



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

# Traffic Safety Facts 1999



**A Compilation of Motor Vehicle Crash Data  
from the Fatality Analysis Reporting System  
and the General Estimates System**

# 1999 National Statistics

## Motor Vehicle Traffic Crashes

Fatal .....	37,043
Injury .....	2,054,000
Property Damage Only .....	4,188,000
<b>Total .....</b>	<b>6,279,000</b>

## Traffic Crash Victims

	Killed	Injured
<b>Occupants</b>		
Drivers .....	25,210	2,061,000
Passengers .....	10,499	1,024,000
Unknown .....	97	12,000
<b>Nonmotorists</b>		
Pedestrians .....	4,906	85,000
Pedalcyclists .....	750	51,000
Other/Unknown .....	149	3,000
<b>Total .....</b>	<b>41,611</b>	<b>3,236,000</b>

## Other National Statistics

Vehicle Miles Traveled .....	2,691,335,000,000
Resident Population .....	272,690,813
Registered Vehicles .....	212,685,157
Licensed Drivers .....	187,170,000
Economic Cost of Traffic Crashes (1994) (estimate for reported and unreported crashes) .....	\$150.5 billion

## National Rates: Fatalities

Fatalities per 100 Million Vehicle Miles Traveled .....	1.5
Fatalities per 100,000 Population .....	15.26
Fatalities per 100,000 Registered Vehicles .....	19.56
Fatalities per 100,000 Licensed Drivers .....	22.23

## National Rates: Injured Persons

Injured Persons per 100 Million Vehicle Miles Traveled .....	120
Injured Persons per 100,000 Population .....	1,187
Injured Persons per 100,000 Registered Vehicles .....	1,522
Injured Persons per 100,000 Licensed Drivers .....	1,729

Sources: Crashes, Fatalities, Injuries, and Costs—National Highway Traffic Safety Administration.  
 Population—U.S. Bureau of the Census.  
 Vehicle Miles Traveled—Federal Highway Administration.  
 Registered Vehicles—R.L. Polk & Co. and Federal Highway Administration.

*Cover Photo—This single-vehicle crash occurred in Fairfax County, Virginia, on a roadway with a posted speed limit of 35 mph. The driver, who was the only occupant of the vehicle, was seriously injured when the vehicle hit a utility pole at high speed. Photographer: Detective James D. Bean, Fairfax County Police Department, Accident Reconstruction Section.*



DOT HS 809 100

# **Traffic Safety Facts 1999: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System**

**National Highway Traffic Safety Administration**  
National Center for Statistics and Analysis  
U.S. Department of Transportation  
Washington, DC 20590

**December 2000**



# EXECUTIVE DIRECTOR'S MESSAGE

---

**Dear Reader,**

The National Highway Traffic Safety Administration is pleased to present its *Traffic Safety Facts 1999: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System*. This report combines data from two of our key crash databases, providing statistics on traffic crashes of all severities.

The mission of the National Highway Traffic Safety Administration is to reduce deaths, injuries, and economic losses from motor vehicle crashes. Fortunately, much progress has been made in reducing the number of deaths and serious injuries on our nation's highways. In 1999, the fatality rate per 100 million vehicle miles of travel fell to a new historic low of 1.5. However, nearly 6.3 million police-reported motor vehicle crashes still occurred on our highways in 1999—one every 5 seconds. On average, a person was injured in these crashes every 10 seconds, and someone was killed every 13 minutes.

Information about these crashes, such as the tables in this report, helps us better understand the highway safety problem and develop effective solutions. Reducing these numbers requires the continued and combined efforts of state, local, and federal organizations working toward this common goal.

The National Highway Traffic Safety Administration is committed to keeping highway safety high on the list of our national priorities.

I hope you find this publication useful.

**Sincerely,**



**L. Robert Shelton**  
*Executive Director*  
**National Highway Traffic Safety Administration**



# CONTENTS

---

- Introduction..... 1**
- FARS Operations ..... 3**
- GES Operations ..... 5**
- About This Report ..... 7**
- Data Availability..... 9**
- 1. Trends ..... 13**
- 2. Crashes..... 43**
- 3. Vehicles ..... 61**
- 4. People..... 85**
- 5. States ..... 139**
- Appendix A. FARS Data Elements ..... 185**
  - Crash Level..... 185
  - Vehicle Level ..... 185
  - Driver Level ..... 186
  - Person Level ..... 186
- Appendix B. GES Data Elements ..... 187**
  - Crash Level..... 187
  - Vehicle/Driver Level ..... 187
  - Person Level ..... 188
- Appendix C. GES Technical Notes ..... 189**
  - Standard Errors ..... 189
  - Unknowns ..... 191
  - GES Note ..... 191
- Glossary..... 193**
- Index..... 199**

**Tables**

**Trends: General**

1. Crashes by Crash Severity, 1988-1999 . . . . .	14
2. Persons Killed or Injured and Fatality and Injury Rates per Population, Licensed Drivers, Registered Vehicles, and Vehicle Miles Traveled, 1966-1999 . . . . .	15
3. Vehicles Involved in Crashes and Involvement Rates per Vehicle Miles of Travel and per Registered Vehicle by Vehicle Type and Crash Severity, 1975-1999 . . . . .	17
4. Persons Killed or Injured, by Person Type and Vehicle Type, 1975-1999 . . . . .	18
5. Drivers Involved in Crashes and Involvement Rates per Licensed Driver by Sex and Crash Severity, 1975-1999 . . . . .	19

**Trends: Occupants**

6. Occupant Fatality and Injury Rates per Population by Age Group, 1975-1999 . . . . .	21
7. Passenger Car Occupants Killed or Injured and Fatality and Injury Rates per Registered Vehicle and Vehicle Miles of Travel, 1975-1999 . . . . .	22
8. Light Truck Occupants Killed or Injured and Fatality and Injury Rates per Registered Vehicle and Vehicle Miles of Travel, 1975-1999 . . . . .	24
9. Large Truck Occupants Killed or Injured and Fatality and Injury Rates per Registered Vehicle and Vehicle Miles of Travel, 1975-1999 . . . . .	26
10. Motorcycle Occupants Killed or Injured and Fatality and Injury Rates per Registered Vehicle and Vehicle Miles of Travel, 1975-1999 . . . . .	28

**Trends: Large Truck Related**

11. Persons Killed or Injured in Crashes Involving a Large Truck, by Person Type and Crash Type, 1975-1999 . . . . .	30
--	----

**Trends: Nonmotorists**

12. Nonmotorist Fatality and Injury Rates per Population by Age Group, 1975-1999 . . . . .	31
--	----

**Trends: Alcohol**

13. Persons Killed, by Highest Blood Alcohol Concentration (BAC) in the Crash, 1982-1999 . . . . .	32
14. Persons Killed During Holiday Periods by Alcohol Involvement, 1982-1999 . . . . .	33
15. Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Time of Day, 1982-1999 . . . . .	34
16. Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Sex, 1982-1999 . . . . .	34
17. Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Vehicle Type, 1982-1999 . . . . .	35
18. Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Age, 1982-1999 . . . . .	36
19. Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Survival Status, 1982-1999 . . . . .	38
20. Pedestrians Killed, 14 Years and Older, by Blood Alcohol Concentration (BAC), 1982-1999 . . . . .	38



**Tables (Continued)**

**Trends: Restraints**

21. Drivers of Passenger Cars and Light Trucks in Crashes by Crash Severity and Restraint Use, 1975-1999 ..... 39

22. Occupants of Passenger Cars and Light Trucks Killed and Injured, by Restraint Use, 1975-1999 ..... 40

**Crashes: Time**

23. Crashes and Crash Rates by Month and Crash Severity ..... 44

24. Crashes by Time of Day, Day of Week, and Crash Severity ..... 45

25. Crashes by Weather Condition, Light Condition, and Crash Severity ..... 47

26. Fatal Crashes by Emergency Medical Services (EMS) Response Times Within Designated Minutes and by Land Use ..... 48

**Crashes: Location**

27. Crashes by Crash Type, Relation to Roadway, and Crash Severity ..... 49

28. Crashes by Relation to Junction, Traffic Control Device, and Crash Severity ..... 50

29. Crashes by Speed Limit, Crash Type, and Crash Severity ..... 51

30. Fatal Crashes by Speed Limit and Land Use ..... 52

31. Crashes by Number of Lanes, Trafficway Flow, and Crash Severity ..... 53

**Crashes: Circumstances**

32. Crashes by First Harmful Event, Manner of Collision, and Crash Severity ..... 54

33. Two-Vehicle Crashes by Vehicle Type and Crash Severity ..... 55

**Crashes: Alcohol**

34. Crashes and Percent Alcohol Related by Time of Day, Crash Type, and Crash Severity ..... 56

**Vehicles: All Vehicles**

35. Vehicles Involved in Crashes by Vehicle Type and Crash Severity ..... 62

36. Vehicles Involved in Fatal Crashes by Body Type ..... 63

37. Vehicles Involved in Crashes by Vehicle Type, Rollover Occurrence, and Crash Severity ..... 64

38. Vehicles Involved in Crashes by Vehicle Type, Fire Occurrence, and Crash Severity ..... 66

39. Vehicles Involved in Single- and Two-Vehicle Crashes by Vehicle Maneuver and Crash Severity ..... 67

40. Vehicles Involved in Fatal Crashes by Roadway Function Class, Crash Type, and Hazardous Cargo ..... 68

**Vehicles: Passenger Cars**

41. Passenger Cars Involved in Crashes by Most Harmful Event and Crash Severity ..... 71

42. Passenger Cars Involved in Crashes by Initial Point of Impact, Crash Severity, and Crash Type ..... 72

**Tables (Continued)**

**Vehicles: *Light Trucks***

43. Light Trucks Involved in Crashes by Most Harmful Event and Crash Severity . . . . . 73  
 44. Light Trucks Involved in Crashes by Initial Point of Impact, Crash Severity,  
 and Crash Type . . . . . 74

**Vehicles: *Large Trucks***

45. Large Trucks Involved in Crashes by Most Harmful Event and Crash Severity . . . . . 75  
 46. Large Trucks Involved in Crashes by Initial Point of Impact, Crash Severity,  
 and Crash Type . . . . . 76  
 47. Large Trucks Involved in Crashes by Truck Type, Rollover Occurrence,  
 and Crash Severity . . . . . 77  
 48. Truck Tractors with Trailers Involved in Crashes by Number of Trailers,  
 Jackknife Occurrence, and Crash Severity . . . . . 78

**Vehicles: *Motorcycles***

49. Motorcycles Involved in Crashes by Most Harmful Event and Crash Severity . . . . . 79  
 50. Motorcycles Involved in Crashes by Initial Point of Impact, Crash Severity,  
 and Crash Type . . . . . 80

**Vehicles: *Buses***

51. Buses Involved in Crashes by Most Harmful Event and Crash Severity . . . . . 81  
 52. Buses Involved in Crashes by Initial Point of Impact, Crash Severity,  
 and Crash Type . . . . . 82

**People: *All Victims***

53. Persons Killed or Injured, by Person Type and Injury Severity . . . . . 86  
 54. Persons Killed or Injured, by Age and Injury Severity . . . . . 86  
 55. Persons Killed or Injured, by Sex and Injury Severity . . . . . 86  
 56. Persons Killed or Injured and Fatality and Injury Rates per 100,000 Population  
 by Age and Sex . . . . . 88  
 57. Persons Killed or Injured in Crashes by Weather Condition and Light Condition . . . . . 90  
 58. Persons Killed or Injured in Crashes by Speed Limit and Crash Type . . . . . 90  
 59. Persons Killed in Crashes by Speed Limit and Land Use . . . . . 91  
 60. Persons Killed or Injured in Crashes and Percent Alcohol Related  
 by Time of Day and Crash Type . . . . . 92  
 61. Persons Killed in Construction/Maintenance Zones, by Roadway Function Class  
 and Person Type . . . . . 94  
 62. Persons Killed in Crashes Involving Emergency Vehicles, by Person Type,  
 Crash Type, and Vehicle Type . . . . . 94

**People: *Drivers***

63. Driver Involvement Rates per 100,000 Licensed Drivers by Age, Sex,  
 and Crash Severity, 1999 . . . . . 98  
 64. Drivers Involved in Fatal Crashes by Previous Driving Record and License Status . . . . . 100  
 65. Related Factors for Drivers Involved in Fatal Crashes . . . . . 100

## Tables (Continued)

### People: *Occupants*

66. Vehicle Occupants Killed or Injured, by Vehicle Type, Person Type, and Injury Severity . . . . .	101
67. Vehicle Occupants Killed or Injured, by Sex and Vehicle Type . . . . .	102
68. Vehicle Occupants Killed or Injured, by Age and Vehicle Type . . . . .	103
69. Vehicle Occupants Killed or Injured, by Age, Person Type, and Sex . . . . .	104
70. Vehicle Occupants Killed or Injured, by Vehicle Type and Most Harmful Event. . . . .	105
71. Vehicle Occupants Killed or Injured, by Initial Point of Impact and Vehicle Type . . . . .	106
72. Vehicle Occupants Killed or Injured, by Vehicle Type and Ejection . . . . .	107
73. Occupants Killed or Injured in Two-Vehicle Crashes, by Vehicle Types Involved . . . . .	108
74. Occupants Involved in Fatal Crashes and Occupant Fatalities, by Vehicle Body Type . . . . .	109
75. Passenger Car Occupants Involved in Fatal Crashes and Occupants Killed, by Car Wheelbase Size . . . . .	110

### People: *Alcohol*

76. Persons Killed or Injured in Alcohol-Related Crashes, by Person Type and Injury Severity . . . . .	111
77. Drivers Involved in Crashes by Age, Alcohol Involvement, and Crash Severity . . . . .	112
78. Drivers Killed or Injured, by Time of Day, Day of Week, Age, Alcohol Involvement, and Crash Type . . . . .	114
79. Drivers Killed in Crashes, by Age and Driver's Blood Alcohol Concentration (BAC). . . . .	114
80. Drivers Involved in Crashes by Vehicle Type, Alcohol Involvement, and Crash Severity . . . . .	116
81. Persons Killed, by Age and Highest Blood Alcohol Concentration (BAC) in the Crash. . . . .	117
82. Pedestrians Killed, by Pedestrian's and Driver's Blood Alcohol Concentration (BAC). . . . .	117

### People: *Restraints*

83. Drivers Involved in Crashes by Vehicle Type, Restraint Use, and Crash Severity . . . . .	118
84. Passenger Car, Light Truck, and Large Truck Occupants Killed or Injured, by Age and Restraint Use . . . . .	119
85. Passenger Car, Light Truck, or Large Truck Occupant Survivors of Fatal Crashes by Age and Restraint Use . . . . .	120
86. Passenger Car Occupants Killed or Injured, by Seating Position and Restraint Use . . . . .	121
87. Light Truck Occupants Killed or Injured, by Seating Position and Restraint Use. . . . .	122
88. Passenger Car and Light Truck Occupants Killed and Injured, by Restraint Use and Type of Restraint . . . . .	123

**Tables (Continued)**

**People: *Motorcyclists***

89. Motorcycle Occupants Killed or Injured, by Time of Day and Day of Week . . . . . 124  
 90. Motorcyclists Killed, by Person Type and Helmet Use . . . . . 126  
 91. Motorcycle Operators Involved in Fatal Crashes by Age and License Compliance . . . . . 126

**People: *School Bus Related***

92. Pedestrians Killed in School Bus Related Crashes, by Age and Striking Vehicle . . . . . 127  
 93. Persons Killed or Injured in School Bus Related Crashes by Person Type . . . . . 127

**People: *Pedestrians***

94. Pedestrians Killed or Injured, by Age and Location. . . . . 128  
 95. Pedestrians Killed or Injured and Fatality and Injury Rates per 100,000 Population  
 by Age and Sex. . . . . 129  
 96. Pedestrians Killed or Injured, by Time of Day and Day of Week . . . . . 130  
 97. Pedestrians Killed or Injured in Single-Vehicle Crashes, by Vehicle Type and  
 Initial Point of Impact. . . . . 132  
 98. Pedestrians Killed, by Related Factors . . . . . 132

**People: *Pedalcyclists***

99. Pedalcyclists Killed or Injured, by Age and Location . . . . . 133  
 100. Pedalcyclists Killed or Injured and Fatality and Injury Rates per 100,000 Population  
 by Age and Sex. . . . . 134  
 101. Pedalcyclists Killed or Injured, by Time of Day and Day of Week. . . . . 135  
 102. Pedalcyclists Killed or Injured in Single-Vehicle Crashes, by Vehicle Type  
 and Initial Point of Impact . . . . . 136  
 103. Pedalcyclists Killed, by Related Factors . . . . . 136

**States: *Crashes and All Victims***

104. 1999 Traffic Fatalities by State and Percent Change from 1998 . . . . . 140  
 105. Fatal Crashes by State and First Harmful Event. . . . . 142  
 106. Fatal Crashes by State and Roadway Function Class. . . . . 144  
 107. Fatalities by State and Roadway Function Class . . . . . 146  
 108. Persons Killed, Licensed Drivers, Registered Vehicles, Population, and Fatality Rates  
 by State . . . . . 148  
 109. Persons Killed, by State and Person Type . . . . . 150  
 110. Persons Killed, by State and Age Group . . . . . 152

**States: *Occupants***

111. Occupants Killed, by State and Vehicle Type . . . . . 154  
 112. Passenger Car Occupants Killed, by State and Restraint Use . . . . . 156

**States: *Pedestrians***

113. 1999 Ranking of State Pedestrian Fatality Rates . . . . . 158

## Tables (Continued)

### States: *Alcohol*

114. Persons Killed, by State and Highest Blood Alcohol Concentration in the Crash . . . . .	160
115. Drivers Involved in Fatal Crashes, by State and Blood Alcohol Concentration of the Driver . . . . .	162
116. Drivers Killed in Fatal Crashes, by State and Blood Alcohol Concentration of the Driver . . . . .	164
117. Surviving Drivers Involved in Fatal Crashes, by State and Blood Alcohol Concentration of the Driver . . . . .	166
118. Speeding-Related Traffic Fatalities and Costs by Road Type and Speed Limit . . . . .	168

### States: *Emergency Medical Services*

119. Rural Fatal Crashes by State and Average Emergency Medical Services (EMS) Response Times . . . . .	170
120. Urban Fatal Crashes by State and Average Emergency Medical Services (EMS) Response Times . . . . .	172

### States: *City Rates*

121. Persons Killed, Population, and Fatality Rates by City . . . . .	174
---	-----

### States: *Fatalities and Fatality Rates*

122. Fatalities and Fatality Rates by State, 1975-1999 . . . . .	178
--	-----

### States: *Laws*

123. Child Passenger Protection Laws . . . . .	180
124. Status of State Motorcycle Helmet Use Requirements. . . . .	181
125. Impaired Driving High-Priority Legislation. . . . .	182
126. Key Provisions of Safety Belt Use Laws . . . . .	184

## Figures

### Trends

1. Fatal Crashes, 1975-1999 .....	14
2. Motor Vehicle Fatality and Injury Rates per 100 Million Vehicle Miles Traveled, 1966-1999 .....	16
3. Driver Involvement Rate per 100,000 Licensed Drivers 16 Years and Older by Sex and Crash Severity, 1975-1999 .....	20
4. Passenger Car Occupant Fatality and Injury Rates per 100 Million Vehicle Miles Traveled, 1975-1999 .....	23
5. Light Truck Occupant Fatality and Injury Rates per 100 Million Vehicle Miles Traveled, 1975-1999 .....	25
6. Large Truck Occupant Fatality and Injury Rates per 100 Million Vehicle Miles Traveled, 1975-1999 .....	27
7. Motorcycle Occupant Fatality and Injury Rates per 100 Million Vehicle Miles Traveled, 1975-1999 .....	29
8. Proportion of Persons Killed, by Highest Blood Alcohol Concentration (BAC) in the Crash, 1982-1999 .....	32
9. Proportion of Drivers Involved in Fatal Crashes with BAC = 0.10+ by Vehicle Type, 1982-1999 .....	35
10. Proportion of Drivers in Fatal Crashes with BAC = 0.10+ by Age, 1982-1999 .....	37

### Crashes

11. Average Fatal Crashes per Hour by Time of Day, Weekdays and Weekends .....	46
12. Percent of Fatal Crashes by Speed Limit and Land Use .....	52
13. Percent of Crashes Alcohol Related, by Time of Day and Crash Severity .....	57

### Vehicles

14. Proportion of Vehicles Involved in Traffic Crashes .....	62
15. Percent Rollover Occurrence by Vehicle Type and Crash Severity .....	65
16. Percent of Vehicles in Crashes by Most Harmful Event and Vehicle Type .....	69
17. Percent of Vehicles in Crashes by Initial Point of Impact, Crash Type, and Vehicle Type .....	70

## Figures (Continued)

### People

18. Percent of Persons Killed or Injured, by Age . . . . .	87
19. Fatality and Injury Rates per 100,000 Population, by Age and Sex . . . . .	89
20. Percent of Fatalities by Speed Limit and Land Use . . . . .	91
21. Percent of Persons Killed or Injured in Alcohol-Related Crashes by Time of Day . . . . .	93
22. Fatality and Injury Rates per 1,000 Crashes by First Harmful Event and Manner of Collision . . . . .	95
23. Fatality and Injury Rates per 1,000 Crashes by Time of Day . . . . .	96
24. Fatality and Injury Rates per 1,000 Crashes by Speed Limit . . . . .	97
25. Driver Involvement Rates per 100,000 Licensed Drivers by Crash Severity, Age, and Sex . . . . .	99
26. Percent of Driver Alcohol Involvement for Fatal and Injury Crashes . . . . .	113
27. Alcohol Involvement (BAC $\geq$ 0.01) for Drivers Killed, by Driver Age, Crash Type, Time of Day, and Day of Week . . . . .	115
28. Average Number of Motorcyclists Killed per Hour by Time of Day and Day of Week . . . . .	125
29. Average Number of Pedestrians Killed per Hour by Time of Day and Day of Week . . . . .	131

### States

30. 1999 Traffic Fatalities by State and Percent Change from 1998 . . . . .	141
---	-----





# INTRODUCTION

---

In this annual report, *Traffic Safety Facts 1999: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System*, the National Highway Traffic Safety Administration (NHTSA) presents descriptive statistics about traffic crashes of all severities, from those that result in property damage to those that result in the loss of human life.

Information from two of NHTSA's primary data systems has been combined to create a single source for motor vehicle crash statistics. The first data system, the Fatality Analysis Reporting System (FARS), is probably the better known of the two sources. Established in 1975, FARS contains data on the most severe traffic crashes, those in which someone was killed. The second source is the National Automotive Sampling System General Estimates System (GES), which began operation in 1988. GES contains data from a nationally representative sample of police-reported crashes of all severities, including those that result in death, injury, or property damage. The next two sections provide a brief description of FARS and GES.

Both systems were designed and developed by NHTSA's National Center for Statistics and Analysis (NCSA) to provide an overall measure of highway safety, to help identify traffic safety problems, to suggest solutions, and to help provide an objective basis on which to evaluate the effectiveness of motor vehicle safety standards and highway safety initiatives. Data from these systems are used to answer requests for information from the international and national highway traffic safety communities, including state and local governments, the Congress, Federal agencies, research organizations, industry, the media, and private citizens.



# FARS OPERATIONS

---

FARS, which became operational in 1975, contains data on a census of fatal traffic crashes within the 50 states, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public, and must result in the death of an occupant of a vehicle or a nonmotorist within 30 days of the crash.

NHTSA has a cooperative agreement with an agency in each state's government to provide information on all qualifying fatal crashes in the state. These agreements are managed by Regional Contracting Officer's Technical Representatives located in the 10 NHTSA Regional Offices. Trained state employees, called "FARS analysts," are responsible for gathering, translating, and transmitting their state's data to NCSA in a standard format. The number of analysts varies by state, depending on the number of fatal crashes and the ease of obtaining data.

FARS data are obtained solely from the state's existing documents:

Police Accident Reports	Death Certificates
State Vehicle Registration Files	Coroner/Medical Examiner Reports
State Driver Licensing Files	Hospital Medical Reports
State Highway Department Data	Emergency Medical Service Reports
Vital Statistics	Other State Records

From these documents, the analysts code more than 100 FARS data elements. (See Appendix A for a list of the FARS data elements.) The specific data elements may be modified slightly each year to conform to changing user needs, vehicle characteristics, and highway safety emphasis areas. The data collected within FARS do not include any personal identifying information, such as names, addresses, or social security numbers. Thus, any data kept in FARS files and made available to the public fully conform to the Privacy Act.

Each analyst enters data into a local microcomputer data file, and daily updates are sent to NHTSA's central computer database. Data are automatically checked when entered for acceptable range values and for consistency, enabling the analyst to make corrections immediately. Several programs continually monitor and improve the completeness and accuracy of the data. The 1999 FARS data file used for the statistics in this report was created in June 2000; however, the 1999 FARS file will *officially* close on February 21, 2001. This additional time provides the opportunity for submission of important variable data requiring outside sources, which may lead to changes in the final counts. The updated final counts for 1998 are reflected in this report. The updated final counts for 1999 will be reflected in the 2000 annual report.



# GES OPERATIONS

---

GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. The system began operation in 1988. To be eligible for the GES sample, a police accident report (PAR) must be completed for the crash, and the crash must involve at least one motor vehicle traveling on a trafficway and result in property damage, injury, or death. Although various sources suggest that about half the motor vehicle crashes in the country are not reported to police, the majority of these unreported crashes involve only minor property damage and no significant personal injury. By restricting attention to police-reported crashes, the GES concentrates on those crashes of greatest concern to the highway safety community and the general public.

GES data collectors make weekly visits to approximately 400 police jurisdictions in 60 sites across the United States, where they randomly sample about 50,000 PARs per year. The collectors obtain copies of the PARs and send them to a central contractor for coding. No other data are collected beyond the selected PARs—no driver license, vehicle registration, or medical information is obtained.

Trained data entry personnel interpret and code data directly from the PARs into an electronic data file. Approximately 90 data elements are coded into a common format. (See Appendix B for a list of the GES data elements.) Some elements are modified every other year to meet the changing needs of the highway safety community. To protect individual privacy, no personal information (names, addresses, specific crash locations) is coded. During data coding, the data are checked electronically for validity and consistency. After the data file is created, further quality checks are performed on the data through computer processing and by the data coding supervisors. The 1999 file used for the statistics in this report was completed in July 2000.



# ABOUT THIS REPORT

---

Fatal crash data from FARS and nonfatal crash data from GES are presented in this report in five chapters. Chapter 1, “Trends,” presents data from all years of FARS (1975 through 1999) and GES (1988 through 1999). The remaining chapters present data only from 1999. Chapter 2, “Crashes,” describes general characteristics of crashes, such as when and how often they occurred, where they occurred, and what happened during the crash. Chapter 3, “Vehicles,” concentrates on the types of vehicles involved in crashes and the damage to the vehicles. Chapter 4, “People,” is the largest chapter of this report, with statistics about drivers, passengers, pedestrians, and pedalcyclists. The last chapter of the report, “States,” contains information about crashes for each state, the District of Columbia, and Puerto Rico. Terms used throughout the report are defined in the Glossary.

About three-quarters of the tables in this report present data from both FARS and GES. The remaining tables contain FARS data only. Statistics describing fatal crashes or fatalities have been derived from FARS. Statistics describing injury crashes, property-damage-only crashes, or nonfatal injuries have been derived from GES. The reader should be aware that FARS numbers are actual counts of fatalities or fatal crashes, whereas GES numbers are estimates of counts of crashes and injuries and are subject to sampling and nonsampling errors. (See Appendix C for more information on these errors.) To emphasize this difference, FARS numbers are not rounded, while GES estimates have been rounded to the nearest thousand. As a result of the rounding, for some tables, the sum of the row or column entries may not equal the row or column total. In addition, percentages have been calculated prior to rounding.

The reader may also notice that many tables have rows or footnotes for unknowns for FARS data, but not for GES data. The reason for this difference is that almost all the GES unknown data have been assigned values through complex statistical procedures. FARS unknown data, on the other hand, are not assigned values, with the exception of blood alcohol concentration (BAC) test results. BAC values have been assigned to drivers and nonoccupants involved in fatal crashes when the alcohol test results are unknown. A complete description of the statistical procedures used for unknown data in GES and for unknown alcohol test results in FARS can be found in two technical reports: *Imputation in the General Estimates System* (DOT HS 807 985) and *A Method for Estimating Posterior BAC Distributions for Persons Involved in Fatal Traffic Accidents* (DOT HS 807 094). These reports are available from the National Center for Statistics and Analysis (NCSA) at the address given in the following section.





# DATA AVAILABILITY

While this report presents a wide spectrum of information in more than 100 tables and figures, it contains only a fraction of the data available from FARS and GES. Additional data from FARS (1975 through 1999) or from GES (1988 through 1999) are available in four ways:

- Modest requests for specific data will be answered by NCSA at no charge. Response usually requires about 2 weeks, depending on the nature and complexity of the data requested.
- Computer tapes or compact disks can be purchased in one of several formats amenable to analysis. This will enable you to process the data using your own computer system. Information on acquiring the tapes is available by contacting the NCSA at the address below.
- FARS and GES data can be obtained by downloading any of the published files from the Internet, at <ftp://www.nhtsa.dot.gov>. The files are available in SAS and sequential ASCII file formats. This will enable you to process the data using your own computer system.
- FARS data can also be accessed on the world wide web at [www-fars.nhtsa.dot.gov](http://www-fars.nhtsa.dot.gov). This web site provides instant access to the 1994 through 1999 FARS data via the Query Engine, Wizard, and Reports Library. The Query Engine will enable you to process the data using our interactive user interface. The Query Wizard is an inventory of popularly requested statistical reports not included in NHTSA official publications. These are national reports that may be customized by selection to state, county, or city jurisdictions. The Reports Library, which contains NHTSA's published reports (including this publication) provides searchable and browseable access to NCSA's reports on crashes.

Requests for more information from FARS or GES or for a copy of the data files, should be directed to:

National Highway Traffic Safety Administration  
National Center for Statistics and Analysis  
NRD-31  
400 Seventh Street, S.W.  
Washington, D.C. 20590  
(202) 366-4198 or 1-800-934-8517  
(202) 366-7078 (FAX)

### **Auto Safety Hotline**

To report a safety-related problem or to inquire about motor vehicle safety information, contact the Auto Safety Hotline at 1-800-424-9393.

Additional information on all NHTSA's data files, including FARS and GES, can be found on the NCSA world wide web site: [www.nhtsa.dot.gov/people/ncsa](http://www.nhtsa.dot.gov/people/ncsa). Current fact sheets, as well as recent NCSA research notes and abstracts of technical reports, can be downloaded in portable document format (.pdf). A traffic safety overview is also provided, with information from several fact sheets and data on lives saved by different types of passenger restraints. Comments and suggestions about the NCSA web site can be e-mailed to the following address: [ncsaweb@nhtsa.dot.gov](mailto:ncsaweb@nhtsa.dot.gov).



## Chapter 1 ♦ Trends



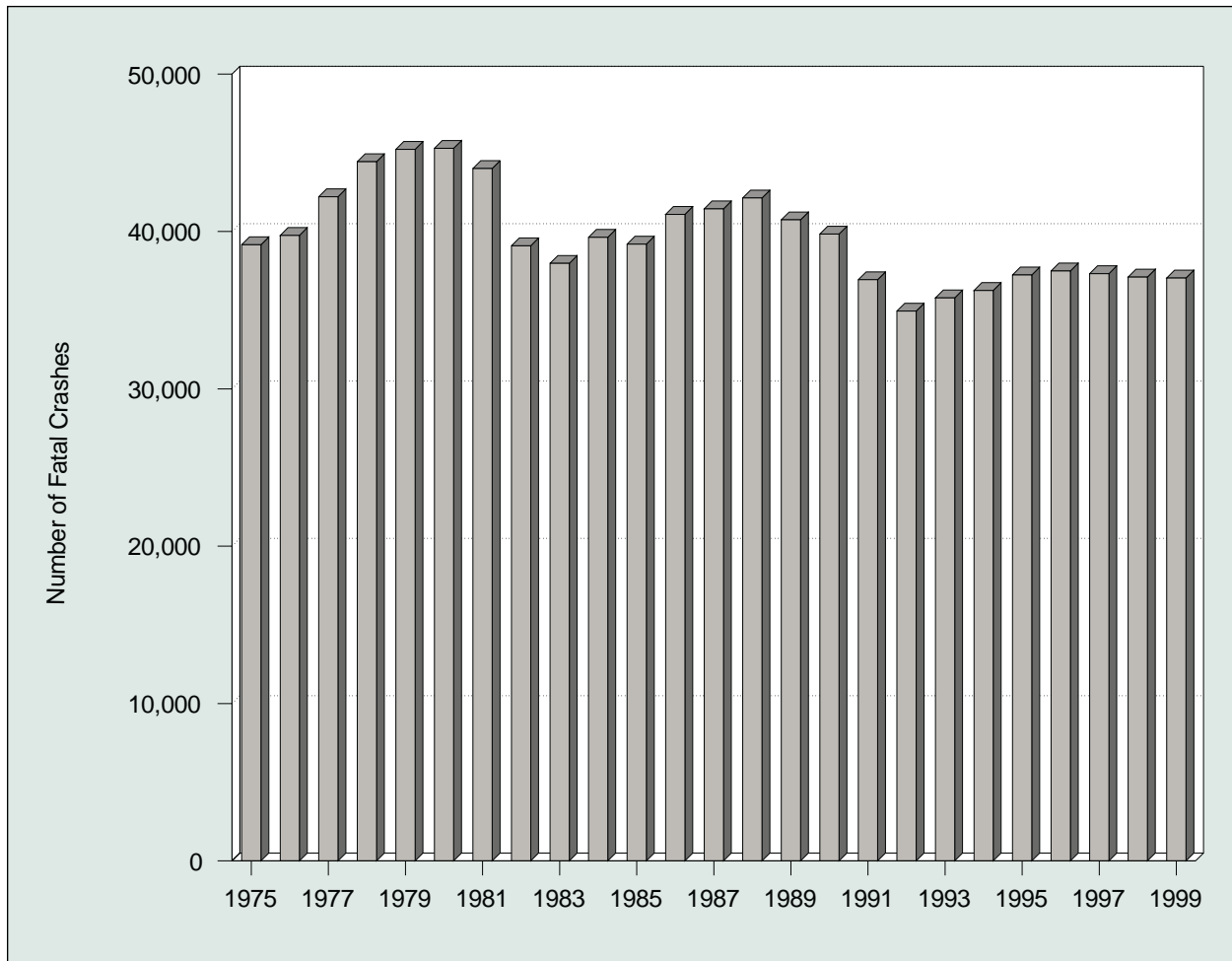
# 1. TRENDS

---

The tables in this chapter present statistics about motor vehicle crashes over time. Trends for fatal crashes and fatalities generally are presented from 1975 (when FARS began operation) to 1999; however, tables with alcohol data from FARS show data only for the years these data are available—1982 to 1999. Trends for nonfatal crashes and injured are presented from 1988 (when GES began operation) to 1999. Care should be taken when comparing nonfatal crash and injury statistics from one year to the next. Since the statistics derived from GES data are estimates, year-to-year differences may be the result of the sampling process, not the result of an actual trend. The variability or sampling errors associated with the estimates must be considered when making any year-to-year comparisons using GES data. (For more information on sampling error, see Appendix C.) Below are some of the statistics you will find in this chapter:

- Fatal crashes dropped slightly (0.2 percent) from 1998 to 1999, and the fatality rate dropped to a new historic low of 1.5 fatalities per 100 million vehicle miles of travel in 1999.
- The injury rate per 100 million vehicle miles of travel decreased slightly (by 0.8 percent) from 1998 to 1999.
- The occupant fatality rate per 100,000 population, which declined by 23 percent from 1975 to 1992, increased by 1.9 percent from 1992 to 1999.
- The occupant injury rate per 100,000 population, which declined by 14 percent from 1988 to 1992, decreased by 0.4 percent from 1992 to 1999.
- The nonmotorist fatality rate per 100,000 population has declined by 47 percent from 1975 to 1999.
- The nonmotorist injury rate per 100,000 population has declined by 35 percent from 1988 to 1999.
- The percent of alcohol-related fatalities has declined from 57 percent in 1982 to 38 percent in 1999.

**Figure 1  
Fatal Crashes, 1975-1999**



**Table 1  
Crashes by Crash Severity, 1988-1999**

Year	Crash Severity						Total Crashes	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1988	42,130	0.6	2,233,000	32.4	4,611,000	67.0	<b>6,887,000</b>	<b>100.0</b>
1989	40,741	0.6	2,153,000	32.4	4,459,000	67.0	<b>6,653,000</b>	<b>100.0</b>
1990	39,836	0.6	2,122,000	32.8	4,309,000	66.6	<b>6,471,000</b>	<b>100.0</b>
1991	36,937	0.6	2,008,000	32.8	4,073,000	66.6	<b>6,117,000</b>	<b>100.0</b>
1992	34,942	0.6	1,991,000	33.2	3,974,000	66.2	<b>6,000,000</b>	<b>100.0</b>
1993	35,780	0.6	2,022,000	33.1	4,048,000	66.3	<b>6,106,000</b>	<b>100.0</b>
1994	36,254	0.6	2,123,000	32.7	4,336,000	66.8	<b>6,496,000</b>	<b>100.0</b>
1995	37,241	0.6	2,217,000	33.1	4,446,000	66.4	<b>6,699,000</b>	<b>100.0</b>
1996	37,494	0.6	2,238,000	33.1	4,494,000	66.4	<b>6,770,000</b>	<b>100.0</b>
1997	37,324	0.6	2,149,000	32.4	4,438,000	67.0	<b>6,624,000</b>	<b>100.0</b>
1998	37,107	0.6	2,029,000	32.0	4,269,000	67.4	<b>6,335,000</b>	<b>100.0</b>
1999	37,043	0.6	2,054,000	32.7	4,188,000	66.7	<b>6,279,000</b>	<b>100.0</b>

**Table 2**  
**Persons Killed or Injured and Fatality and Injury Rates per Population, Licensed Drivers, Registered Vehicles, and Vehicle Miles Traveled, 1966-1999**

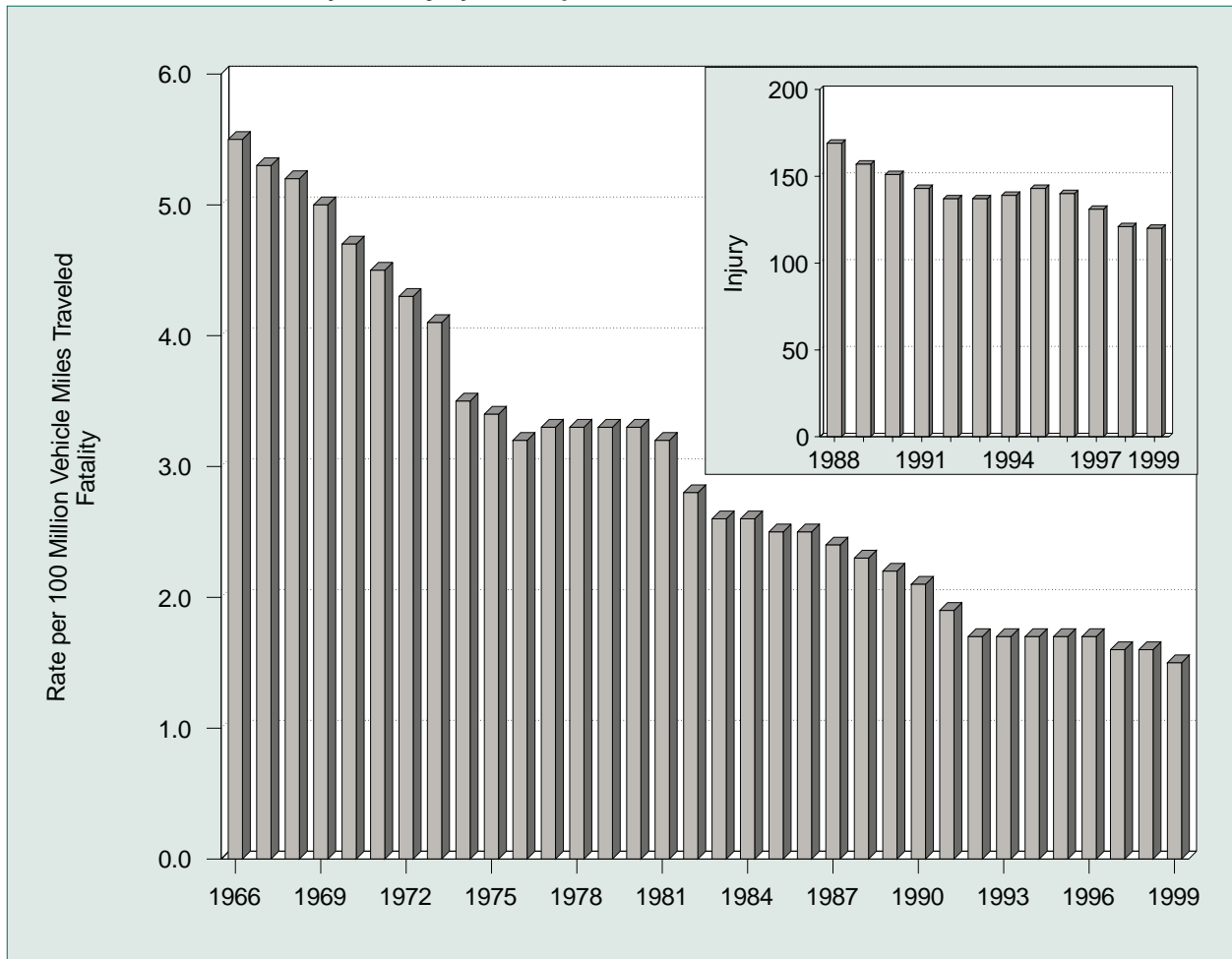
Killed									
Year	Fatalities	Resident Population (Thousands)	Fatality Rate per 100,000 Population	Licensed Drivers (Thousands)	Fatality Rate per 100,000 Licensed Drivers	Registered Motor Vehicles (Thousands)	Fatality Rate per 100,000 Registered Vehicles	Vehicle Miles Traveled (Billions)	Fatality Rate per 100 Million VMT
1966	50,894	196,560	25.89	100,998	50.39	95,703	53.18	926	5.5
1967	50,724	198,712	25.53	103,172	49.16	98,859	51.31	964	5.3
1968	52,725	200,706	26.27	105,410	50.02	102,987	51.20	1,016	5.2
1969	53,543	202,677	26.42	108,306	49.44	107,412	49.85	1,062	5.0
1970	52,627	205,052	25.67	111,543	47.18	111,242	47.31	1,110	4.7
1971	52,542	207,661	25.30	114,426	45.92	116,330	45.17	1,179	4.5
1972	54,589	209,896	26.01	118,414	46.10	122,557	44.54	1,260	4.3
1973	54,052	211,909	25.51	121,546	44.47	130,025	41.57	1,313	4.1
1974	45,196	213,854	21.13	125,427	36.03	134,900	33.50	1,281	3.5
1975	44,525	215,973	20.62	129,791	34.31	126,153	35.29	1,328	3.4
1976	45,523	218,035	20.88	134,036	33.96	130,793	34.81	1,402	3.2
1977	47,878	220,239	21.74	138,121	34.66	134,514	35.59	1,467	3.3
1978	50,331	222,585	22.61	140,844	35.74	140,374	35.85	1,545	3.3
1979	51,093	225,055	22.70	143,284	35.66	144,317	35.40	1,529	3.3
1980	51,091	227,225	22.48	145,295	35.16	146,845	34.79	1,527	3.3
1981	49,301	229,466	21.49	147,075	33.52	149,330	33.01	1,555	3.2
1982	43,945	231,664	18.97	150,234	29.25	151,148	29.07	1,595	2.8
1983	42,589	233,792	18.22	154,389	27.59	153,830	27.69	1,653	2.6
1984	44,257	235,825	18.77	155,424	28.48	158,900	27.85	1,720	2.6
1985	43,825	237,924	18.42	156,868	27.94	166,047	26.39	1,775	2.5
1986	46,087	240,133	19.19	159,486	28.90	168,545	27.34	1,835	2.5
1987	46,390	242,289	19.15	161,816	28.67	172,750	26.85	1,921	2.4
1988	47,087	244,499	19.26	162,854	28.91	177,455	26.53	2,026	2.3
1989	45,582	246,819	18.47	165,554	27.53	181,165	25.16	2,096	2.2
1990	44,599	249,464	17.88	167,015	26.70	184,275	24.20	2,144	2.1
1991	41,508	252,153	16.46	168,995	24.56	186,370	22.27	2,172	1.9
1992	39,250	255,030	15.39	173,125	22.67	184,938	21.22	2,247	1.7
1993	40,150	257,783	15.58	173,149	23.19	188,350	21.32	2,296	1.7
1994	40,716	260,327	15.64	175,403	23.21	192,497	21.15	2,358	1.7
1995	41,817	262,803	15.91	176,628	23.68	197,065	21.22	2,423	1.7
1996	42,065	265,229	15.86	179,539	23.43	201,631	20.86	2,486	1.7
1997	42,013	267,784	15.69	182,709	22.99	203,568	20.64	2,562	1.6
1998	41,501	270,248	15.36	184,980	22.44	208,076	19.95	2,632	1.6
1999	41,611	272,691	15.26	187,170	22.23	212,685	19.56	2,691	1.5

Injured									
Year	Injured	Resident Population (Thousands)	Injury Rate per 100,000 Population	Licensed Drivers (Thousands)	Injury Rate per 100,000 Licensed Drivers	Registered Motor Vehicles (Thousands)	Injury Rate per 100,000 Registered Vehicles	Vehicle Miles Traveled (Billions)	Injury Rate per 100 Million VMT
1988	3,416,000	244,499	1,397	162,854	2,098	177,455	1,925	2,026	169
1989	3,284,000	246,819	1,330	165,554	1,984	181,165	1,813	2,096	157
1990	3,231,000	249,464	1,295	167,015	1,934	184,275	1,753	2,144	151
1991	3,097,000	252,153	1,228	168,995	1,833	186,370	1,662	2,172	143
1992	3,070,000	255,030	1,204	173,125	1,773	184,938	1,660	2,247	137
1993	3,149,000	257,783	1,222	173,149	1,819	188,350	1,672	2,296	137
1994	3,266,000	260,327	1,255	175,403	1,862	192,497	1,697	2,358	139
1995	3,465,000	262,803	1,319	176,628	1,962	197,065	1,758	2,423	143
1996	3,483,000	265,229	1,313	179,539	1,940	201,631	1,728	2,486	140
1997	3,348,000	267,784	1,250	182,709	1,832	203,568	1,644	2,562	131
1998	3,192,000	270,248	1,181	184,980	1,726	208,076	1,534	2,632	121
1999	3,236,000	272,691	1,187	187,170	1,729	212,685	1,522	2,691	120

Source: Vehicle Miles of Travel and Licensed Drivers—Federal Highway Administration; Registered Vehicles, 1966-1974—Federal Highway Administration; Registered Vehicles, 1975-1999—R.L. Polk & Co. and Federal Highway Administration; Population—U.S. Bureau of the Census; Traffic Deaths, 1966-1974—National Center for Health Statistics, D.H.H.S., State Accident Summaries (adjusted to 30-day traffic deaths by NHTSA); Traffic Deaths, 1975-1999—Fatality Analysis Reporting System (FARS), NHTSA, 30-day traffic deaths; Injured, 1988-1999—General Estimates System (GES), NHTSA. Injury data not available for years before 1988.

**Figure 2**  
**Motor Vehicle Fatality and Injury Rates per 100 Million Vehicle Miles Traveled, 1966-1999**





**Table 3**  
**Vehicles Involved in Crashes and Involvement Rates per Vehicle Miles of Travel**  
**and per Registered Vehicle by Vehicle Type and Crash Severity, 1975-1999**

Year	Vehicle Type											
	Passenger Cars			Light Trucks			Large Trucks			Motorcycles		
	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles	Number	Involvement Rate per 100 Million VMT	Involvement Rate per 100,000 Registered Vehicles
<b>Fatal Crashes</b>												
1975	37,897	3.7	40.11	8,636	4.2	41.35	3,977	4.9	74.16	3,265	58.0	65.77
1976	37,206	3.5	38.35	9,300	4.0	40.80	4,435	5.2	79.55	3,343	55.7	67.76
1977	39,038	3.5	39.45	10,400	4.0	42.57	5,164	5.4	90.76	4,164	65.6	84.41
1978	40,544	3.6	39.81	11,898	4.1	43.61	5,759	5.4	98.28	4,643	64.9	95.38
1979	39,999	3.6	38.63	12,544	4.3	43.36	6,084	5.6	103.27	4,916	56.9	90.67
1980	39,059	3.5	37.28	12,680	4.3	42.18	5,379	5.0	92.89	5,194	50.9	91.22
1981	38,864	3.5	36.66	12,331	4.0	39.48	5,230	4.8	91.49	4,963	46.4	85.11
1982	34,334	3.0	32.11	11,317	3.5	35.03	4,646	4.2	83.11	4,495	45.4	78.12
1983	33,298	2.8	30.52	11,118	3.3	33.62	4,877	4.2	88.54	4,302	49.1	77.03
1984	34,648	2.8	30.89	11,973	3.3	33.96	5,124	4.2	94.87	4,659	53.0	85.02
1985	34,277	2.7	29.46	12,464	3.2	33.09	5,153	4.2	85.94	4,608	50.7	84.64
1986	36,195	2.8	30.87	13,327	3.2	33.52	5,097	4.0	89.09	4,570	48.6	87.90
1987	36,580	2.8	30.52	14,514	3.3	34.81	5,108	3.8	89.33	4,067	42.8	83.24
1988	36,977	2.7	30.43	15,286	3.1	34.27	5,241	3.8	85.40	3,715	37.1	81.04
1989	35,410	2.5	28.85	15,700	3.0	33.31	4,984	3.5	80.05	3,192	30.8	72.21
1990	34,085	2.4	27.65	15,620	2.8	31.29	4,776	3.3	77.08	3,276	34.3	76.91
1991	31,291	2.2	25.37	14,832	2.5	28.49	4,347	2.9	70.43	2,829	30.8	67.72
1992	29,817	2.1	24.78	14,648	2.3	27.21	4,035	2.6	66.75	2,439	25.5	60.00
1993	30,233	2.1	24.97	15,332	2.3	27.10	4,328	2.7	71.09	2,477	25.0	62.27
1994	30,273	2.1	24.81	16,353	2.3	27.49	4,644	2.7	70.49	2,339	22.8	62.26
1995	30,940	2.1	25.11	17,587	2.3	28.13	4,472	2.5	66.55	2,268	23.1	58.20
1996	30,727	2.0	24.66	18,246	2.3	27.88	4,755	2.6	67.81	2,176	21.9	56.20
1997	30,059	2.0	24.11	18,628	2.3	27.68	4,917	2.6	69.42	2,160	21.4	56.45
1998	29,040	1.9	23.05	19,363	2.2	27.75	4,955	2.5	64.08	2,334	22.7	60.16
1999	27,953	1.8	22.03	19,895	2.2	27.20	4,898	2.4	62.86	2,519	23.8	60.66
<b>Injury Crashes</b>												
1988	3,073,000	222	2,529	683,000	140	1,530	96,000	69	1,562	98,000	974	2,129
1989	2,892,000	204	2,355	727,000	139	1,543	110,000	77	1,770	76,000	732	1,717
1990	2,838,000	199	2,302	729,000	131	1,460	107,000	73	1,730	82,000	854	1,916
1991	2,615,000	185	2,120	789,000	132	1,515	78,000	52	1,264	79,000	856	1,882
1992	2,640,000	184	2,194	758,000	118	1,409	95,000	62	1,567	61,000	642	1,509
1993	2,631,000	182	2,174	843,000	125	1,490	97,000	60	1,585	56,000	565	1,407
1994	2,785,000	191	2,283	912,000	128	1,533	96,000	56	1,452	54,000	526	1,433
1995	2,914,000	197	2,365	1,024,000	137	1,638	84,000	47	1,244	52,000	530	1,331
1996	2,884,000	192	2,314	1,071,000	136	1,636	94,000	51	1,339	51,000	512	1,312
1997	2,736,000	179	2,195	1,064,000	129	1,582	96,000	50	1,349	51,000	501	1,321
1998	2,545,000	164	2,020	1,059,000	123	1,517	89,000	45	1,146	45,000	433	1,148
1999	2,438,000	156	1,921	1,165,000	129	1,593	101,000	50	1,292	46,000	436	1,111
<b>Fatal Crashes</b>												
1988	6,050,000	437	4,979	1,542,000	316	3,458	297,000	215	4,839	21,000	207	453
1989	5,678,000	401	4,625	1,613,000	309	3,421	300,000	210	4,825	20,000	188	441
1990	5,485,000	384	4,450	1,654,000	298	3,314	273,000	187	4,411	20,000	208	467
1991	5,084,000	360	4,122	1,675,000	281	3,217	248,000	166	4,022	25,000	268	589
1992	4,852,000	338	4,031	1,704,000	265	3,165	277,000	181	4,586	10,000	100	236
1993	4,789,000	331	3,956	1,884,000	279	3,331	296,000	185	4,861	17,000	169	420
1994	5,126,000	351	4,202	2,023,000	284	3,401	360,000	212	5,467	13,000	128	349
1995	5,335,000	361	4,329	2,149,000	287	3,437	289,000	162	4,307	13,000	131	329
1996	5,281,000	352	4,238	2,274,000	289	3,475	295,000	161	4,209	14,000	138	355
1997	5,116,000	335	4,104	2,314,000	281	3,439	337,000	176	4,761	10,000	102	268
1998	4,896,000	315	3,887	2,315,000	269	3,317	318,000	162	4,114	9,000	84	222
1999	4,469,000	285	3,523	2,491,000	276	3,406	369,000	182	4,739	10,000	96	246

Note: Vehicle miles traveled (VMT) data in this table have been revised and are not based exclusively on Federal Highway Administration (FHWA) data as they have been in earlier reports. The change was made to reflect the different vehicle classification schemes used by FHWA and the National Highway Traffic Safety Administration (NHTSA).

Sources: Vehicle Miles Traveled—Federal Highway Administration, revised by NHTSA; Registered Passenger Cars and Light Trucks—R.L. Polk & Co; Registered Large Trucks and Motorcycles—Federal Highway Administration.

**Table 4  
Persons Killed or Injured by Person Type and Vehicle Type, 1975-1999**

Year	Person Type											Total
	Occupants by Vehicle Type						Nonmotorists					
	Passenger Cars	Light Trucks	Large Trucks	Motorcycles	Buses	Other/Unknown	Total	Pedestrian	Pedalcyclist	Other/Unknown	Total	
<b>Killed</b>												
1975	25,929	4,856	961	3,189	53	937	35,925	7,516	1,003	81	8,600	44,525
1976	26,166	5,438	1,132	3,312	73	981	37,102	7,427	914	80	8,421	45,523
1977	26,782	5,976	1,287	4,104	42	959	39,150	7,732	922	74	8,728	47,878
1978	28,153	6,745	1,395	4,577	41	622	41,533	7,795	892	111	8,798	50,331
1979	27,808	7,178	1,432	4,894	39	579	41,930	8,096	932	135	9,163	51,093
1980	27,449	7,486	1,262	5,144	46	540	41,927	8,070	965	129	9,164	51,091
1981	26,645	7,081	1,133	4,906	56	603	40,424	7,837	936	104	8,877	49,301
1982	23,330	6,359	944	4,453	35	525	35,646	7,331	883	85	8,299	43,945
1983	22,979	6,202	982	4,265	53	362	34,843	6,826	839	81	7,746	42,589
1984	23,620	6,496	1,074	4,608	46	440	36,284	7,025	849	99	7,973	44,257
1985	23,212	6,689	977	4,564	57	544	36,043	6,808	890	84	7,782	43,825
1986	24,944	7,317	926	4,566	39	442	38,234	6,779	941	133	7,853	46,087
1987	25,132	8,058	852	4,036	51	436	38,565	6,745	948	132	7,825	46,390
1988	25,808	8,306	911	3,662	54	429	39,170	6,870	911	136	7,917	47,087
1989	25,063	8,551	858	3,141	50	424	38,087	6,556	832	107	7,495	45,582
1990	24,092	8,601	705	3,244	32	460	37,134	6,482	859	124	7,465	44,599
1991	22,385	8,391	661	2,806	31	466	34,740	5,801	843	124	6,768	41,508
1992	21,387	8,098	585	2,395	28	387	32,880	5,549	723	98	6,370	39,250
1993	21,566	8,511	605	2,449	18	425	33,574	5,649	816	111	6,576	40,150
1994	21,997	8,904	670	2,320	18	409	34,318	5,489	802	107	6,398	40,716
1995	22,423	9,568	648	2,227	33	392	35,291	5,584	833	109	6,526	41,817
1996*	22,505	9,932	621	2,161	21	455	35,695	5,449	765	154	6,368	42,065
1997	22,199	10,249	723	2,116	18	420	35,725	5,321	814	153	6,288	42,013
1998	21,194	10,705	742	2,294	38	409	35,382	5,228	760	131	6,119	41,501
1999	20,818	11,243	758	2,472	58	457	35,806	4,906	750	149	5,805	41,611
<b>Injured</b>												
1988	2,585,000	478,000	37,000	105,000	15,000	4,000	3,224,000	110,000	75,000	8,000	192,000	3,416,000
1989	2,431,000	511,000	43,000	83,000	15,000	5,000	3,088,000	112,000	73,000	11,000	196,000	3,284,000
1990	2,376,000	505,000	42,000	84,000	33,000	4,000	3,044,000	105,000	75,000	7,000	187,000	3,231,000
1991	2,235,000	563,000	28,000	80,000	21,000	4,000	2,931,000	88,000	67,000	11,000	166,000	3,097,000
1992	2,232,000	545,000	34,000	65,000	20,000	12,000	2,908,000	89,000	63,000	10,000	162,000	3,070,000
1993	2,265,000	601,000	32,000	59,000	17,000	4,000	2,978,000	94,000	68,000	9,000	171,000	3,149,000
1994	2,364,000	631,000	30,000	57,000	16,000	4,000	3,102,000	92,000	62,000	9,000	164,000	3,266,000
1995	2,469,000	722,000	30,000	57,000	19,000	4,000	3,303,000	86,000	67,000	10,000	162,000	3,465,000
1996	2,458,000	761,000	33,000	55,000	20,000	4,000	3,332,000	82,000	58,000	11,000	151,000	3,483,000
1997	2,341,000	755,000	31,000	53,000	17,000	6,000	3,201,000	77,000	58,000	11,000	146,000	3,348,000
1998	2,201,000	763,000	29,000	49,000	16,000	4,000	3,061,000	69,000	53,000	8,000	131,000	3,192,000
1999	2,138,000	847,000	33,000	50,000	22,000	7,000	3,097,000	85,000	51,000	3,000	140,000	3,236,000

\*Total for 1996 includes 2 fatalities of unknown person type.

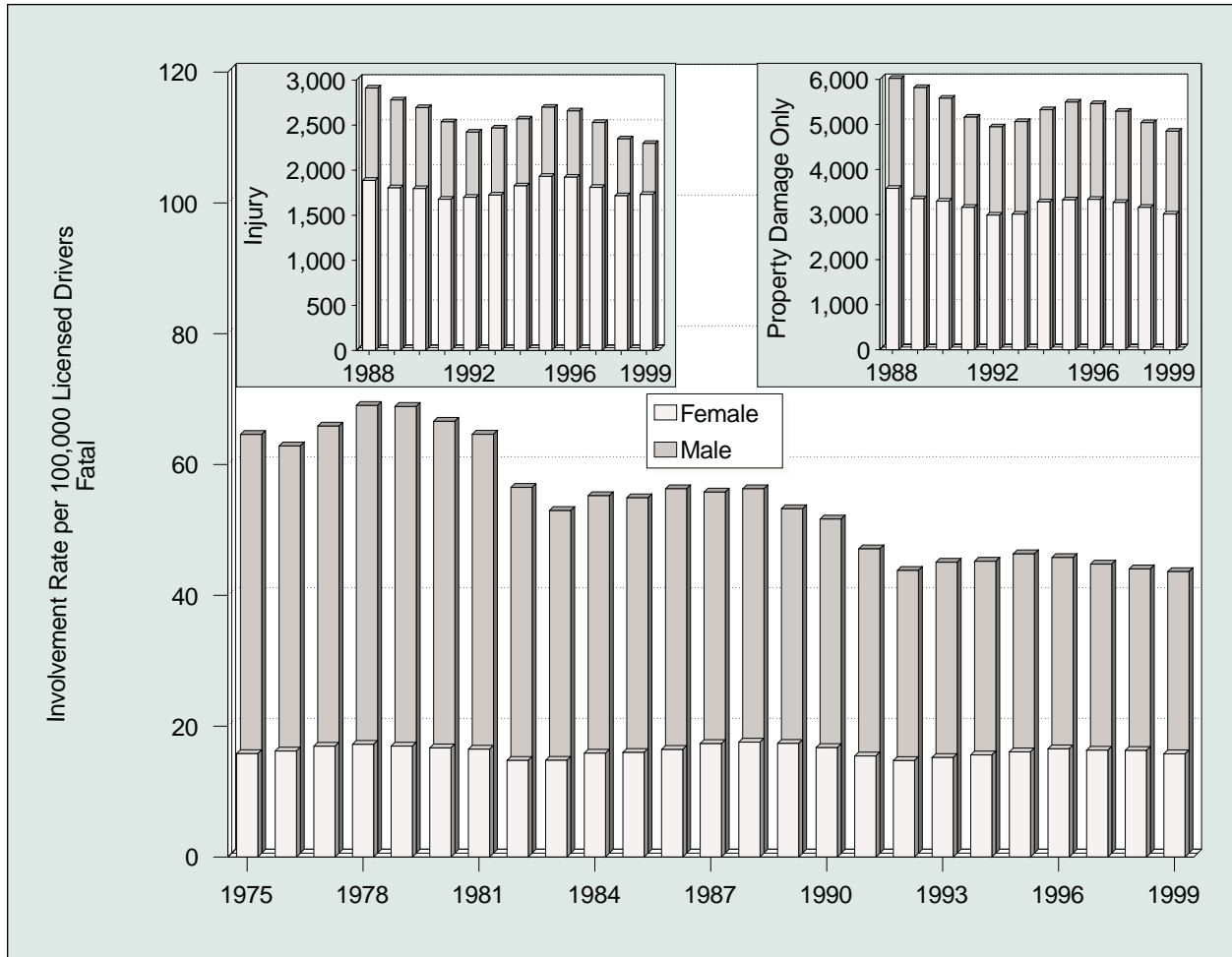
**Table 5**  
**Drivers Involved in Crashes and Involvement Rates per Licensed Driver**  
**by Sex and Crash Severity, 1975-1999**

Year	Sex						Total (>15 Years Old)*		
	Male (>15 Years Old)			Female (>15 Years Old)					
	Number Involved in Crashes	Licensed Drivers (Thousands)	Involvement Rate per 100,000 Licensed Drivers	Number Involved in Crashes	Licensed Drivers (Thousands)	Involvement Rate per 100,000 Licensed Drivers	Number Involved in Crashes	Licensed Drivers (Thousands)	Involvement Rate per 100,000 Licensed Drivers
<b>Drivers in Fatal Crashes</b>									
1975	45,087	70,435	64.01	9,356	59,233	15.80	54,445	129,668	41.99
1976	45,091	72,452	62.24	9,953	61,458	16.19	55,045	133,910	41.11
1977	48,548	74,385	65.27	10,775	63,591	16.94	59,324	137,976	43.00
1978	51,665	75,504	68.43	11,221	65,177	17.22	62,887	140,681	44.70
1979	52,208	76,458	68.28	11,308	66,695	16.95	63,518	143,152	44.37
1980	50,921	77,135	66.02	11,353	68,067	16.68	62,277	145,202	42.89
1981	49,838	77,831	64.03	11,396	69,142	16.48	61,238	146,972	41.67
1982	43,877	78,484	55.91	10,579	71,627	14.77	54,462	150,111	36.28
1983	42,329	80,823	52.37	10,854	73,440	14.78	53,184	154,263	34.48
1984	44,213	80,916	54.64	11,806	74,398	15.87	56,022	155,315	36.07
1985	44,290	81,537	54.32	12,031	75,231	15.99	56,322	156,769	35.93
1986	46,083	82,740	55.70	12,603	76,651	16.44	58,688	159,390	36.82
1987	46,337	83,939	55.20	13,492	77,789	17.34	59,829	161,728	36.99
1988	46,840	84,099	55.70	13,814	78,661	17.56	60,658	162,760	37.27
1989	44,941	85,356	52.65	13,927	80,160	17.37	58,870	165,516	35.57
1990	43,802	85,769	51.07	13,586	81,203	16.73	57,393	166,972	34.37
1991	40,288	86,630	46.51	12,716	82,300	15.45	53,007	168,930	31.38
1992	38,186	88,363	43.21	12,492	84,716	14.75	50,682	173,079	29.28
1993	39,118	87,974	44.47	12,960	85,138	15.22	52,080	173,112	30.08
1994	39,784	89,165	44.62	13,449	86,183	15.61	53,238	175,347	30.36
1995	40,799	89,183	45.75	14,043	87,386	16.07	54,847	176,569	31.06
1996	40,899	90,504	45.19	14,723	89,007	16.54	55,624	179,510	30.99
1997	40,594	91,888	44.18	14,816	90,789	16.32	55,412	182,677	30.33
1998	40,433	93,087	43.44	14,967	91,860	16.29	55,404	184,947	29.96
1999	40,523	94,149	43.04	14,675	92,988	15.78	55,201	187,137	29.50
<b>Drivers in Injury Crashes</b>									
1988	2,423,000	84,099	2,881	1,485,000	78,661	1,887	3,907,000	162,760	2,401
1989	2,347,000	85,356	2,749	1,446,000	80,160	1,804	3,793,000	165,516	2,291
1990	2,285,000	85,769	2,664	1,458,000	81,203	1,795	3,743,000	166,972	2,242
1991	2,171,000	86,630	2,506	1,380,000	82,300	1,677	3,551,000	168,930	2,102
1992	2,114,000	88,363	2,392	1,439,000	84,716	1,699	3,553,000	173,079	2,053
1993	2,144,000	87,974	2,437	1,468,000	85,138	1,724	3,612,000	173,112	2,086
1994	2,264,000	89,165	2,539	1,574,000	86,183	1,826	3,838,000	175,347	2,189
1995	2,378,000	89,183	2,667	1,687,000	87,386	1,931	4,066,000	176,569	2,303
1996	2,378,000	90,504	2,627	1,711,000	89,007	1,922	4,089,000	179,510	2,278
1997	2,296,000	91,888	2,499	1,643,000	90,789	1,809	3,939,000	182,677	2,156
1998	2,158,000	93,087	2,318	1,576,000	91,860	1,716	3,734,000	184,947	2,019
1999	2,134,000	94,149	2,267	1,609,000	92,988	1,730	3,743,000	187,137	2,000
<b>Drivers in Property-Damage-Only Crashes</b>									
1988	5,013,000	84,099	5,961	2,816,000	78,661	3,580	7,829,000	162,760	4,810
1989	4,915,000	85,356	5,758	2,687,000	80,160	3,352	7,602,000	165,516	4,593
1990	4,733,000	85,769	5,519	2,677,000	81,203	3,296	7,410,000	166,972	4,438
1991	4,419,000	86,630	5,101	2,600,000	82,300	3,159	7,019,000	168,930	4,155
1992	4,316,000	88,363	4,885	2,530,000	84,716	2,987	6,847,000	173,079	3,956
1993	4,402,000	87,974	5,003	2,561,000	85,138	3,008	6,963,000	173,112	4,022
1994	4,695,000	89,165	5,265	2,828,000	86,183	3,282	7,523,000	175,347	4,290
1995	4,847,000	89,183	5,434	2,905,000	87,386	3,325	7,752,000	176,569	4,390
1996	4,888,000	90,504	5,400	2,968,000	89,007	3,335	7,856,000	179,510	4,376
1997	4,808,000	91,888	5,232	2,967,000	90,789	3,268	7,775,000	182,677	4,256
1998	4,634,000	93,087	4,978	2,902,000	91,860	3,160	7,536,000	184,947	4,075
1999	4,509,000	94,149	4,789	2,800,000	92,988	3,011	7,309,000	187,137	3,906

\*Total includes drivers (>15 years old) of unknown sex.

Source: Licensed Drivers—Federal Highway Administration.

