

BUSES INVOLVED IN FATAL ACCIDENTS FACTBOOK 1999



Center for National Truck Statistics
University of Michigan Transportation Research Institute
2901 Baxter Road
Ann Arbor, Michigan 48109-2150

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Center for National Truck Statistics

The University of Michigan
Transportation Research Institute
Ann Arbor, Michigan 48109-2150

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16. Abstract This document presents aggregate statistics on buses involved in traffic accidents in 1999. 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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SI* (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				
in ²	square inches	645.2	square millimeters	mm ²	mm ²	square millimeters	0.0016	square inches	in ²
ft ²	square feet	0.093	square meters	m ²	m ²	square meters	10.764	square feet	ft ²
yd ²	square yards	0.836	square meters	m ²	m ²	square meters	1.195	square yards	yd ²
ac	acres	0.405	hectares	ha	ha	hectares	2.47	acres	ac
mi ²	square miles	2.59	square kilometers	km ²	km ²	square kilometers	0.386	square miles	mi ²
VOLUME					VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL	ml	milliliters	0.034	fluid ounces	fl oz
gal	gallons	3.785	liters	L	L	liters	0.264	gallons	gal
ft ³	cubic feet	0.028	cubic meters	m ³	m ³	cubic meters	35.71	cubic feet	ft ³
yd ³	cubic yards	0.765	cubic meters	m ³	m ³	cubic meters	1.307	cubic yards	yd ³
NOTE: Volumes greater than 1000 L shall be shown in 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 (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")	Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact)					TEMPERATURE (exact)				
°F	Fahrenheit temperature	5(F-32)/9 or (F-32)/1.8	Celcius temperature	°C	°C	Celcius temperature	1.8C + 32	Fahrenheit temperature	°F
ILLUMINATION					ILLUMINATION				
fc	foot-candles	10.76	lux	lx	lx	lux	0.0929	foot-candles	fc
fl	foot-Lamberts	3.426	candela/m ²	cd/m ²	cd/m ²	candela/m ²	0.2919	foot-lamberts	fl
FORCE and PRESSURE or STRESS					FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N	N	newtons	0.225	poundforce	lbf
lbf/in ²	poundforce per square inch	6.89	kilopascals	kpa	kPa	kilopascals	0.145	poundforce per square inch	lbf/in ²

* SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.

(Revised September 1993)

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Table of contents

Figures	ix
Tables	xi
Introduction	1
Report overview	1
Overview	3
Fatal involvements	5
Fatalities	8
Accident conditions	9
Temporal distributions	11
Environmental distributions	13
Roadway distributions	15
Accident description	18
Vehicle	23
Driver	35
Index	47

Figures

Figure 1-1: Fatal Bus Involvements by State, BIFA 1999	5
Figure 1-2: Fatal Bus Involvements by State – School Buses Only, BIFA 1999.....	6
Figure 1-3: Fatal Bus Involvements by State – Transit Buses Only, BIFA 1999.....	6

Tables

Overview

Table 1-1 Fatal Bus Involvements by Operator Type, BIFA 1999	5
Table 1-2 Fatal Bus Involvements by State and Bus Type, BIFA 1999	7
Table 1-3 Fatalities in Bus Involvements by Person Type and Bus Type, BIFA 1999	8

Accident conditions

Table 2-1 Fatal Bus Involvements by Month and Bus Type, BIFA 1999.....	11
Table 2-2 Fatal Bus Involvements by Day of Week and Bus Type, BIFA 1999.....	11
Table 2-3 Fatal Bus Involvements by Day Type and Bus Type, BIFA 1999	11
Table 2-4 Fatal Bus Involvements by Time of Accident and Bus Type, BIFA 1999.....	12
Table 2-5 Fatal Bus Involvements by Time of Accident and Day Type, BIFA 1999.....	13
Table 2-6 Fatal Bus Involvements by Land Use and Bus Type, BIFA 1999	13
Table 2-7 Fatal Bus Involvements by Light Condition and Bus Type, BIFA 1999.....	14
Table 2-8 Fatal Bus Involvements by Roadway Surface Condition and Bus Type, BIFA 1999.....	14
Table 2-9 Fatal Bus Involvements by Weather Condition and Bus Type, BIFA 1999.....	14
Table 2-10 Fatal Bus Involvements by Roadway Function Class and Bus Type, BIFA 1999.....	15
Table 2-11 Fatal Bus Involvements by Route Signing and Bus Type, BIFA 1999.....	15
Table 2-12 Fatal Bus Involvements by Relation to Junction and Bus Type, BIFA 1999.....	16
Table 2-13 Fatal Bus Involvements by Number of Travel Lanes and Bus Type, BIFA 1999.....	16
Table 2-14 Fatal Bus Involvements by Trafficway Flow and Bus Type, BIFA 1999.....	16
Table 2-15 Fatal Bus Involvements by Speed Limit and Bus Type, BIFA 1999.....	17

Table 2-16 Fatal Bus Involvements by Accident Type and Bus Type, BIFA 1999.....	18
Table 2-17 Fatal Bus Involvements by First Harmful Event and Bus Type, BIFA 1999.....	19
Table 2-18 Fatal Bus Involvements by Vehicle Role in Accident and Bus Type, BIFA 1999.....	19
Table 2-19 Fatal Bus Involvements by Manner of Collision and Bus Type, BIFA 1999.....	20
Table 2-20 Fatal Bus Involvements by Rollover Status and Bus Type, BIFA 1999	20
Table 2-21 Fatal Bus Involvements by Number of Quarter Turns and Direction of Roll, BIFA 1999.....	20
Table 2-22 Fatal Bus Involvements by Fire Occurrence and Bus Type, BIFA 1999.....	21

Vehicle

Table 3-1 Fatal Bus Involvements by Operator Type and Bus Vehicle Description, BIFA 1999.....	25
Table 3-2 Fatal Bus Involvements by Operator Type and Bus Operator Description, BIFA 1999	26
Table 3-3 Fatal Bus Involvements by Bus Body Style and Bus Type, BIFA 1999	27
Table 3-4 Fatal Bus Involvements by Bus Body Configuration and Bus Type, BIFA 1999.....	27
Table 3-5 Fatal Bus Involvements by Front of Bus Style and Bus Type, BIFA 1999.....	27
Table 3-6 Fatal Bus Involvements by Model Year and Front of Bus Style, BIFA 1999.....	28
Table 3-7 Fatal Bus Involvements by Model Year and Bus Type, BIFA 1999	29
Table 3-8 Fatal Bus Involvements by Bus Length and Bus Type, BIFA 1999	29
Table 3-9 Fatal Bus Involvements by Bus Empty Weight and Bus Type, BIFA 1999	30
Table 3-10 Fatal Bus Involvements by Gross Vehicle Weight Rating and Bus Type, BIFA 1999	30
Table 3-11 Fatal Bus Involvements by Number of Axles and Bus Type, BIFA 1999.....	30
Table 3-12 Fatal Bus Involvements by Passenger Seating Capacity and Bus Type, BIFA 1999	31
Table 3-13 Fatal Bus Involvements by Number of Passengers and Bus Type, BIFA 1999.....	31

Table 3-14 Fatal Bus Involvements by Passenger Restraint and Bus Type, BIFA 1999	32
Table 3-15 Fatal Bus Involvements by Carrier Type and Bus Type, BIFA 1999.....	32
Table 3-16 Fatal Bus Involvements by Trip Type and Bus Type, BIFA 1999	32
Table 3-17 Fatal Bus Involvements by Most Harmful Event and Bus Type, BIFA 1999	33

Driver

Table 4-1 Fatal Bus Involvements by Driver Drinking Status and Bus Type, BIFA 1999.....	37
Table 4-2 Fatal Bus Involvements by Driver Drug Use and Bus Type, BIFA 1999.....	37
Table 4-3 Fatal Bus Involvements by Driver Age and Bus Type, BIFA 1999.....	37
Table 4-4 Fatal Bus Involvements by Driver Sex and Bus Type, BIFA 1999.....	38
Table 4-5 Fatal Bus Involvements by Driver Restraint Use and Bus Type, BIFA 1999	38
Table 4-6 Fatal Bus Involvements by Driver Injury Severity and Bus Type, BIFA 1999	38
Table 4-7 Fatal Bus Involvements by Driver Injury Severity and Rollover, Fire, Ejection Status, BIFA 1999.....	39
Table 4-8 Fatal Bus Involvements by Driver Extrication and Bus Type, BIFA 1999	39
Table 4-9 Fatal Bus Involvements by Driver Compensation, BIFA 1999.....	39
Table 4-10 Fatal Bus Involvements by Driver Compensation and Bus Type, BIFA 1999	40
Table 4-11 Fatal Bus Involvements by Reported Hours Driven and Bus Type, BIFA 1999.....	41
Table 4-12 Fatal Bus Involvements by Driver Violations Charged and Bus Type, BIFA 1999....	41
Table 4-13 Fatal Bus Involvements by Number of Previous Accidents (fatal and nonfatal)* and Bus Type, BIFA 1999.....	42
Table 4-14 Fatal Bus Involvements by Number of Previous Suspensions* and Bus Type, BIFA 1999	42
Table 4-15 Fatal Bus Involvements by Number of Previous Speeding Convictions* and Bus Type, BIFA 1999.....	42
Table 4-16 Fatal Bus Involvements by Previous Other Moving Convictions* and Bus Type, BIFA 1999	43

Table 4-17 Fatal Bus Involvements by License Class Compliance and Bus Type, BIFA 1999 ..	43
Table 4-18 Fatal Bus Involvements by CDL License Status and Bus Type, BIFA 1999.....	43
Table 4-19 Fatal Bus Involvements by License Endorsements and Bus Type, BIFA 1999.....	44
Table 4-20 Fatal Bus Involvements by Driver-related Factors and Bus Type, BIFA 1999.....	45

Introduction

This report, *Buses Involved in Fatal Accidents Factbook 1999*, 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, recently initiated by the Center for National Truck Statistics (CNTS) 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 vehicles with seating for eight or more passengers transported for compensation, or with seating for 15 or more passengers, regardless of compensation.

The BIFA file is produced annually, beginning with the 1999 data year, from a survey of bus records extracted 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 1999 BIFA file is a census file, meaning there is one record for each of the 333 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. Editors review 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 is altered or corrected. The BIFA variables supplement the FARS data with extensive detail on the bus, including the bus's seating capacity; its weight, length and width; the number of passengers at the time of the crash; operating authority; type of trip; hours driving; and the bus's role in the accident. 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 1999*.

Report overview

This report consists of four sections. The "Overview" section provides data on fatalities, and national and state distributions of fatal accident involvements. The "Accident conditions" section

provides information about the accidents the buses were involved in, including 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 weights, lengths, and 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, counts 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 typically used as school buses, but which are used for a different purpose, are classified according to the operator type. "School buses" are sometimes converted to private use, and 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 (engaged in businesses other than passenger transportation, e.g. providing employee 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 and personal transportation).

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

Overview

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

- 333 buses were involved in a fatal traffic accident during 1999.
- Buses owned by a school district were the most common type, accounting for about 44% of all buses involved in a fatal crash.
- California, New York, and Florida had the greatest number of bus involvements during 1999.
- There were 395 persons killed in crashes involving a bus; 18 of them were bus drivers, and 46 were passengers on the bus.
- 82 pedestrians and 9 bicyclists were killed during 1999 in accidents involving buses.

