## Buses Involved in Fatal Accidents FАствоок 2008



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# BUSES INVOLVED IN FATAL ACCIDENTS FACTBOOK 2008 

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This document presents aggregate statistics on buses involved in traffic accidents in 2008. The statistics are derived from the Buses Involved in Fatal Accidents (BIFA) file, compiled by the University of Michigan Transportation Research Institute. The BIFA database is a census of all buses involved in a fatal accident in the United States, and provides coverage of buses recorded in the Fatality Analysis Reporting System (FARS) file. BIFA combines vehicle, accident, and occupant records from FARS with information about the physical configuration and operating authority of the bus from the BIFA survey.

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| Sl* (MODERN METRIC) CONVERSION FACTORS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APPROXIMATE CONVERSIONS TO SI UNITS |  |  |  |  | APPROXIMATE CONVERSIONS FROM SI UNITS |  |  |  |  |
| Symbol | When You Know | Multiply By | To Find | Symbol | Symbol | When You Know | Multiply By | To Find | Symbol |
| LENGTH |  |  |  |  | LENGTH |  |  |  |  |
| in | inches | 25.4 | millimeters | mm | mm | Millimeters | 0.039 | Inches | in |
| ft | feet | 0.305 | meters | m | M | Meters | 3.28 | Feet | ft |
| yd | yards | 0.914 | meters | m | M | Meters | 1.09 | Yards | yd |
| mi | miles | 1.61 | kilometers | km | Km | Kilometers | 0.621 | Miles | mi |
| AREA |  |  |  |  | AREA |  |  |  |  |
| $i n^{2}$ | square inches | 645.2 | square millimeters | $\mathrm{mm}^{2}$ | $\mathrm{mm}^{2}$ | square millimeters | 0.0016 | square inches | $\mathrm{in}^{2}$ |
| $\mathrm{ft}^{2}$ | square feet | 0.093 | square meters | $\mathrm{m}^{2}$ | $\mathrm{m}^{2}$ | square meters | 10.764 | square feet | $\mathrm{ft}^{2}$ |
| $\mathrm{yd}^{2}$ | square yards | 0.836 | square meters | $\mathrm{m}^{2}$ | $\mathrm{m}^{2}$ | square meters | 1.195 | square yards | $\mathrm{yd}^{2}$ |
| ac | acres | 0.405 | hectares | ha | Ha | Hectares | 2.47 | Acres | ac |
| $\mathrm{mi}^{2}$ | square miles | 2.59 | square kilometers | $\mathrm{km}^{2}$ | $\mathrm{Km}^{2}$ | square kilometers | 0.386 | square miles | $m i^{2}$ |
| VOLUME |  |  |  |  | VOLUME |  |  |  |  |
| fl oz | fluid ounces | 29.57 | milliliters | mL | rnL | Milliliters | 0.034 | fluid ounces | fl oz |
| gal | gallons | 3.785 | liters | L | L | Liters | 0.264 | Gallons | gal |
| $\mathrm{ft}^{3}$ | cubic feet | $0.028$ | cubic meters | $\mathrm{m}^{3}$ | $\mathrm{m}^{3}$ | cubic meters | 35.71 | cubic feet | $\mathrm{ft}^{3}$ |
| $y^{3}$ | cubic yards | $0.765$ | cubic meters | $\mathrm{m}^{3}$ | $\mathrm{m}^{3}$ | cubic meters | 1.307 | cubic yards | $\mathrm{yd}^{3}$ |
| NOTE: Volumes greater than 1000 L shall be shown in $\mathrm{m}^{3}$. |  |  |  |  |  |  |  |  |  |
| MASS |  |  |  |  | MASS |  |  |  |  |
| oz | ounces | 28.35 | grams | g | G | Grams | 0.035 | Ounces | oz |
| lb | pounds | $0.454$ | kilograms | kg | Kg | Kilograms | 2.202 | Pounds | lb |
| T | short tons (2001 lb) | 0.907 | megagrams (or "metric ton") | Mg <br> (or "t") | Mg (or "t") | megagrams (or "metric ton") | 1.103 | short tons (2001 lb) | T |
| TEMPERATURE (exact) |  |  |  |  | TEMPERATURE (exact) |  |  |  |  |
| ${ }^{\circ} \mathrm{F}$ | Fahrenheit temperature | $\begin{gathered} 5(\mathrm{~F}-32) / 9 \\ \text { or }(\mathrm{F}-32) / 1.8 \end{gathered}$ | Celcius temperature | ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{C}$ | Celcius temperature | $1.8 \mathrm{C}+32$ | Fahrenheit temperature | ${ }^{\circ} \mathrm{F}$ |
| ILLUMINATION |  |  |  |  | ILLUMINATION |  |  |  |  |
| fc | foot-candles | 10.76 | lux | Ix | Lx | Lux | 0.0929 | foot-candles | fc |
| $f 1$ | foot-Lamberts | 3.426 | candela/m ${ }^{2}$ | $\mathrm{cd} / \mathrm{m}^{2}$ | $\mathrm{Cd} / \mathrm{m}^{2}$ | candela/m ${ }^{2}$ | 0.2919 | foot-lamberts | $f 1$ |
| FORCE and PRESSURE or STRESS |  |  |  |  | FORCE and PRESSURE or STRESS |  |  |  |  |
| lbf | poundforce | 4.45 | newtons | N | N | Newtons | 0.225 | Poundforce | lbf |
| $\mathrm{lbf} / \mathrm{in}^{2}$ | poundforce per square inch | 6.89 | kilopascals | kpa | kPa | Kilopascals | 0.145 | poundforce per square inch | $\mathrm{lbf} / \mathrm{in}^{2}$ |

[^0](Revised September 1993)

## Acknowledgments

The data documented in this report are the product of the dedicated efforts of many people. The project originated under the direction of Ken Campbell. Daniel Blower directs the current project. Robert Allen, Ray Grabel, Robert Korniski, and Bob Pichler served as interviewers. Daniel Hershberger also interviewed as well as managed the survey and edited the cases. Their conscientious dedication to accuracy and completeness is greatly appreciated. In addition, the project would not have been possible without the willing cooperation of hundreds of bus owners, operators, and police officers across the country.

The BIFA survey is conducted by the Center for National Truck and Bus Statistics at the University of Michigan Transportation Research Institute. The preparation of the data file and codebook was supported by the Federal Motor Carrier Safety Administration.

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## Introduction

This report, Buses Involved in Fatal Accidents Factbook 2008, provides descriptive statistics about buses involved in fatal accidents in the United States. The data come from the Buses Involved in Fatal Accidents (BIFA) survey program, initiated in 1999 by the Center for National Truck and Bus Statistics (CNTBS) at the University of Michigan Transportation Research Institute (UMTRI).

Modeled after UMTRI's Trucks Involved in Fatal Accidents (TIFA) program, the BIFA survey collects detailed information on all buses involved in all fatal traffic accidents. Buses are defined as motor vehicles with seating for nine or more, including the driver, that are not operated as personal transportation, and all motor vehicles with seating for 16 or more.

The BIFA file is produced annually, beginning with the 1999 data year, from a survey of bus crashes identified from the Fatality Analysis Reporting System (FARS) file, compiled by the National Center for Statistics and Analysis at the National Highway Traffic Safety Administration. Accident, vehicle, and driver records that appear to involve a bus are selected from the FARS file. Police reports for each accident represented are requested from the appropriate states. The 2008 BIFA file is a census file, meaning there is one record for each of the 293 buses involved in a fatal accident that year.

Trained and experienced interviewers contact individuals knowledgeable about the bus, including drivers, safety officers, police officers, emergency personnel, and witnesses. The interviewers verify that the vehicle is a bus and then collect information about the bus, bus driver, and the motor carrier that operated the bus. The interview produces a detailed description of the physical configuration of the bus, the operating authority of the bus, and the trip the bus was on at the time of the accident. An editor reviews each case to ensure accuracy and consistency.

The BIFA file combines the detailed physical description of the vehicle from the BIFA survey with matching accident, driver, and vehicle data from the FARS file. Almost all variables in FARS describing the accident, vehicle, and driver are included in the BIFA file. No FARS data are altered or corrected. The BIFA variables supplement the FARS data with extensive detail on the bus, including information about the physical configuration of the bus, the type of organization operating the bus, and the type of application the bus was used for. In addition, the BIFA survey determines the seating capacity of the bus; information regarding the driver; and several other details of the operations of the bus. The methodology, as well as a complete list of variables and data in the BIFA survey, is fully documented in Buses Involved in Fatal Accidents Codebook 2008.

## Report overview

This report consists of four sections. The "Trends" section provides data on fatalities and fatal accident involvements from 2004 through 2008. The "Accident conditions" section provides information about the accidents the buses were involved in, including distributions of bus fatal involvements across states, and information about the weather, road type, and roadway condition at the time of the accident. The "Vehicle" section includes statistics about bus body style, seating capacity, and the axle counts of the buses. The "Driver" section includes information about bus driver injury, licensing, previous driving record, age, sex, and other driver characteristics.

Virtually all tables present counts of involvements; that is, the number of the buses involved in a fatal accident by various factors and conditions of interest.

Within this report, buses are classified by how they are operated rather than by their physical configuration. The BIFA survey collects a detailed physical description of each vehicle. But the most meaningful and straightforward classification for this report is how the bus is used. Thus, if a bus is used to transport K-12 students for a school, it is classified as a school bus. Other buses that are of the type designed for use as school buses, but which are actually used for a different purpose, are classified according to the operator type. "School buses" that are converted to private use would be classified as "other bus type" here, a category used for the less common operator types. Likewise, a "school bus" used by a charter bus company would be categorized as "charter." However, in most cases the physical configuration of the bus corresponds to the expected type for each.

## Bus Operator Types Used in this Factbook

School - any public or private school or district, or contracted carrier operating on behalf of the entity, providing transportation for pupils.

Transit - an entity providing passenger transportation over fixed, scheduled routes, within primarily urban geographical areas.

Intercity - a company providing for-hire, long-distance passenger transportation between cities over fixed routes with regular schedules.

Charter - companies that operate buses on a for-hire basis, usually providing round-trip service for a tour group or an outing, either on an ad hoc or scheduled basis.

Other - this category includes buses operated by private companies (primary business other than passenger transportation), non-governmental organizations (such as churches and non-profit organizations), non-educational units of government (such as departments of corrections or highway departments), and private individuals (entertainers, sports teams, etc.).

Unknown - in cases where sufficient information could not be obtained about the operator type, "unknown" was assigned.

Definitions of terms and a table of abbreviations may be found on page 52 .

## Trends, 2004-2008

This section contains tables displaying trends in bus involvements in fatal traffic accidents and the number of persons killed in those accidents. The trends are presented by bus operator type, state, and person type.

- During the 5-year period 2004-2008, an average of 310 buses were involved in a fatal traffic accident each year. In 2008 there was a decrease of 11 bus involvements (293 total) from 304 involvements in 2007.
- Buses owned or operated for a school district were the most common operator type, accounting for $39.3 \%$ of all buses involved in fatal crashes during the 5 -year period on average. Urban transit authority buses represent the second most frequent bus type for fatal involvements, averaging 32.1\%.
- The number of school bus involvements (120) in 2008 increased from 111 in 2007.
- California, New York, and Florida had the greatest number of bus involvements over the period 2004-2008.
- Total fatalities for 2008 showed an increase of $3.4 \%$ from the 2007 figure of 354 . In 2008 there were 366 persons killed in crashes involving a bus; 6 of them were bus drivers, and 86 were passengers on the bus. Other vehicle drivers and passengers represented the largest source of fatalities with 179 (48.9\%), and non-motorists represented 94 (25.7\%) of the fatalities.
- Of the non-motorist fatalities, 77 pedestrians and 16 bicyclists or people on personal conveyances were killed during 2008 in accidents involving buses.


## Annual fatal involvements

Table 1-1
Fatal Bus Involvements by Year and Bus Type

| Accident year | School | Transit | Intercity | Charter | Other | Unknown | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: |
|  | N | N | N | N | N | N | N |
| 2004 | 125 | 96 | 8 | 42 | 34 | 2 | 307 |
| 2005 | 125 | 93 | 14 | 44 | 33 | 1 | 310 |
| 2006 | 128 | 119 | 6 | 37 | 42 | 3 | 335 |
| 2007 | 111 | 104 | 10 | 40 | 36 | 3 | 304 |
| 2008 | 120 | 86 | 9 | 27 | 41 | 10 | 293 |
| Total | 609 | 498 | 47 | 190 | 186 | 19 | 1549 |

Table 1-2
Fatal Bus Involvements by Year and Operator Type

| Bus operator type | 2004 |  | 2005 |  | 2006 |  | 2007 |  | 2008 |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| School district | 125 | 40.7 | 85 | 27.4 | 91 | 27.2 | 84 | 27.6 | 92 | 31.4 | 477 | 30.8 |
| Urban transit authority | 96 | 31.3 | 93 | 30.0 | 119 | 35.5 | 104 | 34.2 | 86 | 29.4 | 498 | 32.1 |
| Scheduled intercity | 8 | 2.6 | 14 | 4.5 | 6 | 1.8 | 10 | 3.3 | 9 | 3.1 | 47 | 3.0 |
| Charter bus | 42 | 13.7 | 44 | 14.2 | 37 | 11.0 | 40 | 13.2 | 27 | 9.2 | 190 | 12.3 |
| Private company | 2 | 0.7 | 2 | 0.6 | 2 | 0.6 | 0 | 0.0 | 4 | 1.4 | 10 | 0.6 |
| Non-government organization | 9 | 2.9 | 4 | 1.3 | 7 | 2.1 | 7 | 2.3 | 10 | 3.4 | 37 | 2.4 |
| Non-educational unit of government | 6 | 2.0 | 7 | 2.3 | 10 | 3.0 | 9 | 3.0 | 5 | 1.7 | 37 | 2.4 |
| Private, for personal transportation | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 1 | 0.3 | 2 | 0.1 |
| Contractor for school district* | 0 | 0.0 | 40 | 12.9 | 37 | 11.0 | 27 | 8.9 | 28 | 9.6 | 132 | 8.5 |
| Other | 17 | 5.5 | 20 | 6.5 | 22 | 6.6 | 20 | 6.6 | 21 | 7.2 | 100 | 6.5 |
| Unknown | 2 | 0.7 | 1 | 0.3 | 3 | 0.9 | 3 | 1.0 | 10 | 3.4 | 19 | 1.2 |
| Total | 307 | 100.0 | 310 | 100.0 | 335 | 100.0 | 304 | 100.0 | 293 | 100.0 | 1549 | 100.0 |

* "Contractor for school district" is a new bus operator type, beginning with the 2005 data year. Such cases in previous years were included in the "school district" grouping.

