

# INFORMATION BULLETIN



April 30, 2004

## SUMMARY OF 2002 CALIFORNIA SCHOOL BUS COLLISION DATA

The following is a summary of California school bus collision data for the 2002 calendar year. This data reflects those collisions which occurred while school buses were transporting one or more students to or from school, or school-related activities. School pupil transportation agencies may use this information to identify primary collision factors and direct their training resources accordingly. This data should assist school pupil transportation agencies in reducing incidents of school bus-involved collisions and ensure the safe transportation of California's school pupils.

### SYNOPSIS

Mileage: In 2002, 26,171 school buses were operated in California, an increase of 675 from 2001. These vehicles traveled 347,189,181 miles, 1.2 percent more miles when compared to calendar year 2001 (342,936,178).

Collisions: The total number of school bus collisions in 2002 increased by 140 to 2,378, a 6.3 percent increase. Of the 2002 collisions, 3 were fatal, a 40 percent decrease. However, none of the fatalities involved school pupil passengers. The last school pupil passenger death was in 1995.

Injury Collisions: The total number of injury collisions in 2002 decreased to 412 from the previous year's total of 447, a 7.8 percent decrease.

School Bus Driver-at-Fault Collisions: School bus driver error was the primary collision factor for 960 school bus collisions for 2002, a 2.1 percent increase. Of the driver-at-fault collisions, 797 (83 percent) occurred in Type 1 school buses and 163 (17 percent) occurred in Type 2 school buses. A Type 1 school bus is a vehicle designed to carry more than 16 passengers and the driver. A Type 2 school bus is a vehicle designed to carry not more than 16 passengers and the driver, or a vehicle manufactured on or after April 1, 1977, having a manufacturer's gross vehicle weight rating of 10,000 pounds or less, and designed to carry not more than 20 passengers and the driver.

School Bus Collisions, Other Causes than Driver-at-Fault: Drivers of other vehicles were responsible for 1,164 (49 percent) of the total school bus collisions. Collisions attributed to non-specific causes totaled 254 (11 percent) of the school bus collisions.

Non-Collisions: These collisions do not reflect an impact with any party or object. These school bus collisions are a result of injury to a pupil inside the school bus due to acceleration, deceleration, or other movement of the vehicle. For example, a driver brakes firmly and a student is injured as a result of the rapid deceleration.

### 2002 CALIFORNIA SCHOOL BUS COLLISIONS

Category	Number
<b>Fatal Collisions</b>	<b>3</b>
<b>Injury Collisions</b>	<b>412</b>
school bus vs. motor vehicle	220
school bus vs. other object	36
school bus vs. pedestrian	20
non-collision	136
<b>Property Damage Collisions</b>	<b>1,963</b>
school bus vs. motor vehicle	1,660
school bus vs. other object	290
school bus vs. pedestrian	3
non-collision	10
<b>Total Collisions</b>	<b>2,378</b>

Table 1

### PUPILS KILLED AND INJURED IN CALIFORNIA SCHOOL BUS COLLISIONS

Category	2000	2001	2002
<b>Pupil Passengers Killed</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Pupil Pedestrians Killed</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>Pupil Passengers Injured</b>			
Severe Injuries	16	2	0
Moderate Injuries	192	101	88
Possible Injuries	904	526	337
<b>Total Pupil Passengers Injured</b>	<b>1,112</b>	<b>629</b>	<b>425</b>
<b>Pupil Pedestrians Injured</b>			
Severe Injuries	0	0	0
Moderate Injuries	1	2	6
Possible Injuries	2	0	4
<b>Total Pupil Pedestrians Injured</b>	<b>3</b>	<b>2</b>	<b>10</b>

Table 2

**2002 SCHOOL BUS PASSENGERS KILLED AND INJURED BY EXTENT OF INJURY; PRIMARY COLLISION FACTOR; AND PUBLIC, PRIVATE, OR CONTRACTUAL – SCHOOL BUS TYPE I OR II (SB I or II)**

Primary Collision Factor by School Bus Type	Total Killed	Total Injured	Severe Injury	Other Visible Injury	Complaint of Pain
<b>Non-Collision</b>	0	170	0	59	111
Public SB I	0	111	0	33	78
Public SB II	0	6	0	6	0
Contractual SB I	0	44	0	13	31
Contractual SB II	0	9	0	7	2
<b>Other Motor Vehicle</b>	0	200	0	19	181
Public SB I	0	148	0	10	138
Public SB II	0	9	0	2	7
Contractual SB I	0	38	0	3	35
Contractual SB II	0	5	0	4	1
<b>Parked Motor Vehicle</b>	0	9	0	1	8
Public SB I	0	8	0	1	7
Private SB I	0	1	0	0	1
<b>Animal</b>	0	1	0	1	0
Public SB I	0	1	0	1	0
<b>Fixed Object</b>	0	29	0	8	21
Public SB I	0	18	0	5	13
Public SB II	0	6	0	3	3
Contractual SB I	0	5	0	0	5
<b>Other Object</b>	0	7	0	0	7
Public SB I	0	1	0	0	1
Contractual SB I	0	6	0	0	6
<b>Not Stated</b>	0	9	0	0	9
Public SB I	0	3	0	0	3
Contractual SB I	0	6	0	0	6
<b>Total</b>	0	425	0	88	337