Fatal involvements

**Table 1-1
Fatal Bus Involvements by Operator Type
BIFA 1999**

Bus Operator Type	No.	Pct.
School district	146	43.8
Urban transit authority	104	31.2
Scheduled intercity	13	3.9
Charter bus	35	10.5
Private company	5	1.5
Non-government organization	7	2.1
Non-educational unit of government	2	0.6
Private, for personal transportation	1	0.3
Other	7	2.1
Unknown	13	3.9
Total	333	100.0

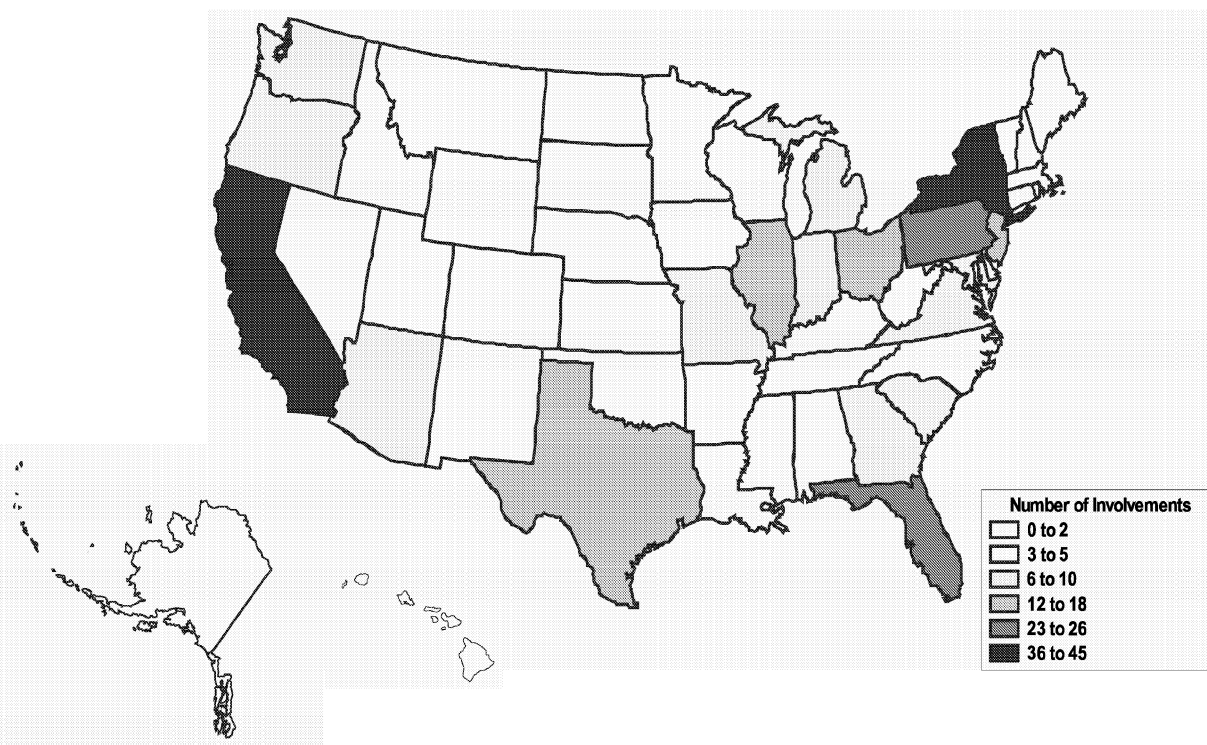


Figure 1-1: Fatal Bus Involvements by State, BIFA 1999

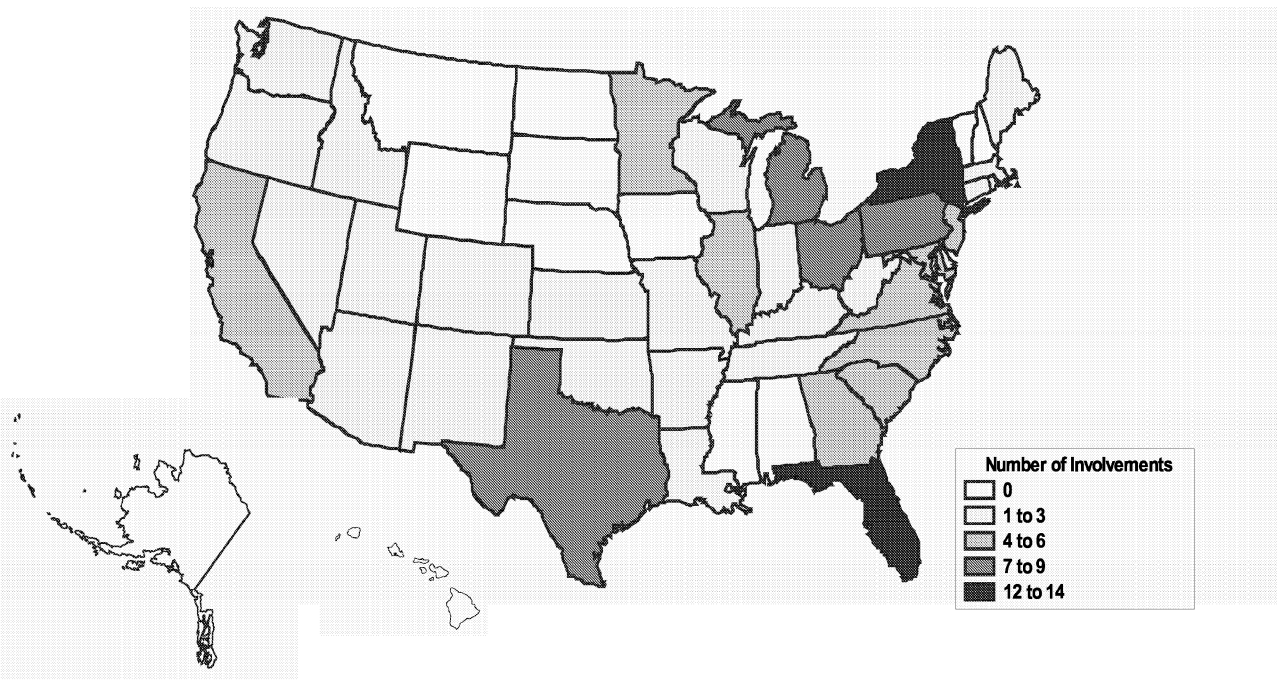


Figure 1-2: Fatal Bus Involvements by State – School Buses Only, BIFA 1999

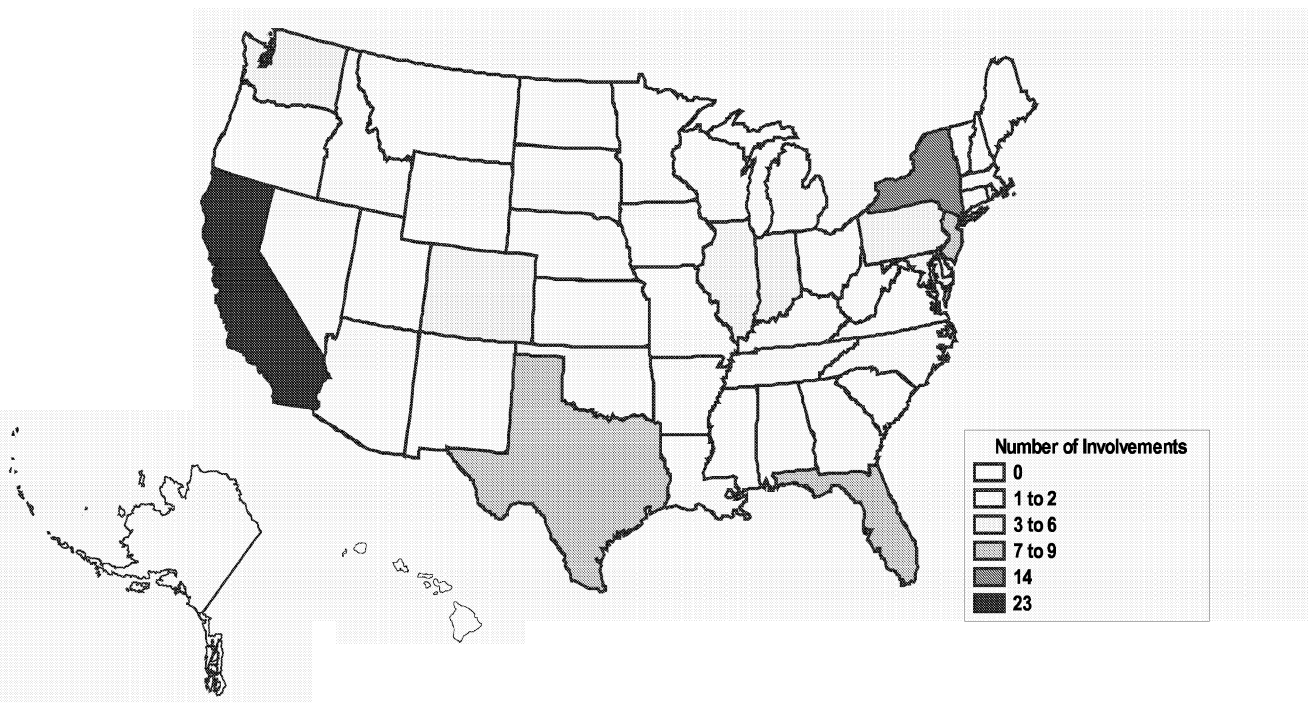


Figure 1-3: Fatal Bus Involvements by State – Transit Buses Only, BIFA 1999

Table 1-2: Fatal Bus Involvements by State and Bus Type, BIFA 1999

State	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Alabama	0	0.0	0	0.0	1	7.7	0	0.0	1	4.5	0	0.0	2	0.6
Alaska	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Arizona	3	2.1	1	1.0	0	0.0	0	0.0	2	9.1	0	0.0	6	1.8
Arkansas	2	1.4	0	0.0	1	7.7	0	0.0	0	0.0	0	0.0	3	0.9
California	6	4.1	23	22.1	2	15.4	9	25.7	4	18.2	1	7.7	45	13.5
Colorado	1	0.7	3	2.9	0	0.0	1	2.9	0	0.0	0	0.0	5	1.5
Connecticut	3	2.1	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	4	1.2
Delaware	2	1.4	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Dist of Columbia	0	0.0	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
Florida	12	8.2	9	8.7	1	7.7	1	2.9	2	9.1	1	7.7	26	7.8
Georgia	5	3.4	2	1.9	0	0.0	0	0.0	0	0.0	1	7.7	8	2.4
Hawaii	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Idaho	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Illinois	5	3.4	5	4.8	0	0.0	2	5.7	0	0.0	0	0.0	12	3.6
Indiana	2	1.4	3	2.9	1	7.7	0	0.0	0	0.0	0	0.0	6	1.8
Iowa	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
Kansas	3	2.1	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	4	1.2
Kentucky	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Louisiana	1	0.7	1	1.0	0	0.0	1	2.9	1	4.5	0	0.0	4	1.2
Maine	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Maryland	4	2.7	4	3.8	0	0.0	0	0.0	0	0.0	0	0.0	8	2.4
Massachusetts	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Michigan	7	4.8	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	9	2.7
Minnesota	5	3.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	1.5
Mississippi	0	0.0	0	0.0	1	7.7	0	0.0	0	0.0	1	7.7	2	0.6
Missouri	3	2.1	1	1.0	0	0.0	1	2.9	2	9.1	0	0.0	7	2.1
Montana	0	0.0	0	0.0	0	0.0	1	2.9	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	1	0.7	1	1.0	1	7.7	1	2.9	0	0.0	0	0.0	4	1.2
New Hampshire	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
New Jersey	6	4.1	7	6.7	1	7.7	2	5.7	1	4.5	0	0.0	17	5.1
New Mexico	1	0.7	0	0.0	2	15.4	1	2.9	1	4.5	0	0.0	5	1.5
New York	14	9.6	14	13.5	0	0.0	2	5.7	2	9.1	4	30.8	36	10.8
North Carolina	4	2.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	1.2
North Dakota	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ohio	9	6.2	2	1.9	0	0.0	0	0.0	1	4.5	0	0.0	12	3.6
Oklahoma	2	1.4	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	3	0.9
Oregon	3	2.1	1	1.0	0	0.0	1	2.9	1	4.5	0	0.0	6	1.8
Pennsylvania	9	6.2	5	4.8	1	7.7	6	17.1	1	4.5	1	7.7	23	6.9
Rhode Island	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
South Carolina	4	2.7	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	6	1.8
South Dakota	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tennessee	1	0.7	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	2	0.6
Texas	7	4.8	7	6.7	1	7.7	2	5.7	0	0.0	1	7.7	18	5.4
Utah	2	1.4	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Vermont	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Virginia	4	2.7	1	1.0	0	0.0	0	0.0	0	0.0	2	15.4	7	2.1
Washington	3	2.1	6	5.8	0	0.0	1	2.9	0	0.0	0	0.0	10	3.0
West Virginia	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Wisconsin	3	2.1	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	4	1.2
Wyoming	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Fatalities