**Figure 3**  
**Driver Involvement Rate per 100,000 Licensed Drivers 16 Years and Older**  
**by Sex and Crash Severity, 1975-1999**



**Table 6**  
**Occupant Fatality and Injury Rates per Population by Age Group, 1975-1999**

Year	Age Group (Years)											Total
	<5	5-9	10-15	16-20	21-24	25-34	35-44	45-54	55-64	65-74	>74	
<b>Fatality Rate per 100,000 Population</b>												
1975	4.50	2.71	5.71	38.77	34.90	21.57	15.67	13.42	13.29	14.72	16.98	<b>16.67</b>
1976	4.50	2.56	6.14	40.95	35.01	21.27	15.27	13.71	13.58	14.92	17.27	<b>17.05</b>
1977	4.68	2.83	6.44	42.86	38.73	22.27	15.61	13.90	13.55	14.03	16.13	<b>17.81</b>
1978	4.61	2.66	6.60	44.45	40.75	24.26	16.72	14.07	13.44	14.79	16.36	<b>18.70</b>
1979	4.35	2.84	6.13	44.36	40.06	24.96	17.11	14.03	13.24	13.59	15.51	<b>18.67</b>
1980	4.24	2.67	6.00	42.94	39.86	24.82	16.85	14.51	12.83	12.96	15.27	<b>18.45</b>
1981	3.75	2.43	5.24	38.56	37.41	24.22	16.63	13.81	12.68	13.16	14.94	<b>17.62</b>
1982	3.67	2.22	4.85	34.51	32.75	20.45	14.30	11.84	11.24	11.85	14.89	<b>15.39</b>
1983	3.55	2.33	4.60	33.18	30.97	19.86	13.87	11.79	10.92	11.92	15.48	<b>14.90</b>
1984	3.13	2.33	5.21	34.94	32.89	20.26	13.91	11.86	11.16	12.98	16.18	<b>15.39</b>
1985	3.18	2.36	5.52	33.72	32.75	19.50	13.87	11.88	11.33	12.63	16.73	<b>15.15</b>
1986	3.42	2.30	6.07	38.16	33.72	21.04	13.82	11.50	11.38	13.46	17.71	<b>15.92</b>
1987	3.78	2.60	6.00	36.65	32.83	21.05	14.15	12.10	11.93	13.58	18.22	<b>15.92</b>
1988	3.82	2.64	5.74	37.95	33.63	20.50	14.20	12.33	12.15	14.12	19.26	<b>16.02</b>
1989	3.93	2.92	5.48	34.71	30.85	20.10	13.89	12.46	12.18	14.24	19.41	<b>15.43</b>
1990	3.30	2.50	5.25	34.14	30.62	19.81	13.34	12.20	11.91	13.36	18.48	<b>14.89</b>
1991	3.13	2.39	4.86	31.76	28.83	17.79	12.29	11.12	10.75	13.22	19.14	<b>13.78</b>
1992	2.99	2.41	4.75	28.37	25.96	16.54	11.71	10.62	10.53	13.27	18.81	<b>12.89</b>
1993	3.14	2.35	4.67	28.99	26.70	16.47	11.86	10.52	10.86	12.73	20.78	<b>13.02</b>
1994	3.46	2.35	5.07	30.46	26.27	16.07	11.79	11.15	10.71	13.99	20.71	<b>13.18</b>
1995	3.17	2.46	5.15	29.57	27.30	17.03	12.49	11.01	11.42	13.67	20.87	<b>13.43</b>
1996	3.40	2.34	5.07	29.43	27.31	16.78	12.60	11.14	11.58	14.20	20.84	<b>13.46</b>
1997	3.16	2.42	4.96	28.38	25.53	16.49	12.23	11.57	11.96	14.46	22.09	<b>13.34</b>
1998	3.03	2.60	4.60	27.61	25.06	15.81	12.61	11.44	11.53	14.31	21.28	<b>13.09</b>
1999	2.93	2.54	4.48	28.08	25.52	16.10	12.60	11.47	11.50	14.06	20.57	<b>13.13</b>
<b>Injury Rate per 100,000 Population</b>												
1988	417	444	734	3,283	2,666	1,800	1,308	1,030	876	710	656	<b>1,319</b>
1989	370	469	727	3,210	2,467	1,672	1,280	985	801	713	618	<b>1,251</b>
1990	329	430	674	3,110	2,494	1,672	1,227	989	844	750	514	<b>1,220</b>
1991	384	470	709	2,921	2,317	1,574	1,144	977	801	727	521	<b>1,162</b>
1992	323	438	685	2,988	2,253	1,573	1,101	971	783	722	586	<b>1,140</b>
1993	367	471	657	2,885	2,307	1,606	1,195	956	821	707	592	<b>1,155</b>
1994	411	468	706	2,958	2,369	1,667	1,225	987	857	756	598	<b>1,192</b>
1995	418	483	742	3,193	2,456	1,722	1,291	1,132	926	755	624	<b>1,257</b>
1996	418	533	731	3,132	2,431	1,766	1,295	1,085	904	788	654	<b>1,256</b>
1997	400	461	684	2,981	2,401	1,689	1,257	1,012	815	761	641	<b>1,196</b>
1998	403	440	677	2,780	2,123	1,586	1,158	1,029	873	696	588	<b>1,133</b>
1999	383	477	662	2,828	2,169	1,596	1,135	1,028	801	759	610	<b>1,136</b>

Note: Population estimates for historical years are periodically revised by the U.S. Census Bureau.

**Table 7**  
**Passenger Car Occupants Killed or Injured and Fatality and Injury Rates**  
**per Registered Vehicle and Vehicle Miles of Travel, 1975-1999**

Year	Registered Passenger Cars	Vehicle Miles Traveled (Millions)	Passenger Car Occupants Killed	Fatality Rate per 100,000 Registered Passenger Cars	Fatality Rate per 100 Million VMT	Passenger Car Occupants Injured	Injury Rate per 100,000 Registered Passenger Cars	Injury Rate per 100 Million VMT
1975	94,478,029	1,030,376	25,929	27.44	2.5	*	*	*
1976	97,011,684	1,070,667	26,166	26.97	2.4	*	*	*
1977	98,967,665	1,102,726	26,782	27.06	2.4	*	*	*
1978	101,855,551	1,136,459	28,153	27.64	2.5	*	*	*
1979	103,543,788	1,111,705	27,808	26.86	2.5	*	*	*
1980	104,770,998	1,107,056	27,449	26.20	2.5	*	*	*
1981	106,002,720	1,122,092	26,645	25.14	2.4	*	*	*
1982	106,936,590	1,145,828	23,330	21.82	2.0	*	*	*
1983	109,085,444	1,187,760	22,979	21.07	1.9	*	*	*
1984	112,177,361	1,226,461	23,620	21.06	1.9	*	*	*
1985	116,348,085	1,248,981	23,212	19.95	1.9	*	*	*
1986	117,268,114	1,277,550	24,944	21.27	2.0	*	*	*
1987	119,848,784	1,328,460	25,132	20.97	1.9	*	*	*
1988	121,519,139	1,384,047	25,808	21.24	1.9	2,585,000	2,127	187
1989	122,758,478	1,415,213	25,063	20.42	1.8	2,431,000	1,980	172
1990	123,276,600	1,427,178	24,092	19.54	1.7	2,376,000	1,928	167
1991	123,327,336	1,411,655	22,385	18.15	1.6	2,235,000	1,812	158
1992	120,346,747	1,436,035	21,387	17.77	1.5	2,232,000	1,854	155
1993	121,055,398	1,445,106	21,566	17.81	1.5	2,265,000	1,871	157
1994	121,996,580	1,459,208	21,997	18.03	1.5	2,364,000	1,937	162
1995	123,241,881	1,478,352	22,423	18.19	1.5	2,469,000	2,004	167
1996	124,612,787	1,499,139	22,505	18.06	1.5	2,458,000	1,973	164
1997	124,672,920	1,528,399	22,199	17.81	1.5	2,341,000	1,877	153
1998	125,965,709	1,555,901	21,194	16.83	1.4	2,201,000	1,748	141
1999	126,868,744	1,566,979	20,818	16.41	1.3	2,138,000	1,685	136

\*Injury data not available before 1988.

Note: Vehicle miles traveled (VMT) data in this table have been revised and are not based exclusively on Federal Highway Administration (FHWA) data as they have been in earlier reports. The change was made to reflect the different vehicle classification schemes used by FHWA and the National Highway Traffic Safety Administration (NHTSA).

Sources: Vehicle Miles Traveled—Federal Highway Administration, revised by NHTSA; Registered Vehicles—R.L. Polk & Co.

**Figure 4**  
**Passenger Car Occupant Fatality and Injury Rates**  
**per 100 Million Vehicle Miles Traveled, 1975-1999**



**Table 8**  
**Light Truck Occupants Killed or Injured and Fatality and Injury Rates**  
**per Registered Vehicle and Vehicle Miles of Travel, 1975-1999**

Year	Registered Light Trucks	Vehicle Miles Traveled (Millions)	Light Truck Occupants Killed	Fatality Rate per 100,000 Registered Light Trucks	Fatality Rate per 100 Million VMT	Light Truck Occupants Injured	Injury Rate per 100,000 Registered Light Trucks	Injury Rate per 100 Million VMT
1975	20,886,680	204,274	4,856	23.25	2.4	*	*	*
1976	22,794,702	233,382	5,438	23.86	2.3	*	*	*
1977	24,432,701	257,108	5,976	24.46	2.3	*	*	*
1978	27,285,497	289,463	6,745	24.72	2.3	*	*	*
1979	28,932,820	293,840	7,178	24.81	2.4	*	*	*
1980	30,060,754	295,475	7,486	24.90	2.5	*	*	*
1981	31,236,287	307,583	7,081	22.67	2.3	*	*	*
1982	32,307,692	322,026	6,359	19.68	2.0	*	*	*
1983	33,068,138	334,937	6,202	18.76	1.9	*	*	*
1984	35,257,788	358,588	6,496	18.42	1.8	*	*	*
1985	37,665,180	388,778	6,689	17.76	1.7	*	*	*
1986	39,763,446	416,532	7,317	18.40	1.8	*	*	*
1987	41,695,017	444,392	8,058	19.33	1.8	*	*	*
1988	44,599,500	488,431	8,306	18.62	1.7	478,000	1,071	98
1989	47,134,148	522,483	8,551	18.14	1.6	511,000	1,084	98
1990	49,916,497	555,659	8,601	17.23	1.5	505,000	1,012	91
1991	52,062,064	595,924	8,391	16.12	1.4	563,000	1,081	94
1992	53,836,046	642,397	8,098	15.04	1.3	545,000	1,012	85
1993	56,573,835	675,353	8,511	15.04	1.3	601,000	1,062	89
1994	59,485,995	711,515	8,904	14.97	1.3	631,000	1,061	89
1995	62,520,872	749,971	9,568	15.30	1.3	722,000	1,156	96
1996	65,438,877	787,255	9,932	15.18	1.3	761,000	1,164	97
1997	67,287,470	824,896	10,249	15.23	1.2	755,000	1,122	92
1998	69,783,500	861,951	10,705	15.34	1.2	763,000	1,093	88
1999	73,143,777	903,412	11,243	15.37	1.2	847,000	1,158	94

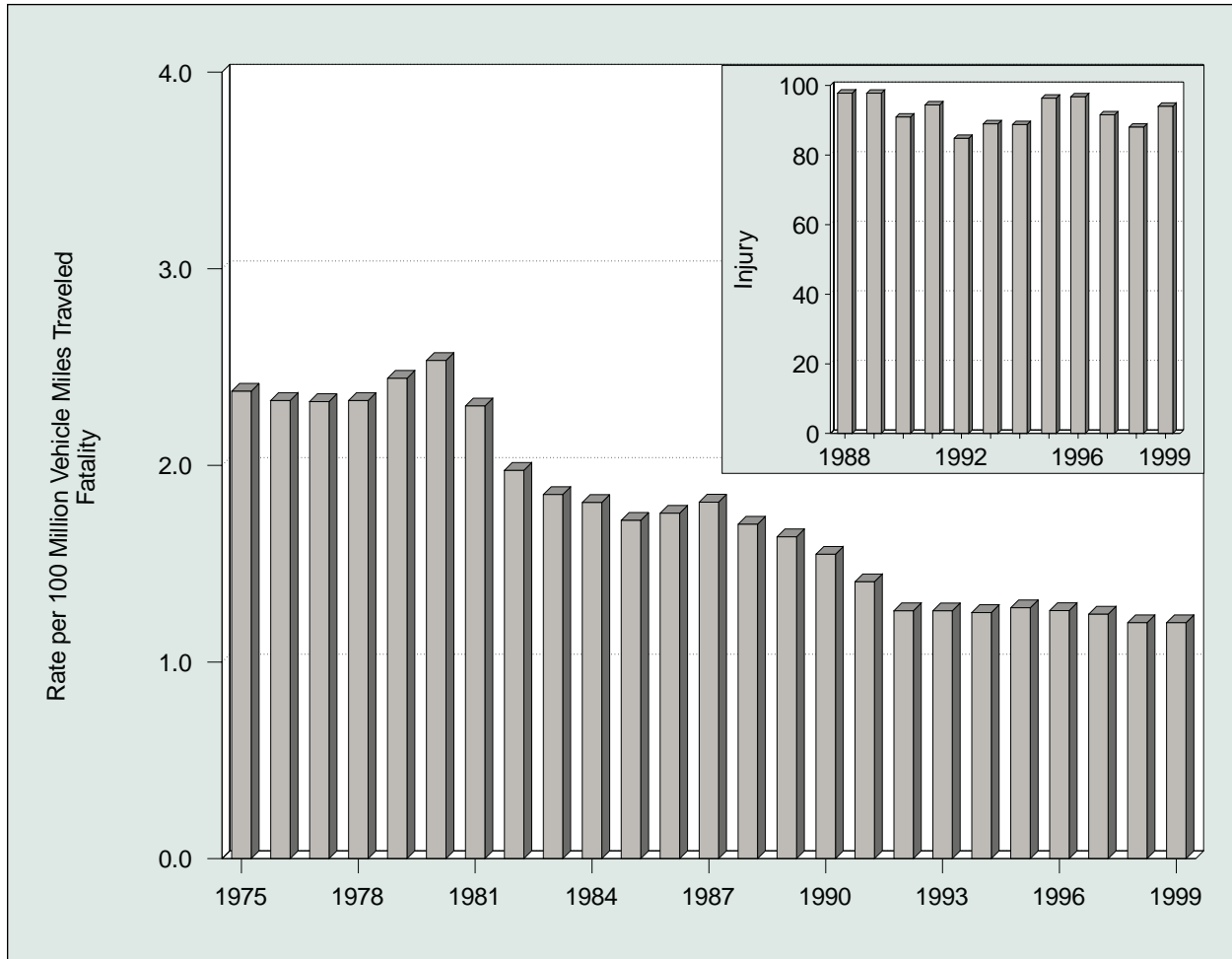
\*Injury data not available before 1988.

Note: Vehicle miles traveled (VMT) data in this table have been revised and are not based exclusively on Federal Highway Administration (FHWA) data as they have been in earlier reports. The change was made to reflect the different vehicle classification schemes used by FHWA and the National Highway Traffic Safety Administration (NHTSA).

Sources: Vehicle Miles Traveled—Federal Highway Administration, revised by NHTSA; Registered Vehicles—R.L. Polk & Co.



**Figure 5**  
**Light Truck Occupant Fatality and Injury Rates**  
**per 100 Million Vehicle Miles Traveled, 1975-1999**



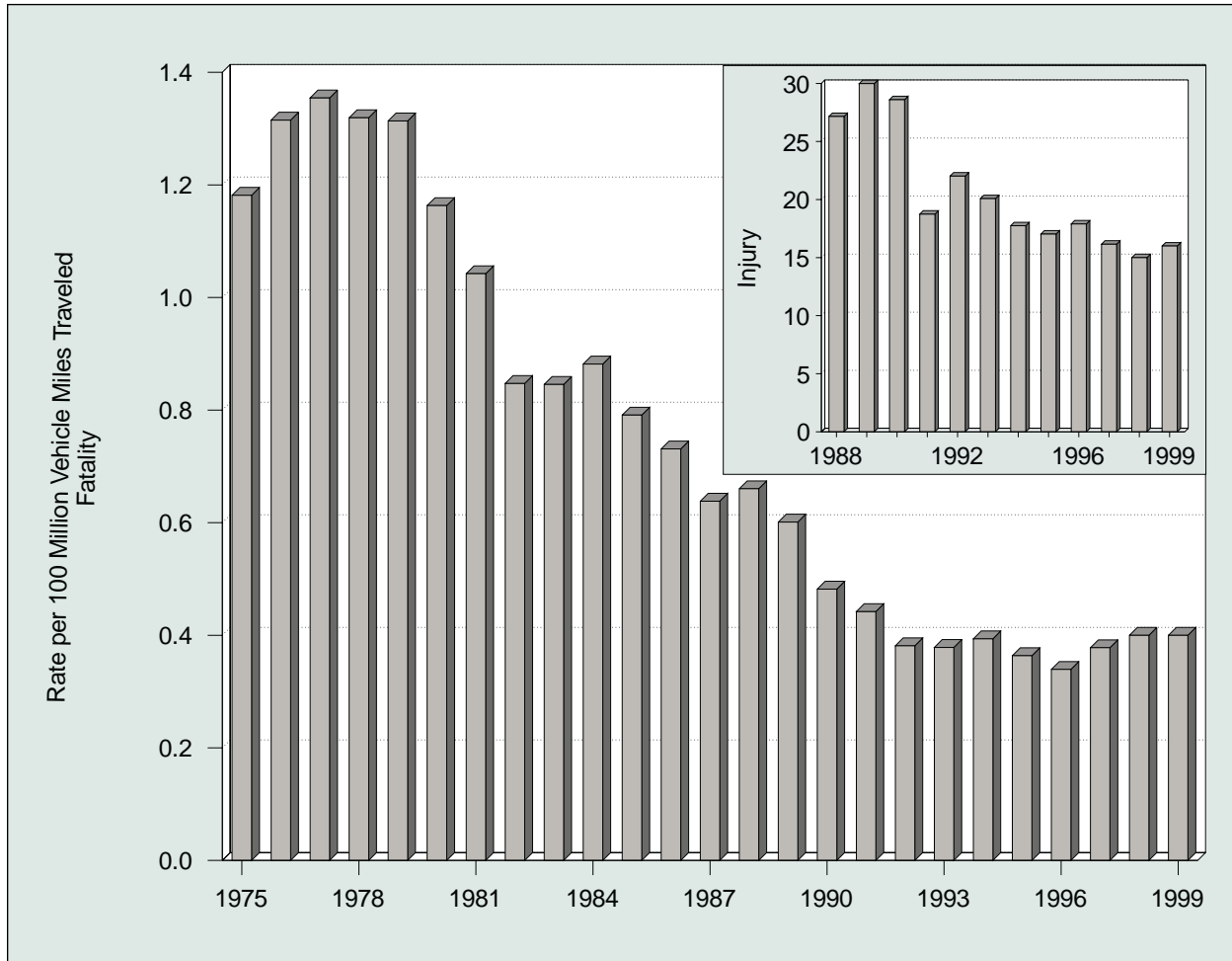
**Table 9**  
**Large Truck Occupants Killed or Injured and Fatality and Injury Rates**  
**per Registered Vehicle and Vehicle Miles of Travel, 1975-1999**

Year	Registered Large Trucks	Vehicle Miles Traveled (Millions)	Large Truck Occupants Killed	Fatality Rate per 100,000 Registered Large Trucks	Fatality Rate per 100 Million VMT	Large Truck Occupants Injured	Injury Rate per 100,000 Registered Large Trucks	Injury Rate per 100 Million VMT
1975	5,362,369	81,330	961	17.92	1.2	*	*	*
1976	5,575,185	86,070	1,132	20.30	1.3	*	*	*
1977	5,689,903	95,021	1,287	22.62	1.4	*	*	*
1978	5,859,807	105,739	1,395	23.81	1.3	*	*	*
1979	5,891,571	109,004	1,432	24.31	1.3	*	*	*
1980	5,790,653	108,491	1,262	21.79	1.2	*	*	*
1981	5,716,278	108,702	1,133	19.82	1.0	*	*	*
1982	5,590,415	111,423	944	16.89	0.8	*	*	*
1983	5,508,392	116,132	982	17.83	0.8	*	*	*
1984	5,401,075	121,796	1,074	19.88	0.9	*	*	*
1985	5,996,337	123,504	977	16.29	0.8	*	*	*
1986	5,720,880	126,675	926	16.19	0.7	*	*	*
1987	5,718,266	133,517	852	14.90	0.6	*	*	*
1988	6,136,884	137,985	911	14.84	0.7	37,000	611	27
1989	6,226,482	142,749	858	13.78	0.6	43,000	687	30
1990	6,195,876	146,242	705	11.38	0.5	42,000	675	29
1991	6,172,146	149,543	661	10.71	0.4	28,000	454	19
1992	6,045,205	153,384	585	9.68	0.4	34,000	559	22
1993	6,088,155	159,888	605	9.94	0.4	32,000	527	20
1994	6,587,885	170,216	670	10.17	0.4	30,000	459	18
1995	6,719,421	178,156	648	9.64	0.4	30,000	452	17
1996	7,012,615	182,971	621	8.86	0.3	33,000	467	18
1997	7,083,326	191,477	723	10.21	0.4	31,000	436	16
1998	7,732,270	196,380	742	9.60	0.4	29,000	372	15
1999	7,791,426	202,697	758	9.73	0.4	33,000	422	16

\*Injury data not available before 1988.

Source: Registered Vehicles and Vehicle Miles Traveled—Federal Highway Administration.

**Figure 6**  
**Large Truck Occupant Fatality and Injury Rates**  
**per 100 Million Vehicle Miles Traveled, 1975-1999**



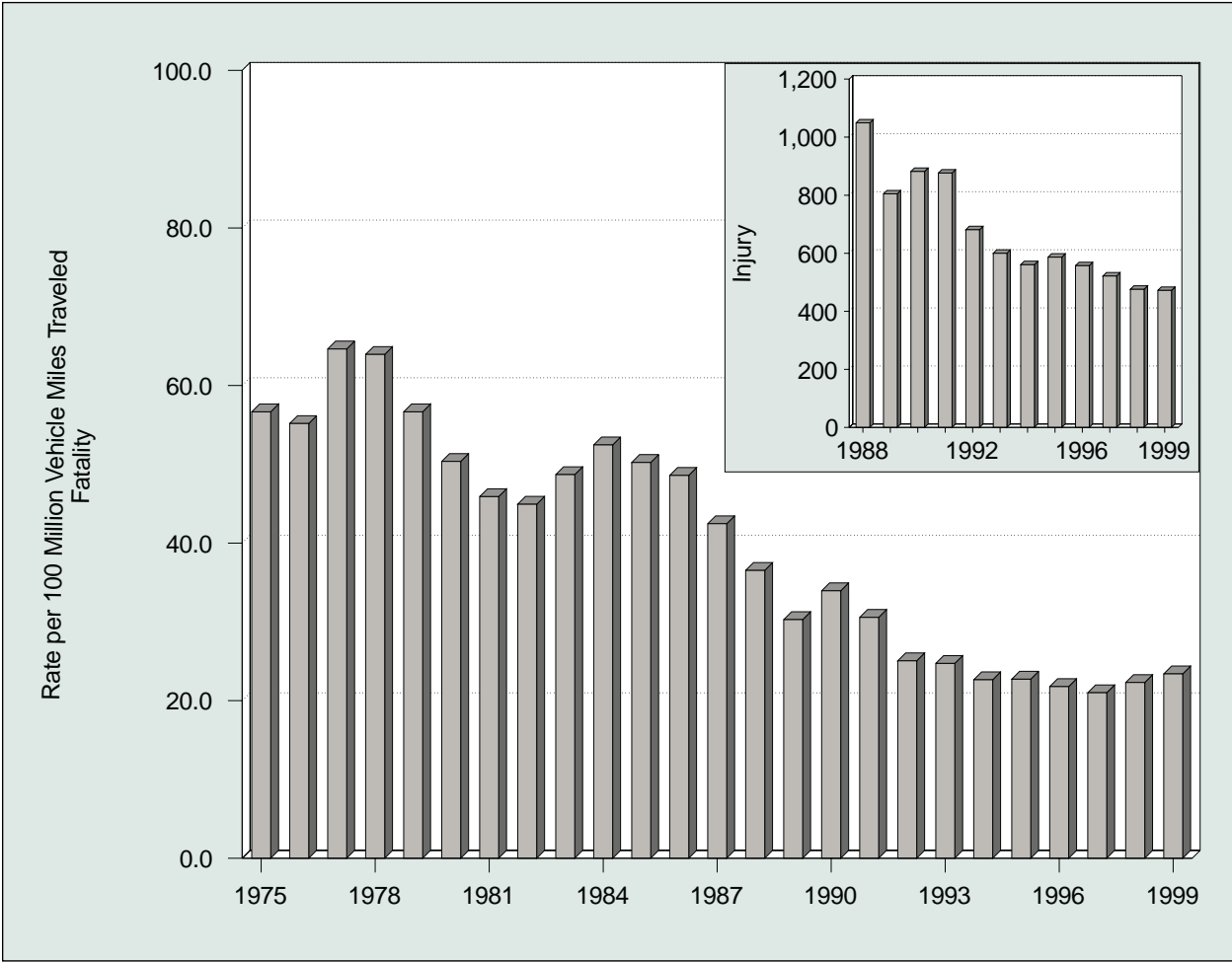
**Table 10**  
**Motorcycle Occupants Killed or Injured and Fatality and Injury Rates**  
**per Registered Vehicle and Vehicle Miles of Travel, 1975-1999**

Year	Registered Motorcycles	Vehicle Miles Traveled (Millions)	Motorcycle Occupants Killed	Fatality Rate per 100,000 Registered Motorcycles	Fatality Rate per 100 Million VMT	Motorcycle Occupants Injured	Injury Rate per 100,000 Registered Motorcycles	Injury Rate per 100 Million VMT
1975	4,964,070	5,629	3,189	64.24	56.7	*	*	*
1976	4,933,332	6,003	3,312	67.14	55.2	*	*	*
1977	4,933,256	6,349	4,104	83.19	64.6	*	*	*
1978	4,867,855	7,158	4,577	94.02	63.9	*	*	*
1979	5,422,132	8,637	4,894	90.26	56.7	*	*	*
1980	5,693,940	10,214	5,144	90.34	50.4	*	*	*
1981	5,831,132	10,690	4,906	84.13	45.9	*	*	*
1982	5,753,858	9,910	4,453	77.39	44.9	*	*	*
1983	5,585,112	8,760	4,265	76.36	48.7	*	*	*
1984	5,479,822	8,784	4,608	84.09	52.5	*	*	*
1985	5,444,404	9,086	4,564	83.83	50.2	*	*	*
1986	5,198,993	9,397	4,566	87.82	48.6	*	*	*
1987	4,885,772	9,506	4,036	82.61	42.5	*	*	*
1988	4,584,284	10,024	3,662	79.88	36.5	105,000	2,294	1,049
1989	4,420,420	10,371	3,141	71.06	30.3	83,000	1,887	805
1990	4,259,462	9,557	3,244	76.16	33.9	84,000	1,979	882
1991	4,177,365	9,178	2,806	67.17	30.6	80,000	1,925	876
1992	4,065,118	9,557	2,395	58.92	25.1	65,000	1,601	681
1993	3,977,856	9,906	2,449	61.57	24.7	59,000	1,494	600
1994	3,756,555	10,240	2,320	61.76	22.7	57,000	1,528	561
1995	3,897,191	9,797	2,227	57.14	22.7	57,000	1,475	587
1996	3,871,599	9,920	2,161	55.82	21.8	55,000	1,428	557
1997	3,826,373	10,081	2,116	55.30	21.0	53,000	1,374	522
1998	3,879,450	10,283	2,294	59.13	22.3	49,000	1,262	476
1999	4,152,433	10,584	2,472	59.53	23.4	50,000	1,204	472

\*Injury data not available before 1988.

Source: Registered Vehicles and Vehicle Miles Traveled—Federal Highway Administration.

**Figure 7**  
**Motorcycle Occupant Fatality and Injury Rates**  
**per 100 Million Vehicle Miles Traveled, 1975-1999**



**Table 11**  
**Persons Killed or Injured in Crashes Involving a Large Truck**  
**by Person Type and Crash Type, 1975-1999**

Year	Person Type					Total
	Truck Occupants by Crash Type			Other Vehicle Occupants	Nonmotorists	
	Single Vehicle	Multiple Vehicle	Total			
<b>Killed</b>						
1975	643	318	961	3,106	416	<b>4,483</b>
1976	774	358	1,132	3,384	492	<b>5,008</b>
1977	884	403	1,287	3,925	511	<b>5,723</b>
1978	929	466	1,395	4,354	607	<b>6,356</b>
1979	967	465	1,432	4,615	655	<b>6,702</b>
1980	861	401	1,262	4,084	625	<b>5,971</b>
1981	785	348	1,133	4,126	547	<b>5,806</b>
1982	639	305	944	3,790	495	<b>5,229</b>
1983	676	306	982	3,941	568	<b>5,491</b>
1984	755	319	1,074	4,036	530	<b>5,640</b>
1985	634	343	977	4,227	530	<b>5,734</b>
1986	603	323	926	4,088	565	<b>5,579</b>
1987	571	281	852	4,194	552	<b>5,598</b>
1988	585	326	911	4,250	518	<b>5,679</b>
1989	550	308	858	4,142	490	<b>5,490</b>
1990	485	220	705	4,071	496	<b>5,272</b>
1991	448	213	661	3,705	455	<b>4,821</b>
1992	396	189	585	3,460	417	<b>4,462</b>
1993	389	216	605	3,855	396	<b>4,856</b>
1994	451	219	670	4,013	461	<b>5,144</b>
1995	425	223	648	3,846	424	<b>4,918</b>
1996	412	209	621	4,087	434	<b>5,142</b>
1997	499	224	723	4,223	452	<b>5,398</b>
1998	486	256	742	4,215	438	<b>5,395</b>
1999	479	279	758	4,170	434	<b>5,362</b>
<b>Injured</b>						
1988	17,000	20,000	37,000	89,000	4,000	<b>130,000</b>
1989	20,000	23,000	43,000	111,000	2,000	<b>156,000</b>
1990	16,000	26,000	42,000	106,000	2,000	<b>150,000</b>
1991	13,000	15,000	28,000	80,000	2,000	<b>110,000</b>
1992	13,000	20,000	34,000	102,000	3,000	<b>139,000</b>
1993	13,000	19,000	32,000	95,000	6,000	<b>133,000</b>
1994	11,000	19,000	30,000	99,000	3,000	<b>133,000</b>
1995	15,000	15,000	30,000	84,000	2,000	<b>117,000</b>
1996	15,000	18,000	33,000	95,000	3,000	<b>130,000</b>
1997	14,000	17,000	31,000	98,000	2,000	<b>131,000</b>
1998	14,000	14,000	29,000	97,000	2,000	<b>127,000</b>
1999	15,000	18,000	33,000	105,000	4,000	<b>142,000</b>

**Table 12**  
**Nonmotorist Fatality and Injury Rates per Population by Age Group, 1975-1999**

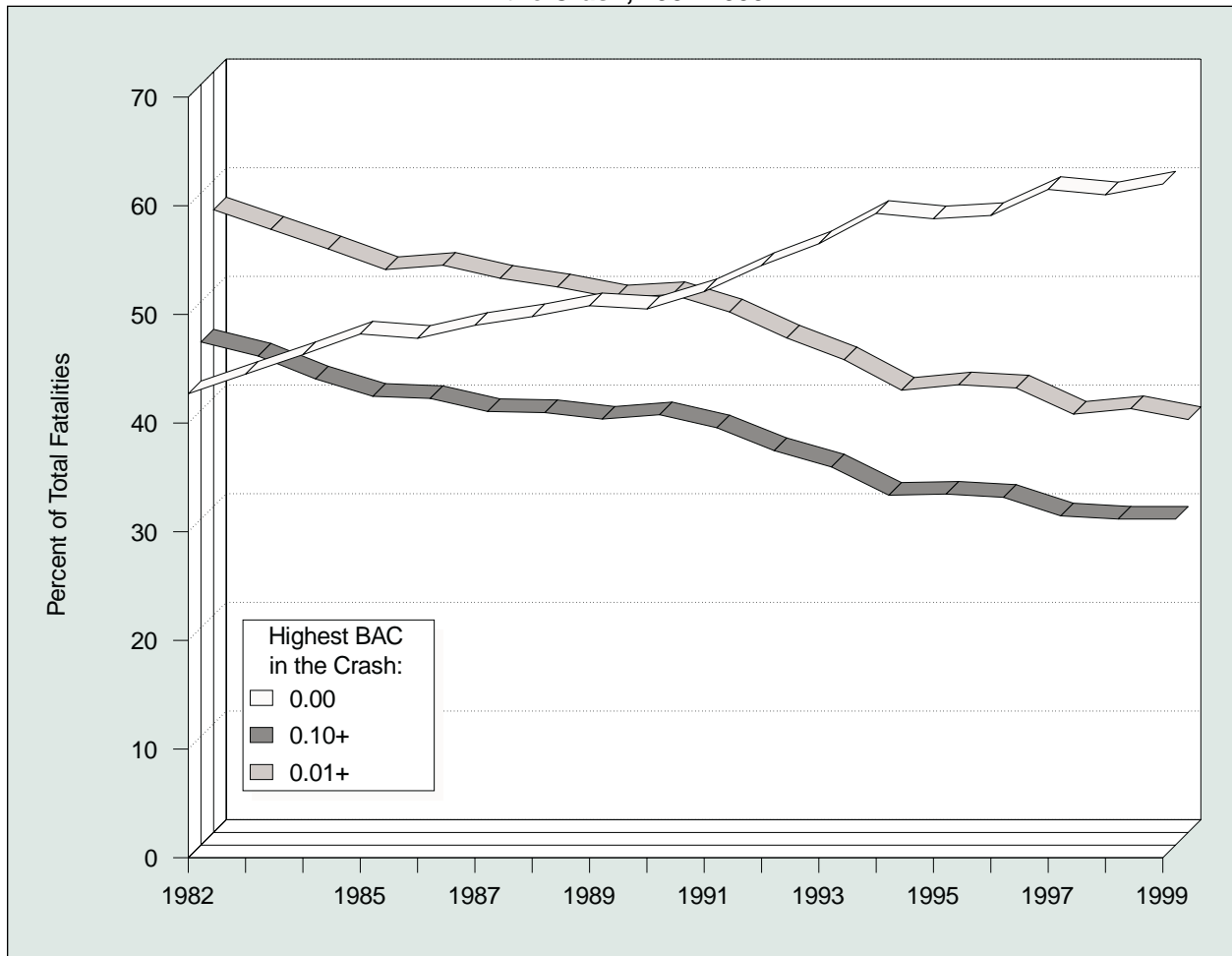
Year	Age Group (Years)											Total
	<5	5-9	10-15	16-20	21-24	25-34	35-44	45-54	55-64	65-74	>74	
<b>Fatality Rate per 100,000 Population</b>												
1975	3.64	5.99	3.89	3.79	2.98	2.39	2.75	3.17	3.66	6.05	10.76	<b>3.99</b>
1976	3.52	5.63	3.71	3.72	3.04	2.43	2.62	3.30	3.60	5.58	10.12	<b>3.87</b>
1977	2.99	5.35	3.68	3.98	3.18	2.68	2.66	3.20	4.05	5.80	10.57	<b>3.97</b>
1978	3.14	5.45	3.76	4.04	3.51	2.90	2.78	3.33	3.77	5.36	8.93	<b>3.96</b>
1979	2.87	5.16	3.68	4.51	4.01	3.14	2.99	3.34	3.68	5.50	9.17	<b>4.08</b>
1980	2.67	4.68	3.64	4.45	4.34	3.17	2.80	3.39	3.69	5.00	9.89	<b>4.03</b>
1981	2.14	4.44	3.27	4.20	4.18	3.36	2.82	3.22	3.42	4.88	8.74	<b>3.87</b>
1982	2.15	3.89	3.07	4.11	4.27	3.06	3.00	3.05	3.05	4.45	7.41	<b>3.58</b>
1983	2.03	3.69	3.05	3.67	3.83	2.91	2.46	2.80	3.12	3.77	7.37	<b>3.31</b>
1984	1.92	3.61	3.13	3.55	3.63	2.95	2.58	2.93	3.34	4.01	7.64	<b>3.38</b>
1985	2.05	3.67	3.01	3.31	3.38	2.71	2.65	2.69	3.36	3.90	7.35	<b>3.27</b>
1986	1.89	3.58	3.22	3.45	3.54	2.93	2.51	2.98	2.86	3.64	7.34	<b>3.27</b>
1987	1.66	3.63	3.24	3.12	3.39	2.83	2.69	2.88	3.14	3.79	7.20	<b>3.23</b>
1988	1.69	3.65	2.88	2.92	3.37	2.94	2.70	2.77	3.04	3.94	7.70	<b>3.24</b>
1989	1.54	3.06	2.53	2.58	2.90	3.00	2.73	2.61	3.18	3.49	7.10	<b>3.04</b>
1990	1.60	2.65	2.34	2.53	2.84	2.97	2.77	2.63	3.09	3.67	6.97	<b>2.99</b>
1991	1.43	2.40	2.39	2.45	2.86	2.65	2.36	2.44	2.67	3.08	5.93	<b>2.68</b>
1992	1.29	2.25	2.06	2.20	2.21	2.38	2.39	2.41	2.56	3.10	5.42	<b>2.50</b>
1993	1.35	2.19	2.23	2.06	2.25	2.63	2.51	2.25	2.52	2.95	5.47	<b>2.55</b>
1994	1.31	2.20	2.10	2.01	2.22	2.34	2.46	2.35	2.41	2.82	5.50	<b>2.46</b>
1995	1.12	2.02	2.08	2.02	2.38	2.41	2.60	2.38	2.50	2.97	5.21	<b>2.48</b>
1996	1.22	1.87	1.93	1.98	2.38	2.17	2.49	2.40	2.63	2.94	4.76	<b>2.40</b>
1997	0.97	1.73	1.83	2.11	2.15	2.22	2.47	2.39	2.53	2.99	4.57	<b>2.35</b>
1998	0.96	1.42	1.62	1.88	2.12	2.06	2.46	2.41	2.61	2.74	4.68	<b>2.26</b>
1999	0.94	1.44	1.53	1.77	1.97	1.88	2.39	2.24	2.33	2.75	4.09	<b>2.13</b>
<b>Injury Rate per 100,000 Population</b>												
1988	35	178	195	116	117	74	45	38	35	25	45	<b>79</b>
1989	32	179	198	127	96	69	53	43	42	33	39	<b>79</b>
1990	34	139	181	128	109	76	52	37	26	29	38	<b>75</b>
1991	26	138	157	96	91	70	41	37	31	31	29	<b>66</b>
1992	33	120	165	93	98	57	45	35	29	30	27	<b>63</b>
1993	27	116	170	93	95	66	49	45	26	27	38	<b>66</b>
1994	24	112	151	119	88	60	47	36	33	24	29	<b>63</b>
1995	33	104	160	93	87	62	52	27	22	30	26	<b>62</b>
1996	31	91	156	87	80	57	38	36	26	26	22	<b>57</b>
1997	27	93	132	75	67	51	50	34	29	29	22	<b>55</b>
1998	19	77	121	70	68	49	40	33	25	21	17	<b>48</b>
1999	20	85	129	70	58	56	38	38	26	27	22	<b>51</b>

**Table 13**  
**Persons Killed, by Highest Blood Alcohol Concentration (BAC) in the Crash, 1982-1999**

Year	BAC = 0.00		BAC = 0.01-0.09		BAC = 0.10+		Total Number	Total Fatalities in Alcohol-Related Crashes	
	Number	Percent	Number	Percent	Number	Percent		Number	Percent
1982	18,780	43	4,809	11	20,356	46	43,945	25,165	57
1983	18,943	44	4,472	10	19,174	45	42,589	23,646	56
1984	20,499	46	4,766	11	18,992	43	44,257	23,758	54
1985	21,109	48	4,604	11	18,111	41	43,825	22,716	52
1986	22,042	48	5,109	11	18,936	41	46,087	24,045	52
1987	22,749	49	5,112	11	18,529	40	46,390	23,641	51
1988	23,461	50	4,895	10	18,731	40	47,087	23,626	50
1989	23,178	51	4,541	10	17,863	39	45,582	22,404	49
1990	22,515	50	4,434	10	17,650	40	44,599	22,084	50
1991	21,621	52	3,957	10	15,930	38	41,508	19,887	48
1992	21,392	55	3,625	9	14,234	36	39,250	17,858	45
1993	22,677	56	3,496	9	13,977	35	40,150	17,473	44
1994	24,136	59	3,480	9	13,100	32	40,716	16,580	41
1995	24,570	59	3,746	9	13,501	32	41,817	17,247	41
1996	24,847	59	3,774	9	13,444	32	42,065	17,218	41
1997	25,824	61	3,480	8	12,710	30	42,013	16,189	39
1998	25,481	61	3,526	8	12,494	30	41,501	16,020	39
1999	25,825	62	3,466	8	12,321	30	41,611	15,786	38

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Figure 8**  
**Proportion of Persons Killed, by Highest Blood Alcohol Concentration (BAC) in the Crash, 1982-1999**





**Table 14**  
**Persons Killed During Holiday Periods by Alcohol Involvement, 1982-1999**

Year	Holiday Period*					
	New Year's Day		Memorial Day		Fourth of July	
	Killed	Percent Alcohol-Related**	Killed	Percent Alcohol-Related**	Killed	Percent Alcohol-Related**
1982	***	***	498 (3)	68	600 (3)	70
1983	375 (3)	69	539 (3)	63	620 (3)	68
1984	346 (3)	69	527 (3)	67	223 (1)	65
1985	496 (4)	60	557 (3)	62	689 (4)	63
1986	223 (1)	66	616 (3)	63	611 (3)	68
1987	535 (4)	61	519 (3)	61	556 (3)	60
1988	407 (3)	63	529 (3)	62	631 (3)	63
1989	443 (3)	55	594 (3)	58	748 (4)	60
1990	421 (3)	57	589 (3)	62	268 (1)	65
1991	441 (4)	60	533 (3)	61	718 (4)	57
1992	164 (1)	74	438 (3)	57	535 (3)	56
1993	370 (3)	58	454 (3)	52	525 (3)	54
1994	372 (3)	55	482 (3)	48	519 (3)	49
1995	392 (3)	48	483 (3)	52	661 (4)	49
1996	420 (3)	52	514 (3)	52	629 (4)	47
1997	192 (1)	67	511 (3)	47	508 (3)	50
1998	545 (4)	51	393 (3)	52	479 (3)	50
1999	354 (3)	54	500 (3)	50	510 (3)	45
	Labor Day		Thanksgiving		Christmas	
1982	628 (3)	68	601 (4)	62	458 (3)	65
1983	636 (3)	70	533 (4)	59	352 (3)	60
1984	609 (3)	66	558 (4)	60	643 (4)	66
1985	605 (3)	64	566 (4)	57	152 (1)	66
1986	663 (3)	64	598 (4)	59	508 (4)	59
1987	630 (3)	63	659 (4)	56	409 (3)	57
1988	592 (3)	64	601 (4)	58	511 (3)	60
1989	588 (3)	60	561 (4)	57	553 (3)	61
1990	599 (3)	66	563 (4)	54	567 (4)	51
1991	577 (3)	56	546 (4)	52	135 (1)	50
1992	460 (3)	55	403 (4)	57	410 (3)	50
1993	522 (3)	58	569 (4)	47	402 (3)	54
1994	494 (3)	55	575 (4)	47	455 (3)	49
1995	511 (3)	49	527 (4)	52	358 (3)	47
1996	525 (3)	52	588 (4)	46	167 (1)	54
1997	507 (3)	50	571 (4)	40	480 (4)	44
1998	464 (3)	51	602 (4)	49	364 (3)	49
1999	484 (3)	47	578 (4)	44	479 (3)	46

\*The number of whole days in the holiday period is shown in parentheses. The length of the holiday period depends on the day on which the legal holiday falls, as follows:

- If the holiday falls on *Monday*, the holiday period is from 6:00 pm Friday to 5:59 am Tuesday.
- If the holiday falls on *Tuesday*, the holiday period is from 6:00 pm Friday to 5:59 am Wednesday.
- If the holiday falls on *Wednesday*, the holiday period is from 6:00 pm Tuesday to 5:59 am Thursday.
- If the holiday falls on *Thursday*, the holiday period is from 6:00 pm Wednesday to 5:59 am Monday.
- If the holiday falls on *Friday*, the holiday period is from 6:00 pm Thursday to 5:59 am Monday.

\*\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater. NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

\*\*\*No data available.

**Table 15**  
**Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Time of Day, 1982-1999**

Year	Day*			Night*			Total Drivers		
	Total	Percent		Total	Percent		Total	Percent	
		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+
1982	23,725	17	12	32,085	55	43	56,029	39	30
1983	24,381	17	12	30,037	54	43	54,656	38	29
1984	26,415	16	11	30,775	53	41	57,512	36	27
1985	27,578	15	10	30,008	51	40	57,883	34	26
1986	28,434	15	10	31,543	51	40	60,335	34	26
1987	29,227	14	10	31,854	50	38	61,442	33	25
1988	30,196	14	10	31,715	50	39	62,253	33	25
1989	29,953	14	9	30,170	49	39	60,435	32	24
1990	28,797	14	9	29,778	50	39	58,893	32	25
1991	26,829	13	9	27,249	49	38	54,391	31	24
1992	26,236	12	8	25,380	46	36	51,901	29	22
1993	27,770	11	7	25,355	45	36	53,401	27	21
1994	29,134	10	7	25,112	42	33	54,549	25	19
1995	30,066	11	7	25,755	42	33	56,164	25	19
1996	30,802	10	7	25,864	42	33	57,001	25	19
1997	30,979	9	6	25,368	40	32	56,688	24	18
1998	31,389	10	6	24,879	40	32	56,604	23	18
1999	31,106	10	6	24,920	40	31	56,352	23	17

\*Day = 6:00 AM - 5:59 PM. Night = 6:00 PM - 5:59 AM. Total includes drivers with time of day unknown.  
 Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 16**  
**Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Sex, 1982-1999**

Year	Male			Female		
	Total	Percent		Total	Percent	
		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+
1982	44,370	42	32	10,675	26	19
1983	42,812	40	31	10,958	25	18
1984	44,723	39	30	11,907	24	17
1985	44,846	37	28	12,142	22	15
1986	46,653	38	29	12,744	21	15
1987	46,884	36	28	13,614	21	15
1988	47,402	36	28	13,951	20	15
1989	45,448	35	27	14,054	20	14
1990	44,281	36	28	13,726	19	14
1991	40,731	35	27	12,825	19	14
1992	38,598	32	25	12,596	18	13
1993	39,556	31	24	13,082	17	12
1994	40,233	29	22	13,567	15	11
1995	41,235	28	22	14,184	16	11
1996	41,376	28	21	14,850	16	11
1997	40,954	27	20	14,954	14	10
1998	40,816	27	20	15,089	14	10
1999	40,900	26	20	14,792	14	10

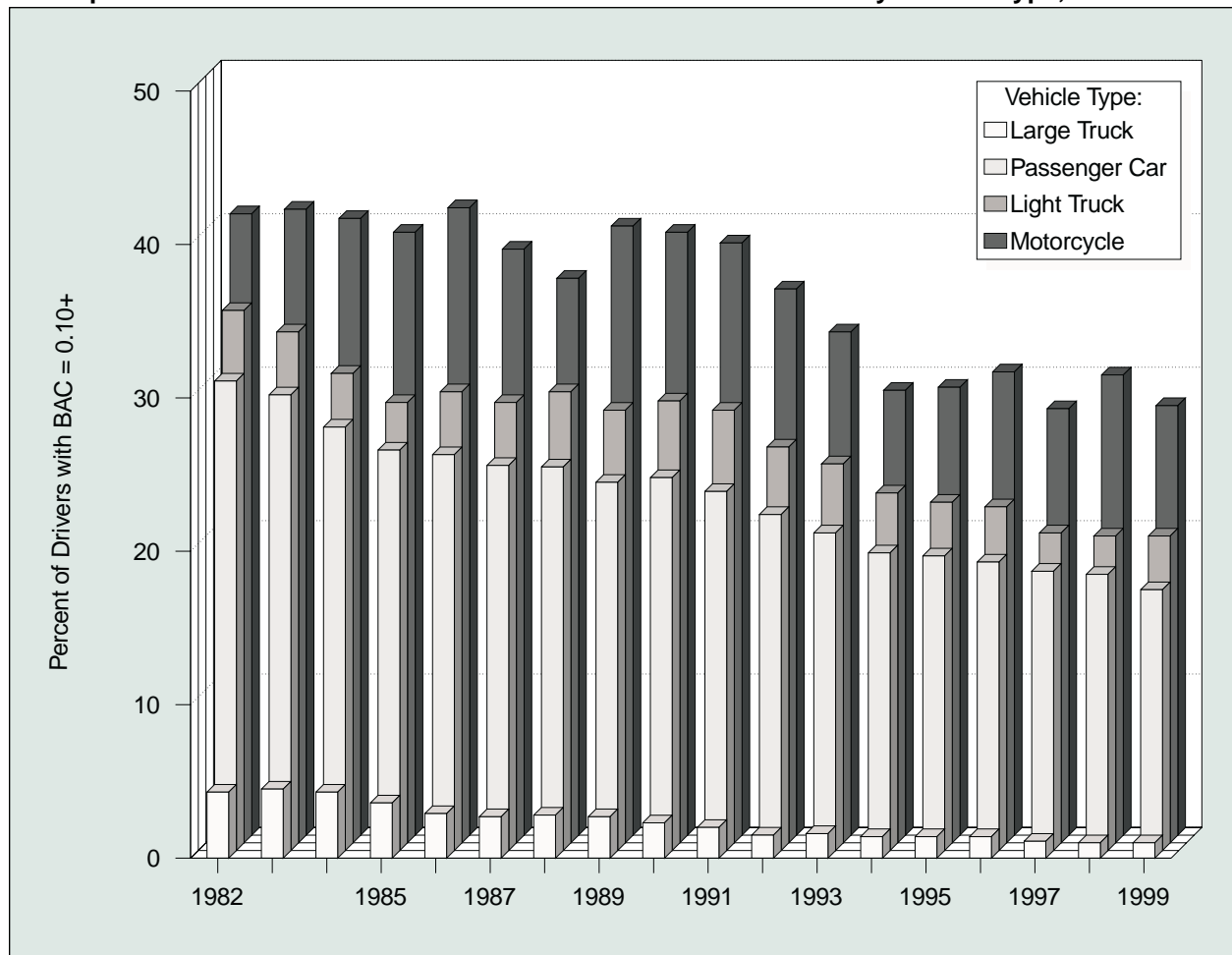
Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 17**  
**Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Vehicle Type, 1982-1999**

Year	Passenger Car			Light Truck			Large Truck			Motorcycle		
	Total	Percent		Total	Percent		Total	Percent		Total	Percent	
		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+
1982	34,121	40	31	11,199	43	35	4,582	8	4	4,490	53	41
1983	33,069	39	30	11,017	42	33	4,790	8	5	4,288	54	41
1984	34,395	36	28	11,866	39	31	5,056	8	4	4,650	54	40
1985	34,071	35	26	12,372	36	29	5,091	6	4	4,598	53	39
1986	35,959	35	26	13,208	37	29	5,015	5	3	4,558	54	41
1987	36,371	34	25	14,407	37	29	5,046	4	3	4,061	51	38
1988	36,769	33	25	15,167	37	29	5,141	5	3	3,704	50	36
1989	35,204	32	24	15,579	35	28	4,903	5	3	3,182	53	40
1990	33,893	32	24	15,501	36	29	4,709	5	2	3,269	52	39
1991	31,102	31	23	14,702	36	28	4,291	4	2	2,816	51	39
1992	29,670	29	22	14,540	33	26	3,980	3	1	2,435	48	36
1993	30,060	27	21	15,207	31	25	4,271	3	2	2,471	44	33
1994	30,103	26	19	16,235	29	23	4,592	3	1	2,330	40	29
1995	30,773	26	19	17,483	28	22	4,410	3	1	2,262	41	29
1996	30,595	26	19	18,118	28	22	4,703	3	1	2,175	42	30
1997	29,896	24	18	18,502	26	20	4,859	2	1	2,159	39	28
1998	28,907	24	18	19,247	26	20	4,905	2	1	2,333	40	30
1999	27,806	23	17	19,801	26	20	4,847	2	1	2,515	38	28

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Figure 9**  
**Proportion of Drivers Involved in Fatal Crashes with BAC = 0.10+ by Vehicle Type, 1982-1999**

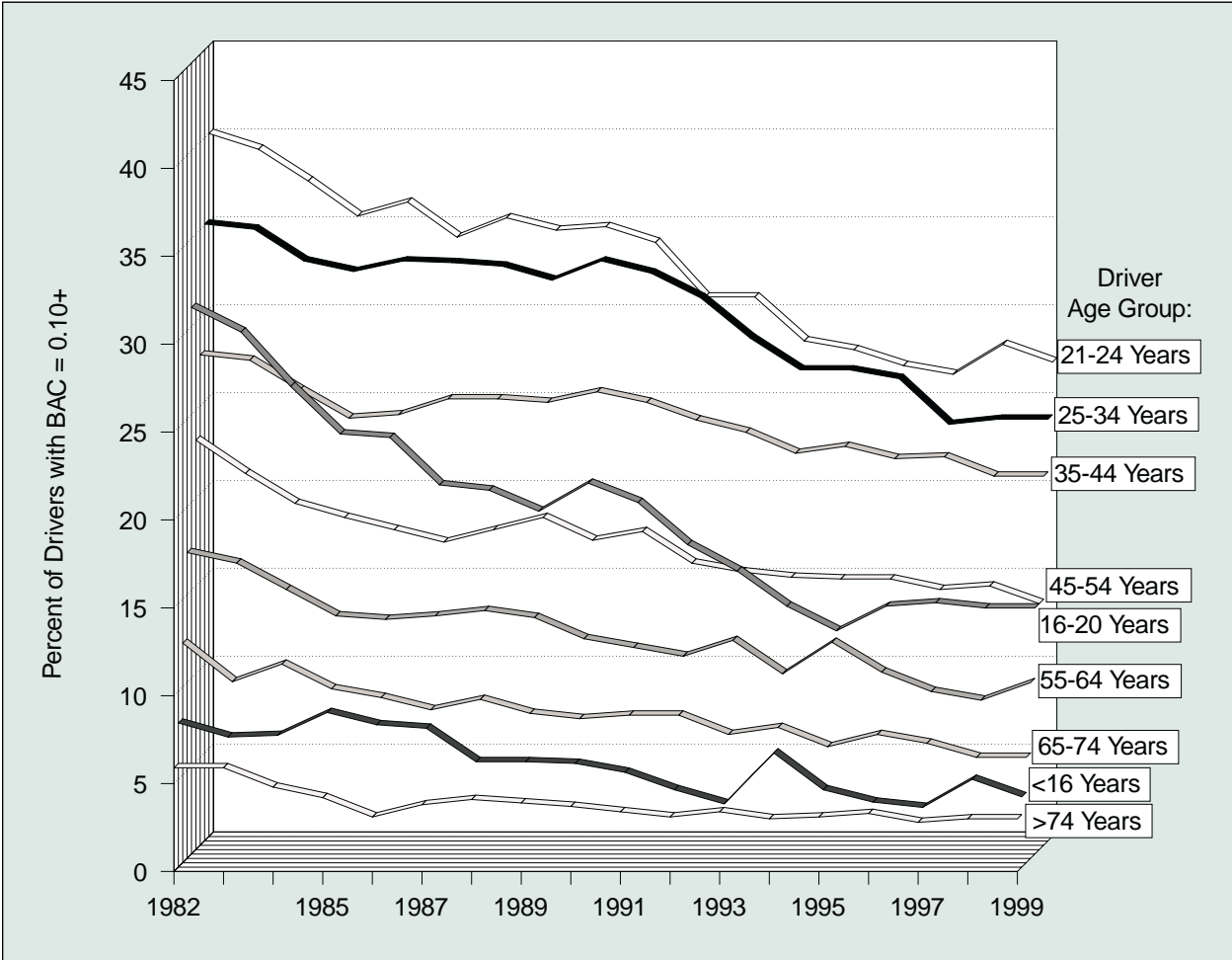


**Table 18**  
**Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Age, 1982-1999**

Year	Age								
	<16 Years			16-20 Years			21-24 Years		
	Total	Percent		Total	Percent		Total	Percent	
		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+		BAC = 0.01+	BAC = 0.10+
1982	412	13	8	9,858	44	31	9,018	52	40
1983	416	12	7	9,334	42	30	8,432	51	39
1984	446	15	8	9,804	40	27	8,963	49	37
1985	479	15	9	9,386	35	24	9,046	46	35
1986	504	15	8	10,163	36	24	9,129	47	36
1987	469	16	8	9,910	33	21	8,808	45	34
1988	448	14	6	10,171	32	21	8,555	46	35
1989	402	11	6	9,442	30	20	7,723	45	35
1990	409	12	6	8,821	32	21	7,195	45	35
1991	364	14	5	8,002	30	20	6,748	44	34
1992	350	12	4	7,192	27	18	6,323	41	31
1993	383	10	4	7,256	25	16	6,406	39	31
1994	397	10	7	7,723	23	14	6,291	37	28
1995	410	10	4	7,725	21	13	6,263	37	28
1996	413	9	3	7,824	21	14	6,205	37	27
1997	345	6	3	7,719	22	14	5,705	35	26
1998	361	10	5	7,767	22	14	5,613	36	28
1999	332	8	4	7,973	21	14	5,620	36	27
	25-34 Years			35-44 Years			45-54 Years		
1982	14,787	44	35	7,984	35	28	4,980	29	23
1983	14,470	44	35	8,068	34	28	4,992	27	21
1984	15,233	42	33	8,563	32	26	5,084	25	20
1985	15,257	41	32	8,892	30	24	5,150	24	19
1986	16,179	41	33	9,240	31	25	5,077	24	18
1987	16,562	42	33	9,778	31	25	5,470	22	17
1988	16,398	41	33	10,077	31	25	5,761	23	18
1989	15,928	40	32	10,106	31	25	6,038	24	19
1990	15,764	41	33	10,177	32	26	5,867	23	18
1991	14,151	40	32	9,482	31	25	5,458	23	18
1992	13,049	38	31	9,284	30	24	5,672	21	16
1993	13,038	36	29	9,738	29	23	5,970	20	16
1994	12,891	34	27	9,951	27	22	6,493	20	15
1995	13,048	34	27	10,677	29	23	6,815	20	15
1996	12,889	33	26	10,955	28	22	7,127	20	15
1997	12,453	31	24	10,904	27	22	7,522	19	15
1998	11,925	31	24	11,241	27	21	7,690	19	15
1999	11,734	30	24	11,023	26	21	7,700	19	14
	55-64 Years			65-74 Years			>74 Years		
1982	3,941	23	17	2,343	17	13	1,551	9	6
1983	3,862	22	17	2,434	14	10	1,592	9	6
1984	4,059	20	15	2,620	15	11	1,696	8	5
1985	4,112	19	14	2,650	14	10	1,829	7	4
1986	4,019	19	14	2,844	14	9	2,037	6	3
1987	4,223	18	14	2,987	13	9	2,091	6	4
1988	4,320	18	14	3,079	14	9	2,297	7	4
1989	4,202	18	14	3,107	12	9	2,324	7	4
1990	4,068	17	13	3,161	12	8	2,340	7	4
1991	3,695	16	12	3,017	12	8	2,454	6	3
1992	3,688	16	11	3,024	12	8	2,450	5	3
1993	3,824	16	12	3,031	10	7	2,817	6	3
1994	3,828	14	11	3,194	11	8	2,867	5	3
1995	4,079	16	12	3,251	10	7	2,989	5	3
1996	4,237	14	11	3,319	11	7	3,068	5	3
1997	4,394	13	10	3,401	10	7	3,314	5	3
1998	4,478	13	9	3,399	9	6	3,291	5	3
1999	4,592	13	10	3,228	9	6	3,331	5	3

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

Figure 10  
Proportion of Drivers in Fatal Crashes with BAC = 0.10+ by Age, 1982-1999



**Table 19**  
**Drivers in Fatal Crashes by Blood Alcohol Concentration (BAC) and Survival Status, 1982-1999**

Year	Driver Survival Status								All Drivers in Fatal Crashes			
	Surviving Drivers				Killed Drivers							
	BAC = 0.00	BAC = 0.01-0.09	BAC = 0.10+	Total	BAC = 0.00	BAC = 0.01-0.09	BAC = 0.10+	Total	BAC = 0.00	BAC = 0.01-0.09	BAC = 0.10+	Total
1982	22,674	2,698	5,967	31,339	11,576	2,289	10,825	24,690	34,250	4,987	16,793	56,029
1983	22,426	2,512	5,581	30,518	11,720	2,165	10,253	24,138	34,145	4,677	15,834	54,656
1984	23,888	2,587	5,448	31,923	12,943	2,365	10,281	25,589	36,831	4,952	15,729	57,512
1985	25,106	2,350	5,089	32,546	13,215	2,317	9,805	25,337	38,321	4,668	14,894	57,883
1986	25,835	2,626	5,244	33,705	13,798	2,514	10,317	26,630	39,633	5,140	15,560	60,335
1987	26,727	2,657	5,224	34,609	14,322	2,403	10,108	26,833	41,049	5,060	15,332	61,442
1988	27,306	2,562	5,132	35,000	14,507	2,395	10,351	27,253	41,813	4,957	15,483	62,253
1989	26,903	2,317	4,826	34,046	14,367	2,194	9,828	26,389	41,271	4,511	14,654	60,435
1990	26,054	2,329	4,761	33,143	13,924	2,050	9,776	25,750	39,978	4,378	14,537	58,893
1991	24,172	2,060	4,229	30,461	13,328	1,852	8,749	23,930	37,500	3,913	12,978	54,391
1992	23,762	1,827	3,728	29,317	13,158	1,697	7,729	22,584	36,919	3,524	11,457	51,901
1993	24,874	1,753	3,632	30,259	13,944	1,616	7,582	23,142	38,818	3,369	11,214	53,401
1994	25,916	1,710	3,233	30,858	14,826	1,580	7,285	23,691	40,741	3,290	10,518	54,549
1995	26,753	1,745	3,277	31,774	15,143	1,722	7,525	24,390	41,895	3,467	10,802	56,164
1996	27,326	1,829	3,313	32,467	15,443	1,716	7,375	24,534	42,768	3,545	10,688	57,001
1997	27,266	1,693	3,062	32,021	16,042	1,605	7,021	24,667	43,308	3,297	10,083	56,688
1998	27,236	1,684	2,941	31,861	16,128	1,578	7,037	24,743	43,364	3,262	9,978	56,604
1999	26,689	1,595	2,858	31,142	16,616	1,635	6,960	25,210	43,305	3,229	9,818	56,352

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 20**  
**Pedestrians Killed, 14 Years and Older, by Blood Alcohol Concentration (BAC), 1982-1999**

Year	BAC = 0.00		BAC = 0.01-0.09		BAC = 0.10+		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1982	3,266	53	482	8	2,406	39	6,154	100
1983	3,049	53	455	8	2,206	39	5,710	100
1984	3,234	55	430	7	2,242	38	5,907	100
1985	3,120	55	478	8	2,104	37	5,702	100
1986	3,171	56	465	8	2,066	36	5,702	100
1987	3,226	56	462	8	2,027	35	5,715	100
1988	3,372	58	426	7	2,026	35	5,825	100
1989	3,176	56	449	8	2,033	36	5,658	100
1990	3,204	57	385	7	2,006	36	5,595	100
1991	2,872	57	333	7	1,800	36	5,005	100
1992	2,734	57	335	7	1,743	36	4,812	100
1993	2,819	58	309	6	1,732	36	4,860	100
1994	2,791	59	350	7	1,595	34	4,737	100
1995	2,895	59	331	7	1,670	34	4,896	100
1996	2,762	58	324	7	1,691	35	4,777	100
1997	2,935	62	269	6	1,511	32	4,715	100
1998	2,787	60	340	7	1,552	33	4,680	100
1999	2,584	59	307	7	1,489	34	4,381	100

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 21**  
**Drivers of Passenger Cars and Light Trucks in Crashes**  
**by Crash Severity and Restraint Use, 1975-1999**

Year	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Drivers in Fatal Crashes</b>								
1975	2,583	5.6	29,710	64.3	13,931	30.1	<b>46,224</b>	<b>100.0</b>
1976	2,062	4.5	29,905	64.7	14,239	30.8	<b>46,206</b>	<b>100.0</b>
1977	1,897	3.9	33,011	67.3	14,154	28.8	<b>49,062</b>	<b>100.0</b>
1978	1,882	3.6	37,606	72.3	12,510	24.1	<b>51,998</b>	<b>100.0</b>
1979	1,680	3.2	38,326	73.5	12,123	23.3	<b>52,129</b>	<b>100.0</b>
1980	1,482	2.9	37,889	73.8	11,935	23.3	<b>51,306</b>	<b>100.0</b>
1981	1,488	2.9	38,353	75.6	10,905	21.5	<b>50,746</b>	<b>100.0</b>
1982	1,515	3.3	33,793	74.6	10,012	22.1	<b>45,320</b>	<b>100.0</b>
1983	1,835	4.2	32,332	73.3	9,919	22.5	<b>44,086</b>	<b>100.0</b>
1984	2,756	6.0	32,979	71.3	10,526	22.8	<b>46,261</b>	<b>100.0</b>
1985	6,172	13.3	29,705	64.0	10,566	22.8	<b>46,443</b>	<b>100.0</b>
1986	10,891	22.2	28,778	58.5	9,498	19.3	<b>49,167</b>	<b>100.0</b>
1987	14,474	28.5	28,154	55.4	8,150	16.1	<b>50,778</b>	<b>100.0</b>
1988	16,948	32.6	28,146	54.2	6,842	13.2	<b>51,936</b>	<b>100.0</b>
1989	17,545	34.5	26,764	52.7	6,474	12.7	<b>50,783</b>	<b>100.0</b>
1990	18,340	37.1	24,706	50.0	6,348	12.9	<b>49,394</b>	<b>100.0</b>
1991	18,457	40.3	21,843	47.7	5,504	12.0	<b>45,804</b>	<b>100.0</b>
1992	19,106	43.2	19,836	44.9	5,268	11.9	<b>44,210</b>	<b>100.0</b>
1993	20,932	46.2	19,139	42.3	5,196	11.5	<b>45,267</b>	<b>100.0</b>
1994	22,763	49.1	18,946	40.9	4,629	10.0	<b>46,338</b>	<b>100.0</b>
1995	24,165	50.1	19,428	40.3	4,663	9.7	<b>48,256</b>	<b>100.0</b>
1996	25,207	51.7	18,759	38.5	4,747	9.7	<b>48,713</b>	<b>100.0</b>
1997	25,313	52.3	18,286	37.8	4,799	9.9	<b>48,398</b>	<b>100.0</b>
1998	25,854	53.7	17,601	36.6	4,699	9.8	<b>48,154</b>	<b>100.0</b>
1999	25,423	53.4	17,643	37.1	4,541	9.5	<b>47,607</b>	<b>100.0</b>
<b>Drivers in Injury Crashes</b>								
1988	2,313,000	62.1	802,000	21.5	609,000	16.4	<b>3,724,000</b>	<b>100.0</b>
1989	2,267,000	62.8	749,000	20.8	592,000	16.4	<b>3,607,000</b>	<b>100.0</b>
1990	2,290,000	64.4	703,000	19.8	563,000	15.8	<b>3,556,000</b>	<b>100.0</b>
1991	2,308,000	68.0	581,000	17.1	505,000	14.9	<b>3,394,000</b>	<b>100.0</b>
1992	2,420,000	71.5	476,000	14.0	490,000	14.5	<b>3,386,000</b>	<b>100.0</b>
1993	2,557,000	73.8	435,000	12.6	475,000	13.7	<b>3,467,000</b>	<b>100.0</b>
1994	2,856,000	77.4	418,000	11.3	416,000	11.3	<b>3,690,000</b>	<b>100.0</b>
1995	3,118,000	79.3	388,000	9.9	425,000	10.8	<b>3,931,000</b>	<b>100.0</b>
1996	3,136,000	79.4	366,000	9.3	445,000	11.3	<b>3,947,000</b>	<b>100.0</b>
1997	3,003,000	79.1	339,000	8.9	452,000	11.9	<b>3,794,000</b>	<b>100.0</b>
1998	2,863,000	79.5	309,000	8.6	428,000	11.9	<b>3,600,000</b>	<b>100.0</b>
1999	2,897,000	80.5	293,000	8.1	409,000	11.4	<b>3,598,000</b>	<b>100.0</b>
<b>Drivers in Property-Damage-Only Crashes</b>								
1988	4,517,000	60.4	1,200,000	16.0	1,763,000	23.6	<b>7,481,000</b>	<b>100.0</b>
1989	4,531,000	62.6	1,015,000	14.0	1,691,000	23.4	<b>7,237,000</b>	<b>100.0</b>
1990	4,499,000	63.4	978,000	13.8	1,616,000	22.8	<b>7,094,000</b>	<b>100.0</b>
1991	4,516,000	67.2	712,000	10.6	1,490,000	22.2	<b>6,718,000</b>	<b>100.0</b>
1992	4,671,000	71.6	508,000	7.8	1,344,000	20.6	<b>6,523,000</b>	<b>100.0</b>
1993	4,986,000	75.0	451,000	6.8	1,209,000	18.2	<b>6,646,000</b>	<b>100.0</b>
1994	5,534,000	77.7	392,000	5.5	1,198,000	16.8	<b>7,124,000</b>	<b>100.0</b>
1995	5,914,000	79.3	356,000	4.8	1,184,000	15.9	<b>7,454,000</b>	<b>100.0</b>
1996	5,960,000	79.2	328,000	4.4	1,241,000	16.5	<b>7,529,000</b>	<b>100.0</b>
1997	5,841,000	78.9	311,000	4.2	1,255,000	16.9	<b>7,406,000</b>	<b>100.0</b>
1998	5,720,000	79.6	268,000	3.7	1,199,000	16.7	<b>7,187,000</b>	<b>100.0</b>
1999	5,637,000	81.3	236,000	3.4	1,058,000	15.3	<b>6,932,000</b>	<b>100.0</b>

Note: Restraint use is determined by police and may be overreported for survivors.

