# BUSES INVOLVED IN FATAL ACCIDENTS FACTBOOK 2008



### **Center for National Truck and Bus Statistics**

University of Michigan Transportation Research Institute 2901 Baxter Road • Ann Arbor, Michigan 48109-2150

# **BUSES INVOLVED IN FATAL** ACCIDENTS FACTBOOK 2008

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April 2011

Center for National Truck and Bus Statistics

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				TRIC) (	CONVE	RSION FACT			
	APPROXIMATE	CONVERSION	IS TO SI UNITS			APPROXIMATE C	ONVERSIONS	FROM SI UNIT	S
Symbol	When You Know	Multiply By	To Find	Symbol	Symbol	When You Know	Multiply By	To Find	Symbol
	LENGTH         inches       25.4       millimeters         feet       0.305       meters         yards       0.914       meters         miles       1.61       kilometers         Square inches       645.2       square millimeters         square feet       0.093       square meters         square yards       0.836       square meters         acres       0.405       hectares         square miles       2.59       square kilometers         VOLUME       fluid ounces       29.57       milliliters         gallons       3.785       liters         cubic feet       0.028       cubic meters         cubic feet       0.028       cubic meters         volumes greater than 1000 L shall be shown in m <sup>3</sup> .       MASS         ounces       28.35       grams         pounds       0.454       kilograms         short tons (2001 lb)       0.907       megagrams         (or "metric ton")       TEMPERATURE (exact)         Fahrenheit       5(F-32)/9       Celcius         temperature       or (F-32)/1.8       temperature						LENGTH		
in	inches	25.4	millimeters	mm	mm	Millimeters	0.039	Inches	in
ft	feet	0.305	meters	m	М	Meters	3.28	Feet	ft
yd	yards	0.914	meters	m	М	Meters	1.09	Yards	yd
mi	miles	1.61	kilometers	km	Km	Kilometers	0.621	Miles	mi
		AREA					AREA		
in <sup>2</sup>	square inches	645.2	square millimeters	mm <sup>2</sup>	mm <sup>2</sup>	square millimeters	0.0016	square inches	in <sup>2</sup>
ft <sup>2</sup>	square feet	0.093	square meters	m²	m <sup>2</sup>	square meters	10.764	square feet	ft <sup>2</sup>
yd <sup>2</sup>	square yards	0.836	square meters	m²	m²	square meters	1.195	square yards	yd <sup>2</sup>
ac	acres	0.405	hectares	ha	На	Hectares	2.47	Acres	ac
mi <sup>2</sup>	square miles	2.59	square kilometers	km <sup>2</sup>	Km <sup>2</sup>	square kilometers	0.386	square miles	mi <sup>2</sup>
		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
ft <sup>3</sup>	cubic feet	0.028	cubic meters	m <sup>3</sup>	m <sup>3</sup>	cubic meters	35.71	cubic feet	gal ft <sup>3</sup>
yd <sup>3</sup>				m³	m³	cubic meters	1.307	cubic yards	yd <sup>3</sup>
NOTE: Vo	olumes greater than 1000	L shall be shown	in m <sup>3</sup> .						
		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
Т	short tons (2001 lb)	0.907	00	Mg (or "t")	Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2001 lb)	Т
	TEME		act)	× ,		TEM	PERATURE (exa	uct)	
°F	Fahrenheit	5(F-32)/9	Celcius	°C	°C	Celcius temperature	1.8C + 32	Fahrenheit temperature	°F
	Ш						LLUMINATION		
fc	foot-candles	10.76	lux	lx	Lx	Lux	0.0929	foot-candles	fc
fl	foot-Lamberts	3.426	candela/m <sup>2</sup>	cd/m <sup>2</sup>	Cd/m <sup>2</sup>	candela/m <sup>2</sup>	0.2919	foot-lamberts	fl
	FORCE and	PRESSURE or	STRESS			FORCE and	d PRESSURE o	r STRESS	
lbf	poundforce	4.45	newtons	Ν	Ν	Newtons	0.225	Poundforce	lbf
lbf/in <sup>2</sup>	poundforce per square inch	6.89	kilopascals	kpa	kPa	Kilopascals	0.145	poundforce per square inch	lbf/in <sup>2</sup>

\* 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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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

	School	Transit	Intercity	Charter	Other	Unknown	Total
Accident year	N	Ν	N	N	N	N	Ν
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 1-1