Table 1-3
Fatalities in Bus Involvements by Person Type and Bus Type
BIFA 1999

Vehicle/Person type	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
<i>Bus</i>														
Driver	6	3.6	2	1.9	1	6.7	5	8.2	2	5.9	2	14.3	18	4.6
Passenger	3	1.8	1	0.9	1	6.7	28	45.9	12	35.3	1	7.1	46	11.6
Bus total	9	5.5	3	2.8	2	13.3	33	54.1	14	41.2	3	21.4	64	16.2
<i>Other vehicle</i>														
Drivers	97	58.8	44	40.7	7	46.7	14	23.0	10	29.4	4	28.6	175	44.3
Passengers	34	20.6	12	11.1	5	33.3	7	11.5	5	14.7	1	7.1	63	15.9
Other vehicle total	131	79.4	56	51.9	12	80.0	21	34.4	15	44.1	5	35.7	238	60.3
<i>Non-motorists</i>														
In parked vehicle	0	0.0	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	2	0.5
Pedestrian	22	13.3	42	38.9	1	6.7	7	11.5	4	11.8	6	42.9	82	20.8
Bicyclist	3	1.8	5	4.6	0	0.0	0	0.0	1	2.9	0	0.0	9	2.3
Non-motorist total	25	15.2	49	45.4	1	6.7	7	11.5	5	14.7	6	42.9	93	23.5
Total	165	100.0	108	100.0	15	100.0	61	100.0	34	100.0	14	100.0	395	100.0

Note: The fatalities in accidents of specific types add up to slightly more than the total number of fatalities because at least one crash involved more than one type of bus.

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 40% of fatal bus involvements occur from 7-8 a.m. or from 3-4 p.m., primarily due to school buses.
- Over 80% of fatal involvements occur on dry roads under “normal” weather conditions (i.e. no rain, snow, fog, or other adverse conditions).
- About 70% of fatal involvements involving a bus occur in daylight.
- 36.6% of fatal bus involvements occur on local streets (township or municipality), 21.6% on state highways, and 14.7% on county roads.
- Almost two-thirds of fatal involvements involving a bus occur on roads that are not divided.
- In 27% of fatal involvements, the bus hit an object in the road; in another 16.2% of involvements the other vehicle crossed the center line of the road and struck the bus head on; and in 12.6% the bus was struck in the rear by another vehicle.
- In 63.7% of fatal bus involvements the first harmful event was collision with a motor vehicle; 23.1% involved collision with a pedestrian.
- Of buses that rolled over, about half rolled to the left and half rolled to the right.

The following abbreviations are used in this section:

Abbreviation	Definition
Veh	Vehicle
Opp	Opposite
Equip	Equipment
Stat	Statutory

Temporal distributions

Table 2-1
Fatal Bus Involvements by Month and Bus Type
BIFA 1999

Month of accident	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
January	18	12.3	9	8.7	0	0.0	1	2.9	1	4.5	0	0.0	29	8.7
February	17	11.6	13	12.5	1	7.7	3	8.6	2	9.1	1	7.7	37	11.1
March	14	9.6	9	8.7	1	7.7	3	8.6	0	0.0	2	15.4	29	8.7
April	13	8.9	7	6.7	1	7.7	1	2.9	3	13.6	1	7.7	26	7.8
May	17	11.6	12	11.5	1	7.7	2	5.7	5	22.7	0	0.0	37	11.1
June	6	4.1	4	3.8	0	0.0	4	11.4	5	22.7	0	0.0	19	5.7
July	3	2.1	8	7.7	2	15.4	2	5.7	0	0.0	1	7.7	16	4.8
August	5	3.4	3	2.9	2	15.4	2	5.7	4	18.2	1	7.7	17	5.1
September	15	10.3	12	11.5	3	23.1	3	8.6	1	4.5	1	7.7	35	10.5
October	14	9.6	12	11.5	0	0.0	4	11.4	0	0.0	2	15.4	32	9.6
November	11	7.5	7	6.7	1	7.7	8	22.9	1	4.5	4	30.8	32	9.6
December	13	8.9	8	7.7	1	7.7	2	5.7	0	0.0	0	0.0	24	7.2
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-2
Fatal Bus Involvements by Day of Week and Bus Type
BIFA 1999

Day of week	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Sunday	3	2.1	11	10.6	1	7.7	8	22.9	4	18.2	0	0.0	27	8.1
Monday	33	22.6	14	13.5	1	7.7	2	5.7	3	13.6	3	23.1	56	16.8
Tuesday	25	17.1	17	16.3	3	23.1	9	25.7	3	13.6	1	7.7	58	17.4
Wednesday	35	24.0	9	8.7	1	7.7	2	5.7	6	27.3	4	30.8	57	17.1
Thursday	27	18.5	24	23.1	2	15.4	5	14.3	3	13.6	2	15.4	63	18.9
Friday	22	15.1	15	14.4	5	38.5	5	14.3	1	4.5	2	15.4	50	15.0
Saturday	1	0.7	14	13.5	0	0.0	4	11.4	2	9.1	1	7.7	22	6.6
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-3
Fatal Bus Involvements by Day Type and Bus Type
BIFA 1999

Day type	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Work week	142	97.3	79	76.0	12	92.3	23	65.7	16	72.7	12	92.3	284	85.3
Weekend	4	2.7	25	24.0	1	7.7	12	34.3	6	27.3	1	7.7	49	14.7
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

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

Table 2-4
Fatal Bus Involvements by Time of Accident and Bus Type
BIFA 1999

Time of accident	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Midnight	1	0.7	6	5.8	0	0.0	4	11.4	0	0.0	1	7.7	12	3.6
1:00 AM	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
2:00 AM	0	0.0	1	1.0	2	15.4	0	0.0	1	4.5	1	7.7	5	1.5
3:00 AM	0	0.0	2	1.9	1	7.7	0	0.0	1	4.5	0	0.0	4	1.2
4:00 AM	0	0.0	0	0.0	2	15.4	1	2.9	1	4.5	0	0.0	4	1.2
5:00 AM	2	1.4	2	1.9	1	7.7	0	0.0	2	9.1	0	0.0	7	2.1
6:00 AM	12	8.2	4	3.8	1	7.7	1	2.9	0	0.0	0	0.0	18	5.4
7:00 AM	28	19.2	5	4.8	0	0.0	4	11.4	1	4.5	2	15.4	40	12.0
8:00 AM	16	11.0	8	7.7	0	0.0	1	2.9	0	0.0	1	7.7	26	7.8
9:00 AM	4	2.7	9	8.7	0	0.0	1	2.9	2	9.1	2	15.4	18	5.4
10:00 AM	2	1.4	4	3.8	0	0.0	1	2.9	1	4.5	0	0.0	8	2.4
11:00 AM	7	4.8	3	2.9	1	7.7	0	0.0	1	4.5	0	0.0	12	3.6
Noon	4	2.7	7	6.7	0	0.0	2	5.7	0	0.0	0	0.0	13	3.9
1:00 PM	5	3.4	3	2.9	0	0.0	2	5.7	2	9.1	1	7.7	13	3.9
2:00 PM	14	9.6	4	3.8	1	7.7	1	2.9	3	13.6	0	0.0	23	6.9
3:00 PM	28	19.2	9	8.7	1	7.7	2	5.7	2	9.1	1	7.7	43	12.9
4:00 PM	16	11.0	5	4.8	1	7.7	3	8.6	2	9.1	0	0.0	27	8.1
5:00 PM	3	2.1	5	4.8	0	0.0	2	5.7	1	4.5	0	0.0	11	3.3
6:00 PM	0	0.0	4	3.8	0	0.0	3	8.6	1	4.5	4	30.8	12	3.6
7:00 PM	1	0.7	4	3.8	0	0.0	0	0.0	0	0.0	0	0.0	5	1.5
8:00 PM	1	0.7	4	3.8	0	0.0	1	2.9	0	0.0	0	0.0	6	1.8
9:00 PM	2	1.4	5	4.8	0	0.0	2	5.7	0	0.0	0	0.0	9	2.7
10:00 PM	0	0.0	4	3.8	1	7.7	1	2.9	0	0.0	0	0.0	6	1.8
11:00 PM	0	0.0	5	4.8	1	7.7	3	8.6	1	4.5	0	0.0	10	3.0
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-5
Fatal Bus Involvements by Time of Accident and Day Type
BIFA 1999

Time of accident	Work week		Weekend		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Midnight	5	1.8	7	14.3	12	3.6
1:00 AM	1	0.4	0	0.0	1	0.3
2:00 AM	3	1.1	2	4.1	5	1.5
3:00 AM	1	0.4	3	6.1	4	1.2
4:00 AM	3	1.1	1	2.0	4	1.2
5:00 AM	5	1.8	2	4.1	7	2.1
6:00 AM	18	6.3	0	0.0	18	5.4
7:00 AM	40	14.1	0	0.0	40	12.0
8:00 AM	24	8.5	2	4.1	26	7.8
9:00 AM	16	5.6	2	4.1	18	5.4
10:00 AM	5	1.8	3	6.1	8	2.4
11:00 AM	11	3.9	1	2.0	12	3.6
Noon	10	3.5	3	6.1	13	3.9
1:00 PM	7	2.5	6	12.2	13	3.9
2:00 PM	22	7.7	1	2.0	23	6.9
3:00 PM	38	13.4	5	10.2	43	12.9
4:00 PM	25	8.8	2	4.1	27	8.1
5:00 PM	10	3.5	1	2.0	11	3.3
6:00 PM	11	3.9	1	2.0	12	3.6
7:00 PM	2	0.7	3	6.1	5	1.5
8:00 PM	3	1.1	3	6.1	6	1.8
9:00 PM	8	2.8	1	2.0	9	2.7
10:00 PM	6	2.1	0	0.0	6	1.8
11:00 PM	10	3.5	0	0.0	10	3.0
Total	284	100.0	49	100.0	333	100.0

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

Environmental distributions

Table 2-6
Fatal Bus Involvements by Land Use and Bus Type
BIFA 1999

Land use	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Urban	59	40.4	94	90.4	4	30.8	17	48.6	11	50.0	6	46.2	191	57.4
Rural	85	58.2	10	9.6	9	69.2	18	51.4	11	50.0	7	53.8	140	42.0
Unknown	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-7
Fatal Bus Involvements by Light Condition and Bus Type
BIFA 1999

