	100.0%
Total	22,525	82.9	1,990	7.3	2,647	9.7	27,162	100.0%

CSAH = County State Aid Highway. MSAH = Municipal State Aid Highway

TABLE 3.08

SAFETY EQUIPMENT USE BY MOTOR VEHICLE OCCUPANTS KILLED OR INJURED, BY REGION OF THE STATE, 2011

EMS Region	Percent Used	Percent Not Used	Percent Unknown	Number of People
Metropolitan	83.8	5.1	11.1	15,100
Central	84.6	8.0	7.3	3,717
Northeast	82.6	8.5	8.9	1,552
Northwest	70.8	17.2	12.0	692
South Central	82.8	7.7	9.6	1,201
Southeast	84.4	8.2	7.4	2,354
Southwest	76.2	15.7	8.1	1,440
West Central	78.5	14.4	7.1	1,106
Statewide	82.9	7.3	9.7	27,162

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

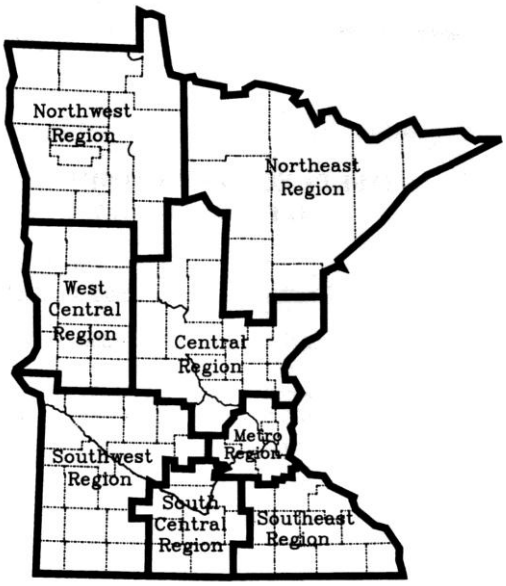

TABLE 3.09

AIRBAG DEPLOYMENTS, 2004 - 2011

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
2004	Killed	85	66	97	173	40	461
	Severe Injury	381	181	560	444	342	1,908
	Moderate Injury	2,526	428	5,073	1,448	1,337	10,812
	Minor Injury	3,801	407	14,878	1,897	2,705	23,688
	No Apparent Injury	7,480	419	110,451	5,523	57,101	180,974
	Total	14,273	1,501	131,059	9,485	61,525	217,843
2005	Killed	74	75	103	150	38	440
	Severe Injury	308	147	457	328	302	1,542
	Moderate Injury	2,172	367	4,117	1,045	1,174	8,875
	Minor Injury	4,195	375	14,846	1,706	2,504	23,626
	No Apparent Injury	7,529	390	109,215	4,714	50,655	172,503
	Total	14,278	1,354	128,738	7,943	54,673	206,986
2006	Killed	80	63	69	131	30	373
	Severe Injury	265	142	398	293	230	1,328
	Moderate Injury	1,917	323	3,491	993	1,114	7,838
	Minor Injury	4,067	351	13,747	1,552	2,504	22,221
	No Apparent Injury	7,130	375	96,018	3,779	44,881	152,183
	Total	13,459	1,254	113,723	6,748	48,759	183,943
2007	Killed	89	76	76	119	39	399
	Severe Injury	294	152	350	237	200	1,233
	Moderate Injury	2,044	338	3,489	850	1,009	7,730
	Minor Injury	4,336	365	13,941	1,334	2,417	22,393
	No Apparent Injury	7,535	361	104,297	3,783	43,270	159,246
	Total	14,298	1,292	122,153	6,323	46,935	191,001
2008	Killed	81	46	66	104	28	325
	Severe Injury	278	113	290	216	207	1,104
	Moderate Injury	1,851	297	3,128	718	879	6,873
	Minor Injury	4,233	341	13,504	1,267	2,345	21,690
	No Apparent Injury	7,594	323	102,417	3,345	36,239	149,918
	Total	14,037	1,120	119,405	5,650	39,698	179,910
2009	Killed	73	57	55	75	42	302
	Severe Injury	251	96	255	160	155	917
	Moderate Injury	1,767	271	3,023	553	809	6,423
	Minor Injury	4,076	272	12,702	1,045	2,111	20,206
	No Apparent Injury	7,318	270	98,055	3,308	31,781	140,732
	Total	13,485	966	114,090	5,141	34,898	168,580
2010	Killed	95	46	53	79	32	305
	Severe Injury	248	76	240	152	121	837
	Moderate Injury	1,807	176	3,096	492	624	6,195
	Minor Injury	4,241	226	13,347	917	2,027	20,758
	No Apparent Injury	7,620	210	101,735	3,055	30,979	143,599
	Total	14,011	734	118,471	4,695	33,783	171,694
2011	Killed	83	51	43	69	25	271
	Severe Injury	268	100	203	131	94	796
	Moderate Injury	1,763	190	2,855	416	613	5,837
	Minor Injury	4,332	234	12,978	799	1,915	20,258
	No Apparent Injury	7,860	243	99,608	2,716	28,078	138,505
	Total	14,306	818	115,687	4,131	30,725	165,667

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

2011 motorcycle crash summary
In the past decade many older people have returned to motorcycling. By the end of the calendar year 2011, the numbers of licensed motorcycle operators and the numbers of registered motorcycles in Minnesota had reached their highest levels in history. As a result, the numbers of overall motorcyclist crashes, fatalities, and injuries had been increasing for many years. In 2011 though, this trend reversed. There were 1,309 crashes that involved at least one motorcycle. This represents a 5% decrease from the previous year.

Motorcyclist fatalities in 2011 decreased 7% (from 45 to 42). Of the 42 killed, 34 were drivers and 8 were passengers. Injuries to motorcyclists decreased 4% (from 1,296 to 1,248). Almost 58% of all motorcyclists killed or injured in 2011 were to people aged 40 and over.

Alcohol use among drivers remains worrisome
State law requires that drivers who die in traffic crashes be tested for blood alcohol level. In 2011, 34 motorcycle drivers were killed and 29 of them were tested. Eight (28%) of the 29 drivers tested positive for alcohol, and 5 of the 29 (17%) tested at .08 or greater.

Greater crash severity
When a motorcycle is involved in a traffic crash, the chances for a fatality are greatly increased. In fact, 3.3 out of every 100 motorcycle crashes in 2011 was a fatal crash. For all crashes in Minnesota, only 0.5 out of every 100 crashes is a fatal crash.

Helmet use
Currently, Minnesota does not have a mandatory helmet use law for motorcyclists 18 or older. Laws may be debated, but the benefits helmets offer are clear, they protect the head in the event of a collision. In 2011, only 13 (31%) of the 42 motorcycle riders killed were known to be wearing a helmet. Of the 1,248 motorcyclists injured, only 488 (39%) were known to be wearing a helmet.

Operator training is essential
In addition to the newly endorsed younger drivers each year, a large number of middle-aged people are returning to motorcycling. The crash data indicates that proper operator training is a must. In 2011, 60% of all motorcycle crashes were single vehicle crashes. A majority of these single vehicle crashes were collisions with fixed objects or simply the motorcycle overturning. In addition, 2011 data indicate that one out of every five motorcycle operators that were involved in a fatal crash did not have a valid endorsement to drive a motorcycle. These facts surely indicate that further training is needed for a large segment of the motorcycle driver population.

Males are most often victims
The motorcycle crash experience in Minnesota remains largely a male one. In 2011, 31 of the 42 motorcyclists killed, and 1,034 of the 1,248 injured, were male. Males account for 83% of all motorcyclists killed or injured.

Contributing factors for motorcyclists
As noted, over half of motorcycle crashes are single-vehicle crashes. In these crashes, the factors that reporting officers cite most often are illegal or unsafe speed (17%), driver inattention or distraction (13%), and driver inexperience (11%). In crashes that involve another motor vehicle, the reporting officers cite following too closely most often for the motorcyclists (20%), and then driver distraction (18%).

Contributing factors for the other drivers
In motorcycle crashes that do involve another 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 (40%), and driver inattention or distraction (20%) are cited most frequently. This clearly indicates that motor vehicle drivers tend to ignore motorcyclists.

TABLE 4.01

MOTORCYCLE CRASH SUMMARY, 1981 – 2011

Year	Motorcycle Crashes				Killed		Injured		Licensed Operators	Registered Motorcycles	Mcy Deaths per 10,000 Reg. Mcy	Fatal Crash Rate Per 100 Crashes	
	Fatal	Injury	PDO*	Total	Mcy	Other	Mcy	Other				For Mcy	For All Crashes
1981	92	2,516	455	3,063	96	0	2,874	196	238,926	166,151	5.8	3.0	0.7
1982	72	2,115	331	2,518	70	6	2,381	189	264,134	159,345	4.4	2.9	0.6
1983	70	2,377	364	2,811	73	0	2,678	191	252,808	155,502	4.7	2.5	0.5
1984	59	2,302	407	2,768	62	1	2,590	207	256,836	153,851	4.0	2.2	0.5
1985	75	2,238	435	2,748	77	1	2,500	204	272,317	151,449	5.1	2.7	0.5
1986	63	1,891	364	2,318	66	0	2,152	142	282,087	141,261	4.7	2.7	0.5
1987	51	1,692	378	2,121	51	3	1,853	145	288,424	134,590	3.8	2.4	0.5
1988	57	1,628	284	1,969	58	4	1,817	126	293,347	128,956	4.5	2.9	0.5
1989	37	1,463	248	1,748	37	0	1,617	104	290,000	123,308	3.0	2.1	0.5
1990	46	1,446	243	1,735	50	2	1,605	126	292,074	120,081	4.2	2.7	0.5
1991	38	1,198	225	1,461	40	0	1,357	104	296,624	117,492	3.4	2.6	0.5
1992	29	1,133	199	1,361	28	3	1,288	60	290,722	116,124	2.4	2.1	0.5
1993	33	1,022	190	1,245	34	3	1,151	104	291,756	114,548	3.0	2.7	0.5
1994	41	1,151	189	1,381	43	0	1,324	66	293,164	113,337	3.8	3.0	0.6
1995	32	941	153	1,126	35	2	1,063	76	295,849	113,981	3.1	2.8	0.5
1996	39	934	158	1,131	42	0	1,046	71	297,102	112,551	3.7	3.4	0.5
1997	23	821	127	971	24	1	916	65	298,863	113,443	2.1	2.4	0.5
1998	41	883	141	1,065	40	1	987	69	301,992	118,275	3.4	3.8	0.6
1999	30	867	127	1,024	29	2	991	64	307,009	122,676	2.4	2.9	0.6
2000	34	935	166	1,135	35	1	1,039	45	311,825	132,352	2.6	3.0	0.5
2001	41	997	175	1,213	42	1	1,094	54	317,421	142,882	2.9	3.4	0.5
2002	47	943	178	1,168	47	0	1,071	46	327,604	149,360	3.1	4.0	0.6
2003	58	NA	NA	NA	62	1	NA	NA	335,862	161,793	3.8	NA	NA
2004	50	1,112	182	1,344	50	1	1,251	67	346,169	174,195	2.9	3.7	0.6
2005	61	1,201	169	1,431	59	4	1,319	72	353,460	185,087	3.2	4.3	0.6
2006	70	1,279	147	1,496	70	0	1,413	79	360,143	197,735	3.5	4.7	0.6
2007	60	1,368	195	1,623	61	0	1,498	67	369,623	209,591	2.9	3.7	0.6
2008	71	1,350	212	1,633	72	0	1,505	62	380,232	224,625	3.2	4.3	0.5
2009	47	1,089	193	1,329	53	0	1,200	53	387,159	226,675	2.3	3.5	0.5
2010	44	1,168	165	1,377	45	2	1,296	58	394,083	229,912	2.0	3.2	0.5
2011	43	1,130	136	1,309	42	2	1,248	45	398,092	232,274	1.8	3.3	0.5
Record High*	112	2,728	537	3,308	121	9	3,359	207	398,092	232,274	7.7	4.7	0.8
(year)	(1980)	(1980)	(1976)	(1980)	(1980)	(1975)	(1980)	(1984)	(2011)	(2011)	(1980)	(2006)	(1970)

* Notes: The abbreviation PDO stands for "property damage only" -- a crash in which no one is killed or injured. The abbreviation Mcy stands for "motorcyclists" or for "motorcycle." The record high shown is for the period of time back to year 1970. For registered classic motorcycles, see Table 3 on page 6.