Table 1-3
Fatal Bus Involvements by Year, Bus Type and Passenger Seating Capacity

| Bus operator typeBus seating capacity | 2004 |  | 2005 |  | 2006 |  | 2007 |  | 2008 |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| School district |  |  |  |  |  |  |  |  |  |  |  |  |
| 8-14 | 0 | 0.0 | 3 | 1.0 | 2 | 0.6 | 3 | 1.0 | 5 | 1.7 | 13 | 0.8 |
| 15-50 | 14 | 4.6 | 27 | 8.7 | 22 | 6.6 | 14 | 4.6 | 21 | 7.2 | 98 | 6.3 |
| 51-99 | 99 | 32.2 | 83 | 26.8 | 92 | 27.5 | 87 | 28.6 | 89 | 30.4 | 450 | 29.1 |
| Estimated 15 or more | 10 | 3.3 | 10 | 3.2 | 11 | 3.3 | 7 | 2.3 | 5 | 1.7 | 43 | 2.8 |
| Unknown | 2 | 0.7 | 2 | 0.6 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 5 | 0.3 |
| Total school district | 125 | 40.7 | 125 | 40.3 | 128 | 38.2 | 111 | 36.5 | 120 | 41.0 | 609 | 39.3 |


| Transit bus authority | 5 | 1.6 | 5 | 1.6 | 1 | 0.3 | 6 | 2.0 | 4 | 1.4 | 21 | 1.4 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $8-14$ | 69 | 22.5 | 74 | 23.9 | 93 | 27.8 | 76 | 25.0 | 68 | 23.2 | 380 | 24.5 |
| $15-50$ | 3 | 1.0 | 7 | 2.3 | 10 | 3.0 | 5 | 1.6 | 6 | 2.0 | 31 | 2.0 |
| $51-99$ | 18 | 5.9 | 4 | 1.3 | 13 | 3.9 | 17 | 5.6 | 8 | 2.7 | 60 | 3.9 |
| Estimated 15 or more | 1 | 0.3 | 3 | 1.0 | 2 | 0.6 | 0 | 0.0 | 0 | 0.0 | 6 | 0.4 |
| Unknown | 96 | 31.3 | 93 | 30.0 | 119 | 35.5 | 104 | 34.2 | 86 | 29.4 | 498 | 32.1 |
| Total transit bus |  |  |  |  |  |  |  |  |  |  |  |  |

Intercity bus operator

| $8-14$ | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 1 | 0.1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $15-50$ | 4 | 1.3 | 4 | 1.3 | 2 | 0.6 | 0 | 0.0 | 1 | 0.3 | 11 | 0.7 |
| $51-99$ | 4 | 1.3 | 9 | 2.9 | 2 | 0.6 | 8 | 2.6 | 5 | 1.7 | 28 | 1.8 |
| Estimated 15 or more | 0 | 0.0 | 1 | 0.3 | 2 | 0.6 | 1 | 0.3 | 2 | 0.7 | 6 | 0.4 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 1 | 0.1 |
| Total intercity bus | 8 | 2.6 | 14 | 4.5 | 6 | 1.8 | 10 | 3.3 | 9 | 3.1 | 47 | 3.0 |

Charter bus operator

| $8-14$ | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 1 | 0.3 | 3 | 0.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $15-50$ | 18 | 5.9 | 20 | 6.5 | 14 | 4.2 | 18 | 5.9 | 5 | 1.7 | 75 | 4.8 |
| 51-99 | 16 | 5.2 | 20 | 6.5 | 17 | 5.1 | 15 | 4.9 | 20 | 6.8 | 88 | 5.7 |
| Estimated 15 or more | 7 | 2.3 | 4 | 1.3 | 6 | 1.8 | 6 | 2.0 | 1 | 0.3 | 24 | 1.5 |
| Total charter bus | 42 | 13.7 | 44 | 14.2 | 37 | 11.0 | 40 | 13.2 | 27 | 9.2 | 190 | 12.3 |

Other operator

| $8-14$ | 18 | 5.9 | 14 | 4.5 | 9 | 2.7 | 8 | 2.6 | 14 | 4.8 | 63 | 4.1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $15-50$ | 8 | 2.6 | 14 | 4.5 | 26 | 7.8 | 16 | 5.3 | 21 | 7.2 | 85 | 5.5 |
| $51-99$ | 3 | 1.0 | 3 | 1.0 | 2 | 0.6 | 5 | 1.6 | 4 | 1.4 | 17 | 1.1 |
| Estimated 15 or more | 4 | 1.3 | 1 | 0.3 | 3 | 0.9 | 4 | 1.3 | 2 | 0.7 | 14 | 0.9 |
| Unknown | 1 | 0.3 | 1 | 0.3 | 2 | 0.6 | 3 | 1.0 | 0 | 0.0 | 7 | 0.5 |
| Total other | 34 | 11.1 | 33 | 10.6 | 42 | 12.5 | 36 | 11.8 | 41 | 14.0 | 186 | 12.0 |

Unknown operator type

| 8-14 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 1 | 0.1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Estimated 15 or more | 1 | 0.3 | 0 | 0.0 | 1 | 0.3 | 3 | 1.0 | 1 | 0.3 | 6 | 0.4 |
| Unknown | 1 | 0.3 | 1 | 0.3 | 2 | 0.6 | 0 | 0.0 | 8 | 2.7 | 12 | 0.8 |
| Total unknown | 2 | 0.7 | 1 | 0.3 | 3 | 0.9 | 3 | 1.0 | 10 | 3.4 | 19 | 1.2 |
| Total | 307 | 100.0 | 310 | 100.0 | 335 | 100.0 | 304 | 100.0 | 293 | 100.0 | 1549 | 100.0 |

Table 1-4 Fatal Bus Involvements by Year and State

| State | 2004 |  | 2005 |  | 2006 |  | 2007 |  | 2008 |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Alabama | 5 | 1.6 | 0 | 0.0 | 7 | 2.1 | 6 | 2.0 | 5 | 1.7 | 23 | 1.5 |
| Alaska | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 | 0 | 0.0 | 4 | 0.3 |
| Arizona | 12 | 3.9 | 9 | 2.9 | 7 | 2.1 | 8 | 2.6 | 11 | 3.8 | 47 | 3.0 |
| Arkansas | 4 | 1.3 | 3 | 1.0 | 0 | 0.0 | 2 | 0.7 | 2 | 0.7 | 11 | 0.7 |
| California | 37 | 12.1 | 31 | 10.0 | 46 | 13.7 | 37 | 12.2 | 33 | 11.3 | 184 | 11.9 |
| Colorado | 4 | 1.3 | 3 | 1.0 | 4 | 1.2 | 2 | 0.7 | 2 | 0.7 | 15 | 1.0 |
| Connecticut | 2 | 0.7 | 5 | 1.6 | 4 | 1.2 | 2 | 0.7 | 3 | 1.0 | 16 | 1.0 |
| Delaware | 2 | 0.7 | 3 | 1.0 | 3 | 0.9 | 3 | 1.0 | 2 | 0.7 | 13 | 0.8 |
| District of Columbia | 1 | 0.3 | 3 | 1.0 | 3 | 0.9 | 3 | 1.0 | 2 | 0.7 | 12 | 0.8 |
| Florida | 26 | 8.5 | 31 | 10.0 | 33 | 9.9 | 29 | 9.5 | 32 | 10.9 | 151 | 9.7 |
| Georgia | 10 | 3.3 | 6 | 1.9 | 10 | 3.0 | 11 | 3.6 | 12 | 4.1 | 49 | 3.2 |
| Hawaii | 5 | 1.6 | 3 | 1.0 | 5 | 1.5 | 5 | 1.6 | 0 | 0.0 | 18 | 1.2 |
| Idaho | 1 | 0.3 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.1 |
| Illinois | 6 | 2.0 | 13 | 4.2 | 9 | 2.7 | 9 | 3.0 | 12 | 4.1 | 49 | 3.2 |
| Indiana | 3 | 1.0 | 6 | 1.9 | 7 | 2.1 | 8 | 2.6 | 4 | 1.4 | 28 | 1.8 |
| Iowa | 4 | 1.3 | 5 | 1.6 | 0 | 0.0 | 3 | 1.0 | 3 | 1.0 | 15 | 1.0 |
| Kansas | 3 | 1.0 | 3 | 1.0 | 4 | 1.2 | 3 | 1.0 | 2 | 0.7 | 15 | 1.0 |
| Kentucky | 5 | 1.6 | 3 | 1.0 | 3 | 0.9 | 4 | 1.3 | 6 | 2.0 | 21 | 1.4 |
| Louisiana | 4 | 1.3 | 5 | 1.6 | 7 | 2.1 | 5 | 1.6 | 4 | 1.4 | 25 | 1.6 |
| Maine | 1 | 0.3 | 1 | 0.3 | 2 | 0.6 | 2 | 0.7 | 0 | 0.0 | 6 | 0.4 |
| Maryland | 10 | 3.3 | 10 | 3.2 | 8 | 2.4 | 5 | 1.6 | 5 | 1.7 | 38 | 2.5 |
| Massachusetts | 4 | 1.3 | 0 | 0.0 | 3 | 0.9 | 2 | 0.7 | 3 | 1.0 | 12 | 0.8 |
| Michigan | 10 | 3.3 | 9 | 2.9 | 11 | 3.3 | 8 | 2.6 | 12 | 4.1 | 50 | 3.2 |
| Minnesota | 4 | 1.3 | 8 | 2.6 | 4 | 1.2 | 11 | 3.6 | 3 | 1.0 | 30 | 1.9 |
| Mississippi | 2 | 0.7 | 0 | 0.0 | 3 | 0.9 | 1 | 0.3 | 4 | 1.4 | 10 | 0.6 |
| Missouri | 7 | 2.3 | 10 | 3.2 | 7 | 2.1 | 9 | 3.0 | 4 | 1.4 | 37 | 2.4 |
| Montana | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 1 | 0.3 | 2 | 0.1 |
| Nebraska | 1 | 0.3 | 1 | 0.3 | 1 | 0.3 | 2 | 0.7 | 0 | 0.0 | 5 | 0.3 |
| Nevada | 2 | 0.7 | 4 | 1.3 | 3 | 0.9 | 5 | 1.6 | 2 | 0.7 | 16 | 1.0 |
| New Hampshire | 1 | 0.3 | 1 | 0.3 | 0 | 0.0 | 2 | 0.7 | 1 | 0.3 | 5 | 0.3 |
| New Jersey | 13 | 4.2 | 15 | 4.8 | 12 | 3.6 | 11 | 3.6 | 7 | 2.4 | 58 | 3.7 |
| New Mexico | 4 | 1.3 | 2 | 0.6 | 0 | 0.0 | 2 | 0.7 | 1 | 0.3 | 9 | 0.6 |
| New York | 25 | 8.1 | 24 | 7.7 | 40 | 11.9 | 25 | 8.2 | 17 | 5.8 | 131 | 8.5 |
| North Carolina | 8 | 2.6 | 8 | 2.6 | 2 | 0.6 | 9 | 3.0 | 12 | 4.1 | 39 | 2.5 |
| North Dakota | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Ohio | 6 | 2.0 | 9 | 2.9 | 15 | 4.5 | 9 | 3.0 | 12 | 4.1 | 51 | 3.3 |
| Oklahoma | 3 | 1.0 | 2 | 0.6 | 1 | 0.3 | 1 | 0.3 | 4 | 1.4 | 11 | 0.7 |
| Oregon | 2 | 0.7 | 2 | 0.6 | 2 | 0.6 | 1 | 0.3 | 3 | 1.0 | 10 | 0.6 |
| Pennsylvania | 14 | 4.6 | 19 | 6.1 | 24 | 7.2 | 14 | 4.6 | 13 | 4.4 | 84 | 5.4 |
| Rhode Island | 1 | 0.3 | 0 | 0.0 | 3 | 0.9 | 2 | 0.7 | 0 | 0.0 | 6 | 0.4 |
| South Carolina | 6 | 2.0 | 6 | 1.9 | 8 | 2.4 | 3 | 1.0 | 4 | 1.4 | 27 | 1.7 |
| South Dakota | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 | 3 | 0.2 |
| Tennessee | 7 | 2.3 | 4 | 1.3 | 6 | 1.8 | 5 | 1.6 | 5 | 1.7 | 27 | 1.7 |
| Texas | 18 | 5.9 | 15 | 4.8 | 12 | 3.6 | 8 | 2.6 | 23 | 7.8 | 76 | 4.9 |
| Utah | 4 | 1.3 | 1 | 0.3 | 0 | 0.0 | 1 | 0.3 | 2 | 0.7 | 8 | 0.5 |
| Vermont | 0 | 0.0 | 0 | 0.0 | 2 | 0.6 | 0 | 0.0 | 0 | 0.0 | 2 | 0.1 |
| Virginia | 9 | 2.9 | 12 | 3.9 | 3 | 0.9 | 7 | 2.3 | 7 | 2.4 | 38 | 2.5 |
| Washington | 2 | 0.7 | 6 | 1.9 | 4 | 1.2 | 7 | 2.3 | 7 | 2.4 | 26 | 1.7 |
| West Virginia | 2 | 0.7 | 1 | 0.3 | 2 | 0.6 | 2 | 0.7 | 2 | 0.7 | 9 | 0.6 |
| Wisconsin | 6 | 2.0 | 6 | 1.9 | 4 | 1.2 | 6 | 2.0 | 1 | 0.3 | 23 | 1.5 |
| Wyoming | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 1 | 0.3 | 2 | 0.1 |
| Total | 307 | 100.0 | 310 | 100.0 | 335 | 100.0 | 304 | 100.0 | 293 | 100.0 | 1549 | 100.0 |