Light condition	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Daylight	129	88.4	63	60.6	4	30.8	19	54.3	15	68.2	9	69.2	239	71.8
Dark	8	5.5	1	1.0	6	46.2	11	31.4	2	9.1	4	30.8	32	9.6
Dark but lighted	1	0.7	33	31.7	3	23.1	2	5.7	4	18.2	0	0.0	43	12.9
Dawn	8	5.5	2	1.9	0	0.0	1	2.9	0	0.0	0	0.0	11	3.3
Dusk	0	0.0	5	4.8	0	0.0	2	5.7	1	4.5	0	0.0	8	2.4
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-8
Fatal Bus Involvements by Roadway Surface Condition and Bus Type
BIFA 1999

Roadway surface condition	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Dry	111	76.0	88	84.6	10	76.9	29	82.9	21	95.5	12	92.3	271	81.4
Wet	26	17.8	16	15.4	3	23.1	4	11.4	1	4.5	1	7.7	51	15.3
Snow or slush	2	1.4	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	3	0.9
Ice	6	4.1	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	7	2.1
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-9
Fatal Bus Involvements by Weather Condition and Bus Type
BIFA 1999

Weather condition	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Normal	120	82.2	96	92.3	10	76.9	29	82.9	22	100.0	12	92.3	289	86.8
Rain	15	10.3	5	4.8	3	23.1	0	0.0	0	0.0	0	0.0	23	6.9
Sleet	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Snow	5	3.4	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	7	2.1
Fog	4	2.7	2	1.9	0	0.0	0	0.0	0	0.0	1	7.7	7	2.1
Rain & fog	0	0.0	0	0.0	0	0.0	4	11.4	0	0.0	0	0.0	4	1.2
Other	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Roadway distributions

Table 2-10
Fatal Bus Involvements by Roadway Function Class and Bus Type
BIFA 1999

Road function class	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
<i>Urban</i>														
Interstate	1	0.7	4	3.8	1	7.7	7	20.0	0	0.0	0	0.0	13	3.9
Freeway/expressway	0	0.0	4	3.8	0	0.0	2	5.7	1	4.5	0	0.0	7	2.1
Other principal artery	19	13.0	39	37.5	3	23.1	5	14.3	7	31.8	1	7.7	74	22.2
Minor artery	20	13.7	20	19.2	0	0.0	1	2.9	1	4.5	4	30.8	46	13.8
Collector	3	2.1	4	3.8	0	0.0	1	2.9	0	0.0	0	0.0	8	2.4
Local street	16	11.0	21	20.2	0	0.0	1	2.9	2	9.1	1	7.7	41	12.3
Unknown urban	0	0.0	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Total urban	59	40.4	94	90.4	4	30.8	17	48.6	11	50.0	6	46.2	191	57.4
<i>Rural</i>														
Interstate	0	0.0	0	0.0	5	38.5	6	17.1	2	9.1	0	0.0	13	3.9
Other principal artery	10	6.8	3	2.9	1	7.7	6	17.1	3	13.6	2	15.4	25	7.5
Minor artery	19	13.0	3	2.9	1	7.7	1	2.9	2	9.1	2	15.4	28	8.4
Major collector	26	17.8	1	1.0	1	7.7	3	8.6	3	13.6	2	15.4	36	10.8
Minor collector	5	3.4	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	7	2.1
Local road	21	14.4	2	1.9	1	7.7	1	2.9	1	4.5	0	0.0	26	7.8
Unknown rural	4	2.7	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	5	1.5
Total rural	85	58.2	10	9.6	9	69.2	18	51.4	11	50.0	7	53.8	140	42.0
<i>Unknown</i>	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Total urban and rural	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-11
Fatal Bus Involvements by Route Signing and Bus Type
BIFA 1999

Route signing	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Interstate	1	0.7	4	3.8	6	46.2	13	37.1	2	9.1	0	0.0	26	7.8
US highway	17	11.6	10	9.6	1	7.7	7	20.0	6	27.3	3	23.1	44	13.2
State highway	46	31.5	12	11.5	4	30.8	2	5.7	6	27.3	2	15.4	72	21.6
County road	36	24.7	6	5.8	1	7.7	2	5.7	1	4.5	3	23.1	49	14.7
Township	11	7.5	8	7.7	0	0.0	1	2.9	0	0.0	0	0.0	20	6.0
Municipality	26	17.8	57	54.8	1	7.7	8	22.9	7	31.8	3	23.1	102	30.6
Other	8	5.5	5	4.8	0	0.0	2	5.7	0	0.0	2	15.4	17	5.1
Unknown	1	0.7	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-12
Fatal Bus Involvements by Relation to Junction and Bus Type
BIFA 1999

Relation to junction	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
<i>Noninterchange</i>														
Nonjunction	77	52.7	50	48.1	12	92.3	23	65.7	12	54.5	9	69.2	183	55.0
Intersection	55	37.7	38	36.5	1	7.7	7	20.0	7	31.8	4	30.8	112	33.6
Intersection related	9	6.2	13	12.5	0	0.0	5	14.3	1	4.5	0	0.0	28	8.4
Driveway, alley, etc.	2	1.4	0	0.0	0	0.0	0	0.0	2	9.1	0	0.0	4	1.2
In crossover	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
<i>Interchange area</i>														
Intersection	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Entrance/exit ramp	1	0.7	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-13
Fatal Bus Involvements by Number of Travel Lanes and Bus Type
BIFA 1999

No. of travel lanes	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1	3	2.1	2	1.9	0	0.0	0	0.0	0	0.0	1	7.7	6	1.8
2	112	76.7	58	55.8	8	61.5	20	57.1	15	68.2	7	53.8	220	66.1
3	5	3.4	12	11.5	1	7.7	8	22.9	0	0.0	0	0.0	26	7.8
4	19	13.0	25	24.0	3	23.1	4	11.4	6	27.3	3	23.1	60	18.0
5	2	1.4	1	1.0	0	0.0	1	2.9	0	0.0	1	7.7	5	1.5
6	1	0.7	3	2.9	1	7.7	1	2.9	0	0.0	0	0.0	6	1.8
7	0	0.0	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
9	4	2.7	1	1.0	0	0.0	1	2.9	1	4.5	1	7.7	8	2.4
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-14
Fatal Bus Involvements by Trafficway Flow and Bus Type
BIFA 1999

Trafficway flow	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Not divided	114	78.1	61	58.7	3	23.1	14	40.0	13	59.1	8	61.5	213	64.0
Median – no barrier	21	14.4	29	27.9	9	69.2	11	31.4	5	22.7	1	7.7	76	22.8
Median w/barrier	8	5.5	9	8.7	1	7.7	9	25.7	3	13.6	2	15.4	32	9.6
One-way traffic	2	1.4	3	2.9	0	0.0	1	2.9	0	0.0	1	7.7	7	2.1
Unknown	1	0.7	2	1.9	0	0.0	0	0.0	1	4.5	1	7.7	5	1.5
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-15
Fatal Bus Involvements by Speed Limit and Bus Type
BIFA 1999

Speed limit	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No stat. limit	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
10	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
20	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
25	14	9.6	16	15.4	0	0.0	1	2.9	3	13.6	1	7.7	35	10.5
30	14	9.6	25	24.0	0	0.0	3	8.6	1	4.5	1	7.7	44	13.2
35	13	8.9	29	27.9	1	7.7	3	8.6	3	13.6	2	15.4	51	15.3
40	14	9.6	7	6.7	0	0.0	0	0.0	0	0.0	1	7.7	22	6.6
45	22	15.1	15	14.4	1	7.7	0	0.0	2	9.1	1	7.7	41	12.3
50	11	7.5	1	1.0	1	7.7	0	0.0	0	0.0	0	0.0	13	3.9
55	42	28.8	3	2.9	2	15.4	11	31.4	8	36.4	3	23.1	69	20.7
60	1	0.7	0	0.0	0	0.0	2	5.7	0	0.0	0	0.0	3	0.9
65	5	3.4	2	1.9	3	23.1	11	31.4	2	9.1	1	7.7	24	7.2
70	2	1.4	0	0.0	4	30.8	2	5.7	1	4.5	1	7.7	10	3.0
75	0	0.0	0	0.0	1	7.7	0	0.0	0	0.0	0	0.0	1	0.3
Unknown	7	4.8	6	5.8	0	0.0	1	2.9	1	4.5	2	15.4	17	5.1
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Accident description

Table 2-16
Fatal Bus Involvements by Accident Type and Bus Type
BIFA 1999

Accident type	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
<i>Single vehicle</i>														
Ran off road	2	1.4	0	0.0	2	15.4	5	14.3	2	9.1	0	0.0	11	3.3
Hit object in road	25	17.1	45	43.3	1	7.7	7	20.0	6	27.3	6	46.2	90	27.0
<i>Same direction, same trafficway</i>														
Rearend, bus striking	2	1.4	2	1.9	1	7.7	4	11.4	0	0.0	0	0.0	9	2.7
Rearend, bus struck	20	13.7	16	15.4	1	7.7	3	8.6	2	9.1	0	0.0	42	12.6
Sideswipe, in other's lane	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sideswipe, in bus's lane	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
<i>Opposite direction, same trafficway</i>														
Head-on, in other's lane	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Head-on, in bus's lane	33	22.6	9	8.7	5	38.5	4	11.4	3	13.6	0	0.0	54	16.2
Sideswipe, in other's lane	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sideswipe, in bus's lane	5	3.4	1	1.0	0	0.0	0	0.0	2	9.1	1	7.7	9	2.7
<i>Change trafficway, one vehicle turning</i>														
Bus turn across path	14	9.6	4	3.8	1	7.7	0	0.0	1	4.5	0	0.0	20	6.0
Other turn across path	9	6.2	1	1.0	1	7.7	1	2.9	0	0.0	0	0.0	12	3.6
<i>Intersecting paths, both going straight</i>														
Bus into side of other	12	8.2	10	9.6	0	0.0	3	8.6	1	4.5	0	0.0	26	7.8
Other into side of bus	7	4.8	4	3.8	0	0.0	0	0.0	0	0.0	0	0.0	11	3.3
<i>Other accident types</i>														
Other	14	9.6	9	8.7	1	7.7	6	17.1	5	22.7	3	23.1	38	11.4
Unknown	3	2.1	2	1.9	0	0.0	1	2.9	0	0.0	3	23.1	9	2.7
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-17
Fatal Bus Involvements by First Harmful Event and Bus Type
BIFA 1999

First harmful event	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
<i>Noncollision event</i>														
Overturn	3	2.1	2	1.9	0	0.0	1	2.9	1	4.5	0	0.0	7	2.1
Fell from vehicle	0	0.0	1	1.0	0	0.0	0	0.0	1	4.5	1	7.7	3	0.9
Injured in vehicle	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
Other noncollision	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
<i>Collision with nonfixed object</i>														
Pedestrian	21	14.4	40	38.5	0	0.0	7	20.0	4	18.2	5	38.5	77	23.1
Pedalcycle	3	2.1	5	4.8	0	0.0	0	0.0	1	4.5	0	0.0	9	2.7
Motor vehicle in transport	114	78.1	52	50.0	9	69.2	19	54.3	13	59.1	5	38.5	212	63.7
Veh. in transport – other roadway	2	1.4	1	1.0	1	7.7	2	5.7	0	0.0	1	7.7	7	2.1
Parked motor vehicle	0	0.0	1	1.0	1	7.7	0	0.0	0	0.0	0	0.0	2	0.6
Transport device used as equip	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
<i>Collision with fixed object</i>														
Impact attenuator	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Guardrail	0	0.0	0	0.0	0	0.0	4	11.4	0	0.0	0	0.0	4	1.2
Curb	1	0.7	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	2.9	1	4.5	0	0.0	2	0.6
Tree	1	0.7	0	0.0	2	15.4	1	2.9	0	0.0	0	0.0	4	1.2
Other fixed object	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
<i>Total</i>	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-18
Fatal Bus Involvements by Vehicle Role in Accident and Bus Type
BIFA 1999