TABLE 4.02

2011 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	18	432	69	519	17	478
Parked Vehicle	1	10	23	34	1	13
Bicyclist	0	5	0	5	0	2
Pedestrian	0	2	0	2	0	0
Deer	5	88	11	104	5	108
Other Animal	0	15	2	17	0	15
Fixed Object	13	152	8	173	13	164
Non-Collision:						
Overturn/Rollover	4	194	11	209	4	214
Other / Unknown	2	232	12	246	2	254
Total	43	1,130	136	1,309	42	1,248

TABLE 4.03

2011 MOTORCYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
250,000 and Over	2	141	39	182	2	148
100,000 - 249,999	1	19	2	22	1	21
50,000 - 99,999	5	184	15	204	5	191
25,000 - 49,999	6	118	7	131	6	124
10,000 - 24,999	1	161	24	186	1	178
5,000 - 9,999	3	53	9	65	3	57
2,500 - 4,999	1	46	8	55	1	54
1,000 - 2,499	2	20	2	24	2	21
Under 1,000	22	388	30	440	21	454
Total	43	1,130	136	1,309	42	1,248

TABLE 4.04

2011 MOTORCYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Motorcyclists Killed	Motorcyclists Injured
January	0	1	1	2	0	1
February	0	1	0	1	0	1
March	0	7	1	8	0	7
April	2	62	9	73	2	65
May	5	141	16	162	5	150
June	7	209	27	243	6	229
July	9	224	23	256	10	251
August	11	189	31	231	10	216
September	8	159	20	187	8	173
October	0	116	5	121	0	133
November	1	15	3	19	1	16
December	0	6	0	6	0	6
Total	43	1,130	136	1,309	42	1,248

FIGURE 4.01
2011 Motorcycle Crashes by Time of Day

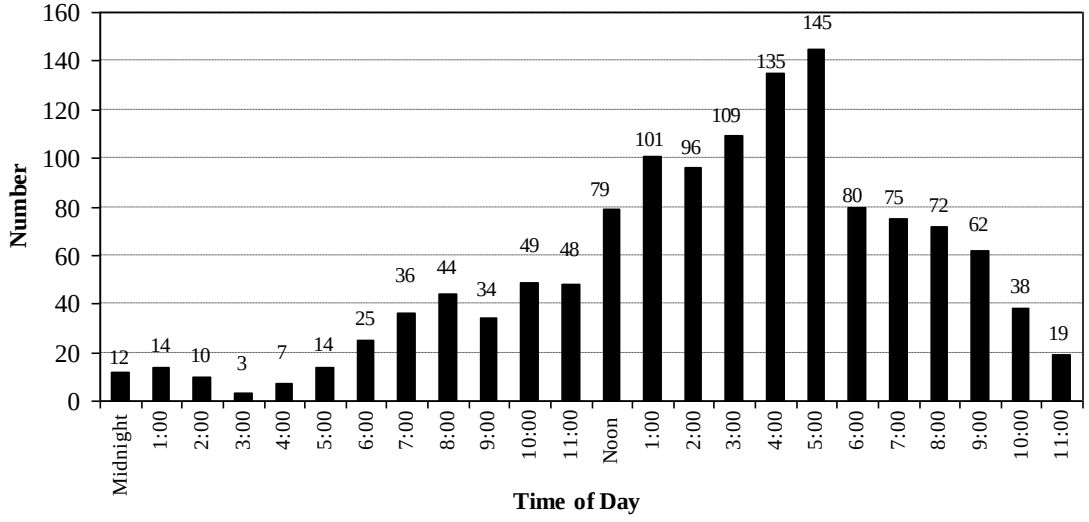

TABLE 4.05

2011 MOTORCYCLE CRASHES BY TIME AND DAY

Hour Beginning	Total Crashes	Fatal Crashes	Sun. All	Sun. Fatal	Mon. All	Mon. Fatal	Tues. All	Tues. Fatal	Wed. All	Wed. Fatal	Thur. All	Thur. Fatal	Fri. All	Fri. Fatal	Sat. All	Sat. Fatal
Mid-night	12	0	3	0	3	0	1	0	0	0	1	0	2	0	2	0
1:00	14	2	2	0	2	0	2	0	3	0	3	0	1	1	1	1
2:00	10	0	4	0	1	0	0	0	0	0	1	0	1	0	3	0
3:00	3	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0
4:00	7	0	0	0	2	0	1	0	1	0	0	0	3	0	0	0
5:00	14	0	2	0	3	0	2	0	2	0	3	0	1	0	1	0
6:00	25	2	0	0	0	0	2	0	13	1	5	1	4	0	1	0
7:00	36	1	0	0	4	0	6	0	9	0	4	0	9	0	4	1
8:00	44	2	5	0	10	0	6	0	7	0	8	1	2	1	6	0
9:00	34	0	2	0	5	0	4	0	3	0	6	0	4	0	10	0
10:00	49	4	7	0	8	0	1	0	5	1	5	0	8	2	15	1
11:00	48	0	8	0	8	0	3	0	6	0	5	0	8	0	10	0
Noon	79	5	14	2	8	1	8	1	14	0	7	0	10	1	18	0
1:00	101	2	21	0	11	0	6	1	3	0	14	1	23	0	23	0
2:00	96	3	20	0	9	1	9	0	9	1	9	0	14	1	26	0
3:00	109	3	13	0	10	0	11	0	11	1	17	0	19	0	28	2
4:00	135	4	26	1	13	0	18	1	18	1	15	1	20	0	25	0
5:00	145	4	30	0	19	1	23	0	14	1	28	0	17	1	14	1
6:00	80	2	12	1	11	0	9	0	9	0	8	0	11	1	20	0
7:00	75	4	11	0	17	1	2	0	13	1	14	0	8	1	10	1
8:00	72	5	7	0	12	0	5	0	11	0	14	1	12	1	11	3
9:00	62	0	4	0	9	0	6	0	14	0	9	0	8	0	12	0
10:00	38	0	4	0	7	0	4	0	5	0	6	0	5	0	7	0
11:00	19	0	4	0	1	0	2	0	1	0	1	0	4	0	6	0
Unk	2	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Total	1,309	43	201	4	173	4	131	3	172	7	183	5	194	10	255	10

TABLE 4.06

MOTORCYCLISTS KILLED OR INJURED BY AGE AND GENDER, 2011

				Injured											
	Killed			Severe			Moderate			Minor			Total		
Age Group	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**
00 – 04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05 – 09	0	0	0	0	0	0	0	0	0	0	2	2	0	2	2
10 – 14	0	0	0	0	0	0	3	1	4	0	3	3	3	4	7
15 – 19	1	0	1	7	1	8	14	3	17	17	2	19	38	6	44
20 – 24	2	0	2	14	0	14	63	12	75	47	7	54	124	19	143
25 – 29	2	2	4	16	2	18	59	10	69	44	6	50	119	18	137
30 – 34	5	0	5	11	1	12	47	7	54	31	8	39	89	16	105
35 – 39	1	1	2	7	1	8	32	8	40	35	5	40	74	14	88
40 – 44	4	0	4	20	8	28	57	7	64	33	8	41	110	23	133
45 – 49	2	2	4	22	9	31	57	17	74	39	18	57	118	44	162
50 – 54	4	3	7	22	6	28	61	16	77	40	9	49	123	31	154
55 – 59	4	1	5	16	2	18	52	6	58	30	11	41	98	19	117
60 – 64	5	2	7	15	1	16	40	3	43	25	6	31	80	10	90
65 – 69	1	0	1	3	0	3	16	3	19	11	2	13	30	5	35
70 & Older	0	0	0	7	1	8	12	1	13	5	0	5	24	2	26
Not Stated	0	0	0	0	0	0	1	0	1	3	1	4	4	1	5
Total	31	11	42	160	32	192	514	94	608	360	88	448	1,034	214	1,248

FIGURE 4.02
Motorcyclists Killed or Injured by Age and Gender, 2011

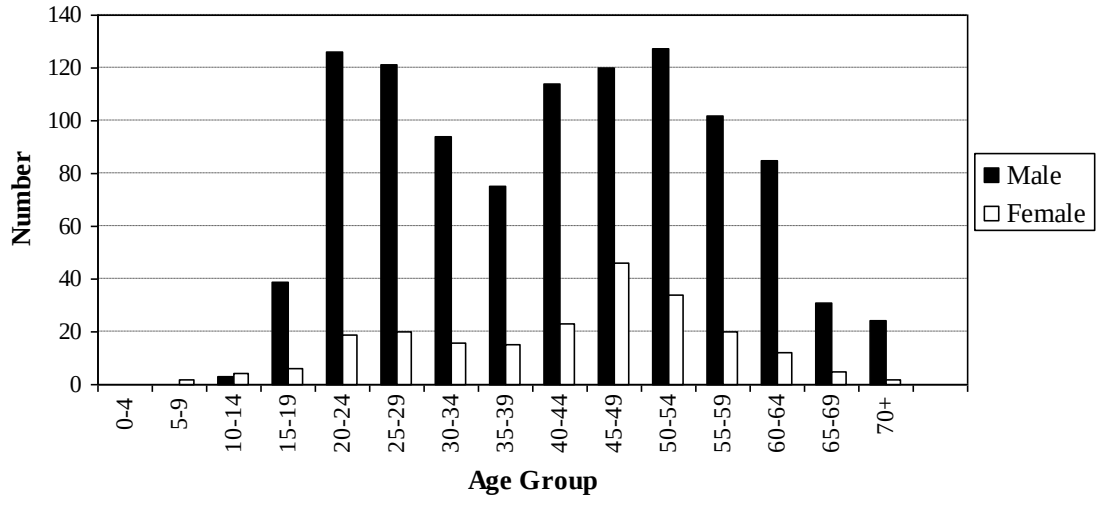

TABLE 4.07

HELMET USE BY MOTORCYCLISTS KILLED OR INJURED, 2002 - 2011

	Year	Number Used Helmet	Percent Used Helmet	Number Did NOT use Helmet	Percent Did NOT use Helmet	Number of Unknown Helmet Use	Percent of Unknown Helmet Use	Number	Percent
Killed	2002	6	12.8	30	63.8	11	23.4	47	100.0
	2003	18	29.0	36	58.1	8	12.9	62	100.0
	2004	14	28.0	29	58.0	7	14.0	50	100.0
	2005	18	30.5	34	57.6	7	11.9	59	100.0
	2006	15	21.4	53	75.7	2	2.9	70	100.0
	2007	11	18.0	45	73.8	5	8.2	61	100.0
	2008	12	16.7	53	73.6	7	9.7	72	100.0
	2009	11	20.8	37	69.8	5	9.4	53	100.0
	2010	12	26.7	26	57.8	7	15.6	45	100.0
	2011	13	31.0	23	54.8	6	14.3	42	100.0

	Year	Number Used Helmet	Percent Used Helmet	Number Did NOT use Helmet	Percent Did NOT use Helmet	Number of Unknown Helmet Use	Percent of Unknown Helmet Use	Number	Percent
Injured	2002	350	32.7	534	49.9	187	17.5	1,071	100.0
	2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	2004	418	33.4	477	38.1	356	28.5	1,251	100.0
	2005	412	31.2	530	40.2	377	28.6	1,319	100.0
	2006	481	34.0	544	38.5	388	27.5	1,413	100.0
	2007	554	37.0	520	34.7	424	28.3	1,498	100.0
	2008	539	35.8	569	37.8	397	26.4	1,505	100.0
	2009	452	37.7	432	36.0	316	26.3	1,200	100.0
	2010	483	37.3	468	36.1	345	26.6	1,296	100.0
	2011	488	39.1	447	35.8	313	25.1	1,248	100.0

TABLE 4.08

ENDORSEMENT STATUS OF MOTORCYCLE OPERATORS INVOLVED IN FATAL CRASHES, 2002 - 2011

	Valid Endorsement		Permit Only		Canceled, Suspended, Revoked		No Endorsement		Total** for Year	
Year	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2002	38	79.2	0	0.0	5	10.4	5	10.4	48	100.0
2003	45	73.8	2	3.3	5	8.2	9	14.8	61	100.0
2004	45	83.3	1	1.9	0	0.0	8	14.8	54	100.0
2005	51	81.0	2	3.2	5	7.9	4	6.3	63	100.0
2006	59	83.1	1	1.4	3	4.2	4	5.6	71	100.0
2007	49	81.7	0	0.0	4	6.7	5	8.3	60	100.0
2008	57	79.2	0	0.0	5	6.9	8	11.1	72	100.0
2009	39	79.6	0	0.0	1	2.0	8	16.3	49	100.0
2010	38	77.6	0	0.0	5	10.2	5	10.2	49	100.0
2011	38	84.4	0	0.0	3	6.7	4	8.9	45	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 KILLED MOTORCYCLE DRIVERS, 2002 – 2011

Year	Killed	Tested	Alcohol Concentration* (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 – 09)	Alcohol Concentration * (.10 or more)
2002	41	40	24 (60%)	2 (5%)	1 (3%)	13 (32%)
2003	53	46	27 (59%)	4 (9%)	2 (4%)	13 (28%)
2004	46	37	27 (73%)	3 (8%)	0 (0%)	7 (19%)
2005	55	51	28 (55%)	8 (16%)	1 (2%)	14 (27%)
2006	66	61	42 (69%)	1 (2%)	1 (2%)	17 (28%)
2007	58	52	34 (65%)	3 (6%)	1 (2%)	14 (27%)
2008	65	59	31 (53%)	3 (5%)	2 (3%)	23 (39%)
2009	45	42	25 (60%)	6 (14%)	2 (5%)	9 (21%)
2010	42	40	25 (63%)	1 (2%)	1 (2%)	13 (32%)
2011	34	29	21 (72%)	2 (7%)	1 (3%)	5 (17%)

*Percentages are based on those motorcycle drivers tested.

