



Highlights of the 1998 Boating Safety Report

STATE OF CALIFORNIA
THE RESOURCES AGENCY

DEPARTMENT OF
BOATING AND WATERWAYS

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Why This Information Is Important

California ranks second nationally in the number of registered marine vessels. As crowded waterways lead to an increased chance of accidents, it is not surprising that California also ranks **second** nationally in **the number of boating accidents**. Because of this, it is essential to provide the boating public with the best information possible to provide for their safety.

The mission of the Department of Boating and Waterways (also known as Cal Boating) is to protect the public's right to safe and enjoyable boating. Each year, Cal Boating produces *The California Boating Safety Report*, which provides boating accident statistics, trends, and safety information. This press packet provides highlights from the 1998 report, which is due out shortly.

1998 Findings

Operator inexperience is the most common cause of accidents. Many accidents and fatalities occurred because operators **did not know even the basic safety information**, such as what to do in a head-on situation or which side of the channel to stay on. Additionally, drowning was the primary cause of death for 74% of boating accident fatalities, and of that group, 70% were not wearing a life jacket.

Accident totals decreased in 1998, but this is not a reason to decrease Cal Boating's efforts to broadcast safety information. Due to the El Niño effect, inclement weather persisted through early summer in many portions of the State last year. Cooler weather, along with changes in boating law, may have been responsible for a decrease in boating accidents from 925 in 1997 to 772 in 1998. Accidents involving youth operators, personal watercraft, and water skiing all showed marked decreases last year. The number of fatalities, however, increased from 43 in 1997 to 58 in 1998. The same inclement weather which kept many boaters off the water was a factor in a number of fatalities. Late snow run-off created hazardous water conditions on many rivers, resulting in a number of whitewater fatalities. Cal Boating's trend analysis is based upon statistics from multiple years, as the changes from one year to the next may not be significant.

How You Can Help

Cal Boating takes safety information to boaters by attending boat shows, safety fairs and events at marinas, and other community events. We also provide information on our website, www.dbw.ca.gov.

We need your help as well! We are providing the enclosed information to assist you in writing safety articles to promote boating safety. We hope this information is helpful. Should you need additional information, please contact our public information office at (916) 263-0788.