 Fatal Bus Involvements by Year and Bus Type

Table 1-2	
Fatal Bus Involvements by Year and Operator Typ	e

	20	04	20	05	20	06	20	07	20	08	То	tal
Bus operator type	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 type	200	)4	200	)5	20	06	20	07	20	08	To	tal
Bus seating capacity	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	•											
8-14	5	1.6	5	1.6	1	0.3	6	2.0	4	1.4	21	1.4
15-50	69	22.5	74	23.9	93	27.8	76	25.0	68	23.2	380	24.5
51-99	3	1.0	7	2.3	10	3.0	5	1.6	6	2.0	31	2.0
Estimated 15 or more	18	5.9	4	1.3	13	3.9	17	5.6	8	2.7	60	3.9
Unknown	1	0.3	3	1.0	2	0.6	0	0.0	0	0.0	6	0.4
Total transit bus	96	31.3	93	30.0	119	35.5	104	34.2	86	29.4	498	32.1
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								<u> </u>				
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

	20	04	200	)5	200	06	20	07	20	08	To	tal
State	N	%	N	%	N	%	N	%	N 20	%	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

#### Table 1-4 Fatal Bus Involvements by Year and State

## Annual fatalities

	20	04	200	)5	20	06	20	07	20	08	Тс	otal
Vehicle/Person type	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

 Table 1-5

 Fatalities in Bus Involvements by Year and Person Type

## 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

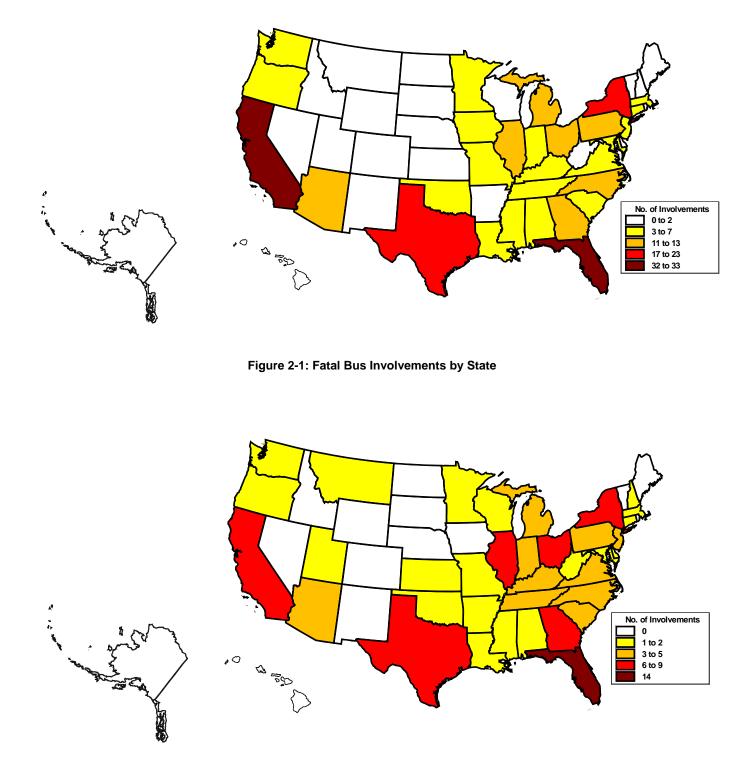


Figure 2-2: Fatal Bus Involvements by State – School Buses Only

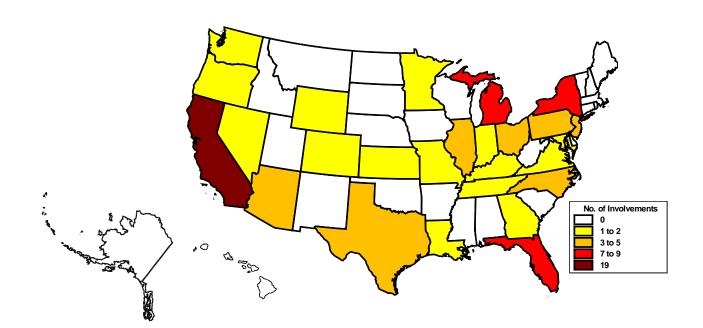


Figure 2-3: Fatal Bus Involvements by State – Transit Buses Only

	Sch	ool	Trar	nsit	Inter	city	Cha	rter	Oth	er	Unkn	own	Tot	al
State	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	٥	100.0	27	100.0	41	100.0	10	100.0	293	100.0

 Table 2-1

 Fatal Bus Involvements by State and Bus Type

### Temporal distributions

Month of	Scł	loor	Tra	Insit	Inte	rcity	Cha	arter	Ot	her	Unkı	nown	To	otal
accident	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 2-2

 Fatal Bus Involvements by Month and Bus Type

 Table 2-3

 Fatal Bus Involvements by Day of Week and Bus Type

	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unkı	nown	Тс	otal
Day of week	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 2-4Fatal Bus Involvements by Day Type and Bus Type

	Sch	lool	Tra	Insit	Inte	rcity	Cha	arter	Other		Unknown		Total	
Day type	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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.