TABLE 4.10

2011 MOTORCYCLE DRIVER FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

			Alcohol Concentration									
Age	Killed	Tested	.01-.07	.08-.09	.10+	.00	.01-.04	.05-.09	.10-.14	.15-.19	.20.24	.25 and Over
14 & Younger	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	1	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
Under 21	1	0	0	0	0	0	0	0	0	0	0	0
14 & Younger	0	0	0	0	0	0	0	0	0	0	0	0
15 – 19	1	0	0	0	0	0	0	0	0	0	0	0
20 – 24	2	2	1	0	1	0	1	0	0	0	1	0
25 – 29	3	3	0	0	1	2	0	0	0	0	1	0
30 – 34	5	5	0	0	1	4	0	0	0	1	0	0
35 – 39	2	1	0	0	0	1	0	0	0	0	0	0
40 – 44	4	3	0	0	0	3	0	0	0	0	0	0
45 – 49	2	2	0	0	0	2	0	0	0	0	0	0
50 – 54	4	4	1	0	1	2	1	0	0	0	1	0
55 – 59	4	3	0	0	1	2	0	0	0	1	0	0
60 & Older	7	6	0	1	0	5	0	1	0	0	0	0
Total	34	29	2	1	5	21	2	1	0	2	3	0

TABLE 4.11

CONTRIBUTING FACTORS IN 2011 MOTORCYCLE CRASHES

	Single Vehicle Crashes		*Multi-Vehicle Crashes*			
	Attributed to Motorcycle Drivers		**Attributed to Motorcycle Drivers**		**Attributed to Other Drivers**	
Contributing Factors	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Human Factors:						
Illegal/Unsafe Speed	118	16.5%	42	14.0%	6	1.4%
Driver Inattention/Distraction	92	12.9	55	18.3	81	19.5
Driver Inexperience	80	11.2	12	4.0	5	1.2
Chemical Impairment	54	7.6	9	3.0	4	1.0
Overcorrecting	34	4.8	3	1.0	0	0.0
Improper/Unsafe Lane Use	27	3.8	10	3.3	29	7.0
Following Too Closely	19	2.7	60	20.0	23	5.5
Non-Motorist Error	8	1.1	0	0.0	0	0.0
Improper Park/Start/Stop	8	1.1	4	1.3	7	1.7
Improper Turn	7	1.0	3	1.0	31	7.5
Vision Obscured	3	0.4	5	1.6	9	2.1
Improper Passing/Overtaking	2	0.3	25	8.3	3	0.7
Disregard Traf Control Device	2	0.3	8	2.7	10	2.4
Failure To Yield Right of Way	2	0.3	29	9.7	164	39.5
Driving Left of Center	2	0.3	6	2.0	3	0.7
Impeding Traffic	1	0.1	1	0.3	1	0.2
Driver on Phone/CB/Radio	0	0.0	0	0.0	1	0.2
Improper/No Signal	0	0.0	2	0.7	2	0.5
Unsafe Backing	0	0.0	0	0.0	5	1.2
Failure To Use Lights	0	0.0	0	0.0	0	0.0
Other Human Factor	29	4.1	5	1.7	12	2.9
Vehicular Factors:						
Skidding	71	9.9	4	1.3	0	0.0
Defective Tires	15	2.1	0	0.0	0	0.0
Defective Brakes	4	0.6	1	0.3	2	0.5
Other Vehicular Factors	16	2.2	2	0.7	4	0.9
Miscellaneous Factors:						
Weather Conditions	7	1.0	2	0.7	2	0.5
Other	114	15.9	12	4.0	11	2.7
Total	715	100.0%	300	100.0%	415	100.0%
Vehicles for Which There Was "No Clear Cont. Factor"	239		289		208	
Total Number of Drivers	795		548		534	

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

Truck crashes decrease

In 2011, there were 4,025 truck-involved traffic crashes reported to the Department of Public Safety. This represents a 4% decrease from the previous year. There were 48 fatal truck crashes, killing a total of 51 people. In addition, there were 1,219 people injured in truck-related crashes.

Fatalities and injuries are mostly in other vehicles

In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only four of the 51 people killed in truck-involved crashes were in trucks. The other 47 deaths included seven pedestrians, two motorcyclists, two bicyclists, one person in a farm equipment vehicle, and 35 persons in cars, SUVs, pickups, or vans. Of the 1,219 people injured, only 263 (22%) were truck occupants.

Contributing factors in truck crashes

Table 5.03 in this Section reveals that contributing factors cited by officers are very similar for truck and non-truck drivers. For example, driver inattention or distraction was most frequently cited for truck drivers (21% of the time) as well as for non-truck drivers (20% of the time). However, non-truck drivers drive too fast and fail to yield more often than truck drivers. Illegal or unsafe speed was reported for 12% of the other vehicles but only 7% of the trucks. And, failure to yield was reported for 14% of the other vehicles but only 9% of the trucks. For the other motorists, and even more so for the truck drivers, it is quite rare that officers report the presence of any type of chemical impairment such as the use of alcohol or drugs. Less than 1% of the truckers and 2% of the drivers of other vehicles were reported as having some such impairment.

Truck crashes are workday occurrences

Truck crashes are strongly tied to the workday. In 2011, only 422 (10%) of truck crashes occurred on either a Saturday or Sunday. And, Figure 5.01 in this Section reveals that a vast majority of truck crashes occur during daytime work hours.

Driving conditions

Driving conditions can vary from day to day in Minnesota, but most truck crashes occurred on dry roads in clear weather. Only 23% of the fatal crashes and 30% of the injury crashes occurred on road surfaces reported to be wet, or to be covered with snow or slush, or with ice or packed snow.

Crash severity increases in rural areas.

For this report, "rural" is defined as an area that has less than 5,000 population. Probably because high speeds are more often possible in the rural open countryside, crashes there are more severe. 69% of fatal and 44% of truck-related injury crashes occurred in the rural areas of Minnesota.

TABLE 5.01

TRUCK CRASH SUMMARY, 2002 - 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Crashes	**4,409**	**NA**	**5,521**	**5,313**	**4,558**	**4,631**	**4,344**	**3,653**	**4,181**	**4,025**
Fatal Crashes	76	71	70	66	62	71	64	47	77	48
Persons Killed	87	78	79	78	65	90	74	58	93	51
Injury Crashes	1,179	NA	1,401	1,315	1,156	1,144	1,056	889	1,005	916
Severe	82	NA	107	96	89	83	72	68	71	59
Moderate	449	NA	443	377	323	334	295	288	270	265
Minor	648	NA	851	842	744	727	689	533	664	592
Persons Injured	1,674	NA	1,935	1,753	1,544	1,745	1,425	1,162	1,385	1,219
Severe	115	NA	131	116	104	130	89	88	90	70
Moderate	597	NA	585	481	415	508	388	359	358	323
Minor	962	NA	1,219	1,156	1,025	1,107	948	715	937	826
PDO Crashes	3,154	NA	4,050	3,932	3,340	3,416	3,224	2,717	3,099	3,061

TABLE 5.02

PERSONS KILLED OR INJURED IN 2011 TRUCK CRASHES BY VEHICLE OCCUPIED

Vehicle Type	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total Injured
Automobile	26	33	143	360	562
Pickup Truck	5	12	16	67	100
SUV	3	6	28	94	131
Van	1	3	20	69	93
Pedestrian	7	4	5	9	25
Bicycle	2	0	5	8	15
Motorcycle	2	1	4	7	14
Snowmobile	0	1	0	0	1
Ambulance	0	0	3	1	4
Police/Fire Vehicle	0	0	6	4	10
Roadway Maintenance Vehicle	0	0	6	15	21
Farm Equipment	1	0	0	0	1
Taxicab	0	0	0	1	1
School Bus	0	0	0	12	12
Bus-Non School	0	0	5	7	12
Two-Axle, Six-Tire, Single Unit Truck	2	3	13	38	56
Three or More Axle Single Unit Truck	0	1	11	19	31
Single Unit Truck with Trailer	0	0	6	10	16
Truck Tractor with No Trailer	0	0	4	2	6
Truck Tractor with Semi Trailer	2	5	44	93	144
Truck Tractor with Twin Trailers	0	0	1	1	2
Heavy Truck--Other or Unknown Type	0	1	2	7	10
Other or Unknown Vehicle Type	0	0	1	2	3
Total	51	70	323	826	1,270

TABLE 5.03

CONTRIBUTING FACTORS IN 2011 TRUCK CRASHES

Contributing Factors	Number Attributed to Truck Vehicles	Percent Attributed to Truck Vehicles	Number Attributed to Non-Truck Vehicles	Percent Attributed to Non-Truck Vehicles
Human Factors				
Driver Inattention/Distraction	581	20.6%	516	20.2%
Improper or Unsafe Lane Use	286	10.1	272	10.7
Failure to Yield Right of Way	240	8.5	351	13.8
Following Too Closely	208	7.4	161	6.3
Illegal/Unsafe Speed	204	7.2	292	11.5
Unsafe Backing	172	6.1	16	0.6
Improper Turn	161	5.7	49	1.9
Improper Passing or Overtaking	62	2.2	101	4.0
Disregarding Traffic Control Device	59	2.1	82	3.2
Vision Obscured-Windshield	58	2.1	52	2.0
Improper Parking, Starting, or Stopping	37	1.3	32	1.3
Overcorrecting	36	1.3	37	1.5
Driver Inexperience	28	1.0	42	1.6
Driving Left of Center	10	0.4	42	1.6
Impeding Traffic	8	0.3	14	0.5
Improper/No Signal	7	0.2	5	0.2
Chemical Impairment	6	0.2	41	1.6
Driver on Phone/CB/2-Way Radio	3	0.1	3	0.1
Failure to Use Lights	0	0.0	6	0.2
Non-Motorist Error	0	0.0	9	0.4
Other Human Factors	76	2.7	67	2.6
Vehicular Factors				
Skidding	70	2.5	77	3.0
Defective Brakes	60	2.1	16	0.6
Oversize/Overweight Vehicle	40	1.4	5	0.2
Other Vehicular Factor	62	2.2	20	0.8
Miscellaneous Factors				
Weather	166	5.9	137	5.4
Other	181	6.4	104	4.1
Total Contributing Factors Cited	2,821	100.0%	2,549	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	1,808		1,597	
Total Number of Vehicles	4,180		3,638	

Zero, one, or two contributing factors may be associated with each vehicle. This may result in the sum of the factors cited to differ from the number of vehicles. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding. Bicyclists and pedestrians are included in the "non-truck vehicles" columns in this table. Human factors with a frequency of less than one-tenth of one percent are merged into the category "other human factors."

TABLE 5.04

AGE OF TRUCK DRIVERS IN 2011 CRASHES

Driver Age	Truck or Truck Tractor	Truck with Semi-Trailer	Truck with Twin Trailer	Truck with Other Trailer	Total
10 – 14	0	0	0	0	0
15 – 19	15	10	0	2	27
20 – 24	106	67	0	20	193
25 - 29	154	146	5	22	327
30 - 34	213	166	1	30	410
35 - 39	194	175	4	34	407
40 - 44	205	234	4	38	481
45 - 49	265	289	4	30	588
50 - 54	205	324	4	27	560
55 - 59	154	260	2	24	440
60 - 64	82	188	6	12	288
65 & Older	58	129	0	12	199
Not Stated	48	62	1	9	120
Total*	1,699	2,050	31	260	4,040

* There were 4,181 trucks involved in 2011 crashes. Table 5.04 tabulates the ages of drivers for the remaining 4,040 trucks where it was possible to identify a driver.

TABLE 5.05

DRIVERS IN 2011 TRUCK CRASHES BY PHYSICAL CONDITION*

Physical Condition	Number of Truck Drivers	Percent of Truck Drivers	Number of Other Drivers	Percent of Other Drivers
Normal	3,736	92.5%	3,072	91.5 %
Fatigued/Asleep	16	0.4	13	0.4
Under the Influence	8	0.2	44	1.3
Had Been Drinking	2	0.1	9	0.3
Commercial Driver > .04 BAC	1	0.0	0	0.0
Ill	1	0.0	2	0.1
Had Been Using Drugs	0	0.0	4	0.1
Physical Disability	0	0.0	4	0.1
Aggressive	0	0.0	2	0.1
Other	8	0.2	8	0.2
Unknown	114	2.8	88	2.6
Total **	4,181	100.0%	3,359	100.0%

* As noted by police officer on accident report.

** There were 4,181 trucks involved in 2011 crashes. This table tabulates the apparent physical condition of drivers for the remaining 4,040 trucks where it was possible to identify a driver. Similarly, there were 3,596 non-truck motor vehicles involved in 2011 truck crashes. The condition of the identifiable 3,359 non-truck drivers is presented here. Totals may not add up because they include values for drivers "left blank" and "not applicable."