Vehicle role	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Non-collision	0	0.0	0	0.0	0	0.0	1	2.9	2	9.1	0	0.0	3	0.9
Striking	95	65.1	72	69.2	10	76.9	25	71.4	13	59.1	10	76.9	225	67.6
Struck	48	32.9	31	29.8	2	15.4	4	11.4	7	31.8	3	23.1	95	28.5
Both	2	1.4	1	1.0	1	7.7	5	14.3	0	0.0	0	0.0	9	2.7
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
<i>Total</i>	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-19
Fatal Bus Involvements by Manner of Collision and Bus Type
BIFA 1999

Manner of collision	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Not applicable	30	20.5	51	49.0	3	23.1	14	40.0	9	40.9	7	53.8	114	34.2
Rear-end	22	15.1	17	16.3	3	23.1	10	28.6	3	13.6	1	7.7	56	16.8
Head-on	37	25.3	12	11.5	5	38.5	6	17.1	4	18.2	3	23.1	67	20.1
Angle	54	37.0	24	23.1	2	15.4	5	14.3	5	22.7	1	7.7	91	27.3
Sideswipe: same direction	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sideswipe: opp direction	2	1.4	0	0.0	0	0.0	0	0.0	1	4.5	1	7.7	4	1.2
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-20
Fatal Bus Involvements by Rollover Status and Bus Type
BIFA 1999

Bus rollover status	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No rollover	142	97.3	104	100.0	11	84.6	32	91.4	19	86.4	13	100.0	321	96.4
First event	0	0.0	0	0.0	0	0.0	1	2.9	1	4.5	0	0.0	2	0.6
Subsequent event	4	2.7	0	0.0	2	15.4	2	5.7	2	9.1	0	0.0	10	3.0
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 2-21
Fatal Bus Involvements by Number of Quarter Turns and Direction of Roll
BIFA 1999

Number of quarter turns	Roll left		Roll right		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
1	8	88.9	4	57.1	12	75.0
2	0	0.0	1	14.3	1	6.3
4	1	11.1	0	0.0	1	6.3
5	0	0.0	1	14.3	1	6.3
16	0	0.0	1	14.3	1	6.3
Total	9	100.0	7	100.0	16	100.0

Note: The BIFA survey found four more rollovers than FARS reported.

Table 2-22
Fatal Bus Involvements by Fire Occurrence and Bus Type
BIFA 1999

Bus fire occurrence	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No fire	145	99.3	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	332	99.7
Fire in vehicle	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Vehicle

This section provides statistics that describe the physical configuration of buses involved in a fatal accident during 1999. The tables cover bus body style, model year, weight and length of the bus, seating capacity, number of passengers, and the type of carrier that operated the bus.

- Buses operated by school districts represented 43.8% of all buses involved in a fatal accident; transit buses accounted for 31.2% of the buses.
- About 46% of the buses were low platform, and almost one-third were defined as big cowl and chassis.
- Over 85% of the buses involved in a fatal crash were less than fifteen years old, and 68.1% were less than 10 years old.
- Almost two-thirds of the buses were 31-40 feet in length, and about half had a Gross Vehicle Weight Rating (GVWR) of Class 6 to Class 8.
- School buses had a larger average seating capacity than other bus types, with 54.1% having a seating capacity of 61 or more.
- 20.7% of buses involved in fatal accidents were not carrying any passengers at the time of the accident.
- 19.2% of the buses were operated by interstate for-hire carriers, 12.6% by interstate government carriers, and 40.5% by intrastate government carriers.
- 66.4% of the buses were on local trips (within 50 miles of base) when involved in the fatal accident.

Definitions for bus terminology used in the tables:

Bus Descriptions

Bus descriptions record replies given by the survey respondents. In some cases, more than one description likely applies to the same bus type. For example, “conventional school bus” and “full-size school bus” may describe similar bus types.

Transit-style bus – a school bus or other bus with a flat front similar to a transit bus.

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).

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.

Mini van – a smaller vehicle manufactured as a complete unit, seating 7 – 10 people.

Heavy-duty bus – a severe duty bus such as a transit bus, manufactured to withstand heavy usage; typically 40 feet in length, but other lengths are possible. Articulated models (hinged in the middle) typically measure 60 feet in length.

Heavy-duty with lift – a heavy-duty bus with a wheelchair lift.

Long-distance coach – refers to the typical cross-country, heavy duty bus.

Shuttle bus – a smaller bus intended for short, local trips.

Bus Body Type Categories

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.

Low platform – flat front transit buses with no cargo storage capacity below the passenger compartment. Flat front transit-style school buses have also been included in this category.

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.

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 and some school buses fall into this category.

**Table 3-1
Fatal Bus Involvements by Operator Type and Bus Vehicle Description
BIFA 1999**

Operator type		
Bus vehicle description	No.	Pct.
School		
Small (17-22 feet length)	11	3.3
Mid-size (27-34 feet length)	22	6.6
Full-size (35-45 feet length)	53	15.9
Transit-style	42	12.6
Special needs	3	0.9
8-10 passenger van	2	0.6
Other/unknown type	13	3.9
<i>Total school bus</i>	146	43.8
Transit		
Heavy-duty	90	27.0
Articulated heavy-duty	4	1.2
Long-distance coach	3	0.9
Special needs	1	0.3
Shorter transit bus	1	0.3
Other	5	1.5
<i>Total transit bus</i>	104	31.2
Intercity		
Long-distance coach	12	3.6
Heavy-duty with lift	1	0.3
<i>Total intercity bus</i>	13	3.9
Charter		
Long-distance coach	32	9.6
Mid-size commercial	1	0.3
Mid-size school	1	0.3
Large passenger van	1	0.3
<i>Total charter bus</i>	35	10.5
Other		
School bus	8	2.4
Small shuttle bus	3	0.9
Heavy-duty shuttle bus	1	0.3
Special needs	2	0.6
Transit-style bus	3	0.9
Large passenger van	3	0.9
Other/unknown type	2	0.6
<i>Total other operator type</i>	22	6.6
Unknown		
School bus	1	0.3
Heavy-duty transit bus	3	0.9
Long-distance coach	2	0.6
Small shuttle bus	1	0.3
Other	6	1.8
<i>Total unknown operator type</i>	13	3.9
Total	333	100.0

**Table 3-2
Fatal Bus Involvements by Operator Type and Bus Operator Description
BIFA 1999**

Operator type		
Operating authority description	No.	Pct.
School		
Contracted carrier for school district	45	13.5
Private school/private school district	97	29.1
Reservation school	2	0.6
Special needs student transportation	1	0.3
Unknown	1	0.3
<i>Total school bus</i>	146	43.8
Transit		
Scheduled route regional urban area	53	15.9
Scheduled route urban area	42	12.6
Scheduled route urban area & intercity	4	1.2
Scheduled route and paratransit urban area	4	1.2
Scheduled route urban mall shuttle	1	0.3
<i>Total transit bus</i>	104	31.2
Intercity		
Interstate passenger & express freight	10	3.0
Interstate passenger service	2	0.6
Scheduled route intercity & charter service	1	0.3
<i>Total intercity bus</i>	13	3.9
Charter		
Charter service	32	9.6
Interstate passenger/express freight	2	0.6
Unknown	1	0.3
<i>Total charter bus</i>	35	10.5
Other		
Airport shuttle service	1	0.3
Church use	5	1.5
Coach leasing to entertainment industry	1	0.3
Community action agency	1	0.3
Contracted carrier for school district	1	0.3
Employee transportation	2	0.6
Non-profit organization	1	0.3
Paid carrier for student/worker transport	2	0.6
Patient transportation	2	0.6
Rental vehicle	1	0.3
Residential center	1	0.3
Special needs group services	2	0.6
Unknown	2	0.6
<i>Total other operator type</i>	22	6.6
Unknown		
Community action agency	1	0.3
Scheduled route urban area & charter	1	0.3
Unknown	11	3.3
<i>Total unknown operator type</i>	13	3.9
Total	333	100.0

**Table 3-3
Fatal Bus Involvements by Bus Body Style and Bus Type
BIFA 1999**

Bus body style	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Bus	144	98.6	104	100.0	13	100.0	34	97.1	18	81.8	11	84.6	324	97.3
Large van	1	0.7	0	0.0	0	0.0	1	2.9	4	18.2	1	7.7	7	2.1
Mini van	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 3-4
Fatal Bus Involvements by Bus Body Configuration and Bus Type
BIFA 1999**

Bus body configuration	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Big cowl and chassis	87	59.6	0	0.0	0	0.0	1	2.9	7	31.8	5	38.5	100	30.0
Low platform	42	28.8	100	96.2	1	7.7	0	0.0	6	27.3	3	23.1	152	45.6
High platform	0	0.0	3	2.9	12	92.3	33	94.3	2	9.1	2	15.4	52	15.6
Small cowl and chassis	13	8.9	0	0.0	0	0.0	0	0.0	3	13.6	2	15.4	18	5.4
Other	2	1.4	0	0.0	0	0.0	1	2.9	4	18.2	1	7.7	8	2.4
Unknown	2	1.4	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 3-5
Fatal Bus Involvements by Front of Bus Style and Bus Type
BIFA 1999**

Front of bus	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Conventional hood	102	69.9	0	0.0	0	0.0	2	5.7	14	63.6	8	61.5	126	37.8
Flat front	42	28.8	103	99.0	13	100.0	33	94.3	8	36.4	5	38.5	204	61.3
Unknown	2	1.4	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-6
Fatal Bus Involvements by Model Year and Front of Bus Style
BIFA 1999

Model year	Conventional		Flat front		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1958	0	0.0	1	0.5	0	0.0	1	0.3
1973	1	0.8	1	0.5	0	0.0	2	0.6
1978	1	0.8	1	0.5	0	0.0	2	0.6
1979	1	0.8	1	0.5	0	0.0	2	0.6
1980	1	0.8	3	1.5	0	0.0	4	1.2
1981	2	1.6	6	2.9	0	0.0	8	2.4
1982	1	0.8	4	2.0	0	0.0	5	1.5
1983	2	1.6	6	2.9	0	0.0	8	2.4
1984	2	1.6	5	2.5	0	0.0	7	2.1
1985	2	1.6	3	1.5	0	0.0	5	1.5
1986	10	7.9	2	1.0	0	0.0	12	3.6
1987	9	7.1	10	4.9	0	0.0	19	5.7
1988	9	7.1	11	5.4	0	0.0	20	6.0
1989	3	2.4	6	2.9	1	33.3	10	3.0
1990	9	7.1	9	4.4	0	0.0	18	5.4
1991	4	3.2	8	3.9	0	0.0	12	3.6
1992	7	5.6	8	3.9	0	0.0	15	4.5
1993	7	5.6	15	7.4	0	0.0	22	6.6
1994	11	8.7	14	6.9	0	0.0	25	7.5
1995	14	11.1	19	9.3	0	0.0	33	9.9
1996	10	7.9	18	8.8	1	33.3	29	8.7
1997	6	4.8	26	12.7	0	0.0	32	9.6
1998	7	5.6	10	4.9	0	0.0	17	5.1
1999	7	5.6	12	5.9	0	0.0	19	5.7
2000	0	0.0	5	2.5	0	0.0	5	1.5
Unknown	0	0.0	0	0.0	1	33.3	1	0.3
Total	126	100.0	204	100.0	3	100.0	333	100.0