**Table 22**  
**Occupants of Passenger Cars and Light Trucks Killed and Injured, by Restraint Use, 1975-1999**

Year	Restraint Used		Restraint Not Used		Restraint Use Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Occupants Killed</b>								
1975	986	3.2	21,076	68.5	8,723	28.3	<b>30,785</b>	<b>100.0</b>
1976	796	2.5	21,979	69.5	8,829	27.9	<b>31,604</b>	<b>100.0</b>
1977	778	2.4	23,593	72.0	8,387	25.6	<b>32,758</b>	<b>100.0</b>
1978	784	2.2	26,671	76.4	7,443	21.3	<b>34,898</b>	<b>100.0</b>
1979	683	2.0	27,130	77.5	7,173	20.5	<b>34,986</b>	<b>100.0</b>
1980	671	1.9	27,483	78.7	6,781	19.4	<b>34,935</b>	<b>100.0</b>
1981	649	1.9	26,974	80.0	6,103	18.1	<b>33,726</b>	<b>100.0</b>
1982	679	2.3	23,558	79.3	5,452	18.4	<b>29,689</b>	<b>100.0</b>
1983	827	2.8	23,080	79.1	5,274	18.1	<b>29,181</b>	<b>100.0</b>
1984	1,208	4.0	23,299	77.4	5,609	18.6	<b>30,116</b>	<b>100.0</b>
1985	2,391	8.0	22,131	74.0	5,379	18.0	<b>29,901</b>	<b>100.0</b>
1986	4,074	12.6	23,420	72.6	4,767	14.8	<b>32,261</b>	<b>100.0</b>
1987	5,249	15.8	23,799	71.7	4,142	12.5	<b>33,190</b>	<b>100.0</b>
1988	6,210	18.2	24,359	71.4	3,545	10.4	<b>34,114</b>	<b>100.0</b>
1989	6,546	19.5	23,613	70.2	3,455	10.3	<b>33,614</b>	<b>100.0</b>
1990	6,775	20.7	22,547	69.0	3,371	10.3	<b>32,693</b>	<b>100.0</b>
1991	7,332	23.8	20,488	66.6	2,956	9.6	<b>30,776</b>	<b>100.0</b>
1992	7,699	26.1	19,053	64.6	2,733	9.3	<b>29,485</b>	<b>100.0</b>
1993	8,679	28.9	18,553	61.7	2,845	9.5	<b>30,077</b>	<b>100.0</b>
1994	9,620	31.1	18,658	60.4	2,623	8.5	<b>30,901</b>	<b>100.0</b>
1995	10,115	31.6	19,167	59.9	2,709	8.5	<b>31,991</b>	<b>100.0</b>
1996	10,683	32.9	18,881	58.2	2,873	8.9	<b>32,437</b>	<b>100.0</b>
1997	10,961	33.8	18,676	57.6	2,811	8.7	<b>32,448</b>	<b>100.0</b>
1998	11,173	35.0	18,062	56.6	2,664	8.4	<b>31,899</b>	<b>100.0</b>
1999	11,101	34.6	18,317	57.1	2,643	8.2	<b>32,061</b>	<b>100.0</b>
<b>Occupants Injured</b>								
1988	1,752,000	57.2	912,000	29.8	399,000	13.0	<b>3,063,000</b>	<b>100.0</b>
1989	1,720,000	58.5	863,000	29.4	359,000	12.2	<b>2,942,000</b>	<b>100.0</b>
1990	1,737,000	60.3	820,000	28.4	325,000	11.3	<b>2,882,000</b>	<b>100.0</b>
1991	1,785,000	63.8	725,000	25.9	287,000	10.3	<b>2,797,000</b>	<b>100.0</b>
1992	1,854,000	66.8	622,000	22.4	300,000	10.8	<b>2,776,000</b>	<b>100.0</b>
1993	1,983,000	69.2	589,000	20.6	294,000	10.2	<b>2,866,000</b>	<b>100.0</b>
1994	2,208,000	73.7	564,000	18.8	223,000	7.4	<b>2,995,000</b>	<b>100.0</b>
1995	2,415,000	75.7	549,000	17.2	227,000	7.1	<b>3,192,000</b>	<b>100.0</b>
1996	2,468,000	76.7	520,000	16.1	231,000	7.2	<b>3,220,000</b>	<b>100.0</b>
1997	2,369,000	76.5	475,000	15.3	251,000	8.1	<b>3,095,000</b>	<b>100.0</b>
1998	2,297,000	77.5	437,000	14.7	230,000	7.8	<b>2,964,000</b>	<b>100.0</b>
1999	2,328,000	78.0	420,000	14.1	237,000	7.9	<b>2,984,000</b>	<b>100.0</b>

Note: Restraint use is determined by police and may be overreported for survivors.



A photograph of a multi-car pileup on a highway. Several vehicles are involved in a collision, with some cars overturned or heavily damaged. Emergency vehicles, including a fire truck and a police car, are present at the scene. Investigators in high-visibility vests are examining the wreckage. The scene is on a multi-lane highway with a grassy shoulder and trees in the background.

## Chapter 2 ♦ Crashes



## 2. CRASHES

---

This chapter presents statistics about motor vehicle crashes according to the most severe injury in the crash: **Fatal**, **Nonfatal Injury** (Injury), and **Property Damage**. The tables and figures are presented in four groups: Time, Location, Circumstances, and Alcohol. Below are some of the crash statistics you will find in this section:

- Nearly 6.3 million police-reported motor vehicle crashes occurred in the United States in 1999. Almost one-third of these crashes resulted in an injury, with less than 1 percent of total crashes (37,043) resulting in a death.
- Midnight to 3 a.m. on Saturdays and Sundays proved to be the deadliest 3-hour periods throughout 1999, with 1,215 and 1,182 fatal crashes, respectively.
- Fifty-six percent of fatal crashes involved only one vehicle, compared to 28 percent of both injury crashes and property-damage-only crashes.
- More than half of fatal crashes occurred on roads with posted speed limits of 55 mph or more, while only 22 percent of property-damage-only crashes occurred on these roads.
- Collision with another motor vehicle in transport was the most common first harmful event for fatal, injury, and property-damage-only crashes. Collisions with fixed objects and noncollisions accounted for only 17 percent of all crashes, but they accounted for 41 percent of fatal crashes.
- Thirty-eight percent of fatal crashes involved alcohol. For fatal crashes occurring from midnight to 3 a.m., 75 percent involved alcohol.

**Table 23**  
**Crashes and Crash Rates by Month and Crash Severity**

Month	Crash Severity						Total Crashes	
	Fatal		Injury		Property Damage Only			
	Number	Rate*	Number	Rate*	Number	Rate*	Number	Rate*
January	2,585	1.3	152,000	79	395,000	204	<b>550,000</b>	<b>284</b>
February	2,411	1.3	144,000	75	296,000	155	<b>442,000</b>	<b>231</b>
March	2,811	1.3	166,000	75	355,000	161	<b>524,000</b>	<b>238</b>
April	2,766	1.3	171,000	77	331,000	150	<b>504,000</b>	<b>228</b>
May	3,244	1.4	178,000	77	338,000	146	<b>519,000</b>	<b>225</b>
June	3,141	1.3	182,000	77	334,000	142	<b>520,000</b>	<b>220</b>
July	3,410	1.4	169,000	69	325,000	133	<b>497,000</b>	<b>204</b>
August	3,528	1.5	184,000	76	334,000	138	<b>522,000</b>	<b>216</b>
September	3,295	1.5	171,000	76	346,000	154	<b>520,000</b>	<b>232</b>
October	3,442	1.5	189,000	81	374,000	160	<b>566,000</b>	<b>242</b>
November	3,190	1.4	166,000	75	369,000	166	<b>539,000</b>	<b>243</b>
December	3,220	1.5	182,000	82	390,000	176	<b>576,000</b>	<b>260</b>
<b>Total</b>	<b>37,043</b>	<b>1.4</b>	<b>2,054,000</b>	<b>77</b>	<b>4,188,000</b>	<b>156</b>	<b>6,279,000</b>	<b>234</b>

\*Crashes per 100 million vehicle miles traveled.

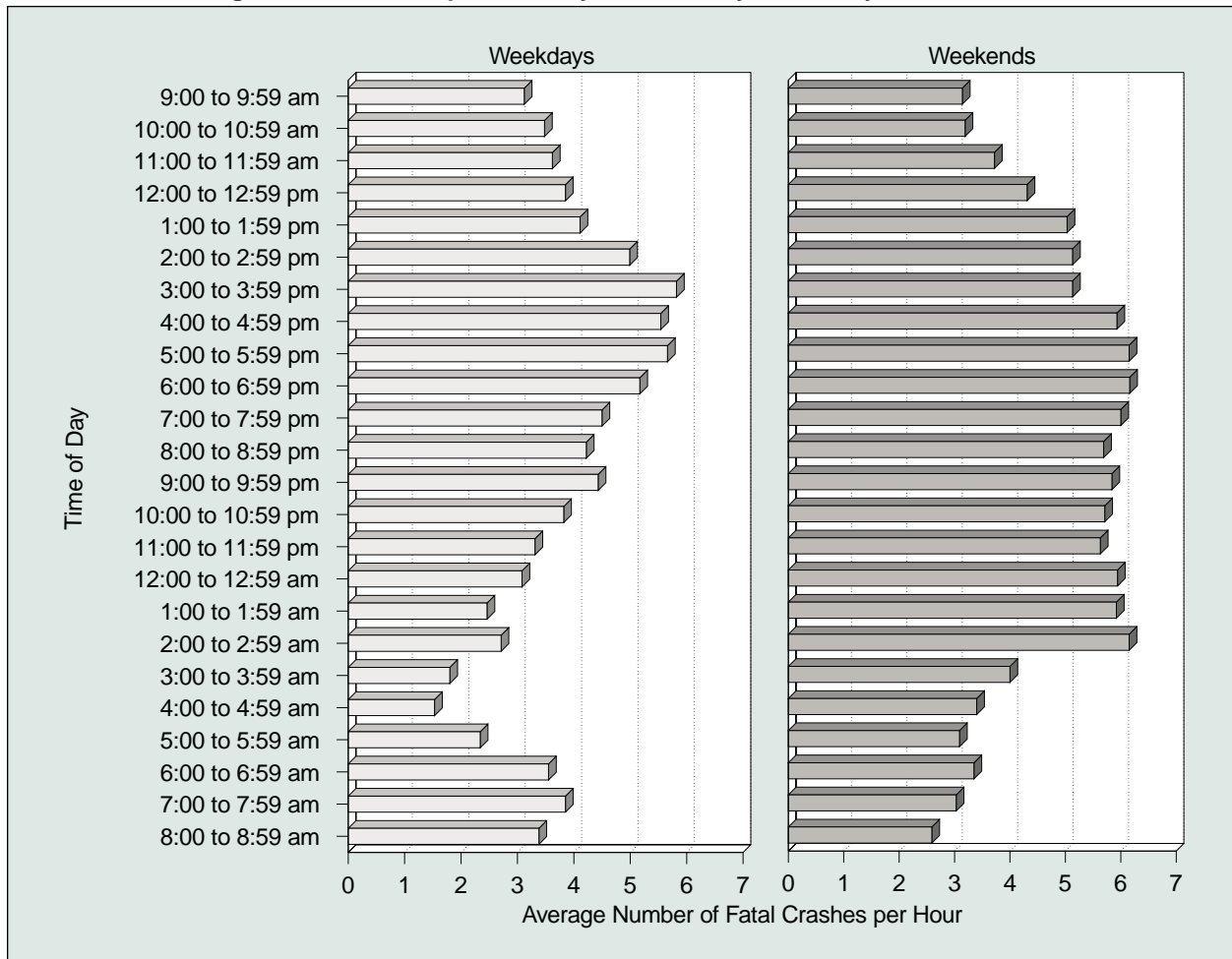
Source: Vehicle miles traveled, Federal Highway Administration, *Traffic Volume Trends* (June 2000).

**Table 24**  
**Crashes by Time of Day, Day of Week, and Crash Severity**

Time of Day	Day of Week							Total
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
<b>Fatal Crashes</b>								
Midnight to 3 am	1,182	411	323	394	433	575	1,215	<b>4,534</b>
3 am to 6 am	683	295	262	255	282	386	659	<b>2,822</b>
6 am to 9 am	430	562	531	616	540	562	502	<b>3,743</b>
9 am to Noon	461	551	521	493	525	578	585	<b>3,715</b>
Noon to 3 pm	719	713	593	663	659	753	786	<b>4,886</b>
3 pm to 6 pm	842	840	845	851	864	1,042	948	<b>6,232</b>
6 pm to 9 pm	827	708	704	740	736	971	1,004	<b>5,691</b>
9 pm to Midnight	628	562	580	574	689	991	1,079	<b>5,103</b>
Unknown	68	26	31	33	37	46	73	<b>317</b>
<b>Total</b>	<b>5,840</b>	<b>4,668</b>	<b>4,390</b>	<b>4,619</b>	<b>4,765</b>	<b>5,904</b>	<b>6,851</b>	<b>*37,043</b>
<b>Injury Crashes</b>								
Midnight to 3 am	27,000	9,000	8,000	8,000	9,000	12,000	26,000	<b>99,000</b>
3 am to 6 am	13,000	8,000	6,000	5,000	6,000	7,000	14,000	<b>59,000</b>
6 am to 9 am	10,000	41,000	46,000	41,000	40,000	37,000	19,000	<b>234,000</b>
9 am to Noon	28,000	39,000	39,000	35,000	40,000	45,000	39,000	<b>265,000</b>
Noon to 3 pm	45,000	55,000	60,000	55,000	56,000	66,000	60,000	<b>397,000</b>
3 pm to 6 pm	51,000	82,000	84,000	76,000	80,000	92,000	56,000	<b>520,000</b>
6 pm to 9 pm	32,000	40,000	41,000	45,000	49,000	54,000	44,000	<b>305,000</b>
9 pm to Midnight	26,000	22,000	21,000	21,000	22,000	32,000	32,000	<b>175,000</b>
<b>Total</b>	<b>232,000</b>	<b>295,000</b>	<b>305,000</b>	<b>286,000</b>	<b>302,000</b>	<b>346,000</b>	<b>289,000</b>	<b>2,054,000</b>
<b>Property-Damage-Only Crashes</b>								
Midnight to 3 am	40,000	19,000	15,000	16,000	15,000	29,000	51,000	<b>185,000</b>
3 am to 6 am	21,000	15,000	13,000	14,000	14,000	16,000	22,000	<b>116,000</b>
6 am to 9 am	21,000	97,000	108,000	105,000	93,000	90,000	34,000	<b>549,000</b>
9 am to Noon	49,000	87,000	85,000	83,000	83,000	99,000	85,000	<b>571,000</b>
Noon to 3 pm	83,000	128,000	120,000	111,000	111,000	143,000	112,000	<b>807,000</b>
3 pm to 6 pm	89,000	164,000	164,000	160,000	160,000	202,000	113,000	<b>1,053,000</b>
6 pm to 9 pm	65,000	79,000	86,000	86,000	86,000	103,000	71,000	<b>576,000</b>
9 pm to Midnight	43,000	36,000	41,000	45,000	41,000	67,000	58,000	<b>330,000</b>
<b>Total</b>	<b>411,000</b>	<b>625,000</b>	<b>633,000</b>	<b>620,000</b>	<b>603,000</b>	<b>749,000</b>	<b>547,000</b>	<b>4,188,000</b>
<b>All Crashes</b>								
Midnight to 3 am	69,000	29,000	23,000	24,000	25,000	41,000	78,000	<b>288,000</b>
3 am to 6 am	34,000	23,000	19,000	20,000	21,000	24,000	37,000	<b>178,000</b>
6 am to 9 am	32,000	138,000	155,000	147,000	134,000	127,000	53,000	<b>787,000</b>
9 am to Noon	77,000	127,000	124,000	119,000	123,000	145,000	124,000	<b>840,000</b>
Noon to 3 pm	129,000	184,000	181,000	166,000	167,000	210,000	172,000	<b>1,209,000</b>
3 pm to 6 pm	141,000	246,000	249,000	237,000	241,000	295,000	170,000	<b>1,579,000</b>
6 pm to 9 pm	98,000	119,000	128,000	131,000	135,000	158,000	116,000	<b>887,000</b>
9 pm to Midnight	69,000	58,000	62,000	66,000	64,000	100,000	92,000	<b>511,000</b>
<b>Total</b>	<b>649,000</b>	<b>925,000</b>	<b>942,000</b>	<b>911,000</b>	<b>910,000</b>	<b>1,100,000</b>	<b>843,000</b>	<b>6,279,000</b>

\*Includes 6 fatal crashes that occurred on unknown days.

**Figure 11**  
**Average Fatal Crashes per Hour by Time of Day, Weekdays and Weekends**



**Table 25**  
**Crashes by Weather Condition, Light Condition, and Crash Severity**

Weather Condition	Light Condition				Total
	Daylight	Dark, but Lighted	Dark	Dawn or Dusk	
<b>Fatal Crashes</b>					
Normal	16,873	4,944	9,732	1,371	<b>32,961</b>
Rain	1,376	444	769	123	<b>2,714</b>
Snow/Sleet	313	61	199	33	<b>606</b>
Other	175	82	276	49	<b>582</b>
Unknown	53	5	36	3	<b>180</b>
<b>Total</b>	<b>18,790</b>	<b>5,536</b>	<b>11,012</b>	<b>1,579</b>	<b>*37,043</b>
<b>Injury Crashes</b>					
Normal	1,262,000	252,000	175,000	57,000	<b>1,747,000</b>
Rain	148,000	45,000	24,000	12,000	<b>229,000</b>
Snow/Sleet	24,000	8,000	7,000	2,000	<b>42,000</b>
Other	21,000	5,000	7,000	3,000	<b>36,000</b>
<b>Total</b>	<b>1,456,000</b>	<b>311,000</b>	<b>213,000</b>	<b>75,000</b>	<b>2,054,000</b>
<b>Property-Damage-Only Crashes</b>					
Normal	2,552,000	452,000	375,000	121,000	<b>3,501,000</b>
Rain	294,000	80,000	51,000	22,000	<b>447,000</b>
Snow/Sleet	89,000	34,000	24,000	10,000	<b>157,000</b>
Other	51,000	13,000	14,000	5,000	<b>83,000</b>
<b>Total</b>	<b>2,985,000</b>	<b>579,000</b>	<b>465,000</b>	<b>158,000</b>	<b>4,188,000</b>
<b>All Crashes</b>					
Normal	3,831,000	709,000	560,000	180,000	<b>5,281,000</b>
Rain	443,000	126,000	76,000	35,000	<b>679,000</b>
Snow/Sleet	114,000	42,000	31,000	12,000	<b>199,000</b>
Other	72,000	19,000	22,000	8,000	<b>120,000</b>
<b>Total</b>	<b>4,460,000</b>	<b>895,000</b>	<b>689,000</b>	<b>235,000</b>	<b>6,279,000</b>

\*Includes 126 fatal crashes that occurred under unknown light conditions.

**Table 26**  
**Fatal Crashes by Emergency Medical Services (EMS) Response Times**  
**Within Designated Minutes and by Land Use**

Response Time (Minutes)	Time of Crash to EMS Notification		EMS Notification to EMS Arrival		EMS Arrival at Scene to Hospital Arrival		Time of Crash to Hospital Arrival	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Rural Fatal Crashes</b>								
0 to 10	10,521	80.0	7,492	54.9	214	2.9	39	0.5
11 to 20	1,814	13.8	4,740	34.7	1,335	18.0	238	3.3
21 to 30	415	3.2	1,016	7.4	1,937	26.1	690	9.7
31 to 40	138	1.0	252	1.8	1,465	19.7	1,220	17.1
41 to 50	82	0.6	75	0.5	985	13.3	1,501	21.0
51 to 60	63	0.5	30	0.2	590	7.9	1,275	17.9
61 to 120	116	0.9	46	0.3	900	12.1	2,176	30.5
<b>Total*</b>	<b>13,149</b>	<b>100.0</b>	<b>13,651</b>	<b>100.0</b>	<b>7,426</b>	<b>100.0</b>	<b>7,139</b>	<b>100.0</b>
<b>Urban Fatal Crashes</b>								
0 to 10	6,672	91.1	6,541	88.1	272	6.7	62	1.5
11 to 20	388	5.3	734	9.9	1,291	32.0	538	13.4
21 to 30	130	1.8	85	1.1	1,213	30.1	1,130	28.2
31 to 40	57	0.8	36	0.5	672	16.7	970	24.2
41 to 50	28	0.4	11	0.1	291	7.2	572	14.3
51 to 60	12	0.2	6	0.1	162	4.0	351	8.8
61 to 120	40	0.5	13	0.2	131	3.2	378	9.4
<b>Total*</b>	<b>7,327</b>	<b>100.0</b>	<b>7,426</b>	<b>100.0</b>	<b>4,032</b>	<b>100.0</b>	<b>4,001</b>	<b>100.0</b>

\*Includes crashes for which both times were known.



**Table 27**  
**Crashes by Crash Type, Relation to Roadway, and Crash Severity**

Crash Type	Relation to Roadway					Total
	On Roadway	Off Roadway	Shoulder	Median	Other/Unknown	
<b>Fatal Crashes</b>						
Single Vehicle	6,324	11,496	1,822	949	268	<b>20,859</b>
Multiple Vehicle	15,519	263	223	159	20	<b>16,184</b>
<b>Total</b>	<b>21,843</b>	<b>11,759</b>	<b>2,045</b>	<b>1,108</b>	<b>288</b>	<b>37,043</b>
<b>Injury Crashes</b>						
Single Vehicle	168,000	338,000	25,000	31,000	31,000	<b>592,000</b>
Multiple Vehicle	1,446,000	7,000	3,000	4,000	2,000	<b>1,462,000</b>
<b>Total</b>	<b>1,614,000</b>	<b>345,000</b>	<b>28,000</b>	<b>34,000</b>	<b>32,000</b>	<b>2,054,000</b>
<b>Property-Damage-Only Crashes</b>						
Single Vehicle	321,000	478,000	59,000	50,000	271,000	<b>1,178,000</b>
Multiple Vehicle	2,982,000	9,000	7,000	3,000	8,000	<b>3,009,000</b>
<b>Total</b>	<b>3,303,000</b>	<b>487,000</b>	<b>66,000</b>	<b>53,000</b>	<b>278,000</b>	<b>4,188,000</b>
<b>All Crashes</b>						
Single Vehicle	496,000	827,000	85,000	82,000	302,000	<b>1,791,000</b>
Multiple Vehicle	4,444,000	17,000	11,000	7,000	9,000	<b>4,487,000</b>
<b>Total</b>	<b>4,939,000</b>	<b>844,000</b>	<b>96,000</b>	<b>89,000</b>	<b>311,000</b>	<b>6,279,000</b>

**Table 28**  
**Crashes by Relation to Junction, Traffic Control Device, and Crash Severity**

Relation to Junction	Traffic Control Device				Total
	None	Traffic Signal	Stop Sign	Other/Unknown	
<b>Fatal Crashes</b>					
Nonjunction	25,182	69	194	1,112	<b>26,557</b>
Junction:					
Intersection	1,654	2,259	3,154	182	<b>7,249</b>
Intersection Related	589	432	202	42	<b>1,265</b>
Other/Unknown	1,440	43	73	416	<b>1,972</b>
<b>Total</b>	<b>28,865</b>	<b>2,803</b>	<b>3,623</b>	<b>1,752</b>	<b>37,043</b>
<b>Injury Crashes</b>					
Nonjunction	728,000	1,000	1,000	38,000	<b>768,000</b>
Junction:					
Intersection	289,000	289,000	53,000	7,000	<b>638,000</b>
Intersection Related	145,000	187,000	32,000	14,000	<b>377,000</b>
Other/Unknown	231,000	16,000	5,000	19,000	<b>271,000</b>
<b>Total</b>	<b>1,392,000</b>	<b>493,000</b>	<b>91,000</b>	<b>77,000</b>	<b>2,054,000</b>
<b>Property-Damage-Only Crashes</b>					
Nonjunction	1,656,000	3,000	1,000	62,000	<b>1,722,000</b>
Junction:					
Intersection	434,000	374,000	72,000	23,000	<b>903,000</b>
Intersection Related	306,000	426,000	99,000	46,000	<b>878,000</b>
Other/Unknown	564,000	48,000	19,000	54,000	<b>684,000</b>
<b>Total</b>	<b>2,959,000</b>	<b>851,000</b>	<b>192,000</b>	<b>187,000</b>	<b>4,188,000</b>
<b>All Crashes</b>					
Nonjunction	2,408,000	4,000	2,000	101,000	<b>2,516,000</b>
Junction:					
Intersection	724,000	665,000	129,000	31,000	<b>1,549,000</b>
Intersection Related	452,000	613,000	131,000	60,000	<b>1,257,000</b>
Other/Unknown	796,000	64,000	24,000	73,000	<b>957,000</b>
<b>Total</b>	<b>4,380,000</b>	<b>1,347,000</b>	<b>286,000</b>	<b>266,000</b>	<b>6,279,000</b>

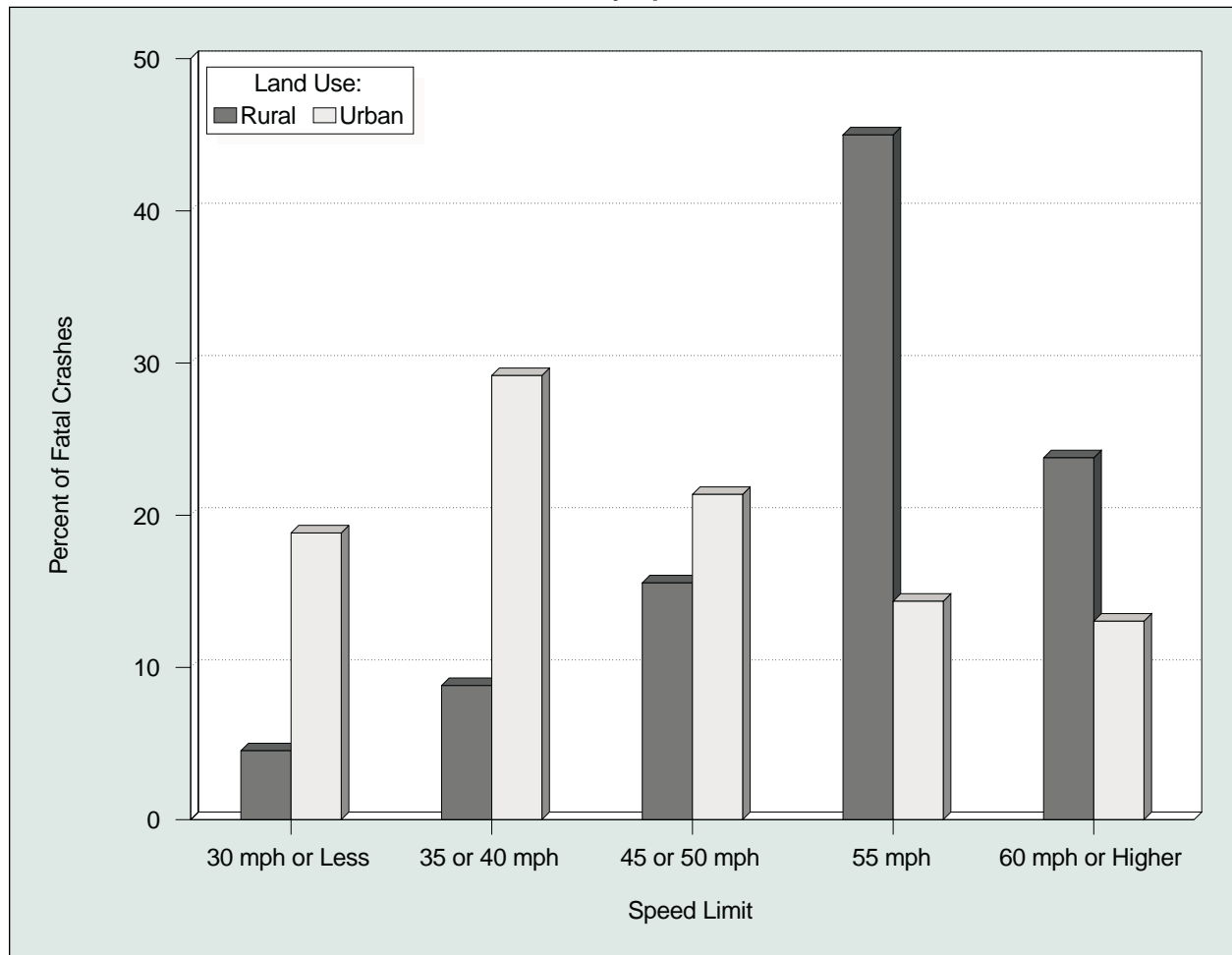
**Table 29**  
**Crashes by Speed Limit, Crash Type, and Crash Severity**

Speed Limit	Crash Type				Total	
	Single Vehicle		Multiple Vehicle			
	Number	Percent	Number	Percent	Number	Percent
<b>Fatal Crashes</b>						
30 mph or less	2,734	13.1	1,060	6.5	<b>3,794</b>	<b>10.2</b>
35 or 40 mph	3,706	17.8	2,572	15.9	<b>6,278</b>	<b>16.9</b>
45 or 50 mph	3,347	16.0	3,275	20.2	<b>6,622</b>	<b>17.9</b>
55 mph	6,355	30.5	5,794	35.8	<b>12,149</b>	<b>32.8</b>
60 mph or higher	4,003	19.2	3,186	19.7	<b>7,189</b>	<b>19.4</b>
No Statutory Limit	91	0.4	33	0.2	<b>124</b>	<b>0.3</b>
Unknown	623	3.0	264	1.6	<b>887</b>	<b>2.4</b>
<b>Total</b>	<b>20,859</b>	<b>100.0</b>	<b>16,184</b>	<b>100.0</b>	<b>37,043</b>	<b>100.0</b>
<b>Injury Crashes</b>						
30 mph or less	155,000	26.1	291,000	19.9	<b>446,000</b>	<b>21.7</b>
35 or 40 mph	146,000	24.7	587,000	40.2	<b>733,000</b>	<b>35.7</b>
45 or 50 mph	83,000	14.0	324,000	22.1	<b>407,000</b>	<b>19.8</b>
55 mph	137,000	23.1	162,000	11.1	<b>299,000</b>	<b>14.5</b>
60 mph or higher	67,000	11.3	95,000	6.5	<b>162,000</b>	<b>7.9</b>
No Statutory Limit	5,000	0.8	3,000	0.2	<b>8,000</b>	<b>0.4</b>
<b>Total</b>	<b>592,000</b>	<b>100.0</b>	<b>1,462,000</b>	<b>100.0</b>	<b>2,054,000</b>	<b>100.0</b>
<b>Property-Damage-Only Crashes</b>						
30 mph or less	379,000	32.2	810,000	26.9	<b>1,190,000</b>	<b>28.4</b>
35 or 40 mph	201,000	17.0	1,074,000	35.7	<b>1,274,000</b>	<b>30.4</b>
45 or 50 mph	150,000	12.8	633,000	21.0	<b>783,000</b>	<b>18.7</b>
55 mph	303,000	25.7	277,000	9.2	<b>580,000</b>	<b>13.9</b>
60 mph or higher	134,000	11.4	204,000	6.8	<b>339,000</b>	<b>8.1</b>
No Statutory Limit	11,000	0.9	11,000	0.4	<b>22,000</b>	<b>0.5</b>
<b>Total</b>	<b>1,178,000</b>	<b>100.0</b>	<b>3,009,000</b>	<b>100.0</b>	<b>4,188,000</b>	<b>100.0</b>
<b>All Crashes</b>						
30 mph or less	537,000	30.0	1,102,000	24.6	<b>1,639,000</b>	<b>26.1</b>
35 or 40 mph	350,000	19.6	1,664,000	37.1	<b>2,014,000</b>	<b>32.1</b>
45 or 50 mph	237,000	13.2	960,000	21.4	<b>1,196,000</b>	<b>19.1</b>
55 mph	446,000	24.9	445,000	9.9	<b>891,000</b>	<b>14.2</b>
60 mph or higher	205,000	11.5	302,000	6.7	<b>508,000</b>	<b>8.1</b>
No Statutory Limit	16,000	0.9	14,000	0.3	<b>30,000</b>	<b>0.5</b>
<b>Total</b>	<b>1,791,000</b>	<b>100.0</b>	<b>4,487,000</b>	<b>100.0</b>	<b>6,279,000</b>	<b>100.0</b>

**Table 30**  
**Fatal Crashes by Speed Limit and Land Use**

Speed Limit	Land Use						Total	
	Rural		Urban		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
30 mph or less	1,005	26.5	2,748	72.4	41	1.1	<b>3,794</b>	<b>100.0</b>
35 or 40 mph	1,956	31.2	4,256	67.8	66	1.1	<b>6,278</b>	<b>100.0</b>
45 or 50 mph	3,455	52.2	3,117	47.1	50	0.8	<b>6,622</b>	<b>100.0</b>
55 mph	9,991	82.2	2,093	17.2	65	0.5	<b>12,149</b>	<b>100.0</b>
60 mph or higher	5,280	73.4	1,902	26.5	7	0.1	<b>7,189</b>	<b>100.0</b>
No Statutory Limit	100	80.6	18	14.5	6	4.8	<b>124</b>	<b>100.0</b>
Unknown	421	47.5	454	51.2	12	1.4	<b>887</b>	<b>100.0</b>
<b>Total</b>	<b>22,208</b>	<b>60.0</b>	<b>14,588</b>	<b>39.4</b>	<b>247</b>	<b>0.7</b>	<b>37,043</b>	<b>100.0</b>

**Figure 12**  
**Percent of Fatal Crashes by Speed Limit and Land Use**



**Table 31**  
**Crashes by Number of Lanes, Trafficway Flow, and Crash Severity**

Number of Lanes	Trafficway Flow				Total
	Not Divided	Divided	One-Way	Unknown	
<b>Fatal Crashes</b>					
One Lane	19	111	59	0	<b>189</b>
Two Lanes	21,552	6,974	141	28	<b>28,695</b>
Three Lanes	313	2,084	91	5	<b>2,493</b>
Four Lanes	2,044	1,902	14	5	<b>3,965</b>
More Than Four	244	586	7	1	<b>838</b>
Unknown	202	196	16	449	<b>863</b>
<b>Total</b>	<b>24,374</b>	<b>11,853</b>	<b>328</b>	<b>488</b>	<b>37,043</b>
<b>Injury Crashes</b>					
One Lane	4,000	10,000	24,000	1,000	<b>39,000</b>
Two Lanes	687,000	190,000	15,000	39,000	<b>931,000</b>
Three Lanes	61,000	133,000	12,000	11,000	<b>217,000</b>
Four Lanes	149,000	106,000	6,000	11,000	<b>272,000</b>
More Than Four	146,000	61,000	2,000	6,000	<b>215,000</b>
Unknown	105,000	37,000	15,000	224,000	<b>381,000</b>
<b>Total</b>	<b>1,151,000</b>	<b>537,000</b>	<b>74,000</b>	<b>292,000</b>	<b>2,054,000</b>
<b>Property-Damage-Only Crashes</b>					
One Lane	11,000	17,000	67,000	8,000	<b>103,000</b>
Two Lanes	1,318,000	336,000	42,000	153,000	<b>1,849,000</b>
Three Lanes	130,000	217,000	25,000	37,000	<b>409,000</b>
Four Lanes	283,000	140,000	11,000	34,000	<b>468,000</b>
More Than Four	257,000	80,000	7,000	15,000	<b>359,000</b>
Unknown	200,000	104,000	21,000	674,000	<b>999,000</b>
<b>Total</b>	<b>2,199,000</b>	<b>896,000</b>	<b>173,000</b>	<b>920,000</b>	<b>4,188,000</b>
<b>All Crashes</b>					
One Lane	15,000	27,000	91,000	8,000	<b>142,000</b>
Two Lanes	2,026,000	533,000	58,000	192,000	<b>2,809,000</b>
Three Lanes	191,000	353,000	37,000	48,000	<b>629,000</b>
Four Lanes	434,000	248,000	17,000	45,000	<b>744,000</b>
More Than Four	404,000	142,000	8,000	21,000	<b>575,000</b>
Unknown	305,000	141,000	36,000	898,000	<b>1,381,000</b>
<b>Total</b>	<b>3,375,000</b>	<b>1,445,000</b>	<b>247,000</b>	<b>1,212,000</b>	<b>6,279,000</b>

**Table 32  
Crashes by First Harmful Event, Manner of Collision, and Crash Severity**

First Harmful Event	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Collision with Motor Vehicle in Transport:</b>								
Angle	7,542	20.4	699,000	34.0	1,242,000	29.7	<b>1,948,000</b>	<b>31.0</b>
Rear End	1,923	5.2	618,000	30.1	1,239,000	29.6	<b>1,859,000</b>	<b>29.6</b>
Sideswipe	605	1.6	70,000	3.4	444,000	10.6	<b>514,000</b>	<b>8.2</b>
Head On	5,166	13.9	60,000	2.9	44,000	1.1	<b>109,000</b>	<b>1.7</b>
Other/Unknown	55	0.1	*	*	3,000	0.1	<b>3,000</b>	<b>*</b>
<i>Subtotal</i>	<i>15,291</i>	<i>41.3</i>	<i>1,447,000</i>	<i>70.4</i>	<i>2,971,000</i>	<i>70.9</i>	<i><b>4,434,000</b></i>	<i><b>70.6</b></i>
<b>Collision with Fixed Object:</b>								
Pole/Post	1,856	5.0	69,000	3.3	109,000	2.6	<b>180,000</b>	<b>2.9</b>
Culvert/Curb/Ditch	1,997	5.4	77,000	3.8	118,000	2.8	<b>197,000</b>	<b>3.1</b>
Shrubbery/Tree	3,010	8.1	61,000	3.0	62,000	1.5	<b>126,000</b>	<b>2.0</b>
Guard Rail	1,047	2.8	31,000	1.5	59,000	1.4	<b>91,000</b>	<b>1.5</b>
Embankment	1,179	3.2	29,000	1.4	28,000	0.7	<b>59,000</b>	<b>0.9</b>
Bridge	354	1.0	5,000	0.2	10,000	0.2	<b>15,000</b>	<b>0.2</b>
Other/Unknown	1,524	4.1	66,000	3.2	147,000	3.5	<b>215,000</b>	<b>3.4</b>
<i>Subtotal</i>	<i>10,967</i>	<i>29.6</i>	<i>339,000</i>	<i>16.5</i>	<i>533,000</i>	<i>12.7</i>	<i><b>883,000</b></i>	<i><b>14.1</b></i>
<b>Collision with Object Not Fixed:</b>								
Parked Motor Vehicle	426	1.2	32,000	1.6	297,000	7.1	<b>329,000</b>	<b>5.2</b>
Animal	144	0.4	16,000	0.8	252,000	6.0	<b>267,000</b>	<b>4.3</b>
Pedestrian	4,578	12.4	77,000	3.7	2,000	0.1	<b>83,000</b>	<b>1.3</b>
Pedalcyclist	740	2.0	51,000	2.5	4,000	0.1	<b>56,000</b>	<b>0.9</b>
Train	251	0.7	1,000	*	1,000	*	<b>2,000</b>	<b>*</b>
Other/Unknown	238	0.6	5,000	0.3	32,000	0.8	<b>37,000</b>	<b>0.6</b>
<i>Subtotal</i>	<i>6,377</i>	<i>17.2</i>	<i>181,000</i>	<i>8.8</i>	<i>587,000</i>	<i>14.0</i>	<i><b>775,000</b></i>	<i><b>12.3</b></i>
<b>Noncollision:</b>								
Rollover	3,937	10.6	75,000	3.7	45,000	1.1	<b>124,000</b>	<b>2.0</b>
Other/Unknown	436	1.2	12,000	0.6	51,000	1.2	<b>63,000</b>	<b>1.0</b>
<i>Subtotal</i>	<i>4,373</i>	<i>11.8</i>	<i>87,000</i>	<i>4.3</i>	<i>96,000</i>	<i>2.3</i>	<i><b>188,000</b></i>	<i><b>3.0</b></i>
<b>Total</b>	<b>**37,043</b>	<b>100.0</b>	<b>2,054,000</b>	<b>100.0</b>	<b>4,188,000</b>	<b>100.0</b>	<b>6,279,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

\*\*Includes 35 fatal crashes with an unknown first harmful event.

**Table 33**  
**Two-Vehicle Crashes by Vehicle Type and Crash Severity**

Vehicle Type	Vehicle Type					
	Passenger Car	Light Truck	Large Truck	Motorcycle	Bus	Other/Unknown
<b>Fatal Crashes</b> (Total = 13,674)						
Passenger Car . . . . .	3,059	4,690	1,730	551	114	168
Light Truck . . . . .		1,379	1,038	450	46	124
Large Truck . . . . .			99	88	7	34
Motorcycle . . . . .				37	12	21
Bus . . . . .					1	1
Other/Unknown . . . . .						25
<b>Injury Crashes</b> (Total = 1,253,000)						
Passenger Car . . . . .	537,000	494,000	43,000	14,000	7,000	3,000
Light Truck . . . . .		121,000	16,000	7,000	2,000	2,000
Large Truck . . . . .			3,000	1,000	1,000	1,000
Motorcycle . . . . .				1,000	*	*
<b>Property-Damage-Only Crashes</b> (Total = 2,827,000)						
Passenger Car . . . . .	1,057,000	1,151,000	151,000	5,000	24,000	4,000
Light Truck . . . . .		328,000	71,000	1,000	11,000	5,000
Large Truck . . . . .			13,000	*	4,000	*

\*Less than 500.

**Table 34**  
**Crashes and Percent Alcohol Related by Time of Day, Crash Type, and Crash Severity**

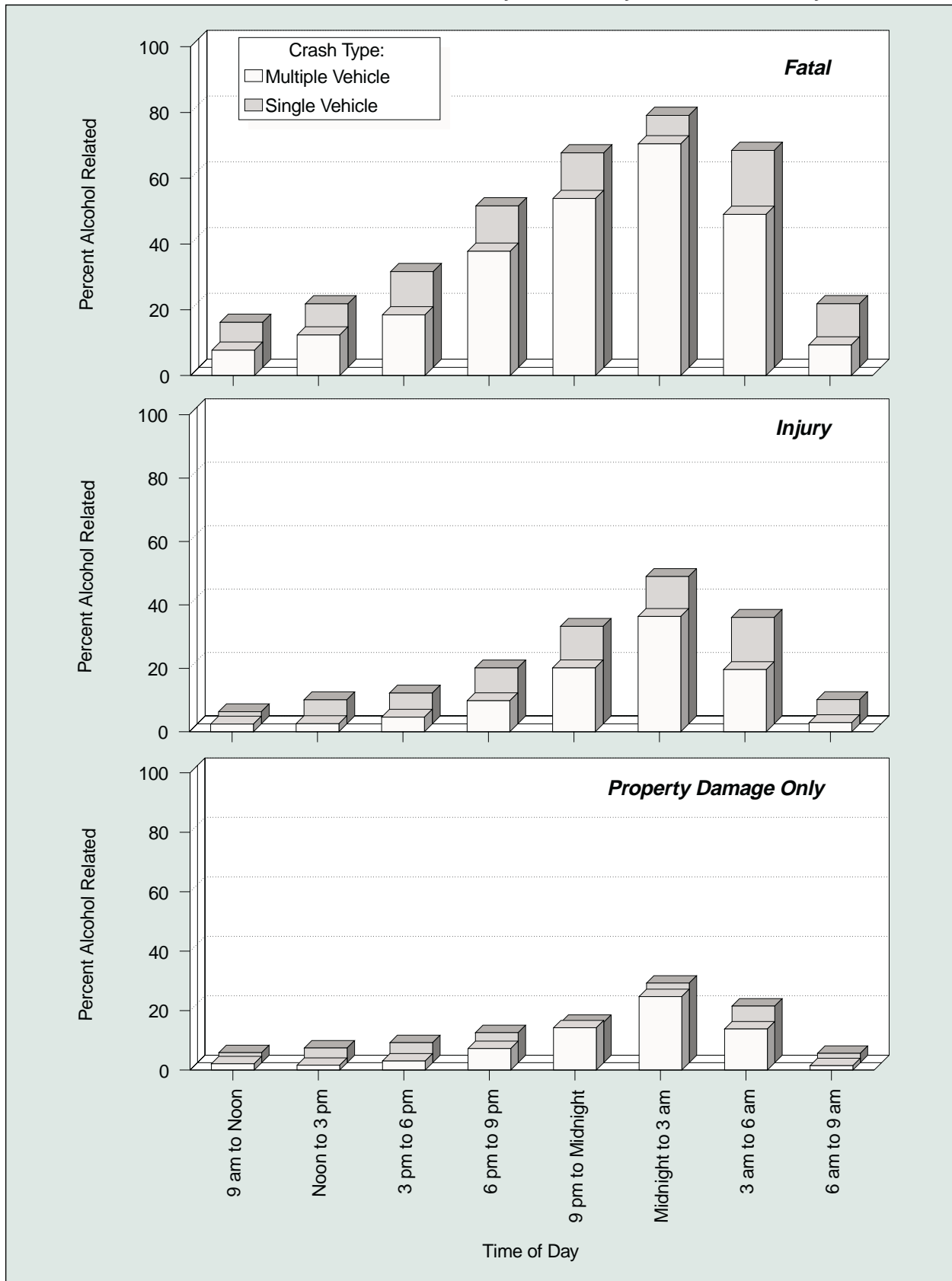
Time of Day	Crash Type						Total		
	Single Vehicle			Multiple Vehicle					
	Number	Alcohol Related	Percent Alcohol Related	Number	Alcohol Related	Percent Alcohol Related	Number	Alcohol Related	Percent Alcohol Related
<b>Fatal Crashes*</b>									
Midnight to 3 am	3,451	2,644	77	1,083	763	70	<b>4,534</b>	<b>3,407</b>	<b>75</b>
3 am to 6 am	2,033	1,341	66	789	387	49	<b>2,822</b>	<b>1,728</b>	<b>61</b>
6 am to 9 am	1,885	364	19	1,858	173	9	<b>3,743</b>	<b>537</b>	<b>14</b>
9 am to Noon	1,580	216	14	2,135	164	8	<b>3,715</b>	<b>380</b>	<b>10</b>
Noon to 3 pm	2,031	392	19	2,855	352	12	<b>4,886</b>	<b>744</b>	<b>15</b>
3 pm to 6 pm	2,811	819	29	3,421	631	18	<b>6,232</b>	<b>1,449</b>	<b>23</b>
6 pm to 9 pm	3,324	1,632	49	2,367	895	38	<b>5,691</b>	<b>2,527</b>	<b>44</b>
9 pm to Midnight	3,443	2,245	65	1,660	894	54	<b>5,103</b>	<b>3,139</b>	<b>62</b>
Unknown	301	193	64	16	5	31	<b>317</b>	<b>198</b>	<b>63</b>
<b>Total</b>	<b>20,859</b>	<b>9,847</b>	<b>47</b>	<b>16,184</b>	<b>4,262</b>	<b>26</b>	<b>37,043</b>	<b>14,109</b>	<b>38</b>
<b>Injury Crashes**</b>									
Midnight to 3 am	63,000	29,000	46	36,000	13,000	36	<b>99,000</b>	<b>42,000</b>	<b>43</b>
3 am to 6 am	39,000	13,000	34	20,000	4,000	20	<b>59,000</b>	<b>17,000</b>	<b>29</b>
6 am to 9 am	64,000	5,000	8	170,000	5,000	3	<b>234,000</b>	<b>10,000</b>	<b>4</b>
9 am to Noon	58,000	2,000	4	208,000	5,000	2	<b>265,000</b>	<b>7,000</b>	<b>3</b>
Noon to 3 pm	86,000	6,000	8	312,000	8,000	3	<b>397,000</b>	<b>14,000</b>	<b>4</b>
3 pm to 6 pm	107,000	10,000	10	413,000	19,000	5	<b>520,000</b>	<b>29,000</b>	<b>6</b>
6 pm to 9 pm	96,000	17,000	18	208,000	20,000	10	<b>305,000</b>	<b>37,000</b>	<b>12</b>
9 pm to Midnight	79,000	24,000	31	96,000	19,000	20	<b>175,000</b>	<b>44,000</b>	<b>25</b>
<b>Total</b>	<b>592,000</b>	<b>108,000</b>	<b>18</b>	<b>1,462,000</b>	<b>93,000</b>	<b>6</b>	<b>2,054,000</b>	<b>201,000</b>	<b>10</b>
<b>Property-Damage-Only Crashes**</b>									
Midnight to 3 am	124,000	33,000	27	61,000	15,000	25	<b>185,000</b>	<b>48,000</b>	<b>26</b>
3 am to 6 am	85,000	16,000	19	31,000	4,000	14	<b>116,000</b>	<b>20,000</b>	<b>18</b>
6 am to 9 am	146,000	5,000	3	404,000	6,000	1	<b>549,000</b>	<b>11,000</b>	<b>2</b>
9 am to Noon	135,000	5,000	3	436,000	9,000	2	<b>571,000</b>	<b>14,000</b>	<b>2</b>
Noon to 3 pm	145,000	7,000	5	662,000	11,000	2	<b>807,000</b>	<b>18,000</b>	<b>2</b>
3 pm to 6 pm	182,000	12,000	7	871,000	26,000	3	<b>1,053,000</b>	<b>39,000</b>	<b>4</b>
6 pm to 9 pm	196,000	20,000	10	381,000	28,000	7	<b>576,000</b>	<b>47,000</b>	<b>8</b>
9 pm to Midnight	166,000	23,000	14	164,000	23,000	14	<b>330,000</b>	<b>46,000</b>	<b>14</b>
<b>Total</b>	<b>1,178,000</b>	<b>120,000</b>	<b>10</b>	<b>3,009,000</b>	<b>122,000</b>	<b>4</b>	<b>4,188,000</b>	<b>242,000</b>	<b>6</b>

\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater.

\*\*Police-reported alcohol involvement.



**Figure 13**  
**Percent of Crashes Alcohol Related, by Time of Day and Crash Severity**





A blurred background image showing a road scene. On the left, a white van is driving away. In the center, a motorcycle is riding towards the viewer. The background is out of focus, showing trees and a clear sky.

## **Chapter 3 ♦ Vehicles**



# 3. VEHICLES

---

Statistics about the vehicles involved in motor vehicle crashes are presented in this chapter, according to six major vehicle types: Passenger Cars, Light Trucks (including pickups, vans, and utility vehicles with a gross vehicle weight rating of 10,000 pounds or less), Large Trucks (including single-unit trucks and truck tractors with a gross vehicle weight rating of more than 10,000 pounds), Motorcycles (including motorcycles, mopeds, and motorscooters), Buses (including school buses and transit buses), and Other Vehicles (including all-terrain vehicles, farm and construction equipment, and motorhomes). The tables and figures are presented for all vehicle types first, then by individual vehicle type. Below are some of the vehicle statistics you will find in this section:

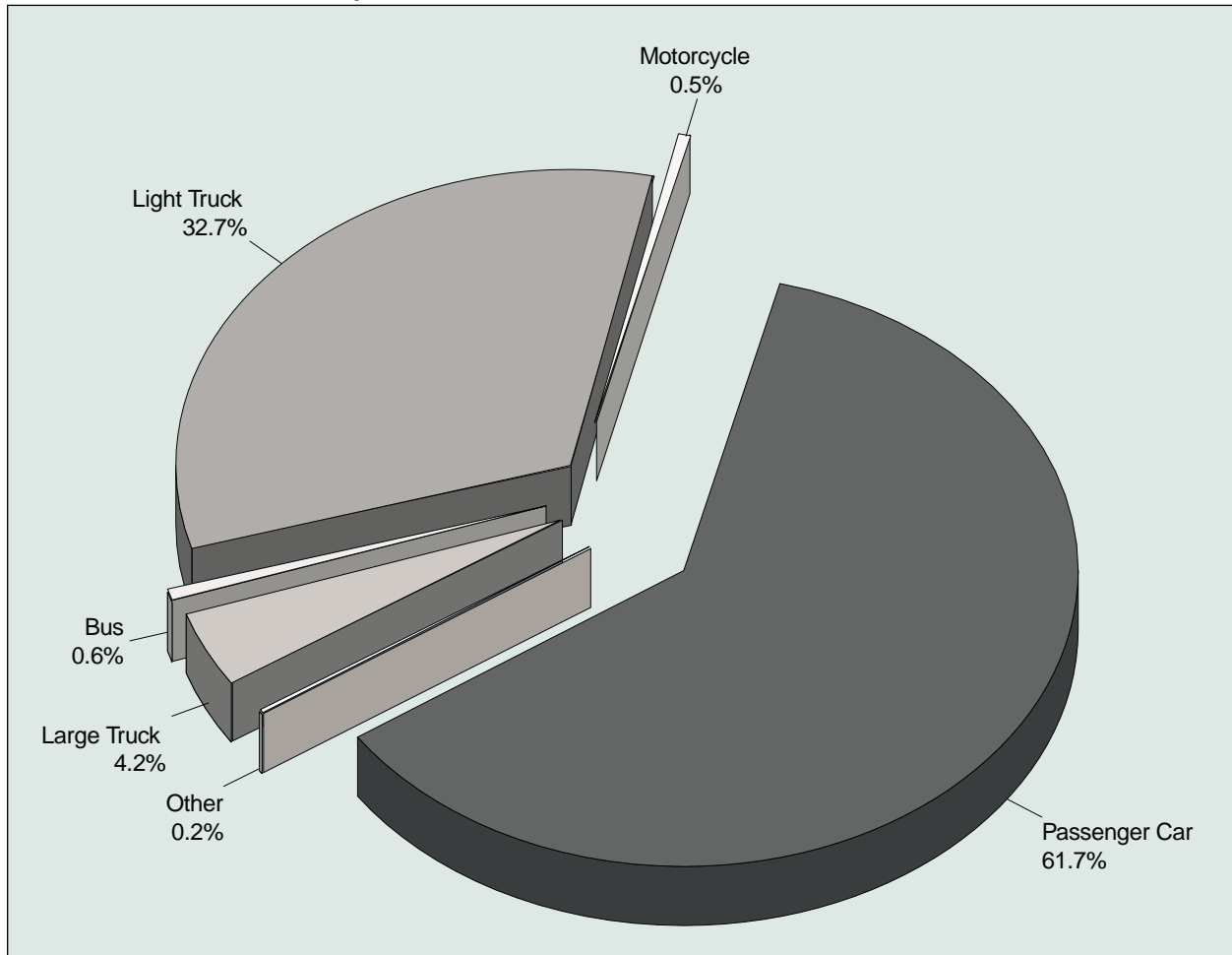
- Ninety-four percent of the 11 million vehicles involved in motor vehicle crashes in 1999 were passenger cars or light trucks.
- Large trucks accounted for 9 percent of the vehicles in fatal crashes, but only 4 percent of the vehicles involved in injury and property-damage-only crashes. Of the 4,898 large trucks involved in fatal crashes, 76 percent were combination trucks.
- The proportion of vehicles that rolled over in fatal crashes (19.7 percent) was more than 4 times as high as the proportion in injury crashes (4.7 percent) and more than 16 times as high as the proportion in property-damage-only crashes (1.2 percent).
- Compared with other vehicle types, utility vehicles experienced the highest rollover rates: 37.8 percent in fatal crashes, 10.0 percent in injury crashes, and 2.5 percent in property-damage-only crashes.
- Fires occurred in 0.1 percent of the vehicles involved in all traffic crashes in 1999. For fatal crashes, however, fires occurred in nearly 3 percent of the vehicles involved.
- Regardless of crash severity, the majority of vehicles in single- and two-vehicle crashes were going straight prior to the crash. The next most common vehicle maneuver differed by crash severity: negotiating a curve for fatal crashes, turning left for injury crashes, and stopped in traffic lane for property-damage-only crashes.
- Motorcycles in fatal crashes had the highest proportion of collisions with fixed objects (26.7 percent), and buses in fatal crashes had the lowest proportion (2.8 percent).

**Table 35**  
**Vehicles Involved in Crashes by Vehicle Type and Crash Severity**

Vehicle Type	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Passenger Car	27,953	49.3	2,438,000	64.6	4,469,000	60.4	<b>6,935,000</b>	<b>61.7</b>
Light Truck	19,895	35.1	1,165,000	30.9	2,491,000	33.7	<b>3,677,000</b>	<b>32.7</b>
Large Truck	4,898	8.6	101,000	2.7	369,000	5.0	<b>475,000</b>	<b>4.2</b>
Motorcycle	2,519	4.4	46,000	1.2	10,000	0.1	<b>59,000</b>	<b>0.5</b>
Bus	318	0.6	14,000	0.4	48,000	0.7	<b>63,000</b>	<b>0.6</b>
Other	529	0.9	9,000	0.2	14,000	0.2	<b>24,000</b>	<b>0.2</b>
<b>Total</b>	<b>*56,668</b>	<b>100.0</b>	<b>3,773,000</b>	<b>100.0</b>	<b>7,402,000</b>	<b>100.0</b>	<b>11,232,000</b>	<b>100.0</b>

\*Includes 556 vehicles of unknown type involved in fatal crashes.

**Figure 14**  
**Proportion of Vehicles Involved in Traffic Crashes**



**Table 36**  
**Vehicles Involved in Fatal Crashes by Body Type**

Body Type	Number	Percent	Body Type	Number	Percent
<b>Passenger Cars</b>	<b>27,953</b>	<b>49.3</b>	<b>Large Trucks</b>	<b>4,898</b>	<b>8.6</b>
Convertible	409	0.7	Step Van	35	0.1
2 Door Sedan, Hardtop, Coupe	6,828	12.0	Single Unit Truck		
3 Door/2 Door Hatchback	2,474	4.4	(10,000 lb < GVWR ≤ 19,500 lb)	148	0.3
4 Door Sedan Hardtop	16,184	28.6	Single Unit Truck		
5 Door/4 Door Hatchback	569	1.0	(19,500 lb < GVWR ≤ 26,000 lb)	210	0.4
Station Wagon	1,060	1.9	Single Unit Heavy Truck		
Hatchback, Doors Unknown	12	*	(GVWR > 26,000 lb)	896	1.6
Other Auto	26	*	Single Unit Truck, Unknown GVWR	79	0.1
Unknown Auto	325	0.6	Truck Tractor	3,491	6.2
Auto-Based Pickup	66	0.1	Unknown Medium Truck		
<hr/>			(10,000 lb < GVWR ≤ 26,000 lb)	5	*
<b>Light Trucks</b>	<b>19,895</b>	<b>35.1</b>	Unknown Heavy Truck		
Compact Utility	3,882	6.9	(GVWR > 26,000 lb)	2	*
Large Utility	713	1.3	Unknown Large Truck Type	31	0.1
Utility Station Wagon	359	0.6	Unknown Truck	1	*
Utility, Unknown Body Type	4	*	<hr/>		
Minivan	2,341	4.1	<b>Motorcycles</b>	<b>2,519</b>	<b>4.4</b>
Large Van	1,322	2.3	Motorcycle	2,406	4.2
Step Van	106	0.2	Moped	38	0.1
Van-Based School Bus	9	*	Three Wheel Motorcycle or Moped	2	*
Van-Based Transit Bus	4	*	Off-Road Motorcycle (Two Wheel)	47	0.1
Other Van Type	11	*	Other Motorcycle/Minibike	18	*
Unknown Van Type	37	0.1	Unknown Motorcycle	8	*
Compact Pickup	4,195	7.4	<hr/>		
Standard Pickup	6,748	11.9	<b>Buses</b>	<b>318</b>	<b>0.6</b>
Pickup with Camper	40	0.1	School Bus	138	0.2
Unknown Pickup Style Truck	47	0.1	Cross Country/Intercity Bus	38	0.1
Cab Chassis-Based Light Truck	58	0.1	Transit Bus	105	0.2
Truck-Based Panel Truck	2	*	Other Bus	20	*
Other Conventional Light Truck	1	*	Unknown Bus	17	*
Unknown Light Truck (not pickup)	4	*	<hr/>		
Unknown Light Vehicle Type	10	*	<b>Other Vehicles</b>	<b>529</b>	<b>0.9</b>
Unknown Truck	2	*	Large Limousine	2	*
<hr/>			Van-Based Motorhome	54	0.1
			Light Truck-Based Motorhome	6	*
			Large Truck-Based Motorhome	32	0.1
			Unknown Truck Camper/Motorhome	23	*
			All Terrain Vehicle	186	0.3
			Snowmobile	46	0.1
			Farm Equipment Except Trucks	106	0.2
			Construction Equipment Except Trucks	23	*
			Other Vehicle	51	0.1
			<hr/>		
			<b>Unknown Body Type</b>	<b>556</b>	<b>1.0</b>
			<hr/>		
			<b>Total</b>	<b>56,668</b>	<b>100.0</b>

\*Less than 0.05 percent.

**Table 37**  
**Vehicles Involved in Crashes by Vehicle Type, Rollover Occurrence, and Crash Severity**

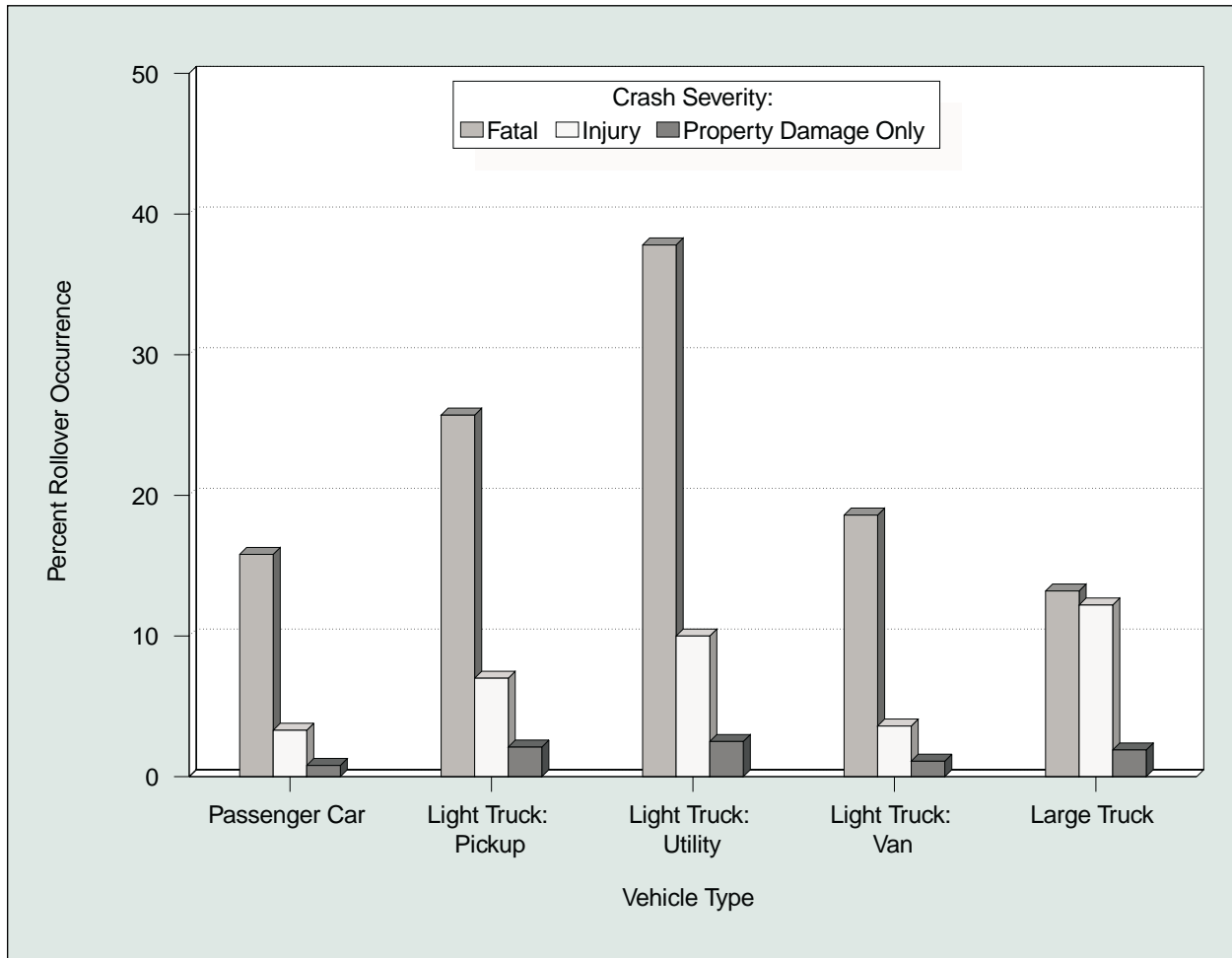
Vehicle Type	Rollover Occurrence				Total	
	Yes		No			
	Number	Percent	Number	Percent	Number	Percent
<b>Fatal Crashes</b>						
Passenger Car	4,411	15.8	23,542	84.2	27,953	100.0
Light Truck						
Pickup	2,838	25.7	8,192	74.3	11,030	100.0
Utility	1,876	37.8	3,082	62.2	4,958	100.0
Van	714	18.6	3,116	81.4	3,830	100.0
Other	15	19.5	62	80.5	77	100.0
Large Truck	645	13.2	4,253	86.8	4,898	100.0
Bus	9	2.8	309	97.2	318	100.0
Other/Unknown	149	13.7	936	86.3	1,085	100.0
<b>Total*</b>	<b>10,657</b>	<b>19.7</b>	<b>43,492</b>	<b>80.3</b>	<b>54,149</b>	<b>100.0</b>
<b>Injury Crashes</b>						
Passenger Car	81,000	3.3	2,357,000	96.7	2,438,000	100.0
Light Truck						
Pickup	38,000	7.0	509,000	93.0	547,000	100.0
Utility	32,000	10.0	288,000	90.0	320,000	100.0
Van	10,000	3.6	264,000	96.4	274,000	100.0
Other	1,000	5.9	23,000	94.1	24,000	100.0
Large Truck	12,000	12.2	88,000	87.8	101,000	100.0
Bus	**	0.7	14,000	99.3	14,000	100.0
Other/Unknown	1,000	11.0	8,000	89.0	9,000	100.0
<b>Total*</b>	<b>176,000</b>	<b>4.7</b>	<b>3,551,000</b>	<b>95.3</b>	<b>3,727,000</b>	<b>100.0</b>
<b>Property-Damage-Only Crashes</b>						
Passenger Car	35,000	0.8	4,434,000	99.2	4,469,000	100.0
Light Truck						
Pickup	24,000	2.1	1,159,000	97.9	1,184,000	100.0
Utility	17,000	2.5	674,000	97.5	691,000	100.0
Van	6,000	1.1	554,000	98.9	560,000	100.0
Other	**	0.9	56,000	99.1	57,000	100.0
Large Truck	7,000	1.9	362,000	98.1	369,000	100.0
Bus	**	**	48,000	100.0	48,000	100.0
Other/Unknown	**	**	14,000	100.0	14,000	100.0
<b>Total*</b>	<b>90,000</b>	<b>1.2</b>	<b>7,302,000</b>	<b>98.8</b>	<b>7,392,000</b>	<b>100.0</b>
<b>All Crashes</b>						
Passenger Car	120,000	1.7	6,815,000	98.3	6,935,000	100.0
Light Truck						
Pickup	66,000	3.8	1,676,000	96.2	1,742,000	100.0
Utility	51,000	5.0	966,000	95.0	1,016,000	100.0
Van	17,000	2.0	821,000	98.0	837,000	100.0
Other	2,000	2.4	79,000	97.6	81,000	100.0
Large Truck	20,000	4.2	455,000	95.8	475,000	100.0
Bus	**	0.2	63,000	99.8	63,000	100.0
Other/Unknown	1,000	4.8	23,000	95.2	24,000	100.0
<b>Total*</b>	<b>277,000</b>	<b>2.5</b>	<b>10,897,000</b>	<b>97.5</b>	<b>11,173,000</b>	<b>100.0</b>

\*Excludes motorcycles

\*\*Less than 500 or less than 0.05 percent.