## Annual fatalities

Table 1-5
Fatalities in Bus Involvements by Year and Person Type

| Vehicle/Person type | 2004 |  | 2005 |  | 2006 |  | 2007 |  | 2008 |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Bus |  |  |  |  |  |  |  |  |  |  |  |  |
| Driver | 12 | 3.4 | 12 | 3.2 | 9 | 2.4 | 18 | 5.1 | 6 | 1.6 | 57 | 3.1 |
| Passenger | 43 | 12.2 | 67 | 17.6 | 29 | 7.8 | 31 | 8.8 | 86 | 23.5 | 256 | 14.0 |
| Unknown occupant type | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 1 | 0.1 |
| Bus total | 55 | 15.6 | 79 | 20.8 | 38 | 10.2 | 49 | 13.8 | 93 | 25.4 | 314 | 17.2 |
| Other vehicle |  |  |  |  |  |  |  |  |  |  |  |  |
| Drivers | 161 | 45.7 | 149 | 39.2 | 176 | 47.1 | 167 | 47.2 | 135 | 36.9 | 788 | 43.2 |
| Passengers | 40 | 11.4 | 44 | 11.6 | 58 | 15.5 | 53 | 15.0 | 44 | 12.0 | 239 | 13.1 |
| Unknown occupant type | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other vehicle total | 201 | 57.1 | 193 | 50.8 | 234 | 62.6 | 220 | 62.1 | 179 | 48.9 | 1027 | 56.2 |
| Non-motorists |  |  |  |  |  |  |  |  |  |  |  |  |
| Parked | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 | 1 | 0.1 |
| Pedestrian | 89 | 25.3 | 89 | 23.4 | 89 | 23.8 | 64 | 18.1 | 77 | 21.0 | 408 | 22.3 |
| Bicyclist/personal conveyance | 6 | 1.7 | 16 | 4.2 | 12 | 3.2 | 21 | 5.9 | 16 | 4.4 | 71 | 3.9 |
| Other non-motorist | 1 | 0.3 | 3 | 0.8 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 | 5 | 0.3 |
| Non-motorist total | 96 | 27.3 | 108 | 28.4 | 102 | 27.3 | 85 | 24.0 | 94 | 25.7 | 485 | 26.6 |
| Total | 352 | 100.0 | 380 | 100.0 | 374 | 100.0 | 354 | 100.0 | 366 | 100.0 | 1826 | 100.0 |

## Accident conditions

This section provides statistics that describe conditions at the scene of fatal traffic accidents involving buses. Tables present various accident characteristics, including temporal and environmental conditions, as well as distributions of collision type and the bus's role in the accident. Though the tables focus on accident-level characteristics, all tables show counts of buses involved in fatal accidents, rather than counts of accidents. Some fatal traffic accidents include more than one bus.

- About 50\% of fatal bus involvements occurred from 6:00 to 8:59 a.m. or from 2:00 to 4:59 p.m., primarily involving school buses due to the hours school is in session.
- Overall, $87.0 \%$ of fatal involvements of buses occurred during the work week, but this varies by bus type. Transit buses experienced $15.1 \%$ of their involvements on the weekend (Saturday and Sunday), compared with $2.5 \%$ for school buses.
- The majority (90.4\%) of fatal involvements occurred under "normal" weather conditions (i.e. no rain, snow, fog, or other adverse condition). Seventeen or 5.8\% of fatal involvements occurred under rain conditions.
- Overall, $70.6 \%$ of the fatal bus involvements occurred in daylight and $24.3 \%$ of the involvements occurred under dark or dark but lighted conditions. Charter buses had a high incidence of fatal involvements occurring during dark or dark but lighted conditions, accounting for $62.9 \%$ of the involvements.
- Local streets (township or municipality) accounted for $31.7 \%$ of fatal bus involvements, $26.6 \%$ of bus involvements were on state highways, and $12.6 \%$ were on county roads.
- Over fifty-nine percent of the fatal involvements of buses occurred on undivided roads with two-way traffic.
- In 29.0\% of fatal involvements, the bus hit an object in the road (often a pedestrian or other non-motorist); in $11.9 \%$ of involvements another vehicle crossed the center line of the road and struck the bus head on; and in $6.5 \%$ of involvements the bus struck the side of another vehicle. These proportions can differ dramatically by bus type.
- In $57.7 \%$ of fatal bus involvements the first harmful event was collision with a motor vehicle; $25.6 \%$ involved collision with a pedestrian. Transit buses had the highest incidence of collisions involving pedestrians, 45.3\%.
- Over $31 \%$ of fatal bus involvements included a non-motorist fatality. Among school buses $88.9 \%$ of the non-motorist fatals were not passengers of the bus. For all bus types, the majority of non-motorists killed were not bus passengers.
- Florida had $11.7 \%$ (14) of the school bus involvements in 2008, while $22.1 \%$ (19) of transit bus involvements were in California.


## Geographic distributions



Figure 2-1: Fatal Bus Involvements by State


Figure 2-2: Fatal Bus Involvements by State - School Buses Only


Figure 2-3: Fatal Bus Involvements by State - Transit Buses Only

Table 2-1
Fatal Bus Involvements by State and Bus Type

| State | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Alabama | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 5 | 1.7 |
| Alaska | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Arizona | 4 | 3.3 | 3 | 3.5 | 2 | 22.2 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 11 | 3.8 |
| Arkansas | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| California | 6 | 5.0 | 19 | 22.1 | 1 | 11.1 | 2 | 7.4 | 4 | 9.8 | 1 | 10.0 | 33 | 11.3 |
| Colorado | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Connecticut | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 20.0 | 3 | 1.0 |
| Delaware | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| District of Columbia | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Florida | 14 | 11.7 | 9 | 10.5 | 0 | 0.0 | 2 | 7.4 | 7 | 17.1 | 0 | 0.0 | 32 | 10.9 |
| Georgia | 6 | 5.0 | 2 | 2.3 | 1 | 11.1 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 12 | 4.1 |
| Hawaii | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Idaho | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Illinois | 6 | 5.0 | 5 | 5.8 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 12 | 4.1 |
| Indiana | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| Iowa | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 3 | 1.0 |
| Kansas | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Kentucky | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 6 | 2.0 |
| Louisiana | 2 | 1.7 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Maine | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Maryland | 2 | 1.7 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 5 | 1.7 |
| Massachusetts | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Michigan | 3 | 2.5 | 7 | 8.1 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 12 | 4.1 |
| Minnesota | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Mississippi | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 4 | 1.4 |
| Missouri | 1 | 0.8 | 2 | 2.3 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| Montana | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Nebraska | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Nevada | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| New Hampshire | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| New Jersey | 4 | 3.3 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 7 | 2.4 |
| New Mexico | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| New York | 9 | 7.5 | 7 | 8.1 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 17 | 5.8 |
| North Carolina | 5 | 4.2 | 3 | 3.5 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 12 | 4.1 |
| North Dakota | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Ohio | 7 | 5.8 | 4 | 4.7 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 12 | 4.1 |
| Oklahoma | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Oregon | 1 | 0.8 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Pennsylvania | 4 | 3.3 | 3 | 3.5 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 5 | 50.0 | 13 | 4.4 |
| Rhode Island | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| South Carolina | 3 | 2.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| South Dakota | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Tennessee | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 5 | 1.7 |
| Texas | 7 | 5.8 | 4 | 4.7 | 2 | 22.2 | 5 | 18.5 | 4 | 9.8 | 1 | 10.0 | 23 | 7.8 |
| Utah | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Vermont | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Virginia | 5 | 4.2 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 7 | 2.4 |
| Washington | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 1 | 10.0 | 7 | 2.4 |
| West Virginia | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Wisconsin | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Wyoming | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

## Temporal distributions

Table 2-2
Fatal Bus Involvements by Month and Bus Type

| Month of accident | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| January | 16 | 13.3 | 10 | 11.6 | 0 | 0.0 | 3 | 11.1 | 3 | 7.3 | 2 | 20.0 | 34 | 11.6 |
| February | 10 | 8.3 | 9 | 10.5 | 0 | 0.0 | 2 | 7.4 | 4 | 9.8 | 0 | 0.0 | 25 | 8.5 |
| March | 10 | 8.3 | 6 | 7.0 | 0 | 0.0 | 5 | 18.5 | 6 | 14.6 | 0 | 0.0 | 27 | 9.2 |
| April | 14 | 11.7 | 9 | 10.5 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 1 | 10.0 | 28 | 9.6 |
| May | 16 | 13.3 | 8 | 9.3 | 2 | 22.2 | 2 | 7.4 | 2 | 4.9 | 0 | 0.0 | 30 | 10.2 |
| June | 2 | 1.7 | 3 | 3.5 | 0 | 0.0 | 2 | 7.4 | 4 | 9.8 | 1 | 10.0 | 12 | 4.1 |
| July | 1 | 0.8 | 7 | 8.1 | 2 | 22.2 | 2 | 7.4 | 3 | 7.3 | 1 | 10.0 | 16 | 5.5 |
| August | 8 | 6.7 | 9 | 10.5 | 1 | 11.1 | 1 | 3.7 | 4 | 9.8 | 0 | 0.0 | 23 | 7.8 |
| September | 11 | 9.2 | 10 | 11.6 | 0 | 0.0 | 1 | 3.7 | 5 | 12.2 | 1 | 10.0 | 28 | 9.6 |
| October | 12 | 10.0 | 7 | 8.1 | 1 | 11.1 | 3 | 11.1 | 3 | 7.3 | 1 | 10.0 | 27 | 9.2 |
| November | 10 | 8.3 | 3 | 3.5 | 1 | 11.1 | 3 | 11.1 | 1 | 2.4 | 0 | 0.0 | 18 | 6.1 |
| December | 10 | 8.3 | 5 | 5.8 | 2 | 22.2 | 2 | 7.4 | 3 | 7.3 | 3 | 30.0 | 25 | 8.5 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-3
Fatal Bus Involvements by Day of Week and Bus Type

| Day of week | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Sunday | 0 | 0.0 | 6 | 7.0 | 1 | 11.1 | 5 | 18.5 | 7 | 17.1 | 0 | 0.0 | 19 | 6.5 |
| Monday | 19 | 15.8 | 14 | 16.3 | 0 | 0.0 | 1 | 3.7 | 4 | 9.8 | 2 | 20.0 | 40 | 13.7 |
| Tuesday | 28 | 23.3 | 13 | 15.1 | 0 | 0.0 | 3 | 11.1 | 12 | 29.3 | 3 | 30.0 | 59 | 20.1 |
| Wednesday | 24 | 20.0 | 12 | 14.0 | 2 | 22.2 | 4 | 14.8 | 3 | 7.3 | 2 | 20.0 | 47 | 16.0 |
| Thursday | 19 | 15.8 | 12 | 14.0 | 0 | 0.0 | 3 | 11.1 | 4 | 9.8 | 1 | 10.0 | 39 | 13.3 |
| Friday | 27 | 22.5 | 22 | 25.6 | 4 | 44.4 | 5 | 18.5 | 11 | 26.8 | 1 | 10.0 | 70 | 23.9 |
| Saturday | 3 | 2.5 | 7 | 8.1 | 2 | 22.2 | 6 | 22.2 | 0 | 0.0 | 1 | 10.0 | 19 | 6.5 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-4
Fatal Bus Involvements by Day Type and Bus Type

| Day type | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Work week | 117 | 97.5 | 73 | 84.9 | 6 | 66.7 | 16 | 59.3 | 34 | 82.9 | 9 | 90.0 | 255 | 87.0 |
| Weekend | 3 | 2.5 | 13 | 15.1 | 3 | 33.3 | 11 | 40.7 | 7 | 17.1 | 1 | 10.0 | 38 | 13.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Note: Work week is defined as Monday through Friday, and weekend as Saturday and Sunday.

Table 2-5
Fatal Bus Involvements by Time of Accident and Bus Type

| Time of accident | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Midnight | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| 1:00 AM | 0 | 0.0 | 1 | 1.2 | 3 | 33.3 | 1 | 3.7 | 0 | 0.0 | 1 | 10.0 | 6 | 2.0 |
| 2:00 AM | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 3:00 AM | 0 | 0.0 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| 4:00 AM | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| 5:00 AM | 0 | 0.0 | 4 | 4.7 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 7 | 2.4 |
| 6:00 AM | 4 | 3.3 | 4 | 4.7 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 1 | 10.0 | 11 | 3.8 |
| 7:00 AM | 20 | 16.7 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 1 | 10.0 | 24 | 8.2 |
| 8:00 AM | 18 | 15.0 | 6 | 7.0 | 0 | 0.0 | 0 | 0.0 | 5 | 12.2 | 1 | 10.0 | 30 | 10.2 |
| 9:00 AM | 3 | 2.5 | 4 | 4.7 | 0 | 0.0 | 2 | 7.4 | 1 | 2.4 | 0 | 0.0 | 10 | 3.4 |
| 10:00 AM | 1 | 0.8 | 7 | 8.1 | 0 | 0.0 | 2 | 7.4 | 1 | 2.4 | 0 | 0.0 | 11 | 3.8 |
| 11:00 AM | 1 | 0.8 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 5 | 1.7 |
| Noon | 7 | 5.8 | 7 | 8.1 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 17 | 5.8 |
| 1:00 PM | 4 | 3.3 | 6 | 7.0 | 1 | 11.1 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 14 | 4.8 |
| 2:00 PM | 11 | 9.2 | 5 | 5.8 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 2 | 20.0 | 21 | 7.2 |
| 3:00 PM | 24 | 20.0 | 7 | 8.1 | 0 | 0.0 | 1 | 3.7 | 4 | 9.8 | 0 | 0.0 | 36 | 12.3 |
| 4:00 PM | 17 | 14.2 | 6 | 7.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 24 | 8.2 |
| 5:00 PM | 3 | 2.5 | 3 | 3.5 | 0 | 0.0 | 2 | 7.4 | 2 | 4.9 | 0 | 0.0 | 10 | 3.4 |
| 6:00 PM | 3 | 2.5 | 5 | 5.8 | 0 | 0.0 | 3 | 11.1 | 2 | 4.9 | 0 | 0.0 | 13 | 4.4 |
| 7:00 PM | 0 | 0.0 | 5 | 5.8 | 1 | 11.1 | 2 | 7.4 | 5 | 12.2 | 0 | 0.0 | 13 | 4.4 |
| 8:00 PM | 0 | 0.0 | 8 | 9.3 | 0 | 0.0 | 3 | 11.1 | 2 | 4.9 | 3 | 30.0 | 16 | 5.5 |
| 9:00 PM | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| 10:00 PM | 1 | 0.8 | 0 | 0.0 | 1 | 11.1 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 6 | 2.0 |
| 11:00 PM | 0 | 0.0 | 3 | 3.5 | 1 | 11.1 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 6 | 2.0 |
| Unknown | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Note: 1:00 AM signifies 1:00 to 1:59 AM, etc.