**Table 3-7
Fatal Bus Involvements by Model Year and Bus Type
BIFA 1999**

Model year	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1958	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
1973	1	0.7	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
1978	1	0.7	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
1979	0	0.0	0	0.0	0	0.0	1	2.9	1	4.5	0	0.0	2	0.6
1980	0	0.0	3	2.9	0	0.0	0	0.0	1	4.5	0	0.0	4	1.2
1981	1	0.7	0	0.0	0	0.0	4	11.4	2	9.1	1	7.7	8	2.4
1982	1	0.7	1	1.0	0	0.0	2	5.7	1	4.5	0	0.0	5	1.5
1983	1	0.7	5	4.8	0	0.0	0	0.0	2	9.1	0	0.0	8	2.4
1984	2	1.4	3	2.9	0	0.0	1	2.9	1	4.5	0	0.0	7	2.1
1985	1	0.7	2	1.9	0	0.0	0	0.0	1	4.5	1	7.7	5	1.5
1986	8	5.5	1	1.0	1	7.7	0	0.0	0	0.0	2	15.4	12	3.6
1987	9	6.2	7	6.7	0	0.0	1	2.9	0	0.0	2	15.4	19	5.7
1988	9	6.2	9	8.7	1	7.7	0	0.0	0	0.0	1	7.7	20	6.0
1989	4	2.7	3	2.9	1	7.7	0	0.0	2	9.1	0	0.0	10	3.0
1990	8	5.5	8	7.7	0	0.0	0	0.0	1	4.5	1	7.7	18	5.4
1991	6	4.1	5	4.8	0	0.0	1	2.9	0	0.0	0	0.0	12	3.6
1992	7	4.8	5	4.8	1	7.7	0	0.0	1	4.5	1	7.7	15	4.5
1993	10	6.8	7	6.7	2	15.4	2	5.7	1	4.5	0	0.0	22	6.6
1994	13	8.9	4	3.8	3	23.1	3	8.6	1	4.5	1	7.7	25	7.5
1995	18	12.3	10	9.6	2	15.4	2	5.7	0	0.0	1	7.7	33	9.9
1996	15	10.3	9	8.7	0	0.0	3	8.6	1	4.5	1	7.7	29	8.7
1997	7	4.8	13	12.5	1	7.7	6	17.1	5	22.7	0	0.0	32	9.6
1998	7	4.8	5	4.8	0	0.0	4	11.4	0	0.0	1	7.7	17	5.1
1999	12	8.2	4	3.8	0	0.0	2	5.7	1	4.5	0	0.0	19	5.7
2000	4	2.7	0	0.0	1	7.7	0	0.0	0	0.0	0	0.0	5	1.5
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 3-8
Fatal Bus Involvements by Bus Length and Bus Type
BIFA 1999**

Bus length (feet)	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
16-20	7	4.8	0	0.0	0	0.0	1	2.9	4	18.2	1	7.7	13	3.9
21-25	6	4.1	0	0.0	0	0.0	0	0.0	3	13.6	1	7.7	10	3.0
26-30	8	5.5	5	4.8	0	0.0	1	2.9	1	4.5	0	0.0	15	4.5
31-35	43	29.5	9	8.7	0	0.0	0	0.0	7	31.8	0	0.0	59	17.7
36-40	63	43.2	57	54.8	9	69.2	22	62.9	3	13.6	2	15.4	156	46.8
41-45	3	2.1	11	10.6	4	30.8	9	25.7	1	4.5	0	0.0	28	8.4
46-50	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
51-55	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
56-60	0	0.0	4	3.8	0	0.0	0	0.0	0	0.0	0	0.0	4	1.2
Unknown	16	11.0	18	17.3	0	0.0	1	2.9	3	13.6	9	69.2	47	14.1
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-9
Fatal Bus Involvements by Bus Empty Weight and Bus Type
BIFA 1999

Empty wt (lbs)	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
4,001-6,000	2	1.4	0	0.0	0	0.0	1	2.9	2	9.1	1	7.7	6	1.8
6,001-10,000	11	7.5	0	0.0	0	0.0	0	0.0	3	13.6	1	7.7	15	4.5
10,001-15,000	13	8.9	0	0.0	0	0.0	1	2.9	4	18.2	0	0.0	18	5.4
15,001-20,000	99	67.8	2	1.9	0	0.0	0	0.0	7	31.8	0	0.0	108	32.4
20,001-25,000	6	4.1	5	4.8	0	0.0	0	0.0	0	0.0	0	0.0	11	3.3
25,001-30,000	1	0.7	67	64.4	12	92.3	26	74.3	2	9.1	2	15.4	110	33.0
30,001-35,000	0	0.0	5	4.8	1	7.7	5	14.3	0	0.0	1	7.7	12	3.6
35,001-40,000	0	0.0	7	6.7	0	0.0	1	2.9	0	0.0	0	0.0	8	2.4
Unknown	14	9.6	18	17.3	0	0.0	1	2.9	4	18.2	8	61.5	45	13.5
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-10
Fatal Bus Involvements by Gross Vehicle Weight Rating and Bus Type
BIFA 1999

Gross vehicle weight rating	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Class 2: 6,001-10,000	7	4.8	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	8	2.4
Class 3: 10,001-14,000	2	1.4	0	0.0	0	0.0	0	0.0	3	13.6	1	7.7	6	1.8
Class 4: 14,001-16,000	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	2	0.6
Class 5: 16,001-19,500	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Class 6: 19,501-26,000	15	10.3	0	0.0	0	0.0	0	0.0	3	13.6	1	7.7	19	5.7
Class 7: 26,001-33,000	67	45.9	2	1.9	0	0.0	1	2.9	2	9.1	3	23.1	75	22.5
Class 8: 33,001 or more	5	3.4	21	20.2	11	84.6	31	88.6	0	0.0	2	15.4	70	21.0
Unknown	48	32.9	81	77.9	2	15.4	3	8.6	13	59.1	5	38.5	152	45.6
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-11
Fatal Bus Involvements by Number of Axles and Bus Type
BIFA 1999

Axles	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
2 axles	144	98.6	96	92.3	1	7.7	4	11.4	19	86.4	11	84.6	275	82.6
3 axles	1	0.7	7	6.7	12	92.3	30	85.7	2	9.1	2	15.4	54	16.2
Unknown	1	0.7	1	1.0	0	0.0	1	2.9	1	4.5	0	0.0	4	1.2
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 3-12
Fatal Bus Involvements by Passenger Seating Capacity and Bus Type
BIFA 1999**

Seating capacity	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
under 16	6	4.1	0	0.0	0	0.0	1	2.9	7	31.8	1	7.7	15	4.5
16-20	8	5.5	1	1.0	0	0.0	0	0.0	0	0.0	1	7.7	10	3.0
21-25	4	2.7	2	1.9	0	0.0	1	2.9	0	0.0	0	0.0	7	2.1
26-30	1	0.7	2	1.9	0	0.0	1	2.9	0	0.0	0	0.0	4	1.2
31-35	1	0.7	2	1.9	0	0.0	0	0.0	1	4.5	0	0.0	4	1.2
36-40	2	1.4	17	16.3	0	0.0	1	2.9	1	4.5	0	0.0	21	6.3
41-45	3	2.1	36	34.6	1	7.7	1	2.9	0	0.0	0	0.0	41	12.3
46-50	7	4.8	16	15.4	10	76.9	15	42.9	1	4.5	1	7.7	50	15.0
51-55	5	3.4	2	1.9	1	7.7	4	11.4	0	0.0	0	0.0	12	3.6
56-60	8	5.5	3	2.9	0	0.0	9	25.7	3	13.6	0	0.0	23	6.9
61-65	18	12.3	2	1.9	0	0.0	0	0.0	1	4.5	0	0.0	21	6.3
66-70	13	8.9	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	14	4.2
71-75	23	15.8	0	0.0	0	0.0	0	0.0	2	9.1	0	0.0	25	7.5
76-80	14	9.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	4.2
81+	11	7.5	1	1.0	0	0.0	0	0.0	1	4.5	0	0.0	13	3.9
Unknown	22	15.1	20	19.2	1	7.7	2	5.7	4	18.2	10	76.9	59	17.7
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 3-13
Fatal Bus Involvements by Number of Passengers and Bus Type
BIFA 1999**

No. of passengers	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
None	40	27.4	13	12.5	2	15.4	7	20.0	6	27.3	1	7.7	69	20.7
1-3	18	12.3	15	14.4	2	15.4	0	0.0	5	22.7	0	0.0	40	12.0
4-6	12	8.2	16	15.4	2	15.4	0	0.0	0	0.0	0	0.0	30	9.0
7-10	11	7.5	6	5.8	0	0.0	0	0.0	1	4.5	0	0.0	18	5.4
11-15	13	8.9	10	9.6	1	7.7	1	2.9	4	18.2	0	0.0	29	8.7
16-20	8	5.5	3	2.9	1	7.7	4	11.4	0	0.0	1	7.7	17	5.1
21-25	9	6.2	0	0.0	1	7.7	2	5.7	1	4.5	0	0.0	13	3.9
26-30	3	2.1	0	0.0	0	0.0	4	11.4	2	9.1	0	0.0	9	2.7
31-35	6	4.1	2	1.9	1	7.7	3	8.6	1	4.5	0	0.0	13	3.9
36-40	2	1.4	3	2.9	1	7.7	1	2.9	1	4.5	1	7.7	9	2.7
41-45	1	0.7	1	1.0	1	7.7	6	17.1	0	0.0	0	0.0	9	2.7
46-50	3	2.1	0	0.0	1	7.7	1	2.9	0	0.0	0	0.0	5	1.5
51+ *	3	2.1	3	2.9	0	0.0	3	8.6	0	0.0	0	0.0	9	2.7
Unknown	17	11.6	32	30.8	0	0.0	3	8.6	1	4.5	10	76.9	63	18.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

* One bus had 145 passengers.