Table 3

**2002 SCHOOL BUS TYPE I AND II COLLISIONS,  
BY PRIMARY COLLISION FACTOR (RANKED BY FREQUENCY)**

Primary Collision Factor	Public SB I	Public SB II	Private SB I	Private SB II	Contract SB I	Contract SB II	Total
Improper Turn	362	30	8	4	100	38	542
Unsafe Speed	285	41	9	4	40	51	430
Start or Backing	231	29	9	6	51	32	358
Right-of-Way Auto	136	17	1	2	29	30	215
Not Driver	102	11	1	0	33	16	163
Lane Change	86	7	6	6	30	17	152
Other Improper Driving	80	9	2	2	14	24	131
Improper Pass	67	3	1	0	28	6	105
Stop Sign or Signal	51	8	0	0	14	6	79
Wrong Side	49	7	0	0	2	1	59
Unknown	30	3	2	0	12	0	47
Not Stated	16	2	2	1	4	5	30
Other Hazardous	18	1	1	0	2	4	26
Too Close	4	3	0	0	1	3	11
Driver Alcohol or Drugs	7	0	0	0	3	0	10
Other Equipment	7	1	0	0	0	0	8
Pedestrian Violation	7	0	0	0	1	0	8
Hazardous Parking	5	0	0	0	1	0	6
Right-of-Way Pedestrian	1	0	0	0	1	2	4
Fell Asleep	0	1	0	1	0	0	2
Brakes	0	0	0	1	0	0	1
<b>Total</b>	<b>1,544</b>	<b>173</b>	<b>42</b>	<b>27</b>	<b>366</b>	<b>235</b>	<b>2,387</b>

Table 4

**NOTE:** The total number of school bus collisions identified in Table 4 differs by nine from the total number of school bus collisions in Table 1. The reason for the difference is that Table 3 includes the school bus collisions where two school buses were involved and accounts for each school bus separately. In other words, Type I school buses were involved in five collisions with another Type I school bus, and Type I school buses were involved in four collisions with Type 2 school buses, thus, the nine additional collision count.

**2002 SCHOOL BUS TYPE I AND II SCHOOL BUS AT-FAULT COLLISIONS,  
BY PRIMARY COLLISION FACTOR (RANKED BY FREQUENCY)**

Primary Collision Factor	Public SB I	Public SB II	Private SB I	Private SB II	Contract SB I	Contract SB II	Total
Improper Turn	252	20	7	3	74	20	376
Start or Backing	110	21	6	2	25	15	179
Unsafe Speed	91	8	3	2	17	11	132
Other Improper Driving	52	6	1	1	11	9	80
Right-of-Way Auto	37	6	0	0	11	14	68
Lane Change	21	1	0	3	8	3	36
Improper Pass	8	1	0	0	8	2	19
Wrong Side	14	2	0	0	1	0	17
Stop Sign or Signal	9	1	0	0	4	0	14
Not Stated	4	0	0	0	2	2	8
Other Hazard	2	0	0	0	1	3	6
Too Close	3	1	0	0	0	2	6
Not Driver	4	1	0	0	0	0	5
Other Equipment	3	1	0	0	0	0	4
Right-of-Way Pedestrian	1	0	0	0	1	2	4
Driver Alcohol or Drugs	1	0	0	0	1	0	2
Hazardous Parking	1	0	0	0	1	0	2
Unknown	1	0	0	0	1	0	2
<b>Total</b>	<b>614</b>	<b>69</b>	<b>17</b>	<b>11</b>	<b>166</b>	<b>83</b>	<b>960</b>

Table 5

## 2002 COLLISIONS BY SCHOOL BUS TYPE AND OPERATION

### Type I School Buses

Category	Buses	Miles Driven	Collisions	Collisions per Million Miles
Public School	13,979	171,827,293	1,544	9.0
Private School	676	6,197,790	42	6.8
Contractor	5,530	82,751,505	366	4.4
<b>TOTAL</b>	<b>20,185</b>	<b>260,776,588</b>	<b>1,952</b>	<b>7.5</b>

Table 6

### Type II School Buses

Category	Buses	Miles Driven	Collisions	Collisions per Million Miles
Public School	2,417	32,736,007	173	5.3
Private School	302	3,008,513	27	9.0
Contractor	3,267	50,668,073	235	4.6
<b>TOTAL</b>	<b>5,986</b>	<b>86,412,593</b>	<b>435</b>	<b>5.0</b>

Table 7

**NOTE:** The total number of school bus collisions identified in Table 6 differs by nine collisions from the total number of school bus collisions noted in Table 1 because Table 6 includes the school bus collisions where two school buses were involved and accounts for each school bus separately. Specifically, Type I school buses were involved in five collisions with another Type I school bus, and Type I school buses were involved in four collisions with Type 2 school buses, thus, the nine additional count difference.

## 2002 SCHOOL BUS COLLISION BY TYPE, PER MONTH

Month	Fatal	Injury	PDO	Total
January	1	35	164	200
February	0	32	180	212
March	0	44	181	225
April	0	34	201	235
May	1	37	208	246
June	1	28	123	152
July	0	14	79	93
August	0	20	59	79
September	0	47	206	253
October	0	46	228	274
November	0	38	183	221
December	0	37	151	188
<b>TOTAL</b>	<b>3</b>	<b>412</b>	<b>1,963</b>	<b>2,378</b>

*Table 7*

Persons having any questions or requiring additional information regarding this bulletin may contact Commercial Vehicle Section at (916) 445-1865.

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