Table 2-6
Fatal Bus Involvements by Time of Accident and Day Type

| Time of accident | Work week |  | Weekend |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% |
| Midnight | 1 | 0.4 | 2 | 5.3 | 3 | 1.0 |
| 1:00 AM | 2 | 0.8 | 4 | 10.5 | 6 | 2.0 |
| 2:00 AM | 1 | 0.4 | 0 | 0.0 | 1 | 0.3 |
| 3:00 AM | 2 | 0.8 | 0 | 0.0 | 2 | 0.7 |
| 4:00 AM | 1 | 0.4 | 2 | 5.3 | 3 | 1.0 |
| 5:00 AM | 5 | 2.0 | 2 | 5.3 | 7 | 2.4 |
| 6:00 AM | 11 | 4.3 | 0 | 0.0 | 11 | 3.8 |
| 7:00 AM | 24 | 9.4 | 0 | 0.0 | 24 | 8.2 |
| 8:00 AM | 27 | 10.6 | 3 | 7.9 | 30 | 10.2 |
| 9:00 AM | 8 | 3.1 | 2 | 5.3 | 10 | 3.4 |
| 10:00 AM | 6 | 2.4 | 5 | 13.2 | 11 | 3.8 |
| 11:00 AM | 5 | 2.0 | 0 | 0.0 | 5 | 1.7 |
| Noon | 14 | 5.5 | 3 | 7.9 | 17 | 5.8 |
| 1:00 PM | 12 | 4.7 | 2 | 5.3 | 14 | 4.8 |
| 2:00 PM | 21 | 8.2 | 0 | 0.0 | 21 | 7.2 |
| 3:00 PM | 36 | 14.1 | 0 | 0.0 | 36 | 12.3 |
| 4:00 PM | 24 | 9.4 | 0 | 0.0 | 24 | 8.2 |
| 5:00 PM | 7 | 2.7 | 3 | 7.9 | 10 | 3.4 |
| 6:00 PM | 10 | 3.9 | 3 | 7.9 | 13 | 4.4 |
| 7:00 PM | 8 | 3.1 | 5 | 13.2 | 13 | 4.4 |
| 8:00 PM | 16 | 6.3 | 0 | 0.0 | 16 | 5.5 |
| 9:00 PM | 2 | 0.8 | 1 | 2.6 | 3 | 1.0 |
| 10:00 PM | 5 | 2.0 | 1 | 2.6 | 6 | 2.0 |
| 11:00 PM | 6 | 2.4 | 0 | 0.0 | 6 | 2.0 |
| Unknown | 1 | 0.4 | 0 | 0.0 | 1 | 0.3 |
| Total | 255 | 100.0 | 38 | 100.0 | 293 | 100.0 |

Note: Work week is defined as Monday through Friday, and weekend as Saturday and Sunday. 1:00 AM
signifies 1:00 to 1:59 AM, etc.

## Environmental distributions

Table 2-7
Fatal Bus Involvements by Land Use and Bus Type

| Land use | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Urban | 47 | 39.2 | 76 | 88.4 | 4 | 44.4 | 11 | 40.7 | 17 | 41.5 | 8 | 80.0 | 163 | 55.6 |
| Rural | 72 | 60.0 | 10 | 11.6 | 5 | 55.6 | 15 | 55.6 | 24 | 58.5 | 2 | 20.0 | 128 | 43.7 |
| Unknown | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-8
Fatal Bus Involvements by Light Condition and Bus Type

| Light condition | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Daylight | 110 | 91.7 | 55 | 64.0 | 1 | 11.1 | 10 | 37.0 | 26 | 63.4 | 5 | 50.0 | 207 | 70.6 |
| Dark | 2 | 1.7 | 5 | 5.8 | 6 | 66.7 | 10 | 37.0 | 9 | 22.0 | 1 | 10.0 | 33 | 11.3 |
| Dark but lighted | 2 | 1.7 | 22 | 25.6 | 2 | 22.2 | 7 | 25.9 | 2 | 4.9 | 3 | 30.0 | 38 | 13.0 |
| Dawn | 5 | 4.2 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 1 | 10.0 | 11 | 3.8 |
| Dusk | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 4 | 1.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-9
Fatal Bus Involvements by Roadway Surface Condition and Bus Type

| Roadway surface condition | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Dry | 99 | 82.5 | 76 | 88.4 | 8 | 88.9 | 26 | 96.3 | 33 | 80.5 | 8 | 80.0 | 250 | 85.3 |
| Wet | 16 | 13.3 | 9 | 10.5 | 0 | 0.0 | 1 | 3.7 | 5 | 12.2 | 1 | 10.0 | 32 | 10.9 |
| Snow or slush | 3 | 2.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Ice/frost | 2 | 1.7 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 2 | 4.9 | 1 | 10.0 | 7 | 2.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-10
Fatal Bus Involvements by Weather Condition and Bus Type

| Weather conditon | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N |  | N | \% | N | \% | N | \% | N | \% |
| Clear/cloudy (no adverse conditions) | 104 | 86.7 | 81 | 94.2 | 9 | 100.0 | 27 | 100.0 | 35 | 85.4 | 9 | 90.0 | 265 | 90.4 |
| Rain | 10 | 8.3 | 4 | 4.7 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 1 | 10.0 | 17 | 5.8 |
| Sleet (hail) | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Snow/blowing snow | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 5 | 1.7 |
| Fog/smog/smoke | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 5 | 1.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

## Roadway distributions

Table 2-11
Fatal Bus Involvements by Roadway Function Class and Bus Type

| Road function class | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Urban |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interstate | 2 | 1.7 | 2 | 2.3 | 4 | 44.4 | 2 | 7.4 | 2 | 4.9 | 2 | 20.0 | 14 | 4.8 |
| Freeway/expressway | 2 | 1.7 | 3 | 3.5 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 9 | 3.1 |
| Other principal artery | 12 | 10.0 | 35 | 40.7 | 0 | 0.0 | 3 | 11.1 | 7 | 17.1 | 5 | 50.0 | 62 | 21.2 |
| Minor artery | 12 | 10.0 | 18 | 20.9 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 33 | 11.3 |
| Collector | 6 | 5.0 | 6 | 7.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 14 | 4.8 |
| Local street | 13 | 10.8 | 12 | 14.0 | 0 | 0.0 | 5 | 18.5 | 1 | 2.4 | 0 | 0.0 | 31 | 10.6 |
| Total urban | 47 | 39.2 | 76 | 88.4 | 4 | 44.4 | 11 | 40.7 | 17 | 41.5 | 8 | 80.0 | 163 | 55.6 |
| Rural |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interstate | 2 | 1.7 | 1 | 1.2 | 1 | 11.1 | 5 | 18.5 | 2 | 4.9 | 0 | 0.0 | 11 | 3.8 |
| Other principal artery | 14 | 11.7 | 2 | 2.3 | 3 | 33.3 | 7 | 25.9 | 8 | 19.5 | 1 | 10.0 | 35 | 11.9 |
| Minor artery | 22 | 18.3 | 0 | 0.0 | 0 | 0.0 | 2 | 7.4 | 6 | 14.6 | 0 | 0.0 | 30 | 10.2 |
| Major collector | 18 | 15.0 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 4 | 9.8 | 1 | 10.0 | 25 | 8.5 |
| Minor collector | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Local road | 16 | 13.3 | 5 | 5.8 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 24 | 8.2 |
| Unknown rural | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Total rural | 72 | 60.0 | 10 | 11.6 | 5 | 55.6 | 15 | 55.6 | 24 | 58.5 | 2 | 20.0 | 128 | 43.7 |
| Unknown | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Total urban and rural | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-12
Fatal Bus Involvements by Route Signing and Bus Type

| Route signing | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Interstate | 4 | 3.3 | 3 | 3.5 | 5 | 55.6 | 6 | 22.2 | 4 | 9.8 | 2 | 20.0 | 24 | 8.2 |
| US highway | 22 | 18.3 | 10 | 11.6 | 1 | 11.1 | 8 | 29.6 | 11 | 26.8 | 0 | 0.0 | 52 | 17.7 |
| State highway | 34 | 28.3 | 15 | 17.4 | 3 | 33.3 | 4 | 14.8 | 16 | 39.0 | 6 | 60.0 | 78 | 26.6 |
| County road | 23 | 19.2 | 9 | 10.5 | 0 | 0.0 | 1 | 3.7 | 4 | 9.8 | 0 | 0.0 | 37 | 12.6 |
| Township | 6 | 5.0 | 3 | 3.5 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 10 | 3.4 |
| Municipality | 26 | 21.7 | 46 | 53.5 | 0 | 0.0 | 4 | 14.8 | 5 | 12.2 | 2 | 20.0 | 83 | 28.3 |
| Frontage road | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Other | 4 | 3.3 | 0 | 0.0 | 0 | 0.0 | 2 | 7.4 | 1 | 2.4 | 0 | 0.0 | 7 | 2.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-13
Fatal Bus Involvements by Relation to Junction and Bus Type

| Relation to junction | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Noninterchange |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonjunction | 59 | 49.2 | 28 | 32.6 | 6 | 66.7 | 22 | 81.5 | 30 | 73.2 | 5 | 50.0 | 150 | 51.2 |
| Intersection | 55 | 45.8 | 36 | 41.9 | 0 | 0.0 | 3 | 11.1 | 7 | 17.1 | 3 | 30.0 | 104 | 35.5 |
| Intersection related | 3 | 2.5 | 15 | 17.4 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 1 | 10.0 | 21 | 7.2 |
| Driveway, alley access, etc. | 0 | 0.0 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Entrance/exit ramp | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Driveway access related | 2 | 1.7 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 1 | 10.0 | 5 | 1.7 |
| Interchange area |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Intersection related | 0 | 0.0 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Entrance/exit ramp | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Other location | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-14
Fatal Bus Involvements by Number of Travel Lanes and Bus Type

| Number of travel lanes | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 1 | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| 2 | 94 | 78.3 | 42 | 48.8 | 6 | 66.7 | 16 | 59.3 | 30 | 73.2 | 5 | 50.0 | 193 | 65.9 |
| 3 | 5 | 4.2 | 9 | 10.5 | 1 | 11.1 | 5 | 18.5 | 3 | 7.3 | 4 | 40.0 | 27 | 9.2 |
| 4 | 16 | 13.3 | 21 | 24.4 | 1 | 11.1 | 3 | 11.1 | 3 | 7.3 | 0 | 0.0 | 44 | 15.0 |
| 5 | 0 | 0.0 | 5 | 5.8 | 1 | 11.1 | 1 | 3.7 | 1 | 2.4 | 1 | 10.0 | 9 | 3.1 |
| 6 | 1 | 0.8 | 4 | 4.7 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 7 | 2.4 |
| Unknown | 2 | 1.7 | 3 | 3.5 | 0 | 0.0 | 2 | 7.4 | 2 | 4.9 | 0 | 0.0 | 9 | 3.1 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-15
Fatal Bus Involvements by Trafficway Flow and Bus Type

| Trafficway flow | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Not divided | 85 | 70.8 | 49 | 57.0 | 3 | 33.3 | 11 | 40.7 | 21 | 51.2 | 5 | 50.0 | 174 | 59.4 |
| Median - no barrier | 23 | 19.2 | 17 | 19.8 | 2 | 22.2 | 10 | 37.0 | 14 | 34.1 | 1 | 10.0 | 67 | 22.9 |
| Median with barrier | 3 | 2.5 | 6 | 7.0 | 4 | 44.4 | 4 | 14.8 | 3 | 7.3 | 3 | 30.0 | 23 | 7.8 |
| One-way traffic | 3 | 2.5 | 6 | 7.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 1 | 10.0 | 11 | 3.8 |
| Two-way left turn lane | 3 | 2.5 | 7 | 8.1 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 13 | 4.4 |
| Entrance/exit ramp | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| Unknown | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-16
Fatal Bus Involvements by Speed Limit and Bus Type

| Speed limit | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No stated limit | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 10.0 | 1 | 0.3 |
| 15 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 20 | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| 25 | 7 | 5.8 | 19 | 22.1 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 28 | 9.6 |
| 30 | 11 | 9.2 | 17 | 19.8 | 0 | 0.0 | 3 | 11.1 | 0 | 0.0 | 0 | 0.0 | 31 | 10.6 |
| 35 | 16 | 13.3 | 18 | 20.9 | 0 | 0.0 | 3 | 11.1 | 2 | 4.9 | 3 | 30.0 | 42 | 14.3 |
| 40 | 7 | 5.8 | 8 | 9.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 15 | 5.1 |
| 45 | 21 | 17.5 | 10 | 11.6 | 0 | 0.0 | 4 | 14.8 | 7 | 17.1 | 1 | 10.0 | 43 | 14.7 |
| 50 | 7 | 5.8 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 1 | 10.0 | 13 | 4.4 |
| 55 | 30 | 25.0 | 2 | 2.3 | 2 | 22.2 | 3 | 11.1 | 12 | 29.3 | 1 | 10.0 | 50 | 17.1 |
| 60 | 2 | 1.7 | 0 | 0.0 | 2 | 22.2 | 1 | 3.7 | 4 | 9.8 | 2 | 20.0 | 11 | 3.8 |
| 65 | 8 | 6.7 | 3 | 3.5 | 4 | 44.4 | 9 | 33.3 | 6 | 14.6 | 0 | 0.0 | 30 | 10.2 |
| 70 | 5 | 4.2 | 0 | 0.0 | 0 | 0.0 | 3 | 11.1 | 4 | 9.8 | 0 | 0.0 | 12 | 4.1 |
| 75 | 1 | 0.8 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Unknown | 3 | 2.5 | 6 | 7.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 11 | 3.8 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