Table 3-14
Fatal Bus Involvements by Type of Passenger Restraints Available and Bus Type
BIFA 1999

Type of passenger restraint	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Lap	21	14.4	1	1.0	0	0.0	3	8.6	4	18.2	1	7.7	30	9.0
Lap & shoulder	1	0.7	0	0.0	0	0.0	0	0.0	4	18.2	0	0.0	5	1.5
None	100	68.5	83	79.8	13	100.0	27	77.1	9	40.9	1	7.7	233	70.0
Unknown	24	16.4	20	19.2	0	0.0	5	14.3	5	22.7	11	84.6	65	19.5
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-15
Fatal Bus Involvements by Carrier Type and Bus Type
BIFA 1999

Carrier type	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Interstate														
Private	2	1.4	0	0.0	0	0.0	0	0.0	6	27.3	0	0.0	8	2.4
For-hire	19	13.0	2	1.9	13	100.0	29	82.9	0	0.0	1	7.7	64	19.2
Government owned	34	23.3	8	7.7	0	0.0	0	0.0	0	0.0	0	0.0	42	12.6
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
Intrastate														
Private	1	0.7	0	0.0	0	0.0	0	0.0	8	36.4	0	0.0	9	2.7
For-hire	14	9.6	8	7.7	0	0.0	4	11.4	2	9.1	0	0.0	28	8.4
Government owned	51	34.9	83	79.8	0	0.0	0	0.0	1	4.5	0	0.0	135	40.5
Unknown	1	0.7	0	0.0	0	0.0	0	0.0	1	4.5	1	7.7	3	0.9
Unknown	24	16.4	3	2.9	0	0.0	2	5.7	4	18.2	10	76.9	43	12.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-16
Fatal Bus Involvements by Trip Type and Bus Type
BIFA 1999

Trip type	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Local	118	80.8	80	76.9	1	7.7	6	17.1	14	63.6	2	15.4	221	66.4
51-100 miles	3	2.1	2	1.9	0	0.0	7	20.0	2	9.1	0	0.0	14	4.2
101-200	1	0.7	0	0.0	1	7.7	5	14.3	1	4.5	0	0.0	8	2.4
201-500	0	0.0	0	0.0	7	53.8	10	28.6	1	4.5	0	0.0	18	5.4
Over 500	0	0.0	0	0.0	1	7.7	2	5.7	2	9.1	0	0.0	5	1.5
Unknown	24	16.4	22	21.2	3	23.1	5	14.3	2	9.1	11	84.6	67	20.1
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 3-17
Fatal Bus Involvements by Most Harmful Event and Bus Type
BIFA 1999

Most harmful event	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
<i>Noncollision event</i>														
Overturn	2	1.4	0	0.0	1	7.7	2	5.7	3	13.6	0	0.0	8	2.4
Fire/explosion	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Fell from vehicle	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Injured in vehicle	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
Veh. occup. struck	0	0.0	1	1.0	0	0.0	0	0.0	1	4.5	0	0.0	2	0.6
<i>Collision with nonfixed object</i>														
Pedestrian	21	14.4	41	39.4	1	7.7	7	20.0	4	18.2	6	46.2	80	24.0
Pedalcycle	3	2.1	5	4.8	0	0.0	0	0.0	1	4.5	0	0.0	9	2.7
Vehicle in transport	116	79.5	54	51.9	9	69.2	22	62.9	12	54.5	7	53.8	220	66.1
Veh. in trans-other	0	0.0	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
<i>Collision with fixed object</i>														
Building	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Utility pole	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Embankment - earth	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Embankment - rock, stone, etc.	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Tree	1	0.7	0	0.0	2	15.4	1	2.9	0	0.0	0	0.0	4	1.2
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	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.

- Only 0.3% of bus drivers involved in a fatal traffic accident had been drinking; drug use was also reported in 0.3% of bus drivers.
- 36.9% of bus drivers involved in a fatal crash were female.
- 18 (5.4%) bus drivers were fatally injured in a traffic accident.
- Two-thirds of involvements in which the bus driver suffered a fatal injury did not involve bus rollover or fire, or driver ejection.
- 57.5% of school bus drivers are paid by the hour, as are 72.1% of transit drivers and 61.5% of intercity drivers.
- 13.8% of bus drivers involved in a fatal crash had a previous speeding conviction.
- Failure to yield was the most common driver factor (9.6%), followed by inattention (3.6%), and driving too fast (3.3%).
- 70.6% of bus drivers had no driver factors recorded.

Injuries are classified according to severity under the following levels:

Severity category	Definition
K	Fatal injury
A	Incapacitating injury
B	Evident but not incapacitating
C	Complaint of pain
O	No injury

The following abbreviations are used in this section:

Abbreviation	Definition
Unk	Unknown
Convs	Convictions
Veh	Vehicle
Viols	Violations
CDL	Commercial driver's license
Prev	Previous
WO	Without

**Table 4-1
Fatal Bus Involvements by Driver Drinking Status and Bus Type
BIFA 1999**

Bus driver drinking	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No drinking	146	100.0	104	100.0	13	100.0	34	97.1	22	100.0	13	100.0	332	99.7
Drinking	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 4-2
Fatal Bus Involvements by Driver Drug Use and Bus Type
BIFA 1999**

Bus driver drug use	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No drugs	50	34.2	31	29.8	2	15.4	11	31.4	10	45.5	6	46.2	110	33.0
Drugs involved	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Not reported	91	62.3	71	68.3	11	84.6	21	60.0	11	50.0	7	53.8	212	63.7
Reported unk.	5	3.4	2	1.9	0	0.0	2	5.7	1	4.5	0	0.0	10	3.0
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 4-3
Fatal Bus Involvements by Driver Age and Bus Type
BIFA 1999**

Age (years)	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
18-21	1	0.7	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
22-25	5	3.4	4	3.8	0	0.0	0	0.0	2	9.1	0	0.0	11	3.3
26-30	5	3.4	10	9.6	0	0.0	0	0.0	4	18.2	3	23.1	22	6.6
31-35	14	9.6	14	13.5	1	7.7	4	11.4	2	9.1	1	7.7	36	10.8
36-40	17	11.6	15	14.4	1	7.7	3	8.6	2	9.1	0	0.0	38	11.4
41-45	19	13.0	16	15.4	3	23.1	6	17.1	4	18.2	1	7.7	49	14.7
46-50	22	15.1	21	20.2	4	30.8	7	20.0	2	9.1	0	0.0	56	16.8
51-55	14	9.6	11	10.6	2	15.4	3	8.6	3	13.6	2	15.4	35	10.5
56-60	23	15.8	8	7.7	1	7.7	4	11.4	0	0.0	1	7.7	37	11.1
61-65	14	9.6	3	2.9	0	0.0	2	5.7	0	0.0	2	15.4	21	6.3
66-70	5	3.4	0	0.0	0	0.0	3	8.6	1	4.5	3	23.1	12	3.6
71-75	5	3.4	0	0.0	1	7.7	2	5.7	1	4.5	0	0.0	9	2.7
over 75	0	0.0	0	0.0	0	0.0	1	2.9	1	4.5	0	0.0	2	0.6
Unknown	2	1.4	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 4-4
Fatal Bus Involvements by Driver Sex and Bus Type
BIFA 1999**

Driver sex	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Male	63	43.2	71	68.3	11	84.6	34	97.1	19	86.4	9	69.2	207	62.2
Female	81	55.5	32	30.8	2	15.4	1	2.9	3	13.6	4	30.8	123	36.9
Unknown	2	1.4	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 4-5
Fatal Bus Involvements by Driver Restraint Use and Bus Type
BIFA 1999**

Driver restraint use	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
None used or N/A	14	9.6	16	15.4	1	7.7	3	8.6	9	40.9	2	15.4	45	13.5
Shoulder belt	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Lap belt	35	24.0	31	29.8	5	38.5	9	25.7	5	22.7	1	7.7	86	25.8
Lap and shoulder	80	54.8	37	35.6	5	38.5	15	42.9	4	18.2	6	46.2	147	44.1
Used, type unk	6	4.1	2	1.9	1	7.7	2	5.7	1	4.5	0	0.0	12	3.6
Belt use improper	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
Unknown	11	7.5	18	17.3	1	7.7	5	14.3	2	9.1	4	30.8	41	12.3
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 4-6
Fatal Bus Involvements by Driver Injury Severity and Bus Type
BIFA 1999**

Driver injury severity	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Fatal injury (K)	6	4.1	2	1.9	1	7.7	5	14.3	2	9.1	2	15.4	18	5.4
Incapacitating (A)	11	7.5	3	2.9	3	23.1	6	17.1	1	4.5	0	0.0	24	7.2
Non-incapacitating (B)	14	9.6	6	5.8	1	7.7	4	11.4	3	13.6	0	0.0	28	8.4
Complaint of pain (C)	27	18.5	11	10.6	3	23.1	3	8.6	2	9.1	3	23.1	49	14.7
No injury (O)	85	58.2	80	76.9	5	38.5	17	48.6	13	59.1	8	61.5	208	62.5
Unknown	3	2.1	2	1.9	0	0.0	0	0.0	1	4.5	0	0.0	6	1.8
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 4-7
Fatal Bus Involvements by Driver Injury Severity and Rollover, Fire, Ejection Status
BIFA 1999

Rollover, fire ejection	Fatal injury (K)		Incapaci- tating (A)		Non-incapa- citating (B)		Complaint of pain (C)		No injury (O)		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Rollover only	0	0.0	4	16.7	2	7.1	2	4.1	1	0.5	0	0.0	9	2.7
Fire only	0	0.0	1	4.2	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Ejection only	3	16.7	2	8.3	0	0.0	0	0.0	0	0.0	0	0.0	5	1.5
Rollover and ejection	3	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.9
None	12	66.7	17	70.8	26	92.9	47	95.9	207	99.5	4	66.7	313	94.0
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	33.3	2	0.6
Total	18	100.0	24	100.0	28	100.0	49	100.0	208	100.0	6	100.0	333	100.0

Table 4-8
Fatal Bus Involvements by Driver Extrication and Bus Type
BIFA 1999

Driver extrication	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Not extricated	139	95.2	104	100.0	13	100.0	31	88.6	22	100.0	13	100.0	322	96.7
Extricated	5	3.4	0	0.0	0	0.0	4	11.4	0	0.0	0	0.0	9	2.7
Unknown	2	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 4-9
Fatal Bus Involvements by Driver Compensation
BIFA 1999

Compensation	No.	Pct.
Hourly only	182	54.7
Mileage only	3	0.9
Salary only	26	7.8
Driver owned only	2	0.6
Mileage and tips	3	0.9
Other	23	6.9
Paid by day	3	0.9
Paid by trip/route	9	2.7
Miscellaneous	11	3.3
No compensation	1	0.3
Unknown	93	27.9
Total	333	100.0

Table 4-10
Fatal Bus Involvements by Driver Compensation and Bus Type
BIFA 1999

Operator type		
Compensation	No.	Pct.
School		
Hourly only	84	57.5
Salary only	22	15.1
Hourly and salary	1	0.7
Other		
Paid by trip/route	3	2.1
Paid by day	3	2.1
Unknown	33	22.6
<i>Total</i>	146	100.0
Transit		
Hourly only	75	72.1
Salary only	2	1.9
Unknown	27	26.0
<i>Total</i>	104	100.0
Intercity		
Hourly only	8	61.5
Mileage only	1	7.7
Hourly and mileage	1	7.7
Other	1	7.7
Unknown	2	15.4
<i>Total</i>	13	100.0
Charter		
Hourly only	5	14.3
Mileage only	2	5.7
Salary only	1	2.9
Driver owned	1	2.9
Hourly, mileage & tips	1	2.9
Tips and salary	1	2.9
% revenue and salary	1	2.9
Tips and % revenue	1	2.9
Hourly and tips	1	2.9
Mileage and tips	3	8.6
Other		
Paid by trip	5	14.3
Unknown	13	37.1
<i>Total</i>	35	100.0
Other operator type		
Hourly	9	40.9
Misc./unknown	13	59.1
<i>Total</i>	22	100.0
Unknown operator type	13	100.0
Total	333	100.0

**Table 4-11
Fatal Bus Involvements by Reported Hours Driven and Bus Type
BIFA 1999**

Hours driven	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1 hr	45	30.8	5	4.8	2	15.4	2	5.7	5	22.7	0	0.0	59	17.7
2 hrs	23	15.8	6	5.8	1	7.7	1	2.9	2	9.1	0	0.0	33	9.9
3 hrs	14	9.6	5	4.8	0	0.0	4	11.4	4	18.2	1	7.7	28	8.4
4-5 hrs	13	8.9	18	17.3	4	30.8	6	17.1	2	9.1	0	0.0	43	12.9
6-7 hrs	8	5.5	10	9.6	3	23.1	3	8.6	2	9.1	0	0.0	26	7.8
8-10 hrs	1	0.7	12	11.5	0	0.0	6	17.1	1	4.5	0	0.0	20	6.0
Unknown, legal	1	0.7	2	1.9	1	7.7	0	0.0	0	0.0	0	0.0	4	1.2
Unknown/NA	41	28.1	46	44.2	2	15.4	13	37.1	6	27.3	12	92.3	120	36.0
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Note: Reflects actual driving time since driver's last 8 hour rest period. This does not include time for deliveries, loading or unloading, or refueling stops.