Figure 15  
Percent Rollover Occurrence by Vehicle Type and Crash Severity



**Table 38**  
**Vehicles Involved in Crashes by Vehicle Type, Fire Occurrence, and Crash Severity**

Vehicle Type	Fire Occurrence				Total	
	Yes		No			
	Number	Percent	Number	Percent	Number	Percent
<b>Fatal Crashes</b>						
Passenger Car	784	2.8	27,169	97.2	<b>27,953</b>	<b>100.0</b>
Light Truck	557	2.8	19,338	97.2	<b>19,895</b>	<b>100.0</b>
Large Truck	267	5.5	4,631	94.5	<b>4,898</b>	<b>100.0</b>
Motorcycle	43	1.7	2,476	98.3	<b>2,519</b>	<b>100.0</b>
Bus	1	0.3	317	99.7	<b>318</b>	<b>100.0</b>
Other/Unknown	16	1.5	1,069	98.5	<b>1,085</b>	<b>100.0</b>
<b>Total</b>	<b>1,668</b>	<b>2.9</b>	<b>55,000</b>	<b>97.1</b>	<b>56,668</b>	<b>100.0</b>
<b>Injury Crashes</b>						
Passenger Car	3,000	0.1	2,435,000	99.9	<b>2,438,000</b>	<b>100.0</b>
Light Truck	1,000	0.1	1,164,000	99.9	<b>1,165,000</b>	<b>100.0</b>
Large Truck	1,000	0.7	100,000	99.3	<b>101,000</b>	<b>100.0</b>
Motorcycle	*	0.1	46,000	99.9	<b>46,000</b>	<b>100.0</b>
Bus	*	*	14,000	100.0	<b>14,000</b>	<b>100.0</b>
Other/Unknown	*	4.5	9,000	95.5	<b>9,000</b>	<b>100.0</b>
<b>Total</b>	<b>5,000</b>	<b>0.1</b>	<b>3,768,000</b>	<b>99.9</b>	<b>3,773,000</b>	<b>100.0</b>
<b>Property-Damage-Only Crashes</b>						
Passenger Car	5,000	0.1	4,465,000	99.9	<b>4,469,000</b>	<b>100.0</b>
Light Truck	4,000	0.2	2,488,000	99.8	<b>2,491,000</b>	<b>100.0</b>
Large Truck	1,000	0.1	369,000	99.9	<b>369,000</b>	<b>100.0</b>
Motorcycle	*	*	10,000	100.0	<b>10,000</b>	<b>100.0</b>
Bus	*	*	48,000	100.0	<b>48,000</b>	<b>100.0</b>
Other/Unknown	*	1.5	14,000	98.5	<b>14,000</b>	<b>100.0</b>
<b>Total</b>	<b>9,000</b>	<b>0.1</b>	<b>7,393,000</b>	<b>99.9</b>	<b>7,402,000</b>	<b>100.0</b>
<b>All Crashes</b>						
Passenger Car	8,000	0.1	6,927,000	99.9	<b>6,935,000</b>	<b>100.0</b>
Light Truck	6,000	0.2	3,671,000	99.8	<b>3,677,000</b>	<b>100.0</b>
Large Truck	2,000	0.3	473,000	99.7	<b>475,000</b>	<b>100.0</b>
Motorcycle	*	0.1	59,000	99.9	<b>59,000</b>	<b>100.0</b>
Bus	*	*	63,000	100.0	<b>63,000</b>	<b>100.0</b>
Other/Unknown	1,000	2.7	24,000	97.4	<b>24,000</b>	<b>100.0</b>
<b>Total</b>	<b>16,000</b>	<b>0.1</b>	<b>11,216,000</b>	<b>99.9</b>	<b>11,232,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

**Table 39**  
**Vehicles Involved in Single- and Two-Vehicle Crashes by Vehicle Maneuver and Crash Severity**

Vehicle Maneuver	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Going Straight	32,974	68.4	1,737,000	56.2	3,361,000	49.4	<b>5,131,000</b>	<b>51.6</b>
Turning Left	2,846	5.9	396,000	12.8	672,000	9.9	<b>1,071,000</b>	<b>10.8</b>
Stopped in Traffic Lane	641	1.3	303,000	9.8	792,000	11.6	<b>1,096,000</b>	<b>11.0</b>
Turning Right	293	0.6	81,000	2.6	278,000	4.1	<b>360,000</b>	<b>3.6</b>
Slowed in Traffic Lane	308	0.6	137,000	4.4	357,000	5.3	<b>495,000</b>	<b>5.0</b>
Merging/Changing Lanes	739	1.5	67,000	2.2	307,000	4.5	<b>375,000</b>	<b>3.8</b>
Negotiating Curve	7,036	14.6	157,000	5.1	209,000	3.1	<b>374,000</b>	<b>3.8</b>
Backing Up	154	0.3	18,000	0.6	216,000	3.2	<b>235,000</b>	<b>2.4</b>
Passing Other Vehicle	973	2.0	32,000	1.0	109,000	1.6	<b>142,000</b>	<b>1.4</b>
Starting in Traffic Lane	589	1.2	83,000	2.7	180,000	2.7	<b>264,000</b>	<b>2.7</b>
Leaving Parking Space	36	0.1	8,000	0.3	58,000	0.8	<b>66,000</b>	<b>0.7</b>
Making U-Turn	184	0.4	16,000	0.5	37,000	0.5	<b>54,000</b>	<b>0.5</b>
Entering Parking Space	9	*	2,000	0.1	24,000	0.3	<b>25,000</b>	<b>0.3</b>
Disabled in Traffic Lane	19	*	4,000	0.1	11,000	0.2	<b>15,000</b>	<b>0.2</b>
Other Maneuver	1,159	2.4	50,000	1.6	190,000	2.8	<b>241,000</b>	<b>2.4</b>
<b>Total</b>	<b>**48,207</b>	<b>100.0</b>	<b>3,092,000</b>	<b>100.0</b>	<b>6,801,000</b>	<b>100.0</b>	<b>9,942,000</b>	<b>100.0</b>

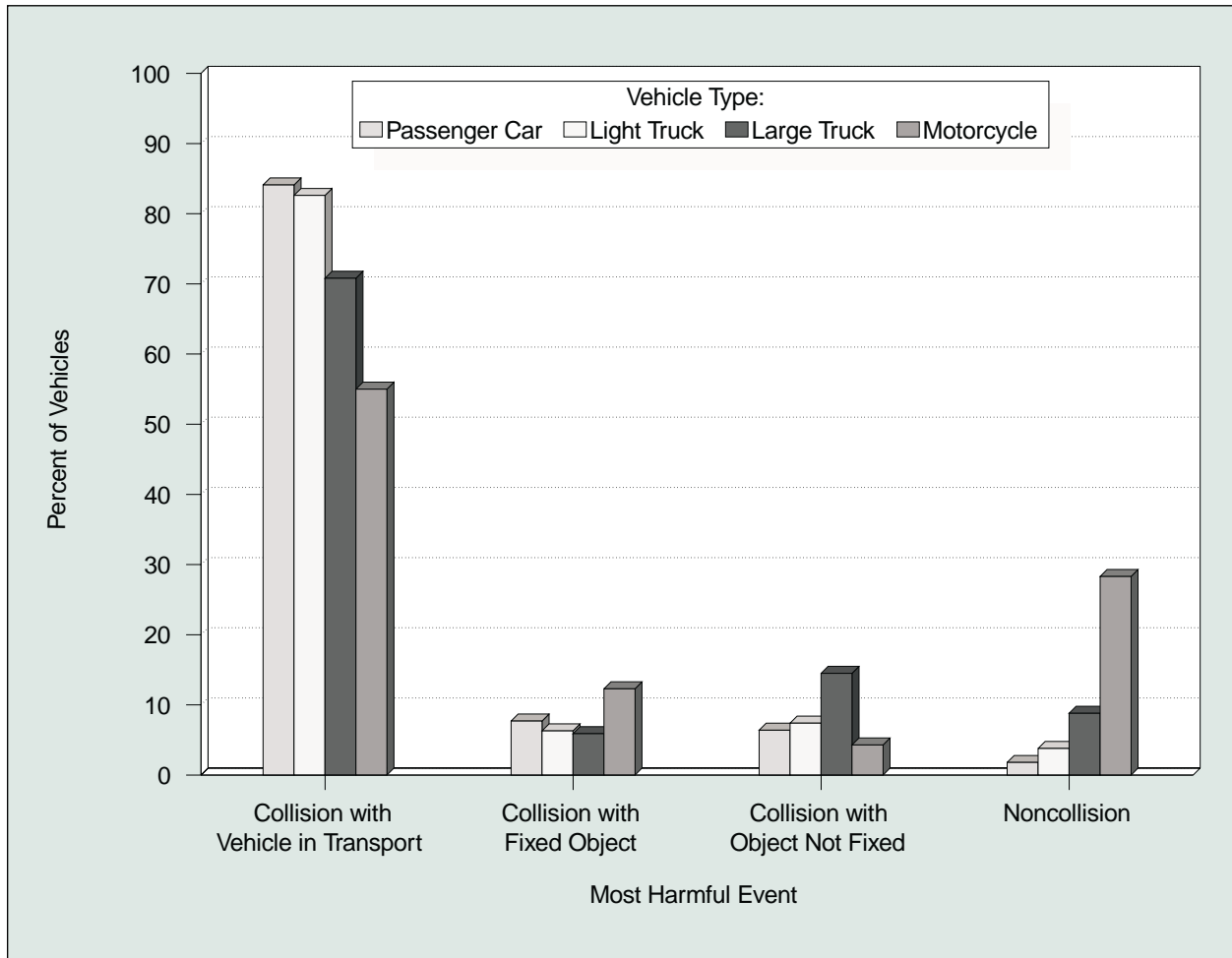
\*Less than 0.05 percent.

\*\*Includes 247 vehicles involved in fatal crashes with unknown vehicle maneuver.

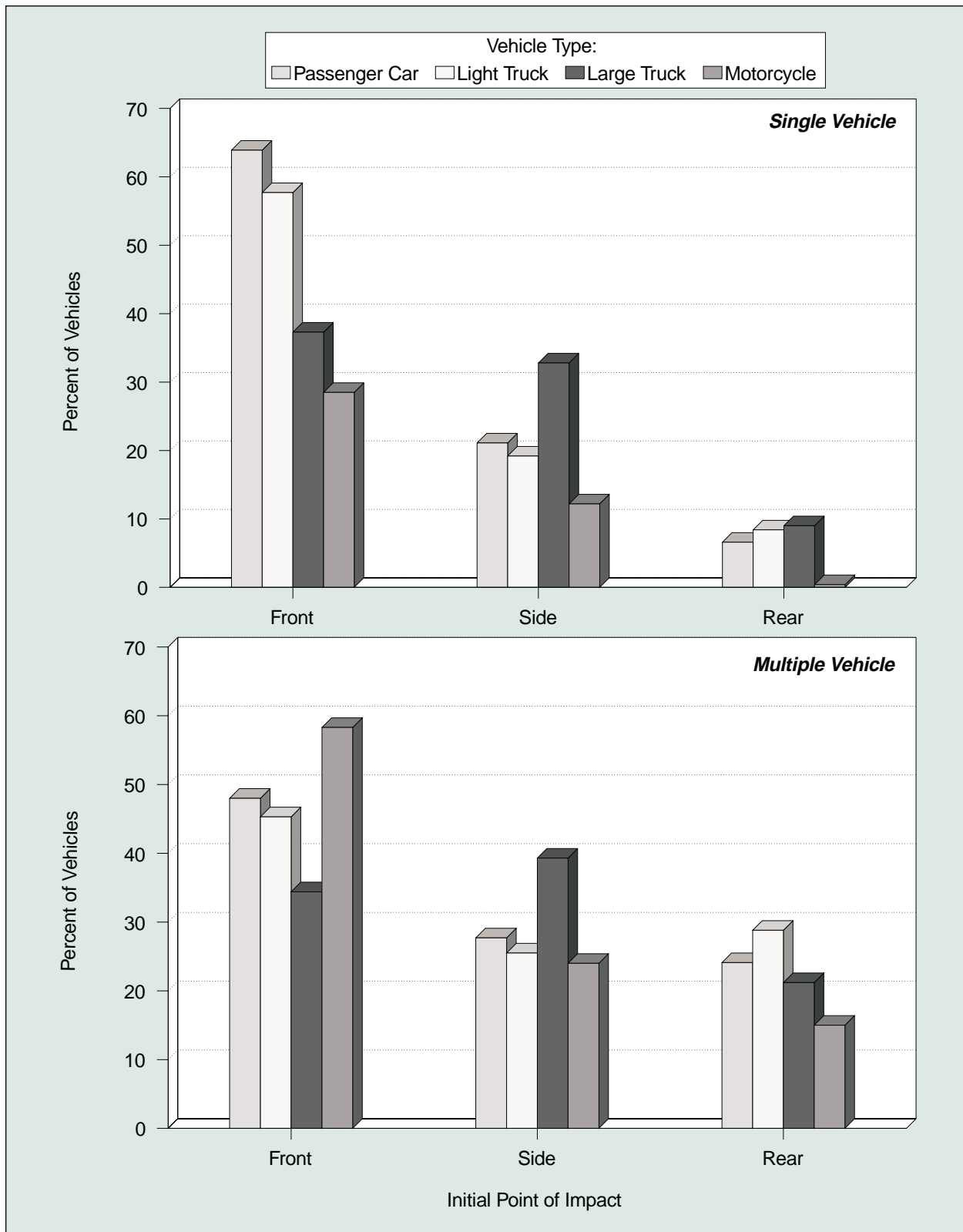
**Table 40**  
**Vehicles Involved in Fatal Crashes by Roadway Function Class, Crash Type,**  
**and Hazardous Cargo**

Roadway Function Class	Crash Type				Total	
	Single Vehicle		Multiple Vehicle			
	Hazardous Cargo	Total	Hazardous Cargo	Total	Hazardous Cargo	Total
<b>Rural Fatal Crashes</b>						
Principal Arterial						
Interstate	9	1,708	26	2,360	35	4,068
Other	10	1,723	46	6,048	56	7,771
Minor Arterial	1	1,685	16	4,288	17	5,973
Major Collector	7	3,027	18	4,440	25	7,467
Minor Collector	3	1,069	3	1,092	6	2,161
Local Road or Street	1	3,268	9	2,223	10	5,491
Unknown Rural	0	204	2	216	2	420
<b>Total</b>	<b>31</b>	<b>12,684</b>	<b>120</b>	<b>20,667</b>	<b>151</b>	<b>33,351</b>
<b>Urban Fatal Crashes</b>						
Principal Arterial						
Interstate	6	1,160	20	2,288	26	3,448
Freeway/Expressway	2	667	4	1,261	6	1,928
Other	4	2,153	15	5,535	19	7,688
Minor Arterial	0	1,577	8	3,001	8	4,578
Collector	2	575	2	799	4	1,374
Local Road or Street	1	1,861	3	1,941	4	3,802
Unknown Urban	0	53	0	48	0	101
<b>Total</b>	<b>15</b>	<b>8,046</b>	<b>52</b>	<b>14,873</b>	<b>67</b>	<b>22,919</b>
<b>All Fatal Crashes</b>						
Principal Arterial						
Interstate	15	2,868	46	4,648	61	7,516
Freeway/Expressway	2	667	4	1,261	6	1,928
Other	14	3,876	61	11,583	75	15,459
Minor Arterial	1	3,262	24	7,289	25	10,551
Collector	12	4,671	23	6,331	35	11,002
Local Road or Street	2	5,129	12	4,164	14	9,293
Unknown Rural	0	204	2	216	2	420
Unknown Urban	0	53	0	48	0	101
Unknown Rural or Urban	1	129	1	269	2	398
<b>Total</b>	<b>47</b>	<b>20,859</b>	<b>173</b>	<b>35,809</b>	<b>220</b>	<b>56,668</b>

**Figure 16**  
**Percent of Vehicles in Crashes by Most Harmful Event and Vehicle Type**



**Figure 17**  
**Percent of Vehicles in Crashes by Initial Point of Impact, Crash Type, and Vehicle Type**



Note: Excludes other or unknown point of impact and noncollisions.

**Table 41**  
**Passenger Cars Involved in Crashes by Most Harmful Event and Crash Severity**

Most Harmful Event	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Collision with Motor Vehicle in Transport by Initial Point of Impact:</b>								
Front	9,878	35.3	1,039,000	42.6	1,757,000	39.3	<b>2,805,000</b>	<b>40.5</b>
Left Side	2,857	10.2	261,000	10.7	597,000	13.3	<b>860,000</b>	<b>12.4</b>
Right Side	2,305	8.2	218,000	8.9	530,000	11.9	<b>750,000</b>	<b>10.8</b>
Rear	1,258	4.5	528,000	21.7	882,000	19.7	<b>1,412,000</b>	<b>20.4</b>
Other/Unknown	227	0.8	1,000	*	2,000	*	<b>2,000</b>	<b>*</b>
<i>Subtotal</i>	<i>16,525</i>	<i>59.1</i>	<i>2,046,000</i>	<i>84.0</i>	<i>3,767,000</i>	<i>84.3</i>	<i><b>5,830,000</b></i>	<i><b>84.1</b></i>
<b>Collision with Fixed Object</b>								
	4,689	16.8	193,000	7.9	338,000	7.6	<b>536,000</b>	<b>7.7</b>
<b>Collision with Object Not Fixed:</b>								
Nonmotorist	2,905	10.4	87,000	3.6	3,000	0.1	<b>93,000</b>	<b>1.3</b>
Other	407	1.5	37,000	1.5	316,000	7.1	<b>354,000</b>	<b>5.1</b>
<i>Subtotal</i>	<i>3,312</i>	<i>11.8</i>	<i>124,000</i>	<i>5.1</i>	<i>319,000</i>	<i>7.1</i>	<i><b>447,000</b></i>	<i><b>6.4</b></i>
<b>Noncollision</b>	3,414	12.2	74,000	3.0	44,000	1.0	<b>122,000</b>	<b>1.8</b>
<b>Total</b>	<b>**27,953</b>	<b>100.0</b>	<b>2,438,000</b>	<b>100.0</b>	<b>4,469,000</b>	<b>100.0</b>	<b>6,935,000</b>	<b>100.0</b>

\*Less than 0.05 percent.

\*\*Includes 13 passenger cars involved in fatal crashes with unknown most harmful event.

**Table 42**  
**Passenger Cars Involved in Crashes by Initial Point of Impact, Crash Severity, and Crash Type**

Initial Point of Impact	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Single-Vehicle Crashes</b>								
Front	6,542	63.0	245,000	66.9	417,000	62.2	<b>668,000</b>	<b>63.9</b>
Left Side	937	9.0	30,000	8.2	56,000	8.4	<b>87,000</b>	<b>8.3</b>
Right Side	845	8.1	41,000	11.2	92,000	13.8	<b>134,000</b>	<b>12.8</b>
Rear	272	2.6	13,000	3.5	56,000	8.4	<b>69,000</b>	<b>6.6</b>
Noncollision	1,030	9.9	30,000	8.2	23,000	3.4	<b>54,000</b>	<b>5.2</b>
Other/Unknown	761	7.3	7,000	2.0	25,000	3.8	<b>34,000</b>	<b>3.2</b>
<b>Total</b>	<b>10,387</b>	<b>100.0</b>	<b>366,000</b>	<b>100.0</b>	<b>670,000</b>	<b>100.0</b>	<b>1,047,000</b>	<b>100.0</b>
<b>Multiple-Vehicle Crashes</b>								
Front	10,453	59.5	1,048,000	50.6	1,769,000	46.6	<b>2,828,000</b>	<b>48.0</b>
Left Side	2,966	16.9	267,000	12.9	602,000	15.8	<b>871,000</b>	<b>14.8</b>
Right Side	2,408	13.7	223,000	10.8	534,000	14.1	<b>760,000</b>	<b>12.9</b>
Rear	1,383	7.9	531,000	25.6	884,000	23.3	<b>1,416,000</b>	<b>24.1</b>
Noncollision	21	0.1	1,000	0.1	4,000	0.1	<b>6,000</b>	<b>0.1</b>
Other/Unknown	335	1.9	1,000	*	6,000	0.2	<b>7,000</b>	<b>0.1</b>
<b>Total</b>	<b>17,566</b>	<b>100.0</b>	<b>2,071,000</b>	<b>100.0</b>	<b>3,799,000</b>	<b>100.0</b>	<b>5,888,000</b>	<b>100.0</b>
<b>All Crashes</b>								
Front	16,995	60.8	1,293,000	53.1	2,186,000	48.9	<b>3,496,000</b>	<b>50.4</b>
Left Side	3,903	14.0	296,000	12.2	658,000	14.7	<b>958,000</b>	<b>13.8</b>
Right Side	3,253	11.6	264,000	10.8	626,000	14.0	<b>894,000</b>	<b>12.9</b>
Rear	1,655	5.9	544,000	22.3	940,000	21.0	<b>1,486,000</b>	<b>21.4</b>
Noncollision	1,051	3.8	31,000	1.3	27,000	0.6	<b>60,000</b>	<b>0.9</b>
Other/Unknown	1,096	3.9	8,000	0.3	31,000	0.7	<b>41,000</b>	<b>0.6</b>
<b>Total</b>	<b>27,953</b>	<b>100.0</b>	<b>2,438,000</b>	<b>100.0</b>	<b>4,469,000</b>	<b>100.0</b>	<b>6,935,000</b>	<b>100.0</b>

\*Less than 0.05 percent.



**Table 43**  
**Light Trucks Involved in Crashes by Most Harmful Event and Crash Severity**

Most Harmful Event	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Collision with Motor Vehicle in Transport by Initial Point of Impact:</b>								
Front	8,437	42.4	500,000	42.9	874,000	35.1	<b>1,382,000</b>	<b>37.6</b>
Left Side	968	4.9	111,000	9.5	271,000	10.9	<b>383,000</b>	<b>10.4</b>
Right Side	772	3.9	91,000	7.8	291,000	11.7	<b>384,000</b>	<b>10.4</b>
Rear	847	4.3	258,000	22.1	628,000	25.2	<b>886,000</b>	<b>24.1</b>
Other/Unknown	141	0.7	*	*	1,000	*	<b>1,000</b>	<b>*</b>
<i>Subtotal</i>	<i>11,165</i>	<i>56.1</i>	<i>960,000</i>	<i>82.3</i>	<i>2,065,000</i>	<i>82.9</i>	<b><i>3,036,000</i></b>	<b><i>82.6</i></b>
<b>Collision with Fixed Object</b>								
	2,185	11.0	82,000	7.1	146,000	5.9	<b>231,000</b>	<b>6.3</b>
<b>Collision with Object Not Fixed:</b>								
Nonmotorist	2,051	10.3	37,000	3.1	2,000	0.1	<b>41,000</b>	<b>1.1</b>
Other	256	1.3	14,000	1.2	216,000	8.7	<b>231,000</b>	<b>6.3</b>
<i>Subtotal</i>	<i>2,307</i>	<i>11.6</i>	<i>51,000</i>	<i>4.4</i>	<i>219,000</i>	<i>8.8</i>	<b><i>272,000</i></b>	<b><i>7.4</i></b>
<b>Noncollision</b>	4,233	21.3	73,000	6.2	61,000	2.4	<b>138,000</b>	<b>3.8</b>
<b>Total</b>	<b>**19,895</b>	<b>100.0</b>	<b>1,165,000</b>	<b>100.0</b>	<b>2,491,000</b>	<b>100.0</b>	<b>3,677,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

\*\*Includes 5 light trucks involved in fatal crashes with unknown most harmful event.

**Table 44**  
**Light Trucks Involved in Crashes by Initial Point of Impact, Crash Severity, and Crash Type**

Initial Point of Impact	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Single-Vehicle Crashes</b>								
Front	4,353	55.5	111,000	60.6	224,000	56.4	<b>340,000</b>	<b>57.7</b>
Left Side	397	5.1	11,000	6.0	29,000	7.3	<b>40,000</b>	<b>6.8</b>
Right Side	446	5.7	20,000	10.7	53,000	13.3	<b>73,000</b>	<b>12.4</b>
Rear	129	1.6	4,000	2.3	45,000	11.3	<b>50,000</b>	<b>8.4</b>
Noncollision	1,933	24.6	33,000	17.9	35,000	8.8	<b>70,000</b>	<b>11.8</b>
Other/Unknown	589	7.5	4,000	2.4	12,000	2.9	<b>17,000</b>	<b>2.8</b>
<b>Total</b>	<b>7,847</b>	<b>100.0</b>	<b>183,000</b>	<b>100.0</b>	<b>398,000</b>	<b>100.0</b>	<b>589,000</b>	<b>100.0</b>
<b>Multiple-Vehicle Crashes</b>								
Front	8,882	73.7	506,000	51.5	883,000	42.2	<b>1,398,000</b>	<b>45.3</b>
Left Side	1,065	8.8	116,000	11.8	274,000	13.1	<b>391,000</b>	<b>12.7</b>
Right Side	873	7.2	97,000	9.9	296,000	14.1	<b>394,000</b>	<b>12.8</b>
Rear	997	8.3	261,000	26.5	629,000	30.0	<b>890,000</b>	<b>28.8</b>
Noncollision	15	0.1	2,000	0.2	8,000	0.4	<b>10,000</b>	<b>0.3</b>
Other/Unknown	216	1.8	*	*	4,000	0.2	<b>4,000</b>	<b>0.1</b>
<b>Total</b>	<b>12,048</b>	<b>100.0</b>	<b>982,000</b>	<b>100.0</b>	<b>2,094,000</b>	<b>100.0</b>	<b>3,088,000</b>	<b>100.0</b>
<b>All Crashes</b>								
Front	13,235	66.5	617,000	53.0	1,107,000	44.4	<b>1,738,000</b>	<b>47.3</b>
Left Side	1,462	7.3	127,000	10.9	303,000	12.2	<b>432,000</b>	<b>11.7</b>
Right Side	1,319	6.6	117,000	10.0	349,000	14.0	<b>467,000</b>	<b>12.7</b>
Rear	1,126	5.7	265,000	22.7	674,000	27.0	<b>940,000</b>	<b>25.6</b>
Noncollision	1,948	9.8	35,000	3.0	43,000	1.7	<b>80,000</b>	<b>2.2</b>
Other/Unknown	805	4.0	5,000	0.4	15,000	0.6	<b>21,000</b>	<b>0.6</b>
<b>Total</b>	<b>19,895</b>	<b>100.0</b>	<b>1,165,000</b>	<b>100.0</b>	<b>2,491,000</b>	<b>100.0</b>	<b>3,677,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

**Table 45**  
**Large Trucks Involved in Crashes by Most Harmful Event and Crash Severity**

Most Harmful Event	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Collision with Motor Vehicle in Transport by Initial Point of Impact:</b>								
Front	2,553	52.1	37,000	36.9	79,000	21.5	<b>119,000</b>	<b>25.1</b>
Left Side	404	8.2	13,000	13.1	51,000	13.8	<b>64,000</b>	<b>13.6</b>
Right Side	202	4.1	12,000	12.2	63,000	17.0	<b>75,000</b>	<b>15.8</b>
Rear	677	13.8	16,000	16.3	58,000	15.8	<b>75,000</b>	<b>15.9</b>
Other/Unknown	68	1.4	1,000	0.7	1,000	0.3	<b>2,000</b>	<b>0.4</b>
<i>Subtotal</i>	<i>3,904</i>	<i>79.7</i>	<i>80,000</i>	<i>79.1</i>	<i>253,000</i>	<i>68.4</i>	<b><i>336,000</i></b>	<b><i>70.8</i></b>
<b>Collision with Fixed Object</b>								
	160	3.3	3,000	3.3	25,000	6.6	<b>28,000</b>	<b>5.9</b>
<b>Collision with Object Not Fixed:</b>								
Nonmotorist	381	7.8	4,000	3.8	*	0.1	<b>4,000</b>	<b>0.9</b>
Other	43	0.9	1,000	0.6	64,000	17.3	<b>64,000</b>	<b>13.6</b>
<i>Subtotal</i>	<i>424</i>	<i>8.7</i>	<i>4,000</i>	<i>4.4</i>	<i>64,000</i>	<i>17.3</i>	<b><i>69,000</i></b>	<b><i>14.5</i></b>
<b>Noncollision</b>	<i>408</i>	<i>8.3</i>	<i>13,000</i>	<i>13.2</i>	<i>28,000</i>	<i>7.6</i>	<b><i>42,000</i></b>	<b><i>8.8</i></b>
<b>Total</b>	<b>**4,898</b>	<b>100.0</b>	<b>101,000</b>	<b>100.0</b>	<b>369,000</b>	<b>100.0</b>	<b>475,000</b>	<b>100.0</b>

\*Less than 500.

\*\*Includes 2 large trucks involved in fatal crashes with unknown most harmful event.

**Table 46**  
**Large Trucks Involved in Crashes by Initial Point of Impact, Crash Severity, and Crash Type**

Initial Point of Impact	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Single-Vehicle Crashes</b>								
Front	436	54.0	6,000	36.6	37,000	37.3	<b>43,000</b>	<b>37.3</b>
Left Side	33	4.1	*	2.5	5,000	5.6	<b>6,000</b>	<b>5.1</b>
Right Side	66	8.2	2,000	10.2	30,000	30.8	<b>32,000</b>	<b>27.7</b>
Rear	45	5.6	*	1.4	10,000	10.3	<b>10,000</b>	<b>9.0</b>
Noncollision	132	16.3	7,000	43.9	11,000	11.1	<b>18,000</b>	<b>15.8</b>
Other/Unknown	96	11.9	1,000	5.4	5,000	4.9	<b>6,000</b>	<b>5.0</b>
<b>Total</b>	<b>808</b>	<b>100.0</b>	<b>17,000</b>	<b>100.0</b>	<b>98,000</b>	<b>100.0</b>	<b>115,000</b>	<b>100.0</b>
<b>Multiple-Vehicle Crashes</b>								
Front	2,671	65.3	39,000	46.4	82,000	30.2	<b>124,000</b>	<b>34.4</b>
Left Side	420	10.3	13,000	16.0	51,000	18.9	<b>65,000</b>	<b>18.1</b>
Right Side	216	5.3	13,000	15.2	63,000	23.3	<b>76,000</b>	<b>21.2</b>
Rear	697	17.0	17,000	20.2	58,000	21.5	<b>76,000</b>	<b>21.2</b>
Noncollision	5	0.1	1,000	1.3	15,000	5.7	<b>17,000</b>	<b>4.6</b>
Other/Unknown	81	2.0	1,000	0.8	1,000	0.3	<b>2,000</b>	<b>0.5</b>
<b>Total</b>	<b>4,090</b>	<b>100.0</b>	<b>84,000</b>	<b>100.0</b>	<b>271,000</b>	<b>100.0</b>	<b>359,000</b>	<b>100.0</b>
<b>All Crashes</b>								
Front	3,107	63.4	45,000	44.8	119,000	32.1	<b>167,000</b>	<b>35.1</b>
Left Side	453	9.2	14,000	13.8	57,000	15.4	<b>71,000</b>	<b>15.0</b>
Right Side	282	5.8	14,000	14.4	93,000	25.3	<b>108,000</b>	<b>22.8</b>
Rear	742	15.1	17,000	17.1	69,000	18.6	<b>87,000</b>	<b>18.2</b>
Noncollision	137	2.8	8,000	8.3	26,000	7.1	<b>35,000</b>	<b>7.3</b>
Other/Unknown	177	3.6	2,000	1.6	6,000	1.5	<b>7,000</b>	<b>1.6</b>
<b>Total</b>	<b>4,898</b>	<b>100.0</b>	<b>101,000</b>	<b>100.0</b>	<b>369,000</b>	<b>100.0</b>	<b>475,000</b>	<b>100.0</b>

\*Less than 500.

**Table 47**  
**Large Trucks Involved in Crashes by Truck Type, Rollover Occurrence, and Crash Severity**

Truck Type	Rollover Occurrence				Total	
	Yes		No			
	Number	Percent	Number	Percent	Number	Percent
<b>Fatal Crashes</b>						
Single-Unit Truck	174	14.5	1,024	85.5	<b>1,198</b>	<b>100.0</b>
Combination Truck	471	12.7	3,229	87.3	<b>3,700</b>	<b>100.0</b>
<b>Total</b>	<b>645</b>	<b>13.2</b>	<b>4,253</b>	<b>86.8</b>	<b>4,898</b>	<b>100.0</b>
<b>Injury Crashes</b>						
Single-Unit Truck	4,000	9.7	39,000	90.3	<b>44,000</b>	<b>100.0</b>
Combination Truck	8,000	14.1	49,000	85.9	<b>57,000</b>	<b>100.0</b>
<b>Total</b>	<b>12,000</b>	<b>12.2</b>	<b>88,000</b>	<b>87.8</b>	<b>101,000</b>	<b>100.0</b>
<b>Property-Damage-Only Crashes</b>						
Single-Unit Truck	2,000	1.0	183,000	99.0	<b>185,000</b>	<b>100.0</b>
Combination Truck	5,000	2.9	179,000	97.1	<b>184,000</b>	<b>100.0</b>
<b>Total</b>	<b>7,000</b>	<b>1.9</b>	<b>362,000</b>	<b>98.1</b>	<b>369,000</b>	<b>100.0</b>
<b>All Crashes</b>						
Single-Unit Truck	6,000	2.7	224,000	97.3	<b>230,000</b>	<b>100.0</b>
Combination Truck	14,000	5.6	231,000	94.4	<b>244,000</b>	<b>100.0</b>
<b>Total</b>	<b>20,000</b>	<b>4.2</b>	<b>455,000</b>	<b>95.8</b>	<b>475,000</b>	<b>100.0</b>

**Table 48**  
**Truck Tractors with Trailers Involved in Crashes by Number of Trailers, Jackknife Occurrence, and Crash Severity**

Number of Trailers	Jackknife Occurrence				Total	
	Yes		No			
	Number	Percent	Number	Percent	Number	Percent
<b>Fatal Crashes</b>						
One	264	8.2	2,965	91.8	<b>3,229</b>	<b>100.0</b>
Two or More	18	13.4	116	86.6	<b>134</b>	<b>100.0</b>
Unknown Number	0	0.0	10	100.0	<b>10</b>	<b>100.0</b>
<b>Total</b>	<b>282</b>	<b>8.4</b>	<b>3,091</b>	<b>91.6</b>	<b>3,373</b>	<b>100.0</b>
<b>Injury Crashes</b>						
One	2,000	4.3	44,000	95.7	<b>46,000</b>	<b>100.0</b>
Two or More	*	8.3	1,000	91.7	<b>1,000</b>	<b>100.0</b>
Unknown Number	*	*	*	100.0	<b>*</b>	<b>100.0</b>
<b>Total</b>	<b>2,000</b>	<b>4.4</b>	<b>46,000</b>	<b>95.6</b>	<b>48,000</b>	<b>100.0</b>
<b>Property-Damage-Only Crashes</b>						
One	3,000	2.4	134,000	97.6	<b>138,000</b>	<b>100.0</b>
Two or More	*	11.1	3,000	88.9	<b>4,000</b>	<b>100.0</b>
Unknown Number	*	*	2,000	100.0	<b>2,000</b>	<b>100.0</b>
<b>Total</b>	<b>4,000</b>	<b>2.6</b>	<b>140,000</b>	<b>97.4</b>	<b>144,000</b>	<b>100.0</b>
<b>All Crashes</b>						
One	6,000	3.0	181,000	97.0	<b>187,000</b>	<b>100.0</b>
Two or More	1,000	10.4	5,000	89.6	<b>5,000</b>	<b>100.0</b>
Unknown Number	*	*	3,000	100.0	<b>3,000</b>	<b>100.0</b>
<b>Total</b>	<b>6,000</b>	<b>3.2</b>	<b>189,000</b>	<b>96.8</b>	<b>195,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

**Table 49**  
**Motorcycles Involved in Crashes by Most Harmful Event and Crash Severity**

Most Harmful Event	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Collision with Motor Vehicle in Transport by Initial Point of Impact:</b>								
Front	965	38.3	15,000	32.6	4,000	34.6	<b>20,000</b>	<b>33.2</b>
Left Side	112	4.4	4,000	7.7	1,000	6.9	<b>4,000</b>	<b>7.4</b>
Right Side	102	4.0	2,000	4.1	1,000	12.4	<b>3,000</b>	<b>5.6</b>
Rear	64	2.5	3,000	6.1	2,000	21.2	<b>5,000</b>	<b>8.6</b>
Other/Unknown	76	3.0	*	0.2	*	*	*	<b>0.3</b>
<i>Subtotal</i>	<i>1,319</i>	<i>52.4</i>	<i>23,000</i>	<i>50.7</i>	<i>8,000</i>	<i>75.1</i>	<b><i>32,000</i></b>	<b><i>55.0</i></b>
<b>Collision with Fixed Object</b>								
	673	26.7	6,000	13.5	*	3.4	<b>7,000</b>	<b>12.3</b>
<b>Collision with Object Not Fixed:</b>								
Nonmotorist	28	1.1	1,000	1.1	*	*	<b>1,000</b>	<b>0.9</b>
Other	95	3.8	2,000	3.5	*	2.9	<b>2,000</b>	<b>3.4</b>
<i>Subtotal</i>	<i>123</i>	<i>4.9</i>	<i>2,000</i>	<i>4.6</i>	<i>*</i>	<i>2.9</i>	<b><i>3,000</i></b>	<b><i>4.3</i></b>
<b>Noncollision</b>	401	15.9	14,000	31.2	2,000	18.6	<b>17,000</b>	<b>28.3</b>
<b>Total</b>	<b>**2,519</b>	<b>100.0</b>	<b>46,000</b>	<b>100.0</b>	<b>10,000</b>	<b>100.0</b>	<b>59,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

\*\*Includes 3 motorcycles involved in fatal crashes with unknown most harmful event.

**Table 50**  
**Motorcycles Involved in Crashes by Initial Point of Impact, Crash Severity, and Crash Type**

Initial Point of Impact	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Single-Vehicle Crashes</b>								
Front	612	54.1	6,000	30.0	*	4.3	<b>7,000</b>	<b>28.5</b>
Left Side	60	5.3	1,000	6.6	1,000	21.1	<b>2,000</b>	<b>8.0</b>
Right Side	89	7.9	1,000	4.5	*	*	<b>1,000</b>	<b>4.2</b>
Rear	7	0.6	*	0.5	*	*	*	<b>0.4</b>
Noncollision	236	20.8	12,000	57.7	2,000	74.6	<b>14,000</b>	<b>57.7</b>
Other/Unknown	128	11.3	*	0.7	*	*	*	<b>1.1</b>
<b>Total</b>	<b>1,132</b>	<b>100.0</b>	<b>21,000</b>	<b>100.0</b>	<b>3,000</b>	<b>100.0</b>	<b>25,000</b>	<b>100.0</b>
<b>Multiple-Vehicle Crashes</b>								
Front	994	71.7	15,000	61.3	4,000	46.1	<b>20,000</b>	<b>58.3</b>
Left Side	122	8.8	4,000	15.2	1,000	9.2	<b>5,000</b>	<b>13.5</b>
Right Side	109	7.9	2,000	8.8	1,000	16.5	<b>4,000</b>	<b>10.5</b>
Rear	64	4.6	3,000	11.5	2,000	28.2	<b>5,000</b>	<b>15.0</b>
Noncollision	11	0.8	1,000	3.1	*	*	<b>1,000</b>	<b>2.3</b>
Other/Unknown	87	6.3	*	0.1	*	*	*	<b>0.4</b>
<b>Total</b>	<b>1,387</b>	<b>100.0</b>	<b>25,000</b>	<b>100.0</b>	<b>8,000</b>	<b>100.0</b>	<b>34,000</b>	<b>100.0</b>
<b>All Crashes</b>								
Front	1,606	63.8	22,000	46.9	4,000	35.7	<b>27,000</b>	<b>45.7</b>
Left Side	182	7.2	5,000	11.2	1,000	12.1	<b>7,000</b>	<b>11.2</b>
Right Side	198	7.9	3,000	6.8	1,000	12.4	<b>5,000</b>	<b>7.8</b>
Rear	71	2.8	3,000	6.4	2,000	21.2	<b>5,000</b>	<b>8.8</b>
Noncollision	247	9.8	13,000	28.3	2,000	18.6	<b>15,000</b>	<b>25.8</b>
Other/Unknown	215	8.5	*	0.4	*	*	*	<b>0.7</b>
<b>Total</b>	<b>2,519</b>	<b>100.0</b>	<b>46,000</b>	<b>100.0</b>	<b>10,000</b>	<b>100.0</b>	<b>59,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.



**Table 51**  
**Buses Involved in Crashes by Most Harmful Event and Crash Severity**

Most Harmful Event	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Collision with Motor Vehicle in Transport by Initial Point of Impact:</b>								
Front	143	45.0	5,000	32.0	9,000	18.4	<b>14,000</b>	<b>21.7</b>
Left Side	11	3.5	3,000	17.4	15,000	30.4	<b>17,000</b>	<b>27.3</b>
Right Side	8	2.5	2,000	15.0	7,000	15.5	<b>10,000</b>	<b>15.3</b>
Rear	51	16.0	3,000	21.4	10,000	21.4	<b>13,000</b>	<b>21.4</b>
Other/Unknown	3	0.9	*	0.1	*	*	*	*
<i>Subtotal</i>	<i>216</i>	<i>67.9</i>	<i>12,000</i>	<i>85.9</i>	<i>41,000</i>	<i>85.8</i>	<b><i>54,000</i></b>	<b><i>85.7</i></b>
<b>Collision with Fixed Object</b>								
	9	2.8	*	1.9	2,000	3.1	<b>2,000</b>	<b>2.8</b>
<b>Collision with Object Not Fixed:</b>								
Nonmotorist	82	25.8	2,000	11.4	*	*	<b>2,000</b>	<b>2.7</b>
Other	0	0.0	*	*	5,000	11.1	<b>5,000</b>	<b>8.5</b>
<i>Subtotal</i>	<i>82</i>	<i>25.8</i>	<i>2,000</i>	<i>11.4</i>	<i>5,000</i>	<i>11.1</i>	<b><i>7,000</i></b>	<b><i>11.3</i></b>
<b>Noncollision</b>	11	3.5	*	0.7	*	*	*	<b>0.2</b>
<b>Total</b>	<b>318</b>	<b>100.0</b>	<b>14,000</b>	<b>100.0</b>	<b>48,000</b>	<b>100.0</b>	<b>63,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

**Table 52**  
**Buses Involved in Crashes by Initial Point of Impact, Crash Severity, and Crash Type**

Initial Point of Impact	Crash Severity						Total	
	Fatal		Injury		Property Damage Only			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Single-Vehicle Crashes</b>								
Front	59	65.6	1,000	34.1	1,000	11.5	<b>1,000</b>	<b>17.2</b>
Left Side	2	2.2	*	5.4	1,000	22.1	<b>2,000</b>	<b>18.1</b>
Right Side	9	10.0	1,000	53.7	4,000	55.9	<b>5,000</b>	<b>54.9</b>
Rear	8	8.9	*	*	1,000	10.5	<b>1,000</b>	<b>8.1</b>
Noncollision	2	2.2	*	2.7	*	*	*	<b>0.6</b>
Other/Unknown	10	11.1	*	4.1	*	*	*	<b>1.0</b>
<b>Total</b>	<b>90</b>	<b>100.0</b>	<b>2,000</b>	<b>100.0</b>	<b>7,000</b>	<b>100.0</b>	<b>9,000</b>	<b>100.0</b>
<b>Multiple-Vehicle Crashes</b>								
Front	149	65.4	5,000	37.6	9,000	22.0	<b>14,000</b>	<b>25.7</b>
Left Side	13	5.7	3,000	20.2	15,000	35.2	<b>17,000</b>	<b>31.6</b>
Right Side	9	3.9	2,000	17.4	7,000	18.0	<b>10,000</b>	<b>17.8</b>
Rear	53	23.2	3,000	24.8	10,000	24.8	<b>13,000</b>	<b>24.8</b>
Noncollision	0	0.0	*	*	*	*	*	*
Other/Unknown	4	1.8	*	0.1	*	*	*	*
<b>Total</b>	<b>228</b>	<b>100.0</b>	<b>12,000</b>	<b>100.0</b>	<b>42,000</b>	<b>100.0</b>	<b>54,000</b>	<b>100.0</b>
<b>All Crashes</b>								
Front	208	65.4	5,000	37.1	10,000	20.6	<b>15,000</b>	<b>24.6</b>
Left Side	15	4.7	3,000	18.1	16,000	33.4	<b>19,000</b>	<b>29.8</b>
Right Side	18	5.7	3,000	22.3	11,000	23.2	<b>14,000</b>	<b>22.9</b>
Rear	61	19.2	3,000	21.4	11,000	22.9	<b>14,000</b>	<b>22.5</b>
Noncollision	2	0.6	*	0.4	*	*	*	<b>0.1</b>
Other/Unknown	14	4.4	*	0.7	*	*	*	<b>0.2</b>
<b>Total</b>	<b>318</b>	<b>100.0</b>	<b>14,000</b>	<b>100.0</b>	<b>48,000</b>	<b>100.0</b>	<b>63,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

A group of people, including men and women, are sitting on a grassy field. Some are holding papers or documents. In the background, there is a large, multi-story building with a prominent tower. The scene appears to be an outdoor gathering or meeting.

## Chapter 4 ♦ People



# 4. PEOPLE

---

This chapter presents statistics about the Drivers , Passengers , Pedestrians , and Pedalcyclists involved in motor vehicle crashes in 1999. The tables and figures are presented in nine groups: all killed or injured persons, crash-involved drivers, occupants (drivers and passengers), alcohol, restraints, motorcycle related, school bus related, pedestrians, and pedalcyclists. Below are some of the statistics you will find in this section:

- A total of 41,611 people lost their lives in motor vehicle crashes in 1999. Another 3.3 million people were injured.
- The majority of persons killed or injured in traffic crashes were drivers (64 percent), followed by passengers (32 percent), pedestrians (3 percent), and pedalcyclists (2 percent).
- Persons 16 to 20 years old had the highest fatality and injury rates per 100,000 population. Children under 5 years old had the lowest fatality and injury rates.
- For every age group, the fatality rate per 100,000 population was lower for females than for males. The injury rate based on population was lower for females than for males for people over 74 years old.
- Thirty-eight percent of the persons who were killed in traffic crashes in 1999 died in alcohol-related crashes. Ten percent of the injured persons received their injuries in alcohol-related crashes.

**Table 53**  
**Persons Killed or Injured, by Person Type and Injury Severity**

Person Type	Persons Killed	Persons Injured by Injury Severity			Total Injured	Total Killed or Injured
		Incapacitating	Nonincapacitating	Other		
<b>Vehicle Occupants</b>						
Driver	25,210	259,000	537,000	1,266,000	2,061,000	<b>2,086,000</b>
Passenger	10,499	116,000	267,000	641,000	1,024,000	<b>1,034,000</b>
Unknown Occupant	97	*	2,000	10,000	12,000	<b>12,000</b>
<i>Subtotal</i>	<i>35,806</i>	<i>375,000</i>	<i>805,000</i>	<i>1,917,000</i>	<i>3,097,000</i>	<b>3,132,000</b>
<b>Nonmotorists</b>						
Pedestrian	4,906	20,000	29,000	36,000	85,000	<b>90,000</b>
Pedalcyclist	750	8,000	26,000	17,000	51,000	<b>52,000</b>
Other/Unknown	149	*	1,000	2,000	3,000	<b>3,000</b>
<i>Subtotal</i>	<i>5,805</i>	<i>28,000</i>	<i>56,000</i>	<i>55,000</i>	<i>140,000</i>	<b>145,000</b>
<b>Total</b>	<b>41,611</b>	<b>403,000</b>	<b>861,000</b>	<b>1,972,000</b>	<b>3,236,000</b>	<b>3,278,000</b>

\*Less than 500.

**Table 54**  
**Persons Killed or Injured, by Age and Injury Severity**

Age (Years)	Persons Killed	Persons Injured by Injury Severity			Total Injured	Total Killed or Injured
		Incapacitating	Nonincapacitating	Other		
<5	733	8,000	21,000	48,000	76,000	<b>77,000</b>
5-9	795	12,000	36,000	65,000	112,000	<b>113,000</b>
10-15	1,403	25,000	57,000	104,000	185,000	<b>186,000</b>
16-20	5,917	73,000	178,000	324,000	574,000	<b>580,000</b>
21-24	3,884	40,000	89,000	186,000	315,000	<b>318,000</b>
25-34	6,821	75,000	162,000	390,000	627,000	<b>634,000</b>
35-44	6,719	65,000	122,000	338,000	526,000	<b>532,000</b>
45-54	4,908	47,000	83,000	251,000	382,000	<b>387,000</b>
55-64	3,235	26,000	43,000	124,000	193,000	<b>197,000</b>
65-74	3,063	18,000	38,000	87,000	143,000	<b>146,000</b>
>74	4,025	15,000	33,000	55,000	103,000	<b>107,000</b>
<b>Total</b>	<b>*41,611</b>	<b>403,000</b>	<b>861,000</b>	<b>1,972,000</b>	<b>3,236,000</b>	<b>3,278,000</b>

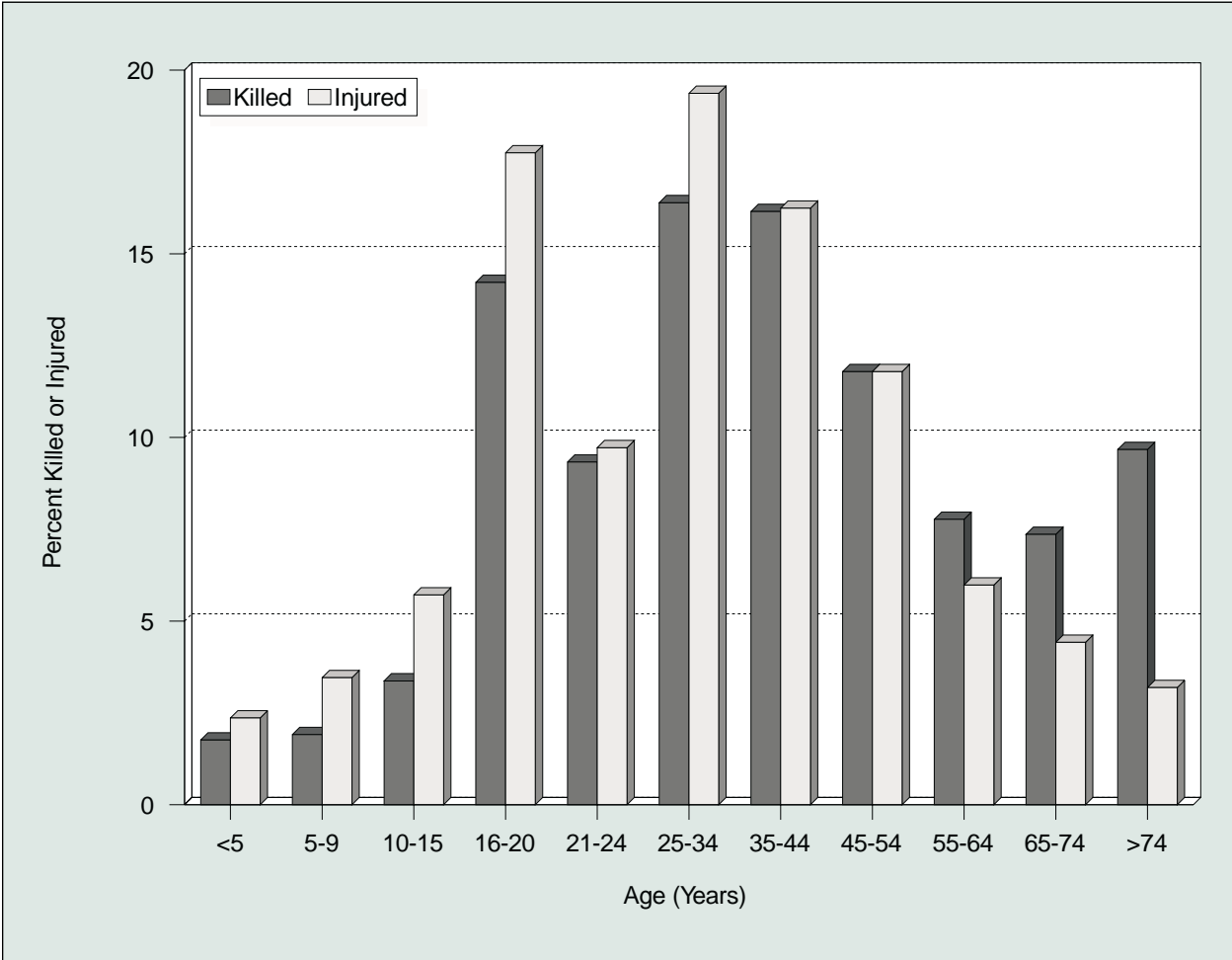
\*Includes 108 fatalities of unknown age.

**Table 55**  
**Persons Killed or Injured, by Sex and Injury Severity**

Sex	Persons Killed	Persons Injured by Injury Severity			Total Injured	Total Killed or Injured
		Incapacitating	Nonincapacitating	Other		
Male	27,973	209,000	471,000	872,000	1,552,000	<b>1,580,000</b>
Female	13,627	194,000	390,000	1,099,000	1,684,000	<b>1,697,000</b>
<b>Total</b>	<b>*41,611</b>	<b>403,000</b>	<b>861,000</b>	<b>1,972,000</b>	<b>3,236,000</b>	<b>3,278,000</b>

\*Includes 11 fatalities of unknown sex.

Figure 18  
Percent of Persons Killed or Injured, by Age



**Table 56**  
**Persons Killed or Injured and Fatality and Injury Rates per 100,000 Population by Age and Sex**

Age (Years)	Male			Female			Total		
	Killed	Population (Thousands)	Rate	Killed	Population (Thousands)	Rate	Killed	Population (Thousands)	Rate
<5	405	9,683	4.18	328	9,259	3.54	733	18,942	3.87
5-9	461	10,208	4.52	334	9,739	3.43	795	19,947	3.99
10-15	833	11,974	6.96	570	11,395	5.00	1,403	23,369	6.00
16-20	3,981	10,187	39.08	1,936	9,638	20.09	5,917	19,826	29.85
21-24	2,934	7,185	40.84	950	6,943	13.68	3,884	14,128	27.49
25-34	5,006	18,826	26.59	1,815	19,110	9.50	6,821	37,936	17.98
35-44	4,716	22,254	21.19	2,002	22,558	8.87	6,719	44,813	14.99
45-54	3,415	17,499	19.52	1,491	18,303	8.15	4,908	35,802	13.71
55-64	2,076	11,150	18.62	1,156	12,239	9.45	3,235	23,389	13.83
65-74	1,804	8,199	22.00	1,258	10,020	12.56	3,063	18,218	16.81
>74	2,263	6,111	37.03	1,762	10,210	17.26	4,025	16,322	24.66
Unknown	79	*	*	25	*	*	108	*	*
<b>Total</b>	<b>27,973</b>	<b>133,277</b>	<b>20.99</b>	<b>13,627</b>	<b>139,414</b>	<b>9.77</b>	<b>**41,611</b>	<b>272,691</b>	<b>15.26</b>

Age (Years)	Male			Female			Total		
	Injured	Population (Thousands)	Rate	Injured	Population (Thousands)	Rate	Injured	Population (Thousands)	Rate
<5	38,000	9,683	396	38,000	9,259	412	76,000	18,942	404
5-9	57,000	10,208	556	55,000	9,739	568	112,000	19,947	562
10-15	88,000	11,974	735	97,000	11,395	850	185,000	23,369	791
16-20	282,000	10,187	2,764	293,000	9,638	3,039	574,000	19,826	2,898
21-24	156,000	7,185	2,173	158,000	6,943	2,281	315,000	14,128	2,226
25-34	309,000	18,826	1,643	317,000	19,110	1,661	627,000	37,936	1,652
35-44	248,000	22,254	1,113	278,000	22,558	1,233	526,000	44,813	1,173
45-54	175,000	17,499	999	207,000	18,303	1,130	382,000	35,802	1,066
55-64	92,000	11,150	823	102,000	12,239	831	193,000	23,389	827
65-74	63,000	8,199	774	80,000	10,020	795	143,000	18,218	786
>74	45,000	6,111	730	59,000	10,210	574	103,000	16,322	632
<b>Total</b>	<b>1,552,000</b>	<b>133,277</b>	<b>1,165</b>	<b>1,684,000</b>	<b>139,414</b>	<b>1,208</b>	<b>3,236,000</b>	<b>272,691</b>	<b>1,187</b>

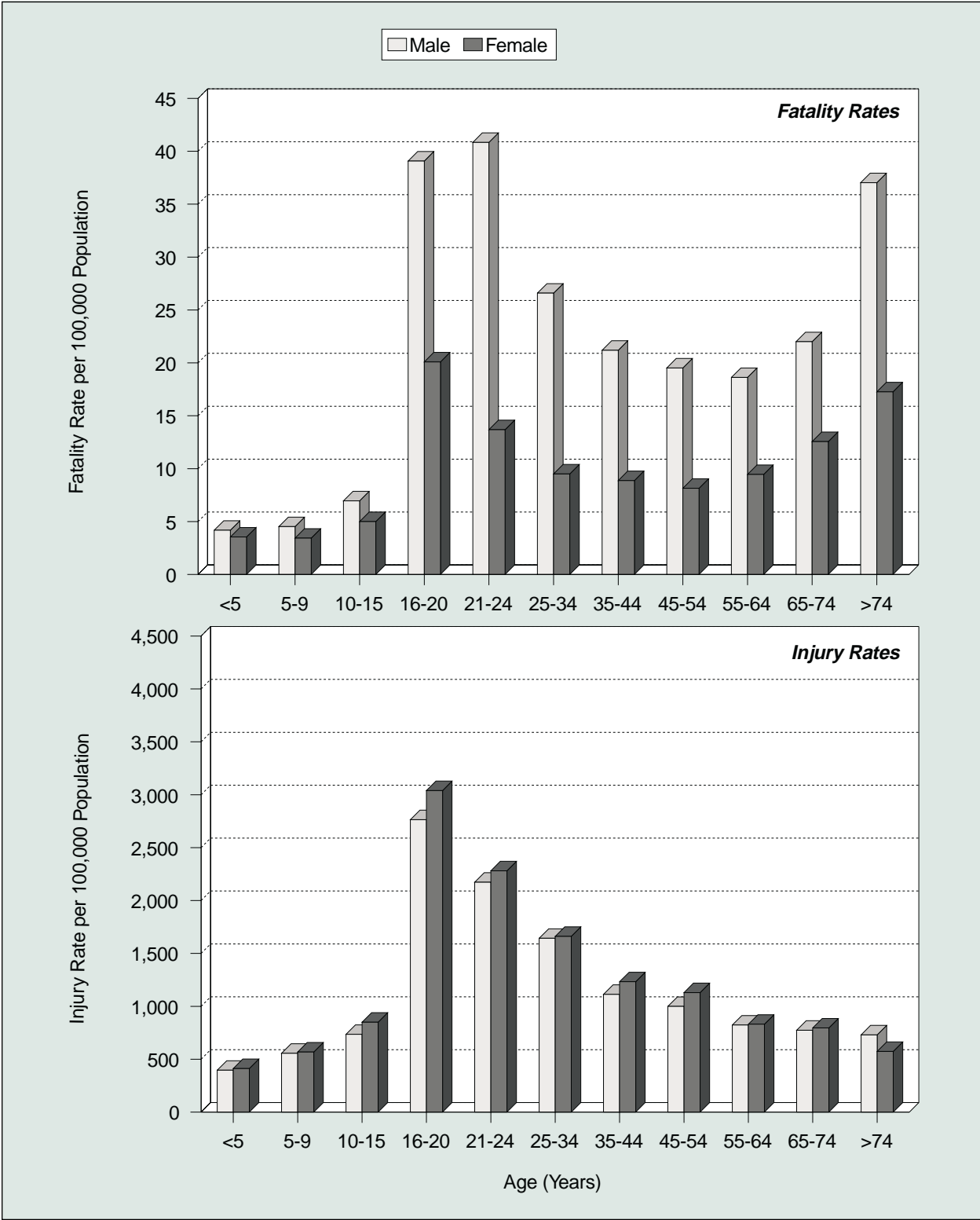
\*Not applicable.

\*\*Includes 11 fatalities of unknown sex.

Source: Population—Bureau of the Census. Totals may not equal sum of components due to independent rounding.



Figure 19  
Fatality and Injury Rates per 100,000 Population, by Age and Sex



**Table 57**  
**Persons Killed or Injured in Crashes by Weather Condition and Light Condition**

Weather Condition	Light Condition				Total
	Daylight	Dark, But Lighted	Dark	Dawn or Dusk	
<b>Persons Killed</b>					
Normal	19,001	5,427	10,999	1,532	<b>37,000</b>
Rain	1,580	478	875	136	<b>3,072</b>
Snow/Sleet	356	67	224	35	<b>682</b>
Other	205	91	304	53	<b>653</b>
Unknown	62	7	39	3	<b>204</b>
<b>Total</b>	<b>21,204</b>	<b>6,070</b>	<b>12,441</b>	<b>1,759</b>	<b>*41,611</b>
<b>Persons Injured</b>					
Normal	2,003,000	404,000	261,000	90,000	<b>2,757,000</b>
Rain	238,000	73,000	33,000	19,000	<b>364,000</b>
Snow/Sleet	39,000	12,000	10,000	3,000	<b>63,000</b>
Other	30,000	8,000	10,000	4,000	<b>52,000</b>
<b>Total</b>	<b>2,310,000</b>	<b>497,000</b>	<b>314,000</b>	<b>116,000</b>	<b>3,236,000</b>

\*Includes 137 fatalities in crashes that occurred under unknown light conditions.

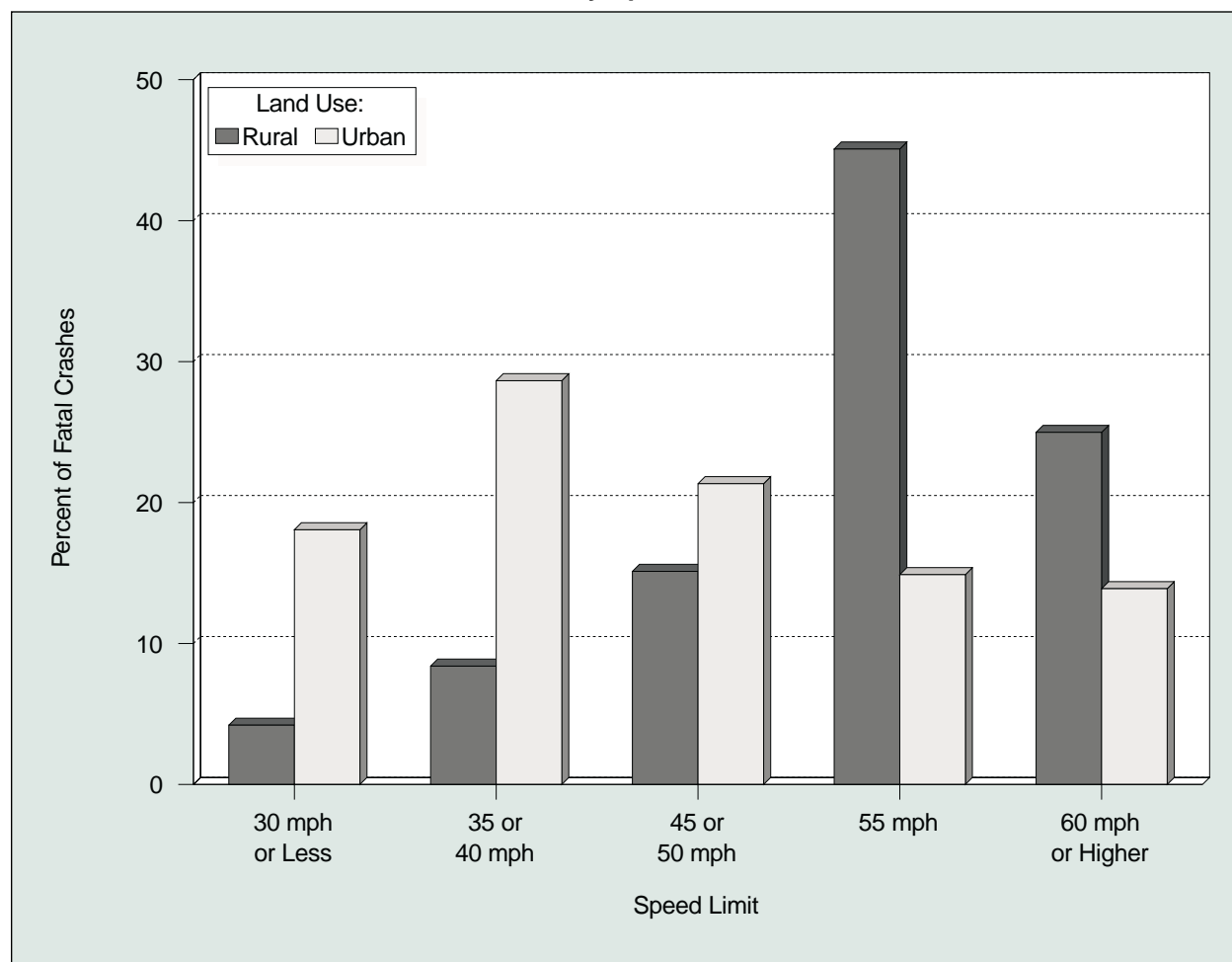
**Table 58**  
**Persons Killed or Injured in Crashes by Speed Limit and Crash Type**

Speed Limit	Crash Type				Total	
	Single Vehicle		Multiple Vehicle			
	Number	Percent	Number	Percent	Number	Percent
<b>Persons Killed</b>						
30 mph or less	2,845	12.7	1,140	5.9	<b>3,985</b>	<b>9.6</b>
35 or 40 mph	3,925	17.5	2,835	14.8	<b>6,760</b>	<b>16.2</b>
45 or 50 mph	3,566	15.9	3,728	19.4	<b>7,294</b>	<b>17.5</b>
55 mph	6,848	30.6	7,066	36.8	<b>13,914</b>	<b>33.4</b>
60 mph or higher	4,464	19.9	4,109	21.4	<b>8,573</b>	<b>20.6</b>
No Statutory Limit	97	0.4	37	0.2	<b>134</b>	<b>0.3</b>
Unknown	652	2.9	299	1.6	<b>951</b>	<b>2.3</b>
<b>Total</b>	<b>22,397</b>	<b>100.0</b>	<b>19,214</b>	<b>100.0</b>	<b>41,611</b>	<b>100.0</b>
<b>Persons Injured</b>						
30 mph or less	187,000	24.8	464,000	18.7	<b>651,000</b>	<b>20.1</b>
35 or 40 mph	178,000	23.5	989,000	39.9	<b>1,167,000</b>	<b>36.0</b>
45 or 50 mph	105,000	13.9	556,000	22.4	<b>660,000</b>	<b>20.4</b>
55 mph	181,000	23.9	300,000	12.1	<b>481,000</b>	<b>14.9</b>
60 mph or higher	96,000	12.8	168,000	6.8	<b>265,000</b>	<b>8.2</b>
No Statutory Limit	8,000	1.0	5,000	0.2	<b>13,000</b>	<b>0.4</b>
<b>Total</b>	<b>755,000</b>	<b>100.0</b>	<b>2,482,000</b>	<b>100.0</b>	<b>3,236,000</b>	<b>100.0</b>

**Table 59**  
**Persons Killed in Crashes by Speed Limit and Land Use**

Speed Limit	Land Use						Total	
	Rural		Urban		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
30 mph or less	1,071	26.9	2,872	72.1	42	1.1	<b>3,985</b>	<b>100.0</b>
35 or 40 mph	2,137	31.6	4,553	67.4	70	1.0	<b>6,760</b>	<b>100.0</b>
45 or 50 mph	3,848	52.8	3,392	46.5	54	0.7	<b>7,294</b>	<b>100.0</b>
55 mph	11,475	82.5	2,366	17.0	73	0.5	<b>13,914</b>	<b>100.0</b>
60 mph or higher	6,358	74.2	2,208	25.8	7	0.1	<b>8,573</b>	<b>100.0</b>
No Statutory Limit	109	81.3	19	14.2	6	4.5	<b>134</b>	<b>100.0</b>
Unknown	455	47.8	484	50.9	12	1.3	<b>951</b>	<b>100.0</b>
<b>Total</b>	<b>25,453</b>	<b>61.2</b>	<b>15,894</b>	<b>38.2</b>	<b>264</b>	<b>0.6</b>	<b>41,611</b>	<b>100.0</b>

**Figure 20**  
**Percent of Fatalities by Speed Limit and Land Use**



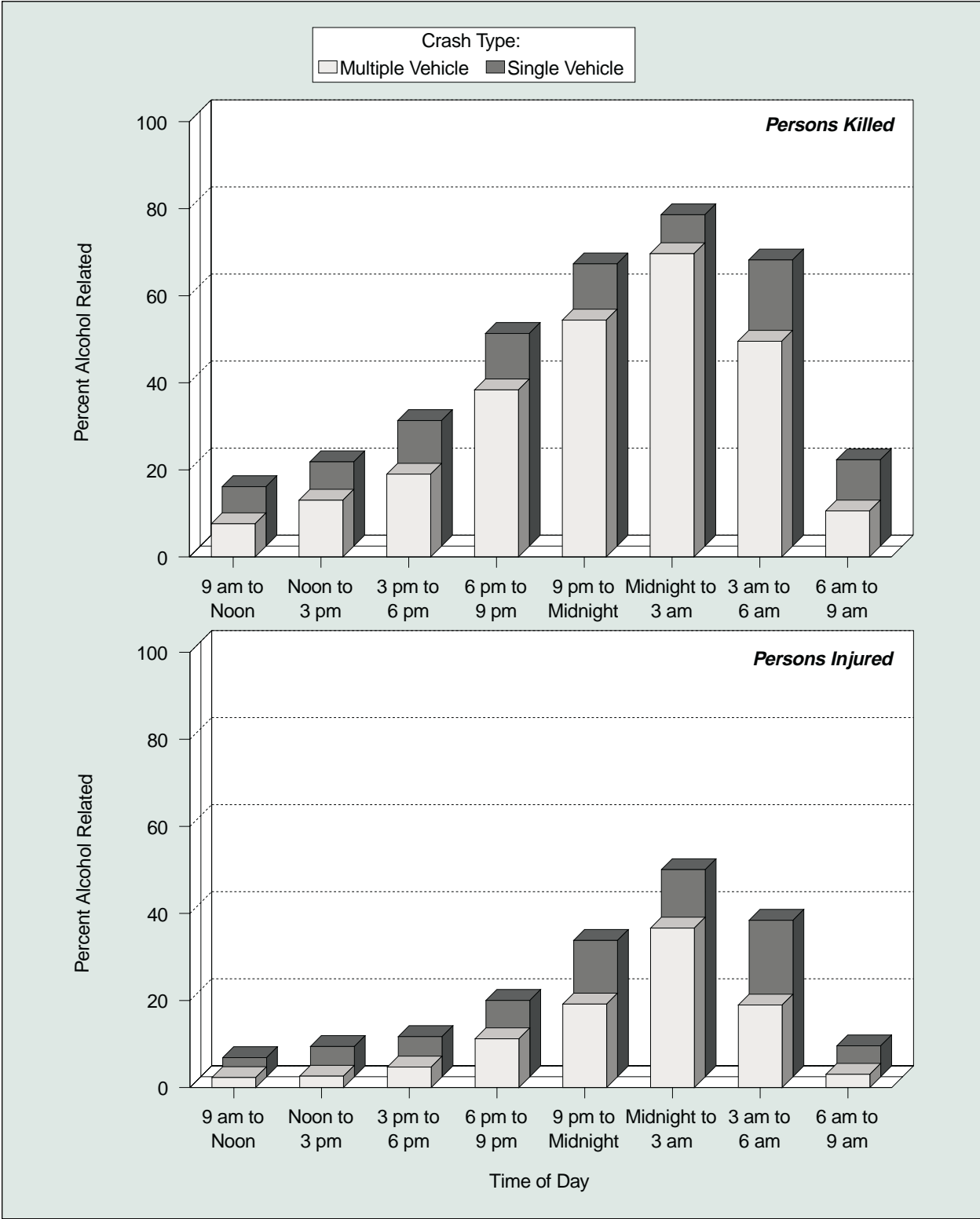
**Table 60**  
**Persons Killed or Injured in Crashes and Percent Alcohol Related by Time of Day and Crash Type**

Time of Day	Crash Type						Total		
	Single Vehicle			Multiple Vehicle					
	Number	Alcohol Related	Percent Alcohol Related	Number	Alcohol Related	Percent Alcohol Related	Number	Alcohol Related	Percent Alcohol Related
<b>Persons Killed*</b>									
Midnight to 3 am	3,784	2,880	76	1,335	930	70	<b>5,119</b>	<b>3,810</b>	<b>74</b>
3 am to 6 am	2,195	1,443	66	943	467	50	<b>3,138</b>	<b>1,910</b>	<b>61</b>
6 am to 9 am	2,026	401	20	2,141	226	11	<b>4,167</b>	<b>627</b>	<b>15</b>
9 am to Noon	1,710	233	14	2,446	186	8	<b>4,156</b>	<b>420</b>	<b>10</b>
Noon to 3 pm	2,172	421	19	3,370	439	13	<b>5,542</b>	<b>860</b>	<b>16</b>
3 pm to 6 pm	2,996	864	29	4,055	771	19	<b>7,051</b>	<b>1,635</b>	<b>23</b>
6 pm to 9 pm	3,513	1,716	49	2,861	1,098	38	<b>6,374</b>	<b>2,814</b>	<b>44</b>
9 pm to Midnight	3,676	2,383	65	2,043	1,112	54	<b>5,719</b>	<b>3,495</b>	<b>61</b>
Unknown	325	209	64	20	7	34	<b>345</b>	<b>216</b>	<b>62</b>
<b>Total</b>	<b>22,397</b>	<b>10,550</b>	<b>47</b>	<b>19,214</b>	<b>5,237</b>	<b>27</b>	<b>41,611</b>	<b>15,786</b>	<b>38</b>
<b>Persons Injured**</b>									
Midnight to 3 am	82,000	39,000	48	64,000	23,000	37	<b>146,000</b>	<b>62,000</b>	<b>43</b>
3 am to 6 am	49,000	18,000	36	32,000	6,000	19	<b>82,000</b>	<b>24,000</b>	<b>29</b>
6 am to 9 am	78,000	6,000	7	269,000	8,000	3	<b>348,000</b>	<b>14,000</b>	<b>4</b>
9 am to Noon	70,000	3,000	4	344,000	8,000	2	<b>414,000</b>	<b>11,000</b>	<b>3</b>
Noon to 3 pm	110,000	8,000	7	519,000	14,000	3	<b>629,000</b>	<b>21,000</b>	<b>3</b>
3 pm to 6 pm	141,000	13,000	9	697,000	33,000	5	<b>838,000</b>	<b>46,000</b>	<b>5</b>
6 pm to 9 pm	123,000	22,000	18	382,000	43,000	11	<b>506,000</b>	<b>65,000</b>	<b>13</b>
9 pm to Midnight	101,000	32,000	31	174,000	33,000	19	<b>275,000</b>	<b>65,000</b>	<b>24</b>
<b>Total</b>	<b>755,000</b>	<b>139,000</b>	<b>18</b>	<b>2,482,000</b>	<b>168,000</b>	<b>7</b>	<b>3,236,000</b>	<b>308,000</b>	<b>10</b>

\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater.