## Accident description

Table 2-17
Fatal Bus Involvements by Accident Type and Bus Type

| Accident type | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Single vehicle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ran off road | 3 | 2.5 | 0 | 0 | 2 | 22.2 | 3 | 11.1 | 7 | 17.1 | 0 | 0.0 | 15 | 5.1 |
| Hit object in road | 25 | 20.8 | 41 | 47.7 | 3 | 33.3 | 8 | 29.6 | 6 | 14.6 | 2 | 20.0 | 85 | 29.0 |
| Same direction, same trafficway |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rearend, bus striking | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Rearend, bus struck | 11 | 9.2 | 4 | 4.7 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 18 | 6.1 |
| Sideswipe, in bus's lane | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Opposite direction, same trafficway |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Head-on, in other's lane | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Head-on, in bus's lane | 25 | 20.8 | 2 | 2.3 | 1 | 11.1 | 3 | 11.1 | 4 | 9.8 | 0 | 0.0 | 35 | 11.9 |
| Sideswipe, in other lane | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Sideswipe, in bus's lane | 9 | 7.5 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 5 | 12.2 | 0 | 0.0 | 16 | 5.5 |
| Change trafficway, one vehicle turning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bus turn across path | 5 | 4.2 | 4 | 4.7 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 11 | 3.8 |
| Other turn across path | 7 | 5.8 | 4 | 4.7 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 12 | 4.1 |
| Intersecting paths, both going straight |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bus into side of other | 10 | 8.3 | 7 | 8.1 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 19 | 6.5 |
| Other into side of bus | 6 | 5.0 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 10 | 3.4 |
| Other accident types |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Untripped rollover | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 11.1 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Other | 16 | 13.3 | 18 | 20.9 | 3 | 33.3 | 6 | 22.2 | 12 | 29.3 | 1 | 10.0 | 56 | 19.1 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 7 | 70.0 | 7 | 2.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-18
Fatal Bus Involvements by Number of Vehicles in Crash and Bus Type

| Number of motor vehicles in crash | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 1 | 28 | 23.3 | 44 | 51.2 | 6 | 66.7 | 13 | 48.1 | 15 | 36.6 | 3 | 30.0 | 109 | 37.2 |
| 2 | 72 | 60.0 | 35 | 40.7 | 2 | 22.2 | 11 | 40.7 | 17 | 41.5 | 3 | 30.0 | 140 | 47.8 |
| 3 | 16 | 13.3 | 6 | 7.0 | 0 | 0.0 | 3 | 11.1 | 4 | 9.8 | 2 | 20.0 | 31 | 10.6 |
| 4 | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 4 | 9.8 | 2 | 20.0 | 10 | 3.4 |
| 5 | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 8 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-19
Fatal Bus Involvements by First Harmful Event and Bus Type

| First harmful event | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Noncollision event |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Overturn/rollover | 0 | 0.0 | 0 | 0.0 | 2 | 22.2 | 4 | 14.8 | 5 | 12.2 | 0 | 0.0 | 11 | 3.8 |
| Fell/jumped from vehicle | 1 | 0.8 | 2 | 2.3 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| Injured in vehicle (other than cargo/equipment loss or shift) | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Jackknife | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Other noncollision | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Collision with motor vehicle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Motor vehicle in-transport | 87 | 72.5 | 34 | 39.5 | 2 | 22.2 | 11 | 40.7 | 25 | 61.0 | 7 | 70.0 | 166 | 56.7 |
| Motor vehicle in-transport on different roadway | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |  | 0.0 | 2 | 0.7 |
| Working motor vehicle (construction, maintenance, utility) | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Collision with nonfixed object |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pedestrian | 19 | 15.8 | 39 | 45.3 | 3 | 33.3 | 7 | 25.9 | 4 | 9.8 | 3 | 30.0 | 75 | 25.6 |
| Pedalcycle | 7 | 5.8 | 6 | 7.0 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 15 | 5.1 |
| Non-motorist on personal conveyance | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Collision with fixed object |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Impact attenuator/crash cushion | 1 | 0.8 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Bridge rail | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Guardrail face | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Highway/traffic sign post/sign | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Curb | 0 | 0.0 | 2 | 2.3 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Embankment - type unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Standing tree | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Other fixed object | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-20
Fatal Bus Involvements by Vehicle Role in Accident and Bus Type

| Vehicle role | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Non-collision | 1 | 0.8 | 2 | 2.3 | 2 | 22.2 | 3 | 11.1 | 4 | 9.8 | 0 | 0.0 | 12 | 4.1 |
| Striking | 49 | 40.8 | 56 | 65.1 | 7 | 77.8 | 18 | 66.7 | 16 | 39.0 | 6 | 60.0 | 152 | 51.9 |
| Struck | 67 | 55.8 | 27 | 31.4 | 0 | 0.0 | 6 | 22.2 | 20 | 48.8 | 2 | 20.0 | 122 | 41.6 |
| Both | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 2 | 20.0 | 7 | 2.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 2-21
Fatal Bus Involvements by Manner of Collision and Bus Type

| Manner of collision | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Not applicable | 31 | 25.8 | 51 | 59.3 | 7 | 77.8 | 16 | 59.3 | 16 | 39.0 | 3 | 30.0 | 124 | 42.3 |
| Rear-end | 12 | 10.0 | 7 | 8.1 | 0 | 0.0 | 4 | 14.8 | 4 | 9.8 | 1 | 10.0 | 28 | 9.6 |
| Head-on | 25 | 20.8 | 3 | 3.5 | 2 | 22.2 | 4 | 14.8 | 5 | 12.2 | 1 | 10.0 | 40 | 13.7 |
| Front-to-side: Same direction | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| Front-to-side: Opposite direction | 10 | 8.3 | 4 | 4.7 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 1 | 10.0 | 18 | 6.1 |
| Front-to-side: Right angle | 33 | 27.5 | 19 | 22.1 | 0 | 0.0 | 2 | 7.4 | 6 | 14.6 | 2 | 20.0 | 62 | 21.2 |
| Front-to-side: Unknown direction | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Sideswipe: Same direction | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Sideswipe: Opposite direction | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 4 | 9.8 | 2 | 20.0 | 10 | 3.4 |
| Other | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

## Fatalities

Table 2-22
Fatalities in Bus Involvements by Person Type and Bus Type

| Vehicle/Person type | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Bus |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Driver | 3 | 2.2 | 0 | 0.0 | 0 | 0.0 | 1 | 1.8 | 2 | 3.4 | 0 | 0.0 | 6 | 1.6 |
| Passenger | 13 | 9.6 | 5 | 5.3 | 6 | 50.0 | 31 | 55.4 | 30 | 51.7 | 1 | 10.0 | 86 | 23.5 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 1.8 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Bus total | 16 | 11.8 | 5 | 5.3 | 6 | 50.0 | 33 | 58.9 | 32 | 55.2 | 1 | 10.0 | 93 | 25.4 |
| Other vehicle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Drivers | 71 | 52.2 | 27 | 28.7 | 3 | 25.0 | 12 | 21.4 | 16 | 27.6 | 6 | 60.0 | 135 | 36.9 |
| Passengers | 21 | 15.4 | 15 | 16.0 | 0 | 0.0 | 4 | 7.1 | 4 | 6.9 | 0 | 0.0 | 44 | 12.0 |
| Other vehicle total | 92 | 67.6 | 42 | 44.7 | 3 | 25.0 | 16 | 28.6 | 20 | 34.5 | 6 | 60.0 | 179 | 48.9 |
| Non-motorists |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parked | 0 | 0.0 | 1 | 1.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Pedestrian | 21 | 15.4 | 39 | 41.5 | 3 | 25.0 | 7 | 12.5 | 4 | 6.9 | 3 | 30.0 | 77 | 21.0 |
| Bicyclist/personal conveyance | 7 | 5.1 | 7 | 7.4 | 0 | 0.0 | 0 | 0.0 | 2 | 3.4 | 0 | 0.0 | 16 | 4.4 |
| Other non-motorist | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Non-motorist total | 28 | 20.6 | 47 | 50.0 | 3 | 25.0 | 7 | 12.5 | 6 | 10.3 | 3 | 30.0 | 94 | 25.7 |
| Total | 136 | 100.0 | 94 | 100.0 | 12 | 100.0 | 56 | 100.0 | 58 | 100.0 | 10 | 100.0 | 366 | 100.0 |

Table 2-23
Non-Motorist Fatality Involvements by Bus Type

| Relationship of Non-Motorist to Bus | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Discharged passenger | 1 | 0.8 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| Intended passenger | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| Not related to bus | 24 | 20.0 | 34 | 39.5 | 3 | 33.3 | 7 | 25.9 | 6 | 14.6 | 2 | 20.0 | 76 | 25.9 |
| No non-motorist involvement | 93 | 77.5 | 40 | 46.5 | 6 | 66.7 | 20 | 74.1 | 35 | 85.4 | 8 | 80.0 | 200 | 68.3 |
| Other | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Unknown relationship to bus | 0 | 0.0 | 6 | 7.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 8 | 2.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Figure 2-4: Fatally Injured Pedestrian/Bicyclist Type by Bus Type


## Vehicle

This section provides statistics that describe the physical configuration of buses involved in a fatal accident during 2008. The tables cover bus body style, model year, seating capacity, and the type of carrier that operated the bus.

- Buses operated by school districts represented $41.0 \%$ of all buses involved in a fatal accident; transit buses accounted for $29.4 \%$ of the buses.
- Of the 120 school buses involved in fatal crashes, 92 were operated by public school districts and 27 were operated by a contracted carrier for the school district.
- School buses were predominantly Type C school buses (55.0\%), followed by Type D (35.0\%), and Type A (6.7\%). Transit buses were primarily heavy-duty buses. Charter buses were predominantly long-distance coaches. The other operator category was comprised of a wide variety of bus types, however, large passenger vans and shuttle buses comprised the majority of buses in this category.
- $90.8 \%$ of the buses involved in a fatal crash were less than fifteen years old, and $67.6 \%$ were less than ten years old.
- School buses had a higher average seating capacity than other bus types, with $67.5 \%$ having a seating capacity of 61 or more.
- Buses operated by interstate for-hire carriers accounted for $17.7 \%$ of the fatal involvements, interstate government carriers represented 18.8\%, and 42.7\% of the involvements were buses operated by intrastate government carriers (primarily transit buses and school buses).
- $79.2 \%$ of the buses were on local trips (within 50 miles of base) when involved in the fatal accident.

Table 3-1
Fatal Bus Involvements by Operator Type and Bus Vehicle Description

| Operator type |  |  |
| :---: | :---: | :---: |
| Bus vehicle description | N | \% |
| School district |  |  |
| Large passenger van | 1 | 0.3 |
| Large passenger van outfitted as school bus | 1 | 0.3 |
| Long-distance coach | 1 | 0.3 |
| Medium-duty shuttle bus | 1 | 0.3 |
| School bus | 103 | 35.2 |
| Small school bus | 7 | 2.4 |
| Small special needs school bus | 1 | 0.3 |
| Special needs school bus | 5 | 1.7 |
| Total school bus | 120 | 41.0 |
| Transit bus authority |  |  |
| Alternative fuel heavy-duty transit bus | 1 | 0.3 |
| Articulated heavy-duty transit bus | 2 | 0.7 |
| Articulated heavy-duty transit bus 519 WB | 1 | 0.3 |
| Articulated heavy-duty bus 995 WB | 1 | 0.3 |
| Heavy duty transit bus | 64 | 21.8 |
| Long-distance commuter coach | 2 | 0.7 |
| Medium-duty shuttle bus | 2 | 0.7 |
| Shuttle bus | 8 | 2.7 |
| Small paratransit shuttle bus | 3 | 1.0 |
| Small shuttle bus | 1 | 0.3 |
| Trolley replica bus | 1 | 0.3 |
| Total transit bus | 86 | 29.4 |
| Intercity bus operator |  |  |
| Large passenger van | 1 | 0.3 |
| Long-distance coach | 8 | 2.7 |
| Total intercity bus | 9 | 3.1 |
| Charter bus operator |  |  |
| Long distance coach | 20 | 6.8 |
| Medium-duty limousine bus | 1 | 0.3 |
| Medium-duty shuttle bus | 1 | 0.3 |
| Medium-duty tour bus | 1 | 0.3 |
| Open-top double-decked sightseeing bus | 1 | 0.3 |
| School bus | 1 | 0.3 |
| Shuttle bus | 1 | 0.3 |
| Small shuttle bus | 1 | 0.3 |
| Total charter bus | 27 | 9.2 |
| Other operator |  |  |
| Conventional-hood bus | 4 | 1.4 |
| Conventional-hood bus with cargo box | 1 | 0.3 |
| Large passenger van | 5 | 1.7 |
| Large passenger van with cargo trailer | 1 | 0.3 |
| Long-distance coach | 3 | 1.0 |
| Medium-duty shuttle bus | 2 | 0.7 |
| Recycled school bus | 3 | 1.0 |
| School bus | 4 | 1.4 |
| Shuttle bus | 2 | 0.7 |
| Small paratransit shuttle bus | 4 | 1.4 |
| Small shuttle bus | 7 | 2.4 |
| Special needs shuttle bus | 1 | 0.3 |
| Stretch limousine | 2 | 0.7 |
| Stretch pickup truck limousine | 1 | 0.3 |
| Touring coach | 1 | 0.3 |
| Total other operator | 41 | 14.0 |
| Unknown operator type |  |  |
| Long-distance coach | 1 | 0.3 |
| School bus | 1 | 0.3 |
| Shuttle bus | 1 | 0.3 |
| Small school bus | 1 | 0.3 |
| Unknown | 6 | 2.0 |
| Total unknown operator type | 10 | 3.4 |
| Total | 293 | 100.0 |

Note: Bus vehicle description records descriptions from respondents.