OVERALL BOATING FATALITIES

OVERALL BOATING FATALITIES

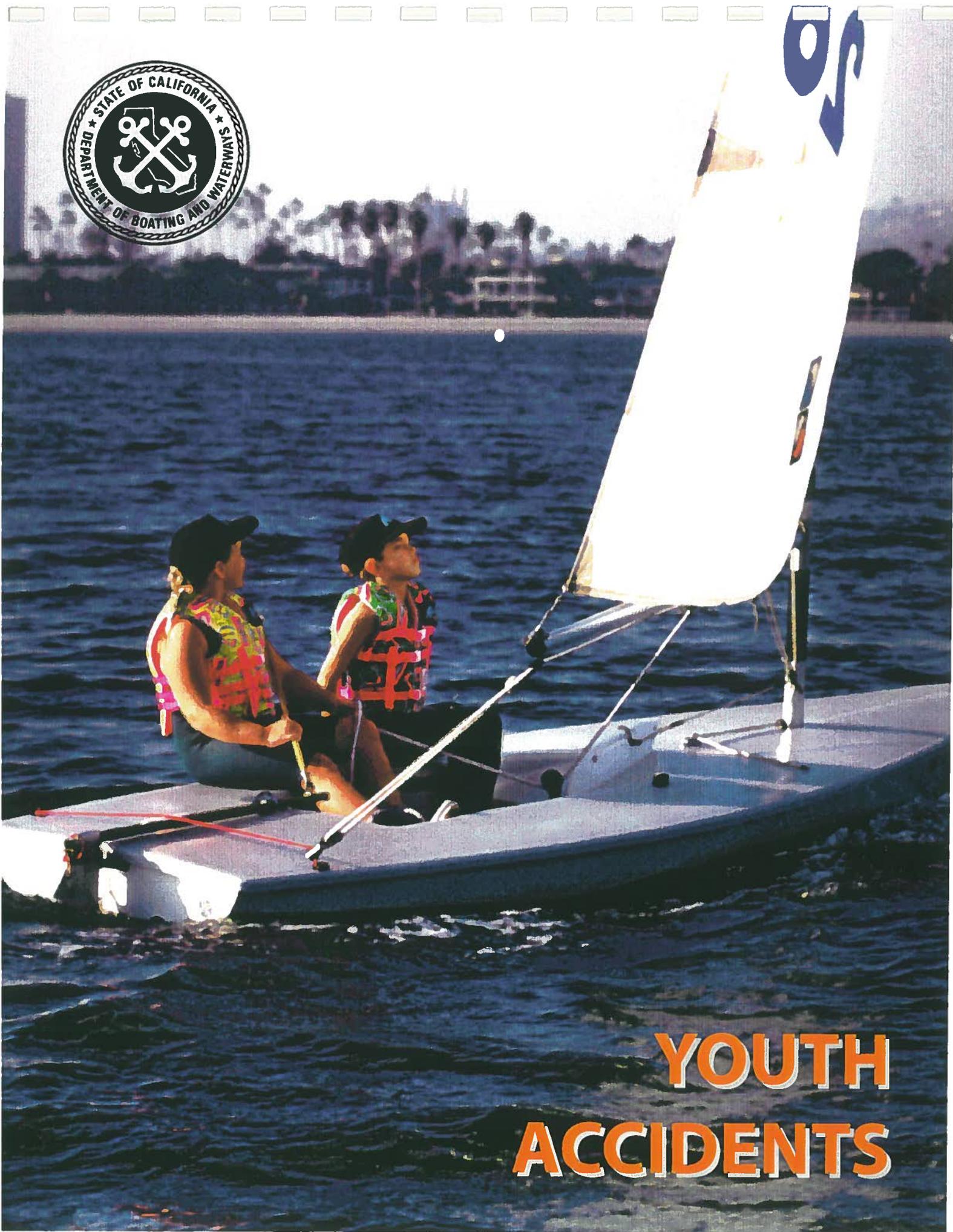
Capsule Statistics

- ❑ Of the 58 fatalities occurring in 1998, 24% occurred in June. Nearly half (47%) occurred on weekends.
- ❑ 9 victims (16%) of fatal boating accidents in 1998 were involved in whitewater activities. These deaths are attributed to hazardous river conditions caused by late spring run-off of the snow pack. This number is the highest since 1993, another high water year.
- ❑ Nearly half (46%) of vessels involved in fatal accidents were open motorboats, followed by PWC at 21%.
- ❑ Nearly all vessels involved in fatal accidents were less than 26 feet in length (93%).
- ❑ Operator inexperience (40%), hazardous weather/water conditions (38%), and operator inattention (29%) were the most common causes of fatalities.
- ❑ Nearly three-quarters (74%) of the victims drowned. Of that group, 70% were not wearing a life jacket.
- ❑ Capsizing was the most common type of fatal accident (31%), followed by falls overboard (28%) and collisions with vessels (16%).
- ❑ The ages of operators involved in fatal boating accidents were distributed fairly evenly among the age groups between 11 and 60.
- ❑ About one-third (34%) of fatalities occurred on ocean/bay waters. Another 26% occurred on lakes and 21% occurred on rivers.
- ❑ 20% of boating fatalities were found to be alcohol-related, where testing could be conducted.

Cal Boating Involvement in Boating Safety Awareness

- ❑ Cal Boating incorporates accident analysis and relevant safety measures into our safety education and law enforcement training programs. Our safety education program provided nearly 2 million individuals with boating safety training and materials. Our law enforcement training program included seven courses on various boating safety topics.
- ❑ Cal Boating provides supplemental funding to counties for law enforcement activities and promotes uniform enforcement of boating laws through its law enforcement programs. Cal Boating's financial aid program allocated more than \$8.1 million to 32 counties and 2 cities for enforcement personnel and operating costs.
- ❑ Cal Boating maintains ongoing partnerships with educational institutions, aquatic centers, and non-profit organizations that provide crucial safety information to students and to the general public.
- ❑ Cal Boating continues to sponsor an award-winning statewide radio and billboard campaign to promote life jacket usage and highlight the dangers of mixing alcohol and boating.





YOUTH ACCIDENTS

YOUTH ACCIDENTS

(Youth is under 18)

Capsule Statistics

- ❑ Operator inexperience was a factor in 81% of accidents involving youth operators and was the most common cause of accidents involving them. Operator inexperience was a factor in only 41% of accidents involving operators of all ages.

- ❑ The number of youth operators involved in accidents decreased 42%, from 140 in 1997 to 81 in 1998. This decrease may be partially attributed to the enactment of a new State law on January 1, 1998 (Harbors and Navigation Code section 658.5), which required a person to be at least 12 years of age to operate a motorboat of more than 10 HP. If an operator was under 12, a person 18 years of age or older had to be on board the vessel. If the motorboat was more than 15 HP, the operator has to be at least 16 years of age. Persons 12-15 may operate if a person of at least 18 years of age is attentively supervising aboard the vessel.

- ❑ During the 1998 boating season, 81 youth operators were involved in 70 accidents (9% of all accidents), accounting for 70 injuries (12% of all injuries), and 6 fatalities (10% of all fatalities).

- ❑ Of youth operators involved in accidents, 37 operators (46%) were under the age of 16, a sharp decrease from 80 such operators (57%) in 1997. Five of these 37 operators (6% of all youth operators involved in accidents) were under the age of 12.

- ❑ Of the 37 operators under 16 years of age, 70% did not have an adult on board, in violation of the new State law.

- ❑ Despite a substantial decrease in overall accidents involving youth operators, fatalities involving youth operators increased from 2 in 1997 to 6 in 1998. Of the five youth operators involved in fatal accidents in 1998, 3 were under 16 years of age. Two of these three did not have an adult on board the vessel.