Time of	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Otl	ner	Unkr	nown	То	tal
accident	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

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

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

Time of	Work	week	Wee	kend	Tot	al
accident	Ν	%	N	%	Ν	%
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

 Table 2-6

 Fatal Bus Involvements by Time of Accident and Day Type

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

	Sch	nool	Tra	Insit	Inte	rcity	Cha	arter	Ot	her	Unkı	nown	To	tal
Land use	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	nool	Tra	nsit	Intercity		Charter		Other		Unknown		Total	
Light condition	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	School		Transit		Intercity		Charter		Other		Unknown		Total	
condition	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	School		Transit		Intercity		Charter		Other		Unknown		tal
Weather conditon	N	%	Ν	%	Ν		Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	loor	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unkı	nown	To	otal
Road function class	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 2-11

 Fatal Bus Involvements by Roadway Function Class and Bus Type

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

	Sch	ool	Tra	nsit	Inte	Intercity		Charter		her	Unknown		Total	
Route signing	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	lool	Tra	nsit	Inter	city	Cha	rter	Oth	er	Unkr	nown	To	tal
Relation to junction	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 2-13

 Fatal Bus Involvements by Relation to Junction and Bus Type

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

Number of	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unkı	nown	To	tal
travel lanes	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unki	nown	To	otal
Trafficway flow	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unkı	nown	To	otal
Speed limit	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

 Table 2-16

 Fatal Bus Involvements by Speed Limit and Bus Type

# Accident description

	Sch	nool	Trai	nsit	Inter	city	Cha	rter	Oth	ner	Unkr	lown	To	tal
Accident type	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 trafficw	ay													
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 traff	ïcway													
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	e turning	g												
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	t												
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 2-17

 Fatal Bus Involvements by Accident Type and Bus Type

 Table 2-18

 Fatal Bus Involvements by Number of Vehicles in Crash and Bus Type

Number of motor	Sch	loor	Tra	insit	Inte	rcity	Cha	arter	Ot	her	Unk	nown	То	otal
vehicles in crash	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	ool	Trar	nsit	Inter	city	Cha	rter	Oth	ner	Unkn	own	То	tal
First harmful event	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	0.0	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 2-19

 Fatal Bus Involvements by First Harmful Event and Bus Type

 Table 2-20

 Fatal Bus Involvements by Vehicle Role in Accident and Bus Type

	Sch	nool	Tra	Insit	Inte	rcity	Cha	arter	Ot	her	Unki	nown	Тс	tal
Vehicle role	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	ool	Tra	nsit	Inter	city	Cha	rter	Otl	ner	Unkr	nown	То	tal
Manner of collision	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	N	%	Ν	%
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**

	Sch	lool	Tra	nsit	Inter	city	Cha	rter	Oth	ner	Unkn	own	To	tal
Vehicle/Person type	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 2-22

 Fatalities in Bus Involvements by Person Type and Bus Type

 Table 2-23

 Non-Motorist Fatality Involvements by Bus Type

Relationship of	Sch	lool	Tra	nsit	Inte	city	Cha	rter	Otl	her	Unkr	nown	То	tal
Non-Motorist to Bus	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