Table 3-2
Fatal Bus Involvements by Operator Type and Bus Operator Description

| Operator type <br> Operating authority description | N | $\%$ |  |
| :--- | ---: | ---: | :---: |
| School district |  |  |  |
| Contracted carrier for private school | 1 | 0.3 |  |
| Contracted carrier for school district | 88 | 3.2 |  |
| Public school district | 1 | 0.3 |  |
| Public school district athletic team transport | 3 | 1.0 |  |
| Public school state department of education | 120 | 41.0 |  |
| Total school bus |  |  |  |
| Transit bus authority | 1 | 0.3 |  |
| Contracted carrier for transit authority | 2 | 0.7 |  |
| Scheduled route \& paratransit regional urban area | 1 | 0.3 |  |
| Scheduled route + paratransit regional area | 1 | 0.3 |  |
| Scheduled route + paratransit regional urban area | 1 | 0.3 |  |
| Scheduled route regional area | 67 | 22.9 |  |
| Scheduled route regional urban area | 13 | 4.4 |  |
| Scheduled route urban area | 86 | 29.4 |  |
| Total transit bus |  |  |  |
| Intercity bus operator | 1 | 0.3 |  |
| Intercity service for train passengers | 4 | 1.4 |  |
| Interstate passenger \& express freight | 3 | 1.0 |  |
| Interstate passenger service | 1 | 0.3 |  |
| Shuttle service | 9 | 3.1 |  |
| Total intercity bus |  |  |  |
| Charter bus operator | 1 | 0.3 |  |
| Casino shuttle and charter service | 1 | 0.3 |  |
| Casino shuttle service | 20 | 6.8 |  |
| Charter service | 1 | 0.3 |  |
| Charter service for church trip | 1 | 0.3 |  |
| Charter service for military personnel | 1 | 0.3 |  |
| Charter service for school band trip | 27 | 0.7 |  |
| Sightseeing charter service | 9.2 |  |  |
| Total charter bus |  |  |  |

(Continued on next page)

Table 3-2 (continued)

| Other operator |  |  |
| :--- | ---: | ---: |
| Airport shuttle service | 1 | 0.3 |
| Casino shuttle service | 2 | 0.7 |
| Child development center transportation | 1 | 0.3 |
| Church use | 1 | 1.4 |
| Church use for casino trip | 1 | 0.3 |
| Church use for choir trip | 1 | 0.3 |
| College transporting wrestling team | 1 | 0.3 |
| Community service organization | 1 | 0.3 |
| Commuter service | 1 | 0.3 |
| Commuter shuttle service | 1 | 0.3 |
| County agency for developmentally disabled | 1 | 0.3 |
| County department of corrections | 1 | 0.3 |
| County medical center | 2 | 0.7 |
| Day care center transportation | 1 | 0.3 |
| Dealer delivering bus | 1 | 0.3 |
| Drive away company delivering new bus | 1 | 0.3 |
| Employee shuttle | 1 | 0.3 |
| Employee transportation | 3 | 1.0 |
| Farm labor transportation | 2 | 0.7 |
| Funeral home | 1 | 0.3 |
| Individually-owned bus providing school transport | 1 | 0.3 |
| Musical group touring transportation | 1 | 0.3 |
| National armed services division | 1 | 0.3 |
| Non-profit after-school program | 1 | 0.3 |
| Non-profit community action agency | 1 | 0.3 |
| Non-profit senior citizen service agency | 1 | 0.3 |
| Nursing home resident transportation | 1 | 0.3 |
| Paratransit contractor for city | 1 | 0.3 |
| Private camp attendee transportation | 1 | 0.3 |
| Special needs transportation provider | 2 | 0.7 |
| State department of corrections | 1 | 0.3 |
| Vanpool operation of regional transit authority | 41 | 14.0 |
| Total other operator | 10 | 3.4 |
| Unknown operator type | 293 | 100.0 |
| Total |  |  |

Note: The operator authority records descriptions from respondents.

Table 3-3
Fatal Bus Involvements by Bus Body Configuration and Bus Type

| Bus body configuration | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Type A school bus | 8 | 6.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 10.0 | 9 | 3.1 |
| Type C school bus | 66 | 55.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 70 | 23.9 |
| Type D school bus | 42 | 35.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 44 | 15.0 |
| Flat front | 0 | 0.0 | 77 | 89.5 | 0 | 0.0 | 2 | 7.4 | 4 | 9.8 | 0 | 0.0 | 83 | 28.3 |
| Big cowl and chassis | 0 | 0.0 | 2 | 2.3 | 0 | 0.0 | 3 | 11.1 | 9 | 22.0 | 0 | 0.0 | 14 | 4.8 |
| High platform | 1 | 0.8 | 2 | 2.3 | 8 | 88.9 | 20 | 74.1 | 4 | 9.8 | 1 | 10.0 | 36 | 12.3 |
| Small cowl and chassis | 1 | 0.8 | 4 | 4.7 | 0 | 0.0 | 1 | 3.7 | 11 | 26.8 | 1 | 10.0 | 18 | 6.1 |
| Van | 2 | 1.7 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 6 | 14.6 | 0 | 0.0 | 9 | 3.1 |
| Other | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 4 | 1.4 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 6 | 60.0 | 6 | 2.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-4
Fatal Bus Involvements by Front of Bus Style and Bus Type

| Front of bus | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Conventional hood | 77 | 64.2 | 6 | 7.0 | 1 | 11.1 | 5 | 18.5 | 32 | 78.0 | 2 | 20.0 | 123 | 42.0 |
| Flat front | 43 | 35.8 | 80 | 93.0 | 8 | 88.9 | 22 | 81.5 | 9 | 22.0 | 1 | 10.0 | 163 | 55.6 |
| Other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 7 | 70.0 | 7 | 2.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-5
Fatal Bus Involvements by Model Year and Front of Bus Style

| Model year | Conventional |  | Flat front |  | Other |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% |
| 1982 | 0 | 0.0 | 1 | 100.0 | 0 | 0.0 | 1 | 0.3 |
| 1985 | 2 | 100.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| 1986 | 0 | 0.0 | 1 | 100.0 | 0 | 0.0 | 1 | 0.3 |
| 1987 | 0 | 0.0 | 1 | 100.0 | 0 | 0.0 | 1 | 0.3 |
| 1988 | 1 | 100.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 1989 | 1 | 50.0 | 1 | 50.0 | 0 | 0.0 | 2 | 0.7 |
| 1990 | 1 | 33.3 | 2 | 66.7 | 0 | 0.0 | 3 | 1.0 |
| 1991 | 3 | 100.0 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| 1992 | 1 | 100.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 1993 | 4 | 80.0 | 1 | 20.0 | 0 | 0.0 | 5 | 1.7 |
| 1994 | 3 | 50.0 | 3 | 50.0 | 0 | 0.0 | 6 | 2.0 |
| 1995 | 7 | 43.8 | 9 | 56.3 | 0 | 0.0 | 16 | 5.5 |
| 1996 | 4 | 40.0 | 6 | 60.0 | 0 | 0.0 | 10 | 3.4 |
| 1997 | 5 | 29.4 | 12 | 70.6 | 0 | 0.0 | 17 | 5.8 |
| 1998 | 6 | 31.6 | 13 | 68.4 | 0 | 0.0 | 19 | 6.5 |
| 1999 | 6 | 31.6 | 13 | 68.4 | 0 | 0.0 | 19 | 6.5 |
| 2000 | 6 | 26.1 | 17 | 73.9 | 0 | 0.0 | 23 | 7.8 |
| 2001 | 11 | 42.3 | 15 | 57.7 | 0 | 0.0 | 26 | 8.9 |
| 2002 | 10 | 45.5 | 12 | 54.5 | 0 | 0.0 | 22 | 7.5 |
| 2003 | 9 | 81.8 | 2 | 18.2 | 0 | 0.0 | 11 | 3.8 |
| 2004 | 7 | 36.8 | 12 | 63.2 | 0 | 0.0 | 19 | 6.5 |
| 2005 | 3 | 23.1 | 10 | 76.9 | 0 | 0.0 | 13 | 4.4 |
| 2006 | 13 | 50.0 | 13 | 50.0 | 0 | 0.0 | 26 | 8.9 |
| 2007 | 11 | 44.0 | 14 | 56.0 | 0 | 0.0 | 25 | 8.5 |
| 2008 | 7 | 63.6 | 4 | 36.4 | 0 | 0.0 | 11 | 3.8 |
| 2009 | 2 | 66.7 | 1 | 33.3 | 0 | 0.0 | 3 | 1.0 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 7 | 100.0 | 7 | 2.4 |
| Total | 123 | 42.0 | 163 | 55.6 | 7 | 2.4 | 293 | 100.0 |

Figure 3-1: Fatal Bus Involvements by Model Year and Front of Bus Style


Table 3-6
Fatal Bus Involvements by Model Year and Bus Type

| Model year | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 1982 | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 1985 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 2 | 0.7 |
| 1986 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 1987 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 1988 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 1989 | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| 1990 | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| 1991 | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| 1992 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 1993 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 9.8 | 0 | 0.0 | 5 | 1.7 |
| 1994 | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 6 | 2.0 |
| 1995 | 7 | 5.8 | 5 | 5.8 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 16 | 5.5 |
| 1996 | 6 | 5.0 | 2 | 2.3 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 10 | 3.4 |
| 1997 | 10 | 8.3 | 4 | 4.7 | 1 | 11.1 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 17 | 5.8 |
| 1998 | 7 | 5.8 | 6 | 7.0 | 1 | 11.1 | 2 | 7.4 | 3 | 7.3 | 0 | 0.0 | 19 | 6.5 |
| 1999 | 10 | 8.3 | 6 | 7.0 | 1 | 11.1 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 19 | 6.5 |
| 2000 | 9 | 7.5 | 11 | 12.8 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 23 | 7.8 |
| 2001 | 7 | 5.8 | 12 | 14.0 | 0 | 0.0 | 4 | 14.8 | 3 | 7.3 | 0 | 0.0 | 26 | 8.9 |
| 2002 | 6 | 5.0 | 8 | 9.3 | 3 | 33.3 | 1 | 3.7 | 4 | 9.8 | 0 | 0.0 | 22 | 7.5 |
| 2003 | 5 | 4.2 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 11 | 3.8 |
| 2004 | 11 | 9.2 | 5 | 5.8 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 19 | 6.5 |
| 2005 | 3 | 2.5 | 6 | 7.0 | 2 | 22.2 | 1 | 3.7 | 0 | 0.0 | 1 | 10.0 | 13 | 4.4 |
| 2006 | 12 | 10.0 | 6 | 7.0 | 0 | 0.0 | 4 | 14.8 | 3 | 7.3 | 1 | 10.0 | 26 | 8.9 |
| 2007 | 8 | 6.7 | 7 | 8.1 | 1 | 11.1 | 6 | 22.2 | 3 | 7.3 | 0 | 0.0 | 25 | 8.5 |
| 2008 | 6 | 5.0 | 1 | 1.2 | 0 | 0.0 | 2 | 7.4 | 2 | 4.9 | 0 | 0.0 | 11 | 3.8 |
| 2009 | 3 | 2.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 7 | 70.0 | 7 | 2.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Figure 3-2: Fatal Bus Involvements by Model Year and Bus Type


Table 3-7
Fatal Bus Involvements by Number of Axles and Bus Type

| Axles | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 2 axles | 119 | 99.2 | 80 | 93.0 | 2 | 22.2 | 7 | 25.9 | 37 | 90.2 | 2 | 20.0 | 247 | 84.3 |
| 3 axles | 1 | 0.8 | 6 | 7.0 | 6 | 66.7 | 20 | 74.1 | 4 | 9.8 | 1 | 10.0 | 38 | 13.0 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 7 | 70.0 | 8 | 2.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-8
Fatal Bus Involvements by Passenger Seating Capacity (Excluding Driver) and Bus Type

| Passenger seating capacity | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 8-14 | 5 | 4.2 | 4 | 4.7 | 1 | 11.1 | 1 | 3.7 | 14 | 34.1 | 1 | 10.0 | 26 | 8.9 |
| 15-20 | 3 | 2.5 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 7 | 17.1 | 0 | 0.0 | 12 | 4.1 |
| 21-25 | 2 | 1.7 | 6 | 7.0 | 0 | 0.0 | 2 | 7.4 | 5 | 12.2 | 0 | 0.0 | 15 | 5.1 |
| 26-30 | 4 | 3.3 | 6 | 7.0 | 0 | 0.0 | 2 | 7.4 | 2 | 4.9 | 0 | 0.0 | 14 | 4.8 |
| 31-35 | 4 | 3.3 | 14 | 16.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 18 | 6.1 |
| 36-40 | 1 | 0.8 | 23 | 26.7 | 1 | 11.1 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 28 | 9.6 |
| 41-45 | 2 | 1.7 | 14 | 16.3 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 19 | 6.5 |
| 46-50 | 5 | 4.2 | 3 | 3.5 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 10 | 3.4 |
| 51-55 | 4 | 3.3 | 1 | 1.2 | 4 | 44.4 | 9 | 33.3 | 2 | 4.9 | 0 | 0.0 | 20 | 6.8 |
| 56-60 | 4 | 3.3 | 5 | 5.8 | 1 | 11.1 | 10 | 37.0 | 2 | 4.9 | 0 | 0.0 | 22 | 7.5 |
| 61-65 | 17 | 14.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 17 | 5.8 |
| 66-70 | 10 | 8.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 10 | 3.4 |
| 71-75 | 28 | 23.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 28 | 9.6 |
| 76-80 | 11 | 9.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 11 | 3.8 |
| 81+ | 15 | 12.5 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 16 | 5.5 |
| Estimated 15 or more seats | 5 | 4.2 | 8 | 9.3 | 2 | 22.2 | 1 | 3.7 | 2 | 4.9 | 1 | 10.0 | 19 | 6.5 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 8 | 80.0 | 8 | 2.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-9
Fatal Bus Involvements by Carrier Type and Bus Type

| Carrier type | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Interstate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Private | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 9 | 22.0 | 0 | 0.0 | 9 | 3.1 |
| For-hire | 13 | 10.8 | 0 | 0.0 | 9 | 100.0 | 25 | 92.6 | 4 | 9.8 | 1 | 10.0 | 52 | 17.7 |
| Government owned | 36 | 30.0 | 19 | 22.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 55 | 18.8 |
| Intrastate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Private | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 15 | 36.6 | 0 | 0.0 | 15 | 5.1 |
| For-hire | 14 | 11.7 | 1 | 1.2 | 0 | 0.0 | 2 | 7.4 | 4 | 9.8 | 1 | 10.0 | 22 | 7.5 |
| Government owned | 52 | 43.3 | 66 | 76.7 | 0 | 0.0 | 0 | 0.0 | 7 | 17.1 | 0 | 0.0 | 125 | 42.7 |
| Unknown | 5 | 4.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 8 | 80.0 | 15 | 5.1 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-10
Fatal Bus Involvements by Trip Type and Bus Type

| Trip type | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Local | 113 | 94.2 | 84 | 97.7 | 0 | 0.0 | 7 | 25.9 | 28 | 68.3 | 0 | 0.0 | 232 | 79.2 |
| 51-100 miles | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 5 | 18.5 | 5 | 12.2 | 0 | 0.0 | 12 | 4.1 |
| 101-150 miles | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| 151-200 miles | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| 201-500 miles | 0 | 0.0 | 0 | 0.0 | 4 | 44.4 | 8 | 29.6 | 1 | 2.4 | 0 | 0.0 | 13 | 4.4 |
| Over 500 miles | 0 | 0.0 | 0 | 0.0 | 3 | 33.3 | 5 | 18.5 | 3 | 7.3 | 0 | 0.0 | 11 | 3.8 |
| Unknown over-the-road distance | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Unknown | 3 | 2.5 | 2 | 2.3 | 1 | 11.1 | 0 | 0.0 | 1 | 2.4 | 10 | 100.0 | 17 | 5.8 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-11
Fatal Bus Involvements by Most Harmful Event and Bus Type