TABLE 5.06

2011 TRUCK CRASHES BY FIRST HARMFUL EVENT

First Harmful Event Collision With:	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Other Motor Vehicle	36	689	2,213	2,938	39	955
Parked Motor Vehicle	0	31	286	317	0	48
Train	0	4	7	11	0	4
Bicycle	2	13	1	16	2	13
Pedestrian	7	16	0	23	7	16
Deer	0	0	15	15	0	0
Other Animal	0	1	9	10	0	1
Fixed Object	2	49	274	325	2	58
Non-Collision:						
Overturn	1	95	127	223	1	104
Fire or Explosion	0	0	6	6	0	0
Jackknife	0	2	40	42	0	2
Runaway Car	0	0	1	1	0	0
Other Non-Collision	0	5	22	27	0	6
Other/Unknown	0	11	60	71	0	12
Total	48	916	3,061	4,025	51	1,219

TABLE 5.07

2011 TRUCK CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	2	96	404	502	3	123
February	7	96	332	435	7	127
March	4	67	236	307	6	90
April	2	42	167	211	2	51
May	4	58	202	264	4	77
June	2	74	272	348	2	100
July	4	68	222	294	4	90
August	5	76	250	331	5	108
September	8	92	245	345	8	132
October	6	91	258	355	6	121
November	2	79	264	345	2	98
December	2	77	209	288	2	102
Total	48	916	3,061	4,025	51	1,219

TABLE 5.08

2011 TRUCK CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	10	11	15	19	14	13	11	93
3:00 - 5:59 AM	10	24	22	17	14	22	18	127
6:00 - 8:59 AM	11	146	151	142	156	102	33	741
9:00 - 11:59 AM	28	198	178	158	166	161	59	948
Noon - 2:59 PM	18	172	171	155	145	169	69	899
3:00 - 5:59 PM	34	156	120	131	121	151	45	758
6:00 - 8:59 PM	16	74	50	47	45	41	23	296
9:00 - 11:59 PM	18	19	29	21	23	28	18	156
Unknown	0	0	2	1	2	1	1	7
Total	145	800	738	691	686	688	277	4,025

FIGURE 5.01
2011 Truck Crashes by Time of Day

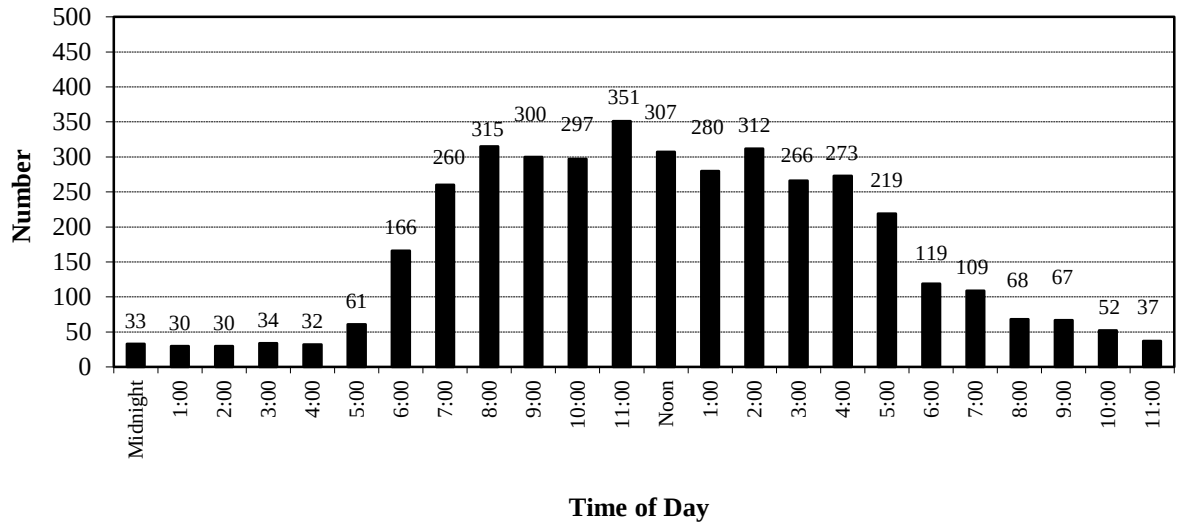

TABLE 5.09

2011 TRUCK CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Dry	35	636	2,020	2,691	36	855
Wet	5	97	341	443	6	125
Snow	2	69	254	325	2	83
Slush	1	9	64	74	1	12
Ice or Packed Snow	3	100	353	456	4	137
Water Standing/Moving	0	0	2	2	0	0
Debris	0	0	3	3	0	0
Other	1	5	14	20	1	7
Unknown	0	0	6	6	0	0
Left Blank	1	0	4	5	1	0
Total	48	916	3,061	4,025	51	1,219

TABLE 5.10

2011 TRUCK CRASHES BY WEATHER CONDITION

Weather Condition	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Clear	32	511	1,752	2,295	34	690
Cloudy	6	241	784	1,031	7	305
Rain	1	24	115	140	1	33
Snow	2	96	294	392	2	122
Sleet/Hail/Freezing Rain	1	8	32	41	1	12
Fog/Smog/Smoke	4	15	14	33	4	20
Blowing Sand/Dust/Snow	1	13	48	62	1	28
Severe Cross Winds	0	3	7	10	0	3
Other	0	2	2	4	0	2
Unknown	0	3	10	13	0	4
Left Blank	1	0	3	4	1	0
Total	48	916	3,061	4,025	51	1,219

TABLE 5.11

2011 TRUCK CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
250,000 & Over	5	123	646	774	6	173
100,000 – 249,999	0	7	35	42	0	8
50,000 - 99,999	4	124	491	619	4	171
25,000 - 49,999	0	85	342	427	0	108
10,000 - 24,999	4	123	459	586	4	157
5,000 - 9,999	2	47	135	184	2	59
2,500 - 4,999	1	34	136	171	1	51
1,000 - 2,499	3	19	80	102	3	23
Under 1,000	29	354	737	1,120	31	469
Total	48	916	3,061	4,025	51	1,219

TABLE 5.12

2011 TRUCK CRASHES BY TYPE OF ROADWAY

Roadway Type	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Interstate Highway	7	225	779	1,011	8	303
US Trunk Highway	10	148	473	631	10	203
State Trunk Highway	20	219	484	723	21	292
County State-Aid Highway	6	190	548	744	7	257
County Road	0	11	18	29	0	11
Township Road	1	16	33	50	1	18
Local Street	3	104	701	808	3	130
Other Road	1	3	25	29	1	5
Total	48	916	3,061	4,025	51	1,219

VI: PEDESTRIAN CRASHES

This section deals with motor vehicle crashes that injure or kill pedestrians. Prior to 1984, a crash was defined as a pedestrian crash only if the pedestrian was the first "object" struck by a motor vehicle. Since 1984, a pedestrian crash is defined as any crash where a pedestrian is struck and injured or killed.

Overall, pedestrian crashes increase
In 2010, there were 808 crashes in which a pedestrian was injured or killed by a motor vehicle. In 2011, that number increased to 857, a six percent increase from the previous year.

Deaths and injuries increase
In 2010, 36 pedestrians were killed and 824 pedestrians were injured. In 2011, 40 pedestrians were killed and 859 pedestrians were injured. Five percent of all pedestrian crashes resulted in a death, compared to one-half of 1% of all traffic crashes resulting in a death.

Males at greater risk
Persons less than 25 years of age accounted for 18% of the pedestrians killed, but 40% of pedestrians injured. Male pedestrians were more likely than females to be killed: males accounted for 73% of all pedestrian fatalities.

Urban/rural areas and time of day
In 2011, 91% of pedestrian crashes occurred in urban areas (defined as areas with populations over 5,000). Three out of ten (30%) pedestrian crashes occurred during the weekday rush hour driving time periods - the rush hour driving time period is defined as Monday through Friday 6:00-9:00 a.m. and 3:00-6:00 p.m. Nearly one out of five (18%) pedestrian crashes occurred during the evening hours 9:00-6:00am.

Prior actions of vehicles
Nearly half (46%) of all motor vehicles involved in pedestrian crashes and over three out of four (78%) involved in fatal pedestrian crashes in 2011 were going straight ahead on the roadway prior to the crash. Three out of ten (30%) of all motor vehicles involved in pedestrian crashes were making a right or left turn.

Prior actions of pedestrians
Twenty-eight percent of pedestrians killed and 24% of pedestrians injured were trying to cross a road at an area with no crosswalk and no signal. However, 15% of pedestrians injured were crossing the road at a signaled intersection and were crossing with the signal.

Contributing factors
For 35% of all motor vehicle drivers in all pedestrian crashes, the reporting officer indicated that driver failure to yield right of way was a contributing factor. The second most cited contributing factor was driver inattention or distraction (24%). Obscured vision was a factor in 9% of all pedestrian crashes.

Drinking pedestrian fatalities
Of the 40 pedestrians killed, 33 were tested for the presence of alcohol in their blood system. Of those tested, over one out of four (27%) had blood alcohol concentrations (BACs) of .10 or higher. Forty-four percent of killed pedestrians with BACs .10 or higher were 20–24-years-old, and another 40% were 55-69-years-old. Two out of three (67%) pedestrians killed with BACs of .10 or higher were killed 9:00pm-3:00am.

TABLE 6.01

PEDESTRIAN CRASH SUMMARY, 2002 - 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Pedestrian Crashes	1,151	NA	963	938	915	957	860	883	808	857
Pedestrians Killed	50	52	37	44	38	33	25	41	36	40
Pedestrians Injured	1,149	NA	976	936	906	975	867	880	824	859

TABLE 6.02

PEDESTRIANS KILLED OR INJURED BY AGE AND GENDER, 2011

	Killed			Severely Injured			Moderately Injured			Minor Injuries			Total Injuries		
Age Group	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total***
00 - 04	0	0	0	1	0	1	5	2	7	7	5	12	13	7	20
05 - 09	0	0	0	3	0	3	6	7	13	20	12	32	29	19	48
10 - 14	0	0	0	5	1	6	8	11	19	14	13	27	27	25	52
15 - 19	1	1	2	5	7	12	27	15	42	29	29	58	61	51	112
20 - 24	4	1	5	3	4	7	21	18	39	27	39	66	51	61	112
25 - 29	3	1	4	4	2	6	9	14	24	21	27	48	34	43	78
30 - 34	0	0	0	5	1	6	13	4	17	20	16	36	38	21	59
35 - 39	1	1	2	4	2	7	11	7	18	8	7	15	23	16	40
40 - 44	2	0	2	3	4	7	11	8	19	21	7	28	35	19	54
45 - 49	3	1	4	4	5	9	10	5	15	15	13	28	29	23	52
50 - 54	1	0	1	4	1	5	14	14	28	12	10	22	30	25	55
55 - 59	4	0	4	6	1	7	4	7	11	15	9	24	25	17	42
60 - 64	4	0	4	1	2	3	8	7	15	11	13	24	20	22	42
65 - 69	2	2	4	0	1	1	2	7	9	3	6	9	5	14	19
70 - 74	1	1	2	1	1	2	3	7	10	5	1	6	9	9	18
75 - 79	1	2	3	1	1	2	2	3	5	0	7	7	3	11	14
80 - 84	1	0	1	3	2	5	0	0	0	6	1	7	9	3	12
85 & Older	1	1	2	1	0	1	2	1	3	1	1	2	4	2	6
Not Stated	0	0	0	3	1	5	2	5	8	4	2	11	9	8	24
Total	29	11	40	57	36	95	158	142	302	239	218	462	454	396	859

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

FIGURE 6.01
Pedestrian Fatalities by Age Group, 2002-2011 Combined

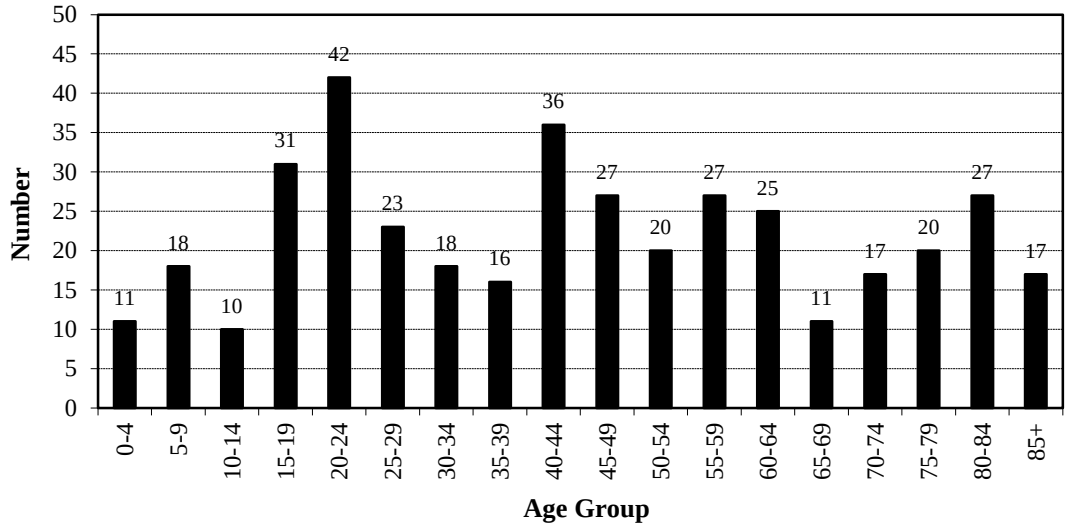

FIGURE 6.02
Pedestrians Killed or Injured by Age and Gender, 2011

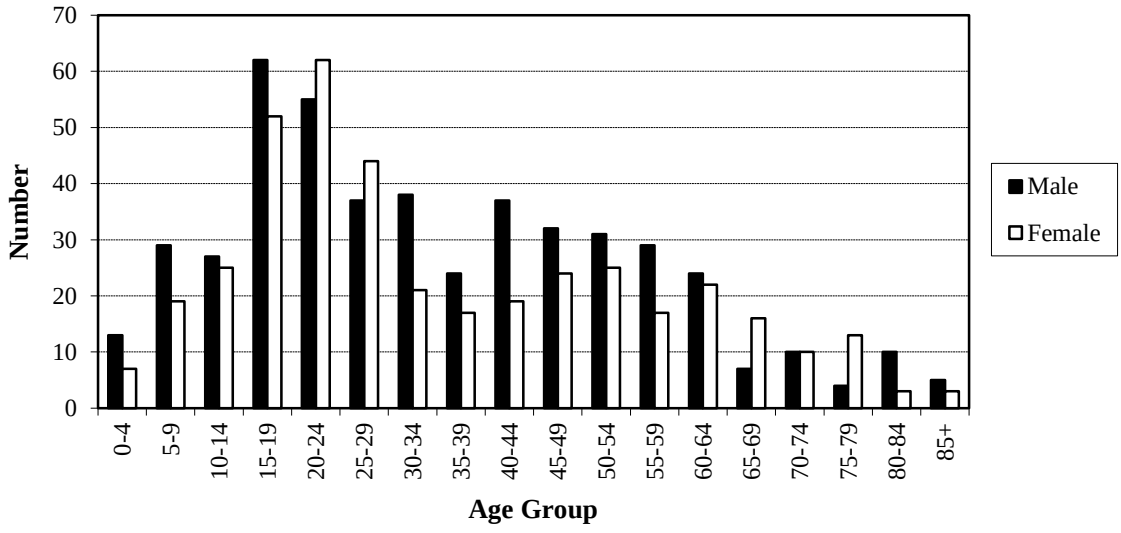

TABLE 6.03

2011 PEDESTRIAN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
January	1	66	67	1	68
February	3	68	71	3	74
March	2	51	53	2	52
April	1	55	56	1	58
May	0	62	62	0	67
June	4	64	68	4	65
July	6	58	64	6	61
August	2	62	64	2	65
September	5	70	75	4	79
October	5	81	86	6	85
November	4	88	92	4	91
December	7	92	99	7	94
Total	40	817	857	40	859