\*\*Police-reported alcohol involvement.

**Figure 21**  
**Percent of Persons Killed or Injured in Alcohol-Related Crashes by Time of Day**



**Table 61**  
**Persons Killed in Construction/Maintenance Zones, by Roadway Function Class and Person Type**

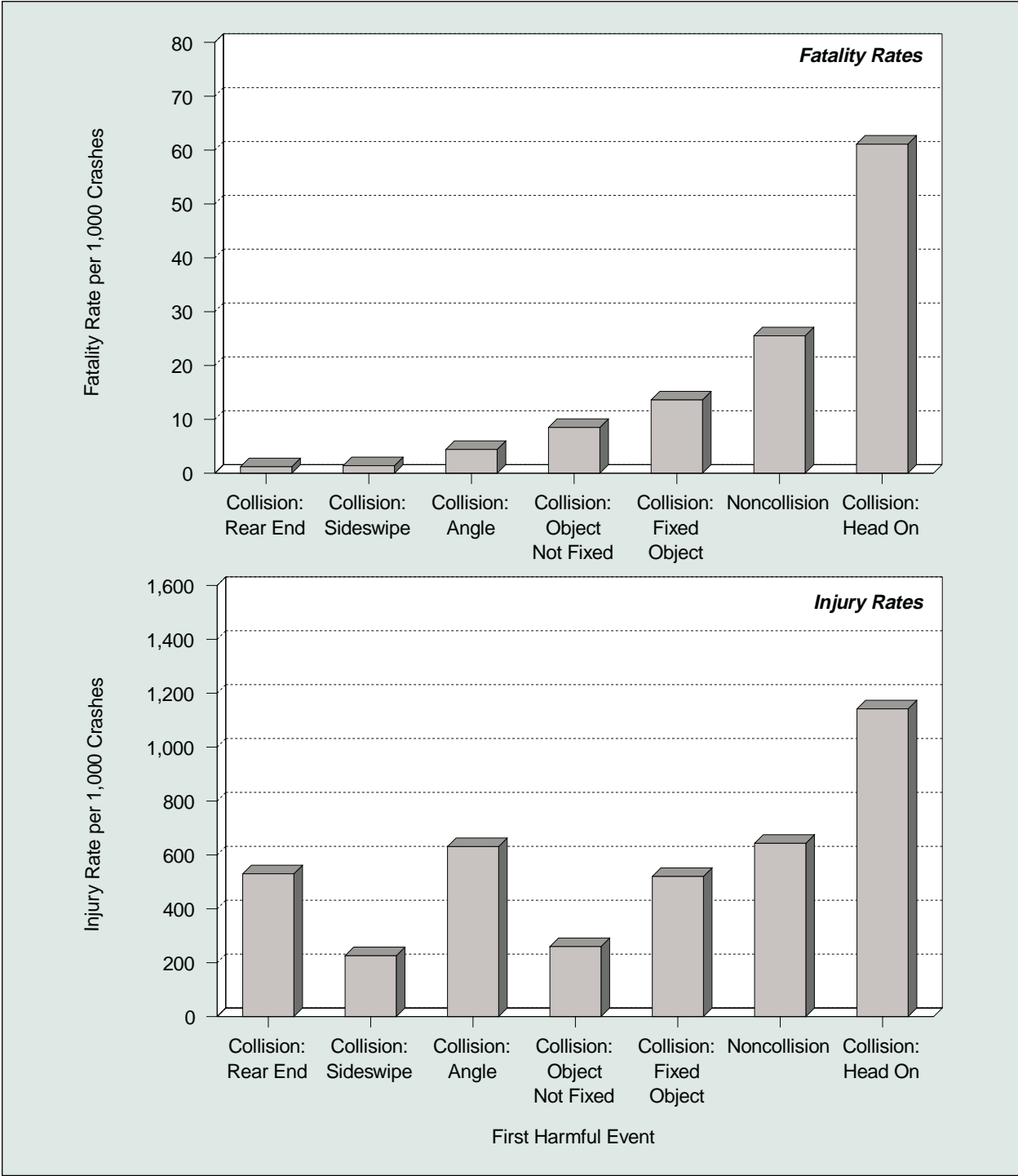
Roadway Function Class	Person Type					Total
	Driver	Passenger	Pedestrian	Pedalcyclist	Other Nonmotorist	
Principal Arterial						
Interstate	141	85	32	0	2	260
Freeway or Expressway	27	17	15	1	0	60
Other	158	77	31	3	0	269
Minor Arterial	69	30	17	1	2	119
Collector	58	21	14	2	0	95
Local Road or Street	36	8	13	0	0	57
Unknown	5	3	0	0	0	8
<b>Total</b>	<b>494</b>	<b>241</b>	<b>122</b>	<b>7</b>	<b>4</b>	<b>868</b>

**Table 62**  
**Persons Killed in Crashes Involving Emergency Vehicles, by Person Type, Crash Type, and Vehicle Type**

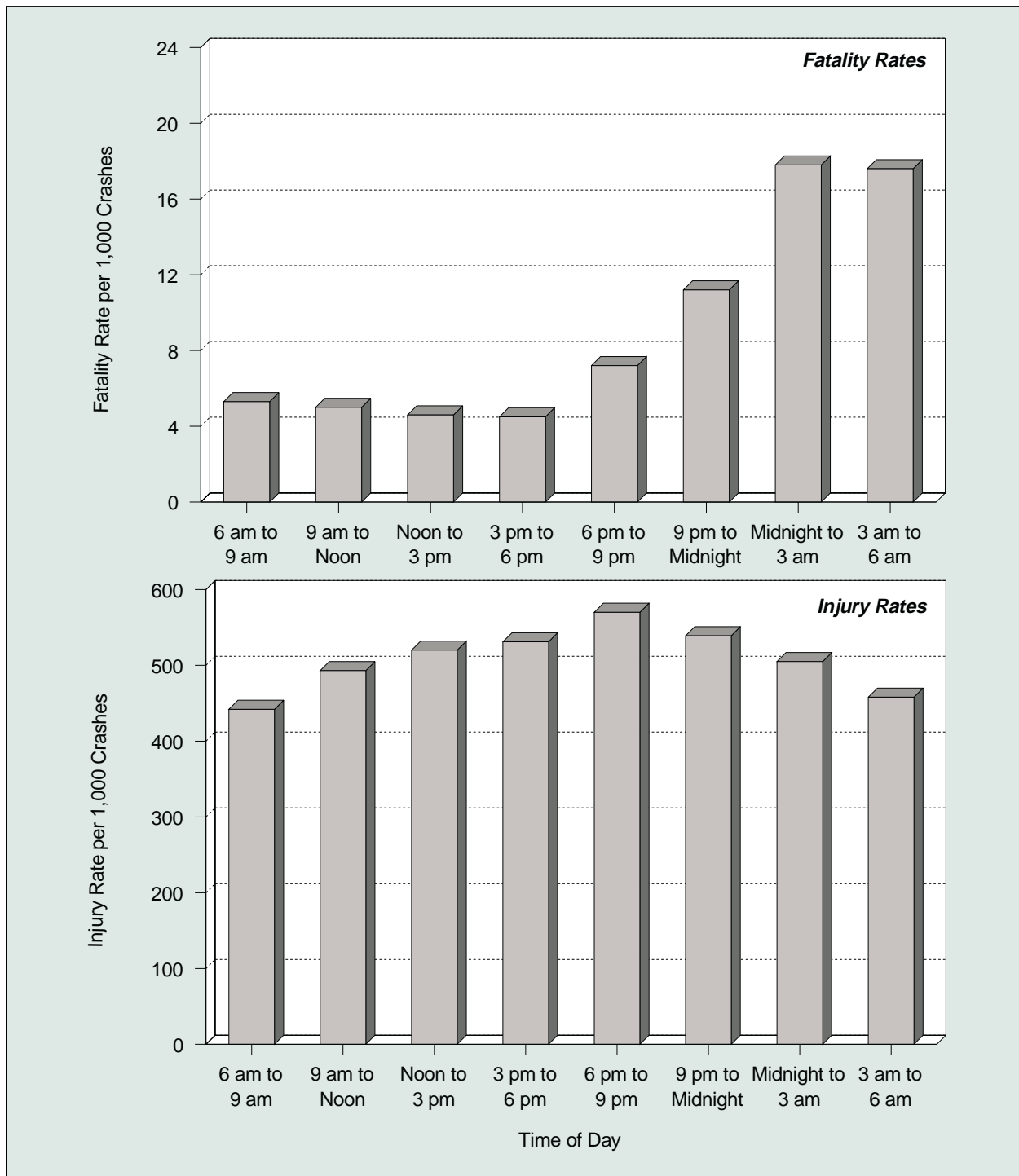
Person Type	Crash Type				Total	
	Single Vehicle		Multiple Vehicle			
	Total	In Emergency Use*	Total	In Emergency Use*	Total	In Emergency Use*
<b>Ambulance</b>						
Ambulance Driver	0	0	0	0	0	0
Ambulance Passenger	0	0	2	1	2	1
Occupant of Other Vehicle	0	0	11	6	11	6
Pedestrian	2	1	0	0	2	1
Pedalcyclist	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>1</b>	<b>13</b>	<b>7</b>	<b>15</b>	<b>8</b>
<b>Fire Truck</b>						
Fire Truck Driver	5	3	0	0	5	3
Fire Truck Passenger	2	1	1	1	3	2
Occupant of Other Vehicle	0	0	9	8	9	8
Pedestrian	0	0	1	1	1	1
Pedalcyclist	1	1	0	0	1	1
<b>Total</b>	<b>8</b>	<b>5</b>	<b>11</b>	<b>10</b>	<b>19</b>	<b>15</b>
<b>Police Vehicle</b>						
Police Vehicle Driver	9	6	8	3	17	9
Police Vehicle Passenger	4	1	0	0	4	1
Occupant of Other Vehicle	0	0	40	14	40	14
Pedestrian	8	2	2	2	10	4
Pedalcyclist	1	1	0	0	1	1
<b>Total</b>	<b>22</b>	<b>10</b>	<b>50</b>	<b>19</b>	<b>72</b>	<b>29</b>

\*Refers to a vehicle traveling with physical emergency signals in use (red lights blinking, sirens sounding, etc.).

**Figure 22**  
**Fatality and Injury Rates per 1,000 Crashes by First Harmful Event and Manner of Collision**

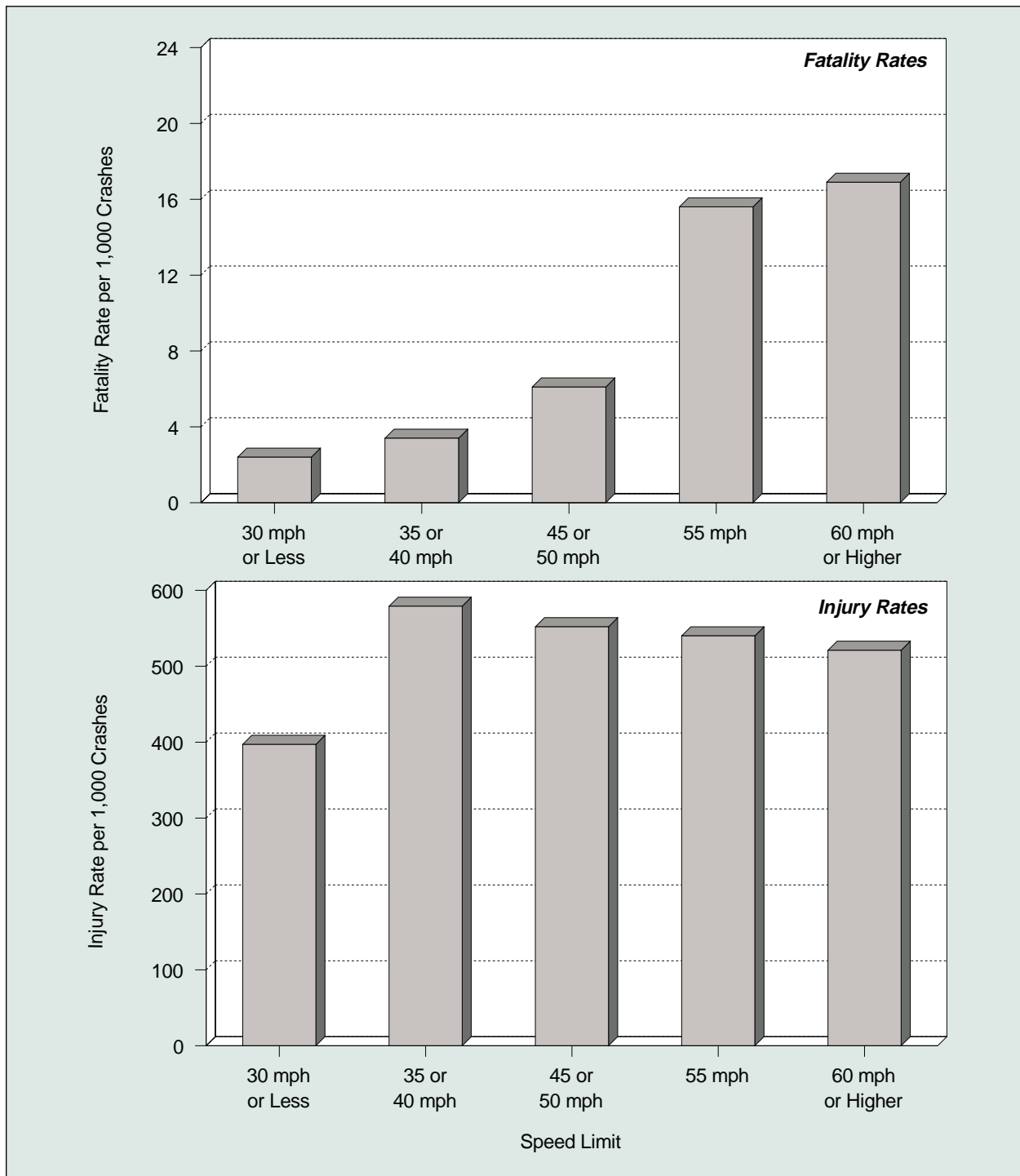


**Figure 23**  
**Fatality and Injury Rates per 1,000 Crashes by Time of Day**





**Figure 24**  
**Fatality and Injury Rates per 1,000 Crashes by Speed Limit**



**Table 63**  
**Driver Involvement Rates per 100,000 Licensed Drivers by Age, Sex, and Crash Severity**

Age (Years)	Sex				Total	
	Male		Female			
	Drivers	Involvement Rate	Drivers	Involvement Rate	Drivers	Involvement Rate
<b>Drivers in Fatal Crashes</b>						
<16	232	*	100	*	332	*
16-20	5,661	86.95	2,312	37.86	7,973	63.18
21-24	4,330	67.87	1,290	21.12	5,620	45.00
25-34	8,802	47.07	2,932	16.34	11,734	32.02
35-44	8,097	38.53	2,925	14.06	11,023	26.36
45-54	5,730	32.88	1,969	11.37	7,700	22.16
55-64	3,421	30.93	1,170	10.68	4,592	20.86
65-69	1,142	27.43	483	11.59	1,625	19.51
>69	3,340	37.55	1,594	16.65	4,934	26.72
Unknown	145	*	17	*	819	*
<b>Total</b>	<b>40,900</b>	<b>43.43</b>	<b>14,792</b>	<b>15.90</b>	<b>**56,352</b>	<b>30.11</b>
<b>Drivers in Injury Crashes</b>						
<16	16,000	*	9,000	*	24,000	*
16-20	367,000	5,634	282,000	4,621	649,000	5,144
21-24	224,000	3,506	169,000	2,771	393,000	3,146
25-34	493,000	2,637	365,000	2,031	858,000	2,340
35-44	413,000	1,967	341,000	1,638	754,000	1,803
45-54	301,000	1,726	225,000	1,298	526,000	1,512
55-64	164,000	1,479	107,000	974	270,000	1,228
65-69	56,000	1,355	33,000	796	90,000	1,075
>69	116,000	1,308	88,000	915	204,000	1,105
<b>Total</b>	<b>2,150,000</b>	<b>2,283</b>	<b>1,618,000</b>	<b>1,739</b>	<b>3,767,000</b>	<b>2,013</b>
<b>Drivers in Property-Damage-Only Crashes</b>						
<16	42,000	*	19,000	*	61,000	*
16-20	792,000	12,163	489,000	8,004	1,281,000	10,149
21-24	435,000	6,814	298,000	4,877	733,000	5,866
25-34	1,082,000	5,788	631,000	3,516	1,713,000	4,675
35-44	907,000	4,314	590,000	2,834	1,496,000	3,578
45-54	625,000	3,587	394,000	2,274	1,019,000	2,932
55-64	346,000	3,133	193,000	1,758	539,000	2,449
65-69	106,000	2,549	58,000	1,386	164,000	1,967
>69	215,000	2,419	148,000	1,550	364,000	1,969
<b>Total</b>	<b>4,550,000</b>	<b>4,832</b>	<b>2,819,000</b>	<b>3,031</b>	<b>7,370,000</b>	<b>3,937</b>
<b>Drivers in All Crashes</b>						
<16	58,000	*	28,000	*	86,000	*
16-20	1,164,000	17,884	773,000	12,663	1,938,000	15,356
21-24	663,000	10,388	468,000	7,669	1,131,000	9,057
25-34	1,584,000	8,472	999,000	5,563	2,583,000	7,047
35-44	1,328,000	6,320	934,000	4,486	2,262,000	5,408
45-54	931,000	5,346	621,000	3,583	1,552,000	4,467
55-64	513,000	4,642	300,000	2,743	814,000	3,697
65-69	164,000	3,931	91,000	2,194	255,000	3,062
>69	335,000	3,765	238,000	2,482	573,000	3,100
Unknown	***	*	***	*	1,000	*
<b>Total</b>	<b>6,741,000</b>	<b>7,159</b>	<b>4,452,000</b>	<b>4,787</b>	<b>11,194,000</b>	<b>5,980</b>

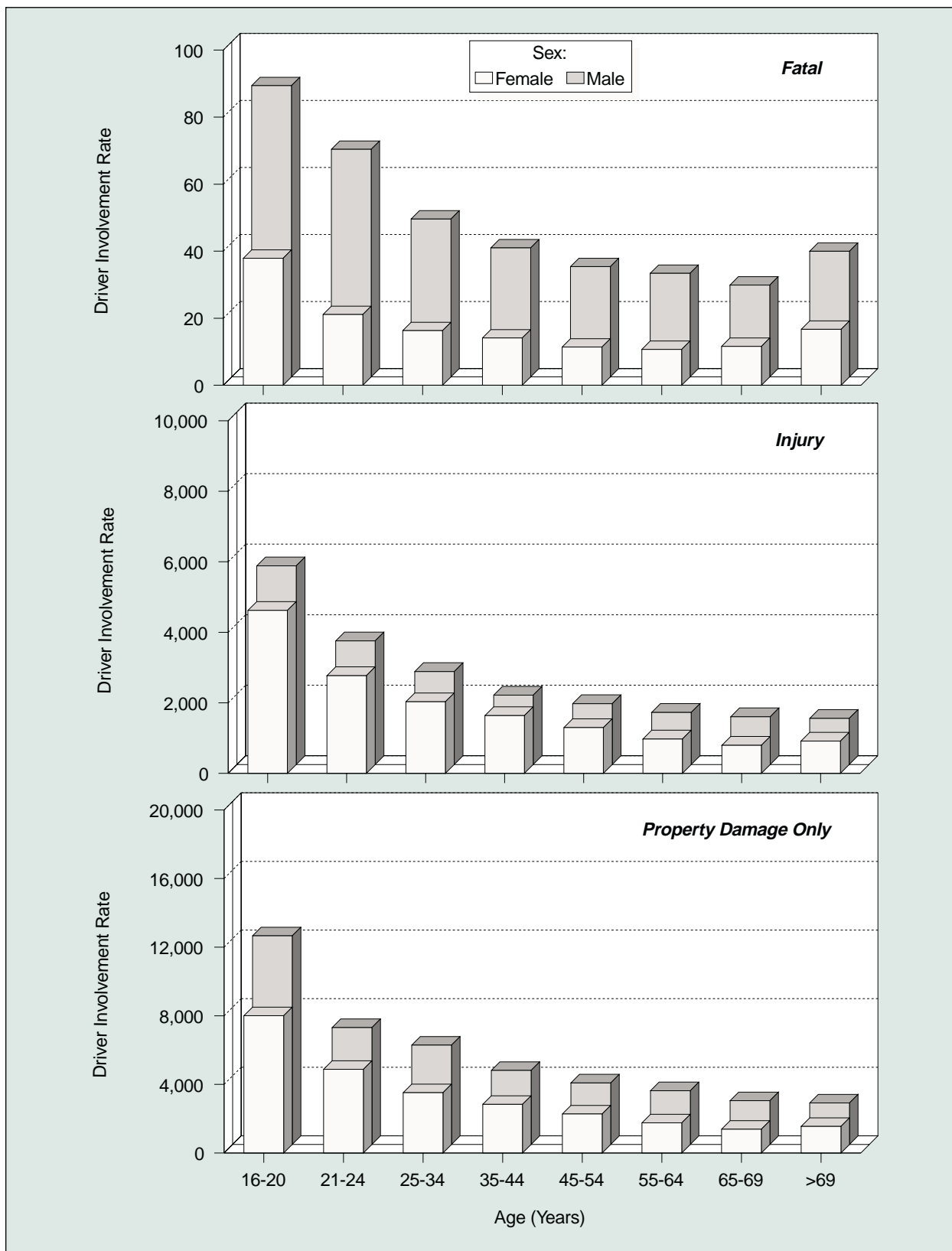
\*Not applicable.

\*\*Includes 657 drivers of unknown sex.

\*\*\*Less than 500.

Source: Licensed Drivers—Federal Highway Administration.

**Figure 25**  
**Driver Involvement Rates per 100,000 Licensed Drivers by Crash Severity, Age, and Sex**



**Table 64**  
**Drivers Involved in Fatal Crashes by Previous Driving Record and License Status**

Previous Convictions	Valid License (48,961)		Invalid License (6,009)		Total (54,970)	
	Number	Percent	Number	Percent	Number	Percent
Previous Recorded Crashes	7,299	14.9	853	14.2	<b>8,152</b>	<b>14.8</b>
Previous Recorded Suspensions or Revocations	3,870	7.9	2,943	49.0	<b>6,813</b>	<b>12.4</b>
Previous DWI Convictions	929	1.9	936	15.6	<b>1,865</b>	<b>3.4</b>
Previous Speeding Convictions	10,370	21.2	1,156	19.2	<b>11,526</b>	<b>21.0</b>
Previous Other Harmful Moving Convictions	8,225	16.8	1,436	23.9	<b>9,661</b>	<b>17.6</b>
Drivers with No Previous Conviction	28,936	59.1	2,550	42.4	<b>31,486</b>	<b>57.3</b>

Notes: Table does not include 1,382 drivers with unknown license status. FARS records prior driving records (convictions only, not violations) for events occurring within 3 years of the date of the crash. The same driver can have one or more of these convictions.

**Table 65**  
**Related Factors for Drivers Involved in Fatal Crashes**

Factors	Number	Percent
Failure to keep in proper lane or running off road . . . . .	16,904	30.0
Driving too fast for conditions or in excess of posted speed limit . . . . .	11,100	19.7
Failure to yield right of way . . . . .	5,076	9.0
Inattentive (talking, eating, etc.) . . . . .	3,908	6.9
Operating vehicle in erratic, reckless, careless, or negligent manner . . . . .	2,985	5.3
Failure to obey traffic signs, signals, or officer . . . . .	2,817	5.0
Swerving or avoiding due to wind, slippery surface, vehicle, object, nonmotorist in roadway, etc. . . . .	1,986	3.5
Drowsy, asleep, fatigued, ill, or blackout . . . . .	1,808	3.2
Overcorrecting/oversteering . . . . .	1,793	3.2
Making improper turn . . . . .	1,323	2.3
Vision obscured (rain, snow, glare, lights, building, trees, etc.) . . . . .	1,310	2.3
Driving wrong way on one-way trafficway or on wrong side of road . . . . .	1,256	2.2
Other factors . . . . .	9,421	16.7
None reported . . . . .	20,552	36.5
Unknown . . . . .	601	1.1
<b>Total Drivers . . . . .</b>	<b>56,352</b>	<b>100.0</b>

Note: The sum of the numbers and percentages is greater than total drivers as more than one factor may be present for the same driver.

**Table 66**  
**Vehicle Occupants Killed or Injured, by Vehicle Type, Person Type, and Injury Severity**

Vehicle and Person Type	Occupants Killed	Occupants Injured by Injury Severity			Total Injured	Total Killed or Injured
		Incapacitating	Nonincapacitating	Other		
<b>Passenger Car</b>						
Drivers	14,158	167,000	353,000	907,000	1,427,000	<b>1,441,000</b>
Passengers	6,613	75,000	180,000	448,000	703,000	<b>709,000</b>
Unknown	47	*	1,000	7,000	8,000	<b>8,000</b>
<i>Subtotal</i>	<i>20,818</i>	<i>242,000</i>	<i>534,000</i>	<i>1,362,000</i>	<i>2,138,000</i>	<b><i>2,158,000</i></b>
<b>Light Truck</b>						
Drivers	7,767	70,000	153,000	332,000	554,000	<b>562,000</b>
Passengers	3,441	36,000	79,000	173,000	288,000	<b>292,000</b>
Unknown	35	*	*	3,000	4,000	<b>4,000</b>
<i>Subtotal</i>	<i>11,243</i>	<i>106,000</i>	<i>232,000</i>	<i>508,000</i>	<i>847,000</i>	<b><i>858,000</i></b>
<b>Large Truck</b>						
Drivers	643	5,000	8,000	14,000	27,000	<b>28,000</b>
Passengers	113	1,000	2,000	3,000	6,000	<b>6,000</b>
Unknown	2	*	*	*	*	<b>*</b>
<i>Subtotal</i>	<i>758</i>	<i>6,000</i>	<i>10,000</i>	<i>17,000</i>	<i>33,000</i>	<b><i>34,000</i></b>
<b>Motorcycle</b>						
Operators	2,276	15,000	20,000	9,000	45,000	<b>47,000</b>
Passengers	195	2,000	3,000	1,000	5,000	<b>6,000</b>
Unknown	1	*	*	*	*	<b>*</b>
<i>Subtotal</i>	<i>2,472</i>	<i>17,000</i>	<i>23,000</i>	<i>10,000</i>	<i>50,000</i>	<b><i>52,000</i></b>
<b>Bus</b>	<b>58</b>	<b>1,000</b>	<b>4,000</b>	<b>18,000</b>	<b>22,000</b>	<b>22,000</b>
<b>Other/Unknown</b>	<b>457</b>	<b>2,000</b>	<b>3,000</b>	<b>2,000</b>	<b>7,000</b>	<b>8,000</b>
<b>Total</b>	<b>35,806</b>	<b>375,000</b>	<b>805,000</b>	<b>1,917,000</b>	<b>3,097,000</b>	<b>3,132,000</b>

\*Less than 500.

**Table 67**  
**Vehicle Occupants Killed or Injured, by Sex and Vehicle Type**

Sex	Vehicle Type						Total
	Passenger Cars	Light Trucks	Large Trucks	Motorcycles	Buses	Other/Unknown	
<b>Occupants Killed</b>							
Male	12,179	8,224	713	2,247	26	384	<b>23,773</b>
Female	8,634	3,016	44	224	32	73	<b>12,023</b>
Unknown	5	3	1	1	0	0	<b>10</b>
<b>Total</b>	<b>20,818</b>	<b>11,243</b>	<b>758</b>	<b>2,472</b>	<b>58</b>	<b>457</b>	<b>35,806</b>
<b>Occupants Injured</b>							
Male	884,000	485,000	30,000	45,000	11,000	5,000	<b>1,460,000</b>
Female	1,253,000	362,000	3,000	5,000	11,000	2,000	<b>1,637,000</b>
<b>Total</b>	<b>2,138,000</b>	<b>847,000</b>	<b>33,000</b>	<b>50,000</b>	<b>22,000</b>	<b>7,000</b>	<b>3,097,000</b>

**Table 68**  
**Vehicle Occupants Killed or Injured, by Age and Vehicle Type**

Age (Years)	Vehicle Type						Total
	Passenger Cars	Light Trucks	Large Trucks	Motorcycles	Buses	Other/Unknown	
<b>Occupants Killed</b>							
<5	363	187	3	0	0	2	<b>555</b>
5-9	295	197	3	3	2	7	<b>507</b>
10-15	637	329	3	20	8	49	<b>1,046</b>
16-20	3,808	1,491	9	182	4	73	<b>5,567</b>
21-24	2,160	1,053	49	303	2	39	<b>3,606</b>
25-34	3,262	1,954	138	670	3	82	<b>6,109</b>
35-44	2,624	2,095	208	656	4	61	<b>5,648</b>
45-54	1,900	1,558	194	406	6	41	<b>4,105</b>
55-64	1,401	969	110	173	6	30	<b>2,689</b>
65-74	1,682	756	32	43	11	38	<b>2,562</b>
>74	2,649	639	8	16	12	34	<b>3,358</b>
Unknown	37	15	1	0	0	1	<b>54</b>
<b>Total</b>	<b>20,818</b>	<b>11,243</b>	<b>758</b>	<b>2,472</b>	<b>58</b>	<b>457</b>	<b>35,806</b>
<b>Occupants Injured</b>							
<5	51,000	21,000	*	*	*	*	<b>73,000</b>
5-9	62,000	29,000	*	1,000	3,000	*	<b>95,000</b>
10-15	100,000	45,000	*	2,000	5,000	2,000	<b>155,000</b>
16-20	428,000	122,000	1,000	6,000	2,000	2,000	<b>561,000</b>
21-24	225,000	71,000	3,000	7,000	1,000	*	<b>306,000</b>
25-34	409,000	173,000	9,000	11,000	3,000	1,000	<b>605,000</b>
35-44	310,000	171,000	10,000	13,000	4,000	1,000	<b>509,000</b>
45-54	237,000	116,000	6,000	7,000	2,000	1,000	<b>368,000</b>
55-64	125,000	55,000	3,000	2,000	2,000	*	<b>187,000</b>
65-74	107,000	29,000	*	1,000	*	1,000	<b>138,000</b>
>74	83,000	16,000	*	*	*	*	<b>100,000</b>
<b>Total</b>	<b>2,138,000</b>	<b>847,000</b>	<b>33,000</b>	<b>50,000</b>	<b>22,000</b>	<b>7,000</b>	<b>3,097,000</b>

\*Less than 500.

**Table 69**  
**Vehicle Occupants Killed or Injured, by Age, Person Type, and Sex**

Age (Years)	Person Type											
	Drivers						Passengers					
	Sex				Total		Sex				Total	
	Male		Female				Male		Female			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Occupants Killed</b>												
<5	0	0.0	0	0.0	<b>0</b>	<b>0.0</b>	293	52.8	262	47.2	<b>555</b>	<b>100.0</b>
5-9	4	100.0	0	0.0	<b>4</b>	<b>100.0</b>	266	52.9	237	47.1	<b>503</b>	<b>100.0</b>
10-15	113	78.5	31	21.5	<b>144</b>	<b>100.0</b>	472	52.3	430	47.7	<b>902</b>	<b>100.0</b>
16-20	2,469	70.9	1,012	29.1	<b>3,481</b>	<b>100.0</b>	1,241	59.5	845	40.5	<b>2,086</b>	<b>100.0</b>
21-24	2,013	79.3	525	20.7	<b>2,538</b>	<b>100.0</b>	705	66.0	363	34.0	<b>1,068</b>	<b>100.0</b>
25-34	3,647	76.6	1,117	23.4	<b>4,764</b>	<b>100.0</b>	808	60.1	537	39.9	<b>1,345</b>	<b>100.0</b>
35-44	3,374	73.4	1,220	26.6	<b>4,595</b>	<b>100.0</b>	530	50.3	523	49.7	<b>1,053</b>	<b>100.0</b>
45-54	2,450	73.9	864	26.1	<b>3,315</b>	<b>100.0</b>	323	40.9	466	59.0	<b>790</b>	<b>100.0</b>
55-64	1,507	71.1	613	28.9	<b>2,121</b>	<b>100.0</b>	184	32.4	382	67.3	<b>568</b>	<b>100.0</b>
65-74	1,271	67.6	608	32.4	<b>1,879</b>	<b>100.0</b>	196	28.7	486	71.2	<b>683</b>	<b>100.0</b>
>74	1,583	67.4	764	32.6	<b>2,347</b>	<b>100.0</b>	288	28.5	723	71.5	<b>1,011</b>	<b>100.0</b>
Unknown	18	81.8	1	4.5	<b>22</b>	<b>100.0</b>	18	56.3	14	43.8	<b>32</b>	<b>100.0</b>
<b>Total</b>	<b>18,449</b>	<b>73.2</b>	<b>6,755</b>	<b>26.8</b>	<b>25,210</b>	<b>100.0</b>	<b>5,324</b>	<b>50.2</b>	<b>5,268</b>	<b>49.7</b>	<b>*10,596</b>	<b>100.0</b>
<b>Occupants Injured</b>												
<5	1,000	79.4	**	**	<b>1,000</b>	<b>100.0</b>	34,000	48.8	36,000	51.2	<b>71,000</b>	<b>100.0</b>
5-9	1,000	75.0	**	**	<b>1,000</b>	<b>100.0</b>	44,000	47.4	49,000	52.6	<b>93,000</b>	<b>100.0</b>
10-15	5,000	62.0	3,000	38.0	<b>9,000</b>	<b>100.0</b>	62,000	42.8	83,000	57.2	<b>145,000</b>	<b>100.0</b>
16-20	183,000	51.4	173,000	48.6	<b>356,000</b>	<b>100.0</b>	87,000	42.7	117,000	57.3	<b>204,000</b>	<b>100.0</b>
21-24	109,000	49.7	110,000	50.3	<b>219,000</b>	<b>100.0</b>	40,000	45.9	47,000	54.1	<b>86,000</b>	<b>100.0</b>
25-34	235,000	50.5	231,000	49.5	<b>466,000</b>	<b>100.0</b>	57,000	42.1	78,000	57.9	<b>135,000</b>	<b>100.0</b>
35-44	195,000	48.1	210,000	51.9	<b>406,000</b>	<b>100.0</b>	39,000	38.8	62,000	61.2	<b>102,000</b>	<b>100.0</b>
45-54	142,000	48.7	150,000	51.3	<b>292,000</b>	<b>100.0</b>	24,000	31.8	52,000	68.2	<b>76,000</b>	<b>100.0</b>
55-64	75,000	52.1	69,000	47.9	<b>144,000</b>	<b>100.0</b>	12,000	29.2	29,000	70.8	<b>41,000</b>	<b>100.0</b>
65-74	52,000	53.7	45,000	46.3	<b>97,000</b>	<b>100.0</b>	8,000	20.1	33,000	79.9	<b>41,000</b>	<b>100.0</b>
>74	37,000	52.7	33,000	47.3	<b>70,000</b>	<b>100.0</b>	6,000	21.6	24,000	78.4	<b>30,000</b>	<b>100.0</b>
<b>Total</b>	<b>1,036,000</b>	<b>50.3</b>	<b>1,025,000</b>	<b>49.7</b>	<b>2,061,000</b>	<b>100.0</b>	<b>415,000</b>	<b>40.5</b>	<b>609,000</b>	<b>59.5</b>	<b>1,024,000</b>	<b>100.0</b>

\*Includes 6 drivers and 4 passengers of unknown sex.  
\*\*Less than 500 or less than 0.05 percent.



**Table 70**  
**Vehicle Occupants Killed or Injured, by Vehicle Type and Most Harmful Event**

Vehicle Type	Most Harmful Event								Total	
	Collision with						Noncollision			
	Motor Vehicle in Transport		Object Not Fixed		Fixed Object					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
<b>Occupants Killed</b>										
Passenger Car	11,519	55.3	457	2.2	5,134	24.7	3,698	17.8	<b>20,818</b>	<b>100.0</b>
Light Truck	4,150	36.9	255	2.3	2,300	20.5	4,536	40.3	<b>11,243</b>	<b>100.0</b>
Large Truck	215	28.4	28	3.7	156	20.6	359	47.4	<b>758</b>	<b>100.0</b>
Motorcycle	1,283	51.9	102	4.1	684	27.7	399	16.1	<b>2,472</b>	<b>100.0</b>
Bus	17	29.3	0	0.0	30	51.7	11	19.0	<b>58</b>	<b>100.0</b>
Other/Unknown	168	36.8	23	5.0	106	23.2	136	29.8	<b>457</b>	<b>100.0</b>
<b>Total</b>	<b>17,352</b>	<b>48.5</b>	<b>865</b>	<b>2.4</b>	<b>8,410</b>	<b>23.5</b>	<b>9,139</b>	<b>25.5</b>	<b>*35,806</b>	<b>100.0</b>
<b>Occupants Injured</b>										
Passenger Car	1,729,000	80.9	47,000	2.2	253,000	11.8	108,000	5.0	<b>2,138,000</b>	<b>100.0</b>
Light Truck	626,000	73.9	16,000	1.9	105,000	12.4	100,000	11.8	<b>847,000</b>	<b>100.0</b>
Large Truck	14,000	43.9	1,000	1.6	3,000	10.4	15,000	44.1	<b>33,000</b>	<b>100.0</b>
Motorcycle	26,000	51.0	2,000	3.6	7,000	13.6	16,000	31.7	<b>50,000</b>	<b>100.0</b>
Bus	19,000	85.2	**	**	2,000	9.4	1,000	5.4	<b>22,000</b>	<b>100.0</b>
Other/Unknown	3,000	40.2	**	1.8	1,000	15.9	3,000	42.1	<b>7,000</b>	<b>100.0</b>
<b>Total</b>	<b>2,417,000</b>	<b>78.0</b>	<b>66,000</b>	<b>2.1</b>	<b>371,000</b>	<b>12.0</b>	<b>243,000</b>	<b>7.8</b>	<b>3,097,000</b>	<b>100.0</b>

\*Includes 40 fatalities with unknown most harmful event.

\*\*Less than 500 or less than 0.05 percent.

**Table 71**  
**Vehicle Occupants Killed or Injured, by Initial Point of Impact and Vehicle Type**

Initial Point of Impact	Vehicle Type						Total
	Passenger Cars	Light Trucks	Large Trucks	Motorcycles	Buses	Other/Unknown	
<b>Occupants Killed</b>							
Front	10,821	5,873	457	1,579	37	211	<b>18,978</b>
Left Side	3,786	1,067	38	172	9	34	<b>5,106</b>
Right Side	3,211	1,055	40	197	3	31	<b>4,537</b>
Rear	1,046	479	27	69	3	37	<b>1,661</b>
Other*	468	310	27	56	0	6	<b>867</b>
Noncollision	1,123	2,157	142	246	4	81	<b>3,753</b>
Unknown	363	302	27	153	2	57	<b>904</b>
<b>Total</b>	<b>20,818</b>	<b>11,243</b>	<b>758</b>	<b>2,472</b>	<b>58</b>	<b>457</b>	<b>35,806</b>
<b>Occupants Injured</b>							
Front	1,030,000	386,000	12,000	24,000	9,000	2,000	<b>1,464,000</b>
Left Side	287,000	99,000	2,000	6,000	7,000	**	<b>402,000</b>
Right Side	250,000	93,000	3,000	3,000	2,000	1,000	<b>352,000</b>
Rear	518,000	215,000	4,000	3,000	3,000	2,000	<b>744,000</b>
Other*	9,000	6,000	1,000	**	**	**	<b>17,000</b>
Noncollision	43,000	48,000	10,000	14,000	**	2,000	<b>118,000</b>
<b>Total</b>	<b>2,138,000</b>	<b>847,000</b>	<b>33,000</b>	<b>50,000</b>	<b>22,000</b>	<b>7,000</b>	<b>3,097,000</b>

\*Includes top, undercarriage, override, and underride.

\*\*Less than 500.

**Table 72**  
**Vehicle Occupants Killed or Injured, by Vehicle Type and Ejection**

Vehicle Type	Ejected*		Not Ejected		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Occupants Killed</b>								
Passenger Car	4,267	20.5	16,486	79.2	65	0.3	<b>20,818</b>	<b>100.0</b>
Light Truck	4,590	40.8	6,603	58.7	50	0.4	<b>11,243</b>	<b>100.0</b>
Large Truck	229	30.2	520	68.6	9	1.2	<b>758</b>	<b>100.0</b>
Bus	14	24.1	25	43.1	19	32.8	<b>58</b>	<b>100.0</b>
Other/Unknown	152	33.3	273	59.7	32	7.0	<b>457</b>	<b>100.0</b>
<b>Total**</b>	<b>9,252</b>	<b>27.8</b>	<b>23,907</b>	<b>71.7</b>	<b>175</b>	<b>0.5</b>	<b>33,334</b>	<b>100.0</b>
<b>Occupants Injured</b>								
Passenger Car	12,000	0.6	2,126,000	99.4	****	****	<b>2,138,000</b>	<b>100.0</b>
Light Truck	11,000	1.2	836,000	98.8	****	****	<b>847,000</b>	<b>100.0</b>
Large Truck	1,000	2.0	32,000	98.0	****	****	<b>33,000</b>	<b>100.0</b>
Bus	***	***	22,000	100.0	****	****	<b>22,000</b>	<b>100.0</b>
Other/Unknown	***	5.2	7,000	94.8	****	****	<b>7,000</b>	<b>100.0</b>
<b>Total**</b>	<b>24,000</b>	<b>0.8</b>	<b>3,023,000</b>	<b>99.2</b>	<b>****</b>	<b>****</b>	<b>3,047,000</b>	<b>100.0</b>

\*Includes total and partial ejection.

\*\*Excludes motorcycle occupants.

\*\*\*Less than 500 or less than 0.05 percent.

\*\*\*\*Not applicable.

**Table 73**  
**Occupants Killed or Injured in Two-Vehicle Crashes, by Vehicle Types Involved**

Vehicle Type	Occupants Killed	Vehicle Type	Occupants Killed	Total Occupants Killed
Passenger Car	—	Passenger Car	—	3,585
Passenger Car	4,340	Light Truck	1,086	5,426
Passenger Car	1,995	Large Truck	34	2,029
Passenger Car	12	Motorcycle	557	569
Passenger Car	127	Bus	1	128
Passenger Car	94	Other/Unknown	53	147
Light Truck	—	Light Truck	—	1,592
Light Truck	1,182	Large Truck	33	1,215
Light Truck	3	Motorcycle	460	463
Light Truck	46	Bus	2	48
Light Truck	73	Other/Unknown	61	134
Large Truck	—	Large Truck	—	110
Large Truck	0	Motorcycle	89	89
Large Truck	1	Bus	8	9
Large Truck	3	Other/Unknown	32	35
Motorcycle	—	Motorcycle	—	46
Motorcycle	13	Bus	0	13
Motorcycle	20	Other/Unknown	1	21
Bus	—	Bus	—	1
Bus	0	Other/Unknown	1	1
Other/Unknown	—	Other/Unknown	—	29
<b>Total Occupants Killed</b> .....				<b>15,690</b>
Vehicle Type	Occupants Injured	Vehicle Type	Occupants Injured	Total Occupants Injured
Passenger Car	—	Passenger Car	—	900,000
Passenger Car	491,000	Light Truck	309,000	799,000
Passenger Car	55,000	Large Truck	6,000	62,000
Passenger Car	3,000	Motorcycle	16,000	19,000
Passenger Car	6,000	Bus	11,000	18,000
Passenger Car	3,000	Other/Unknown	2,000	4,000
Light Truck	—	Light Truck	—	200,000
Light Truck	20,000	Large Truck	4,000	24,000
Light Truck	1,000	Motorcycle	8,000	8,000
Light Truck	1,000	Bus	3,000	5,000
Light Truck	1,000	Other/Unknown	1,000	2,000
Large Truck	—	Large Truck	—	4,000
<b>Total Occupants Injured</b> .....				<b>2,047,000</b>

**Table 74**  
**Occupants Involved in Fatal Crashes and Occupant Fatalities, by Vehicle Body Type**

Body Type	Occupants Involved		Occupants Killed		Body Type	Occupants Involved		Occupants Killed	
	No.	%	No.	%		No.	%	No.	%
<b>Passenger Cars</b>	<b>47,406</b>	<b>50.6</b>	<b>20,818</b>	<b>58.1</b>	<b>Large Trucks</b>	<b>5,670</b>	<b>6.1</b>	<b>758</b>	<b>2.1</b>
Convertible	699	0.7	298	0.8	Step Van	42	*	4	*
2 Door Sedan, Hardtop, Coupe	11,401	12.2	5,174	14.5	Single Unit Truck				
3 Door/2 Door Hatchback	4,132	4.4	2,060	5.8	(10,000 lb < GVWR ≤ 19,500 lb)	203	0.2	27	0.1
4 Door Sedan Hardtop	27,734	29.6	11,771	32.9	Single Unit Truck				
5 Door/4 Door Hatchback	1,003	1.1	509	1.4	(19,500 lb < GVWR ≤ 26,000 lb)	287	0.3	44	0.1
Station Wagon	1,803	1.9	784	2.2	Single Unit Heavy Truck				
Hatchback, Doors Unknown	20	*	14	*	(GVWR > 26,000 lb)	1,035	1.1	129	0.4
Other Auto	46	*	18	0.1	Single Unit Truck, Unknown GVWR	100	0.1	13	0.0
Unknown Auto	465	0.5	143	0.4	Truck Tractor	3,945	4.2	536	1.5
Auto-Based Pickup	103	0.1	47	0.1	Unknown Medium Truck				
					(10,000 lb < GVWR ≤ 26,000 lb)	9	*	2	*
<b>Light Trucks</b>	<b>35,052</b>	<b>37.4</b>	<b>11,243</b>	<b>31.4</b>	Unknown Heavy Truck				
Compact Utility	7,135	7.6	2,479	6.9	(GVWR > 26,000 lb)	2	*	0	0.0
Large Utility	1,346	1.4	382	1.1	Unknown Large Truck Type	44	*	2	*
Utility Station Wagon	777	0.8	154	0.4	Unknown Truck	3	*	1	*
Utility, Unknown Body Type	4	*	1	*					
Minivan	5,425	5.8	1,406	3.9	<b>Motorcycles</b>	<b>2,891</b>	<b>3.1</b>	<b>2,472</b>	<b>6.9</b>
Large Van	3,118	3.3	631	1.8	Motorcycle	2,770	3.0	2,362	6.6
Step Van	202	0.2	27	0.1	Moped	38	*	37	0.1
Van-Based School Bus	17	*	1	*	Three Wheel Motorcycle or Moped	2	*	2	*
Van-Based Transit Bus	6	*	1	*	Off-Road Motorcycle (Two Wheel)	53	0.1	45	0.1
Other Van Type	37	*	4	*	Other Motorcycle/Minibike	20	*	18	0.1
Unknown Van Type	81	0.1	8	*	Unknown Motorcycle	8	*	8	*
Compact Pickup	6,082	6.5	2,756	7.7					
Standard Pickup	10,569	11.3	3,319	9.3	<b>Buses**</b>	<b>1,242</b>	<b>1.3</b>	<b>58</b>	<b>0.2</b>
Pickup with Camper	65	0.1	30	0.1	School Bus	469	0.5	8	*
Unknown Pickup Style Truck	68	0.1	20	0.1	Cross Country/Intercity Bus	441	0.5	32	0.1
Cab Chassis-Based Light Truck	93	0.1	15	*	Transit Bus	222	0.2	5	*
Truck-Based Panel Truck	2	*	1	*	Other Bus	57	0.1	4	*
Other Conventional Light Truck	1	*	1	*	Unknown Bus	53	0.1	9	*
Unknown Light Truck (not pickup)	10	*	3	*					
Unknown Light Vehicle Type	11	*	4	*	<b>Other Vehicles</b>	<b>791</b>	<b>0.8</b>	<b>352</b>	<b>1.0</b>
Unknown Truck	3	*	0	0.0	Large Limousine	4	*	0	0.0
					Van-Based Motorhome	122	0.1	25	0.1
					Light Truck-Based Motorhome	8	*	5	*
					Large Truck-Based Motorhome	87	0.1	10	*
					Unknown Truck Camper/Motorhome	47	0.1	5	*
					All Terrain Vehicle	255	0.3	171	0.5
					Snowmobile	54	0.1	39	0.1
					Farm Equipment Except Trucks	130	0.1	50	0.1
					Construction Equipment Except Trucks	22	*	7	*
					Other Vehicle	62	0.1	40	0.1
					<b>Unknown Body Type</b>	<b>644</b>	<b>0.7</b>	<b>105</b>	<b>0.3</b>
					<b>Total</b>	<b>93,696</b>	<b>100.0</b>	<b>35,806</b>	<b>100.0</b>

\*Less than 0.05 percent.

\*\*Noninjured passengers are not included in this bus occupant count. All bus drivers are included, regardless of injury severity.

**Table 75**  
**Passenger Car Occupants Involved in Fatal Crashes and Occupants Killed, by Car Wheelbase Size**

Passenger Car Wheelbase Size	Occupants Involved in Fatal Crashes		Occupants Killed		Percent of Occupants Killed by Car Wheelbase Size
	Number	Percent of Total	Number	Percent of Total	
Minicompact (under 95 inches)	2,286	4.8	1,234	5.9	54.0
Subcompact (95 to 99 inches)	7,768	16.4	3,696	17.8	47.6
Compact (100 to 104 inches)	15,400	32.5	6,967	33.5	45.2
Intermediate (105 to 109 inches)	11,474	24.2	4,743	22.8	41.3
Full Size (110 to 114 inches)	5,481	11.6	2,198	10.6	40.1
Largest Size (115 inches and over)	1,959	4.1	710	3.4	36.2
Unknown	3,038	6.4	1,270	6.1	41.8
<b>Total</b>	<b>47,406</b>	<b>100.0</b>	<b>20,818</b>	<b>100.0</b>	<b>43.9</b>

**Table 76**  
**Persons Killed or Injured in Alcohol-Related Crashes, by Person Type and Injury Severity**

Person Type	Persons Killed*	Persons Injured by Injury Severity**			Total Injured
		Incapacitating	Nonincapacitating	Other	
<b>Vehicle Occupants</b>					
Driver	9,630	42,000	69,000	82,000	<b>193,000</b>
Passenger	3,477	18,000	30,000	48,000	<b>97,000</b>
Unknown Occupant	39	***	***	***	<b>***</b>
<i>Subtotal</i>	<i>13,145</i>	<i>60,000</i>	<i>100,000</i>	<i>130,000</i>	<b><i>290,000</i></b>
<b>Nonmotorists</b>					
Pedestrian	2,325	4,000	4,000	4,000	<b>13,000</b>
Pedalcyclist	286	1,000	2,000	1,000	<b>4,000</b>
Other/Unknown	31	***	***	***	<b>***</b>
<i>Subtotal</i>	<i>2,641</i>	<i>5,000</i>	<i>6,000</i>	<i>6,000</i>	<b><i>17,000</i></b>
<b>Total</b>	<b>15,786</b>	<b>66,000</b>	<b>106,000</b>	<b>136,000</b>	<b>308,000</b>

\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater in the crash. NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

\*\*Police-reported alcohol involvement in the crash.

\*\*\*Less than 500.

**Table 77**  
**Drivers Involved in Crashes by Age, Alcohol Involvement, and Crash Severity**

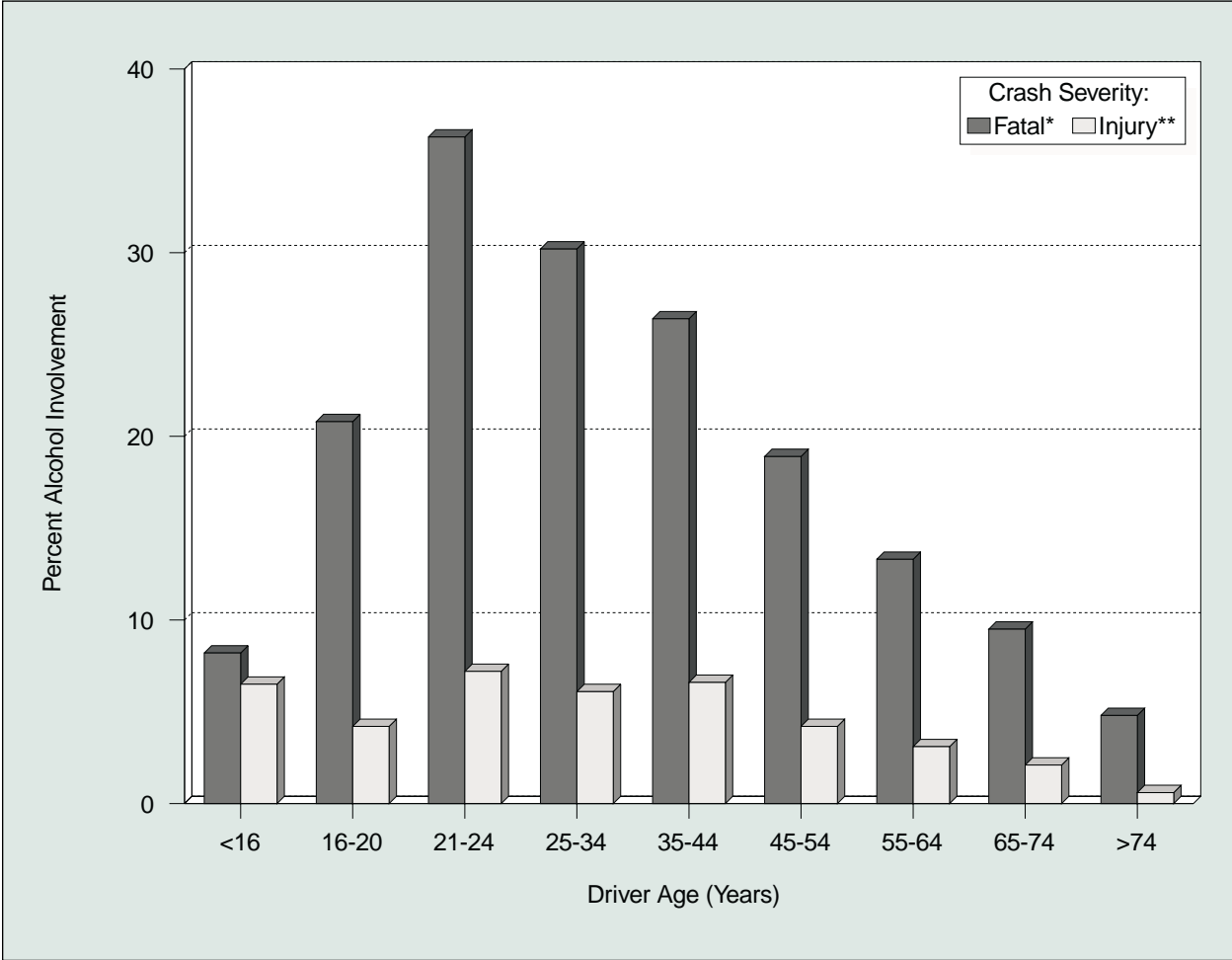
Age (Years)	Alcohol Involvement				Total	
	Yes		No			
	Number	Percent	Number	Percent	Number	Percent
<b>Drivers in Fatal Crashes*</b>						
<16	27	8	305	92	332	100
16-20	1,660	21	6,313	79	7,973	100
21-24	2,039	36	3,581	64	5,620	100
25-34	3,544	30	8,190	70	11,734	100
35-44	2,912	26	8,111	74	11,023	100
45-54	1,455	19	6,245	81	7,700	100
55-64	613	13	3,979	87	4,592	100
65-74	306	10	2,922	91	3,228	100
>74	160	5	3,171	95	3,331	100
Unknown	330	40	489	60	819	100
<b>Total</b>	<b>13,047</b>	<b>23</b>	<b>43,305</b>	<b>77</b>	<b>56,352</b>	<b>100</b>
<b>Drivers in Injury Crashes**</b>						
<16	2,000	6	23,000	94	24,000	100
16-20	27,000	4	622,000	96	649,000	100
21-24	28,000	7	365,000	93	393,000	100
25-34	52,000	6	805,000	94	858,000	100
35-44	49,000	7	705,000	93	754,000	100
45-54	22,000	4	503,000	96	526,000	100
55-64	8,000	3	262,000	97	270,000	100
65-74	4,000	2	169,000	98	173,000	100
>74	1,000	1	120,000	99	121,000	100
<b>Total</b>	<b>194,000</b>	<b>5</b>	<b>3,573,000</b>	<b>95</b>	<b>3,767,000</b>	<b>100</b>
<b>Drivers in Property-Damage-Only Crashes**</b>						
<16	9,000	15	52,000	85	61,000	100
16-20	41,000	3	1,240,000	97	1,281,000	100
21-24	26,000	4	706,000	96	733,000	100
25-34	72,000	4	1,641,000	96	1,713,000	100
35-44	50,000	3	1,447,000	97	1,496,000	100
45-54	30,000	3	989,000	97	1,019,000	100
55-64	10,000	2	529,000	98	539,000	100
65-74	5,000	2	308,000	98	313,000	100
>74	1,000	1	213,000	99	214,000	100
<b>Total</b>	<b>245,000</b>	<b>3</b>	<b>7,125,000</b>	<b>97</b>	<b>7,370,000</b>	<b>100</b>

\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater. NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

\*\*Police-reported alcohol involvement.



Figure 26  
Percent of Driver Alcohol Involvement for Fatal and Injury Crashes



\*For fatal crashes, alcohol involvement is a blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater.

\*\*For injury crashes, alcohol involvement is police-reported alcohol involvement.

**Table 78**  
**Drivers Killed or Injured, by Time of Day, Day of Week, Age, Alcohol Involvement, and Crash Type**

Time of Day and Day of Week	Killed*				Injured**			
	Under 21		21 and Older		Under 21		21 and Older	
	Number Killed	Percent with Alcohol Involvement	Number Killed	Percent with Alcohol Involvement	Number Injured	Percent with Alcohol Involvement	Number Injured	Percent with Alcohol Involvement
<b>Single-Vehicle Crashes</b>								
<b>Daytime</b>	<b>745</b>	<b>14</b>	<b>4,147</b>	<b>27</b>	<b>56,000</b>	<b>4</b>	<b>156,000</b>	<b>9</b>
Weekday	462	9	2,766	21	39,000	2	106,000	7
Weekend	283	23	1,381	38	17,000	6	50,000	13
<b>Nighttime</b>	<b>1,289</b>	<b>54</b>	<b>5,686</b>	<b>71</b>	<b>62,000</b>	<b>21</b>	<b>148,000</b>	<b>38</b>
Weekday	560	48	2,578	65	29,000	19	71,000	32
Weekend	729	58	3,108	75	33,000	24	77,000	43
<b>Multiple-Vehicle Crashes</b>								
<b>Daytime</b>	<b>900</b>	<b>6</b>	<b>7,533</b>	<b>10</b>	<b>174,000</b>	<b>1</b>	<b>1,070,000</b>	<b>1</b>
Weekday	673	4	5,728	8	141,000	***	869,000	1
Weekend	227	12	1,804	15	32,000	3	201,000	2
<b>Nighttime</b>	<b>663</b>	<b>26</b>	<b>3,974</b>	<b>39</b>	<b>75,000</b>	<b>3</b>	<b>321,000</b>	<b>7</b>
Weekday	296	21	1,939	33	36,000	2	173,000	5
Weekend	367	31	2,035	44	38,000	3	148,000	10

\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater. NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

\*\*Police-reported alcohol involvement.

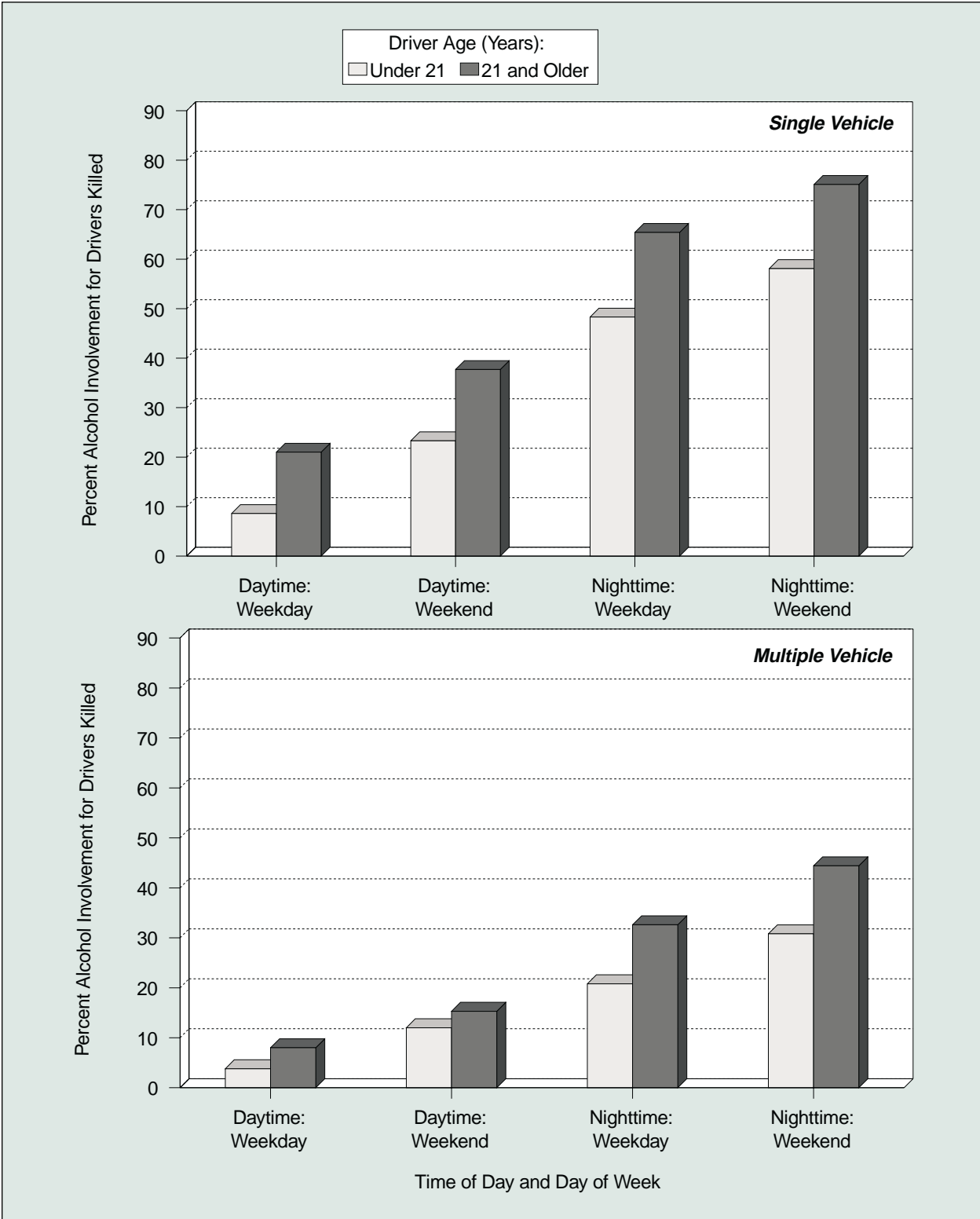
\*\*\*Less than 0.5 percent.

**Table 79**  
**Drivers Killed in Crashes, by Age and Driver's Blood Alcohol Concentration (BAC)**

Age (Years)	Driver's BAC								Total	
	0.00		0.01-0.09		0.10 or Higher		0.01 and Higher			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<16	133	90	8	6	6	4	15	10	<b>148</b>	<b>100</b>
16-20	2,455	71	275	8	750	22	1,026	29	<b>3,481</b>	<b>100</b>
21-24	1,257	50	266	10	1,015	40	1,281	50	<b>2,538</b>	<b>100</b>
25-34	2,468	52	355	7	1,940	41	2,296	48	<b>4,764</b>	<b>100</b>
35-44	2,537	55	294	6	1,764	38	2,058	45	<b>4,595</b>	<b>100</b>
45-54	2,236	67	207	6	872	26	1,079	33	<b>3,315</b>	<b>100</b>
55-64	1,665	79	103	5	353	17	456	21	<b>2,121</b>	<b>100</b>
65-74	1,635	87	71	4	173	9	244	13	<b>1,879</b>	<b>100</b>
>74	2,215	94	53	2	79	3	132	6	<b>2,347</b>	<b>100</b>
Unknown	13	61	2	9	7	30	9	39	<b>22</b>	<b>100</b>
<b>Total</b>	<b>16,616</b>	<b>66</b>	<b>1,635</b>	<b>6</b>	<b>6,960</b>	<b>28</b>	<b>8,594</b>	<b>34</b>	<b>25,210</b>	<b>100</b>

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Figure 27**  
**Alcohol Involvement (BAC ≥ 0.01) for Drivers Killed, by Driver Age, Crash Type, Time of Day, and Day of Week**



**Table 80**  
**Drivers Involved in Crashes by Vehicle Type, Alcohol Involvement, and Crash Severity**

Vehicle Type	Alcohol Involvement				Total	
	Yes		No			
	Number	Percent	Number	Percent	Number	Percent
<b>Drivers in Fatal Crashes*</b>						
Passenger Car	6,514	23	21,292	77	<b>27,806</b>	<b>100</b>
Light Truck	5,097	26	14,704	74	<b>19,801</b>	<b>100</b>
Large Truck	104	2	4,743	98	<b>4,847</b>	<b>100</b>
Motorcycle	951	38	1,564	62	<b>2,515</b>	<b>100</b>
Bus	2	1	315	99	<b>317</b>	<b>100</b>
Other/Unknown	378	36	688	64	<b>1,066</b>	<b>100</b>
<b>Total</b>	<b>13,047</b>	<b>23</b>	<b>43,305</b>	<b>77</b>	<b>56,352</b>	<b>100</b>
<b>Drivers in Injury Crashes**</b>						
Passenger Car	120,000	5	2,314,000	95	<b>2,434,000</b>	<b>100</b>
Light Truck	69,000	6	1,095,000	94	<b>1,164,000</b>	<b>100</b>
Large Truck	1,000	1	99,000	99	<b>100,000</b>	<b>100</b>
Motorcycle	4,000	9	42,000	91	<b>46,000</b>	<b>100</b>
Bus	***	***	14,000	100	<b>14,000</b>	<b>100</b>
Other/Unknown	1,000	7	8,000	93	<b>9,000</b>	<b>100</b>
<b>Total</b>	<b>194,000</b>	<b>5</b>	<b>3,573,000</b>	<b>95</b>	<b>3,767,000</b>	<b>100</b>
<b>Drivers in Property-Damage-Only Crashes**</b>						
Passenger Car	156,000	4	4,295,000	96	<b>4,451,000</b>	<b>100</b>
Light Truck	84,000	3	2,397,000	97	<b>2,481,000</b>	<b>100</b>
Large Truck	4,000	1	363,000	99	<b>366,000</b>	<b>100</b>
Motorcycle	***	4	10,000	96	<b>10,000</b>	<b>100</b>
Bus	***	***	47,000	100	<b>47,000</b>	<b>100</b>
Other/Unknown	***	2	14,000	98	<b>14,000</b>	<b>100</b>
<b>Total</b>	<b>245,000</b>	<b>3</b>	<b>7,125,000</b>	<b>97</b>	<b>7,370,000</b>	<b>100</b>

\*Blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or greater. NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

\*\*Police-reported alcohol involvement.

\*\*\*Less than 500 or less than 0.5 percent.