| Most harmful event | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Noncollision event |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Overturn/rollover | 3 | 2.5 | 1 | 1.2 | 2 | 22.2 | 5 | 18.5 | 7 | 17.1 | 1 | 10.0 | 19 | 6.5 |
| Fire/explosion | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Fell/jumped from vehicle | 1 | 0.8 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Injured in vehicle (other than cargo/equipment loss or shift) | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Other noncollision | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Collision with motor vehicle |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Motor vehicle in-transport on same roadway | 87 | 72.5 | 36 | 41.9 | 3 | 33.3 | 13 | 48.1 | 25 | 61.0 | 6 | 60.0 | 170 | 58.0 |
| Working motor vehicle (construction, maintenance, utility) | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Motor vehicle in-transport strikes/is struck by cargo/persons/objects set-in-motion from/by another motor vehicle in-transport | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Collision with nonfixed object |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pedestrian | 18 | 15.0 | 38 | 44.2 | 3 | 33.3 | 7 | 25.9 | 4 | 9.8 | 3 | 30.0 | 73 | 24.9 |
| Pedalcycle | 7 | 5.8 | 6 | 7.0 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 15 | 5.1 |
| Non-motorist on personal conveyance | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Collision with fixed object |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Impact attenuator/crash cushion | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Embankment -- earth | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Tree (standing tree only) | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-12
Fatal Bus Involvements by Rollover Status and Bus Type

| Bus rollover status | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No rollover | 114 | 95.0 | 85 | 98.8 | 7 | 77.8 | 20 | 74.1 | 32 | 78.0 | 9 | 90.0 | 267 | 91.1 |
| First event | 0 | 0.0 | 0 | 0.0 | 2 | 22.2 | 3 | 11.1 | 4 | 9.8 | 0 | 0.0 | 9 | 3.1 |
| Subsequent event | 6 | 5.0 | 1 | 1.2 | 0 | 0.0 | 4 | 14.8 | 5 | 12.2 | 1 | 10.0 | 17 | 5.8 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 3-13
Fatal Bus Involvements by Fire Occurrence and Bus Type

| Bus fire occurrence | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No fire | 117 | 97.5 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 40 | 97.6 | 10 | 100.0 | 289 | 98.6 |
| Fire in vehicle | 3 | 2.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Fire occurred in this vehicle and initiated fire/explosion in another vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

## Driver

This section provides statistics on the drivers of buses involved in fatal traffic accidents. Tables cover driver age, sex, alcohol or drug use, safety belt use, driver injury, licensing, previous driving record, compensation, and other driver factors related to the accident.

- Fifteen bus drivers were coded as inattentive, and two as drowsy or asleep at the time of the crash.
- Drinking was reported in $1.7 \%$ of the bus drivers.
- Over one-third (39.6\%) of bus drivers involved in a fatal crash were female. 59.2\% of school bus drivers were female.
- Six (2.0\%) bus drivers were fatally injured in a traffic accident.
- $33.3 \%$ of involvements in which the bus driver suffered a fatal injury involved bus rollover, fire or driver ejection.
- Over two-thirds (69.2\%) of school bus drivers were paid by the hour, as were $90.7 \%$ of transit drivers and 44.4\% of intercity drivers.
- Overall, $9.5 \%$ of bus drivers involved in a fatal crash had a previous speeding conviction. Drivers of buses in the "other" bus category had the highest percentage of previous speeding convictions, while transit bus drivers had the highest incidence of previous accidents (fatal and nonfatal).
- The vast majority (89.4\%) of all bus drivers had a valid CDL license.
- Failure to yield was the most common driver factor (10.2\%), followed by careless/inattentive (5.1\%), and failure to keep in proper lane (4.1\%).
- Over two-thirds (68.6\%) of bus drivers had no driver factors recorded.

Table 4-1
Fatal Bus Involvements by Driver Drinking Status and Bus Type

| Bus driver drinking | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No drinking | 116 | 96.7 | 85 | 98.8 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 288 | 98.3 |
| Drinking | 4 | 3.3 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 5 | 1.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-2
Fatal Bus Involvements by Driver Drug Use and Bus Type

| Bus driver drug use | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No drugs | 41 | 34.2 | 29 | 33.7 | 4 | 44.4 | 11 | 40.7 | 12 | 29.3 | 7 | 70.0 | 104 | 35.5 |
| Not reported | 74 | 61.7 | 54 | 62.8 | 4 | 44.4 | 16 | 59.3 | 26 | 63.4 | 2 | 20.0 | 176 | 60.1 |
| Reported unknown | 5 | 4.2 | 3 | 3.5 | 1 | 11.1 | 0 | 0.0 | 3 | 7.3 | 1 | 10.0 | 13 | 4.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-3
Fatal Bus Involvements by Driver Age and Bus Type

| Age (years) | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 18-21 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 22-25 | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 0 | 0.0 | 5 | 1.7 |
| 26-30 | 4 | 3.3 | 2 | 2.3 | 1 | 11.1 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 8 | 2.7 |
| 31-35 | 10 | 8.3 | 5 | 5.8 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 17 | 5.8 |
| 36-40 | 12 | 10.0 | 11 | 12.8 | 1 | 11.1 | 2 | 7.4 | 5 | 12.2 | 2 | 20.0 | 33 | 11.3 |
| 41-45 | 17 | 14.2 | 9 | 10.5 | 0 | 0.0 | 3 | 11.1 | 4 | 9.8 | 3 | 30.0 | 36 | 12.3 |
| 46-50 | 18 | 15.0 | 11 | 12.8 | 2 | 22.2 | 4 | 14.8 | 6 | 14.6 | 1 | 10.0 | 42 | 14.3 |
| 51-55 | 19 | 15.8 | 21 | 24.4 | 2 | 22.2 | 5 | 18.5 | 6 | 14.6 | 1 | 10.0 | 54 | 18.4 |
| 56-60 | 13 | 10.8 | 17 | 19.8 | 1 | 11.1 | 4 | 14.8 | 4 | 9.8 | 2 | 20.0 | 41 | 14.0 |
| 61-65 | 13 | 10.8 | 8 | 9.3 | 2 | 22.2 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 27 | 9.2 |
| 66-70 | 8 | 6.7 | 0 | 0.0 | 0 | 0.0 | 5 | 18.5 | 5 | 12.2 | 0 | 0.0 | 18 | 6.1 |
| 71-75 | 3 | 2.5 | 1 | 1.2 | 0 | 0.0 | 3 | 11.1 | 1 | 2.4 | 0 | 0.0 | 8 | 2.7 |
| Unknown | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 10.0 | 3 | 1.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-4
Fatal Bus Involvements by Driver Sex and Bus Type

| Driver sex | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Male | 48 | 40.0 | 54 | 62.8 | 9 | 100.0 | 26 | 96.3 | 33 | 80.5 | 5 | 50.0 | 175 | 59.7 |
| Female | 71 | 59.2 | 32 | 37.2 | 0 | 0.0 | 1 | 3.7 | 8 | 19.5 | 4 | 40.0 | 116 | 39.6 |
| Unknown | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 10.0 | 2 | 0.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-5
Fatal Bus Involvements by Driver Restraint Use and Bus Type

| Driver restraint use | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| None used or not applicable | 6 | 5.0 | 4 | 4.7 | 1 | 11.1 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 13 | 4.4 |
| Shoulder belt | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 20.0 | 4 | 1.4 |
| Lap belt | 8 | 6.7 | 16 | 18.6 | 1 | 11.1 | 2 | 7.4 | 1 | 2.4 | 0 | 0.0 | 28 | 9.6 |
| Lap and shoulder | 98 | 81.7 | 59 | 68.6 | 6 | 66.7 | 23 | 85.2 | 36 | 87.8 | 5 | 50.0 | 227 | 77.5 |
| Unknown | 7 | 5.8 | 6 | 7.0 | 1 | 11.1 | 1 | 3.7 | 3 | 7.3 | 3 | 30.0 | 21 | 7.2 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-6
Fatal Bus Involvements by Driver Injury Severity and Bus Type

| Driver injury severity | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Fatal injury (K) | 3 | 2.5 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 6 | 2.0 |
| Incapacitating (A) | 7 | 5.8 | 3 | 3.5 | 1 | 11.1 | 1 | 3.7 | 5 | 12.2 | 1 | 10.0 | 18 | 6.1 |
| Non-incapacitating (B) | 20 | 16.7 | 7 | 8.1 | 1 | 11.1 | 7 | 25.9 | 6 | 14.6 | 0 | 0.0 | 41 | 14.0 |
| Complaint of pain (C) | 25 | 20.8 | 11 | 12.8 | 0 | 0.0 | 1 | 3.7 | 10 | 24.4 | 1 | 10.0 | 48 | 16.4 |
| No injury (O) | 65 | 54.2 | 65 | 75.6 | 7 | 77.8 | 16 | 59.3 | 18 | 43.9 | 6 | 60.0 | 177 | 60.4 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 2 | 20.0 | 3 | 1.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-7
Fatal Bus Involvements by Driver Injury Severity and Rollover, Fire, Ejection Status

| Rollover, fire, ejection | Fatal injury (K) |  | Incapacitating (A) |  | Non-incapacitating (B) |  | Complaint of pain (C) |  | No injury (O) |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Rollover only | 1 | 16.7 | 3 | 16.7 | 8 | 19.5 | 4 | 8.3 | 7 | 4.0 | 0 | 0.0 | 23 | 7.8 |
| Fire only | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 1 | 2.1 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Ejection only | 1 | 16.7 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Rollover and ejection | 0 | 0.0 | 1 | 5.6 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| None | 3 | 50.0 | 13 | 72.2 | 30 | 73.2 | 43 | 89.6 | 170 | 96.0 | 3 | 100.0 | 262 | 89.4 |
| Unknown | 1 | 16.7 | 1 | 5.6 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Total | 6 | 100.0 | 18 | 100.0 | 41 | 100.0 | 48 | 100.0 | 177 | 100.0 | 3 | 100.0 | 293 | 100.0 |

Table 4-8
Fatal Bus Involvements by Bus Type and Driver Extrication

| Driver extrication | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| Not extricated | 118 | 98.3 | 85 | 98.8 | 9 | 100.0 | 27 | 100.0 | 38 | 92.7 | 10 | 100.0 | 287 | 98.0 |
| Extricated | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 2 | 4.9 | 0 | 0.0 | 4 | 1.4 |
| Unknown | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-9
Fatal Bus Involvements by Driver Compensation

| Compensation | N | $\%$ |
| :--- | ---: | ---: |
| Hourly only | 189 | 64.5 |
| Mileage only | 1 | 0.3 |
| Salary only | 11 | 3.8 |
| Driver volunteer | 5 | 1.7 |
| Hourly and mileage | 1 | 0.3 |
| Mileage and salary | 1 | 0.3 |
| Primary employment not a bus driver | 7 | 2.4 |
| Hourly and tips | 1 | 0.3 |
| Mileage and other | 4 | 1.4 |
| Driver-owned and other | 2 | 0.7 |
| Primary employment not a bus driver and driver volunteer | 1 | 0.3 |
| Primary employment not a bus driver and other | 1 | 0.3 |
| Other |  |  |
| Paid by day | 11 | 3.8 |
| Paid by route | 5 | 1.7 |
| Paid by run | 2 | 0.7 |
| Paid by trip | 6 | 2.0 |
| Paid on commission - percentage of contract rate | 1 | 0.3 |
| Unknown | 44 | 15.0 |
| Total | 293 | 100.0 |

Table 4-10
Fatal Bus Involvements by Driver Compensation and Bus Type

| Operator type |  |  |
| :---: | :---: | :---: |
| Compensation | N | \% |
| School district |  |  |
| Mileage only | 1 | 0.8 |
| Hourly only | 83 | 69.2 |
| Mileage and salary | 1 | 0.8 |
| Mileage and other | 1 | 0.8 |
| Salary only | 7 | 5.8 |
| Primary employment not a bus driver and other | 1 | 0.8 |
| Other |  |  |
| Paid by trip | 4 | 3.3 |
| Paid by day | 4 | 3.3 |
| Paid by route | 5 | 4.2 |
| Paid by run | 2 | 1.7 |
| Unknown | 11 | 9.2 |
| Total school bus | 120 | 100.0 |
| Transit bus authority |  |  |
| Hourly only | 78 | 90.7 |
| Unknown | 8 | 9.3 |
| Total transit bus | 86 | 100.0 |
| Intercity bus operator |  |  |
| Hourly only | 4 | 44.4 |
| Salary only | 1 | 11.1 |
| Primary employment not a bus driver | 1 | 11.1 |
| Unknown | 3 | 33.3 |
| Total intercity bus | 9 | 100.0 |
| Charter bus operator |  |  |
| Hourly only | 9 | 33.3 |
| Mileage and other | 3 | 11.1 |
| Hourly and mileage | 1 | 3.7 |
| Driver owned and other | 1 | 3.7 |
| Other |  |  |
| Paid by day | 6 | 22.2 |
| Unknown | 7 | 25.9 |
| Total charter bus | 27 | 100.0 |
| Other operator |  |  |
| Salary only | 3 | 7.3 |
| Hourly only | 14 | 34.1 |
| Hourly and tips | 1 | 2.4 |
| Primary employment not a bus driver | 6 | 14.6 |
| Driver owned and other | 1 | 2.4 |
| Driver owned and primary employment not a bus driver | 1 | 2.4 |
| Driver volunteer | 5 | 12.2 |
| Other |  |  |
| Paid by day | 1 | 2.4 |
| Paid by trip | 2 | 4.9 |
| Paid on commission - percentage of contract rate | 1 | 2.4 |
| Unknown | 6 | 14.6 |
| Total other operator | 41 | 100.0 |
| Unknown operator type | 10 | 100.0 |
| Total | 293 | 100.0 |

Table 4-11
Fatal Bus Involvements by Reported Hours Driven and Bus Type

| Hours driven | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 1 hour | 25 | 20.8 | 8 | 9.3 | 2 | 22.2 | 2 | 7.4 | 16 | 39.0 | 0 | 0.0 | 53 | 18.1 |
| 2 hours | 29 | 24.2 | 6 | 7.0 | 0 | 0.0 | 1 | 3.7 | 5 | 12.2 | 0 | 0.0 | 41 | 14.0 |
| 3 hours | 26 | 21.7 | 7 | 8.1 | 0 | 0.0 | 4 | 14.8 | 6 | 14.6 | 0 | 0.0 | 43 | 14.7 |
| 4-5 hours | 21 | 17.5 | 19 | 22.1 | 0 | 0.0 | 10 | 37.0 | 5 | 12.2 | 0 | 0.0 | 55 | 18.8 |
| 6-7 hours | 8 | 6.7 | 13 | 15.1 | 2 | 22.2 | 5 | 18.5 | 2 | 4.9 | 0 | 0.0 | 30 | 10.2 |
| 8-9 hours | 1 | 0.8 | 8 | 9.3 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 10 | 3.4 |
| 10-11 hours | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| 12 or more hours | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Unknown but legal | 1 | 0.8 | 3 | 3.5 | 1 | 11.1 | 1 | 3.7 | 2 | 4.9 | 0 | 0.0 | 8 | 2.7 |
| Unknown | 9 | 7.5 | 20 | 23.3 | 4 | 44.4 | 2 | 7.4 | 5 | 12.2 | 10 | 100.0 | 50 | 17.1 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Note: Reflects actual driving time since driver's last 8 hour rest period.

