

INFORMATION BULLETIN

August 9, 1999



SUMMARY OF 1998 CALIFORNIA SCHOOL BUS COLLISION DATA

The following is a summary of California school bus collision data for the 1998 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 may assist school pupil transportation agencies in reducing the incidence of school bus-involved collisions and ensure the safe transportation of California's school pupils.

SYNOPSIS

In 1998, 24,372 school buses were operated in California, an increase of 1,494 from 1997. These vehicles traveled 5.8% more miles (18,386,252) in 1998 when compared to calendar year 1997.

In 1998, school bus accidents increased by 64 accidents over the previous year. However, fatal school bus accidents were reduced from six in 1997, to three in 1998. In all three accidents, the fatalities occurred in the other involved vehicles, not in the school buses.

The total number of injury collisions increased by one in 1998, less than 1 percent, from 1997. However, calendar year 1998 saw a decrease of 5.4 percent from 1997 in the total number of injury collisions per million miles traveled. This could be attributed in part to increased public awareness programs and the increased number of miles traveled.

School Bus Driver at Fault Collisions: School bus driver error was the primary collision factor for 40.7% of the total number of school bus accidents for 1998, no change from the previous year. Of these accidents, 592 (69%) occurred in type 1 school buses and 268 (31%) occurred in type 2 school buses.

Other Causes: Other vehicles were responsible for 974 (46.2%) of the school bus accidents, a minimal increase of 0.1 percent from the previous year. Accidents attributed to nonspecific causes totaled 274 (12.9%), a slight decrease of 0.3 percent from the 1997 calendar year.

Table 1 reflects overall figures for school bus accidents, type of injuries, and total number of buses and miles driven for 1998 and the previous two years.

TABLE 1
CALIFORNIA SCHOOL BUS INJURY COLLISION STATISTICS BY CATEGORY

1996 TO 1998

CATEGORY	1996	1997	1998
Fatal School Bus Accidents	0	6	3
Pupil Passengers Killed	0	0	0
Pupil Pedestrians Killed	0	0	0
Injury Collisions	495	511	512
Percentage of Change	(+2.3%)	(+3.2%)	*
<u>Pupil Passengers Injured:</u>			
Severe Injuries	3	2	3
Moderate Injuries	133	90	89
Possible Injuries	633	540	571
Total Pupil Passengers Injured	769	632	663
<u>Pupil Pedestrians Injured:</u>			
Severe Injuries	1	0	0
Moderate Injuries	1	2	2
Possible Injuries	1	0	0
Total Pupil Pedestrians Injured	3	2	2
Property Damage Collisions	1,108	1,048	1,127
Percentage of Change	(+13.1%)	(-5.4%)	(+7.5%)
Total Collisions	2,048	2,044	2,108
Percentage of Change	(+6.1%)	(-0.2%)	(+3.1%)
Total School Buses	22,342	22,878	24,372
Percentage of Change	(+0.3%)	(+2.4%)	(+6.5%)
Total Mileage	287,697,152	312,957,435	331,343,687
Percentage of Change	(-5.7%)	(+8.8%)	(+5.9%)

* Indicates less than one percent.

Table 2 reflects the most frequently reported primary collision factors in school bus collisions and identifies the type of school bus involved.

TABLE 2

SCHOOL BUS ACCIDENTS BY PRIMARY COLLISION FACTOR

1998

Primary Collision Factor	Type-1	Type-2	Total
Improper Turning	323	99	422
Unsafe Speed	244	138	382
Other Hazards	290	90	380
Unsafe Start and Backing	196	106	302
Car Right-of-Way	111	60	171
Changing Lanes	58	38	96
Improper Passing	73	20	93
Traffic Signs and Signals	46	36	82
Wrong Side of the Road	51	13	64
Unknown Causes	42	13	55
Following Too Closely	11	14	25
Pedestrian Right-of-Way	5	7	12
Pedestrian Violation	11	1	12
Hazardous Parking	8	1	9
Brakes	3	0	3
TOTAL	1472	636	2108

TABLE 3**SCHOOL BUS ACCIDENTS BY PRIMARY COLLISION FACTOR****ATTRIBUTED TO THE SCHOOL BUS DRIVER****1998**

Primary Collision Factor	Type-1	Type-2	Total
Improper Turning	235	68	303
Unsafe Start and Backing	107	58	165
Speed	67	50	117
Other Hazards	74	26	100
Car Right-of-Way	33	20	53
Changing Lanes	20	8	28
Wrong Sid of the Road	23	4	27
Improper Passing	18	7	25
Traffic Signs and Signals	4	11	15
Pedestrian Right-of-Way	5	7	12
Following Too Closely	1	7	8
Unknown Causes	2	2	4
Hazardous Parking	3	0	3
Brakes	0	0	0
Pedestrian Violation	0	0	0
TOTAL	592	268	860

Table 4 reflects the breakdown of school buses by type, category of operation, number of buses per operation, number of miles traveled, number of collisions, and mileage versus collisions.