**Table 81**  
**Persons Killed, by Age and Highest Blood Alcohol Concentration (BAC) in the Crash**

Age (Years)	Highest BAC in Crash								Total	
	0.00		0.01-0.09		0.10 or Higher		0.01 and Higher			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<5	578	79	56	8	99	13	155	21	733	100
5-9	643	81	58	7	93	12	152	19	795	100
10-15	1,085	77	112	8	207	15	318	23	1,403	100
16-20	3,792	64	629	11	1,496	25	2,125	36	5,917	100
21-24	1,777	46	455	12	1,652	43	2,107	54	3,884	100
25-34	3,214	47	651	10	2,956	43	3,607	53	6,821	100
35-44	3,304	49	554	8	2,861	43	3,415	51	6,719	100
45-54	2,982	61	375	8	1,551	32	1,926	39	4,908	100
55-64	2,292	71	228	7	714	22	943	29	3,235	100
65-74	2,473	81	172	6	418	14	590	19	3,063	100
>74	3,625	90	165	4	235	6	400	10	4,025	100
Unknown	60	55	10	9	39	36	48	45	108	100
<b>Total</b>	<b>25,825</b>	<b>62</b>	<b>3,466</b>	<b>8</b>	<b>12,321</b>	<b>30</b>	<b>15,786</b>	<b>38</b>	<b>41,611</b>	<b>100</b>

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 82**  
**Pedestrians Killed, by Pedestrian's and Driver's Blood Alcohol Concentration (BAC)**

Pedestrian's BAC	Driver's BAC						Total	
	0.00		0.01-0.09		0.10 or Higher			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.00	2,594	54	144	3	276	6	3,015	62
0.01-0.09	229	5	27	1	57	1	313	6
0.10 or Higher	1,128	23	130	3	249	5	1,507	31
<b>Total*</b>	<b>3,951</b>	<b>82</b>	<b>301</b>	<b>6</b>	<b>583</b>	<b>12</b>	<b>4,835</b>	<b>100</b>

\*Does not include pedestrians in hit and run crashes.

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 83**  
**Drivers Involved in Crashes by Vehicle Type, Restraint Use, and Crash Severity**

Vehicle Type	Restraint Use						Total	
	Used		Not Used		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Drivers in Fatal Crashes</b>								
Passenger Car	15,167	54.5	9,773	35.1	2,866	10.3	<b>27,806</b>	<b>100.0</b>
Light Truck	10,256	51.8	7,870	39.7	1,675	8.5	<b>19,801</b>	<b>100.0</b>
Large Truck	3,398	70.1	909	18.8	540	11.1	<b>4,847</b>	<b>100.0</b>
Bus	234	73.8	45	14.2	38	12.0	<b>317</b>	<b>100.0</b>
Other/Unknown	178	16.7	392	36.8	496	46.5	<b>1,066</b>	<b>100.0</b>
<b>Total*</b>	<b>29,233</b>	<b>54.3</b>	<b>18,989</b>	<b>35.3</b>	<b>5,615</b>	<b>10.4</b>	<b>53,837</b>	<b>100.0</b>
<b>Drivers in Injury Crashes</b>								
Passenger Car	1,961,000	80.6	193,000	7.9	281,000	11.5	<b>2,434,000</b>	<b>100.0</b>
Light Truck	936,000	80.4	100,000	8.6	128,000	11.0	<b>1,164,000</b>	<b>100.0</b>
Large Truck	71,000	70.5	9,000	9.3	20,000	20.2	<b>100,000</b>	<b>100.0</b>
Bus	11,000	77.5	1,000	7.8	2,000	14.7	<b>14,000</b>	<b>100.0</b>
Other/Unknown	3,000	33.8	5,000	56.0	1,000	10.1	<b>9,000</b>	<b>100.0</b>
<b>Total*</b>	<b>2,981,000</b>	<b>80.1</b>	<b>308,000</b>	<b>8.3</b>	<b>432,000</b>	<b>11.6</b>	<b>3,721,000</b>	<b>100.0</b>
<b>Drivers in Property-Damage-Only Crashes</b>								
Passenger Car	3,599,000	80.9	141,000	3.2	711,000	16.0	<b>4,451,000</b>	<b>100.0</b>
Light Truck	2,039,000	82.2	95,000	3.8	348,000	14.0	<b>2,481,000</b>	<b>100.0</b>
Large Truck	236,000	64.3	18,000	5.0	112,000	30.7	<b>366,000</b>	<b>100.0</b>
Bus	36,000	75.6	2,000	4.2	10,000	20.2	<b>47,000</b>	<b>100.0</b>
Other/Unknown	7,000	50.5	4,000	25.4	3,000	24.1	<b>14,000</b>	<b>100.0</b>
<b>Total*</b>	<b>5,916,000</b>	<b>80.4</b>	<b>260,000</b>	<b>3.5</b>	<b>1,184,000</b>	<b>16.1</b>	<b>7,360,000</b>	<b>100.0</b>
<b>Drivers in All Crashes</b>								
Passenger Car	5,575,000	80.6	344,000	5.0	994,000	14.4	<b>6,913,000</b>	<b>100.0</b>
Light Truck	2,985,000	81.4	203,000	5.5	478,000	13.0	<b>3,665,000</b>	<b>100.0</b>
Large Truck	310,000	65.7	28,000	6.0	133,000	28.3	<b>471,000</b>	<b>100.0</b>
Bus	47,000	76.0	3,000	5.1	12,000	18.9	<b>62,000</b>	<b>100.0</b>
Other/Unknown	10,000	42.7	9,000	37.4	5,000	19.9	<b>24,000</b>	<b>100.0</b>
<b>Total*</b>	<b>8,926,000</b>	<b>80.2</b>	<b>587,000</b>	<b>5.3</b>	<b>1,621,000</b>	<b>14.6</b>	<b>11,135,000</b>	<b>100.0</b>

\*Excludes motorcycle drivers.

Note: Restraint use is determined by police and may be overreported for survivors.

**Table 84**  
**Passenger Car, Light Truck, and Large Truck Occupants Killed or Injured,**  
**by Age and Restraint Use**

Age (Years)	Restraint Use						Total	
	Used		Not Used		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Occupants Killed</b>								
<5	241	43.6	272	49.2	40	7.2	<b>553</b>	<b>100.0</b>
5-9	179	36.2	273	55.2	43	8.7	<b>495</b>	<b>100.0</b>
10-15	252	26.0	644	66.5	73	7.5	<b>969</b>	<b>100.0</b>
16-20	1,535	28.9	3,320	62.5	453	8.5	<b>5,308</b>	<b>100.0</b>
21-24	834	25.6	2,125	65.1	303	9.3	<b>3,262</b>	<b>100.0</b>
25-34	1,381	25.8	3,523	65.8	450	8.4	<b>5,354</b>	<b>100.0</b>
35-44	1,449	29.4	3,073	62.4	405	8.2	<b>4,927</b>	<b>100.0</b>
45-54	1,304	35.7	2,048	56.1	300	8.2	<b>3,652</b>	<b>100.0</b>
55-64	1,051	42.4	1,189	47.9	240	9.7	<b>2,480</b>	<b>100.0</b>
65-74	1,219	49.4	1,042	42.2	209	8.5	<b>2,470</b>	<b>100.0</b>
>74	1,830	55.5	1,206	36.6	260	7.9	<b>3,296</b>	<b>100.0</b>
Unknown	14	26.4	26	49.1	13	24.5	<b>53</b>	<b>100.0</b>
<b>Total</b>	<b>11,289</b>	<b>34.4</b>	<b>18,741</b>	<b>57.1</b>	<b>2,789</b>	<b>8.5</b>	<b>32,819</b>	<b>100.0</b>
<b>Occupants Injured</b>								
<5	55,000	76.2	11,000	15.0	6,000	8.8	<b>72,000</b>	<b>100.0</b>
5-9	69,000	75.5	14,000	15.7	8,000	8.8	<b>92,000</b>	<b>100.0</b>
10-15	101,000	69.2	36,000	25.0	9,000	5.8	<b>146,000</b>	<b>100.0</b>
16-20	393,000	71.4	113,000	20.5	44,000	8.1	<b>550,000</b>	<b>100.0</b>
21-24	228,000	76.3	51,000	17.1	20,000	6.6	<b>299,000</b>	<b>100.0</b>
25-34	457,000	77.3	78,000	13.2	56,000	9.5	<b>591,000</b>	<b>100.0</b>
35-44	396,000	80.6	55,000	11.3	40,000	8.1	<b>491,000</b>	<b>100.0</b>
45-54	298,000	83.2	37,000	10.3	23,000	6.5	<b>358,000</b>	<b>100.0</b>
55-64	156,000	85.3	14,000	7.6	13,000	7.1	<b>183,000</b>	<b>100.0</b>
65-74	114,000	83.2	9,000	6.9	14,000	9.9	<b>137,000</b>	<b>100.0</b>
>74	82,000	82.6	9,000	9.5	8,000	7.9	<b>99,000</b>	<b>100.0</b>
<b>Total</b>	<b>2,348,000</b>	<b>77.8</b>	<b>429,000</b>	<b>14.2</b>	<b>240,000</b>	<b>8.0</b>	<b>3,017,000</b>	<b>100.0</b>

Note: Restraint use is determined by police and may be overreported for survivors.

**Table 85**  
**Passenger Car, Light Truck, or Large Truck Occupant Survivors of Fatal Crashes**  
**by Age and Restraint Use**

Age (Years)	Restraint Use						Total	
	Used		Not Used		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<5	1,593	74.3	454	21.2	98	4.6	<b>2,145</b>	<b>100.0</b>
5-9	1,258	59.4	676	31.9	183	8.6	<b>2,117</b>	<b>100.0</b>
10-15	1,707	49.5	1,464	42.5	276	8.0	<b>3,447</b>	<b>100.0</b>
16-20	4,738	49.4	3,997	41.7	847	8.8	<b>9,582</b>	<b>100.0</b>
21-24	2,772	51.5	2,070	38.5	538	10.0	<b>5,380</b>	<b>100.0</b>
25-34	6,215	61.5	2,924	28.9	973	9.6	<b>10,112</b>	<b>100.0</b>
35-44	5,745	67.7	1,964	23.2	774	9.1	<b>8,483</b>	<b>100.0</b>
45-54	4,107	73.2	1,041	18.5	465	8.3	<b>5,613</b>	<b>100.0</b>
55-64	2,502	76.1	534	16.3	250	7.6	<b>3,286</b>	<b>100.0</b>
65-74	1,595	78.6	300	14.8	134	6.6	<b>2,029</b>	<b>100.0</b>
>74	1,205	75.1	267	16.6	133	8.3	<b>1,605</b>	<b>100.0</b>
Unknown	332	22.0	340	22.5	838	55.5	<b>1,510</b>	<b>100.0</b>
<b>Total</b>	<b>33,769</b>	<b>61.1</b>	<b>16,031</b>	<b>29.0</b>	<b>5,509</b>	<b>10.0</b>	<b>55,309</b>	<b>100.0</b>

Note: Restraint use is determined by police and may be overreported for survivors.



**Table 86**  
**Passenger Car Occupants Killed or Injured, by Seating Position and Restraint Use**

Seating Position	Restraint Use						Total	
	Used		Not Used		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Passenger Car Occupants Killed</b>								
<b>Front Seat</b>	<b>7,877</b>	<b>42.1</b>	<b>9,178</b>	<b>49.1</b>	<b>1,634</b>	<b>8.7</b>	<b>18,689</b>	<b>100.0</b>
Left	5,902	41.7	7,002	49.4	1,258	8.9	14,162	100.0
Middle	5	8.2	49	80.3	7	11.5	61	100.0
Right	1,970	44.2	2,116	47.5	367	8.2	4,453	100.0
Other/Unknown	0	0.0	11	84.6	2	15.4	13	100.0
<b>Second Seat</b>	<b>466</b>	<b>24.5</b>	<b>1,264</b>	<b>66.5</b>	<b>170</b>	<b>8.9</b>	<b>1,900</b>	<b>100.0</b>
Left	196	26.9	474	65.1	58	8.0	728	100.0
Middle	54	18.9	212	74.1	20	7.0	286	100.0
Right	210	25.3	534	64.3	87	10.5	831	100.0
Other/Unknown	6	10.9	44	80.0	5	9.1	55	100.0
<b>Other</b>	<b>1</b>	<b>2.6</b>	<b>34</b>	<b>87.2</b>	<b>4</b>	<b>10.3</b>	<b>39</b>	<b>100.0</b>
<b>Unknown</b>	<b>8</b>	<b>4.2</b>	<b>117</b>	<b>61.6</b>	<b>65</b>	<b>34.2</b>	<b>190</b>	<b>100.0</b>
<b>Total</b>	<b>8,352</b>	<b>40.1</b>	<b>10,593</b>	<b>50.9</b>	<b>1,873</b>	<b>9.0</b>	<b>20,818</b>	<b>100.0</b>
<b>Passenger Car Occupants Injured</b>								
<b>Front Seat</b>	<b>1,534,000</b>	<b>80.3</b>	<b>225,000</b>	<b>11.8</b>	<b>152,000</b>	<b>7.9</b>	<b>1,912,000</b>	<b>100.0</b>
Left	1,174,000	81.3	152,000	10.6	118,000	8.2	1,444,000	100.0
Middle	9,000	67.1	3,000	23.9	1,000	8.9	13,000	100.0
Right	352,000	77.4	70,000	15.4	33,000	7.2	454,000	100.0
<b>Second Seat</b>	<b>147,000</b>	<b>66.3</b>	<b>55,000</b>	<b>25.0</b>	<b>19,000</b>	<b>8.7</b>	<b>221,000</b>	<b>100.0</b>
Left	54,000	67.5	19,000	23.0	8,000	9.5	80,000	100.0
Middle	19,000	60.7	9,000	29.7	3,000	9.6	32,000	100.0
Right	73,000	67.1	27,000	25.0	9,000	7.9	109,000	100.0
<b>Other</b>	<b>3,000</b>	<b>57.4</b>	<b>2,000</b>	<b>39.8</b>	*	<b>2.7</b>	<b>5,000</b>	<b>100.0</b>
<b>Total</b>	<b>1,684,000</b>	<b>78.8</b>	<b>282,000</b>	<b>13.2</b>	<b>171,000</b>	<b>8.0</b>	<b>2,138,000</b>	<b>100.0</b>

\*Less than 500.

Note: Restraint use is determined by police and may be overreported for survivors.

**Table 87**  
**Light Truck Occupants Killed or Injured, by Seating Position and Restraint Use**

Seating Position	Restraint Use						Total	
	Used		Not Used		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Light Truck Occupants Killed</b>								
<b>Front Seat</b>	<b>2,533</b>	<b>25.6</b>	<b>6,693</b>	<b>67.7</b>	<b>664</b>	<b>6.7</b>	<b>9,890</b>	<b>100.0</b>
Left	1,933	24.9	5,289	68.1	543	7.0	7,765	100.0
Middle	9	6.4	129	91.5	3	2.1	141	100.0
Right	591	30.0	1,266	64.2	116	5.9	1,973	100.0
Other/Unknown	0	0.0	9	81.8	2	18.2	11	100.0
<b>Second Seat</b>	<b>177</b>	<b>22.3</b>	<b>552</b>	<b>69.4</b>	<b>66</b>	<b>8.3</b>	<b>795</b>	<b>100.0</b>
Left	72	25.8	177	63.4	30	10.8	279	100.0
Middle	25	17.6	110	77.5	7	4.9	142	100.0
Right	75	22.7	228	69.1	27	8.2	330	100.0
Other/Unknown	5	11.4	37	84.1	2	4.5	44	100.0
<b>Other</b>	<b>31</b>	<b>7.3</b>	<b>381</b>	<b>89.6</b>	<b>13</b>	<b>3.1</b>	<b>425</b>	<b>100.0</b>
<b>Unknown</b>	<b>8</b>	<b>6.0</b>	<b>98</b>	<b>73.7</b>	<b>27</b>	<b>20.3</b>	<b>133</b>	<b>100.0</b>
<b>Total</b>	<b>2,749</b>	<b>24.5</b>	<b>7,724</b>	<b>68.7</b>	<b>770</b>	<b>6.8</b>	<b>11,243</b>	<b>100.0</b>
<b>Light Truck Occupants Injured</b>								
<b>Front Seat</b>	<b>589,000</b>	<b>77.0</b>	<b>115,000</b>	<b>15.1</b>	<b>60,000</b>	<b>7.9</b>	<b>764,000</b>	<b>100.0</b>
Left	442,000	78.2	76,000	13.5	47,000	8.3	565,000	100.0
Middle	11,000	63.2	6,000	33.3	1,000	3.5	18,000	100.0
Right	135,000	74.7	33,000	18.3	13,000	7.1	181,000	100.0
<b>Second Seat</b>	<b>50,000</b>	<b>74.7</b>	<b>13,000</b>	<b>18.9</b>	<b>4,000</b>	<b>6.4</b>	<b>67,000</b>	<b>100.0</b>
Left	19,000	78.3	3,000	14.3	2,000	7.4	24,000	100.0
Middle	9,000	71.4	3,000	21.4	1,000	7.3	12,000	100.0
Right	23,000	73.2	7,000	21.5	2,000	5.3	31,000	100.0
<b>Other</b>	<b>5,000</b>	<b>32.5</b>	<b>10,000</b>	<b>61.9</b>	<b>1,000</b>	<b>5.6</b>	<b>15,000</b>	<b>100.0</b>
<b>Total</b>	<b>644,000</b>	<b>76.0</b>	<b>138,000</b>	<b>16.2</b>	<b>65,000</b>	<b>7.7</b>	<b>847,000</b>	<b>100.0</b>

Note: Restraint use is determined by police and may be overreported for survivors.

**Table 88**  
**Passenger Car and Light Truck Occupants Killed and Injured,**  
**by Restraint Use and Type of Restraint**

Restraint Use and Type of Restraint	Vehicle Type			
	Passenger Car		Light Truck	
	Number	Percent	Number	Percent
<b>Occupants Killed</b>				
Restraint Used				
Lap/Shoulder Belt	5,299	25.5	1,912	17.0
Lap Belt	256	1.2	128	1.1
Shoulder Belt	245	1.2	12	0.1
Child Safety Seat	139	0.7	49	0.4
Type Unknown	471	2.3	123	1.1
Restraint Used, Airbag Deployed	1,885	9.1	504	4.5
Safety Belt Used Improperly	57	0.3	21	0.2
<i>Subtotal</i>	<i>8,352</i>	<i>40.1</i>	<i>2,749</i>	<i>24.5</i>
No Restraint Used	8,835	42.4	6,947	61.8
No Restraint Used, Airbag Deployed	1,731	8.3	758	6.7
Child Safety Seat Used Improperly	27	0.1	19	0.2
Restraint Use Unknown	1,873	9.0	770	6.8
<b>Total</b>	<b>20,818</b>	<b>100.0</b>	<b>11,243</b>	<b>100.0</b>
<b>Occupants Injured</b>				
Restraint Used				
Lap/Shoulder Belt	1,222,000	57.1	496,000	58.5
Lap Belt	66,000	3.1	28,000	3.3
Shoulder Belt	17,000	0.8	2,000	0.2
Child Safety Seat	25,000	1.2	11,000	1.3
Type Unknown	134,000	6.3	50,000	5.9
Restraint Used, Airbag Deployed	219,000	10.2	57,000	6.8
<i>Subtotal</i>	<i>1,684,000</i>	<i>78.8</i>	<i>644,000</i>	<i>76.0</i>
No Restraint Used	262,000	12.2	129,000	15.2
No Restraint Used, Airbag Deployed	21,000	1.0	9,000	1.0
Restraint Use Unknown	171,000	8.0	65,000	7.7
<b>Total</b>	<b>2,138,000</b>	<b>100.0</b>	<b>847,000</b>	<b>100.0</b>

Note: Restraint use is determined by police and may be overreported for survivors.

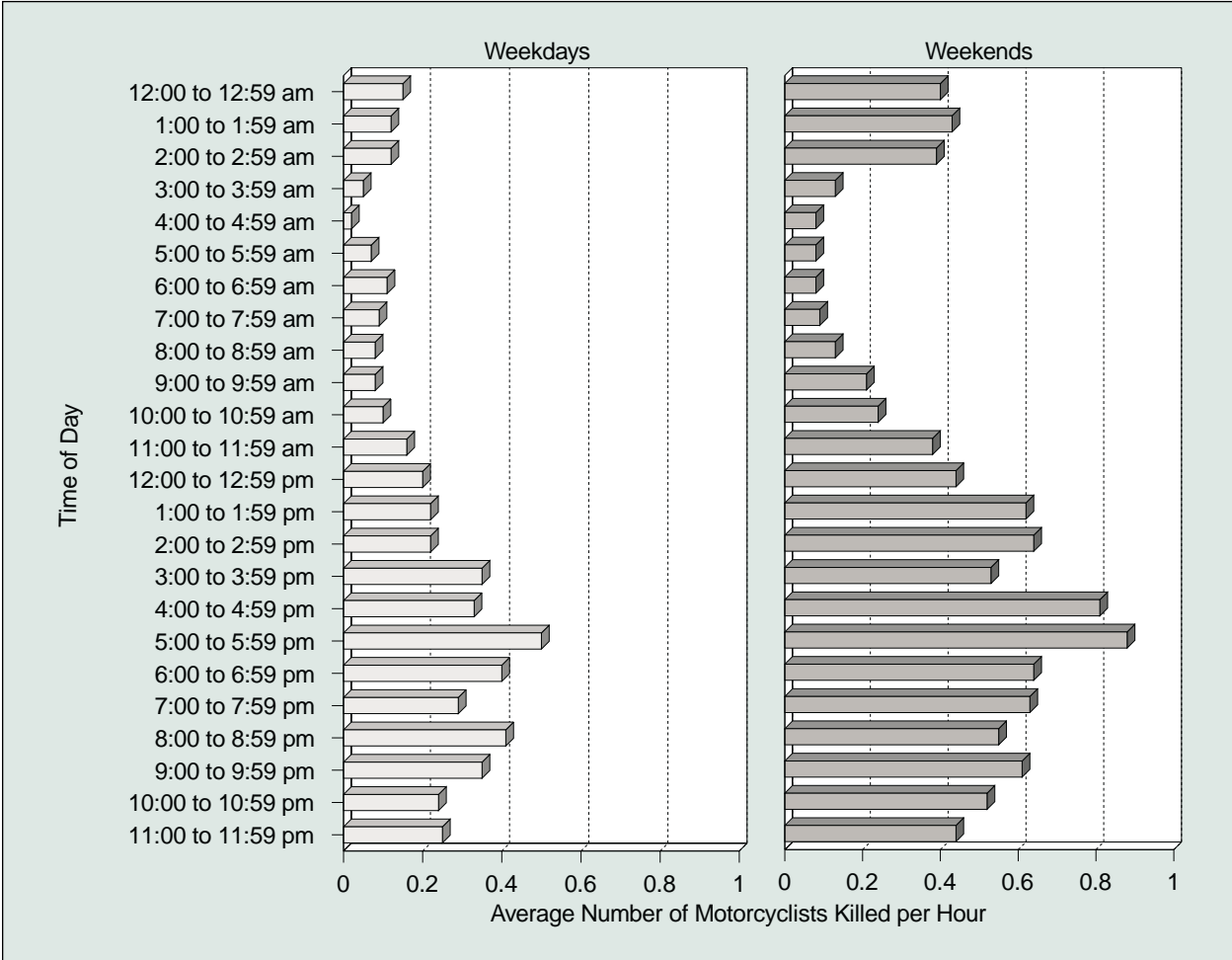
**Table 89**  
**Motorcycle Occupants Killed or Injured, by Time of Day and Day of Week**

Time of Day	Day of Week				Total	
	Weekday		Weekend			
	Number	Percent	Number	Percent	Number	Percent
<b>Motorcycle Occupants Killed</b>						
Midnight to 3 am	82	7.1	191	14.6	<b>273</b>	<b>11.0</b>
3 am to 6 am	28	2.4	46	3.5	<b>74</b>	<b>3.0</b>
6 am to 9 am	76	6.6	31	2.4	<b>107</b>	<b>4.3</b>
9 am to Noon	91	7.9	87	6.7	<b>179</b>	<b>7.2</b>
Noon to 3 pm	168	14.5	177	13.5	<b>345</b>	<b>14.0</b>
3 pm to 6 pm	308	26.6	230	17.6	<b>538</b>	<b>21.8</b>
6 pm to 9 pm	230	19.9	285	21.8	<b>515</b>	<b>20.8</b>
9 pm to Midnight	173	14.9	246	18.8	<b>419</b>	<b>16.9</b>
Unknown	2	0.2	14	1.1	<b>22</b>	<b>0.9</b>
<b>Total</b>	<b>1,158</b>	<b>100.0</b>	<b>1,307</b>	<b>100.0</b>	<b>*2,472</b>	<b>100.0</b>
<b>Motorcycle Occupants Injured</b>						
Midnight to 3 am	1,000	2.4	2,000	6.7	<b>2,000</b>	<b>4.4</b>
3 am to 6 am	1,000	2.1	**	1.0	<b>1,000</b>	<b>1.6</b>
6 am to 9 am	2,000	9.0	1,000	2.5	<b>3,000</b>	<b>6.0</b>
9 am to Noon	3,000	11.0	2,000	8.5	<b>5,000</b>	<b>9.8</b>
Noon to 3 pm	5,000	17.6	5,000	21.4	<b>10,000</b>	<b>19.4</b>
3 pm to 6 pm	7,000	27.3	6,000	23.5	<b>13,000</b>	<b>25.5</b>
6 pm to 9 pm	5,000	20.0	6,000	23.8	<b>11,000</b>	<b>21.8</b>
9 pm to Midnight	3,000	10.6	3,000	12.7	<b>6,000</b>	<b>11.6</b>
<b>Total</b>	<b>26,000</b>	<b>100.0</b>	<b>24,000</b>	<b>100.0</b>	<b>50,000</b>	<b>100.0</b>

\*Includes 7 motorcycle operators killed on unknown day of week.

\*\*Less than 500.

**Figure 28**  
**Average Number of Motorcyclists Killed per Hour by Time of Day and Day of Week**



**Table 90**  
**Motorcyclists Killed, by Person Type and Helmet Use**

Person Type	Helmet Use						Total	
	Used		Not Used		Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Operators	1,211	53.2	981	43.1	84	3.7	<b>2,276</b>	<b>100.0</b>
Passengers	89	45.4	101	51.5	6	3.1	<b>196</b>	<b>100.0</b>
<b>Total</b>	<b>1,300</b>	<b>52.6</b>	<b>1,082</b>	<b>43.8</b>	<b>90</b>	<b>3.6</b>	<b>2,472</b>	<b>100.0</b>

**Table 91**  
**Motorcycle Operators Involved in Fatal Crashes by Age and License Compliance**

Age (Years)	License Compliance					Total
	Not Licensed	No Motorcycle License Required	No Valid Motorcycle License	Valid Motorcycle License	Unknown	
<16	14	3	0	0	0	<b>17</b>
16-20	18	1	52	101	2	<b>174</b>
21-24	10	0	115	176	8	<b>309</b>
25-34	15	3	235	433	9	<b>695</b>
35-44	17	3	133	505	4	<b>662</b>
45-54	4	2	46	363	5	<b>420</b>
55-64	3	1	20	146	3	<b>173</b>
65-74	2	1	2	41	1	<b>47</b>
>74	1	2	1	11	0	<b>15</b>
Unknown	0	0	0	1	2	<b>3</b>
<b>Total</b>	<b>84</b>	<b>16</b>	<b>604</b>	<b>1,777</b>	<b>34</b>	<b>2,515</b>

**Table 92**  
**Pedestrians Killed in School Bus Related Crashes, by Age and Striking Vehicle**

Age (Years)	Vehicle Type		Total
	Number	Percent	
<5	0	0	0
5-9	10	3	13
10-15	2	2	4
>15	7	1	8
<b>Total</b>	<b>19</b>	<b>6</b>	<b>25</b>

**Table 93**  
**Persons Killed or Injured in School Bus Related Crashes by Person Type**

Person Type	Killed		Injured	
	Number	Percent	Number	Percent
School Bus Driver	6	3.7	1,000	7.0
School Bus Passenger	4	2.4	8,000	45.9
Pedestrian	25	15.2	*	2.2
Pedalcyclist	3	1.8	*	1.9
Occupant of Other Vehicle	126	76.8	8,000	43.0
<b>Total</b>	<b>164</b>	<b>100.0</b>	<b>18,000</b>	<b>100.0</b>

\*Less than 500.

**Table 94  
Pedestrians Killed or Injured, by Age and Location**

Age (Years)	Location				Total	
	Intersection		Nonintersection			
	Number	Percent	Number	Percent	Number	Percent
<b>Pedestrians Killed</b>						
<5	16	9.8	147	90.2	<b>163</b>	<b>100.0</b>
5-9	27	13.9	167	86.1	<b>194</b>	<b>100.0</b>
10-15	50	23.8	160	76.2	<b>210</b>	<b>100.0</b>
16-20	36	13.2	236	86.4	<b>273</b>	<b>100.0</b>
21-24	22	9.5	209	90.5	<b>231</b>	<b>100.0</b>
25-34	80	12.9	538	86.8	<b>620</b>	<b>100.0</b>
35-44	136	15.0	759	83.9	<b>905</b>	<b>100.0</b>
45-54	138	19.9	550	79.5	<b>692</b>	<b>100.0</b>
55-64	131	27.1	349	72.3	<b>483</b>	<b>100.0</b>
65-74	138	30.9	306	68.5	<b>447</b>	<b>100.0</b>
>74	225	35.3	412	64.7	<b>637</b>	<b>100.0</b>
Unknown	6	11.8	44	86.3	<b>51</b>	<b>100.0</b>
<b>Total</b>	<b>1,005</b>	<b>20.5</b>	<b>3,877</b>	<b>79.0</b>	<b>*4,906</b>	<b>100.0</b>
<b>Pedestrians Injured</b>						
<5	1,000	18.8	2,000	62.1	<b>3,000</b>	<b>100.0</b>
5-9	4,000	36.1	6,000	57.5	<b>10,000</b>	<b>100.0</b>
10-15	7,000	52.4	7,000	47.1	<b>14,000</b>	<b>100.0</b>
16-20	3,000	37.0	4,000	54.8	<b>8,000</b>	<b>100.0</b>
21-24	2,000	47.9	2,000	40.2	<b>4,000</b>	<b>100.0</b>
25-34	6,000	43.9	7,000	49.5	<b>14,000</b>	<b>100.0</b>
35-44	5,000	48.1	4,000	40.8	<b>11,000</b>	<b>100.0</b>
45-54	4,000	45.6	5,000	48.7	<b>9,000</b>	<b>100.0</b>
55-64	3,000	53.0	2,000	38.8	<b>5,000</b>	<b>100.0</b>
65-74	3,000	57.7	1,000	29.5	<b>4,000</b>	<b>100.0</b>
>74	2,000	67.5	1,000	27.3	<b>3,000</b>	<b>100.0</b>
<b>Total</b>	<b>39,000</b>	<b>45.8</b>	<b>40,000</b>	<b>46.9</b>	<b>**85,000</b>	<b>100.0</b>

\*Includes 24 pedestrians killed at other or unknown locations.

\*\*Includes 6,000 pedestrians injured at other or unknown locations.



**Table 95**  
**Pedestrians Killed or Injured and Fatality and Injury Rates per 100,000 Population by Age and Sex**

Age (Years)	Male			Female			Total		
	Killed	Population (Thousands)	Rate	Killed	Population (Thousands)	Rate	Killed	Population (Thousands)	Rate
<5	102	9,683	1.05	61	9,259	0.66	163	18,942	0.86
5-9	115	10,208	1.13	79	9,739	0.81	194	19,947	0.97
10-15	131	11,974	1.09	79	11,395	0.69	210	23,369	0.90
16-20	201	10,187	1.97	72	9,638	0.75	273	19,826	1.38
21-24	178	7,185	2.48	53	6,943	0.76	231	14,128	1.64
25-34	472	18,826	2.51	148	19,110	0.77	620	37,936	1.63
35-44	667	22,254	3.00	238	22,558	1.06	905	44,813	2.02
45-54	547	17,499	3.13	145	18,303	0.79	692	35,802	1.93
55-64	336	11,150	3.01	147	12,239	1.20	483	23,389	2.07
65-74	292	8,199	3.56	155	10,020	1.55	447	18,218	2.45
>74	366	6,111	5.99	271	10,210	2.65	637	16,322	3.90
Unknown	40	*	*	10	*	*	51	*	*
<b>Total</b>	<b>3,447</b>	<b>133,277</b>	<b>2.59</b>	<b>1,458</b>	<b>139,414</b>	<b>1.05</b>	<b>**4,906</b>	<b>272,691</b>	<b>1.80</b>

Age (Years)	Male			Female			Total		
	Injured	Population (Thousands)	Rate	Injured	Population (Thousands)	Rate	Injured	Population (Thousands)	Rate
<5	2,000	9,683	20	1,000	9,259	15	3,000	18,942	18
5-9	6,000	10,208	62	4,000	9,739	39	10,000	19,947	51
10-15	7,000	11,974	62	7,000	11,395	58	14,000	23,369	60
16-20	5,000	10,187	52	2,000	9,638	23	8,000	19,826	38
21-24	3,000	7,185	42	1,000	6,943	12	4,000	14,128	27
25-34	8,000	18,826	45	5,000	19,110	29	14,000	37,936	37
35-44	7,000	22,254	30	4,000	22,558	17	11,000	44,813	24
45-54	5,000	17,499	30	4,000	18,303	22	9,000	35,802	26
55-64	2,000	11,150	16	3,000	12,239	24	5,000	23,389	20
65-74	3,000	8,199	31	2,000	10,020	18	4,000	18,218	24
>74	1,000	6,111	21	2,000	10,210	21	3,000	16,322	21
<b>Total</b>	<b>50,000</b>	<b>133,277</b>	<b>38</b>	<b>35,000</b>	<b>139,414</b>	<b>25</b>	<b>85,000</b>	<b>272,691</b>	<b>31</b>

\*Not applicable.

\*\*Includes 1 pedestrian fatality of unknown sex.

Source: Population—Bureau of the Census. Totals may not equal sum of components due to independent rounding.

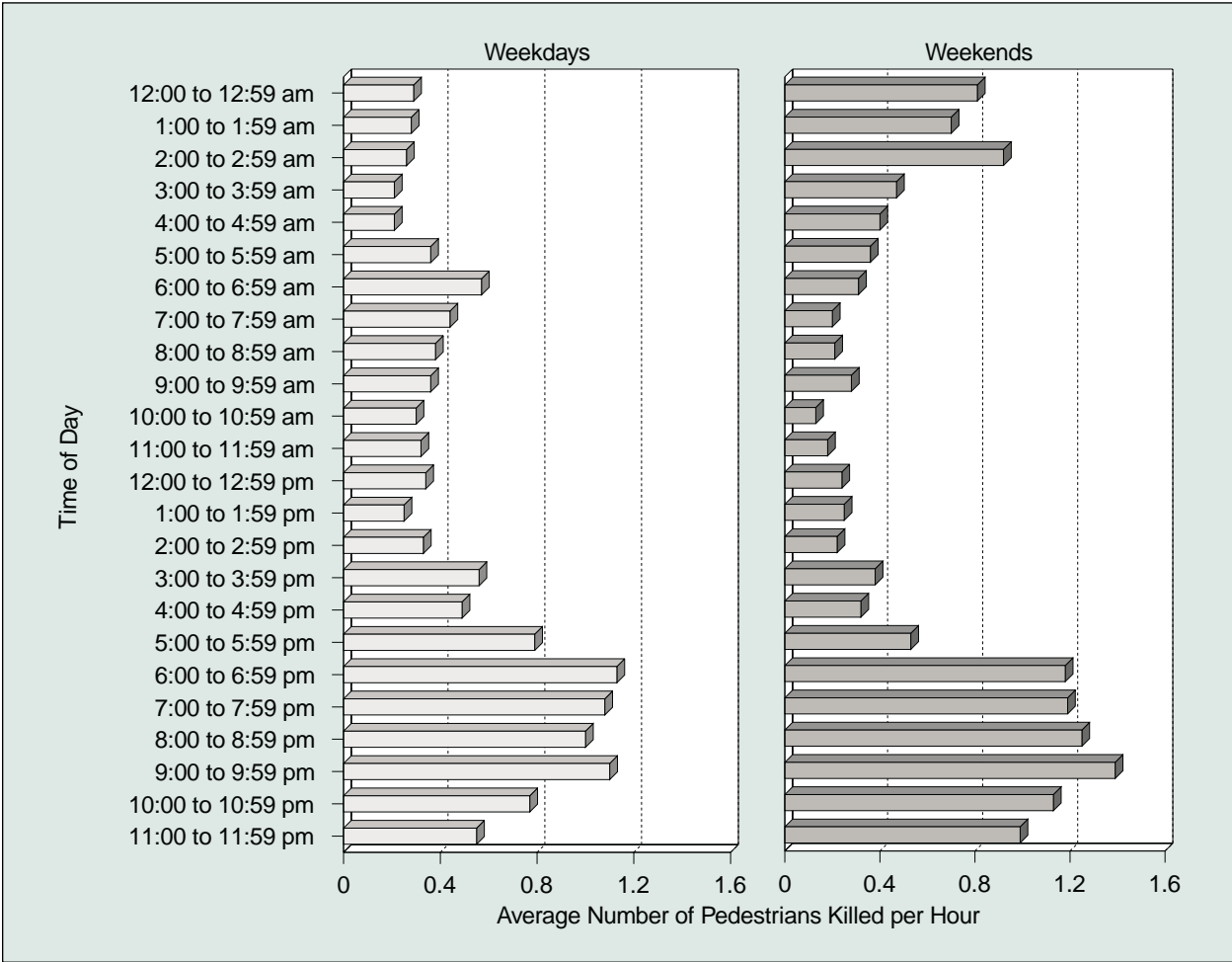
**Table 96**  
**Pedestrians Killed or Injured, by Time of Day and Day of Week**

Time of Day	Day of Week				Total	
	Weekday		Weekend			
	Number	Percent	Number	Percent	Number	Percent
<b>Pedestrians Killed</b>						
Midnight to 3 am	173	6.1	379	18.6	<b>553</b>	<b>11.3</b>
3 am to 6 am	163	5.7	193	9.4	<b>356</b>	<b>7.3</b>
6 am to 9 am	363	12.7	75	3.7	<b>438</b>	<b>8.9</b>
9 am to Noon	257	9.0	61	3.0	<b>318</b>	<b>6.5</b>
Noon to 3 pm	242	8.5	74	3.6	<b>316</b>	<b>6.4</b>
3 pm to 6 pm	478	16.8	127	6.2	<b>605</b>	<b>12.3</b>
6 pm to 9 pm	666	23.4	570	27.9	<b>1,237</b>	<b>25.2</b>
9 pm to Midnight	502	17.6	551	27.0	<b>1,053</b>	<b>21.5</b>
Unknown	8	0.3	13	0.6	<b>30</b>	<b>0.6</b>
<b>Total</b>	<b>2,852</b>	<b>100.0</b>	<b>2,043</b>	<b>100.0</b>	<b>*4,906</b>	<b>100.0</b>
<b>Pedestrians Injured</b>						
Midnight to 3 am	1,000	1.3	2,000	7.1	<b>3,000</b>	<b>3.2</b>
3 am to 6 am	1,000	1.9	**	1.2	<b>1,000</b>	<b>1.7</b>
6 am to 9 am	7,000	13.0	1,000	3.7	<b>8,000</b>	<b>9.9</b>
9 am to Noon	5,000	8.6	3,000	10.5	<b>8,000</b>	<b>9.2</b>
Noon to 3 pm	11,000	18.4	5,000	19.1	<b>16,000</b>	<b>18.6</b>
3 pm to 6 pm	17,000	29.7	5,000	19.0	<b>22,000</b>	<b>26.2</b>
6 pm to 9 pm	11,000	19.8	7,000	24.0	<b>18,000</b>	<b>21.2</b>
9 pm to Midnight	4,000	7.3	4,000	15.5	<b>9,000</b>	<b>10.0</b>
<b>Total</b>	<b>58,000</b>	<b>100.0</b>	<b>28,000</b>	<b>100.0</b>	<b>85,000</b>	<b>100.0</b>

\*Includes 11 pedestrians killed at unknown time of day and day of week.

\*\*Less than 500.

**Figure 29**  
**Average Number of Pedestrians Killed per Hour by Time of Day and Day of Week**



**Table 97**  
**Pedestrians Killed or Injured in Single-Vehicle Crashes, by Vehicle Type and Initial Point of Impact**

Vehicle Type	Initial Point of Impact										Total	
	Front		Right Side		Left Side		Rear		Other/Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Pedestrians Killed</b>												
Passenger Car	1,987	89.9	46	2.1	56	2.5	25	1.1	97	4.4	<b>2,211</b>	<b>100.0</b>
Light Truck	1,388	87.6	36	2.3	38	2.4	43	2.7	79	5.0	<b>1,584</b>	<b>100.0</b>
Large Truck	193	66.8	20	6.9	9	3.1	29	10.0	38	13.1	<b>289</b>	<b>100.0</b>
Motorcycle	25	100.0	0	0.0	0	0.0	0	0.0	0	0.0	<b>25</b>	<b>100.0</b>
Other/Unknown	218	57.8	10	2.7	6	1.6	9	2.4	134	35.5	<b>377</b>	<b>100.0</b>
<b>Total</b>	<b>3,811</b>	<b>85.0</b>	<b>112</b>	<b>2.5</b>	<b>109</b>	<b>2.4</b>	<b>106</b>	<b>2.4</b>	<b>348</b>	<b>7.8</b>	<b>4,486</b>	<b>100.0</b>
<b>Pedestrians Injured</b>												
Passenger Car	37,000	67.0	7,000	12.7	6,000	11.7	4,000	8.0	*	0.7	<b>55,000</b>	<b>100.0</b>
Light Truck	15,000	66.9	4,000	18.1	2,000	7.2	1,000	4.5	1,000	3.4	<b>23,000</b>	<b>100.0</b>
Other	3,000	67.5	1,000	23.4	*	3.4	*	4.6	*	1.0	<b>4,000</b>	<b>100.0</b>
<b>Total</b>	<b>55,000</b>	<b>67.0</b>	<b>12,000</b>	<b>14.7</b>	<b>8,000</b>	<b>10.0</b>	<b>6,000</b>	<b>6.8</b>	<b>1,000</b>	<b>1.5</b>	<b>82,000</b>	<b>100.0</b>

\*Less than 500.

**Table 98**  
**Pedestrians Killed, by Related Factors**

Factors	Number	Percent
Improper crossing of roadway or intersection . . . . .	1,474	30.0
Walking, playing, working, etc., in roadway . . . . .	1,420	28.9
Failure to yield right of way . . . . .	672	13.7
Darting or running into road . . . . .	640	13.0
Not visible. . . . .	395	8.1
Inattentive (talking, eating, etc.) . . . . .	107	2.2
Physical impairment . . . . .	80	1.6
Failure to obey traffic signs, signals, or officer . . . . .	68	1.4
Emotional (e.g., depression, angry, disturbed) . . . . .	21	0.4
Nonmotorist pushing vehicle . . . . .	20	0.4
Getting on/off/in/out of transport vehicle . . . . .	16	0.3
Ill, blackout . . . . .	15	0.3
Other factors . . . . .	106	2.2
None Reported. . . . .	1,241	25.3
Unknown . . . . .	98	2.0
<b>Total Pedestrians . . . . .</b>	<b>4,906</b>	<b>100.0</b>

Note: The sum of the numbers and percentages is greater than total pedestrians killed as more than one factor may be present for the same pedestrian.

**Table 99**  
**Pedalcyclists Killed or Injured, by Age and Location**

Age (Years)	Location				Total	
	Intersection		Nonintersection			
	Number	Percent	Number	Percent	Number	Percent
<b>Pedalcyclists Killed</b>						
<5	2	33.3	4	66.7	<b>6</b>	<b>100.0</b>
5-9	31	37.8	51	62.2	<b>82</b>	<b>100.0</b>
10-15	46	36.5	80	63.5	<b>126</b>	<b>100.0</b>
16-20	28	38.4	43	58.9	<b>73</b>	<b>100.0</b>
21-24	10	27.8	25	69.4	<b>36</b>	<b>100.0</b>
25-34	21	28.0	54	72.0	<b>75</b>	<b>100.0</b>
35-44	40	27.2	107	72.8	<b>147</b>	<b>100.0</b>
45-54	26	27.1	70	72.9	<b>96</b>	<b>100.0</b>
55-64	7	16.3	36	83.7	<b>43</b>	<b>100.0</b>
65-74	10	22.2	35	77.8	<b>45</b>	<b>100.0</b>
>74	6	33.3	12	66.7	<b>18</b>	<b>100.0</b>
Unknown	1	33.3	2	66.7	<b>3</b>	<b>100.0</b>
<b>Total</b>	<b>228</b>	<b>30.4</b>	<b>519</b>	<b>69.2</b>	<b>*750</b>	<b>100.0</b>
<b>Pedalcyclists Injured</b>						
<5	**	12.7	**	87.3	<b>**</b>	<b>100.0</b>
5-9	3,000	49.9	3,000	45.7	<b>7,000</b>	<b>100.0</b>
10-15	9,000	56.9	6,000	38.2	<b>15,000</b>	<b>100.0</b>
16-20	3,000	54.4	2,000	38.0	<b>5,000</b>	<b>100.0</b>
21-24	2,000	52.7	2,000	46.5	<b>4,000</b>	<b>100.0</b>
25-34	4,000	59.9	3,000	36.5	<b>7,000</b>	<b>100.0</b>
35-44	3,000	46.4	3,000	53.3	<b>6,000</b>	<b>100.0</b>
45-54	2,000	56.3	2,000	41.9	<b>4,000</b>	<b>100.0</b>
55-64	1,000	41.9	1,000	56.0	<b>1,000</b>	<b>100.0</b>
65-74	**	81.5	**	18.5	<b>**</b>	<b>100.0</b>
>74	**	14.0	**	86.0	<b>**</b>	<b>100.0</b>
<b>Total</b>	<b>28,000</b>	<b>53.7</b>	<b>22,000</b>	<b>42.6</b>	<b>51,000</b>	<b>100.0</b>

\*Includes 3 pedalcyclists killed at other or unknown location.

\*\*Less than 500.

**Table 100**  
**Pedalcyclists Killed or Injured and Fatality and Injury Rates per 100,000 Population**  
**by Age and Sex**

Age (Years)	Male			Female			Total		
	Killed	Population (Thousands)	Rate	Killed	Population (Thousands)	Rate	Killed	Population (Thousands)	Rate
<5	3	9,683	0.03	3	9,259	0.03	6	18,942	0.03
5-9	67	10,208	0.66	15	9,739	0.15	82	19,947	0.41
10-15	104	11,974	0.87	22	11,395	0.19	126	23,369	0.54
16-20	67	10,187	0.66	6	9,638	0.06	73	19,826	0.37
21-24	31	7,185	0.43	5	6,943	0.07	36	14,128	0.25
25-34	66	18,826	0.35	9	19,110	0.05	75	37,936	0.20
35-44	132	22,254	0.59	15	22,558	0.07	147	44,813	0.33
45-54	88	17,499	0.50	8	18,303	0.04	96	35,802	0.27
55-64	35	11,150	0.31	8	12,239	0.07	43	23,389	0.18
65-74	43	8,199	0.52	2	10,020	0.02	45	18,218	0.25
>74	18	6,111	0.29	0	10,210	0.00	18	16,322	0.11
Unknown	3	*	*	0	*	*	3	*	*
<b>Total</b>	<b>657</b>	<b>133,277</b>	<b>0.49</b>	<b>93</b>	<b>139,414</b>	<b>0.07</b>	<b>750</b>	<b>272,691</b>	<b>0.28</b>

Age (Years)	Male			Female			Total		
	Injured	Population (Thousands)	Rate	Injured	Population (Thousands)	Rate	Injured	Population (Thousands)	Rate
<5	**	9,683	4	**	9,259	***	**	18,942	2
5-9	5,000	10,208	46	2,000	9,739	20	7,000	19,947	34
10-15	12,000	11,974	101	3,000	11,395	29	15,000	23,369	66
16-20	5,000	10,187	46	1,000	9,638	8	5,000	19,826	28
21-24	4,000	7,185	52	**	6,943	6	4,000	14,128	29
25-34	5,000	18,826	29	2,000	19,110	8	7,000	37,936	19
35-44	5,000	22,254	24	1,000	22,558	5	6,000	44,813	14
45-54	3,000	17,499	18	1,000	18,303	3	4,000	35,802	10
55-64	1,000	11,150	10	**	12,239	3	1,000	23,389	6
65-74	**	8,199	4	**	10,020	2	**	18,218	3
>74	**	6,111	3	**	10,210	***	**	16,322	1
<b>Total</b>	<b>41,000</b>	<b>133,277</b>	<b>31</b>	<b>10,000</b>	<b>139,414</b>	<b>7</b>	<b>51,000</b>	<b>272,691</b>	<b>19</b>

\*Not applicable.

\*\*Less than 500.

\*\*\*Less than 0.5.

Source: Population—Bureau of the Census. Totals may not equal sum of components due to independent rounding.

**Table 101**  
**Pedalcyclists Killed or Injured, by Time of Day and Day of Week**

Time of Day	Day of Week				Total	
	Weekday		Weekend			
	Number	Percent	Number	Percent	Number	Percent
<b>Pedalcyclists Killed</b>						
Midnight to 3 am	17	3.7	35	11.9	<b>52</b>	<b>6.9</b>
3 am to 6 am	11	2.4	14	4.7	<b>25</b>	<b>3.3</b>
6 am to 9 am	59	13.0	6	2.0	<b>65</b>	<b>8.7</b>
9 am to Noon	40	8.8	25	8.5	<b>65</b>	<b>8.7</b>
Noon to 3 pm	53	11.6	32	10.8	<b>85</b>	<b>11.3</b>
3 pm to 6 pm	131	28.8	33	11.2	<b>164</b>	<b>21.9</b>
6 pm to 9 pm	95	20.9	104	35.3	<b>199</b>	<b>26.5</b>
9 pm to Midnight	48	10.5	46	15.6	<b>94</b>	<b>12.5</b>
Unknown	1	0.2	0	0.0	<b>1</b>	<b>0.1</b>
<b>Total</b>	<b>455</b>	<b>100.0</b>	<b>295</b>	<b>100.0</b>	<b>750</b>	<b>100.0</b>
<b>Pedalcyclists Injured</b>						
Midnight to 3 am	1,000	1.5	1,000	4.5	<b>1,000</b>	<b>2.3</b>
3 am to 6 am	*	1.1	*	0.5	<b>*</b>	<b>0.9</b>
6 am to 9 am	3,000	6.9	*	1.6	<b>3,000</b>	<b>5.5</b>
9 am to Noon	5,000	13.7	2,000	14.1	<b>7,000</b>	<b>13.8</b>
Noon to 3 pm	6,000	15.1	3,000	21.6	<b>9,000</b>	<b>16.9</b>
3 pm to 6 pm	14,000	36.6	3,000	19.3	<b>16,000</b>	<b>32.0</b>
6 pm to 9 pm	8,000	20.8	4,000	27.2	<b>12,000</b>	<b>22.5</b>
9 pm to Midnight	2,000	4.3	2,000	11.2	<b>3,000</b>	<b>6.1</b>
<b>Total</b>	<b>38,000</b>	<b>100.0</b>	<b>14,000</b>	<b>100.0</b>	<b>51,000</b>	<b>100.0</b>

\*Less than 500.

**Table 102**  
**Pedalcyclists Killed or Injured in Single-Vehicle Crashes, by Vehicle Type**  
**and Initial Point of Impact**

Vehicle Type	Initial Point of Impact										Total	
	Front		Right Side		Left Side		Rear		Other/Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Pedalcyclists Killed</b>												
Passenger Car	287	88.6	19	5.9	10	3.1	2	0.6	6	1.9	<b>324</b>	<b>100.0</b>
Light Truck	247	84.6	20	6.8	8	2.7	9	3.1	8	2.7	<b>292</b>	<b>100.0</b>
Large Truck	25	43.9	16	28.1	0	0.0	6	10.5	10	17.5	<b>57</b>	<b>100.0</b>
Motorcycle	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	<b>1</b>	<b>100.0</b>
Other/Unknown	21	52.5	6	15.0	1	2.5	0	0.0	12	30.0	<b>40</b>	<b>100.0</b>
<b>Total</b>	<b>581</b>	<b>81.4</b>	<b>61</b>	<b>8.5</b>	<b>19</b>	<b>2.7</b>	<b>17</b>	<b>2.4</b>	<b>36</b>	<b>5.0</b>	<b>714</b>	<b>100.0</b>
<b>Pedalcyclists Injured</b>												
Passenger Car	21,000	64.0	8,000	23.1	3,000	8.3	1,000	4.1	*	0.5	<b>33,000</b>	<b>100.0</b>
Light Truck	9,000	61.1	4,000	27.7	1,000	9.4	*	1.8	*	*	<b>15,000</b>	<b>100.0</b>
Other	1,000	41.6	1,000	55.0	*	1.6	*	1.2	*	0.6	<b>2,000</b>	<b>100.0</b>
<b>Total</b>	<b>32,000</b>	<b>62.1</b>	<b>13,000</b>	<b>25.9</b>	<b>4,000</b>	<b>8.3</b>	<b>2,000</b>	<b>3.3</b>	<b>*</b>	<b>0.4</b>	<b>51,000</b>	<b>100.0</b>

\*Less than 500 or less than 0.05 percent.

**Table 103**  
**Pedalcyclists Killed, by Related Factors**

Factors	Number	Percent
Riding, playing, working, etc., in roadway . . . . .	178	23.7
Failure to yield right of way . . . . .	137	18.3
Improper crossing of roadway or intersection . . . . .	121	16.1
Failure to obey (e.g., signs, control devices, officers) . . . . .	47	6.3
Not visible. . . . .	40	5.3
Operating without required equipment . . . . .	32	4.3
Failure to keep in proper lane or running off road . . . . .	30	4.0
Darting into road. . . . .	27	3.6
Inattentive (talking, eating, etc.) . . . . .	27	3.6
Making improper turn . . . . .	27	3.6
Erratic, reckless, careless, or negligent operation . . . . .	20	2.7
Failing to have lights on when required . . . . .	18	2.4
Improper lane changing . . . . .	16	2.1
Riding on wrong side of road . . . . .	16	2.1
Improper entry to or exit from trafficway. . . . .	6	0.8
Other . . . . .	61	8.1
None Reported. . . . .	192	25.6
Unknown . . . . .	19	2.5
<b>Total Pedalcyclists . . . . .</b>	<b>750</b>	<b>100.0</b>

Note: The sum of the numbers and percentages is greater than total pedalcyclists killed as more than one factor may be present for the same pedalcyclist.



A group of people, including men and women, are gathered in an outdoor setting, possibly a field or a public square. Some individuals are wearing traditional hats, such as wide-brimmed straw hats. They are looking towards the camera, and the scene is brightly lit, suggesting a sunny day. The background shows a mix of people and structures, creating a sense of a busy, public environment.

## Chapter 5 ♦ States



## 5. STATES

---

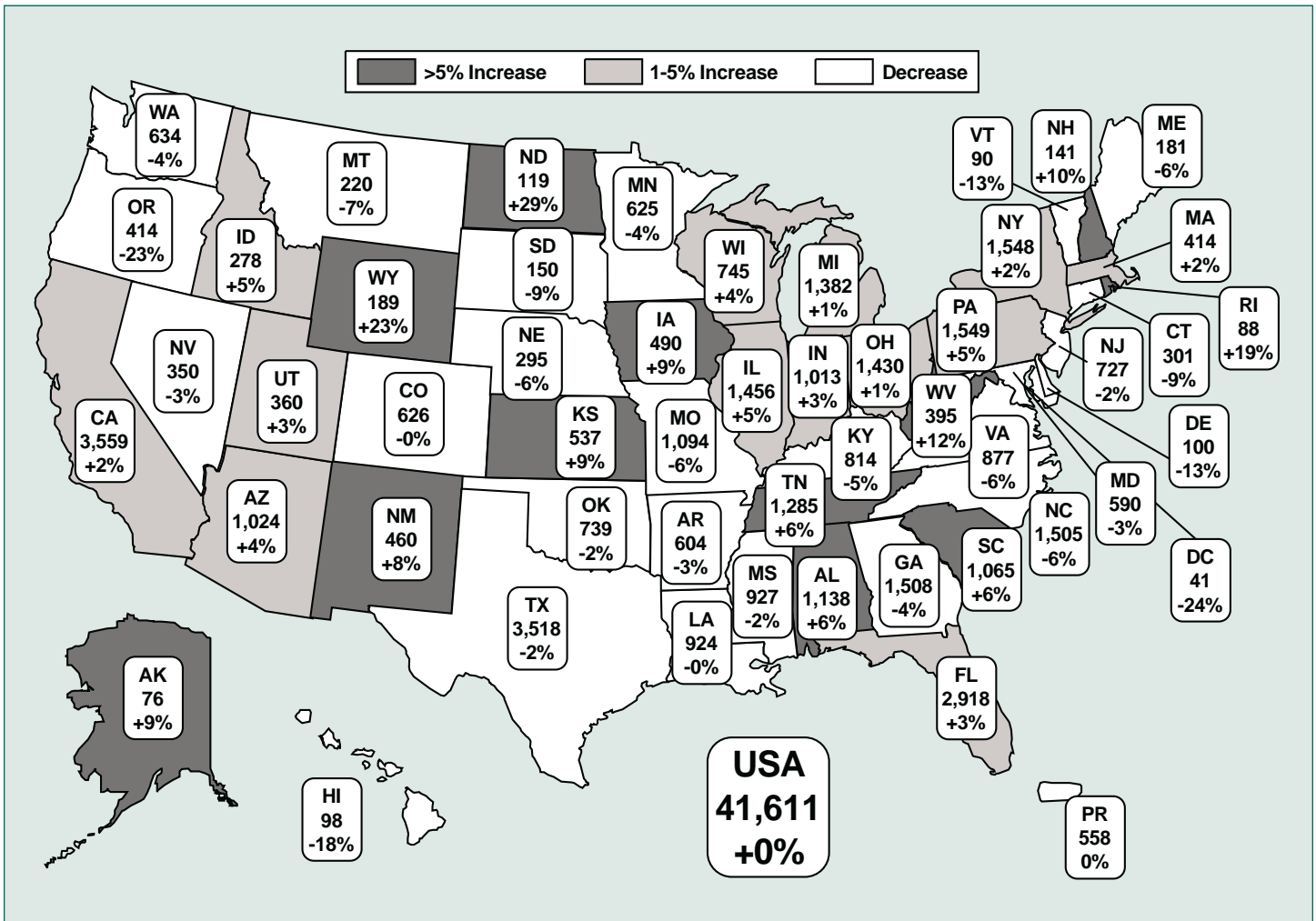
Fatal crash and fatality statistics for each of the 50 states, the District of Columbia, and Puerto Rico are presented in this chapter. Several tables display state fatality rates based on population, licensed drivers, and registered vehicles. The last four tables describe each state's safety belt use laws, child passenger protection laws, motorcycle helmet use requirements, and impaired driving legislation. Below are some of the state statistics you will find in this chapter:

- Traffic fatalities increased slightly (by 0.3 percent) from 1998 to 1999 for the nation as a whole. Twenty-five states showed increases, ranging from 1 percent to as much as 29 percent.
- The pedestrian fatality rate per 100,000 population was 1.80 for the nation. Nevada had the highest rate (3.70) and New Hampshire had the lowest (0.42).
- Nearly 2 percent of all traffic crash fatalities in 1999 were pedalcyclists. North Dakota, Rhode Island, and South Dakota reported no pedalcyclists killed.
- Forty-nine states, plus the District of Columbia and Puerto Rico, have safety belt use laws.
- All states, the District of Columbia, and Puerto Rico have laws requiring children of certain ages to be restrained in child safety seats.
- Motorcycle helmets are required for all riders in 21 states, the District of Columbia, and Puerto Rico. Twenty-six states have helmet requirements with exceptions (age, rider type, roadway type), and three states do not require helmets at all.
- State laws in 31 states make it a criminal offense to operate a motor vehicle at a blood alcohol concentration (BAC) of 0.10 g/dl. Seventeen states and the District of Columbia have adopted 0.08 g/dl. Two states and Puerto Rico do not have illegal per se BAC levels.

**Table 104**  
**1999 Traffic Fatalities by State and Percent Change from 1998**

State	Fatalities			State	Fatalities		
	1998	1999	Percent Change		1998	1999	Percent Change
AL	1,071	1,138	+6	NE	315	295	-6
AK	70	76	+9	NV	361	350	-3
AZ	980	1,024	+4	NH	128	141	+10
AR	625	604	-3	NJ	741	727	-2
CA	3,494	3,559	+2	NM	424	460	+8
CO	628	626	-0	NY	1,514	1,548	+2
CT	329	301	-9	NC	1,596	1,505	-6
DE	115	100	-13	ND	92	119	+29
DC	54	41	-24	OH	1,422	1,430	+1
FL	2,825	2,918	+3	OK	755	739	-2
GA	1,568	1,508	-4	OR	538	414	-23
HI	120	98	-18	PA	1,481	1,549	+5
ID	265	278	+5	RI	74	88	+19
IL	1,393	1,456	+5	SC	1,002	1,065	+6
IN	982	1,013	+3	SD	165	150	-9
IA	449	490	+9	TN	1,216	1,285	+6
KS	492	537	+9	TX	3,586	3,518	-2
KY	858	814	-5	UT	350	360	+3
LA	926	924	-0	VT	104	90	-13
ME	192	181	-6	VA	935	877	-6
MD	606	590	-3	WA	662	634	-4
MA	406	414	+2	WV	354	395	+12
MI	1,366	1,382	+1	WI	714	745	+4
MN	650	625	-4	WY	154	189	+23
MS	948	927	-2	<b>USA</b>	<b>41,501</b>	<b>41,611</b>	<b>+0</b>
MO	1,169	1,094	-6	PR	558	558	0
MT	237	220	-7				

**Figure 30**  
**1999 Traffic Fatalities by State and Percent Change from 1998**



**Table 105**  
**Fatal Crashes by State and First Harmful Event**

State	First Harmful Event												Total Fatal Crashes	
	Collision with								Non-Collision					
	Motor Vehicle in Transport		Non-Motorist		Fixed Object		Object Not Fixed		Overturn		Other			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
AL	422	42.5	81	8.2	390	39.3	18	1.8	73	7.4	7	0.7	992	100.0
AK	28	40.0	7	10.0	18	25.7	3	4.3	13	18.6	1	1.4	70	100.0
AZ	375	41.3	165	18.2	144	15.9	8	0.9	173	19.1	16	1.8	907	100.0
AR	205	38.0	47	8.7	183	33.9	17	3.1	82	15.2	4	0.7	540	100.0
CA	1,017	32.3	757	24.0	938	29.8	86	2.7	316	10.0	34	1.1	3,148	100.0
CO	208	37.3	67	12.0	145	26.0	17	3.0	115	20.6	6	1.1	558	100.0
CT	90	33.3	52	19.3	112	41.5	7	2.6	8	3.0	0	0.0	270	100.0
DE	50	54.9	13	14.3	20	22.0	3	3.3	4	4.4	1	1.1	91	100.0
DC	12	30.0	15	37.5	11	27.5	1	2.5	0	0.0	1	2.5	40	100.0
FL	1,185	45.1	584	22.2	530	20.2	72	2.7	219	8.3	36	1.4	2,626	100.0
GA	610	46.4	170	12.9	406	30.9	21	1.6	98	7.5	9	0.7	1,314	100.0
HI	37	41.1	20	22.2	23	25.6	3	3.3	7	7.8	0	0.0	90	100.0
ID	95	38.8	18	7.3	29	11.8	4	1.6	89	36.3	10	4.1	245	100.0
IL	543	41.9	195	15.1	347	26.8	56	4.3	134	10.3	20	1.5	1,295	100.0
IN	433	48.9	80	9.0	296	33.4	35	4.0	39	4.4	1	0.1	885	100.0
IA	238	55.6	25	5.8	76	17.8	15	3.5	71	16.6	3	0.7	428	100.0
KS	212	46.5	35	7.7	117	25.7	16	3.5	73	16.0	3	0.7	456	100.0
KY	289	39.9	57	7.9	283	39.1	17	2.3	72	9.9	6	0.8	724	100.0
LA	322	39.4	124	15.2	266	32.6	21	2.6	74	9.1	10	1.2	817	100.0
ME	71	42.3	12	7.1	58	34.5	6	3.6	16	9.5	5	3.0	168	100.0
MD	227	41.4	113	20.6	178	32.5	9	1.6	15	2.7	3	0.5	548	100.0
MA	136	35.2	74	19.2	141	36.5	12	3.1	20	5.2	3	0.8	386	100.0
MI	604	48.5	181	14.5	329	26.4	42	3.4	80	6.4	9	0.7	1,245	100.0
MN	289	51.0	57	10.1	108	19.0	20	3.5	87	15.3	6	1.1	567	100.0
MS	337	40.5	66	7.9	288	34.6	24	2.9	116	13.9	1	0.1	832	100.0
MO	409	42.4	68	7.1	331	34.3	31	3.2	112	11.6	13	1.3	964	100.0
MT	46	23.7	10	5.2	50	25.8	4	2.1	83	42.8	1	0.5	194	100.0
NE	125	49.0	18	7.1	47	18.4	7	2.7	58	22.7	0	0.0	255	100.0
NV	102	33.2	74	24.1	51	16.6	1	0.3	78	25.4	1	0.3	307	100.0
NH	47	35.9	6	4.6	53	40.5	4	3.1	19	14.5	2	1.5	131	100.0

**Table 105**  
**Fatal Crashes by State and First Harmful Event (Continued)**

State	First Harmful Event												Total Fatal Crashes	
	Collision with								Non-Collision					
	Motor Vehicle in Transport		Non-Motorist		Fixed Object		Object Not Fixed		Overturn		Other			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
NJ	260	39.1	166	25.0	203	30.5	11	1.7	16	2.4	9	1.4	665	100.0
NM	142	36.6	60	15.5	66	17.0	9	2.3	106	27.3	5	1.3	388	100.0
NY	536	37.6	374	26.2	405	28.4	42	2.9	53	3.7	16	1.1	1,426	100.0
NC	616	45.6	180	13.3	452	33.5	26	1.9	61	4.5	15	1.1	1,350	100.0
ND	48	52.2	4	4.3	13	14.1	2	2.2	24	26.1	1	1.1	92	100.0
OH	585	45.6	133	10.4	465	36.2	42	3.3	38	3.0	21	1.6	1,284	100.0
OK	293	47.5	57	9.2	193	31.3	25	4.1	37	6.0	12	1.9	617	100.0
OR	141	38.4	51	13.9	107	29.2	6	1.6	56	15.3	6	1.6	367	100.0
PA	570	41.2	188	13.6	509	36.8	29	2.1	70	5.1	16	1.2	1,382	100.0
RI	30	35.3	13	15.3	37	43.5	1	1.2	3	3.5	1	1.2	85	100.0
SC	383	40.6	122	12.9	320	33.9	31	3.3	79	8.4	9	1.0	944	100.0
SD	51	37.5	11	8.1	29	21.3	4	2.9	37	27.2	4	2.9	136	100.0
TN	478	41.5	75	6.5	461	40.0	19	1.6	109	9.5	10	0.9	1,152	100.0
TX	1,299	41.8	433	13.9	778	25.1	83	2.7	470	15.1	41	1.3	3,105	100.0
UT	108	34.0	45	14.2	36	11.3	14	4.4	109	34.3	6	1.9	318	100.0
VT	25	30.5	7	8.5	38	46.3	3	3.7	8	9.8	1	1.2	82	100.0
VA	281	35.4	94	11.8	330	41.6	16	2.0	45	5.7	28	3.5	794	100.0
WA	215	37.6	64	11.2	187	32.7	22	3.8	77	13.5	7	1.2	572	100.0
WV	129	36.4	31	8.8	138	39.0	3	0.8	45	12.7	8	2.3	354	100.0
WI	298	44.1	66	9.8	200	29.6	21	3.1	85	12.6	5	0.7	675	100.0
WY	39	24.1	15	9.3	32	19.8	8	4.9	65	40.1	3	1.9	162	100.0
<b>USA</b>	<b>15,291</b>	<b>41.3</b>	<b>5,380</b>	<b>14.5</b>	<b>10,967</b>	<b>29.6</b>	<b>997</b>	<b>2.7</b>	<b>3,937</b>	<b>10.6</b>	<b>436</b>	<b>1.2</b>	<b>*37,043</b>	<b>100.0</b>
PR	170	32.0	200	37.7	123	23.2	14	2.6	9	1.7	15	2.8	531	100.0

\*Total includes 35 crashes with unknown first harmful event.