TABLE 6.04

2011 PEDESTRIAN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Total Crashes	Pedestrians Killed	Pedestrians Injured
250,000 and Over	11	423	434	11	440
100,000 - 249,999	0	17	17	0	18
50,000 - 99,999	4	106	110	5	109
25,000 - 49,999	4	80	84	4	83
10,000 - 24,999	6	107	113	6	112
5,000 - 9,999	3	22	25	3	22
2,500 - 4,999	1	14	15	1	17
1,000 - 2,499	0	14	14	0	14
Under 1,000	11	34	45	10	44
Total	40	817	857	40	859

TABLE 6.05

2011 PEDESTRIAN CRASHES BY TIME AND DAY

Time of Day	Fatal Crashes	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	5	12	7	2	3	4	3	13	44
3:00 - 5:59 AM	3	6	1	1	3	3	0	5	19
6:00 - 8:59 AM	6	0	17	12	28	26	13	7	103
9:00 - 11:59 AM	3	5	21	12	9	17	13	17	94
Noon - 2:59 PM	3	13	26	19	14	15	24	26	137
3:00 - 5:59 PM	2	16	28	32	38	30	29	19	192
6:00 - 8:59 PM	10	18	20	25	27	29	33	24	176
9:00 - 11:59 PM	8	10	14	7	8	14	22	17	92
Total	40	80	134	110	130	138	137	128	857

FIGURE 6.03
2011 Pedestrian Crashes by Time of Day

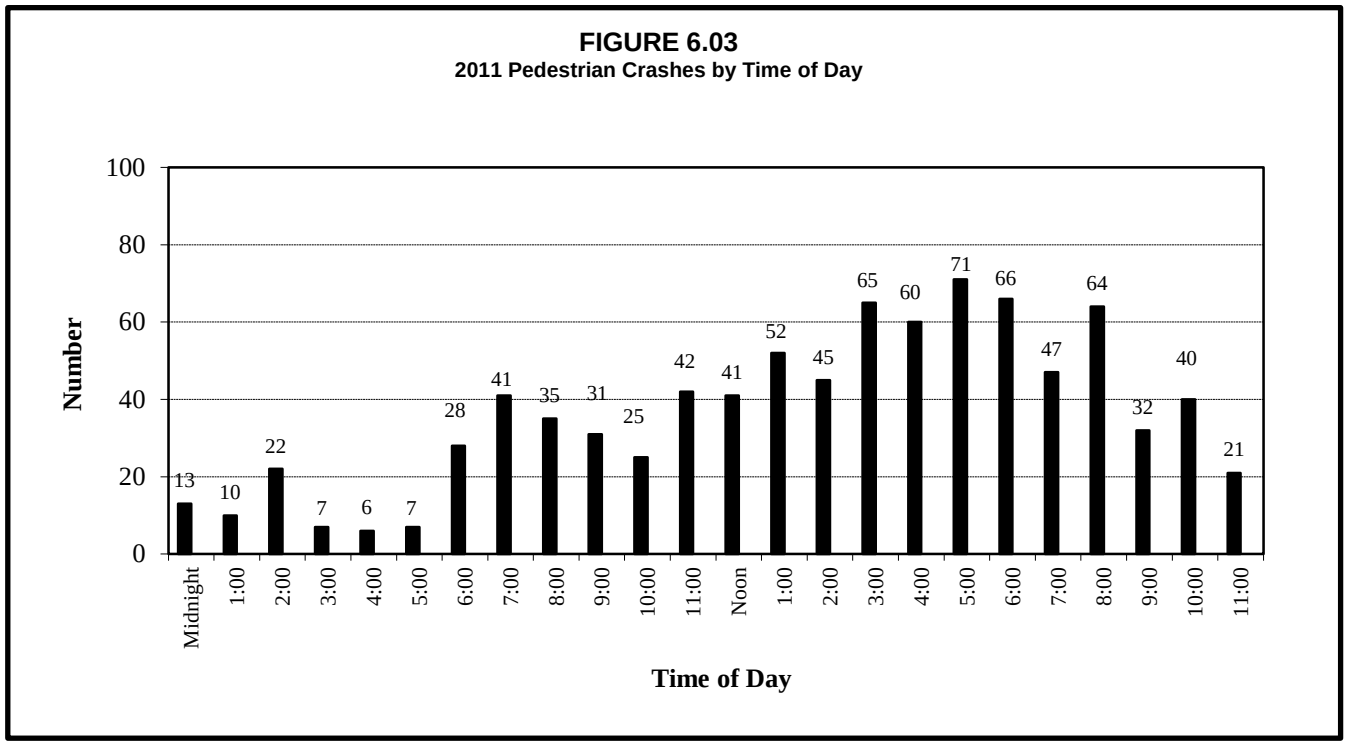

TABLE 6.06

PRIOR ACTION OF VEHICLES IN 2011 PEDESTRIAN CRASHES

Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes
Going Straight	31	379	410
Wrong Way Opposing Traffic	0	2	2
Turning Right on Red	0	24	24
Turning Left on Red	0	2	2
Turning Right	2	80	82
Turning Left	1	188	189
Making U Turn	0	3	3
Starting From Parked	0	14	14
Starting in Traffic	0	13	13
Slowing in Traffic	1	4	5
Parking	0	1	1
Avoiding Object in Road	2	7	9
Changing Lanes	0	2	2
Passing	0	3	3
Backing	0	29	29
All Others	6	75	81
Unknown	3	26	29
Total	46	852	898

* 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 2011

Action	Number Pedestrians Killed	Percent Pedestrians Killed	Number Pedestrians Injured	Percent Pedestrians Injured
Crossing Road (No Crosswalk and No Signal)	11	27.5%	202	23.5%
Crossing Against Signal	1	2.3	43	5.0
Crossing With Signal	0	0.0	127	14.8
Crossing In Crosswalk (No Signal)	3	7.5	129	15.0
Walking In Road With Traffic	1	2.5	48	5.6
Walking In Road Against Traffic	0	0.0	24	2.8
Standing In Road	5	12.5	25	2.9
Emerging Front/Behind Parked Vehicle	0	0.0	4	0.5
Child Getting On/Off School Bus	0	0.0	1	0.1
Pushing/Working on Vehicle	0	0.0	6	0.7
Working In Road	0	0.0	7	0.8
Getting On/Off Vehicle	0	0.0	7	0.8
Playing In Road	0	0.0	2	0.2
Not In Road	2	5.0	24	2.8
Other Pedestrian Action	2	5.0	54	6.3
Unknown	15	37.5	156	18.2
Total*	40	100.0%	859	100.0%

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

TABLE 6.08

CONTRIBUTING FACTORS IN 2011 PEDESTRIAN CRASHES

Contributing Factors	Number Attributed to Motor Vehicle Drivers	Percent Attributed to Motor Vehicle Drivers
Human Factors		
Failure to Yield Right of Way	222	35.0%
Driver Inattention / Distraction	154	24.3
Vision Obscured	56	8.8
Unsafe Backing	19	3.0
Chemical Impairment	15	2.4
llegal or Unsafe Speed	13	2.0
Disregard of Traffic Control	10	1.6
Improper Turn	10	1.6
Improper / Unsafe Lane Use	9	1.4
Driver Inexperience	8	1.3
Improper Parking/Starting/Stopping	7	1.1
Improper Passing / Overtaking	5	0.8
Following Too Closely	4	0.6
Driving Left of Center	1	0.2
Overcorrecting	1	0.2
Failure to Use Lights	1	0.2
Driver on Phone/CB/Radio	1	0.2
Other Human Factors	36	5.7
Vehicular Factors		
Skidding	2	0.3
Defective Brakes	1	0.2
Oversize/Overweight Vehicle	1	0.2
Other Vehicular Factors	1	0.2
Miscellaneous Factors		
Weather Conditions	21	3.3
Other	37	5.8
Total Contributing Factors Cited	635	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	44	
Total Number of Drivers	898	

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, 2002 - 2011

Year	Killed	Tested	Alcohol Concentration* (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 - .09)	Alcohol Concentration* (.10 or more)
2002	50	31	20 (65%)	0 (0%)	0 (0%)	11 (35%)
2003	52	36	23 (64%)	0 (0%)	0 (0%)	10 (28%)
2004	37	35	23 (66%)	0 (0%)	2 (6%)	10 (28%)
2005	44	34	18 (53%)	1 (3%)	2 (6%)	13 (38%)
2006	38	31	22 (71%)	1 (3%)	0 (0%)	8 (26%)
2007	33	18	9 (50%)	1 (6%)	0 (0%)	8 (44%)
2008	25	20	11 (55%)	0 (0%)	0 (0%)	9 (45%)
2009	41	33	22 (67%)	0 (0%)	1 (3%)	10 (30%)
2010	36	29	19 (66%)	0 (0%)	0 (0%)	10 (34%)
2011	40	33	21 (64%)	3 (9%)	0 (0%)	9 (27%)

* 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

2011 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY AGE

Age Group	Killed	Tested	Alcohol Concentration* (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 - .09)	Alcohol Concentration* (.10 or more)
14 & Younger	0	0	0	0	0	0
15 – 19	2	2	2	0	0	0
20 – 24	5	5	1	0	0	4
25 – 29	4	4	3	0	0	1
30 – 34	0	0	0	0	0	0
35 – 39	2	1	0	1	0	0
40 – 44	2	1	1	0	0	0
45 – 49	4	3	3	0	0	0
50 – 54	1	0	0	0	0	0
55 – 59	4	4	2	0	0	2
60 – 64	4	3	2	0	0	1
65 – 69	4	4	3	0	0	1
70 – 74	2	2	1	1	0	0
75 – 79	3	3	3	0	0	0
80 – 84	1	1	0	1	0	0
85 & Older	2	0	0	0	0	0
Total	40	33	21	3	0	9

TABLE 6.11

2011 PEDESTRIAN FATALITIES' LEVEL OF ALCOHOL CONCENTRATION BY TIME OF DAY

Time of Day	Killed	Tested	Alcohol Concentration * (.00)	Alcohol Concentration* (.01 - .07)	Alcohol Concentration* (.08 - .09)	Alcohol Concentration* (.10 or more)
Midnight - 2:59 AM	5	4	1	0	0	3
3:00 - 5:59 AM	3	1	0	0	0	1
6:00 - 8:59 AM	6	4	4	0	0	0
9:00 - 11:59 AM	3	3	3	0	0	0
Noon - 2:59 PM	4	3	3	0	0	0
3:00 - 5:59 PM	1	1	1	0	0	0
6:00 - 8:59 PM	10	10	6	2	0	2
9:00 - 11:59 PM	8	7	3	1	0	3
Total	40	33	21	3	0	9

VII: BICYCLE CRASHES

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

Number of bicycle crashes increases
In 2011, there was a 7.2% increase in bicycle crashes from the previous year - there were 963 bicycle crashes in 2011, compared to 898 bicycle crashes the previous year.

Injuries increase but fatalities decrease
The number of bicyclists injured increased in 2011. In 2011, 937 bicyclists were injured compared to 882 injured bicyclists in 2010, a 6.2% increase. However, there were five bicyclist fatalities in 2011 compared to nine fatalities in 2010, a 44.4% decrease.

Warm weather
Bicycle crashes are mostly a warm weather occurrence. In 2011, four out of five fatalities (80%), and injuries (79.7%) occurred during the six-month period April-September.

Time and day
One-third (33.6%) of all weekday bicycle crashes occurred during the afternoon rush hours 3:00-6:00pm. Over one out of four (28.9%) of weekend bicycle crashes occurred during the same period.

Big cities
Generally, traffic crashes involving a bicycle and a motor vehicle tend to occur in areas with larger populations. Three out of five (58.9%) bicycle crashes and three out of five (60.0%) fatal bicycle crashes occurred in cities where the population was over 50,000 people.

Males injured most often, but more females killed
In 2011, three female bicyclists and two male bicyclists were killed. However, males were nearly three times more likely than females to be injured in a bicycle crash. And, 686 male bicyclists (73.4%) were injured compared to 249 female bicyclists (26.6%).

Age and injury severity
Of the five bicyclists fatally injured in 2011, three (60.0%) were 50 years of age or older. Conversely, of the 917 bicyclists injured where age was recorded, 595 (64.9%) were 24 years of age or younger.

Prior action of bicyclists
Two out of five (40.4%) of all bicyclists in all crashes and three out of five (60.0%) of the bicyclist fatalities were riding with traffic. Conversely, only one out of fifteen (6.7%) bicyclists in all crashes were riding against traffic.

Contributing factors
Failure to yield the right of way was cited most often for both the bicyclists and other motor vehicle drivers. Failure to yield right of way was attributed to one out of three (30.1%) bicyclists and two out of five (41.2%) other drivers. For bicyclists, non-motorist error (a violation committed by the bicyclist separate from those listed), and disregard for traffic control device and were cited the next most often. Driver inattention or distraction was the second contributing factor cited most often for other drivers.