TABLE 4

COLLISIONS BY SCHOOL BUS TYPE AND OWNERSHIP

1998

Type-1 School Buses

Category	Buses	Miles	Collisions	Collisions per Million Miles
Public School	112612	156,659,656	1,037	6.6
Contractor	3,988	61,469,013	400	6.5
Private School	715	6,786,767	45	6.6
TOTAL	117,315	224,915,436	1,482	6.6

Type-2 School Buses

Category	Buses	Miles	Collisions	Collisions per Million Miles
Public School	2,423	33,367,299	254	7.6
Contractor	4,130	67,262,543	359	5.3
Private School	504	5,798,409	23	4.0
TOTAL	7,057	106,428,251	636	6.0

Table 5 reflects school bus accidents by type of involvement and their occurrence percentages.

TABLE 5

SCHOOL BUS ACCIDENTS BY TYPE OF INVOLVEMENT

1998

Category	Type-1 School Bus	Type-2 School Bus	Total Accidents
Other Motor Vehicles	893 (61%)	412 (65%)	1305 (62%)
Parked Motor Vehicles	171 (12%)	81 (13%)	252 (12%)
Fixed Objects	164 (11%)	65 (10%)	229 (11%)
Non-Collisions (see note)	168 (11%)	37 (6%)	205 (10%)
Other Objects	25 (2%)	19 (3%)	44 (2%)
Animals	21 (1.4%)	6 *	27 (1%)
Pedestrians	17 (1%)	8 *	25 (1%)
Bicyclists	11 *	6 *	17 *
Motor Vehicles Other Road	2 *	2 *	4 *
Train	0	0	0
TOTAL	1472	636	2108

* Indicates less than one percent.

NOTE: "Non-Collisions" means any of the following: overturning after swerving to avoid a collision, striking a surface irregularity (uneven road surface, holes, bumps, or ruts), an occupant falling or jumping from the vehicle, damage involving only the motor vehicle, or a passenger injured from striking the interior of a vehicle due to motion of the vehicle, such as a sudden stop.

Table 6 reflects the number of pupil passengers killed or injured by type of involvement and bus.

TABLE 6

PUPIL PASSENGER VICTIMS BY TYPE OF INVOLVEMENT

1998

Category	Killed	Injured	Severely Injured	Moderately Injured	Possibly Injured
Other Motor Vehicle					
School bus was: Type 1	0	241	0	9	232
Type 2	0	34	0	5	29
Parked Motor Vehicle					
School bus was: Type 1	0	6	0	1	5
Type 2	0	1	0	0	1
Fixed Object					
School bus was: Type 1	0	46	0	2	44
Type 2	0	6	0	1	5
Non-Collision					
School bus was: Type 1	0	286	1	53	232
Type 2	0	37	2	17	18
Other Object					
School bus was: Type 1	0	1	0	0	1
Type 2	0	2	0	1	1
Animal					
School bus was: Type 1	0	2	0	0	2
Type 2	0	0	0	0	0
Pedestrian					
School bus was: Type 1	0	1	0	0	1
Type 2	0	0	0	0	0
Bicyclist					
School bus was: Type 1	0	0	0	0	0
Type 2	0	0	0	0	0
Motor Vehicle Other Road (see note)					
School bus was: Type 1	0	0	0	0	0
Type 2	0	0	0	0	0
Train					
School bus was: Type 1	0	0	0	0	0
Type 2	0	0	0	0	0
TOTAL					
School bus was: Type 1	0	583	1	65	517
Type 2	0	80	2	24	54
Grand Total	0	663	3	89	571

NOTE: "Motor Vehicle Other Road" means collision involving a motor vehicle which leaves the roadway and collides with another motor vehicle on another roadway, such as crossing a median strip.

Table 7 reflects the months of peak school bus collision activity. Historically, the month of October has had the highest number of school bus collisions. During the 1998 calendar year, most school bus accidents occurred during this month, reaffirming the historical trend.

TABLE 7

SCHOOL BUS ACCIDENTS BY MONTH

1998

Month	Accidents	Month	Accidents
January	184	July	68
February	204	August	58
March	244	September	239
April	178	October	256
May	221	November	189
June	134	December	133

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