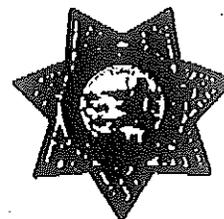


DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

# INFORMATION BULLETIN

July 5, 1994



## SUMMARY OF 1993 CALIFORNIA SCHOOL BUS COLLISION DATA

The following is a summary of California school bus collision data for calendar year 1993. This data reflects those collisions which occurred while the vehicles were transporting at least one student to or from school, or school activities.

### SYNOPSIS

In 1993, there was an increase in the number of school buses operating within California with a total of 22,633 school buses certified. This was an increase of 393 over the previous year (Table 1). School bus collisions continued to decline in 1993, with 230 fewer collisions than in 1992. Historically, school buses have been at fault in 45 percent of California school bus involved collisions. In 1993, that percentage dropped to 41 percent, a four percentage point reduction in school bus collisions caused by the school bus.

In calendar year 1993, California school buses were involved in three fatal collisions.

- The first occurred on March 4th in Riverside County, when a vehicle driven by an 83 year old female left the main travelled portion of the roadway and struck a parked school bus. The 83 year old female was killed, while the school bus driver and nine students received only minor injuries.
- The second occurred on June 14th in Merced County, where a vehicle being driven by an 80 year old male failed to stop for a posted stop sign and was broadsided by the school bus. The 80 year old driver and a 48 year old passenger were killed, while 3 students on board the school bus received minor injuries.
- The third occurred on December 16th in San Bernardino County, where a vehicle being driven by a 21 year old male was driving on the wrong half of the roadway, ran a posted stop sign and broadsided the school bus. The 21 year old driver was killed,

while his passenger received moderate injuries. One student on board the school bus received minor injuries.

The total number of injury collisions has steadily declined from 1990 through 1993. In 1993, there was also a decrease in the number of pupil passengers injured (Table 1).

Also noted is the decline of property damage collisions and the total number of school bus collisions. These figures are consistent with the decrease in the total number of miles travelled by school buses (Table 1).

School Bus Drivers At Fault. School bus driver error was the primary collision factor in 897 (41 percent) of the total number of collisions (Table 2). Of this total, 673 (75 percent) involved type 1 school buses and 224 (25 percent) involved type 2 school buses.

Other Causes. Other drivers were responsible for causing the other 1030 (47 percent) school bus involved collisions. Collisions resulting from causes other than the driver accounted for 247 (11 percent) of the school bus accidents.

Table 2 illustrates the most frequently reported primary collision factors (PCF) in school bus driver caused collisions. In 1993, improper turning, unsafe start/backing and unsafe speed continued to be the three highest PCFs.

Table 3 displays the breakdown of school buses first by type of bus and then by category of operator. The table further illustrates the number of buses and mileage verses collisions to give a truer picture of each operator's collision rate.

Table 4 shows school bus collisions broken down by the type of accident in which the school bus was involved. This information illustrates the frequency with which school bus collisions occurred with these common dangers.

The data reflected in Table 5 illustrates the months of peak school bus collision activity. Historically, the months of May and October have the highest collision rates. In 1993, the highest number of collisions occurred during the months of March and October. The high collision rate in the month of March could be attributed to the weather while the high rate in October could be that school bus drivers are relaxing their defensive driving skills after the stressful beginning of the school year.

TABLE 2: PRIMARY COLLISION FACTOR OF SCHOOL BUS DRIVER CAUSED COLLISIONS

1993

Primary Collision Factor (PCF)	Type 1 School Bus	Type 2 School Bus	Total
Improper turning	233	64	297
Unsafe start/backing	146	50	196
Unsafe speed	85	29	114
Right-of-way	25	23	48
Unsafe lane changes	28	3	31
Wrong side of the road	25	6	31
Improper passing	23	3	26
Traffic signal/sign	6	7	13
Following too closely	2	3	5
Unknown cause	4	2	6
Hazardous parking	2	0	2
Brakes	1	0	1
Pedestrian right of way	2	0	2
Other Hazards	91	34	125
Total	673	224	897

**TABLE 1: CALIFORNIA SCHOOL BUS INJURY COLLISIONS STATISTICS  
BY CATEGORY**

1991 TO 1993

Category	1991	1992	1993
Fatal Traffic Collisions	10	3	3
Pupil Passengers Killed	0	1	0
Pupil Pedestrians Killed	1	0	0
Injury Collisions Percent of Change	558	523 (-6.27%)	495 (-5.35%)
Pupil Passengers Injured	870	749	745
Severe Wound	3	3	1
Other Visible Injury	149	114	127
Complaint of Pain	718	632	617
Property Damage Collisions Percent of Change	2,113	1,878 (-11.12%)	1,676 (-10.76%)
Total Collisions Percent of Change	2,681	2,404 (-10.33%)	2,174 (-9.56%)
Total School Buses Percent of Change	22,527	22,240 (-1.27%)	22,633 (+1.76%)
Total Mileage Percent of Change	317,039,12	303,443,781 (-4.29%)	288,537,478 (-4.91%)

**TABLE 3: SCHOOL BUSES, MILEAGE AND COLLISIONS**

1993

Type 1 School Buses

Category	Buses	Miles	Collisions	Collisions/ 1 M Miles
Public School	12121	142,983,648	1022	7.15
Contractor	3589	50,192,902	556	11.08
Private School	670	5,595,036	31	5.54
Totals	16380	198,771,586	1,609	8.09

Type 2 School Buses

Category	Buses	Miles	Collisions	Collisions/ 1 M Miles
Public School	2573	32,593,062	202	6.20
Contractor	3364	54,223,306	327	6.03
Private School	316	2,949,524	36	12.21
Totals	6253	89,765,892	565	6.29

The accidents per million miles category allows us to equally evaluate bus collision frequency by establishing a standard for different types of school bus operations.

TABLE 4: TYPE OF ACCIDENT

1993

Category	Type 1 School Bus	Type 2 School Bus	Total Accidents
Other motor vehicles	992 (62%)	390 (69%)	1382 (64%)
Parked motor vehicles	201 (12%)	75 (13%)	276 (13%)
Fixed objects	195 (12%)	41 (7%)	236 (11%)
Non-collision	147 (9%)	40 (7%)	187 (9%)
Other object	22 (1%)	3 (*)	25 (1%)
Bicyclist	15 (1%)	8 (1%)	23 (1%)
Pedestrian	19 (1%)	2 (*)	21 (*)
Animal	17 (1%)	4 (*)	21 (*)
Motor vehicle other road	2 (*)	1 (*)	3 (*)
Total	1610	564	2174

\*Less than one percent of the total.

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TABLE 5: COLLISIONS BY MONTH OF CALENDAR YEAR 1993

Month	Collisions	Month	Accidents
January	176	July	73
February	187	August	38
March	254	September	219
April	211	October	253
May	211	November	205
June	175	December	172

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