TABLE 7.01

BICYCLE CRASH SUMMARY, 2002- 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bicycle Crashes	909	NA	985	965	944	1,020	981	957	898	963
Bicyclists Killed	7	6	10	7	8	4	13	10	9	5
Bicyclists Injured	860	NA	937	952	908	979	942	963	882	937

TABLE 7.02

2011 BICYCLE CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	3	0	3	0	3
February	0	4	1	5	0	4
March	0	15	0	15	0	15
April	2	47	0	49	2	47
May	1	72	2	75	1	72
June	0	144	3	147	0	143
July	0	146	4	150	0	146
August	0	183	5	188	0	184
September	1	151	7	159	1	155
October	0	100	5	105	0	102
November	1	38	1	40	1	39
December	0	27	0	27	0	27
Total	5	930	28	963	5	937

FIGURE 7.01
2011 Bicycle Crashes by Time of Day

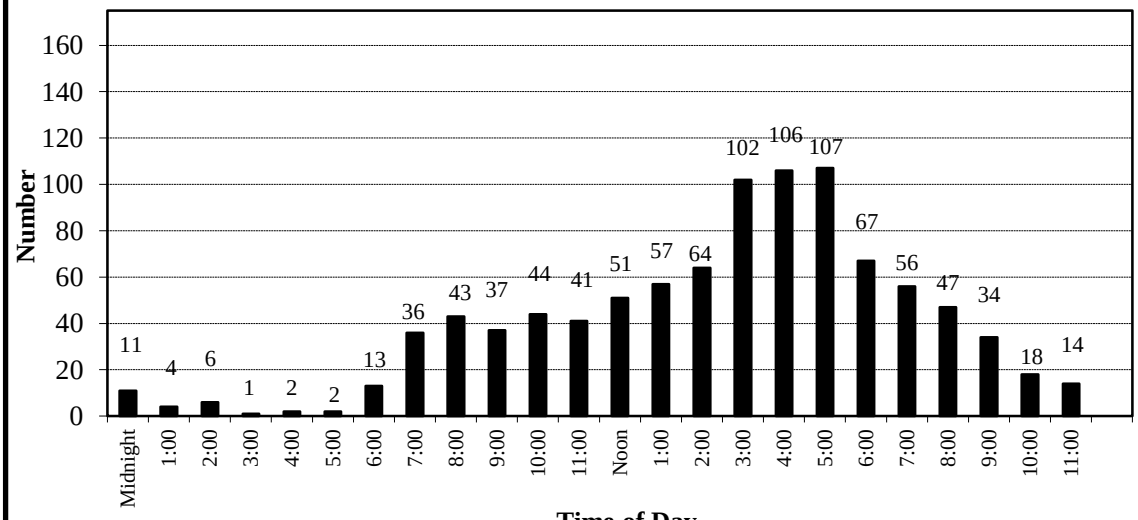

TABLE 7.03

2011 BICYCLE CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	5	3	2	2	3	1	5	21
3:00 - 5:59 AM	0	2	1	0	1	0	1	5
6:00 - 8:59 AM	3	20	16	20	20	10	3	92
9:00 - 11:59 AM	9	17	14	19	26	20	17	122
Noon - 2:59 PM	11	33	20	22	20	33	33	172
3:00 - 5:59 PM	17	50	55	42	64	52	35	315
6:00 - 8:59 PM	12	26	31	36	33	17	15	170
9:00 - 11:59 PM	3	10	14	12	6	10	11	66
Total	60	161	153	153	173	143	120	963

TABLE 7.04

2011 BICYCLE CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Bicyclists Killed	Bicyclists Injured
250,000 and Over	2	366	17	385	2	371
100,000 - 249,999	0	16	0	16	0	16
50,000 - 99,999	1	166	0	167	1	167
25,000 - 49,999	1	123	2	126	1	123
10,000 - 24,999	1	158	4	163	1	158
5,000 - 9,999	0	46	3	49	0	46
2,500 - 4,999	0	20	1	21	0	20
1,000 - 2,499	0	13	0	13	0	13
Under 1,000	0	22	1	23	0	23
Total	5	930	28	963	5	937

FIGURE 7.02
Bicyclists Killed and Injured by Age and Gender, 2011

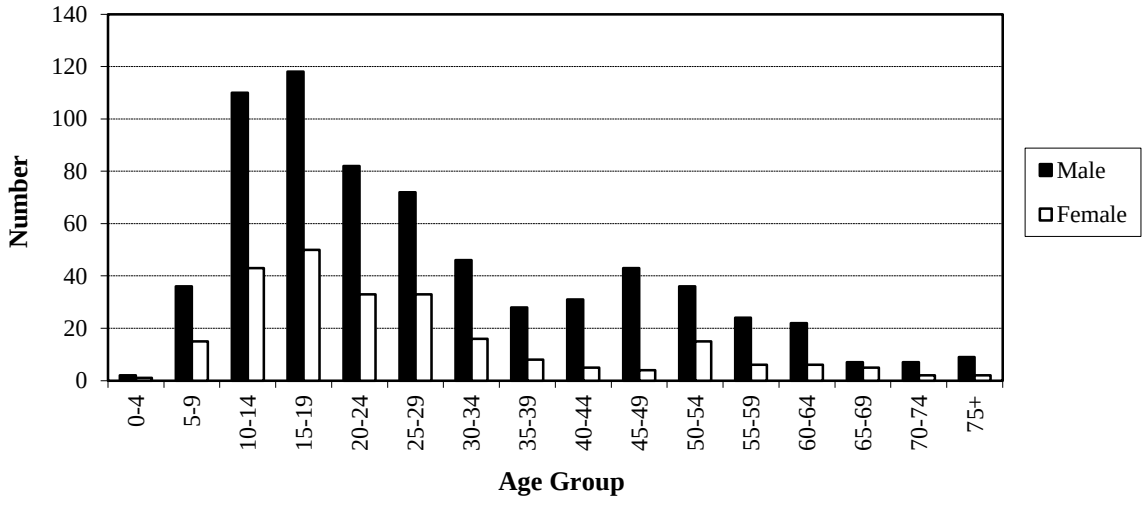

TABLE 7.05

Bicyclists Killed or injured by age and GENDER, 2011

	Killed			Severely Injured			Moderately Injured			Minor Injuries			Total Injuries		
Age Group	**M**	**F**	**Total**	**M**	**F**	**Total***	**M**	**F**	**Total***	**M**	**F**	**Total***	**M**	**F**	**Total***
00 – 04	0	0	0	0	0	0	0	0	0	2	1	3	2	1	3
05 – 09	0	0	0	3	1	4	12	2	14	21	12	33	36	15	51
10 – 14	0	0	0	8	1	9	38	13	51	64	29	93	110	43	153
15 – 19	0	0	0	5	6	11	32	17	49	81	27	108	118	50	168
20 – 24	0	0	0	6	0	6	20	6	26	56	27	83	82	33	115
25 – 29	0	1	1	4	1	5	26	7	33	42	24	66	72	33	105
30 – 34	0	0	0	2	2	4	18	6	24	26	8	34	46	16	62
35 – 39	0	0	0	1	0	1	9	4	13	18	4	22	28	8	36
40 – 44	1	0	1	1	0	1	9	0	9	20	5	25	31	5	36
45 – 49	0	0	0	5	0	5	18	0	18	20	4	24	43	4	47
50 – 54	0	0	0	2	0	2	13	6	19	21	9	30	36	15	51
55 – 59	0	0	0	2	1	3	10	2	12	12	3	15	24	6	30
60 – 64	1	0	1	0	0	0	8	2	10	13	4	17	22	6	28
65 – 69	0	0	0	0	1	1	0	0	0	7	4	11	7	5	12
70 – 74	0	2	2	2	0	2	2	0	2	3	0	3	7	2	9
75 & Older	0	0	0	1	0	1	2	2	4	6	0	6	9	2	11
Not Stated	0	0	0	2	0	3	3	0	4	8	5	18	13	5	25
Total	2	3	5	44	13	58	220	67	288	420	166	591	686	249	942

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

TABLE 7.06

PRIOR ACTION OF BICYCLISTS INVOLVED IN 2011 CRASHES

Prior Action	**Bicyclists in Fatal Crashes**	**Bicyclists in Injury Crashes**	**Bicyclists in Property Damage Crashes**	**Bicyclists in All Crashes**
Riding With Traffic	3	382	9	394
Riding Against Traffic	0	63	2	65
Making Right Turn	0	8	2	10
Making Left Turn	0	30	0	30
Riding Across Road	0	50	3	53
Slowing/Stopping/Starting	0	11	1	12
Other/Unknown	2	393	17	412
Total	5	937	34	976

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

TABLE 7.07

CONTRIBUTING FACTORS IN 2011 BICYCLE CRASHES

Contributing Factors	Number Attributed to Bicyclists	Percent Attributed to Bicyclists	Number Attributed to Motor Vehicle Drivers	Percent Attributed to Motor Vehicle Drivers
Human Factors				
Failure to Yield Right of Way	173	30.1%	233	41.2%
Non-Motorist Error	106	18.5	0	0.0
Disregard Traffic Control Device	70	12.2	17	3.0
Driver Inattention/Distraction	40	7.0	150	26.5
Improper/Unsafe Lane Use	33	5.7	13	2.3
Failure to Use Lights	11	1.9	0	0.0
Vision Obscured	11	1.9	54	9.6
Illegal/Unsafe Speed	9	1.6	5	0.9
Driver Inexperience	9	1.6	9	1.6
Impeding Traffic	8	1.4	1	0.2
Chemical Impairment	7	1.2	7	1.2
Driving Left of Center	4	0.7	2	0.4
Improper Park/Start/Stop	4	0.7	9	1.6
Improper Turn	3	0.5	15	2.7
Following Too Closely	2	0.3	0	0.0
Improper Passing/Overtaking	1	0.2	6	1.1
Driver On Phone/CB	0	0.0	2	0.4
Unsafe Backing	0	0.0	1	0.2
Other Human Factors	9	1.6	7	1.2
Vehicular Factors				
Defective Brakes	13	2.3	0	0.0
Skidding	1	0.2	1	0.2
Oversize/Overweight Vehicle	0	0.0	1	0.2
Other Vehicular Factor	1	0.2	0	0.0
Miscellaneous Factors				
Weather Conditions	4	0.7	7	1.2
Other	55	9.6	25	4.4
Total	574	100.0%	565	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	405		433	
Total Number of Bicyclists/Drivers	968		966	

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

VIII: SCHOOL BUS CRASHES

As a general rule, school bus travel is very safe. The school bus is a large and heavy vehicle that provides good protection for its occupants. However, since buses can carry many passengers, serious crashes could potentially cause many injuries.

Crashes included in this section are those in which at least one school bus was physically involved. Note that in some cases, a crash could be seen as involving a school bus (albeit indirectly), yet not be counted as a school bus crash. For example, one such case would be a crash in which a person gets off the bus, crosses a street, and is struck by another vehicle. Such a case could be called an indirect school bus crash.

Indirect bus crashes
Changes in the crash reporting system in 2003 now make it possible to identify crashes in which a school bus was indirectly involved. In 2011, there were 175 crashes resulting in 86 injuries in which a school bus was indirectly involved.

Number of crashes increases
School bus crashes have increased. In 2011, there were 615 traffic crashes directly involving at least one school bus, compared to 611 crashes the previous year.

One death in 2011
In 2011, there was one fatal school bus crash resulting in one death. The fatal crash involved a school bus colliding with a bicyclist while making a turn, killing the bicycle rider.

Morning and afternoon rush hours
Two out of three (69%) school bus crashes and three out of four school bus crash injuries (77%) in 2011 occurred during the time periods of 6-9 a.m. and 3-6 p.m. Over nine out of ten (95%) of school bus crashes occurred during school year months September through May.

School bus stop arm
Less than 2% of all school bus crashes occurred when the school bus stop arm was deployed. Only six injuries occurred in school bus crashes where the school bus stop arm was in use.

Contributing factors
Although there were 615 school bus crashes in 2011, a few involved more than one school bus. In all there were 621 school buses in crashes. For 52% of the school bus drivers, officer reports showed there was "no clear contributing factor." The two contributing factors cited most often were driver inattention or distraction (19%), and failure to yield right of way (18%). The third most frequently cited contributing factor was improper turn (12%). The most commonly cited contributing factors attributed to drivers of other vehicles in school bus crashes were driver inattention or distraction (22%), failure to yield right of way (15%), and illegal or unsafe speed (8%).