**Table 106**  
**Fatal Crashes by State and Roadway Function Class**

State	Roadway Function Class								Total Fatal Crashes
	Principal Arterial				Minor Arterial	Collector	Local	Unknown	
	Interstate		Freeway and Expressway	Other					
	Rural	Urban							
AL	84	47	2	245	184	285	139	6	992
AK	15	1	0	14	16	16	8	0	70
AZ	124	29	19	275	182	185	89	4	907
AR	44	19	11	121	87	129	128	1	540
CA	191	255	297	901	650	486	356	12	3,148
CO	80	24	19	134	76	44	165	16	558
CT	3	36	12	65	84	32	37	1	270
DE	0	6	0	39	10	16	14	6	91
DC	0	0	0	0	0	0	40	0	40
FL	145	157	76	900	333	104	674	237	2,626
GA	88	96	17	314	277	272	230	20	1,314
HI	0	4	6	27	25	19	8	1	90
ID	38	6	1	82	26	45	42	5	245
IL	73	111	7	320	221	209	354	0	1,295
IN	66	17	17	205	186	255	137	2	885
IA	30	17	1	142	70	108	59	1	428
KS	24	28	20	130	75	112	67	0	456
KY	50	22	10	139	89	275	138	1	724
LA	75	41	4	164	137	278	118	0	817
ME	14	0	5	28	37	42	37	5	168
MD	24	33	33	121	107	75	48	107	548
MA	12	45	13	98	103	56	59	0	386
MI	38	83	31	346	245	299	198	5	1,245
MN	28	26	11	135	137	146	84	0	567
MS	98	0	0	127	3	323	277	4	832
MO	91	76	27	263	109	269	119	10	964
MT	30	4	0	60	25	29	46	0	194
NE	31	1	0	76	39	44	64	0	255
NV	48	15	8	88	73	48	27	0	307
NH	10	2	1	27	30	25	31	5	131



**Table 106**  
**Fatal Crashes by State and Roadway Function Class (Continued)**

State	Roadway Function Class								Total Fatal Crashes
	Principal Arterial				Minor Arterial	Collector	Local	Unknown	
	Interstate		Freeway and Expressway	Other					
	Rural	Urban							
NJ	9	39	72	189	156	103	92	5	665
NM	73	15	1	89	48	84	78	0	388
NY	50	42	103	322	282	261	357	9	1,426
NC	49	64	14	228	202	324	468	1	1,350
ND	8	0	5	24	10	21	24	0	92
OH	60	86	16	210	190	273	365	84	1,284
OK	60	38	13	147	143	133	83	0	617
OR	20	12	2	145	69	79	40	0	367
PA	63	59	33	317	354	272	283	1	1,382
RI	2	14	8	27	20	7	7	0	85
SC	93	21	2	188	214	309	58	59	944
SD	9	4	0	46	15	41	21	0	136
TN	100	74	16	253	266	256	173	14	1,152
TX	198	283	198	683	407	598	737	1	3,105
UT	94	7	0	6	80	4	127	0	318
VT	12	1	1	12	15	18	23	0	82
VA	53	35	14	165	206	200	121	0	794
WA	39	25	31	171	94	148	64	0	572
WV	44	14	1	49	73	130	43	0	354
WI	28	13	10	179	137	175	128	5	675
WY	56	2	2	51	13	29	9	0	162
<b>USA</b>	<b>2,674</b>	<b>2,049</b>	<b>1,190</b>	<b>9,087</b>	<b>6,630</b>	<b>7,691</b>	<b>7,094</b>	<b>628</b>	<b>37,043</b>
PR	30	69	6	109	110	127	80	0	531

**Table 107**  
**Fatalities by State and Roadway Function Class**

State	Roadway Function Class								Total Fatalities
	Principal Arterial				Minor Arterial	Collector	Local	Unknown	
	Interstate		Freeway and Expressway	Other					
	Rural	Urban							
AL	105	57	2	286	207	324	151	6	1,138
AK	17	1	0	14	16	20	8	0	76
AZ	142	35	22	302	207	214	98	4	1,024
AR	54	23	11	137	104	139	135	1	604
CA	239	289	344	1,001	730	550	394	12	3,559
CO	96	26	21	152	83	46	184	18	626
CT	3	49	14	74	86	36	38	1	301
DE	0	7	0	43	11	17	14	8	100
DC	0	0	0	0	0	0	41	0	41
FL	184	181	82	1,010	353	113	729	266	2,918
GA	118	109	24	357	321	305	251	23	1,508
HI	0	4	6	32	26	21	8	1	98
ID	41	6	1	101	30	52	42	5	278
IL	90	119	8	363	245	230	401	0	1,456
IN	75	23	20	227	213	301	152	2	1,013
IA	35	19	1	163	84	124	63	1	490
KS	31	31	23	163	91	129	69	0	537
KY	57	24	13	165	99	303	152	1	814
LA	86	71	5	181	146	311	124	0	924
ME	14	0	5	30	40	47	39	6	181
MD	24	35	35	128	117	87	52	112	590
MA	12	49	15	108	110	58	62	0	414
MI	40	101	35	379	267	340	215	5	1,382
MN	31	30	11	158	147	159	89	0	625
MS	116	0	0	146	4	353	304	4	927
MO	123	85	32	302	118	290	134	10	1,094
MT	33	4	0	75	26	32	50	0	220
NE	37	1	0	89	47	49	72	0	295
NV	59	15	8	106	78	55	29	0	350
NH	13	2	1	30	32	26	32	5	141

**Table 107**  
**Fatalities by State and Roadway Function Class (Continued)**

State	Roadway Function Class								Total Fatalities
	Principal Arterial				Minor Arterial	Collector	Local	Unknown	
	Interstate		Freeway and Expressway	Other					
	Rural	Urban							
NJ	10	48	79	213	164	107	100	6	<b>727</b>
NM	98	19	1	99	63	100	80	0	<b>460</b>
NY	54	45	114	349	302	291	384	9	<b>1,548</b>
NC	55	70	15	266	226	368	504	1	<b>1,505</b>
ND	11	0	5	35	16	22	30	0	<b>119</b>
OH	73	95	19	231	211	315	397	89	<b>1,430</b>
OK	81	44	15	177	169	162	91	0	<b>739</b>
OR	25	13	2	169	78	86	41	0	<b>414</b>
PA	83	65	42	363	393	306	296	1	<b>1,549</b>
RI	2	14	9	29	20	7	7	0	<b>88</b>
SC	118	24	2	209	250	336	59	67	<b>1,065</b>
SD	11	5	0	52	15	46	21	0	<b>150</b>
TN	131	82	20	280	296	276	185	15	<b>1,285</b>
TX	228	322	218	776	497	681	792	4	<b>3,518</b>
UT	106	7	0	10	100	4	133	0	<b>360</b>
VT	13	1	1	16	17	18	24	0	<b>90</b>
VA	62	38	18	181	226	220	132	0	<b>877</b>
WA	42	27	41	188	103	160	73	0	<b>634</b>
WV	51	17	1	60	84	137	45	0	<b>395</b>
WI	36	13	11	200	150	190	140	5	<b>745</b>
WY	71	2	2	58	17	30	9	0	<b>189</b>
<b>USA</b>	<b>3,236</b>	<b>2,347</b>	<b>1,354</b>	<b>10,283</b>	<b>7,435</b>	<b>8,593</b>	<b>7,675</b>	<b>688</b>	<b>41,611</b>
PR	34	72	7	115	114	132	84	0	<b>558</b>

**Table 108**  
**Persons Killed, Licensed Drivers, Registered Vehicles, Population,**  
**and Fatality Rates by State**

State	Licensed Drivers (Thousands)	Fatalities per 100,000 Drivers	Registered Vehicles (Thousands)	Fatalities per 100,000 Registered Vehicles	Population (Thousands)	Fatalities per 100,000 Population	Total Killed
AL	3,446	33.02	4,006	28.41	4,370	26.04	<b>1,138</b>
AK	459	16.56	586	12.97	620	12.26	<b>76</b>
AZ	3,297	31.06	3,751	27.30	4,778	21.43	<b>1,024</b>
AR	1,926	31.36	1,840	32.83	2,551	23.68	<b>604</b>
CA	20,831	17.09	26,782	13.29	33,145	10.74	<b>3,559</b>
CO	2,991	20.93	3,953	15.84	4,056	15.43	<b>626</b>
CT	2,374	12.68	2,820	10.67	3,282	9.17	<b>301</b>
DE	552	18.12	626	15.97	754	13.26	<b>100</b>
DC	349	11.75	237	17.30	519	7.90	<b>41</b>
FL	12,401	23.53	11,625	25.10	15,111	19.31	<b>2,918</b>
GA	5,471	27.56	7,060	21.36	7,788	19.36	<b>1,508</b>
HI	753	13.01	737	13.30	1,185	8.27	<b>98</b>
ID	873	31.84	1,170	23.76	1,252	22.20	<b>278</b>
IL	7,925	18.37	9,572	15.21	12,128	12.01	<b>1,456</b>
IN	3,856	26.27	5,605	18.07	5,943	17.05	<b>1,013</b>
IA	1,935	25.32	3,175	15.43	2,869	17.08	<b>490</b>
KS	1,892	28.38	2,274	23.61	2,654	20.23	<b>537</b>
KY	2,660	30.60	2,704	30.10	3,961	20.55	<b>814</b>
LA	2,763	33.44	3,548	26.04	4,372	21.13	<b>924</b>
ME	912	19.85	946	19.13	1,253	14.45	<b>181</b>
MD	3,195	18.47	3,942	14.97	5,172	11.41	<b>590</b>
MA	4,421	9.36	5,436	7.62	6,175	6.70	<b>414</b>
MI	6,863	20.14	8,458	16.34	9,864	14.01	<b>1,382</b>
MN	2,907	21.50	4,137	15.11	4,776	13.09	<b>625</b>
MS	1,788	51.85	2,349	39.46	2,769	33.48	<b>927</b>
MO	3,840	28.49	4,462	24.52	5,468	20.01	<b>1,094</b>
MT	660	33.33	1,020	21.57	883	24.92	<b>220</b>
NE	1,203	24.52	1,589	18.57	1,666	17.71	<b>295</b>
NV	1,322	26.48	1,186	29.51	1,809	19.35	<b>350</b>
NH	919	15.34	1,099	12.83	1,201	11.74	<b>141</b>

**Table 108**  
**Persons Killed, Licensed Drivers, Registered Vehicles, Population,**  
**and Fatality Rates by State (Continued)**

State	Licensed Drivers (Thousands)	Fatalities per 100,000 Drivers	Registered Vehicles (Thousands)	Fatalities per 100,000 Registered Vehicles	Population (Thousands)	Fatalities per 100,000 Population	Total Killed
NJ	5,551	13.10	6,208	11.71	8,143	8.93	<b>727</b>
NM	1,222	37.64	1,607	28.62	1,740	26.44	<b>460</b>
NY	10,627	14.57	10,900	14.20	18,197	8.51	<b>1,548</b>
NC	5,491	27.41	5,769	26.09	7,651	19.67	<b>1,505</b>
ND	458	25.98	721	16.50	634	18.77	<b>119</b>
OH	8,046	17.77	10,476	13.65	11,257	12.70	<b>1,430</b>
OK	2,313	31.95	2,985	24.76	3,358	22.01	<b>739</b>
OR	2,462	16.82	3,080	13.44	3,316	12.48	<b>414</b>
PA	8,478	18.27	9,209	16.82	11,994	12.91	<b>1,549</b>
RI	689	12.77	766	11.49	991	8.88	<b>88</b>
SC	2,810	37.90	3,073	34.66	3,886	27.41	<b>1,065</b>
SD	544	27.57	808	18.56	733	20.46	<b>150</b>
TN	4,176	30.77	4,490	28.62	5,484	23.43	<b>1,285</b>
TX	13,359	26.33	14,238	24.71	20,044	17.55	<b>3,518</b>
UT	1,440	25.00	1,602	22.47	2,130	16.90	<b>360</b>
VT	496	18.15	535	16.82	594	15.15	<b>90</b>
VA	4,729	18.55	5,929	14.79	6,873	12.76	<b>877</b>
WA	4,129	15.35	4,969	12.76	5,756	11.01	<b>634</b>
WV	1,274	31.00	1,399	28.23	1,807	21.86	<b>395</b>
WI	3,733	19.96	4,459	16.71	5,250	14.19	<b>745</b>
WY	363	52.07	544	34.74	480	39.38	<b>189</b>
<b>USA</b>	<b>187,170</b>	<b>22.23</b>	<b>212,685</b>	<b>19.56</b>	<b>272,691</b>	<b>15.26</b>	<b>41,611</b>
PR	1,729	32.27	2,104	26.52	3,890	14.34	<b>558</b>

Note: The number shown for registered vehicles for the USA is approximately 4 percent lower than the sum of the registered vehicle numbers shown for the individual states, due to differing data sources.

Sources: Fatalities—Fatality Analysis Reporting System (FARS); Licensed Drivers (estimated)—Federal Highway Administration; Registered Vehicles by State (estimated)—Federal Highway Administration; Registered Vehicles for USA—R.L. Polk & Co. and Federal Highway Administration; Population—Bureau of the Census.

**Table 109**  
**Persons Killed, by State and Person Type**

State	Person Type										Total Killed	
	Driver		Passenger		Pedestrian		Pedalcyclist		Other/Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
AL	763	67.0	284	25.0	86	7.6	3	0.3	2	0.2	1,138	100.0
AK	50	65.8	17	22.4	7	9.2	2	2.6	0	0.0	76	100.0
AZ	527	51.5	302	29.5	143	14.0	26	2.5	26	2.5	1,024	100.0
AR	407	67.4	148	24.5	41	6.8	6	1.0	2	0.3	604	100.0
CA	1,807	50.8	939	26.4	665	18.7	112	3.1	36	1.0	3,559	100.0
CO	377	60.2	172	27.5	63	10.1	5	0.8	9	1.4	626	100.0
CT	169	56.1	78	25.9	51	16.9	3	1.0	0	0.0	301	100.0
DE	65	65.0	21	21.0	12	12.0	1	1.0	1	1.0	100	100.0
DC	19	46.3	5	12.2	16	39.0	1	2.4	0	0.0	41	100.0
FL	1,586	54.4	711	24.4	487	16.7	123	4.2	11	0.4	2,918	100.0
GA	929	61.6	394	26.1	159	10.5	22	1.5	4	0.3	1,508	100.0
HI	49	50.0	27	27.6	21	21.4	1	1.0	0	0.0	98	100.0
ID	160	57.6	93	33.5	14	5.0	4	1.4	7	2.5	278	100.0
IL	902	62.0	338	23.2	175	12.0	28	1.9	13	0.9	1,456	100.0
IN	688	67.9	235	23.2	67	6.6	14	1.4	9	0.9	1,013	100.0
IA	321	65.5	140	28.6	17	3.5	6	1.2	6	1.2	490	100.0
KS	338	62.9	158	29.4	33	6.1	7	1.3	1	0.2	537	100.0
KY	555	68.2	193	23.7	52	6.4	10	1.2	4	0.5	814	100.0
LA	549	59.4	239	25.9	106	11.5	29	3.1	1	0.1	924	100.0
ME	123	68.0	46	25.4	11	6.1	1	0.6	0	0.0	181	100.0
MD	361	61.2	107	18.1	114	19.3	6	1.0	2	0.3	590	100.0
MA	257	62.1	76	18.4	74	17.9	6	1.4	1	0.2	414	100.0
MI	855	61.9	322	23.3	173	12.5	26	1.9	6	0.4	1,382	100.0
MN	425	68.0	138	22.1	51	8.2	8	1.3	3	0.5	625	100.0
MS	626	67.5	234	25.2	60	6.5	6	0.6	1	0.1	927	100.0
MO	730	66.7	286	26.1	65	5.9	7	0.6	6	0.5	1,094	100.0
MT	142	64.5	68	30.9	7	3.2	3	1.4	0	0.0	220	100.0
NE	198	67.1	73	24.7	14	4.7	4	1.4	6	2.0	295	100.0
NV	169	48.3	102	29.1	67	19.1	8	2.3	4	1.1	350	100.0
NH	98	69.5	37	26.2	5	3.5	1	0.7	0	0.0	141	100.0

**Table 109**  
**Persons Killed, by State and Person Type (Continued)**

State	Person Type										Total Killed	
	Driver		Passenger		Pedestrian		Pedalcyclist		Other/Unknown			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NJ	384	52.8	165	22.7	154	21.2	23	3.2	1	0.1	<b>727</b>	<b>100.0</b>
NM	237	51.5	159	34.6	52	11.3	10	2.2	2	0.4	<b>460</b>	<b>100.0</b>
NY	841	54.3	300	19.4	351	22.7	43	2.8	13	0.8	<b>1,548</b>	<b>100.0</b>
NC	952	63.3	369	24.5	155	10.3	28	1.9	1	0.1	<b>1,505</b>	<b>100.0</b>
ND	72	60.5	42	35.3	4	3.4	0	0.0	1	0.8	<b>119</b>	<b>100.0</b>
OH	940	65.7	342	23.9	122	8.5	18	1.3	8	0.6	<b>1,430</b>	<b>100.0</b>
OK	449	60.8	218	29.5	59	8.0	10	1.4	3	0.4	<b>739</b>	<b>100.0</b>
OR	246	59.4	116	28.0	48	11.6	3	0.7	1	0.2	<b>414</b>	<b>100.0</b>
PA	974	62.9	368	23.8	183	11.8	18	1.2	6	0.4	<b>1,549</b>	<b>100.0</b>
RI	57	64.8	17	19.3	14	15.9	0	0.0	0	0.0	<b>88</b>	<b>100.0</b>
SC	677	63.6	262	24.6	113	10.6	12	1.1	1	0.1	<b>1,065</b>	<b>100.0</b>
SD	92	61.3	43	28.7	11	7.3	0	0.0	4	2.7	<b>150</b>	<b>100.0</b>
TN	859	66.8	333	25.9	74	5.8	9	0.7	10	0.8	<b>1,285</b>	<b>100.0</b>
TX	2,086	59.3	945	26.9	426	12.1	44	1.3	17	0.5	<b>3,518</b>	<b>100.0</b>
UT	209	58.1	104	28.9	38	10.6	7	1.9	2	0.6	<b>360</b>	<b>100.0</b>
VT	56	62.2	26	28.9	4	4.4	3	3.3	1	1.1	<b>90</b>	<b>100.0</b>
VA	575	65.6	201	22.9	85	9.7	10	1.1	6	0.7	<b>877</b>	<b>100.0</b>
WA	398	62.8	165	26.0	60	9.5	9	1.4	2	0.3	<b>634</b>	<b>100.0</b>
WV	252	63.8	110	27.8	29	7.3	3	0.8	1	0.3	<b>395</b>	<b>100.0</b>
WI	497	66.7	172	23.1	54	7.2	18	2.4	4	0.5	<b>745</b>	<b>100.0</b>
WY	112	59.3	59	31.2	14	7.4	3	1.6	1	0.5	<b>189</b>	<b>100.0</b>
<b>USA</b>	<b>25,210</b>	<b>60.6</b>	<b>10,499</b>	<b>25.2</b>	<b>4,906</b>	<b>11.8</b>	<b>750</b>	<b>1.8</b>	<b>246</b>	<b>0.6</b>	<b>41,611</b>	<b>100.0</b>
PR	234	41.9	114	20.4	194	34.8	15	2.7	1	0.2	<b>558</b>	<b>100.0</b>

**Table 110  
Persons Killed, by State and Age Group**

State	Age Group (Years)											Unknown	Total Killed
	<5	5-9	10-15	16-20	21-24	25-34	35-44	45-54	55-64	65-74	>74		
AL	22	23	35	174	105	197	177	146	94	84	81	0	1,138
AK	2	1	2	14	6	15	10	7	9	7	3	0	76
AZ	25	18	30	123	102	157	175	136	83	76	91	8	1,024
AR	20	12	28	80	42	109	98	81	41	47	46	0	604
CA	91	70	114	472	350	610	573	414	274	278	305	8	3,559
CO	7	11	27	85	65	102	110	85	52	35	47	0	626
CT	3	5	8	35	41	49	47	27	23	21	42	0	301
DE	2	3	3	11	11	13	19	13	6	8	11	0	100
DC	0	1	1	6	6	4	7	7	3	4	1	1	41
FL	37	46	101	335	217	455	455	370	254	244	385	19	2,918
GA	40	46	63	206	117	245	260	201	122	97	108	3	1,508
HI	3	0	3	10	13	19	13	13	4	5	15	0	98
ID	8	9	23	50	21	38	41	26	16	16	30	0	278
IL	30	20	37	210	146	255	225	176	102	113	139	3	1,456
IN	17	11	30	157	93	178	140	139	84	62	102	0	1,013
IA	5	14	19	75	41	72	74	62	44	34	50	0	490
KS	13	7	29	84	44	77	84	61	38	33	67	0	537
KY	5	15	29	126	65	148	131	105	53	76	61	0	814
LA	22	19	24	153	105	147	167	83	72	61	68	3	924
ME	1	1	7	33	19	34	22	11	15	16	22	0	181
MD	7	7	16	110	47	92	97	73	36	42	63	0	590
MA	5	2	14	65	45	68	63	38	29	29	56	0	414
MI	26	28	52	160	135	220	237	173	103	97	151	0	1,382
MN	7	13	21	91	40	97	103	62	56	51	84	0	625
MS	23	19	34	124	101	158	154	95	74	73	69	3	927
MO	14	15	41	182	81	161	174	142	82	82	120	0	1,094
MT	1	6	7	46	18	30	34	31	19	11	17	0	220
NE	2	7	16	46	25	49	46	37	21	24	22	0	295
NV	6	7	10	29	31	49	69	44	40	30	33	2	350
NH	0	2	4	22	11	24	23	14	13	10	18	0	141



**Table 110**  
**Persons Killed, by State and Age Group (Continued)**

State	Age Group (Years)											Unknown	Total Killed
	<5	5-9	10-15	16-20	21-24	25-34	35-44	45-54	55-64	65-74	>74		
NJ	6	12	25	63	73	108	103	79	68	78	109	3	727
NM	10	8	24	65	33	81	91	53	31	37	27	0	460
NY	15	24	49	216	141	255	206	153	131	132	213	13	1,548
NC	22	29	37	202	149	279	244	166	116	124	135	2	1,505
ND	1	1	4	23	19	18	10	13	6	11	13	0	119
OH	15	22	43	248	148	232	232	175	99	93	122	1	1,430
OK	16	17	30	116	67	112	105	91	62	54	67	2	739
OR	7	7	13	50	35	56	71	66	28	42	38	1	414
PA	18	35	50	241	144	235	242	173	97	119	194	1	1,549
RI	1	2	2	6	12	11	16	9	9	7	13	0	88
SC	21	20	26	145	116	181	169	143	68	86	78	12	1,065
SD	2	5	5	24	17	19	28	17	9	10	14	0	150
TN	15	35	37	187	115	251	217	151	97	78	100	2	1,285
TX	86	85	122	537	346	588	616	378	265	204	272	19	3,518
UT	9	7	11	62	33	53	63	39	38	22	23	0	360
VT	0	4	3	16	9	15	16	8	3	9	7	0	90
VA	16	7	24	114	91	146	146	104	90	58	79	2	877
WA	9	9	20	87	53	107	106	75	52	44	72	0	634
WV	5	6	19	65	45	68	60	29	32	29	37	0	395
WI	12	14	21	110	80	116	106	83	63	44	96	0	745
WY	3	8	10	26	15	18	44	31	9	16	9	0	189
<b>USA</b>	<b>733</b>	<b>795</b>	<b>1,403</b>	<b>5,917</b>	<b>3,884</b>	<b>6,821</b>	<b>6,719</b>	<b>4,908</b>	<b>3,235</b>	<b>3,063</b>	<b>4,025</b>	<b>108</b>	<b>41,611</b>
PR	7	13	17	69	53	80	83	79	58	48	35	16	558

**Table 111  
Occupants Killed, by State and Vehicle Type**

State	Vehicle Type												Unknown		Total Occupants Killed	
	Passenger Cars		Light Trucks		Large Trucks		Motorcycles		Buses		Other Vehicles					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
AL	636	60.6	340	32.4	29	2.8	32	3.1	1	0.1	11	1.0	0	0.0	1,049	100.0
AK	29	43.3	25	37.3	0	0.0	9	13.4	0	0.0	4	6.0	0	0.0	67	100.0
AZ	389	45.7	319	37.5	14	1.6	73	8.6	0	0.0	13	1.5	43	5.1	851	100.0
AR	256	46.0	254	45.6	18	3.2	22	3.9	1	0.2	6	1.1	0	0.0	557	100.0
CA	1,637	59.5	812	29.5	46	1.7	236	8.6	2	0.1	18	0.7	1	0.0	2,752	100.0
CO	268	48.6	211	38.3	9	1.6	60	10.9	3	0.5	0	0.0	0	0.0	551	100.0
CT	162	65.6	44	17.8	3	1.2	38	15.4	0	0.0	0	0.0	0	0.0	247	100.0
DE	54	62.8	23	26.7	1	1.2	7	8.1	0	0.0	1	1.2	0	0.0	86	100.0
DC	14	58.3	6	25.0	0	0.0	4	16.7	0	0.0	0	0.0	0	0.0	24	100.0
FL	1,413	61.5	651	28.3	36	1.6	177	7.7	3	0.1	15	0.7	2	0.1	2,297	100.0
GA	784	59.3	425	32.1	39	2.9	59	4.5	0	0.0	14	1.1	2	0.2	1,323	100.0
HI	38	50.0	21	27.6	0	0.0	17	22.4	0	0.0	0	0.0	0	0.0	76	100.0
ID	127	49.2	113	43.8	4	1.6	13	5.0	0	0.0	1	0.4	0	0.0	258	100.0
IL	784	63.2	322	26.0	17	1.4	103	8.3	1	0.1	12	1.0	1	0.1	1,240	100.0
IN	540	58.4	274	29.6	37	4.0	67	7.2	0	0.0	7	0.8	0	0.0	925	100.0
IA	264	57.3	142	30.8	12	2.6	30	6.5	0	0.0	12	2.6	1	0.2	461	100.0
KS	266	53.5	203	40.8	9	1.8	15	3.0	0	0.0	3	0.6	1	0.2	497	100.0
KY	439	58.5	233	31.0	25	3.3	42	5.6	0	0.0	10	1.3	2	0.3	751	100.0
LA	424	53.7	285	36.1	16	2.0	38	4.8	22	2.8	4	0.5	0	0.0	789	100.0
ME	111	65.7	38	22.5	3	1.8	16	9.5	0	0.0	1	0.6	0	0.0	169	100.0
MD	310	66.1	105	22.4	6	1.3	44	9.4	1	0.2	0	0.0	3	0.6	469	100.0
MA	218	65.5	75	22.5	2	0.6	35	10.5	0	0.0	2	0.6	1	0.3	333	100.0
MI	747	63.5	315	26.8	12	1.0	83	7.1	1	0.1	19	1.6	0	0.0	1,177	100.0
MN	335	59.4	172	30.5	10	1.8	30	5.3	0	0.0	17	3.0	0	0.0	564	100.0
MS	516	59.9	291	33.8	18	2.1	18	2.1	0	0.0	16	1.9	2	0.2	861	100.0
MO	608	59.5	335	32.8	32	3.1	37	3.6	2	0.2	8	0.8	0	0.0	1,022	100.0
MT	83	39.5	108	51.4	3	1.4	15	7.1	0	0.0	1	0.5	0	0.0	210	100.0
NE	149	53.8	104	37.5	11	4.0	8	2.9	0	0.0	5	1.8	0	0.0	277	100.0
NV	146	53.9	98	36.2	8	3.0	17	6.3	0	0.0	2	0.7	0	0.0	271	100.0
NH	70	51.9	30	22.2	1	0.7	32	23.7	0	0.0	2	1.5	0	0.0	135	100.0

**Table 111**  
**Occupants Killed, by State and Vehicle Type (Continued)**

State	Vehicle Type												Unknown		Total Occupants Killed	
	Passenger Cars		Light Trucks		Large Trucks		Motorcycles		Buses		Other Vehicles					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
NJ	397	72.3	101	18.4	6	1.1	42	7.7	1	0.2	1	0.2	1	0.2	<b>549</b>	<b>100.0</b>
NM	152	38.3	193	48.6	13	3.3	23	5.8	8	2.0	6	1.5	2	0.5	<b>397</b>	<b>100.0</b>
NY	748	65.1	244	21.2	21	1.8	107	9.3	4	0.3	19	1.7	6	0.5	<b>1,149</b>	<b>100.0</b>
NC	797	60.3	387	29.3	24	1.8	106	8.0	0	0.0	7	0.5	0	0.0	<b>1,321</b>	<b>100.0</b>
ND	60	52.2	50	43.5	0	0.0	3	2.6	0	0.0	1	0.9	1	0.9	<b>115</b>	<b>100.0</b>
OH	787	61.3	321	25.0	40	3.1	120	9.3	0	0.0	15	1.2	1	0.1	<b>1,284</b>	<b>100.0</b>
OK	359	53.8	255	38.2	14	2.1	33	4.9	1	0.1	5	0.7	0	0.0	<b>667</b>	<b>100.0</b>
OR	214	59.1	119	32.9	8	2.2	18	5.0	0	0.0	3	0.8	0	0.0	<b>362</b>	<b>100.0</b>
PA	869	64.6	317	23.6	31	2.3	111	8.2	3	0.2	15	1.1	0	0.0	<b>1,346</b>	<b>100.0</b>
RI	47	63.5	13	17.6	2	2.7	12	16.2	0	0.0	0	0.0	0	0.0	<b>74</b>	<b>100.0</b>
SC	573	61.0	267	28.4	14	1.5	65	6.9	0	0.0	5	0.5	15	1.6	<b>939</b>	<b>100.0</b>
SD	77	55.4	44	31.7	7	5.0	10	7.2	0	0.0	1	0.7	0	0.0	<b>139</b>	<b>100.0</b>
TN	729	61.0	361	30.2	35	2.9	59	4.9	0	0.0	12	1.0	0	0.0	<b>1,196</b>	<b>100.0</b>
TX	1,542	50.9	1,227	40.5	60	2.0	182	6.0	2	0.1	18	0.6	0	0.0	<b>3,031</b>	<b>100.0</b>
UT	130	41.3	145	46.0	12	3.8	23	7.3	0	0.0	4	1.3	1	0.3	<b>315</b>	<b>100.0</b>
VT	49	59.0	24	28.9	1	1.2	7	8.4	0	0.0	2	2.4	0	0.0	<b>83</b>	<b>100.0</b>
VA	476	61.0	222	28.5	20	2.6	38	4.9	1	0.1	6	0.8	17	2.2	<b>780</b>	<b>100.0</b>
WA	322	57.1	188	33.3	11	2.0	38	6.7	0	0.0	4	0.7	1	0.2	<b>564</b>	<b>100.0</b>
WV	225	62.0	95	26.2	9	2.5	23	6.3	1	0.3	9	2.5	1	0.3	<b>363</b>	<b>100.0</b>
WI	385	57.4	204	30.4	4	0.6	66	9.8	0	0.0	12	1.8	0	0.0	<b>671</b>	<b>100.0</b>
WY	63	36.6	92	53.5	5	2.9	9	5.2	0	0.0	3	1.7	0	0.0	<b>172</b>	<b>100.0</b>
<b>USA</b>	<b>20,818</b>	<b>58.1</b>	<b>11,243</b>	<b>31.4</b>	<b>758</b>	<b>2.1</b>	<b>2,472</b>	<b>6.9</b>	<b>58</b>	<b>0.2</b>	<b>352</b>	<b>1.0</b>	<b>105</b>	<b>0.3</b>	<b>35,806</b>	<b>100.0</b>
PR	247	71.0	63	18.1	3	0.9	35	10.1	0	0.0	0	0.0	0	0.0	<b>348</b>	<b>100.0</b>

**Table 112**  
**Passenger Car Occupants Killed, by State and Restraint Use**

State	Restraint Used		No Restraint Used		Restraint Use Unknown		Total Occupants Killed	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
AL	232	36.5	380	59.7	24	3.8	636	100.0
AK	11	37.9	17	58.6	1	3.4	29	100.0
AZ	145	37.3	197	50.6	47	12.1	389	100.0
AR	70	27.3	156	60.9	30	11.7	256	100.0
CA	833	50.9	548	33.5	256	15.6	1,637	100.0
CO	126	47.0	142	53.0	0	0.0	268	100.0
CT	60	37.0	86	53.1	16	9.9	162	100.0
DE	18	33.3	36	66.7	0	0.0	54	100.0
DC	4	28.6	6	42.9	4	28.6	14	100.0
FL	584	41.3	794	56.2	35	2.5	1,413	100.0
GA	324	41.3	370	47.2	90	11.5	784	100.0
HI	14	36.8	19	50.0	5	13.2	38	100.0
ID	40	31.5	84	66.1	3	2.4	127	100.0
IL	283	36.1	353	45.0	148	18.9	784	100.0
IN	235	43.5	261	48.3	44	8.1	540	100.0
IA	110	41.7	104	39.4	50	18.9	264	100.0
KS	101	38.0	127	47.7	38	14.3	266	100.0
KY	141	32.1	279	63.6	19	4.3	439	100.0
LA	138	32.5	212	50.0	74	17.5	424	100.0
ME	51	45.9	46	41.4	14	12.6	111	100.0
MD	167	53.9	128	41.3	15	4.8	310	100.0
MA	58	26.6	125	57.3	35	16.1	218	100.0
MI	348	46.6	322	43.1	77	10.3	747	100.0
MN	131	39.1	151	45.1	53	15.8	335	100.0
MS	131	25.4	368	71.3	17	3.3	516	100.0
MO	207	34.0	329	54.1	72	11.8	608	100.0
MT	18	21.7	60	72.3	5	6.0	83	100.0
NE	40	26.8	89	59.7	20	13.4	149	100.0
NV	62	42.5	75	51.4	9	6.2	146	100.0
NH	22	31.4	38	54.3	10	14.3	70	100.0

**Table 112**  
**Passenger Car Occupants Killed, by State and Restraint Use (Continued)**

State	Restraint Used		No Restraint Used		Restraint Use Unknown		Total Occupants Killed	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NJ	149	37.5	220	55.4	28	7.1	<b>397</b>	<b>100.0</b>
NM	64	42.1	82	53.9	6	3.9	<b>152</b>	<b>100.0</b>
NY	316	42.2	345	46.1	87	11.6	<b>748</b>	<b>100.0</b>
NC	388	48.7	306	38.4	103	12.9	<b>797</b>	<b>100.0</b>
ND	25	41.7	34	56.7	1	1.7	<b>60</b>	<b>100.0</b>
OH	309	39.3	419	53.2	59	7.5	<b>787</b>	<b>100.0</b>
OK	154	42.9	204	56.8	1	0.3	<b>359</b>	<b>100.0</b>
OR	113	52.8	81	37.9	20	9.3	<b>214</b>	<b>100.0</b>
PA	263	30.3	450	51.8	156	18.0	<b>869</b>	<b>100.0</b>
RI	15	31.9	31	66.0	1	2.1	<b>47</b>	<b>100.0</b>
SC	219	38.2	353	61.6	1	0.2	<b>573</b>	<b>100.0</b>
SD	18	23.4	53	68.8	6	7.8	<b>77</b>	<b>100.0</b>
TN	197	27.0	486	66.7	46	6.3	<b>729</b>	<b>100.0</b>
TX	808	52.4	696	45.1	38	2.5	<b>1,542</b>	<b>100.0</b>
UT	48	36.9	78	60.0	4	3.1	<b>130</b>	<b>100.0</b>
VT	13	26.5	26	53.1	10	20.4	<b>49</b>	<b>100.0</b>
VA	176	37.0	269	56.5	31	6.5	<b>476</b>	<b>100.0</b>
WA	130	40.4	170	52.8	22	6.8	<b>322</b>	<b>100.0</b>
WV	78	34.7	133	59.1	14	6.2	<b>225</b>	<b>100.0</b>
WI	148	38.4	212	55.1	25	6.5	<b>385</b>	<b>100.0</b>
WY	17	27.0	43	68.3	3	4.8	<b>63</b>	<b>100.0</b>
USA	8,352	40.1	10,593	50.9	1,873	9.0	<b>20,818</b>	<b>100.0</b>
PR	72	29.1	175	70.9	0	0.0	<b>247</b>	<b>100.0</b>

**Table 113**  
**1999 Ranking of State Pedestrian Fatality Rates**

Rank	State	Pedestrians Killed	Population (Thousands)	Pedestrian Fatality Rate per 100,000 Population
1	Nevada	67	1,809	3.70
2	Florida	487	15,111	3.22
3	District of Columbia	16	519	3.08
4	Arizona	143	4,778	2.99
5	New Mexico	52	1,740	2.99
6	Wyoming	14	480	2.92
7	South Carolina	113	3,886	2.91
8	Louisiana	106	4,372	2.42
9	Maryland	114	5,172	2.20
10	Mississippi	60	2,769	2.17
11	Texas	426	20,044	2.13
12	Georgia	159	7,788	2.04
13	North Carolina	155	7,651	2.03
14	California	665	33,145	2.01
15	Alabama	86	4,370	1.97
16	New York	351	18,197	1.93
17	New Jersey	154	8,143	1.89
18	Utah	38	2,130	1.78
19	Hawaii	21	1,185	1.77
20	Oklahoma	59	3,358	1.76
21	Michigan	173	9,864	1.75
22	Arkansas	41	2,551	1.61
23	West Virginia	29	1,807	1.60
24	Delaware	12	754	1.59
25	Connecticut	51	3,282	1.55
26	Colorado	63	4,056	1.55
27	Pennsylvania	183	11,994	1.53
28	South Dakota	11	733	1.50

**Table 113**  
**1999 Ranking of State Pedestrian Fatality Rates (Continued)**

Rank	State	Pedestrians Killed	Population (Thousands)	Pedestrian Fatality Rate per 100,000 Population
29	Oregon	48	3,316	1.45
30	Illinois	175	12,128	1.44
31	Rhode Island	14	991	1.41
32	Tennessee	74	5,484	1.35
33	Kentucky	52	3,961	1.31
34	Kansas	33	2,654	1.24
35	Virginia	85	6,873	1.24
36	Massachusetts	74	6,175	1.20
37	Missouri	65	5,468	1.19
38	Alaska	7	620	1.13
39	Indiana	67	5,943	1.13
40	Idaho	14	1,252	1.12
41	Ohio	122	11,257	1.08
42	Minnesota	51	4,776	1.07
43	Washington	60	5,756	1.04
44	Wisconsin	54	5,250	1.03
45	Maine	11	1,253	0.88
46	Nebraska	14	1,666	0.84
47	Montana	7	883	0.79
48	Vermont	4	594	0.67
49	North Dakota	4	634	0.63
50	Iowa	17	2,869	0.59
51	New Hampshire	5	1,201	0.42
	<b>USA</b>	<b>4,906</b>	<b>272,691</b>	<b>1.80</b>
	Puerto Rico	194	3,890	4.99

**Table 114**  
**Persons Killed, by State and Highest Blood Alcohol Concentration in the Crash**

State	Highest Blood Alcohol Concentration in Crash						Total Killed in Alcohol-Related Crashes		Total Killed	
	BAC = 0.00		BAC = 0.01-0.09		BAC = 0.10+		Number	Percent	Number	Percent
	Number	Percent	Number	Percent	Number	Percent				
AL	708	62	77	7	353	31	430	38	1,138	100
AK	36	47	8	10	32	43	40	53	76	100
AZ	618	60	78	8	328	32	406	40	1,024	100
AR	414	69	49	8	140	23	190	31	604	100
CA	2,208	62	343	10	1,009	28	1,351	38	3,559	100
CO	406	65	49	8	171	27	220	35	626	100
CT	167	55	33	11	101	34	134	45	301	100
DE	60	60	6	6	34	34	40	40	100	100
DC	19	47	6	14	16	39	22	53	41	100
FL	1,875	64	214	7	829	28	1,043	36	2,918	100
GA	1,002	66	137	9	368	24	506	34	1,508	100
HI	55	56	11	12	31	32	43	44	98	100
ID	176	63	26	9	76	28	102	37	278	100
IL	819	56	134	9	504	35	637	44	1,456	100
IN	671	66	77	8	265	26	342	34	1,013	100
IA	330	67	41	8	119	24	160	33	490	100
KS	351	65	43	8	143	27	186	35	537	100
KY	533	65	51	6	229	28	281	35	814	100
LA	497	54	101	11	326	35	427	46	924	100
ME	122	68	8	5	51	28	59	32	181	100
MD	411	70	42	7	137	23	179	30	590	100
MA	211	51	63	15	140	34	203	49	414	100
MI	835	60	106	8	442	32	547	40	1,382	100
MN	424	68	39	6	162	26	201	32	625	100
MS	565	61	62	7	300	32	362	39	927	100
MO	653	60	116	11	325	30	441	40	1,094	100
MT	117	53	16	7	87	40	103	47	220	100
NE	170	58	38	13	87	30	125	42	295	100
NV	194	55	52	15	105	30	156	45	350	100
NH	75	53	24	17	42	30	66	47	141	100



**Table 114**  
**Persons Killed, by State and Highest Blood Alcohol Concentration in the Crash (Continued)**

State	Highest Blood Alcohol Concentration in Crash						Total Killed in Alcohol-Related Crashes		Total Killed	
	BAC = 0.00		BAC = 0.01-0.09		BAC = 0.10+		Number	Percent	Number	Percent
	Number	Percent	Number	Percent	Number	Percent				
NJ	436	60	79	11	211	29	291	40	727	100
NM	254	55	37	8	169	37	206	45	460	100
NY	1,204	78	92	6	252	16	344	22	1,548	100
NC	969	64	123	8	413	27	536	36	1,505	100
ND	63	53	11	10	45	38	56	47	119	100
OH	972	68	78	5	380	27	458	32	1,430	100
OK	494	67	49	7	196	27	245	33	739	100
OR	244	59	29	7	141	34	170	41	414	100
PA	944	61	111	7	494	32	605	39	1,549	100
RI	52	59	12	14	23	27	36	41	88	100
SC	732	69	50	5	283	27	333	31	1,065	100
SD	85	57	9	6	56	37	65	43	150	100
TN	796	62	107	8	382	30	489	38	1,285	100
TX	1,784	51	393	11	1,341	38	1,734	49	3,518	100
UT	286	79	18	5	56	15	74	21	360	100
VT	56	62	9	10	25	28	34	38	90	100
VA	557	64	74	8	246	28	320	36	877	100
WA	369	58	41	6	225	35	265	42	634	100
WV	250	63	26	7	119	30	145	37	395	100
WI	436	59	53	7	256	34	309	41	745	100
WY	119	63	15	8	56	29	70	37	189	100
<b>USA</b>	<b>25,825</b>	<b>62</b>	<b>3,466</b>	<b>8</b>	<b>12,321</b>	<b>30</b>	<b>15,786</b>	<b>38</b>	<b>41,611</b>	<b>100</b>
PR	299	54	63	11	196	35	259	46	558	100

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 115**  
**Drivers Involved in Fatal Crashes, by State**  
**and Blood Alcohol Concentration of the Driver**

State	Blood Alcohol Concentration of Driver								Total Drivers Involved in Fatal Crashes	
	No Alcohol (BAC = 0.00)		Low Alcohol (BAC = 0.01-0.09)		High Alcohol (BAC = 0.10+)		Any Alcohol (BAC = 0.01+)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
AL	1,155	76	72	5	286	19	358	24	1,513	100
AK	65	64	9	9	27	27	36	36	101	100
AZ	1,090	79	67	5	226	16	293	21	1,383	100
AR	618	79	46	6	120	15	166	21	784	100
CA	3,591	78	287	6	712	16	999	22	4,590	100
CO	650	77	52	6	138	16	189	23	839	100
CT	283	71	33	8	82	21	115	29	398	100
DE	121	80	5	3	26	17	31	20	152	100
DC	39	68	7	13	11	20	18	32	57	100
FL	3,421	81	192	5	587	14	780	19	4,201	100
GA	1,681	81	116	6	280	13	396	19	2,077	100
HI	100	71	8	5	33	23	41	29	141	100
ID	256	74	24	7	67	19	91	26	347	100
IL	1,501	74	127	6	401	20	529	26	2,030	100
IN	1,104	79	75	5	217	16	291	21	1,395	100
IA	561	80	42	6	98	14	140	20	701	100
KS	542	77	43	6	115	16	158	23	700	100
KY	818	77	45	4	193	18	239	23	1,057	100
LA	833	69	100	8	275	23	375	31	1,208	100
ME	202	79	9	4	44	17	54	21	256	100
MD	718	84	38	4	103	12	141	16	859	100
MA	383	67	64	11	123	22	187	33	570	100
MI	1,545	77	108	5	347	17	455	23	2,000	100
MN	735	81	35	4	142	16	177	19	912	100
MS	891	73	61	5	262	22	323	27	1,214	100
MO	1,097	74	114	8	278	19	392	26	1,489	100
MT	158	62	15	6	80	32	96	38	254	100
NE	290	73	32	8	76	19	108	27	398	100
NV	332	73	44	9	82	18	126	27	458	100
NH	124	66	25	13	38	20	64	34	188	100

**Table 115**  
**Drivers Involved in Fatal Crashes, by State**  
**and Blood Alcohol Concentration of the Driver (Continued)**

State	Blood Alcohol Concentration of Driver								Total Drivers Involved in Fatal Crashes	
	No Alcohol (BAC = 0.00)		Low Alcohol (BAC = 0.01-0.09)		High Alcohol (BAC = 0.10+)		Any Alcohol (BAC = 0.01+)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NJ	759	77	81	8	150	15	230	23	<b>989</b>	<b>100</b>
NM	396	71	38	7	125	22	163	29	<b>559</b>	<b>100</b>
NY	1,821	88	66	3	190	9	256	12	<b>2,077</b>	<b>100</b>
NC	1,705	81	100	5	309	15	409	19	<b>2,114</b>	<b>100</b>
ND	96	67	10	7	37	26	47	33	<b>143</b>	<b>100</b>
OH	1,630	81	69	3	315	16	384	19	<b>2,014</b>	<b>100</b>
OK	764	79	43	5	154	16	197	21	<b>961</b>	<b>100</b>
OR	431	76	31	5	106	19	137	24	<b>568</b>	<b>100</b>
PA	1,602	75	107	5	415	20	522	25	<b>2,124</b>	<b>100</b>
RI	83	71	12	11	22	18	34	29	<b>117</b>	<b>100</b>
SC	1,154	82	37	3	219	16	256	18	<b>1,410</b>	<b>100</b>
SD	135	70	9	5	49	25	58	30	<b>193</b>	<b>100</b>
TN	1,316	75	100	6	332	19	432	25	<b>1,748</b>	<b>100</b>
TX	3,267	68	413	9	1,102	23	1,515	32	<b>4,782</b>	<b>100</b>
UT	372	86	15	3	47	11	62	14	<b>434</b>	<b>100</b>
VT	83	74	10	9	20	18	29	26	<b>112</b>	<b>100</b>
VA	895	77	65	6	199	17	264	23	<b>1,159</b>	<b>100</b>
WA	615	73	41	5	185	22	226	27	<b>841</b>	<b>100</b>
WV	394	77	24	5	95	19	119	23	<b>513</b>	<b>100</b>
WI	726	72	53	5	233	23	286	28	<b>1,012</b>	<b>100</b>
WY	154	74	11	5	45	21	56	26	<b>210</b>	<b>100</b>
<b>USA</b>	<b>43,305</b>	<b>77</b>	<b>3,229</b>	<b>6</b>	<b>9,818</b>	<b>17</b>	<b>13,047</b>	<b>23</b>	<b>56,352</b>	<b>100</b>
PR	500	69	68	9	154	21	223	31	<b>723</b>	<b>100</b>

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 116**  
**Drivers Killed in Fatal Crashes, by State**  
**and Blood Alcohol Concentration of the Driver**

State	Blood Alcohol Concentration of Driver								Total Drivers Killed	
	No Alcohol (BAC = 0.00)		Low Alcohol (BAC = 0.01-0.09)		High Alcohol (BAC = 0.10+)		Any Alcohol (BAC = 0.01+)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
AL	516	68	36	5	211	28	247	32	763	100
AK	25	51	4	8	21	41	25	50	50	100
AZ	352	67	31	6	144	27	175	33	527	100
AR	287	71	26	6	94	23	120	29	407	100
CA	1,189	66	139	8	479	27	618	34	1,807	100
CO	251	67	27	7	99	26	126	33	377	100
CT	99	59	16	10	54	32	70	41	169	100
DE	42	64	2	3	21	32	23	36	65	100
DC	12	62	2	9	6	30	7	38	19	100
FL	1,097	69	98	6	391	25	489	31	1,586	100
GA	658	71	57	6	214	23	271	29	929	100
HI	24	50	2	5	22	45	25	50	49	100
ID	99	62	15	10	46	29	61	38	160	100
IL	542	60	67	7	293	32	360	40	902	100
IN	475	69	49	7	164	24	213	31	688	100
IA	230	72	21	7	70	22	91	28	321	100
KS	226	67	22	7	90	27	112	33	338	100
KY	377	68	21	4	157	28	178	32	555	100
LA	307	56	49	9	193	35	242	44	549	100
ME	86	70	3	3	34	27	37	30	123	100
MD	275	76	18	5	68	19	86	24	361	100
MA	153	60	30	12	73	28	104	40	257	100
MI	555	65	51	6	249	29	300	35	855	100
MN	297	70	19	4	109	26	128	30	425	100
MS	396	63	30	5	200	32	230	37	626	100
MO	487	67	52	7	192	26	243	33	730	100
MT	71	50	8	5	64	45	71	50	142	100
NE	118	60	25	13	55	28	80	40	198	100
NV	105	62	20	12	43	26	64	38	169	100
NH	47	48	19	19	32	33	51	52	98	100

**Table 116**  
**Drivers Killed in Fatal Crashes, by State**  
**and Blood Alcohol Concentration of the Driver (Continued)**

State	Blood Alcohol Concentration of Driver								Total Drivers Killed	
	No Alcohol (BAC = 0.00)		Low Alcohol (BAC = 0.01-0.09)		High Alcohol (BAC = 0.10+)		Any Alcohol (BAC = 0.01+)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NJ	269	70	29	8	87	23	115	30	<b>384</b>	<b>100</b>
NM	133	56	18	8	86	36	104	44	<b>237</b>	<b>100</b>
NY	683	81	34	4	124	15	158	19	<b>841</b>	<b>100</b>
NC	664	70	64	7	224	24	288	30	<b>952</b>	<b>100</b>
ND	39	54	2	3	31	42	33	46	<b>72</b>	<b>100</b>
OH	662	70	50	5	228	24	278	30	<b>940</b>	<b>100</b>
OK	319	71	20	5	110	24	130	29	<b>449</b>	<b>100</b>
OR	148	60	15	6	83	34	98	40	<b>246</b>	<b>100</b>
PA	612	63	58	6	304	31	362	37	<b>974</b>	<b>100</b>
RI	33	59	8	14	15	27	24	41	<b>57</b>	<b>100</b>
SC	476	70	25	4	176	26	201	30	<b>677</b>	<b>100</b>
SD	59	64	4	5	29	32	33	36	<b>92</b>	<b>100</b>
TN	550	64	60	7	248	29	309	36	<b>859</b>	<b>100</b>
TX	1,199	57	167	8	721	35	887	43	<b>2,086</b>	<b>100</b>
UT	169	81	8	4	32	15	40	19	<b>209</b>	<b>100</b>
VT	37	66	5	9	14	25	19	34	<b>56</b>	<b>100</b>
VA	393	68	40	7	142	25	182	32	<b>575</b>	<b>100</b>
WA	246	62	19	5	133	34	152	38	<b>398</b>	<b>100</b>
WV	165	65	12	5	76	30	87	35	<b>252</b>	<b>100</b>
WI	291	59	29	6	177	36	206	41	<b>497</b>	<b>100</b>
WY	69	62	7	6	35	32	43	38	<b>112</b>	<b>100</b>
<b>USA</b>	<b>16,616</b>	<b>66</b>	<b>1,635</b>	<b>6</b>	<b>6,960</b>	<b>28</b>	<b>8,594</b>	<b>34</b>	<b>25,210</b>	<b>100</b>
PR	137	58	22	9	76	32	97	42	<b>234</b>	<b>100</b>

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 117**  
**Surviving Drivers Involved in Fatal Crashes, by State**  
**and Blood Alcohol Concentration of the Driver**

State	Blood Alcohol Concentration of Driver								Total Surviving Drivers in Fatal Crashes	
	No Alcohol (BAC = 0.00)		Low Alcohol (BAC = 0.01-0.09)		High Alcohol (BAC = 0.10+)		Any Alcohol (BAC = 0.01+)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
AL	639	85	36	5	75	10	111	15	750	100
AK	40	78	5	10	6	13	11	22	51	100
AZ	738	86	37	4	82	10	118	14	856	100
AR	331	88	20	5	26	7	46	12	377	100
CA	2,402	86	148	5	232	8	381	14	2,783	100
CO	398	86	25	5	39	8	64	14	462	100
CT	184	80	17	7	28	12	45	20	229	100
DE	79	91	3	4	5	5	8	9	87	100
DC	27	71	6	15	5	14	11	29	38	100
FL	2,324	89	94	4	197	8	291	11	2,615	100
GA	1,023	89	58	5	66	6	125	11	1,148	100
HI	76	82	5	6	11	12	16	18	92	100
ID	157	84	9	5	21	11	30	16	187	100
IL	959	85	60	5	109	10	169	15	1,128	100
IN	628	89	26	4	53	7	79	11	707	100
IA	332	87	21	5	28	7	48	13	380	100
KS	316	87	20	6	25	7	46	13	362	100
KY	442	88	24	5	36	7	60	12	502	100
LA	526	80	51	8	82	12	133	20	659	100
ME	116	87	6	5	10	8	17	13	133	100
MD	443	89	20	4	35	7	55	11	498	100
MA	230	73	34	11	50	16	83	27	313	100
MI	990	86	57	5	98	9	155	14	1,145	100
MN	438	90	16	3	33	7	49	10	487	100
MS	495	84	31	5	62	11	93	16	588	100
MO	611	80	63	8	86	11	148	20	759	100
MT	88	78	8	7	17	15	24	22	112	100
NE	172	86	7	4	21	11	28	14	200	100
NV	227	78	23	8	39	14	62	22	289	100
NH	77	86	6	7	7	7	13	14	90	100

**Table 117**  
**Surviving Drivers Involved in Fatal Crashes, by State**  
**and Blood Alcohol Concentration of the Driver (Continued)**

State	Blood Alcohol Concentration of Driver								Total Surviving Drivers in Fatal Crashes	
	No Alcohol (BAC = 0.00)		Low Alcohol (BAC = 0.01-0.09)		High Alcohol (BAC = 0.10+)		Any Alcohol (BAC = 0.01+)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NJ	490	81	52	9	63	10	115	19	605	100
NM	263	82	20	6	39	12	59	18	322	100
NY	1,138	92	32	3	66	5	98	8	1,236	100
NC	1,041	90	37	3	84	7	121	10	1,162	100
ND	57	80	7	10	7	10	14	20	71	100
OH	968	90	19	2	87	8	106	10	1,074	100
OK	445	87	23	5	44	9	67	13	512	100
OR	283	88	16	5	23	7	39	12	322	100
PA	990	86	49	4	111	10	160	14	1,150	100
RI	50	83	4	7	6	10	10	17	60	100
SC	678	92	11	2	44	6	55	8	733	100
SD	77	76	4	4	20	20	24	24	101	100
TN	766	86	39	4	84	9	123	14	889	100
TX	2,068	77	247	9	382	14	628	23	2,696	100
UT	202	90	7	3	15	7	23	10	225	100
VT	46	82	4	8	6	10	10	18	56	100
VA	502	86	25	4	57	10	82	14	584	100
WA	369	83	22	5	52	12	74	17	443	100
WV	230	88	12	5	19	7	31	12	261	100
WI	434	84	24	5	56	11	81	16	515	100
WY	85	87	3	3	10	10	13	13	98	100
<b>USA</b>	<b>26,689</b>	<b>86</b>	<b>1,595</b>	<b>5</b>	<b>2,858</b>	<b>9</b>	<b>4,453</b>	<b>14</b>	<b>31,142</b>	<b>100</b>
PR	364	74	47	10	79	16	125	26	489	100

Note: NHTSA estimates alcohol involvement when alcohol test results are unknown. For more information, see page 7 of this report.

**Table 118**  
**Speeding-Related Traffic Fatalities and Costs by Road Type and Speed Limit**

State	Total Traffic Fatalities	Speeding-Related Fatalities by Road Type and Speed Limit									Estimated Costs of Speeding-Related Crashes by Road Type (Million 1994 Dollars)		
		Total	Interstate		Non-Interstate						Total	Interstate	Non-Interstate
			>55 mph	≤55 mph	55 mph	50 mph	45 mph	40 mph	35 mph	<35 mph			
AL	1,138	407	37	4	97	14	154	30	39	19	463	55	408
AK	76	38	3	7	9	4	2	2	6	3	71	14	57
AZ	1,024	383	49	15	51	31	64	51	40	25	563	91	471
AR	604	171	14	1	83	5	23	4	13	16	261	31	230
CA	3,559	1,307	191	25	356	60	86	100	153	115	2,948	446	2,502
CO	626	265	27	15	44	19	26	27	36	37	428	65	362
CT	301	113	4	9	5	3	24	8	9	48	397	53	343
DE	100	21	0	1	5	7	0	0	2	2	62	7	54
DC	41	12	0	0	0	2	2	0	1	6	79	9	70
FL	2,918	524	51	20	76	13	90	55	51	59	1,448	212	1,236
GA	1,508	318	39	14	118	5	51	13	42	26	739	112	628
HI	98	29	0	1	1	0	2	0	11	13	107	12	94
ID	278	95	13	0	20	13	8	0	12	4	119	17	102
IL	1,456	480	50	51	203	5	43	19	58	50	1,200	200	1,000
IN	1,013	233	15	10	81	10	28	16	33	37	515	67	448
IA	490	52	7	0	21	0	1	2	2	15	198	28	170
KS	537	134	15	0	29	5	6	12	8	21	242	31	211
KY	814	215	10	1	152	4	11	2	24	4	383	42	342
LA	924	133	5	4	64	8	16	5	20	9	423	54	369
ME	181	79	5	0	5	10	26	8	10	11	140	15	124
MD	590	191	7	3	11	29	5	30	25	33	601	73	528
MA	414	127	15	9	2	7	16	18	20	38	677	102	575
MI	1,382	314	24	13	154	4	19	10	37	34	931	131	800
MN	625	155	18	3	88	6	6	7	2	17	349	49	300
MS	927	206	30	1	72	24	32	9	13	15	253	37	216
MO	1,094	373	57	12	133	5	23	9	35	42	623	101	522
MT	220	86	7	0	13	3	5	0	9	9	99	12	87
NE	295	69	9	0	6	27	6	0	8	4	157	22	135
NV	350	139	29	5	13	5	22	5	9	17	237	46	190
NH	141	50	3	0	2	2	0	6	10	24	95	10	85



**Table 118**  
**Speeding-Related Traffic Fatalities and Costs by Road Type and Speed Limit (Continued)**

State	Total Traffic Fatalities	Speeding-Related Fatalities by Road Type and Speed Limit									Estimated Costs of Speeding-Related Crashes by Road Type (Million 1994 Dollars)		
		Total	Interstate		Non-Interstate						Total	Interstate	Non-Interstate
			>55 mph	≤55 mph	55 mph	50 mph	45 mph	40 mph	35 mph	<35 mph			
NJ	727	69	1	3	4	15	9	5	5	22	970	132	838
NM	460	166	18	4	28	9	14	11	19	25	228	31	197
NY	1,548	445	12	14	180	15	20	35	17	75	2,216	285	1,931
NC	1,505	568	36	13	314	12	107	2	70	7	980	116	864
ND	119	48	4	1	24	2	0	4	1	6	56	7	50
OH	1,430	363	40	9	186	10	29	15	26	19	1,215	173	1,042
OK	739	276	56	3	40	9	41	21	16	16	374	66	307
OR	414	128	11	4	75	2	7	9	7	10	257	34	223
PA	1,549	589	35	38	166	11	99	85	104	44	1,136	153	983
RI	88	25	4	1	2	3	1	0	6	8	82	13	69
SC	1,065	502	55	9	193	11	84	18	52	30	551	78	473
SD	150	59	4	0	23	2	4	2	5	2	79	8	71
TN	1,285	363	30	22	105	13	71	38	28	49	584	84	501
TX	3,518	1,332	166	47	208	38	108	89	103	105	2,334	354	1,980
UT	360	97	30	3	11	1	5	6	12	10	166	36	130
VT	90	37	4	0	0	20	0	3	8	1	51	6	45
VA	877	232	16	10	114	4	35	6	30	14	583	77	506
WA	634	226	21	0	22	31	9	17	59	37	602	76	525
WV	395	114	18	0	43	1	18	11	9	11	189	28	161
WI	745	203	17	2	108	0	22	2	17	24	448	56	392
WY	189	67	26	1	8	0	2	1	2	2	76	24	52
<b>USA</b>	<b>41,611</b>	<b>*12,628</b>	<b>1,338</b>	<b>408</b>	<b>3,768</b>	<b>539</b>	<b>1,482</b>	<b>828</b>	<b>1,334</b>	<b>1,270</b>	<b>27,985</b>	<b>3,985</b>	<b>24,000</b>
PR	558	273	0	56	5	13	53	38	76	32	605	124	481

\*Of the total number of speeding-related fatalities in 1999, 5,779 occurred on roads with posted speed limits between 55 and 65 mph, and 880 occurred on roads with speed limits above 65 mph.

Notes: Totals may not equal sum of components due to independent rounding. The total column for speeding-related fatalities includes fatalities that occurred on roads for which the speed limit was unknown. The total column for costs of speeding-related crashes includes costs for crashes that occurred on unknown road types. Costs are based on preliminary estimates.

**Table 119**  
**Rural Fatal Crashes by State and Average Emergency Medical Services (EMS)**  
**Response Times**

State	Average Response Time (Minutes)*								Total Fatal Crashes
	Time of Crash to EMS Notification		EMS Notification to EMS Arrival at Crash Scene		EMS Arrival at Crash Scene to Hospital Arrival		Time of Crash to Hospital Arrival		
	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	
AL	12.69	90.3	12.38	89.0	33.71	91.9	53.54	91.9	691
AK	7.00	23.9	17.20	10.9	31.13	47.8	49.26	50.0	46
AZ	4.82	27.2	16.59	25.7	51.20	98.9	72.17	98.7	459
AR	7.47	15.7	11.96	12.6	NA	NA	NA	NA	420
CA	5.17	99.1	7.67	99.1	68.00	99.9	58.00	99.8	1,259
CO	7.53	12.9	12.98	7.1	34.97	45.6	50.81	46.5	340
CT	0.98	37.8	7.32	10.8	34.92	48.7	41.66	48.7	74
DE	6.09	0.0	8.00	0.0	28.80	30.2	38.55	32.6	43
DC	2.00	0.0	3.00	0.0	5.00	0.0	10.00	0.0	1
FL	5.81	19.2	8.71	14.9	NA	NA	NA	NA	1,196
GA	2.60	9.1	9.37	8.0	38.60	29.8	49.28	30.8	766
HI	4.17	10.6	8.67	2.1	40.11	42.6	51.15	42.6	47
ID	7.10	10.0	14.38	5.7	NA	NA	NA	NA	210
IL	7.58	14.0	19.83	93.7	28.94	94.2	73.47	94.2	552
IN	NA	NA	NA	NA	NA	NA	NA	NA	621
IA	7.41	10.3	11.14	4.7	37.01	31.0	52.03	35.4	339
KS	8.91	18.2	11.68	15.2	37.78	25.5	53.54	31.3	329
KY	5.94	7.9	10.49	6.0	36.47	33.2	50.66	34.5	579
LA	8.21	14.1	12.74	5.1	37.65	33.6	55.64	35.7	569
ME	6.69	13.1	9.97	0.7	41.70	32.9	55.24	33.6	137
MD	NA	NA	NA	NA	NA	NA	NA	NA	210
MA	10.49	26.7	8.53	7.9	35.20	35.6	50.00	36.6	101
MI	4.33	22.1	9.25	20.8	NA	NA	NA	NA	621
MN	4.76	24.0	11.81	23.0	31.27	46.0	44.94	49.2	417
MS	15.87	26.3	17.62	26.1	20.63	20.4	53.61	20.9	824
MO	8.32	21.8	11.45	3.8	38.90	64.9	53.75	66.2	692
MT	11.21	11.4	16.76	2.8	37.47	30.1	58.87	36.4	176
NE	9.78	25.0	10.71	15.1	30.29	35.9	48.96	40.6	212
NV	11.22	16.4	20.08	9.6	41.36	42.5	62.89	49.3	146
NH	3.39	11.5	11.36	13.8	36.78	89.7	49.22	89.7	87

**Table 119**  
**Rural Fatal Crashes by State and Average Emergency Medical Services (EMS)**  
**Response Times (Continued)**

State	Average Response Time (Minutes)*								Total Fatal Crashes
	Time of Crash to EMS Notification		EMS Notification to EMS Arrival at Crash Scene		EMS Arrival at Crash Scene to Hospital Arrival		Time of Crash to Hospital Arrival		
	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	
NJ	NA	NA	NA	NA	NA	NA	NA	NA	178
NM	NA	NA	NA	NA	NA	NA	NA	NA	293
NY	3.68	25.7	7.88	23.4	36.70	48.7	46.59	49.6	816
NC	6.59	27.8	10.60	24.1	41.65	38.7	55.50	42.0	816
ND	12.94	17.1	13.89	2.4	44.95	20.7	58.71	37.8	82
OH	7.84	84.3	11.73	86.8	36.29	92.0	54.22	92.2	772
OK	8.53	33.6	10.17	16.2	39.78	38.6	52.98	41.3	438
OR	4.02	11.1	11.63	3.8	44.30	38.9	54.68	42.4	262
PA	6.02	42.1	10.34	28.5	36.57	52.2	49.98	53.2	799
RI	2.33	30.8	6.69	0.0	32.80	23.1	41.00	23.1	13
SC	5.75	99.5	15.50	99.8	NA	NA	22.50	99.8	806
SD	8.52	23.9	13.17	18.8	35.07	28.2	53.69	31.6	117
TN	11.60	58.0	11.13	44.4	35.56	84.0	49.65	84.3	730
TX	8.00	34.4	13.05	33.1	40.54	61.6	59.80	63.1	1,743
UT	5.48	20.9	13.99	25.2	35.38	92.2	44.25	93.5	306
VT	8.00	43.8	11.78	20.6	37.24	37.0	49.58	48.0	73
VA	NA	NA	NA	NA	NA	NA	NA	NA	500
WA	8.16	20.3	9.96	6.7	47.51	40.6	60.33	43.8	345
WV	5.01	8.6	11.45	0.3	42.70	28.2	54.65	31.6	291
WI	4.80	7.8	10.58	3.8	33.51	40.0	47.43	42.3	523
WY	9.62	19.9	17.91	11.4	40.63	46.1	59.50	51.8	141
<b>USA</b>	<b>7.06</b>	<b>40.8</b>	<b>11.59</b>	<b>38.5</b>	<b>36.62</b>	<b>66.6</b>	<b>52.89</b>	<b>67.9</b>	<b>22,208</b>
PR	10.85	77.5	12.65	76.5	NA	NA	NA	NA	204

\*Includes crashes for which both times were known.  
 NA = not available or not applicable.

**Table 120**  
**Urban Fatal Crashes by State and Average Emergency Medical Services (EMS)**  
**Response Times**

State	Average Response Time (Minutes)*								Total Fatal Crashes
	Time of Crash to EMS Notification		EMS Notification to EMS Arrival at Crash Scene		EMS Arrival at Crash Scene to Hospital Arrival		Time of Crash to Hospital Arrival		
	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	
AL	15.96	92.2	6.67	90.9	23.00	92.9	30.26	93.6	295
AK	2.50	8.3	5.22	4.2	20.44	25.0	27.89	20.8	24
AZ	2.44	40.0	6.29	35.6	27.17	98.7	34.67	98.7	447
AR	3.38	14.2	5.82	10.8	12.00	99.2	17.00	99.2	120
CA	3.91	98.3	5.44	98.7	24.83	99.7	41.76	99.1	1,889
CO	3.87	14.4	6.79	7.9	23.15	38.6	32.45	39.6	202
CT	1.62	28.7	5.42	14.9	23.97	39.5	30.46	37.4	195
DE	3.79	0.0	4.93	0.0	20.50	28.6	29.97	28.6	42
DC	2.71	2.6	4.26	0.0	12.05	0.0	19.21	2.6	39
FL	3.84	30.4	5.80	26.4	NA	NA	NA	NA	1,430
GA	2.02	9.4	6.45	7.9	28.13	23.4	36.53	23.6	534
HI	2.38	23.8	8.33	0.0	29.57	16.7	38.86	16.7	42
ID	3.26	2.9	7.43	0.0	NA	NA	NA	NA	35
IL	7.96	6.1	8.34	79.0	22.53	81.0	52.92	80.8	743
IN	NA	NA	NA	NA	NA	NA	NA	NA	263
IA	3.59	9.0	5.91	3.4	26.50	21.4	35.30	24.7	89
KS	4.56	18.9	6.58	11.0	25.77	26.0	35.92	25.2	127
KY	3.09	23.5	6.28	19.3	27.17	34.5	36.19	34.5	145
LA	6.41	21.0	7.00	6.1	26.39	31.5	37.03	33.9	248
ME	4.28	13.8	4.79	0.0	26.82	24.1	34.36	24.1	29
MD	NA	NA	5.00	99.6	29.00	99.6	34.00	99.6	257
MA	6.58	40.0	5.64	12.3	29.04	28.4	36.23	30.2	285
MI	2.85	40.3	5.49	36.3	31.00	99.8	38.00	99.8	620
MN	2.00	30.0	7.01	30.0	22.67	50.0	31.80	50.7	150
MS	14.25	20.0	18.75	20.0	20.75	20.0	53.75	20.0	5
MO	5.49	24.4	7.21	8.1	24.88	43.5	33.93	44.3	271
MT	1.76	5.6	5.24	5.6	20.08	33.3	26.42	33.3	18
NE	3.10	2.3	4.21	2.3	17.68	14.0	24.95	11.6	43
NV	3.13	15.5	6.28	9.9	24.66	36.0	34.10	36.0	161
NH	1.18	20.9	6.67	16.3	38.67	93.0	45.67	93.0	43

**Table 120**  
**Urban Fatal Crashes by State and Average Emergency Medical Services (EMS)**  
**Response Times (Continued)**

State	Average Response Time (Minutes)*								Total Fatal Crashes
	Time of Crash to EMS Notification		EMS Notification to EMS Arrival at Crash Scene		EMS Arrival at Crash Scene to Hospital Arrival		Time of Crash to Hospital Arrival		
	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	Average	Percent Unknown	
NJ	1.70	97.9	5.56	98.1	26.43	98.6	33.29	98.6	<b>484</b>
NM	NA	NA	NA	NA	NA	NA	NA	NA	<b>95</b>
NY	5.12	76.4	6.98	76.0	27.49	83.5	35.59	84.4	<b>601</b>
NC	4.85	19.0	7.80	16.3	31.35	30.4	42.53	32.1	<b>533</b>
ND	4.60	0.0	3.70	0.0	14.44	10.0	23.22	10.0	<b>10</b>
OH	3.05	90.2	5.85	90.7	26.00	94.2	34.32	94.2	<b>430</b>
OK	3.64	44.1	6.03	19.6	25.85	33.5	32.05	34.6	<b>179</b>
OR	1.35	15.2	4.33	2.9	29.65	37.1	35.38	38.1	<b>105</b>
PA	3.51	39.3	6.24	22.0	25.52	38.4	32.44	39.3	<b>583</b>
RI	5.43	29.2	3.96	1.4	23.81	25.0	28.96	26.4	<b>72</b>
SC	NA	NA	NA	NA	NA	NA	NA	NA	<b>138</b>
SD	1.47	21.1	4.94	10.5	25.54	31.6	31.54	31.6	<b>19</b>
TN	5.24	86.8	7.65	83.3	23.77	92.7	35.24	92.9	<b>408</b>
TX	4.76	32.3	7.65	30.7	28.74	60.2	39.81	60.3	<b>1,362</b>
UT	2.42	0.0	5.00	0.0	74.00	91.7	78.00	91.7	<b>12</b>
VT	6.17	33.3	9.00	0.0	33.00	0.0	45.11	0.0	<b>9</b>
VA	NA	NA	NA	NA	NA	NA	NA	NA	<b>294</b>
WA	3.55	16.3	5.49	2.2	35.81	27.8	43.21	27.8	<b>227</b>
WV	3.11	3.2	5.68	0.0	31.47	28.6	40.02	28.6	<b>63</b>
WI	3.43	12.5	5.85	2.6	26.45	28.3	34.80	30.3	<b>152</b>
WY	9.00	14.3	6.30	4.8	22.39	14.3	36.78	14.3	<b>21</b>
<b>USA</b>	<b>4.26</b>	<b>49.8</b>	<b>6.43</b>	<b>49.1</b>	<b>27.06</b>	<b>72.4</b>	<b>36.72</b>	<b>72.6</b>	<b>14,588</b>
PR	7.21	78.0	10.99	77.7	NA	NA	NA	NA	<b>327</b>

\*Includes crashes for which both times were known.  
 NA = not available or not applicable.