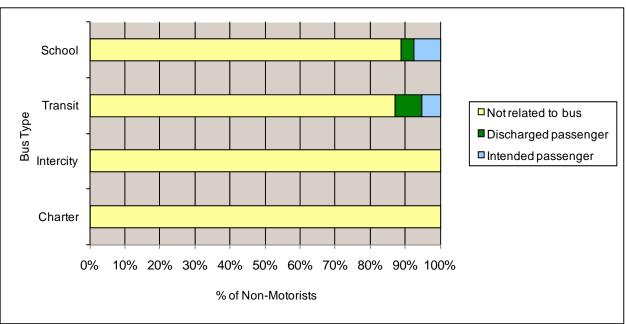


Figure 2-4: Fatally Injured Pedestrian/Bicyclist Type by Bus Type

# 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	IN	70
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
School bus		35.2 2.4
	7	0.3
Small special needs school bus		
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
	21	9.2
Other operator	4	4 /
Conventional-hood bus	4	1.4
Conventional-hood bus with cargo box		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
		2.4
Small shuttle bus	7	0.3
	1	0.0
Small shuttle bus		
Small shuttle bus Special needs shuttle bus	1	0.7
Small shuttle bus Special needs shuttle bus Stretch limousine	1	0.7 0.3
Small shuttle bus Special needs shuttle bus Stretch limousine Stretch pickup truck limousine	1 2 1	0.7 0.3 0.3
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator	1 2 1 1	0.7 0.3 0.3
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator         Unknown operator type	1 2 1 1 41	0.7 0.3 0.3 14.0
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator         Unknown operator type         Long-distance coach	1 2 1 1 41	0.7 0.3 0.3 14.0
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator         Unknown operator type         Long-distance coach         School bus	1 2 1 1 41 41	0.7 0.3 0.3 14.0 0.3 0.3
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator         Unknown operator type         Long-distance coach         School bus         Shuttle bus	1 2 1 1 41 1 1 1 1	0.7 0.3 0.3 14.0 0.3 0.3 0.3
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator         Unknown operator type         Long-distance coach         School bus         Shuttle bus         Small school bus	1 2 1 41 1 41	0.7 0.3 0.3 14.0 0.3 0.3 0.3 0.3 0.3
Small shuttle bus         Special needs shuttle bus         Stretch limousine         Stretch pickup truck limousine         Touring coach         Total other operator         Unknown operator type         Long-distance coach         School bus         Shuttle bus	1 2 1 1 41 1 1 1 1	0.7 0.3 0.3 14.0 0.3 0.3 0.3

Note: Bus vehicle description records descriptions from respondents.

 Table 3-2

 Fatal Bus Involvements by Operator Type and Bus Operator Description

Operator type		
Operating authority description	Ν	%
School district		,.
Contracted carrier for private school	1	0.3
Contracted carrier for school district	27	9.2
Public school district	88	30.0
Public school district athletic team transport	1	0.3
Public school state department of education	3	1.0
Total school bus	120	41.0
Transit bus authority		
Contracted carrier for transit authority	1	0.3
Scheduled route & paratransit regional urban area	2	0.7
Scheduled route + paratransit regional area	1	0.3
Scheduled route + paratransit regional urban area	1	0.3
Scheduled route regional area	1	0.3
Scheduled route regional urban area	67	22.9
Scheduled route urban area	13	4.4
Total transit bus	86	29.4
Intercity bus operator		
Intercity service for train passengers	1	0.3
Interstate passenger & express freight	4	1.4
Interstate passenger service	3	1.0
Shuttle service	1	0.3
Total intercity bus	9	3.1
Charter bus operator		
Casino shuttle and charter service	1	0.3
Casino shuttle service	1	0.3
Charter service	20	6.8
Charter service for church trip	1	0.3
Charter service for military personnel	1	0.3
Charter service for school band trip	1	0.3
Sightseeing charter service	2	0.7
Total charter bus	27	9.2

(Continued on next page)

Other operator		
Airport shuttle service	1	0.3
Casino shuttle service	2	0.7
Child development center transportation	1	0.3
Church use	4	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	1	0.3
Day care center transportation	2	0.7
Dealer delivering bus	1	0.3
Drive away company delivering new bus	1	0.3
Employee shuttle	1	0.3
Employee transportation	1	0.3
Farm labor transportation	3	1.0
Funeral home	2	0.7
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	1	0.3
State department of corrections	2	0.7
Vanpool operation of regional transit authority	1	0.3
Total other operator	41	14.0
Unknown operator type	10	3.4
Total	293	100.0

Table 3-2 (continued)

Note: The operator authority records descriptions from respondents.