Table 4-12
Fatal Bus Involvements by Driver Violations Charged and Bus Type

| Driver violations charged | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| None | 107 | 89.2 | 76 | 88.4 | 9 | 100.0 | 22 | 81.5 | 39 | 95.1 | 9 | 90.0 | 262 | 89.4 |
| Manslaughter or homicide | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 6 | 2.0 |
| Inattentive, careless, improper driving | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Unreasonable speed | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Speed related violations, generally | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Improper turn on red | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 1 | 10.0 | 2 | 0.7 |
| Failure to obey stop sign | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Failure to yield | 6 | 5.0 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 9 | 3.1 |
| Turn, yield, signal violation, generally | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Following too closely | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Any lane violations | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| CDL license violations | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Vehicle registration violations | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Any non-moving violations | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Unknown violation | 1 | 0.8 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Note: Since "driver violations charged" is a multiple-response variable, more than one driver violation can be coded per driver. Percentages are calculated based on total drivers, not total violations.

Table 4-13
Fatal Bus Involvements by Number of Previous Accidents (fatal and nonfatal) and Bus Type

| Number of previous accidents* | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 0 | 91 | 75.8 | 50 | 58.1 | 8 | 88.9 | 25 | 92.6 | 34 | 82.9 | 5 | 50.0 | 213 | 72.7 |
| 1 | 15 | 12.5 | 20 | 23.3 | 1 | 11.1 | 2 | 7.4 | 2 | 4.9 | 2 | 20.0 | 42 | 14.3 |
| 2 | 4 | 3.3 | 9 | 10.5 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 14 | 4.8 |
| 3 | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 4 | 1.4 |
| 5 | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Not reported | 8 | 6.7 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 3 | 7.3 | 1 | 10.0 | 15 | 5.1 |
| Unknown | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 2 | 20.0 | 4 | 1.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

*Reflects previous accidents occurring within three years of the current accident.

Table 4-14
Fatal Bus Involvements by Number of Previous Suspensions and Bus Type

| Number of previous suspensions* | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 0 | 116 | 96.7 | 83 | 96.5 | 7 | 77.8 | 25 | 92.6 | 36 | 87.8 | 8 | 80.0 | 275 | 93.9 |
| 1 | 3 | 2.5 | 1 | 1.2 | 1 | 11.1 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 7 | 2.4 |
| 2 | 1 | 0.8 | 0 | 0.0 | 1 | 11.1 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| 3 | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| 7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 13 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Unknown | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 2 | 20.0 | 4 | 1.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

*Reflects suspensions occurring within three years of the current accident.

Table 4-15
Fatal Bus Involvements by Number of Previous Speeding Convictions and Bus Type

| Number ofprevious speeding convictions* | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 0 | 116 | 96.7 | 78 | 90.7 | 7 | 77.8 | 23 | 85.2 | 32 | 78.0 | 5 | 50.0 | 261 | 89.1 |
| 1 | 4 | 3.3 | 6 | 7.0 | 0 | 0.0 | 4 | 14.8 | 7 | 17.1 | 3 | 30.0 | 24 | 8.2 |
| 2 | 0 | 0.0 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| 4 | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Unknown | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 2 | 20.0 | 4 | 1.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

[^1]Table 4-16
Fatal Bus Involvements by Previous Other Moving Convictions and Bus Type

| Number of previous moving convictions* | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| 0 | 109 | 90.8 | 73 | 84.9 | 7 | 77.8 | 22 | 81.5 | 31 | 75.6 | 6 | 60.0 | 248 | 84.6 |
| 1 | 9 | 7.5 | 11 | 12.8 | 2 | 22.2 | 4 | 14.8 | 8 | 19.5 | 2 | 20.0 | 36 | 12.3 |
| 2 | 2 | 1.7 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 5 | 1.7 |
| Unknown | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 2 | 20.0 | 4 | 1.4 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

* Reflects moving convictions occurring within three years of the current accident.

Table 4-17
Fatal Bus Involvements by License Class Compliance and Bus Type

| License class complliance | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N |  | N | \% | N |  | N | \% |
| Not valid | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Valid | 119 | 99.2 | 85 | 98.8 | 9 | 100.0 | 27 | 100.0 | 39 | 95.1 | 9 | 90.0 | 288 | 98.3 |
| Unknown | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 3 | 1.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-18
Fatal Bus Involvements by CDL License Status and Bus Type

| Commerical driver license status | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No commerical driver license | 1 | 0.8 | 1 | 1.2 | 1 | 11.1 | 0 | 0.0 | 14 | 34.1 | 3 | 30.0 | 20 | 6.8 |
| Expired | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Disqualified | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Valid | 116 | 96.7 | 83 | 96.5 | 7 | 77.8 | 26 | 96.3 | 25 | 61.0 | 5 | 50.0 | 262 | 89.4 |
| Learner's permit | 2 | 1.7 | 1 | 1.2 | 1 | 11.1 | 1 | 3.7 | 0 | 0.0 | 1 | 10.0 | 6 | 2.0 |
| Unknown | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 3 | 1.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-19
Fatal Bus Involvements by License Endorsements and Bus Type

| License endorsements | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| No endorsements | 26 | 21.7 | 16 | 18.6 | 5 | 55.6 | 5 | 18.5 | 27 | 65.9 | 5 | 50.0 | 84 | 28.7 |
| Complied | 69 | 57.5 | 54 | 62.8 | 4 | 44.4 | 17 | 63.0 | 5 | 12.2 | 4 | 40.0 | 153 | 52.2 |
| Not complied | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Compliance unknown | 25 | 20.8 | 16 | 18.6 | 0 | 0.0 | 4 | 14.8 | 8 | 19.5 | 0 | 0.0 | 53 | 18.1 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 2 | 0.7 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Table 4-20
Fatal Bus Involvements by Driver-Related Factors and Bus Type

| Driver-related factors | School |  | Transit |  | Intercity |  | Charter |  | Other |  | Unknown |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% | N | \% |
| None | 85 | 70.8 | 59 | 68.6 | 7 | 77.8 | 18 | 66.7 | 25 | 61.0 | 7 | 70.0 | 201 | 68.6 |
| Physical/mental condition |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Drowsy, sleepy, asleep, fatigued | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 7.4 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| III, passed out, blackout | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Careless, inattentive | 4 | 3.3 | 5 | 5.8 | 0 | 0.0 | 3 | 11.1 | 3 | 7.3 | 0 | 0.0 | 15 | 5.1 |
| Miscellaneous causes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Improper loading of vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Using lights improperly | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Operating without required equipment | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Following improperly | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Failure to keep in proper lane | 6 | 5.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 5 | 12.2 | 0 | 0.0 | 12 | 4.1 |
| Driving on shoulder | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Improper starting or backing | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Opening vehicle closure when in motion | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Passing with insufficient distance | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Driving in erratic or reckless manner | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Failure to yield right-of-way | 14 | 11.7 | 11 | 12.8 | 0 | 0.0 | 0 | 0.0 | 4 | 9.8 | 1 | 10.0 | 30 | 10.2 |
| Failure to obey traffic signs | 2 | 1.7 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 1 | 10.0 | 5 | 1.7 |
| Driving too fast for conditions | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Driving in excess of posted maximum | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 3 | 7.3 | 0 | 0.0 | 6 | 2.0 |
| Making other improper turn | 1 | 0.8 | 1 | 1.2 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 1 | 10.0 | 5 | 1.7 |
| Overcorrecting | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 11.1 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Vision obscured by |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Weather | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Glare | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Tree, plants | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| Obstructing angles on vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 2 | 0.7 |
| Other visual obstruction | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Avoiding, swerving due to |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tire blow-out or flat | 0 | 0.0 | 0 | 0.0 | 1 | 11.1 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Live animals in road | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Water, snow, oil on road | 2 | 1.7 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 4 | 1.4 |
| Special Circumstances |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Driver noncompliance with restrictions | 1 | 0.8 | 0 | 0.0 | 1 | 11.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.7 |
| Hauling hazardous material improperly | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Hit and run vehicle, driver | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 10.0 | 2 | 0.7 |
| Homicide | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 3.7 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Other non-moving violation | 2 | 1.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 3 | 1.0 |
| Possible distractions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cellular phone in vehicle | 2 | 1.7 | 2 | 2.3 | 0 | 0.0 | 1 | 3.7 | 1 | 2.4 | 0 | 0.0 | 6 | 2.0 |
| Cellular phone in use | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.4 | 0 | 0.0 | 1 | 0.3 |
| 2-way radio | 0 | 0.0 | 1 | 1.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Unknown | 0 | 0.0 | 3 | 3.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 1.0 |
| Total | 120 | 100.0 | 86 | 100.0 | 9 | 100.0 | 27 | 100.0 | 41 | 100.0 | 10 | 100.0 | 293 | 100.0 |

Note: Since "driver-related factors" is a multiple-response variable, more than one driver factor can be coded per driver. Percentages are calculated based on total drivers, not total factors.

## Glossary and abbreviations

## Glossary

## Bus Operator Types

School
Any public or private school or district, or contracted carrier operating on behalf of the entity, providing transportation for pupils.

Transit
An entity providing passenger transportation over fixed, scheduled routes, primarily within urban geographical areas.

## Intercity

A company providing for-hire, long-distance passenger transportation between cities over fixed routes with regular schedules.

## Charter

Companies that operate buses on a for-hire basis, usually providing round-trip service for a tour group or an outing, either on an ad hoc or scheduled basis.

## Other operator type

This category includes buses operated by private companies (primary business other than passenger transportation), non-governmental organizations (such as churches and non-profit organizations), non-educational units of government (such as departments of corrections or highway departments), and private individuals (entertainers, sports teams, etc.).

## Unknown operator type

In cases where sufficient information could not be obtained about the operator type, "unknown" was assigned.

## Bus Definitions

## Big cowl and chassis

A truck-based bus, where a coach has been fitted onto a large, front-engine chassis, with a conventional hood/cowl in front of the windshield.

## Bus

Motor vehicles with seating for nine or more, including the driver, that are not operated as personal transportation, and all motor vehicles with seating for 16 or more.

## Heavy-duty bus

A heavy-duty vehicle such as a transit bus, manufactured to withstand the demands of severe duty cycles; typically 40 feet in length, but shorter lengths of 35 or 30 may be found. Articulated models are typically 60 feet in length, with the two vehicle sections connected by a joint mechanism which allows the bus to negotiate sharp turns and still have a continuous interior compartment.

## Heavy-duty with lift

A heavy-duty bus with a wheelchair lift.

## High platform

Typically intercity or touring coaches, often with cargo holds below the seating deck as well as a lavatory. These buses are designed for long distance travel.

## Jitney

A small bus operated on a fixed route as demand warrants without fixed schedules or fixed stops.

## Large passenger van

A full-size vehicle manufactured as a complete unit (unlike a cutaway cab fitted with a coach), seating up to 15 people.

## Long-distance coach

Refers to the typical cross-country, heavy-duty bus.

## Low platform

Flat front transit buses with no cargo storage capacity below the passenger compartment.

## Mini van

A smaller vehicle manufactured as a complete unit, seating 7 - 10 people.

## Passengers

Individuals being transported, excluding the driver.

## Shuttle bus

A smaller bus intended for short, local trips.

## Small cowl and chassis

A van-based bus, where a coach has been fitted onto a smaller front-engine chassis, usually below Class 5 GVWR. Shuttle buses fall into this category.

## Special needs bus

A bus containing a wheelchair lift and tie downs (locks to immobilize the wheelchair, and/or a belt for the occupant and chair).

Type A school bus
A van conversion or bus constructed utilizing a small cowl and chassis, van-based cutaway. Has a nose and grille like a typical van, a regular driver's door (on the left side of vehicle), and the passenger entrance door curbside, behind the front wheel. Front engine location.

## Type B school bus

A school bus constructed on a stripped van or truck chassis, perhaps resembling a step-van type of front. Full coach body, with only one door, curbside, behind the front wheels. Front engine location.

## Type C school bus

Conventional school bus consisting of a coach body mounted on a truck-based, flat back cowl (big cowl and chassis - hood and fender assembly). Varying lengths and some have wheelchair lifts. One entrance door located behind the front wheels. Front engine location.

## Type D school bus

Transit-style school bus. Flat front, full coach body mounted on stripped bus chassis. Can be either front (forward control, FE) or rear engine (RE). Varying lengths, can have wheelchair lift and small storage compartments under passenger floor (accessed through small hatch doors on side of bus).

Tables of abbreviations

| Abbreviation | Definition |
| :--- | :--- |
| CDL | Commercial driver's license |
| Convs | Convictions |
| Misc | Miscellaneous |
| Opp | Opposite |
| Prev | Previous |
| Stat | Statutory |
| Unk | Unknown |
| Veh | Vehicle |
| WO | Without |


| Injuries are classified according to severity under the following <br> levels: |  |
| :--- | :--- |
| K | Fatal injury |
| A | Incapacitating injury |
| B | Evident but not incapacitating |
| C | Complaint of pain |
| O | No injury |

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[^0]:    Sunding should be made to comply with Section 4 of ASTM E380.

[^1]:    *Reflects speeding convictions occurring within three years of the current accident.