TABLE 8.01

SCHOOL BUS CRASH SUMMARY, 2002 - 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Crashes	719	NA	702	717	625	680	663	670	611	615
Fatal Crashes	3	3	3	7	1	7	1	4	4	1
Persons Killed	5	3	3	7	1	8	4	4	4	1
Injury Crashes	144	NA	150	140	137	126	107	144	116	112
Persons Injured	299	NA	266	250	241	243	188	233	215	214
Property Damage Crashes	572	NA	549	570	487	547	555	522	491	502
School Buses Directly Involved	731	NA	708	724	631	690	670	675	615	621

TABLE 8.02

2011 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	3	3	0	0
3:00 - 5:59 AM	0	0	8	8	0	0
6:00 - 8:59 AM	1	46	190	237	1	109
9:00 - 11:59 AM	0	13	61	74	0	17
Noon - 2:59 PM	0	16	72	88	0	22
3:00 - 5:59 PM	0	36	152	188	0	56
6:00 - 8:59 PM	0	0	12	12	0	0
9:00 - 11:59 PM	0	1	2	3	0	10
Unknown	0	0	2	2	0	0
Total	1	112	502	615	1	214

TABLE 8.03

2011 SCHOOL BUS CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
January	0	17	89	106	0	25
February	0	18	90	108	0	28
March	0	9	53	62	0	11
April	1	8	39	48	1	14
May	0	9	30	39	0	32
June	0	2	15	17	0	2
July	0	1	8	9	0	1
August	0	1	5	6	0	1
September	0	21	43	64	0	40
October	0	5	42	47	0	17
November	0	6	36	42	0	14
December	0	15	52	67	0	29
Total	1	112	502	615	1	214

TABLE 8.04

AGE AND GENDER OF PERSONS INJURED IN 2011 SCHOOL BUS CRASHES

Age Group	In Bus	Pedestrian	In Other Vehicle	Male	Female	Total
00 - 04	0	0	0	0	0	0
05 - 09	22	0	3	12	13	25
10 - 14	40	1	5	18	28	46
15 - 19	13	0	14	10	17	27
20 - 24	1	2	11	3	11	14
25 - 29	0	1	6	1	6	7
30 - 34	5	0	5	7	3	10
35 - 39	3	0	6	2	7	9
40 - 44	3	0	10	8	5	13
45 - 49	2	0	11	4	9	13
50 - 54	0	0	13	4	9	13
55 - 59	2	1	2	3	2	5
60 - 64	4	0	3	3	4	7
65 & Older	8	1	11	10	10	20
Unknown	4	0	1	4	1	5
Total	107	6	101	89	125	214

TABLE 8.05

PERSONS KILLED OR INJURED IN 2011 SCHOOL BUS CRASHES BY POPULATION OF AREA

Population of City or Township	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total
250,000 and Over	0	2	4	59	65
100,000 - 249,999	0	0	0	1	1
50,000 - 99,999	0	1	6	33	40
25,000 - 49,999	1	0	6	13	19
10,000 - 24,999	0	0	7	38	45
5,000 - 9,999	0	0	1	10	11
2,500 - 4,999	0	0	0	4	4
1,000 - 2,499	0	0	0	1	1
Under 1,000	0	1	4	23	28
Total	1	4	28	182	214

TABLE 8.06

2011 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	0	96	378	474	0	195
Parked Motor Vehicle	0	3	106	109	0	4
Bicycle	1	4	0	5	1	4
Pedestrian	0	6	0	6	0	6
Deer	0	0	4	4	0	0
Other Animal	0	0	1	1	0	0
Fixed Object	0	2	10	12	0	4
Overturn	0	0	2	2	0	0
Other/Unknown	0	1	1	2	0	1
Total	1	112	502	615	1	214

TABLE 8.07

2011 SCHOOL BUS CRASHES BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes†	Total Crashes*	Killed	Injured
Traffic Signal	0	27	109	136	0	62
Overhead Flashers	0	0	1	1	0	0
Stop Sign--All Approaches	0	4	21	25	0	5
Stop Sign--Not All Approaches	1	29	114	144	1	68
Yield Sign	0	1	10	11	0	1
Officer/Flag Person	0	0	1	1	0	0
School Bus Stop Arm	0	4	6	10	0	6
School Zone Sign	0	0	1	1	0	0
No Passing Zone	0	0	1	1	0	0
Railroad Crossing Stop Sign	0	3	13	16	0	4
Other	0	2	5	7	0	4
Not Applicable	0	42	216	258	0	64
Unknown	0	0	2	2	0	0
Total	1	112	502	615	1	214

†This field left blank on crash report for two school bus crashes
*This field left blank on crash report for two school bus crashes

TABLE 8.08

CONTRIBUTING FACTORS IN 2011 SCHOOL BUS CRASHES

Contributing Factors	Number Attributed to School Bus Drivers	Percent Attributed to School Bus Drivers	Number Attributed to Drivers of Other Vehicles	Percent Attributed to Drivers of Other Vehicles
Human Factors				
Driver Inattention/Distraction	54	18.6%	97	21.7%
Failure to Yield Right of Way	53	18.2	67	15.0
Improper Turn	34	11.7	13	2.9
Improper/Unsafe Lane Use	17	5.8	16	3.6
Following Too Closely	16	5.5	35	7.8
Unsafe Backing	13	4.5	7	1.6
Vision Obscured	12	4.1	15	3.3
Improper Passing/Overtaking	10	3.4	13	2.9
Illegal/Unsafe Speed	7	2.4	36	8.0
Improper Park/Start/Stop	7	2.4	7	1.6
Driver Inexperience	6	2.1	14	3.1
Disregard of Traffic Control Device	3	1.0	22	4.9
Driving Left of Center	2	0.7	0	0.0
Overcorrecting	2	0.7	0	0.0
Impeding Traffic	0	0.0	2	0.4
Chemical Impairment	0	0.0	1	0.2
Other Human Factors	11	3.8	10	2.2
Vehicular Factors				
Skidding	5	1.7	37	8.3
Defective Brakes	1	0.3	2	0.4
Other Vehicular Factors	3	1.0	4	0.9
Miscellaneous Factors				
Weather Conditions	10	3.4	34	7.6
Other	25	8.6	16	3.6
Total	291	100.0%	448	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	324		238	
Total Number of Drivers	624		625	

Zero, one, or two contributing factors may be attributed to a single driver. This may cause the sum of the factors cited to differ from the number of drivers. Percentages are based on all contributing factors cited. They may not sum to 100 due to rounding. Bicyclists and pedestrians are included as other drivers in this table.

IX: MOTOR VEHICLE/TRAIN CRASHES

Each crash reported in this section involves a motor vehicle and a train. Train collisions with pedestrians or bicyclists are not counted as traffic crashes in this publication.

Statewide, slightly more than one-half of one percent of all motor vehicle crashes result in a fatality. Generally, motor-vehicle/train crashes are few in number, but they are more likely to be serious - in 2011, there were four motor vehicle/train crashes that resulted in a fatality, representing 8% of all motor-vehicle/train crashes in Minnesota.

Number of train crashes increases
In recent years, the number of motor-vehicle/train crashes in Minnesota has been declining. However, in 2011 there were 48 vehicle/train crashes, 15 more crashes than were reported the previous year.

Number of fatalities increases
Both vehicle/train crashes and fatalities increased: four people were killed in 2011 compared to one in 2010.

Railroad crossings with flashing lights or gates
Railroad crossings without some type of flashing lights or gates are very dangerous. Thirty-nine (81%) of the 48 motor-vehicle/train crashes, including three fatal crashes, occurred at a railroad crossing without flashing lights or gates. Only five crashes occurred where there was a railroad crossing gate present.

Most crashes occurred in rural areas
Motor vehicle crashes involving a train are a predominantly rural phenomenon, defined as an area with less than 5,000 population. In 2011, 60 percent of the total crashes, 56 percent of injuries, and 100 percent of fatalities occurred in rural areas.

Contributing factors
For motor vehicle drivers involved in train crashes, failure to yield right of way, disregard of traffic control device, and driver inattention or distraction were the three contributing factors cited most often by officers.

TABLE 9.01

MOTOR VEHICLE / TRAIN CRASH SUMMARY, 2002 - 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total Crashes	77	NA	72	52	51	56	40	37	33	48
Fatal Crashes	6	5	12	5	8	2	3	4	1	4
Persons Killed	9	8	13	6	9	2	4	5	1	4
Injury Crashes	27	NA	21	22	10	16	17	11	17	16
Persons Injured	37	NA	27	29	15	20	20	15	21	18
Property Damage Crashes	44	NA	39	25	33	38	20	22	15	28

TABLE 9.02

2011 MOTOR VEHICLE / TRAIN CRASHES BY MONTH

Month	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total	Killed	Injured
January	1	0	4	5	1	0
February	2	3	3	8	2	3
March	0	1	5	6	0	1
April	0	1	1	2	0	1
May	0	0	1	1	0	0
June	0	2	0	2	0	2
July	0	0	2	2	0	0
August	0	3	3	6	0	5
September	0	3	0	3	0	3
October	1	0	1	2	1	0
November	0	2	5	7	0	2
December	0	1	3	4	0	1
Total	4	16	28	48	4	18

TABLE 9.03

2011 MOTOR VEHICLE / TRAIN CRASHES BY TIME AND DAY

Time of Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Midnight - 2:59 AM	4	2	0	0	0	0	0	6
3:00 - 5:59 AM	1	1	1	0	0	0	0	3
6:00 - 8:59 AM	2	2	1	1	1	0	0	7
9:00 - 11:59 AM	0	2	2	2	1	2	2	11
Noon - 2:59 PM	1	4	2	0	1	2	1	11
3:00 - 5:59 PM	2	0	1	1	1	1	1	7
6:00 - 8:59 PM	0	2	0	0	1	0	0	3
9:00 - 11:59 PM	0	0	0	0	0	0	0	0
Total	10	13	7	4	5	5	4	48

TABLE 9.04

2011 MOTOR VEHICLE / TRAIN CRASHES
BY TRAFFIC CONTROL DEVICE

Traffic Control Device	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
Stop Sign All Approaches	3	4	4	11	3	4
RR Crossing Gate	0	1	2	3	0	1
RR Crossing Flashing Lights	0	1	2	3	0	1
RR Crossing Stop Sign	0	2	4	6	0	2
RR Overhead Flashing Lights	0	1	0	1	0	1
RR Overhead Lights/Gate	1	0	1	2	1	0
RR Crossbuck	0	3	5	8	0	5
Other Device	0	2	5	7	0	2
Unknown	0	2	5	7	0	2
Total	4	16	28	48	4	18

TABLE 9.05

2011 MOTOR VEHICLE / TRAIN CRASHES
AGE OF PERSONS KILLED OR INJURED

Age Group	Killed	Severely Injured	Moderately Injured	Minor Injuries	Total
00 - 04	0	0	0	0	0
05 - 09	0	0	0	0	0
10 - 14	0	0	0	0	0
15 - 19	1	0	1	0	1
20 - 24	0	0	0	2	2
25 - 29	0	0	1	2	3
30 - 34	0	0	1	3	4
35 - 39	0	0	0	0	0
40 - 44	2	0	0	0	0
45 - 49	0	1	0	2	3
50 - 54	1	0	1	0	1
55 - 59	0	0	0	0	0
60 - 64	0	0	0	0	0
65 - 69	0	1	0	2	3
70 - 74	0	0	0	0	0
75 - 79	0	0	0	0	0
80 & Older	0	0	0	0	0
Not Stated	0	0	0	1	1
Total	4	2	4	12	18

TABLE 9.06

2011 MOTOR VEHICLE / TRAIN CRASHES BY POPULATION OF AREA

Population of City or Township	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	Killed	Injured
250,000 and Over	0	4	6	10	0	6
100,000 - 249,999	0	1	0	1	0	1
50,000 - 99,999	0	1	1	2	0	1
25,000 - 49,999	0	0	4	4	0	0
10,000 - 24,999	0	0	1	1	0	0
5,000 - 9,999	0	0	1	1	0	0
2,500 - 4,999	0	0	0	0	0	0
1,000 - 2,499	0	1	0	1	0	1
Under 1,000	4	9	15	28	4	9
Total	4	16	28	48	4	18

TABLE 9.07

2011 MOTOR VEHICLE / TRAIN CRASHES CONTRIBUTING FACTORS

Contributing Factor	Number	Percent
Human Factors		
Failure to Yield Right of Way	22	32.8%
Disregard of Traffic Control	11	16.4
Driver Inattention/Distraction	8	11.9
Illegal/Unsafe Speed	3	4.5
Chemical Impairment	2	3.0
Driver Inexperience	2	3.0
Improper Parking/Starting/Stopping	1	1.5
Improper Turn	1	1.5
Vehicular Factors		
Skidding	6	9.0
Defective Brakes	2	3.0
Other Vehicular Factor	2	3.0
Other		
Weather	5	7.5
Other Contributing Factor	2	3.0
Total	67	100.0%
Vehicles for Which There Was "No Clear Contributing Factor" Number of Drivers	13	
	64	

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.

X: CRASHES INVOLVING TEEN DRIVERS

Minnesota teen drivers continue to be overrepresented in traffic crashes due to driver inexperience, distractions, speeding/risk-taking, and seat belt non-use. The greatest crash risk occurs during the first months of independent driving. The good news is that progress has been made. Laws such as no cell phone use, no texting, primary seat belt, and nighttime and passenger limitations have helped reduce teen traffic deaths and injuries.

Parents play a vital role in developing safe teen drivers. Teens need to gain experience in a variety of road types and environments — day, night, city, rural, rain, snow — while supervised by an experienced licensed driver. Even after a teen is licensed, they continue to need training and monitoring. Parents should establish clear, sensible rules to reduce their teen driver's exposure to high-risk situations. Making decisions, with safety as a priority over convenience, are essential to protecting our most vulnerable drivers - teens.

Teen involvement in traffic crashes
This Section provides a short summary regarding teen drivers (ages 15-19) who were involved in crashes. However, more information concerning teens can be found in other Sections of this Crash Facts report:

- Table 1.04: Age/Gender of teens killed or injured.
- Table 1.05: Age/Gender of teen drivers involved.
- Table 1.06: Licensed vs. Crash involved drivers.
- Table 1.07: Teen driver crash type.
- Table 1.09: Single-vehicle crash contributing factors
- Table 1.10: Multi-vehicle crash contributing factors.
- Table 2.03: DWI's issued to underage drivers.
- Table 2.05: Alcohol related teens killed or injured.
- Table 2.12: Teen driver alcohol concentration.
- Table 3.03: Teen vehicle occupants killed or injured.
- Table 3.05: Teen occupant seat belt use.
- Table 4.06: Teen motorcyclists killed or injured.
- Table 6.02: Teen pedestrians killed or injured.
- Table 7.05: Teen bicyclists killed or injured.
- Table 8.04: Teen school bus riders killed or injured.