	Sch	lool	Transit		Inte	Intercity		Charter		Other		Unknown		otal
Bus body configuration	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 3-3Fatal Bus Involvements by Bus Body Configuration and Bus Type

 Table 3-4

 Fatal Bus Involvements by Front of Bus Style and Bus Type

	School		Transit		Intercity		Charter		Other		Unknown		Total	
Front of bus	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Conve	entional	Flat	front	Oth	ner	To	otal
Model year	Ν	%	Ν	%	Ν	%	Ν	%
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.
1986	0	0.0	1	100.0	0	0.0	1	0.
1987	0	0.0	1	100.0	0	0.0	1	0.
1988	1	100.0	0	0.0	0	0.0	1	0.
1989	1	50.0	1	50.0	0	0.0	2	0.
1990	1	33.3	2	66.7	0	0.0	3	1.
1991	3	100.0	0	0.0	0	0.0	3	1.
1992	1	100.0	0	0.0	0	0.0	1	0.
1993	4	80.0	1	20.0	0	0.0	5	1.
1994	3	50.0	3	50.0	0	0.0	6	2.
1995	7	43.8	9	56.3	0	0.0	16	5.
1996	4	40.0	6	60.0	0	0.0	10	3.
1997	5	29.4	12	70.6	0	0.0	17	5.
1998	6	31.6	13	68.4	0	0.0	19	6.
1999	6	31.6	13	68.4	0	0.0	19	6.
2000	6	26.1	17	73.9	0	0.0	23	7.
2001	11	42.3	15	57.7	0	0.0	26	8.
2002	10	45.5	12	54.5	0	0.0	22	7.
2003	9	81.8	2	18.2	0	0.0	11	3.
2004	7	36.8	12	63.2	0	0.0	19	6.
2005	3	23.1	10	76.9	0	0.0	13	4.
2006	13	50.0	13	50.0	0	0.0	26	8.
2007	11	44.0	14	56.0	0	0.0	25	8.
2008	7	63.6	4	36.4	0	0.0	11	3.
2009	2	66.7	1	33.3	0	0.0	3	1.
Unknown	0	0.0	0	0.0	7	100.0	7	2.
Total	123	42.0	163	55.6	7	2.4	293	100.

 Table 3-5

 Fatal Bus Involvements by Model Year and Front of Bus Style

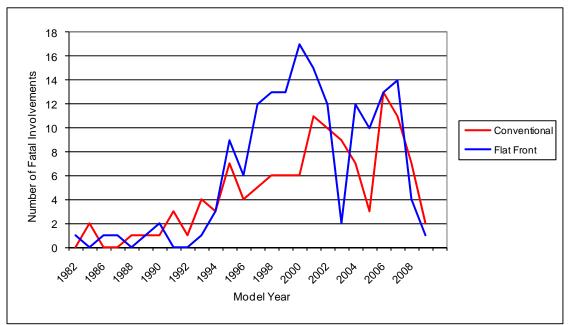


Figure 3-1: Fatal Bus Involvements by Model Year and Front of Bus Style

	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unkr	nown	To	otal
Model year	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

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

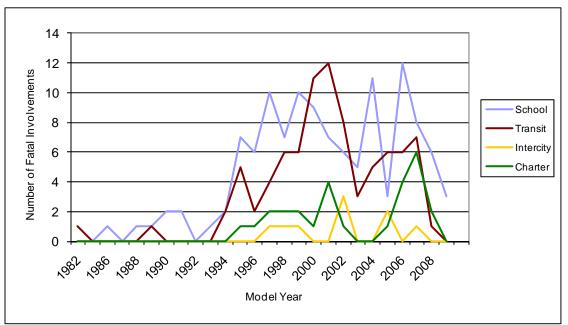


Figure 3-2: Fatal Bus Involvements by Model Year and Bus Type

 Table 3-7

 Fatal Bus Involvements by Number of Axles and Bus Type

	Sch	lool	Tra	nsit	Intercity		Cha	arter	Ot	her	Unkı	nown	Total	
Axles	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	ool	Trar	nsit	Inter	city	Cha	rter	Oth	er	Unkn	iown	Tot	tal
Passenger seating capacity	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 3-8

 Fatal Bus Involvements by Passenger Seating Capacity (Excluding Driver) and Bus Type

 Table 3-9

 Fatal Bus Involvements by Carrier Type and Bus Type

	Sch	nool	Transit		Intercity		Charter		Ot	her	Unki	nown	To	otal
Carrier type	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	School		Transit		Intercity		Charter		ner	Unknown		To	tal
Trip type	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch		Tra	a cit	Inter	oit /	Cha	rtor	Oth	or	Unkn	0.110	Та	tal
Most harmful event	SCH N	001 %	N	15it %	N	city %	N	%	N	1ei %	N	0wn %	N 10	(a) %
Noncollision event	IN	70	IN	70	IN	70	IN	70	IN	70		70	IN	70
		2.5	-	1.2		20.0	5	40.5	7	17.1		10.0	40	0.5
Overturn/rollover	3	2.5	1	=	2	22.2	5	18.5	,		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	Sch	lool	Tra	nsit	Inte	rcity	Cha	arter	Ot	her	Unk	nown	То	otal
status	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	lool	Tra	nsit	Inte	rcity	Cha	rter	Oth	ner	Unkr	nown	То	tal
Bus fire occurrence	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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.