**Table 4-12
Fatal Bus Involvements by Driver Violations Charged and Bus Type
BIFA 1999**

Driver violations charged	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
None	127	87.0	97	93.3	13	100.0	27	77.1	19	86.4	11	84.6	294	88.3
Manslaughter/homicide	1	0.7	0	0.0	0	0.0	1	2.9	1	4.5	0	0.0	3	0.9
Willful reckless	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Unsafe reckless	1	0.7	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Inattentive	1	0.7	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Serious violation	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Intoxicated	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Improper turn on red	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
Stop sign	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Traffic control device	1	0.7	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
Fail to yield	5	3.4	2	1.9	0	0.0	2	5.7	2	9.1	0	0.0	11	3.3
Withdrawn license	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Veh registration viols	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
Any non-moving viols	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Any equipment viols	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Unknown violation	20	13.7	6	5.8	0	0.0	5	14.3	3	13.6	0	0.0	34	10.2
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	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
BIFA 1999

No. of previous accidents	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
0	111	76.0	71	68.3	8	61.5	21	60.0	15	68.2	8	61.5	234	70.3
1	20	13.7	21	20.2	2	15.4	10	28.6	4	18.2	1	7.7	58	17.4
2	0	0.0	6	5.8	0	0.0	1	2.9	0	0.0	3	23.1	10	3.0
3	4	2.7	1	1.0	0	0.0	0	0.0	1	4.5	0	0.0	6	1.8
Not reported	9	6.2	2	1.9	3	23.1	1	2.9	1	4.5	1	7.7	17	5.1
Unknown	2	1.4	3	2.9	0	0.0	2	5.7	1	4.5	0	0.0	8	2.4
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 4-14
Fatal Bus Involvements by Number of Previous Suspensions* and Bus Type
BIFA 1999

No. of previous suspensions	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
0	141	96.6	96	92.3	13	100.0	29	82.9	17	77.3	12	92.3	308	92.5
1	1	0.7	3	2.9	0	0.0	2	5.7	4	18.2	1	7.7	11	3.3
2	0	0.0	2	1.9	0	0.0	1	2.9	0	0.0	0	0.0	3	0.9
3	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
4	1	0.7	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
Unknown	2	1.4	3	2.9	0	0.0	2	5.7	1	4.5	0	0.0	8	2.4
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 4-15
Fatal Bus Involvements by Number of Previous Speeding Convictions* and Bus Type
BIFA 1999

No. of previous speeding convs.	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
0	128	87.7	86	82.7	11	84.6	26	74.3	18	81.8	10	76.9	279	83.8
1	16	11.0	14	13.5	2	15.4	5	14.3	0	0.0	2	15.4	39	11.7
2	0	0.0	0	0.0	0	0.0	2	5.7	2	9.1	1	7.7	5	1.5
3	0	0.0	1	1.0	0	0.0	0	0.0	1	4.5	0	0.0	2	0.6
Unknown	2	1.4	3	2.9	0	0.0	2	5.7	1	4.5	0	0.0	8	2.4
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

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

Table 4-16
Fatal Bus Involvements by Previous Other Moving Convictions* and Bus Type
BIFA 1999

No. prev. other moving convs.	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
0	129	88.4	82	78.8	10	76.9	24	68.6	13	59.1	11	84.6	269	80.8
1	15	10.3	16	15.4	2	15.4	7	20.0	5	22.7	2	15.4	47	14.1
2	0	0.0	2	1.9	0	0.0	1	2.9	2	9.1	0	0.0	5	1.5
3	0	0.0	0	0.0	1	7.7	1	2.9	1	4.5	0	0.0	3	0.9
4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Unknown	2	1.4	3	2.9	0	0.0	2	5.7	1	4.5	0	0.0	8	2.4
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	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
BIFA 1999

License class compliance	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Not valid	1	0.7	2	1.9	0	0.0	0	0.0	2	9.1	0	0.0	5	1.5
Valid	143	97.9	100	96.2	13	100.0	34	97.1	19	86.4	13	100.0	322	96.7
Unknown	2	1.4	2	1.9	0	0.0	1	2.9	1	4.5	0	0.0	6	1.8
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 4-18
Fatal Bus Involvements by CDL License Status and Bus Type
BIFA 1999

CDL license status	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No CDL	3	2.1	1	1.0	0	0.0	0	0.0	6	27.3	1	7.7	11	3.3
Disqualified	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Valid	140	95.9	100	96.2	13	100.0	34	97.1	15	68.2	12	92.3	314	94.3
Learner's permit	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Unknown	2	1.4	2	1.9	0	0.0	1	2.9	1	4.5	0	0.0	6	1.8
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

Table 4-19
Fatal Bus Involvements by License Endorsements and Bus Type
BIFA 1999

License endorsements	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
No endorsements	14	9.6	9	8.7	4	30.8	5	14.3	9	40.9	2	15.4	43	12.9
Complied	101	69.2	77	74.0	7	53.8	27	77.1	9	40.9	9	69.2	230	69.1
Not complied	1	0.7	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	2	0.6
Compliance unk	27	18.5	16	15.4	2	15.4	2	5.7	2	9.1	2	15.4	51	15.3
Unknown	3	2.1	2	1.9	0	0.0	1	2.9	1	4.5	0	0.0	7	2.1
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	100.0

**Table 4-20
Fatal Bus Involvements by Driver-Related Factors and Bus Type
BIFA 1999**

Driver-related factors	School		Transit		Intercity		Charter		Other		Unknown		Total	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
None	109	74.7	77	74.0	8	61.5	18	51.4	15	68.2	8	61.5	235	70.6
<i>Physical/mental condition</i>														
Drowsy, asleep	0	0.0	0	0.0	1	7.7	1	2.9	1	4.5	0	0.0	3	0.9
Ill, passed out, blackout	0	0.0	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	1	0.3
Inattentive	5	3.4	4	3.8	0	0.0	1	2.9	1	4.5	1	7.7	12	3.6
<i>Miscellaneous causes</i>														
Vehicle unattended	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
W/O req equipment	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
Improper tailing	0	0.0	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	2	0.6
Ran off road/lane	2	1.4	1	1.0	3	23.1	4	11.4	1	4.5	0	0.0	11	3.3
Passing – insufficient distance	0	0.0	0	0.0	0	0.0	2	5.7	0	0.0	0	0.0	2	0.6
Erratic/reckless	1	0.7	3	2.9	0	0.0	2	5.7	0	0.0	0	0.0	6	1.8
Failure to yield	14	9.6	9	8.7	0	0.0	4	11.4	3	13.6	2	15.4	32	9.6
Failure to obey signs	3	2.1	1	1.0	0	0.0	2	5.7	0	0.0	0	0.0	6	1.8
Driving too fast	0	0.0	0	0.0	2	15.4	8	22.9	1	4.5	0	0.0	11	3.3
Racing	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Other improper turn	3	2.1	2	1.9	0	0.0	0	0.0	1	4.5	0	0.0	6	1.8
Unfamiliar w/roadway	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Stopping in roadway	3	2.1	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	4	1.2
Over correcting	0	0.0	0	0.0	1	7.7	1	2.9	2	9.1	0	0.0	4	1.2
<i>Vision obscured by</i>														
Inclement weather	3	2.1	0	0.0	0	0.0	4	11.4	0	0.0	0	0.0	7	2.1
Curve, hill, etc.	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Trees, crops, vegetation	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Motor vehicle	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
Parked vehicle	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Obstructing angles on veh.	1	0.7	2	1.9	0	0.0	0	0.0	0	0.0	1	7.7	4	1.2
Mirror (not rear view)	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	2	0.6
Other obstruction	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
<i>Avoiding, swerving due to</i>														
Tire blowout or flat	0	0.0	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	1	0.3
Vehicle in road	1	0.7	1	1.0	0	0.0	0	0.0	1	4.5	0	0.0	3	0.9
Phantom vehicle	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	7.7	1	0.3
Pedestrian in road	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Ice, water, snow on road	1	0.7	0	0.0	0	0.0	1	2.9	0	0.0	1	7.7	3	0.9
<i>Other misc. factors</i>														
Hit and run driver	0	0.0	2	1.9	0	0.0	0	0.0	0	0.0	0	0.0	2	0.6
Homicide	1	0.7	1	1.0	1	7.7	1	2.9	1	4.5	0	0.0	5	1.5
Other nonmoving viol.	2	1.4	1	1.0	0	0.0	1	2.9	0	0.0	0	0.0	4	1.2
Unknown	12	8.2	8	7.7	0	0.0	0	0.0	0	0.0	0	0.0	20	6.0
Total	146	100.0	104	100.0	13	100.0	35	100.0	22	100.0	13	100.0	333	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.

Index

A	
accident conditions.....	9
accident description	18
accident type	18
age	37
annual fatalities	8
axles.....	30
B	
big cowl and chassis, definition.....	24
body style	27
bus body configuration.....	27
bus body style	27
bus descriptions	2, 23
bus length.....	29
bus vehicle description.....	25
bus, definition	1
C	
carrier type	32
CDL license status	43
Center for National Truck Statistics	1
charter bus, definition.....	2
classification of buses	2
CNTS.....	1
compensation.....	39, 40
D	
day of week	11
day type.....	11, 13
direction of roll.....	20
drinking status	37
driver	35
driver age	37
driver compensation.....	39, 40
driver extrication.....	39
driver factors	45
driver injury severity	38, 39
driver violations charged	41
E	
ejection.....	39
empty weight.....	30
environmental distributions	13
F	
FARS	1
fatal involvements by state	5, 6, 7
fatalities.....	8
fire	39
fire occurrence	21
first harmful event	19
front of bus style.....	27, 28
G	
gross vehicle weight rating	30
H	
harmful event	19
heavy-duty bus, definition.....	24
heavy-duty with lift, definition.....	24
high platform, definition.....	24
hours driven	41
I	
injury severity	38
injury severity categories, definition.....	35
intercity bus, definition	2
involvements, definition	2
J	
junction, relation to.....	16
L	
land use	13
large van, definition.....	24
F	
driver-related factors.....	45
drug use.....	37

length.....	29
license class compliance.....	43
license endorsements	44
license status	43
light condition	14
long-distance coach, definition.....	24
low platform, definition	24

M

manner of collision	20
mini van, definition	24
model year.....	28, 29
month	11
most harmful event.....	33
moving convictions	43

N

number of passengers	31
----------------------------	----

O

operating authority description	26
operator description	26
operator type	5
other bus, definition.....	2
overview	3

P

passenger restraint	32
person type	8
previous accidents	42
previous moving convictions	43
previous other moving convictions.....	43
previous speeding convictions	42
previous suspensions.....	42

Q

quarter turns.....	20
--------------------	----

R

reported hours driven	41
restraint use	38
road function class	15
roadway distributions	15
roadway surface condition	14

rollover status.....	20, 39
route signing	15

S

school bus, definition	2
school buses.....	6
seating capacity	31
sex	38
shuttle bus, definition	24
small cowl and chassis, definition.....	24
special-needs bus, definition	23
speed limit.....	17
state	5
survey methodology.....	1
suspensions	42

T

temporal distributions.....	11
TIFA	1
time of accident.....	12, 13
trafficway flow	16
transit bus, definition	2
transit buses.....	6
transit-style bus, definition	23
travel lanes.....	16
trip type	32
Trucks Involved in Fatal Accidents	1

U

UMTRI.....	1
University of Michigan Transportation Research Institute	1

V

vehicle.....	23
vehicle role in accident	19
violations charged	41

W

weather condition.....	14
weekend.....	11, 13
weight.....	30
work week	11, 13