Improvement seen in the past decade
Table 10.01 indicates that the numbers of teen involved traffic crashes have been decreasing. The definition of a teen involved crash used here is any crash with at least one teen driver (ages 15-19) of any motor vehicle involved (no teen pedestrians or bicyclists used). In 2004, 22.7% of all traffic crashes in Minnesota were teen related. In 2011, that percentage has dropped to 16.8%.

Teen (ages 13-19) fatalities have also decreased. In 2004, 15.5% of all traffic fatalities in Minnesota were teens. In 2011, that percentage has dropped to 10.6%.

Teen (ages 13-19) injuries have also decreased. In 2004, 17.6% of all traffic injuries in Minnesota were teens. In 2011, that percentage has dropped to 12.9%.

Rate per licensed teen driver decreasing
Table 10.02 indicates that the number of teen MVO drivers (ages 15-19) who were involved in crashes has also been decreasing. MVO stands for 'motor vehicle occupant'. That is, only teens that were driving vehicles normally equipped with seat belts are counted in this table. In 2004, 79 teen MVO drivers were involved in crashes for every 1,000 licensed teen drivers. In 2011, that rate has dropped to 51.

Colder weather
Teen involved crashes are rather evenly distributed throughout the year; however, there is an uptick during the colder months. In 2011, 41% of all teen involved crashes occurred during the four months of January, February, November, and December.

Afternoons are dangerous
As can be seen from Table 10.05 and Figure 10.01, a large number of teen involved crashes happen during the afternoon period of 2:00 – 6:00 p.m. During that four-hour time-period, 37% of all teen involved crashes occurred in 2011. On the other hand, only 12% of all teen involved crashes occurred during the six-hour nighttime period of 9:00 p.m. – 3:00 a.m.

Contributing factors
For teen drivers of any vehicle who were involved in crashes, driver distraction was listed most often (22%) by officers at the scene. Next was failure to yield the right of way (15%), and then illegal or unsafe speed (12%). For the 'other' motor vehicle drivers involved, failure to yield the right of way was listed most often (24%), next was driver distraction (20%). Only 6% of the 'other' drivers were listed as illegal or unsafe speed.

TABLE 10.01

TEEN CRASH SUMMARY, 2005 - 2011

Category	2005	2006	2007	2008	2009	2010	2011
Crashes with at least one Teen (15-19) Driver*	19,262	16,951	17,011	15,475	14,142	13,611	12,139
All Traffic Crashes in Minnesota	87,813	78,745	81,505	79,095	73,498	74,073	72,117
-Teen (15-19) Driver* Crash %	21.9%	21.5%	20.9%	19.6%	19.2%	18.4%	16.8%
Teen (13-19) Traffic Fatalities	72	75	53	37	40	47	39
All Traffic Fatalities in Minnesota	559	494	510	455	421	411	368
-Teen (13-19) Fatality %	12.9%	15.2%	10.4%	8.1%	9.5%	11.4%	10.6%
Teen (13-19) Traffic Injuries	6,431	6,054	5,723	5,079	4,648	4,391	3,921
All Traffic Injuries in Minnesota	37,686	35,025	35,318	33,379	31,074	31,176	30,295
-Teen (13-19) Injury %	17.1%	17.3%	16.2%	15.2%	15.0%	14.1%	12.9%

*Driver of any motor vehicle.

TABLE 10.02

TEEN 'MOTOR VEHICLE OCCUPANT' DRIVER CRASH INVOLVEMENT, 2005 - 2011

Age of Teen MVO* Driver	2005	2006	2007	2008	2009	2010	2011
Age 15 MVO* Drivers involved in Crashes	272	249	236	195	159	187	181
Age 15 Licensed Drivers**	31,161	26,360	26,029	26,141	28,126	28,020	25,422
-Rate per 1,000 Licensed Drivers:	8.7	9.4	9.1	7.5	5.7	6.7	7.1
Age 16 MVO* Drivers involved in Crashes	4,696	4,364	3,889	3,496	3,160	2,897	2,567
Age 16 Licensed Drivers**	55,398	53,520	51,499	49,801	49,884	49,634	48,260
-Rate per 1,000 Licensed Drivers:	84.8	81.5	75.5	70.2	63.3	58.4	53.2
Age 17 MVO* Drivers involved in Crashes	5,449	4,830	4,793	4,227	3,888	3,580	3,251
Age 17 Licensed Drivers**	61,431	60,695	59,766	57,875	56,554	55,885	54,781
-Rate per 1,000 Licensed Drivers:	88.7	79.6	80.2	73.0	68.7	64.1	59.3
Age 18 MVO* Drivers involved in Crashes	5,391	4,669	4,780	4,527	4,024	4,014	3,504
Age 18 Licensed Drivers**	65,440	64,617	64,910	64,337	62,707	61,526	59,722
-Rate per 1,000 Licensed Drivers:	82.4	72.3	73.6	70.4	64.2	65.2	58.7
Age 19 MVO* Drivers involved in Crashes	5,091	4,265	4,581	4,153	3,971	3,900	3,450
Age 19 Licensed Drivers**	68,842	67,917	67,664	68,050	67,701	66,272	63,997
-Rate per 1,000 Licensed Drivers:	74.0	62.8	67.7	61.0	58.7	58.8	53.9
All 15-19 MVO* Drivers involved in Crashes	20,899	18,377	18,279	16,598	15,202	14,578	12,953
All 15-19 Licensed Drivers**	282,272	273,109	269,868	266,204	264,972	261,337	252,182
-Rate per 1,000 Licensed Drivers:	74.0	67.3	67.7	62.4	57.4	55.8	51.4

*MVO = Motor Vehicle Occupant.
Only teen drivers in vehicles equipped with Seat-Belts are included in Table 10.02.

**Licensed Driver totals include Permits.

TABLE 10.03

2011 TEEN INVOLVED CRASHES* BY MONTH

(*Crashes involving at least one Teen Driver (15-19) of any vehicle)

Month	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
January	2	15	76	309	1,231	1,633
February	4	6	58	223	906	1,197
March	4	13	59	171	637	884
April	1	9	67	155	467	699
May	6	16	73	197	554	846
June	3	14	86	251	608	962
July	7	16	85	207	584	899
August	4	17	87	232	604	944
September	3	11	78	219	619	930
October	5	13	80	240	650	988
November	4	12	66	227	730	1,039
December	6	19	72	224	797	1,118
Total	49	161	887	2,655	8,387	12,139

TABLE 10.04

2011 TEEN INVOLVED CRASHES BY DAY OF WEEK

(*Crashes involving at least one Teen Driver (15-19) of any vehicle)

Day	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
Sunday	8	23	116	293	812	1,252
Monday	7	12	122	372	1,257	1,770
Tuesday	5	20	125	345	1,203	1,698
Wednesday	8	21	122	388	1,194	1,733
Thursday	5	23	122	397	1,161	1,708
Friday	8	26	142	509	1,457	2,142
Saturday	8	36	138	351	1,303	1,836
Total	49	161	887	2,655	8,387	12,139

TABLE 10.05

2011 TEEN INVOLVED CRASHES BY TIME OF DAY

(*Crashes involving at least one Teen Driver (15-19) of any vehicle)

Hour	Fatal Crashes	A-Injury Crashes	B-Injury Crashes	C-Injury Crashes	PDO Crashes	Total Crashes
Midnight	0	3	18	32	103	56
1:00	0	4	17	28	92	141
2:00	4	2	5	22	72	105
3:00	1	6	10	21	60	98
4:00	2	1	11	15	56	85
5:00	0	1	6	14	53	74
6:00	4	3	21	40	117	185
7:00	1	13	46	190	542	792
8:00	3	9	35	89	411	547
9:00	0	4	31	73	260	368
10:00	2	2	33	83	253	373
11:00	4	6	44	108	359	521
Noon	3	3	35	145	454	640
1:00	1	3	43	125	389	561
2:00	0	12	66	192	597	867
3:00	1	17	75	323	870	1,286
4:00	8	14	75	258	813	1,168
5:00	0	9	74	252	822	1,157
6:00	3	12	50	192	519	776
7:00	3	9	48	128	402	590
8:00	2	8	45	116	355	526
9:00	2	8	46	86	327	469
10:00	1	5	33	70	274	383
11:00	4	7	19	50	162	242
Unknown	0	0	1	3	25	29
Total	49	161	887	2,655	8,387	12,139

FIGURE 10.01
Total Teen Involved Crashes, by Time, 2011

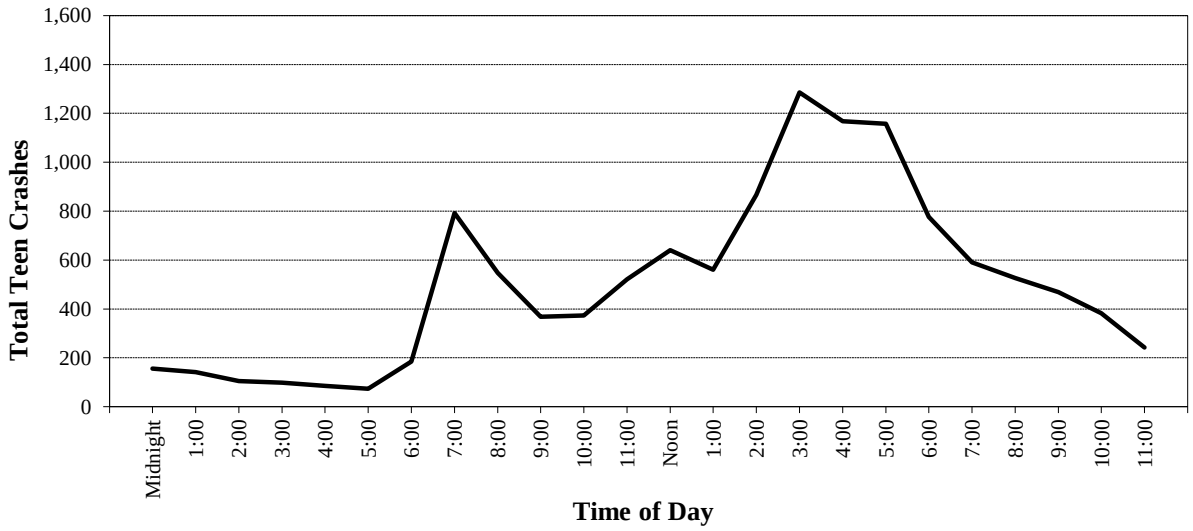

TABLE 10.06

CONTRIBUTING FACTORS IN 2011 TEEN INVOLVED CRASHES

Contributing Factors	Number Attributed to Teen Drivers*	Percent Attributed to Teen Drivers*	Number Attributed to Other Vehicle Drivers*	Percent Attributed to Other Vehicle Drivers*
Human Factors				
Driver Inattention/Distraction	2,857	21.6%	736	20.0%
Failure to Yield Right of Way	1,945	14.7	889	24.2
Illegal/Unsafe Speed	1,557	11.8	209	5.7
Following Too Closely	1,152	8.7	458	12.5
Driver Inexperience	1,138	8.6	22	0.6
Improper/Unsafe Lane Use	423	3.2	146	4.0
Overcorrecting	419	3.2	12	0.3
Disregard Traffic Control Device	410	3.1	185	5.0
Vision Obscured	255	1.9	112	3.0
Chemical Impairment	205	1.6	56	1.5
Improper Turn	202	1.5	74	2.0
Unsafe Backing	106	0.8	50	1.4
Improper Park/Start/Stop	110	0.8	43	1.2
Improper Passing/Overtaking	101	0.8	51	1.4
Driving Left of Center	63	0.5	27	0.7
Driver On Phone/CB	26	0.2	8	0.2
Impeding Traffic	17	0.1	10	0.3
Improper/No Signal	17	0.1	17	0.5
Failure to Use Lights	7	0.1	5	0.1
Non-Motorist Error	0	0.0	28	0.8
Other Human Factors	270	2.0	71	1.9
Vehicular Factors				
Skidding	611	4.6	99	2.7
Defective Brakes	108	0.8	11	0.3
Oversize/Overweight Vehicle	4	0.0	1	0.0
Other Vehicular Factor	62	0.5	33	0.9
Miscellaneous Factors				
Weather Conditions	790	6.0	181	4.9
Other	359	2.7	144	3.9
Total Contributing Factors	13,214	100.0%	3,678	100.0%
Vehicles for Which There Was "No Clear Contributing Factor"	3,222		6,076	
Total Number of Drivers	13,044		9,555	

*The term 'Drivers' refers to a driver of <u>any</u> motor vehicle.
Contributing factor data for the 'Other Vehicle Drivers' includes pedestrians and bicyclists.
Pedestrians and bicyclists are <u>not</u> included in the 'Teen Driver' data.

Zero, one, or two contributing factors may be attributed to each vehicle, pedestrian, or bicyclist involved in a crash. This may cause the sum of the factors cited to differ from the number of drivers, pedestrians, or bicyclists. Percentages are based on all contributing factors listed. They may not sum to 100 due to rounding.

DEFINITIONS

Accident -- See motor vehicle crash.

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

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

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

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

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

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

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

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

Crash -- See motor vehicle crash.

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

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

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

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

Injury Severity

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Rural -- Having a population of fewer than 5,000.

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

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

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

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

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