	Sch	nool	Tra	ansit	Inte	rcity	Cha	arter	Ot	her	Unk	nown	То	otal
Bus driver drinking	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 4-1

 Fatal Bus Involvements by Driver Drinking Status and Bus Type

 Table 4-2

 Fatal Bus Involvements by Driver Drug Use and Bus Type

	Sch	lool	Trai	nsit	Inte	rcity	Cha	rter	Oth	ner	Unkr	nown	To	tal
Bus driver drug use	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

			Fata	al Bus I	nvolven	nents b	y Drive	r Age a	nd Bus	Туре				
	Sch	ool	Tra	nsit	Inter	city	Cha	rter	Oth	ner	Unkr	lown	To	tal
Age (years)	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 4-3 Fatal Bus Involvements by Driver Age and Bus Type

 Table 4-4

 Fatal Bus Involvements by Driver Sex and Bus Type

	Sch	ool	Tra	nsit	Inte	rcity	Cha	rter	Oth	ner	Unkr	nown	To	tal
Driver sex	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	lool	Tra	nsit	Inter	city	Cha	rter	Oth	ner	Unkr	nown	To	tal
Driver restraint use	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Otl	ner	Unkı	nown	То	tal
Driver injury severity	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	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

					Nor	ן-	Compl	aint						
	Fatal inju	ury (K)	Incapacita	ting (A)	incapacita	ating (B)	of pair	i (C)	No inju	ry (O)	Unkno	own	Tota	al
Rollover, fire, ejection	Ν	%	N	%	N	%	Ν	%	N	%	Ν	%	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

	Sch	nool	Tra	nsit	Inte	rcity	Cha	arter	Oth	ner	Unkr	nown	To	tal
Driver extrication	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

Compensation	Ν	%
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 4-9

 Fatal Bus Involvements by Driver Compensation

Operator type		
Compensation	Ν	%
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	- 'I	0.0
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		12.2
Paid by day	1	2.4
Paid by day 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 4-10

 Fatal Bus Involvements by Driver Compensation and Bus Type

	School Transit		nsit	Inte	rcity	Cha	rter	Oth	ner	Unknown		То	tal	
Hours driven	N	%	Ν	%	Ν	%	Ν	%	N	%	Ν	%	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

 Table 4-11

 Fatal Bus Involvements by Reported Hours Driven and Bus Type

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

	Sch	ool	Trar	nsit	Inte	rcity	Cha	rter	Oth	er	Unknown		To	ial
Driver violations charged	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	Туре

Number of	Sch	nool	Tra	Transit		Intercity		Charter		ner	Unknown		Total	
previous accidents*	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	Sch	nool	Tra	Transit		Intercity		rter	Oth	ner	Unknown		Total	
previous suspensions*	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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 of	Sch	lool	Tra	nsit	Inter	city	Cha	rter	Oth	ner	Unkr	nown	То	tal
previous speeding convictions*	N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

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

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

Number of	Sch	lool	Tra	nsit	Inte	rcity	Cha	rter	Oth	ner	Unkr	iown	То	tal
previous moving convictions*	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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	Sch	lool	Tra	nsit	Inte	rcity	Cha	rter	Otl	ner	Unkr	nown	To	tal
complliance	N	%	Ν	%	Ν	%	Ν		Ν	%	Ν		Ν	%
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	Sch	lool	Tra	nsit	Inte	rcity	Cha	rter	Oth	ner	Unkr	nown	То	tal
license status	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

	Sch	ool	Tra	nsit	Inter	rcity	Cha	rter	Oth	ner	Unkr	iown	To	tal
License endorsements	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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

[	Sch	lool	Tra	nsit	Inter	city	Chai	rter	Oth	ner	Unkn	own	To	tal
Driver-related factors	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
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
Орр	Opposite
Prev	Previous
Stat	Statutory
Unk	Unknown
Veh	Vehicle
WO	Without

Injuries are classified levels:	according to severity under the following
К	Fatal injury
А	Incapacitating injury
В	Evident but not incapacitating
С	Complaint of pain
0	No injury

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# А

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