**Table 121**  
**Persons Killed, Population, and Fatality Rates by City**

City	State	Fatalities			Population	Total Fatality Rate per 100,000 Population
		Total Killed	Pedestrians Killed			
			Number	Percent of Total Killed		
New York	NY	361	164	45.4	7,428,162	4.86
Los Angeles	CA	272	96	35.3	3,633,591	7.49
Chicago	IL	219	63	28.8	2,799,050	7.82
Houston	TX	231	47	20.3	1,845,967	12.51
Philadelphia	PA	133	34	25.6	1,417,601	9.38
San Diego	CA	120	38	31.7	1,238,974	9.69
Phoenix	AZ	203	51	25.1	1,211,466	16.76
San Antonio	TX	108	25	23.1	1,147,213	9.41
Dallas	TX	167	43	25.7	1,076,214	15.52
Detroit	MI	155	50	32.3	965,084	16.06
San Jose	CA	50	15	30.0	867,675	5.76
San Francisco	CA	45	26	57.8	746,777	6.03
Indianapolis	IN	42	11	26.2	738,907	5.68
Jacksonville	FL	114	18	15.8	695,877	16.38
Columbus	OH	58	14	24.1	671,247	8.64
Baltimore	MD	45	19	42.2	632,681	7.11
El Paso	TX	58	15	25.9	612,770	9.47
Memphis	TN	89	18	20.2	606,109	14.68
Austin	TX	58	17	29.3	587,873	9.87
Milwaukee	WI	33	5	15.2	572,424	5.76
Boston	MA	27	8	29.6	555,249	4.86
Seattle	WA	24	7	29.2	537,150	4.47
Charlotte	NC	54	11	20.4	520,829	10.37
Washington	DC	41	16	39.0	519,000	7.90
Nashville-Davidson	TN	84	8	9.5	506,385	16.59
Portland	OR	36	15	41.7	503,637	7.15
Fort Worth	TX	57	11	19.3	502,369	11.35
Cleveland	OH	49	8	16.3	501,662	9.77
Denver	CO	52	18	34.6	499,775	10.40
Oklahoma City	OK	58	5	8.6	475,322	12.20
Tucson	AZ	60	15	25.0	466,591	12.86
New Orleans	LA	80	12	15.0	460,913	17.36
Kansas City	MO	67	9	13.4	437,764	15.31

Source: Population—Bureau of the Census.

**Table 121**  
**Persons Killed, Population, and Fatality Rates by City (Continued)**

City	State	Fatalities			Population	Total Fatality Rate per 100,000 Population
		Total Killed	Pedestrians Killed			
			Number	Percent of Total Killed		
Long Beach	CA	28	6	21.4	435,027	6.44
Virginia Beach	VA	23	5	21.7	433,461	5.31
Albuquerque	NM	58	10	17.2	420,578	13.79
Las Vegas	NV	43	14	32.6	418,658	10.27
Sacramento	CA	33	13	39.4	406,899	8.11
Fresno	CA	50	10	20.0	404,141	12.37
Atlanta	GA	68	23	33.8	401,726	16.93
Honolulu	HI	12	5	41.7	395,327	3.04
Omaha	NE	26	4	15.4	386,742	6.72
Tulsa	OK	56	13	23.2	381,579	14.68
Miami	FL	63	18	28.6	369,253	17.06
Mesa	AZ	29	1	3.4	368,811	7.86
Oakland	CA	39	10	25.6	365,210	10.68
Minneapolis	MN	14	6	42.9	353,395	3.96
Colorado Springs	CO	22	3	13.6	350,199	6.28
Pittsburgh	PA	19	4	21.1	336,882	5.64
Wichita	KS	35	3	8.6	335,562	10.43
St. Louis	MO	44	11	25.0	333,960	13.18
Cincinnati	OH	20	4	20.0	330,914	6.04
Arlington	TX	20	2	10.0	311,962	6.41
Santa Ana	CA	14	7	50.0	309,290	4.53
Toledo	OH	29	8	27.6	307,946	9.42
Anaheim	CA	17	5	29.4	300,650	5.65
Buffalo	NY	14	4	28.6	295,619	4.74
Tampa	FL	50	19	38.0	290,973	17.18
Corpus Christi	TX	26	7	26.9	281,791	9.23
Riverside	CA	28	8	28.6	265,721	10.54
Newark	NJ	46	15	32.6	263,087	17.48
Raleigh	NC	33	5	15.2	261,205	12.63
Anchorage	AK	20	4	20.0	257,808	7.76
St. Paul	MN	15	5	33.3	256,213	5.85
Louisville	KY	46	11	23.9	253,128	18.17
Aurora	CO	22	5	22.7	252,956	8.70

Source: Population—Bureau of the Census.

**Table 121  
Persons Killed, Population, and Fatality Rates by City (Continued)**

City	State	Fatalities			Population	Total Fatality Rate per 100,000 Population
		Total Killed	Pedestrians Killed			
			Number	Percent of Total Killed		
Birmingham	AL	32	6	18.8	249,459	12.83
Stockton	CA	20	4	20.0	245,020	8.16
Lexington-Fayette	KY	18	3	16.7	243,785	7.38
St. Petersburg	FL	38	10	26.3	234,647	16.19
Plano	TX	8	0	0.0	232,904	3.43
Jersey City	NJ	11	5	45.5	230,458	4.77
Norfolk	VA	24	5	20.8	225,875	10.63
Bakersfield	CA	18	2	11.1	222,352	8.10
Lincoln	NE	8	0	0.0	215,928	3.70
Rochester	NY	15	7	46.7	214,470	6.99
Hialeah	FL	38	8	21.1	212,547	17.88
Akron	OH	11	0	0.0	211,822	5.19
Madison	WI	3	0	0.0	210,674	1.42
Baton Rouge	LA	27	6	22.2	210,667	12.82
Fremont	CA	4	1	25.0	208,620	1.92
Chesapeake	VA	12	2	16.7	202,759	5.92
Glendale	AZ	15	5	33.3	201,456	7.45
Mobile	AL	15	3	20.0	200,206	7.49
Scottsdale	AZ	18	1	5.6	199,943	9.00
Huntington Beach	CA	14	5	35.7	199,618	7.01
Greensboro	NC	21	4	19.0	199,562	10.52
Fort Wayne	IN	15	3	20.0	196,708	7.63
Montgomery	AL	12	3	25.0	195,690	6.13
Garland	TX	15	5	33.3	193,272	7.76
Yonkers	NY	8	3	37.5	191,458	4.18
Des Moines	IA	12	3	25.0	190,958	6.28
Lubbock	TX	31	1	3.2	190,002	16.32
Richmond	VA	9	3	33.3	189,700	4.74
San Bernardino	CA	22	9	40.9	188,924	11.64
Modesto	CA	16	4	25.0	188,253	8.50
Shreveport	LA	35	5	14.3	187,393	18.68
Glendale	CA	4	1	25.0	186,903	2.14

Source: Population—Bureau of the Census.



**Table 121**  
**Persons Killed, Population, and Fatality Rates by City (Continued)**

City	State	Fatalities			Population	Total Fatality Rate per 100,000 Population
		Total Killed	Pedestrians Killed			
			Number	Percent of Total Killed		
Augusta-Richmond Co	GA	21	5	23.8	186,206	11.28
Grand Rapids	MI	13	3	23.1	185,009	7.03
Spokane	WA	13	4	30.8	184,323	7.05
Laredo	TX	13	1	7.7	183,160	7.10
Columbus	GA	14	1	7.1	181,547	7.71
Jackson	MS	34	3	8.8	180,664	18.82
Orlando	FL	33	11	33.3	180,308	18.30
Tacoma	WA	18	4	22.2	180,020	10.00
Irving	TX	17	2	11.8	179,520	9.47
Durham	NC	21	5	23.8	179,212	11.72
Newport News	VA	11	3	27.3	179,138	6.14
Huntsville	AL	26	4	15.4	177,893	14.62
Little Rock	AR	18	4	22.2	176,136	10.22
Knoxville	TN	34	4	11.8	174,860	19.44
Arlington CDP	VA	0	0	0.0	174,838	0.00
Amarillo	TX	10	2	20.0	171,959	5.82
Salt Lake City	UT	20	5	25.0	171,151	11.69
Dayton	OH	12	4	33.3	169,338	7.09
Chandler	AZ	4	0	0.0	169,053	2.37
Boise	ID	4	1	25.0	168,370	2.38
Winston-Salem	NC	16	6	37.5	168,086	9.52
Tempe	AZ	19	1	5.3	167,740	11.33
Worcester	MA	8	2	25.0	167,132	4.79
Reno	NV	13	8	61.5	166,650	7.80
Henderson	NV	10	2	20.0	166,399	6.01
Chula Vista	CA	16	6	37.5	164,914	9.70
Oceanside	CA	13	2	15.4	156,538	8.30
Oxnard	CA	8	0	0.0	156,372	5.12
Fort Lauderdale	FL	38	16	42.1	154,021	24.67
Garden Grove	CA	7	5	71.4	153,534	4.56
Syracuse	NY	8	2	25.0	150,563	5.31

Source: Population—Bureau of the Census.

**Table 122**  
**Fatalities and Fatality Rates by State, 1975-1999**

State	Fatalities						Fatality Rate per 100 Million Vehicle Miles Traveled					
	1975	1980	1985	1990	1999	Difference, 1975-1999	1975	1980	1985	1990	1999	Difference, 1975-1999
AL	902	940	882	1,121	1,138	+26%	3.6	3.2	2.5	2.6	2.0	-44%
AK	112	88	127	98	76	-32%	4.4	3.3	3.2	2.5	1.7	-61%
AZ	670	947	893	869	1,024	+53%	4.2	5.3	4.1	2.5	2.2	-48%
AR	559	588	534	604	604	+8%	4.0	3.6	3.1	2.9	2.1	-48%
CA	4,092	5,496	4,960	5,192	3,559	-13%	3.1	3.5	2.4	2.0	1.2	-61%
CO	581	709	579	544	626	+8%	3.5	3.2	2.2	2.0	1.5	-57%
CT	389	575	448	385	301	-23%	2.1	3.0	2.0	1.5	1.0	-52%
DE	122	153	104	138	100	-18%	3.4	3.6	1.9	2.1	1.2	-65%
DC	70	41	60	48	41	-41%	2.3	1.2	1.9	1.4	1.2	-48%
FL	1,998	2,825	2,832	2,891	2,918	+46%	3.2	3.6	3.2	2.6	2.1	-34%
GA	1,360	1,508	1,361	1,562	1,508	+11%	3.5	3.5	2.5	2.2	1.5	-57%
HI	144	186	126	177	98	-32%	3.5	3.3	1.9	2.2	1.2	-66%
ID	281	331	255	244	278	-1%	4.8	4.8	3.3	2.5	2.0	-58%
IL	2,041	1,975	1,534	1,589	1,456	-29%	3.6	3.0	2.2	1.9	1.4	-61%
IN	1,128	1,166	974	1,049	1,013	-10%	3.0	3.0	2.4	2.0	1.4	-53%
IA	670	626	474	465	490	-27%	3.8	3.3	2.3	2.0	1.7	-55%
KS	509	595	486	444	537	+6%	3.3	3.4	2.5	1.9	1.9	-42%
KY	863	820	712	849	814	-6%	3.5	3.2	2.5	2.5	1.7	-51%
LA	934	1,219	931	959	924	-1%	4.6	5.0	2.8	2.5	2.2	-52%
ME	223	265	206	213	181	-19%	3.1	3.5	2.2	1.8	1.3	-58%
MD	670	756	729	707	590	-12%	2.7	2.6	2.2	1.7	1.2	-56%
MA	864	881	742	605	414	-52%	2.7	2.5	1.9	1.3	0.8	-70%
MI	1,779	1,750	1,545	1,571	1,382	-22%	3.1	2.8	2.3	1.9	1.4	-55%
MN	754	848	608	566	625	-17%	2.9	3.0	1.9	1.5	1.2	-59%
MS	546	695	662	750	927	+70%	3.8	4.2	3.5	3.1	2.7	-29%
MO	1,045	1,175	931	1,097	1,094	+5%	3.4	3.4	2.4	2.2	1.6	-53%
MT	291	325	223	212	220	-24%	5.1	4.9	3.0	2.5	2.2	-57%
NE	369	396	237	262	295	-20%	3.3	3.5	2.0	1.9	1.6	-52%
NV	218	346	259	343	350	+61%	4.7	5.7	3.4	3.4	2.0	-57%
NH	151	194	191	158	141	-7%	2.9	3.0	2.5	1.6	1.2	-59%

**Table 122**  
**Fatalities and Fatality Rates by State, 1975-1999 (Continued)**

State	Fatalities						Fatality Rate per 100 Million Vehicle Miles Traveled					
	1975	1980	1985	1990	1999	Difference, 1975-1999	1975	1980	1985	1990	1999	Difference, 1975-1999
NJ	1,043	1,120	964	886	727	-30%	2.2	2.2	1.8	1.5	1.1	-50%
NM	555	606	535	499	460	-17%	5.6	5.4	4.0	3.1	2.1	-63%
NY	2,366	2,610	2,006	2,217	1,548	-35%	3.6	3.4	2.2	2.1	1.2	-67%
NC	1,506	1,503	1,482	1,385	1,505	+0%	4.1	3.6	3.0	2.2	1.7	-59%
ND	167	151	90	112	119	-29%	3.7	2.9	1.6	1.9	1.6	-57%
OH	1,766	2,033	1,646	1,638	1,430	-19%	2.8	2.8	2.2	1.8	1.4	-50%
OK	757	959	744	641	739	-2%	3.3	3.5	2.4	1.9	1.7	-48%
OR	562	646	559	579	414	-26%	3.5	3.4	2.6	2.2	1.2	-66%
PA	2,078	2,089	1,771	1,646	1,549	-25%	3.3	2.9	2.3	1.9	1.5	-55%
RI	110	129	109	84	88	-20%	1.9	2.4	1.9	1.1	1.1	-42%
SC	820	852	951	979	1,065	+30%	4.0	3.8	3.6	2.8	2.4	-40%
SD	195	228	130	153	150	-23%	3.8	3.7	2.1	2.2	1.8	-53%
TN	1,126	1,153	1,101	1,177	1,285	+14%	3.4	3.4	3.0	2.5	2.0	-41%
TX	3,372	4,366	3,678	3,250	3,518	+4%	4.0	3.8	2.6	2.1	1.7	-58%
UT	272	334	303	272	360	+32%	3.4	3.1	2.5	1.9	1.6	-53%
VT	143	137	115	90	90	-37%	4.3	3.7	2.5	1.5	1.3	-70%
VA	993	1,045	976	1,079	877	-12%	2.9	2.7	2.0	1.8	1.2	-59%
WA	758	971	744	825	634	-16%	3.2	3.4	2.2	1.8	1.2	-63%
WV	461	523	420	481	395	-14%	4.4	4.9	3.3	3.1	2.1	-52%
WI	930	972	744	769	745	-20%	3.3	3.1	2.0	1.7	1.3	-61%
WY	210	245	152	125	189	-10%	5.4	4.9	2.8	2.1	2.4	-56%
<b>USA</b>	<b>44,525</b>	<b>51,091</b>	<b>43,825</b>	<b>44,599</b>	<b>41,611</b>	<b>-7%</b>	<b>3.4</b>	<b>3.3</b>	<b>2.5</b>	<b>2.1</b>	<b>1.5</b>	<b>-56%</b>
PR	496	520	600	473	558	+13%	7.3	6.0	5.7	3.7	3.3	-55%

Sources: Fatalities—Fatality Analysis Reporting System (FARS). Vehicle Miles Traveled—Federal Highway Administration.

**Table 123**  
**Child Passenger Protection Laws**

State	Effective Date	Restraint Requirement Age <sup>(1,2)</sup>	Safety Seat Required	Must Use Safety Seat or Seat Belt	Penalty
AL	7/83	Under 6	Under 6	Age 4 or 5	\$10
AK	6/85	Under 16	Under 4	No	\$50, 2 points
AZ	8/83	Under 5	Under 5	No	\$50
AR	8/83	Under 5	Under 5	No	\$25-\$100
CA	1/83	Under 16	Under 4 <sup>(3)</sup>	No	\$100, 1 Point <sup>(4)</sup>
CO	1/84	Under 16	Under 4 <sup>(5)</sup>	No	\$50 + \$6 surcharge
CT	5/82	Under 16	Under 4 <sup>(6)</sup>	Over 40 pounds	\$100-\$2,000 <sup>(6)</sup>
DE	6/82	Under 16 <sup>(7)</sup>	Under 4	No	\$28.75
DC	7/83	Under 16	Under 4	Age 3 through 16	\$55, 2 points
FL	7/83	Under 16	Under 6	Age 4 or 5	\$60 + \$10 court cost
GA	7/84	Under 16	Under 5	Age 3 or 4	\$50-\$100, 1-2 points
HI	7/83	Under 4	Under 3	Age 3	\$100-\$500
ID	1/85	Under 4	Under 4 <sup>(5)</sup>	No	\$100
IL	7/83	Under 16	Under 4	Age 4 or 5	\$25-\$50
IN	1/84	Under 12	Under 4	Age 4 through 11	\$25, 4 points
IA	1/85	Under 6	Under 3	Age 3 through 5	\$10
KS	1/82	Under 14	Under 4	No	\$20
KY	7/82	Under 16	40" and under	No	\$50
LA	9/84	Under 13	Under 3	Age 3 through 12	\$50-\$100
ME	9/83	Under 16	Under 4	Age 4 through 16	\$25-\$500
MD	1/84	Under 16	Under 4 <sup>(3)</sup>	Over 40 pounds	\$25
MA	1/82	Under 16	Under 6	No	\$25
MI	4/82	Under 16	Under 4	Age 1 through 4 in rear	\$10
MN	8/83	Under 11	Under 4	No	\$50
MS	7/83	Under 8	Under 4	No	\$25
MO	1/84	Under 16	Under 4	No	\$25 + court costs
MT	1/84	Under 16	Under 2	Age 2 through 4	\$100
NE	8/83	Under 5	Under 4 <sup>(3)</sup>	Over 40 pounds	\$25
NV	7/83	Under 16	Under 5 <sup>(3)</sup>	No	\$35-\$100
NH	7/83	Under 16	Under 4	No	\$25-\$50
NJ	4/83	Under 16	Under 5	No	\$10-\$25
NM	6/83	Under 11	Under 5	Age 1 through 5 in rear	\$25
NY	4/82	Under 10	Under 4	No	\$25-\$100, 3 points
NC	7/82	Under 16	Under 4	Age 4 through 15	\$25
ND	1/84	Under 18	Under 4	Age 4 through 17	No fine, 1 point
OH	3/83	Under 4 <sup>(3)</sup>	Under 4 <sup>(3)</sup>	No	\$100-\$250 <sup>(8)</sup>
OK	11/83	Under 5	Under 4 <sup>(9)</sup>	Age 4 or 5	\$10-\$15
OR	1/84	Under 16	Under 4 <sup>(5)</sup>	Age 4 or Over	\$75
PA	1/84	Under 16	Under 4	No	\$25
RI	7/80	Under 16	Under 6 <sup>(10)</sup>	Age 4 or 5	\$50
SC	7/83	Under 16	Under 4	Age 4 or 5	\$25
SD	7/84	Under 16	Under 5	Over 40 pounds	\$20
TN	1/78	Under 12	Under 4	Age 4 through 12	\$50 maximum <sup>(11)</sup>
TX	10/84	Under 15	Under 2	Age 3 or 4	\$25-\$50
UT	7/84	Under 10	Under 2	Age 2 through 10	\$75
VT	7/84	Under 16	Under 5	No	\$25
VA	1/83	Under 16	Under 4	Age 3 <sup>(12)</sup>	\$50, 3 points
WA	1/84	Under 16	Under 3	Age 3 through 10	\$250 maximum
WV	7/81	Under 16	Under 3	Age 3 through 8	\$10-\$20
WI	11/82	Under 8	Under 4	Age 4 through 8	\$30-\$75
WY	4/85	Under 5 <sup>(5)</sup>	Under 5 <sup>(5)</sup>	No	\$50-\$100
PR	1/89	Under 16	Under 4	No	\$10

<sup>(1)</sup>Table covers laws applicable to children under 16 years old. <sup>(2)</sup>All States have laws requiring front seat occupants under 16 years of age to be restrained by seat belts or child safety seats. <sup>(3)</sup>Or less than 40 pounds. <sup>(4)</sup>Second or subsequent offense. <sup>(5)</sup>And less than 40 pounds. <sup>(6)</sup>Third offense can result in 1 year imprisonment. <sup>(7)</sup>Children under 12 years old and less than 66 inches tall may not occupy front seat if equipped with passenger-side airbag. <sup>(8)</sup>Subsequent offenses can result in 30 days imprisonment. <sup>(9)</sup>And less than or equal to 60 pounds. <sup>(10)</sup>Children under age 6 must be transported in the back seat. <sup>(11)</sup>Can result in 30 days imprisonment. <sup>(12)</sup>Seat belts can be substituted only if the size and weight of the child make the use of a seat belt practical and the use of a child restraint device impractical.

**Table 124**  
**Status of State Motorcycle Helmet Use Requirements**

State	Original Law	Subsequent Action, Date(s) and Current Status
AL	11/06/67	Helmet use required for all riders.
AK	01/01/71	Repealed effective 7-1-76 except for persons under 18 years of age, and all passengers.
AZ	01/01/69	Repealed effective 5-27-76 except for persons under 18 years of age.
AR	07/10/67	Helmet use required for all riders. Repealed effective 8/1/97 except for certain riders.
CA	01/01/85	Helmet use required by riders under 15 1/2 years of age. Effective 1-1-92 helmet use required for all riders.
CO	07/01/69	Repealed effective 5-20-77.
CT	10/01/67	Not enforced until 2-1-74. Repealed effective 6-1-76. Effective 1-1-90 adopted requirement for helmet use by persons under 18.
DE	10/01/68	Repealed effective 6-10-78 except for persons under 19 years of age. Also requires that a helmet be carried on the motorcycle for persons 19 and older.
DC	10/12/70	Helmet use required for all riders.
FL	09/05/67	Helmet use required for all riders.
GA	08/31/66	Helmet use required for all riders.
HI	05/01/68	Repealed effective 6-7-77 except for persons under 18 years of age.
ID	01/01/68	Repealed effective 3-29-78 except for persons under 18 years of age.
IL	01/01/68	Repealed effective 6-17-69 after being declared unconstitutional by the State Supreme Court on 5-28-69.
IN	07/01/67	Repealed effective 9-1-77. Effective 6-1-85 adopted requirement for helmet use by persons under 18.
IA	09/01/75	Repealed effective 7-1-76.
KS	07/01/67	7-1-67 to 3-17-70 for all cyclists. 3-17-70 to 7-1-72 only for cyclists under 21 years of age. 7-1-72 to 7-1-76 for all cyclists. 7-1-76 to 7-1-82 applied only to persons under 16 years of age. After 7-1-82 applies only to persons under 18 years of age. to 7-1-82 applied only to persons under 16 years of age. After 7-1-82 applies only to persons under 18 years of age.
KY	07/01/68	Helmet use required for riders under 21 years of age, riders operating with instruction permits, riders with less than 1 year of riding experience, and/or riders who do not provide proof of health insurance to county.
LA	07/31/68	Repealed effective 10-1-76 except for persons under 18 years of age. Readopted for all cyclists effective 1-1-82. Repealed effective 8-15-99 except for riders under age 18 and those who do not have a health insurance policy with medical benefits of at least \$10,000.
ME	10/07/67	Repealed effective 10-24-77. Amended effective 7-3-80 to require use by cyclists under 15 years of age.
MD	09/01/68	Repealed effective 5-29-79 except for persons under 18 years of age. Effective 10-1-92 helmet use required for all riders.
MA	02/27/67	Helmet use required for all riders.
MI	03/10/67	Repealed effective 6-12-68. New law adopted effective 9-1-69. Helmet use required for all riders.
MN	05/01/68	Repealed effective 4-6-77 except for persons under 18 years of age.
MS	03/28/74	Helmet use required for all riders.
MO	10/13/67	Helmet use required for all riders.
MT	07/01/73	Repealed effective 7-1-77 except for persons under 18 years of age.
NE	05/29/67	Never enforced. Declared unconstitutional by State Supreme Court and repealed effective 9-1-77. Effective 1-1-89 helmet use required for all riders. required for all riders.
NV	01/01/72	Helmet use required for all riders.
NH	09/03/67	Repealed effective 8-7-77 except for persons under 18 years of age.
NJ	01/01/68	Helmet use required for all riders.
NM	05/01/67	Initial law applied only to cyclists under 18 years of age and to all passengers. Law requiring helmet use by all cyclists adopted effective 7-1-73. Repealed effective 6-17-77 except for persons under 18 years of age. effective 7-1-73. Repealed effective 6-17-77 except for persons under 18 years of age.
NY	01/01/67	Helmet use required for all riders.
NC	01/01/68	Helmet use required for all riders.
ND	07/01/67	Repealed effective 7-1-77 except for persons under 18 years of age.
OH	04/02/68	Repealed effective 7-1-78 except for persons under 18 years and first year novices.
OK	04/27/67	4-27-67 to 4-7-69 helmet use required for all motorcyclists. From 4-7-69 to 5-3-76 for cyclists under 21 years of age. 5-3-76 for cyclists under 18 years of age. cyclists under 18 years of age.
OR	01/01/68	Repealed effective 10-4-77, except for persons under 18 years of age. Effective 6-16-89 helmet use required for all riders.
PA	09/13/68	Helmet use required for all riders.
RI	06/30/67	Repealed effective 5-21-76 except for passengers on motorcycles. Effective 7-01-92 helmet use required for operators under 21 years of age, all passengers, and first year novices. years of age, all passengers, and first year novices.
SC	07/01/67	Repealed for ages 21 and over effective 6-16-80.
SD	07/01/67	Repealed effective 7-1-77 except for persons under 18 years of age.
TN	06/05/67	Helmet use required for all riders.
TX	01/01/68	Repealed effective 9-1-77 except for persons under 18 years of age. Effective 9-1-89 helmet use required for all riders. Effective 9-1-97 helmets required for riders under 21, those who have not completed a rider training course, and those without \$10,000 medical insurance. 9-1-97 helmets required for riders under 21, those who have not completed a rider training course, and those without \$10,000 medical insurance.
UT	05/13/69	Helmets required only on roads with speed limits of 35 mph or higher. Effective 5-8-77 law changed to require helmet use only by persons under 18 years of age. by persons under 18 years of age.
VT	07/01/68	Helmet use required for all riders.
VA	01/01/71	Helmet use required for all riders.
WA	07/01/67	Repealed effective 7-1-77. 7-1-87 helmet use required for riders under 18. Effective 6-8-90 helmet use required for all riders.
WV	05/21/68	Helmet use required for all riders.
WI	07/01/68	Repealed effective 3-19-78 except for persons under 18 years of age, and for all holders of learner's permits.
WY	05/25/73	Repealed effective 5-27-83 except for persons under 18 years of age.
PR	07/20/60	Helmet use required for all riders.

- 21 states plus the District of Columbia and Puerto Rico require helmet use for all riders.
- 26 states require helmet use for certain riders.
- 3 states do not require helmet use for riders.

**Table 125  
Impaired Driving High-Priority Legislation**

State	Administrative Per Se (BAC Level)	Illegal Per Se (BAC Level)	Lower BAC for Youthful DWI Offenders (BAC Level and Age)	License Sanction (Mandatory Minimum for a DWI Conviction)		
				First Offense	Second Offense	Third Offense
AL	Y-0.08	0.08	Y-0.02 (<21)	S-90 days	R-1 yr	R-3 yrs
AK	Y-0.10	0.10	Y-0.00 (<21)	R-30 days	R-1 yr	R-10 yrs
AZ	Y-0.10	0.10	Y-0.00 (<21)	S-90 days	R-1 yr	R-3 yrs
AR	Y-0.10	0.10	Y-0.02 (<21)	—	—	—
CA	Y-0.08	0.08	Y-0.01 (<21)	—	—	R-18 mos
CO	Y-0.10	0.10	Y-0.02 (<21)	—	R-1 yr	R-1 yr
CT	Y-0.10	0.10	Y-0.02 (<21)	—	—	—
DE	Y-0.10	0.10	Y-0.02 (<21)	—	R-6 mos	R-6 mos
DC	Y-0.05	0.08	Y-0.00 (<21)	R-6 mos	R-1 yr	R-2 yrs
FL	Y-0.08	0.08	Y-0.02 (<21)	—	R-12 mos	R-24 mos
GA	Y-0.10	0.10	Y-0.02 (<21)	—	S-120 days	R-5 yrs
HI	Y-0.08	0.08	Y-0.02 (<21)	S-30 days	S-1 yr	R-1 yr
ID	Y-0.08	0.08	Y-0.02 (<21)	S-30 days	S-1 yr	S-1 yr
IL	Y-0.08	0.08	Y-0.02 (<21)	—	—	—
IN	Y-0.10	0.10	Y-0.02 (<21)	S-30 days	S-1 yr	S-1 yr
IA	Y-0.10	0.10	Y-0.02 (<21)	R-30 days	R-1 yr	R-1 yr
KS	Y-0.08	0.08	Y-0.02 (<21)	S-30 days	S-1 yr	S-1 yr
KY	A	0.10	Y-0.02 (<21)	S-30 days	R-12 mos	R-24 mos
LA	Y-0.10	0.10	Y-0.02 (<21)	—	—	—
ME	Y-0.08	0.08	Y-0.00 (<21)	S-60 days	S-18 mos	S-4 yrs
MD	Y-0.10	0.10	Y-0.02 (<21)	—	—	—
MA	Y-0.08	No	Y-0.02 (<21)	S-45 days	R-6 mos	R-2 yrs
MI	N	0.10	Y-0.02 (<21)	—	R-1 yr	S-5 yrs
MN	Y-0.10	0.10	Y-0.00 (<21)	R-15 days	R-90 days	R-90 days
MS	Y-0.10	0.10	Y-0.02 (<21)	S-30 days	S-1 yr	S-3 yrs
MO	Y-0.10	0.10	Y-0.02 (<21)	S-30 days	R-2 yrs	R-3 yrs
MT	N	0.10	Y-0.02 (<21)	—	R-3 mos	R-3 mos
NE	Y-0.10	0.10	Y-0.02 (<21)	R-60 days	R-1 yr	R-1 yr
NV	Y-0.10	0.10	Y-0.02 (<21)	R-45 days	R-1 yr	R-1.5 yrs
NH	Y-0.08	0.08	Y-0.02 (<21)	R-90 days	R-3 yrs	R-3 yrs

**Table 125**  
**Impaired Driving High-Priority Legislation (Continued)**

State	Administrative Per Se (BAC Level)	Illegal Per Se (BAC Level)	Lower BAC for Youthful DWI Offenders (BAC Level and Age)	License Sanction (Mandatory Minimum for a DWI Conviction)		
				First Offense	Second Offense	Third Offense
NJ	N	0.10	Y-0.01 (<21)	R-6 mos	R-2 yrs	R-10 yrs
NM	Y-0.08	0.08	Y-0.02 (<21)	—	R-30 days	R-30 days
NY	A	0.10	Y-0.02 (<21)	—	R-1 yr	R-1 yr
NC	Y-0.08	0.08	Y-0.00 (<21)	—	R-2 yrs	R-3 yrs
ND	Y-0.10	0.10	Y-0.02 (<21)	S-30 days	S-365 days	S-2 yrs
OH	Y-0.10	0.10	Y-0.02 (<21)	S-15 days	S-30 days	S-180 days
OK	Y-0.10	0.10	Y-0.00 (<21)	—	—	—
OR	Y-0.08	0.08	Y-0.00 (<21)	—	S-90 days	S-1 yr
PA	N	0.10	Y-0.02 (<21)	S-1 mo	S-12 mos	S-12 mos
RI	N	0.10	Y-0.02 (<21)	S-3 mos	S-1 yr	S-2 yrs
SC	Y-0.15	No	Y-0.02 (<21)	—	S-1 yr	S-4 yrs
SD	N	0.10	Y-0.02 (<21)	—	R-1 yr	R-1 yr
TN	N	0.10	Y-0.02 (<21)	—	R-2 yrs	R-3 yrs
TX	Y-0.08	0.08	Y-0.00 (<21)	—	—	—
UT	Y-0.08	0.08	Y-0.00 (<21)	S-180 days	R-2 yrs	R-2 yrs
VT	Y-0.08	0.08	Y-0.02 (<21)	S-90 days	S-18 mos	R-2 yrs
VA	Y-0.08	0.08	Y-0.02 (<21)	—	R-4 mos	R-3 yrs
WA	Y-0.08	0.08	Y-0.02 (<21)	S-30 days	R-1 yr	R-2 yrs
WV	Y-0.10	0.10	Y-0.02 (<21)	R-30 days	R-1 yr	R-1 yr
WI	Y-0.10	0.10	Y-0.02 (<21)	—	R-60 days	R-90 days
WY	Y-0.10	0.10	Y-0.02 (<21)	—	S-1 yr	R-3 yrs
<b>USA</b>	<b>Y - 42</b>	<b>0.08 - 18</b> <b>0.10 - 31</b> <b>No - 2</b>	<b>Y - 51</b>	<b>S - 18</b> <b>R - 9</b>	<b>S - 15</b> <b>R - 28</b>	<b>S - 12</b> <b>R - 32</b>
	Y = Yes N = No A = Alternative		Y = Yes		S = Suspension R = Revocation	
PR	N	No	—	—	—	—

Notes: An "administrative per se law" refers to a statute that allows a state's driver licensing agency to either suspend or revoke a driver's license based either on a specific alcohol (or drug) concentration or on some other criterion related to alcohol or drug use and driving. Such action is completely independent of any licensing action related to a DWI criminal offense. The term "illegal per se" refers to state laws that make it a criminal offense to operate a motor vehicle at or above a specified alcohol (or drug) concentration in the blood, breath, or urine. In those columns showing mandatory sanctions, a "blank" space does not mean that a state does not have a sanction. It only means that the state does not have a mandatory sanction for that offense or violation.

Source: "Digest of State Alcohol-Highway Safety Related Legislation," U.S. Department of Transportation/ National Highway Traffic Administration, DOT HS 808 652.

**Table 126**  
**Key Provisions of Safety Belt Use Laws**

State	Effective <sup>(1)</sup>	Enforcement	Fine	Seats	Vehicles Exempted <sup>(2)</sup>
AL	07/18/92	Primary	\$25	Front	Designed for more than 10 passengers.
AK	09/12/90	Secondary	\$15	All	School bus.
AZ	01/01/91	Secondary	\$10	Front	Designed for more than 10 passengers; model year before 1972.
AR	07/15/91	Secondary	\$25 <sup>(3)</sup>	Front	School bus, church bus, public bus.
CA	01/01/86	Primary	\$20 <sup>(4)</sup>	All	None.
CO	07/01/87	Secondary	\$15	Front	Passenger bus, school bus.
CT	01/01/86	Primary	\$15	Front	Truck or bus over 15,000 lbs.
DE	01/01/92	Secondary	\$20	Front	None.
DC	12/12/85	Primary	\$50 <sup>(5)</sup>	All	Seating more than 8 people.
FL	07/01/86	Secondary	\$30	Front	School bus, public bus, truck over 5,000 lbs.
GA	09/01/88	Primary	\$15	Front	Designed for more than 10 passengers, pickup.
HI	02/16/85	Primary	\$20	Front	Bus or school bus over 10,000 lbs.
ID	07/01/86	Secondary	\$ 5	Front	Over 8,000 lbs.
IL	07/01/85	Secondary	\$25	Front	None.
IN	07/01/87	Primary	\$25	Front	Truck, tractor, RV.
IA	07/01/86	Primary	\$10	Front	None.
KS	07/01/86	Secondary	\$10	Front	Designed for more than 10 people, truck over 12,000 lbs.
KY	07/13/94	Secondary	\$25	All	Designed for more than 10 people.
LA	07/01/86	Primary	\$25 <sup>(4)</sup>	Front	Manufactured before 1/1/81.
ME	12/27/95	Secondary	\$25	All	None.
MD	07/01/86	Primary	\$25	Front	Historic vehicle.
MA	02/01/94	Secondary	\$25	All	Truck over 18,000 lbs., bus, taxi.
MI	07/01/85	Primary	\$25	Front	Bus.
MN	08/01/86	Secondary	\$25	Front	Farm pickup truck.
MS	03/20/90	Secondary	\$25	Front	Farm vehicle, bus.
MO	09/28/85	Secondary	\$10	Front	Designed for more than 10 people, truck over 12,000 lbs.
MT	10/01/87	Secondary	\$20	All	None.
NE	01/01/93	Secondary	\$25	Front	Manufactured before 1973, bus.
NV	07/01/87	Secondary	\$25	All	Taxi, bus, school bus.
NH	—				
NJ	03/01/85	Secondary	\$20	Front	None.
NM	01/01/86	Primary	\$25	Front	Vehicle over 10,000 lbs.
NY	12/01/84	Primary	\$50	Front	Bus, school bus, taxi.
NC	10/01/85	Primary	\$25	Front	Designed for more than 10 people.
ND	07/14/94	Secondary	\$20	Front	Designed for more than 10 people.
OH	05/06/86	Secondary	\$25	Front	None.
OK	02/01/87	Primary	\$20	Front	Farm vehicle, truck, truck tractor, RV.
OR	12/07/90	Primary	\$75	All	None.
PA	11/23/87	Secondary	\$10	Front	Truck over 7,000 lbs.
RI	06/18/91	Secondary	\$50	All	None.
SC	07/01/89	Secondary	\$10	All	School bus, public bus.
SD	01/01/95	Secondary	\$20	Front	Bus, school bus.
TN	04/21/86	Secondary	\$50 <sup>(6)</sup>	Front	Vehicle over 8,500 lbs.
TX	09/01/85	Primary	\$50	Front	Designed for more than 10 people, truck over 15,000 lbs.
UT	04/28/86	Secondary	\$10	Front	Vehicle over 10,000 lbs., school/public bus, taxi.
VT	01/01/94	Secondary	\$10	All	Bus, taxi.
VA	01/01/88	Secondary	\$25	Front	Designed for more than 10 people, taxi.
WA	06/11/86	Secondary	\$35	All	Designed for more than 10 people.
WV	09/01/93	Secondary	\$25	Front	Designed for more than 10 people.
WI	12/01/87	Secondary	\$10	All	Taxi, farm truck.
WY	06/08/89	Secondary	None	Front	Designed for more than 10 people, bus.
PR	01/19/75	Primary	\$10	Front	None.

<sup>(1)</sup>Effective date of first belt law in the state. <sup>(2)</sup>Most states exempt vehicles not manufactured with seat belts. <sup>(3)</sup>Plus 3 points on license.

<sup>(4)</sup>Fine for first offense. <sup>(5)</sup>Plus 2 points on license. <sup>(6)</sup>Penalty could include 30 days in jail.

Total states with safety belt use laws: 49 plus DC and Puerto Rico.

Notes: The safety belt use rates shown here may not correspond to the seats and vehicles covered by the individual state laws. The national safety belt use rate shown here was obtained from the Mini-National Occupant Protection Use Survey conducted by the National Highway Traffic Safety Administration in December 1999.



# APPENDIX A ♦ FARS DATA ELEMENTS

## 1999 Fatality Analysis Reporting System Data Elements

### Crash Level

---

Crash Date	Number of Travel Lanes
Atmospheric Condition	Number of Vehicle Forms Submitted
City	Rail Grade Crossing Identifier
Construction/Maintenance Zone	Related Factors—Crash Level
County	Relation to Junction
Day of Week	Relation to Roadway
Emergency Medical Services (EMS) Notification Time	Roadway Alignment
EMS Arrival Time at Hospital	Roadway Function Class
EMS Arrival Time at Scene	Roadway Profile
First Harmful Event	Roadway Surface Condition
Global Position	Roadway Surface Type
Hit and Run	Route Signing
Light Condition	School Bus Related
Manner of Collision	Special Jurisdiction
Milepoint	Speed Limit
National Highway System	State
Number of Drinking Drivers in Crash	Time
Number of Fatalities in Crash	Traffic Control Device
Number of Nonmotorist Forms Submitted	Traffic Control Device Functioning
Number of Person Forms Submitted	Trafficway Flow
	Trafficway Identifier

### Vehicle Level

---

Body Type	Motorcycle Displacement
Cargo Body Type	Number of Axles
Crash Avoidance Maneuver	Number of Deaths in Vehicle
Emergency Use	Number of Occupants in Vehicle
Extent of Deformation	Number of Vehicle Forms Submitted
Fire Occurrence	Passenger Car Weight
Truck Gross Vehicle Weight Rating	Passenger Car Wheelbase
Hazardous Cargo	Registered Vehicle Owner
Impact Point—Initial	Registration State
Impact Point—Principal	Related Factors—Vehicle Level
Jackknife	Rollover
Manner of Leaving Scene	Special Use
Most Harmful Event	State Information
Motor Carrier Identification Number	Travel Speed

**Vehicle Level (Continued)**

---

Truck Fuel Type	Vehicle Model
Underride/Override	Vehicle Model Year
Vehicle Configuration	Vehicle Number
Vehicle Identification Number	Vehicle Role
Vehicle Make	Vehicle Trailering
Vehicle Maneuver	

**Driver Level**

---

Commercial Motor Vehicle License Status	Driver License Type Compliance
Compliance with License Endorsements	Driver Presence
Compliance with License Restrictions	Driver Weight
Date of First and Last Crash, Suspension, Conviction	Driver Zip Code
Driver Drinking	License State
Driver Height	Non-CDL License Status
Driver Level Counters	Related Factors—Driver Level
Driver License Status	Violations Charged

**Person Level**

---

Age	Method of Other Drug Determination by Police
Air Bag Availability/Deployment	Nonmotorist Location
Alcohol Test Results	Nonmotorist Striking Vehicle Number
Alcohol Test Type	Person Number
Death Certificate Number	Person Type
Death Date	Police-Reported Alcohol Involvement
Death Time	Police-Reported Other Drug Involvement
Drug Test Results	Race
Drug Test Type	Related Factors—Person Level
Ejection	Restraint System Use
Ejection Path	Seating Position
Extrication	Sex
Fatal Injury at Work	Taken to Hospital or Treatment Facility
Hispanic Origin	Time of Crash to Time of Death
Injury Severity	Vehicle Number
Method of Alcohol Determination	

# APPENDIX B ♦ GES DATA ELEMENTS

## 1999 General Estimates System Data Elements

### Crash Level

---

Alcohol Involved in Crash	Number of Vehicles
Atmospheric Condition	Pedestrian/Pedalcyclist Crash Type
Day of Week	Region of Country
First Harmful Event	Relation to Junction
Hour of Crash	Relation to Roadway
Interstate Highway	Roadway Alignment
Land Use	Roadway Profile
Light Condition	Roadway Surface Condition
Manner of Collision	School Bus Related
Maximum Injury Severity	Speed Limit
Minute of Crash	Traffic Control Device
Month of Crash	Trafficway Flow
Number Injured in Crash	Work Zone
Number of Nonmotorists	Year of Crash
Number of Travel Lanes	

### Vehicle/Driver Level

---

Crash Type	Hit and Run
Body Type	Initial Point of Impact
Cargo Body Type	Jackknife
Carrier's Identification Number	Manner of Leaving Scene
Corrective Action Attempted	Maximum Injury Severity in Vehicle
Critical Event	Model Year
Damage Areas	Most Harmful Event
Damage Severity	Movement Prior to Critical Event
Driver Distracted By	Number Injured in Vehicle
Driver Drinking in Vehicle	Number of Axles, Including Trailer
Driver Maneuvered To Avoid	Number of Occupants
Driver Presence	Pre-crash Location
Driver's Vision Obscured By	Pre-crash Vehicle Control
Driver's Zip Code	Rollover Type
Emergency Use	Special Use
Fire Occurrence	Speed Related
Hazardous Materials Placard Number	Travel Speed
Hazardous Materials Placarded	Vehicle Contributing Factors
Hazardous Materials Release	Vehicle Identification Number

**Vehicle/Driver Level (Continued)**

---

Vehicle Make  
Vehicle Model  
Vehicle Number

Vehicle Role  
Vehicle Trailing  
Violations Charged

**Person Level**

---

Age  
Air Bag Availability/Function  
Ejection  
Injury Severity  
Nonmotorist Action  
Nonmotorist Location  
Nonmotorist Safety Equipment Use  
Nonmotorist Striking Vehicle Number  
Person Number

Person Type  
Person's Physical Impairment  
Police-Reported Alcohol Involvement  
Police-Reported Drug Involvement  
Restraint System Use  
Seating Position  
Sex  
Taken to Hospital or Treatment Facility  
Vehicle Number

## APPENDIX C ♦ GES TECHNICAL NOTES

---

### Standard Errors

The national estimates produced from GES data may differ from the true values, because they are based on a probability sample of crashes and not a census of all crashes. The size of these differences may vary depending on which sample of crashes was selected. [For a complete description of the GES sampling design, see *National Accident Sampling System General Estimates System Technical Note* (DOT HS 807 796) available from NCSA.] The standard error of an estimate is a measure of the precision or reliability with which an estimate from this particular GES sample approximates the results of a census.

In a report of this size, it is impractical to provide standard errors for each estimate. Instead, generalized standard errors for estimates of totals are provided in the following table. Generalized errors were calculated separately for the crash, vehicle, and people characteristics. The values for the GES estimates and an estimate of one standard error are given in the following table. By adding and subtracting two standard errors, a 95 percent confidence interval can be created for the GES estimates in this report. For example, the estimated number of injury crashes that occurred in the month of February is given in Table 23 as 144,000. To calculate one standard error for this crash estimate, use the table on the following page. Since 144,000 does not appear in the Crash Estimate column, use linear interpolation from the standard error values for 100,000 (8,300) and 200,000 (14,600). One standard error would be approximately 11,100. The 95 percent confidence interval for this estimate would be  $144,000 \pm 2 \times 11,100$  or 121,800 to 166,200.

1999 GES Estimates and Standard Errors

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,500	10,000	1,500
7,000	1,300	20,000	2,400	20,000	2,300
8,000	1,400	30,000	3,200	30,000	3,100
9,000	1,500	40,000	3,900	40,000	3,800
10,000	1,600	50,000	4,600	50,000	4,400
20,000	2,500	60,000	5,300	60,000	5,100
30,000	3,300	70,000	6,000	70,000	5,700
40,000	4,100	80,000	6,700	80,000	6,300
50,000	4,800	90,000	7,300	90,000	6,900
60,000	5,500	100,000	8,000	100,000	7,500
70,000	6,200	200,000	14,200	200,000	13,000
80,000	6,900	300,000	20,200	300,000	18,200
90,000	7,600	400,000	26,100	400,000	23,300
100,000	8,300	500,000	32,000	500,000	28,400
200,000	14,600	600,000	37,800	600,000	33,400
300,000	20,800	700,000	43,700	700,000	38,300
400,000	26,800	800,000	49,600	800,000	43,300
500,000	32,800	900,000	55,500	900,000	48,200
600,000	38,800	1,000,000	61,400	1,000,000	53,200
700,000	44,700	2,000,000	122,100	2,000,000	103,000
800,000	50,700	3,000,000	185,400	3,000,000	154,000
900,000	56,700	4,000,000	251,000	4,000,000	206,200
1,000,000	62,700	5,000,000	318,800	5,000,000	259,600
2,000,000	124,100	6,000,000	388,600	6,000,000	314,100
3,000,000	187,800	7,000,000	460,300	7,000,000	369,600
4,000,000	253,800	8,000,000	533,600	8,000,000	426,200
5,000,000	321,800	9,000,000	608,600	9,000,000	483,700
6,000,000	391,700	10,000,000	685,200	10,000,000	542,100
6,500,000	427,300	11,000,000	763,100	11,000,000	601,400
7,000,000	463,300	12,000,000	842,600	12,000,000	661,500
*SE = $e^{a+b(\ln x)^2}$ , where a = 4.414534 b = 0.034746		** SE = $e^{a+b(\ln x)^2}$ , where a = 4.348017 b = 0.034987		***SE = $e^{a+b(\ln x)^2}$ , where a = 4.452860 b = 0.033682	

## Unknowns

GES data are obtained either directly from an item on the PAR or by interpreting the information provided in the report through reviewing the crash diagram, the Officer's written summary of the crash, or combinations of variables on the PAR. Because of this interpretation, and because the police officer may not have entered some item of information or provide complete information, data can be missing. Two different statistical procedures are used on GES data to complete values for unknown data. These procedures, univariate and hotdeck imputation, are described in a technical report available from NCSA, *Imputation in the General Estimates System* (DOT HS 807 985). The table below gives the reader the proportion of unknown values prior to imputation for variables with imputed values that were used in this report.

**Percent of Unknowns for 1999 GES Data Elements**

Crash Level			
Alcohol Involved in Crash . . . . .	6.1%	Manner of Collision . . . . .	0.3%
Atmospheric Condition . . . . .	1.1%	Minute of Crash . . . . .	0.6%
Crash Severity . . . . .	7.0%	Relation to Junction . . . . .	0.1%
Day of Week . . . . .	0.0%	Relation to Roadway . . . . .	0.3%
First Harmful Event . . . . .	<0.1%	Roadway Surface Condition . . . . .	1.4%
Hour of Crash . . . . .	0.6%	Speed Limit . . . . .	17.7%
Light Condition . . . . .	1.2%	Traffic Control Device . . . . .	1.0%
Vehicle/Driver Level			
Driver Drinking in Vehicle . . . . .	9.5%	Most Harmful Event . . . . .	<0.1%
Initial Point of Impact . . . . .	2.2%	Vehicle Type . . . . .	2.0%
Person Level			
Age . . . . .	8.9%	Seating Position . . . . .	1.7%
Injury Severity . . . . .	4.0%	Sex . . . . .	6.6%
Police-Reported Alcohol Involvement . . . . .	3.6%		

## GES Note

In the 1999 General Estimates System (GES), changes were made to the coding of selected variables to improve compatibility with the Fatality Analysis Reporting System (FARS). Therefore, comparing GES data from previous years with the 1999 data could result in shifts in trend data.





# GLOSSARY

---

## **Alcohol Involvement**

NHTSA defines a fatal crash as alcohol-related or alcohol-involved if either a driver or a nonmotorist (usually a pedestrian) had a measurable or estimated blood alcohol concentration (BAC) of 0.01 grams per deciliter (g/dl) or above.

NHTSA defines a nonfatal crash as alcohol-related or alcohol-involved if police indicate on the police accident report that there is evidence of alcohol present. The code does not necessarily mean that a driver or nonoccupant was tested for alcohol.

## **Blood Alcohol Concentration**

The BAC is measured as a percentage by weight of alcohol in the blood (grams/deciliter). A positive BAC level (0.01 g/dl and higher) indicates that alcohol was consumed by the person tested. A BAC level of 0.10 g/dl or more indicates that the person was intoxicated.

## **Body Type**

Detailed type of motor vehicle within a vehicle type.

## **Bus**

Large motor vehicles used to carry more than ten passengers, including school buses, inter-city buses, and transit buses.

## **Combination Truck**

A truck tractor not pulling a trailer; a tractor pulling at least one full or semi-trailer; or a single-unit truck pulling at least one trailer.

## **Construction/Maintenance Zone**

An area, usually marked by signs, barricades, or other devices indicating that highway construction or highway maintenance activities are ongoing.

## **Crash**

An event that produces injury and/or property damage, involves a motor vehicle in transport, and occurs on a trafficway or while the vehicle is still in motion after running off the trafficway.

## **Crash Severity**

1. **Fatal Crash.** A police-reported crash involving a motor vehicle in transport on a trafficway in which at least one person dies within 30 days of the crash.
2. **Injury Crash.** A police-reported crash that involves a motor vehicle in transport on a trafficway in which no one died but at least one person was reported to have: (1) an incapacitating injury; (2) a visible but not incapacitating injury; (3) a possible, not visible injury; or (4) an injury of unknown severity.
3. **Property-Damage-Only Crash.** A police-reported crash involving a motor vehicle in transport on a trafficway in which no one involved in the crash suffered any injuries.

**Crash Type**

Single-vehicle or multiple-vehicle crash.

**Day**

From 6 a.m. to 5:59 p.m.

**Driver**

An occupant of a vehicle who is in physical control of a motor vehicle in transport, or for an out-of-control vehicle, an occupant who was in control until control was lost.

**Ejection**

Refers to occupants being totally or partially thrown from the vehicle as a result of an impact or rollover.

**First Harmful Event**

The first event during a crash that caused injury or property damage.

**Fixed Object**

Stationary structures or substantial vegetation attached to the terrain.

**Gross Vehicle Weight Rating (GVWR)**

The maximum rated capacity of a vehicle, including the weight of the base vehicle, all added equipment, driver and passengers, and all cargo loaded into or on the vehicle. Actual weight may be less than or greater than GVWR.

**Initial Impact Point**

The first impact point that produced personal injury or property damage, regardless of First or Most Harmful Event.

**Injury Severity**

The police-reported injury severity of the person (i.e., occupant, pedestrian, or pedalcyclist).

1. Killed (Fatal)
2. Injured (Incapacitating injury, evident injury but not incapacitating, complaint of injury, or injured, severity unknown).
3. No injury.

**Jackknife**

Jackknife can occur at any time during the crash sequence. In this report, jackknifing is restricted to truck tractors pulling a trailing unit in which the trailing unit and the pulling vehicle rotate with respect to each other.

**Junction**

Area formed by the connection of two roadways, including intersections, interchange areas, and entrance/exit ramps.

**Land Use**

The crash location (urban or rural).

**Large Trucks**

Trucks over 10,000 pounds gross vehicle weight rating, including single unit trucks and truck tractors.

**Light Trucks**

Trucks of 10,000 pounds gross vehicle weight rating or less, including pickups, vans, truck-based station wagons, and utility vehicles.

**Manner of Collision**

A classification for crashes in which the first harmful event was a collision between two motor vehicles in transport and is described as one of the following:

**Angle.** Collisions which are not head-on, rear-end, rear-to-rear, or sideswipe.

**Head-on.** Refers to a collision where the front end of one vehicle collides with the front-end of another vehicle while the two vehicles are traveling in opposite directions.

**Rear-end.** A collision in which one vehicle collides with the rear of another vehicle.

**Sideswipe.** A collision in which the sides of both vehicles sustain minimal engagements.

**Most Harmful Event**

The event during a crash for a particular vehicle that is judged to have produced the greatest personal injury or property damage.

**Motorcycle**

A two- or three-wheeled motor vehicle designed to transport one or two people, including motorscooters, minibikes, and mopeds.

**Motor Vehicle in Transport**

A motor vehicle in motion on the trafficway or any other motor vehicle on the roadway, including stalled, disabled, or abandoned vehicles.

**Night**

From 6 p.m. to 5:59 a.m.

**Noncollision**

A class of crash in which the first harmful event does not involve a collision with a fixed object, nonfixed object, or a motor vehicle. This includes overturn, fire/explosion, falls from a vehicle, and injuries in a vehicle.

**Nonmotorist**

Any person who is not an occupant of a motor vehicle in transport and includes the following:

1. Pedestrians
2. Pedalcyclists
3. Occupants of parked motor vehicles
4. Others such as joggers, skateboard riders, people riding on animals, and persons riding in animal-drawn conveyances.

### **Nonmotorist Location**

The location of nonmotorists at time of impact. Intersection locations are coded only if nonmotorists were struck in the area formed by a junction of two or more trafficways. Non-intersection location may include nonmotorists struck on a junction of a driveway/alley access and a named trafficway. Nonmotorists who are occupants of motor vehicles not in transport are coded with respect to the location of the vehicle.

### **Objects Not Fixed**

Objects that are movable or moving but are not motor vehicles. Includes pedestrians, pedalcyclists, animals, or trains (e.g., spilled cargo in roadway).

### **Occupant**

Any person who is in or upon a motor vehicle in transport. Includes the driver, passengers, and persons riding on the exterior of a motor vehicle.

### **Other Vehicle**

Consists of the following types of vehicles:

1. Large limousine (more than four side doors or stretched chassis)
2. Three-wheel automobile or automobile derivative
3. Van-based motorhome
4. Light-truck-based motorhome (chassis mounted)
5. Large-truck-based motorhome
6. ATV (all terrain vehicle, including dune/swamp buggy) and ATC (all terrain cycle)
7. Snowmobile
8. Farm equipment other than trucks
9. Construction equipment other than trucks (includes graders)
10. Other type vehicle (includes go-cart, fork lift, city streetsweeper).

### **Passenger**

Any occupant of a motor vehicle who is not a driver.

### **Passenger Car**

Motor vehicles used primarily for carrying passengers, including convertibles, sedans, and station wagons.

### **Pedalcyclist**

A person on a vehicle that is powered solely by pedals.

### **Pedestrian**

Any person not in or upon a motor vehicle or other vehicle.

### **Restraint Use**

The occupant's use of available vehicle restraints including lap belt, shoulder belt, or automatic belt.

**Roadway**

That part of a trafficway designed, improved, and ordinarily used for motor vehicle travel.

**Roadway Function Class**

The classification describing the character of service the street or highway is intended to provide. Includes the following:

**Interstates.** Limited access divided facilities of at least four lanes designated by the Federal Highway Administration as part of the Interstate System.

**Other Freeways and Expressways.** All urban principal arterial with limited control of access not on the Interstate system.

**Other Principal Arterials.** Major streets or highways, many with multi-lane or freeway design, serving high-volume traffic corridor movements that connect major generators of travel.

**Minor Arterials.** Streets and highways linking cities and larger towns in rural areas in distributing trips to small geographic areas in urban areas (not penetrating identifiable neighborhoods).

**Collectors.** In rural areas, routes serving intra-county, rather than statewide travel. In urban areas, streets providing direct access to neighborhoods as well as direct access to arterials.

**Local Streets and Roads.** Streets whose primary purpose is feeding higher order systems, providing direct access with little or no through traffic.

**Rollover**

Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Includes rollovers occurring as a first harmful event or subsequent event.

**Seating Position**

The location of the occupants in the vehicle. More than one can be assigned the same seat position; however, this is allowed only when a person is sitting on someone's lap.

**School Bus-Related Crash**

Any crash in which a vehicle, regardless of body design, used as a school bus is directly or indirectly involved, such as a crash involving school children alighting from a vehicle.

**Single-Unit Truck**

A medium or heavy truck in which the engine, cab, drive train, and cargo area are all on one chassis.

**Trafficway**

Any road, street, or highway open to the public as a matter of right or custom for moving persons or property from one place to another.

**Vehicle**

See *Motor Vehicle in Transport*.

### **Vehicle Type**

A series of motor vehicle body types that have been grouped together because of their design similarities. The principal vehicle types used in this report are passenger car, light truck, large truck, motorcycle, bus, and other vehicle. See the definition of each of the vehicle types elsewhere in this glossary.

### **Weekday**

From 6 a.m. Monday to 5:59 p.m. Friday.

### **Weekend**

From 6 p.m. Friday to 5:59 a.m. Monday.

# INDEX

---

## A

### Age

Alcohol 36, 37, 112, 113, 114, 115, 117  
Crash Type 114, 115  
Day of Week 114  
Injury Severity 86  
Occupant 103, 126  
Person Type 104, 128, 129, 133, 134  
Rates 21, 31, 88, 89, 98, 99, 129, 134  
Restraint Use 119, 120  
School Bus Related 127  
Sex 88, 89, 98, 99, 104, 129, 134  
State 152-153  
Time of Day 114, 115

### Airbag 123

### Alcohol

Age 36, 37, 112, 113, 114, 115, 117  
Crash Type 56, 92, 114, 115  
Day of Week 114, 115  
Driver Survival Status 38, 162-167  
Holiday 33  
Impaired Driving High Priority Legislation 182-183  
Injury Severity 111  
Pedestrian 38, 117  
Person Type 111  
Sex 34  
State 160-167  
Time of Day 34, 56, 57, 92, 114, 115  
Vehicle Type 35, 116  
Year 32

### Ambulance 94

## B

### Body Type 63, 109

Bus 63, 64, 81, 82, 101, 102, 103, 106-109, 116, 118

## C

### City 174-177

### Construction/Maintenance Zone 94

### Crash Type

Alcohol 56, 92, 114  
Day of Week 114  
Driver Age 114  
Emergency Vehicle 94  
Hazardous Cargo 68  
Impact Point 70, 72, 74, 76, 80, 82  
Relation to Roadway 49  
Roadway Function Class 68  
Speed Limit 90  
Time of Day 56, 92, 114, 115  
Vehicle Type 30, 70, 72, 74, 76, 80, 82, 94

## D

Day of Week 45, 114, 115, 124, 125, 130, 131, 135

### Driver

Age 36, 98, 99, 104, 114, 115  
Alcohol 34, 35, 36, 37, 112, 113, 114-117, 162-167  
Injury Severity 86, 101, 111  
License Compliance 126  
License Status 100  
Previous Driving Record 100  
Rates 19, 20, 98  
Related Factors 100  
Restraint Use 39, 118  
Sex 34, 98, 104  
State 148-149, 162-167

## E

### Ejection 107

Emergency Medical Services 48, 170-171, 172-173

### Emergency Vehicle 94

**F**

**Fire** 66

**Fire Truck** 94

**First Harmful Event** 54, 142-143

**H**

**Hazardous Cargo** 68

**Helmet Use** 126, 182-183

**Holiday** 33

**I**

**Impact Point** 70, 71, 72, 73, 74, 75, 76, 79, 80, 81, 82, 106, 132, 136

**Intersection** 50, 128, 133

**J**

**Jackknife** 78

**L**

**Land Use** 48, 52, 68, 91, 170-171, 172-173

**Large Truck**

Alcohol 35, 116

Crash Type 30, 70, 76

Ejection 107

Fire 66

Impact Point 70, 75, 76, 106

Jackknife 78

Most Harmful Event 69, 75, 105

Number of Trailers 78

Occupant 26, 27, 30, 101, 102, 103

Rates 17, 26, 27

Restraint Use 118

Rollover 64, 77

State 154-155

Year 17, 26, 30

**License Compliance** 126

**License Status** 100

**Licensed Drivers** 15, 19, 148-149

**Light Condition** 47, 90

**Light Truck**

Alcohol 35, 116

Crash Type 70, 74

Ejection 107

Fire 66

Impact Point 70, 73, 74, 106

Most Harmful Event 69, 73, 105

Occupant 24, 25, 101, 102, 103

Rates 17, 24, 25

Restraint Use 118, 122, 123

Rollover 64

Seating Position 122

State 154-155

Year 17, 24

**Location (Nonmotorist)** 128, 133

**M**

**Manner of Collision** 54

**Month** 44

**Most Harmful Event** 69, 71, 73, 75, 79, 81, 105

**Motorcycle**

Age 126

Alcohol 35, 116

Crash Type 70, 80

Day of Week 124, 125

Fire 66

Helmet Use 126

Helmet Use Requirements 181

Impact Point 70, 79, 80, 106

License Compliance 126

Most Harmful Event 69, 79, 105

Occupant 28, 29, 101, 102, 103

Rates 17, 28, 29

State 154-155

Time of Day 124, 125

Year 17, 28

**N**

**Number of Lanes** 53



**O****Occupant**

Age 21, 103, 104  
 Body Type 109  
 Ejection 107  
 Injury Severity 86, 101, 111  
 Restraint Use 40  
 Sex 102, 104  
 Vehicle Type 18, 94, 101, 102, 103, 106,  
 108, 109, 154-155  
 Year 18

**P**

**Passenger** 86, 101, 104, 111, 126, 127,  
 150-151

**Passenger Car**

Alcohol 35, 116  
 Crash Type 70, 72  
 Ejection 107  
 Fire 66  
 Impact Point 70, 71, 72, 106  
 Most Harmful Event 69, 71, 105  
 Occupant 22, 23, 101, 102, 103, 105,  
 106, 107, 108, 109, 110  
 Rates 17, 22, 23  
 Restraint Use 121, 123  
 Rollover 64  
 Seating Position 121  
 State 154-155, 156-157  
 Wheelbase Size 110  
 Year 17, 22, 23

**Pedalcyclist**

Age 133, 134  
 Alcohol 111  
 Day of Week 135  
 Impact Point on Striking Vehicle 136  
 Injury Severity 86, 111  
 Location 133  
 Rates 134  
 Related Factors 136  
 Sex 134  
 State 150-151  
 Striking Vehicle Type 136

Time of Day 135

Year 18

**Pedestrian**

Age 127, 128, 129  
 Alcohol 38, 111, 117  
 City 174-177  
 Day of Week 130, 131  
 Impact Point on Striking Vehicle 132  
 Injury Severity 86, 111  
 Location 128  
 Rates 129, 158-159  
 Related Factors 132  
 School Bus Related 127  
 Sex 129  
 State 150-151, 174-177  
 Striking Vehicle Type 132  
 Time of Day 130, 131  
 Year 18

**Police Vehicle** 94**Population**

Age 21, 31, 88, 89, 129, 134  
 City 174-177  
 Rates 15, 21, 88, 89, 129, 134, 148-149,  
 174-177  
 Sex 88, 89, 129, 134  
 State 148-149  
 Year 15, 21, 31

**Previous Driving Record** 100**R****Rates: Licensed Drivers**

Age 15, 19, 20, 98, 99  
 Sex 19, 20, 98, 99  
 State 148-149  
 Year 15, 19, 20

**Rates: Population**

Age 21, 31, 88, 89, 129, 134  
 City 174-177  
 Pedestrian 129, 158-159  
 Sex 88, 89, 129, 134  
 State 148-149, 158-159  
 Year 15

**Rates: Registered Vehicles**

State 148-149  
Vehicle Type 17, 22, 24, 26, 28  
Year 15, 17

**Rates: Vehicle Miles of Travel**

Month 44  
State 178-179  
Vehicle Type 17, 22, 23, 24, 25, 26, 27, 28,  
29  
Year 15, 16, 17

**Registered Vehicles** 15, 17, 22, 24, 26, 28,  
148-149

**Relation to Junction** 50

**Relation to Roadway** 49

**Restraint Use**

Age 119, 120  
Child Passenger Protection Laws 180  
Driver 39, 118  
Restraint Type 123  
Safety Belt Use Laws 184  
Seating Position 121, 122  
State 156-157  
Vehicle Type 118  
Year 39, 40

**Roadway Function Class** 68, 94, 144-145,  
146-147

**Rollover** 64, 77

**S**

**School Bus Related** 127

**Seating Position** 121, 122

**Sex**

Age 88, 89, 98, 99, 129, 134  
Alcohol 34  
Injury Severity 86  
Person Type 104, 129, 134  
Rates 19, 20, 88, 89, 98, 99, 129, 134  
Vehicle Type 102

**Speed Limit** 51, 52, 90, 91, 97, 168-169

**T**

**Time of Day** 34, 45, 46, 56, 57, 92, 96, 114,  
115, 124, 125

**Traffic Control Device** 50

**Trafficway Flow** 53

**V**

**Vehicle Maneuver** 67

**Vehicle Miles of Travel** 15, 16, 17, 22, 23, 24,  
25, 26, 27, 28, 29

**Vehicle Type**

Alcohol 35, 116  
Body Type 63, 109  
Ejection 107  
Fire 66  
Impact Point 70, 72, 74, 76, 80, 82, 106, 132,  
136  
Injury Severity 101  
Most Harmful Event 69, 71, 73, 75, 79, 81,  
105  
Occupant Age 103  
Occupant Sex 102  
Restraint Use 118  
Rollover 64  
State 154-155  
Two-Vehicle Crash 55, 108  
Year 17, 18

**W**

**Weather Condition** 47, 90

## Introduction

## FARS Operations

## GES Operations

## About This Report

## Data Availability

## Chapter 1 ♦ Trends

## Chapter 2 ♦ Crashes

## Chapter 3 ♦ Vehicles

## Chapter 4 ♦ People

## Chapter 5 ♦ States

## FARS Data Elements

## GES Data Elements

## GES Technical Notes

## Glossary

## Index

---

### **How to Use This Index**

*Place left thumb on the outer edge of this page. To locate the desired entry, fold back the remaining page edges and align the index edge mark with the appropriate page edge mark.*

---