- ❑ 88% of youth operators involved in accidents were operating personal watercraft (PWC).

- ❑ Collisions with other vessels accounted for 70% of accidents involving youth operators.



(continued)

YOUTH ACCIDENTS

(continued)

(Youth is under 18)

Effect of Age Limit Increase

- ❑ From 1987 through 1997, California law required a person to be at least 12 years of age to operate a motorboat of more than 10 HP. Effective January 1, 1998, Harbors and Navigation Code section 658.5 required the operator of a motorboat of more than 15 HP to be at least 16 years of age. (Persons 12-15 may operate if a person of at least 18 years of age is attentively supervising aboard the vessel.)
- ❑ The number of accidents involving youths had remained consistent for three years prior to the 1998 boating season. The new law, however, appears to have resulted in a substantial decrease (54%) in the number of accidents involving operators under 16 years of age in 1998.

Cal Boating Involvement in Youth Operator Safety Awareness

- ❑ Cal Boating will continue to inform boaters of the law requiring operators to be at least 16 years of age to operate most vessels alone.
- ❑ This year, the AquaSMART Boating program for high school students will be distributed to schools throughout California. This course incorporates key safety concerns identified by accident statistics. Four types of boating are addressed: personal watercraft, powerboating, sailing, and paddling. The course is available to schools, aquatic centers and youth organizations.
- ❑ The curriculum for youth programs includes information on the dangers of alcohol and drug use especially when boating. Zero tolerance is emphasized for all persons.





WHITEWATER FATALITIES

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Capsule Statistics

- ❑ Although whitewater-related boating accidents do not make up a large percentage of boating accidents overall, there were 9 whitewater-related fatalities in 1998 (16% of all fatalities), up from 2 fatalities in 1997, and the highest since 1993, another high-water year.
- ❑ Cold weather conditions resulted in late run-off of water from the melting snow pack. Much of this run-off occurred in June, creating hazardous river conditions throughout much of the State. These conditions resulted in the deaths of 9 recreational boaters engaged in whitewater boating activities, 6 of whom died during a one-week period in June.
- ❑ The main causes of all whitewater fatalities in 1998 were hazardous water conditions and operator inexperience.
- ❑ Eight of the fatalities were the result of vessels capsizing in rough waters. One fatality involved a kayak capsizing after colliding with a raft. All but two of the victims were wearing life jackets. The strong current pulled even those victims wearing life jackets beneath the surface of the water.

Cal Boating Involvement in Whitewater Safety Awareness

- ❑ Cal Boating issued advisories to the boating public concerning the hazardous conditions through news releases, radio and television interviews, and other public information efforts. In spite of these efforts, people continued to participate in whitewater activities, resulting in the loss of 9 lives.
- ❑ Cal Boating will continue to warn boaters about hazardous water conditions on California's rivers, especially during spring and early summer, when water levels are high from snow pack run-off.
- ❑ Cal Boating will continue to fund aquatic centers throughout the State which feature courses that emphasize paddlecraft safety, and distribute its free pamphlet, "Safe Boating Hints for Paddlecraft."





PWC ACCIDENTS

PWC ACCIDENTS

Capsule Statistics

- ❑ Accidents involving PWC decreased by 42% in 1998. This may be attributable to a combination of poor weather conditions that resulted in a reduced boating season and law changes affecting PWC operators.
- ❑ A total of 229 PWC-related accidents were reported in 1998, resulting in 161 injuries, 9 fatalities, and \$384,050 in property damage. The total number of reported accidents, injuries and the total property damage were substantially lower than 1997 levels (391 accidents, 276 injuries, and \$709,450 in property damage, respectively). The number of reported fatalities was slightly higher than last year (8).
- ❑ Inclement weather conditions kept many boaters off the water until nearly mid-summer. Since PWC activities often involve bodily contact with the water, cold weather and water conditions may have resulted in lower use and, therefore, a lower accident rate. (Accidents involving water-skiing activities decreased as well.)
- ❑ Two new laws affecting PWC operators may also have resulted in a decrease in accidents. The first law prohibited activities such as wake jumping within 100 feet of another vessel, spraying down other vessels, and playing "chicken." These activities now constitute reckless and negligent operation. The second law raised the minimum age to operate a vessel of over 15 HP alone from 12 to 16 years of age. Since PWC are the vessels of choice for operators between 12 and 16, restricting this group's ability to operate vessels may have resulted in a decrease in accidents.
- ❑ The most common causes of all PWC accidents were operator inexperience (69%), excessive speed (56%), and operator inattention (54%). All of these causes are operator-controllable factors.
- ❑ Of PWC involved in accidents, 69% were operated by someone other than the registered owner; over half (52%) were borrowed and 17% were rented.

Cal Boating Involvement in PWC Safety Awareness

- ❑ Cal Boating is developing a new PWC Practical Handling Course. This course focuses on PWC operation and safe boat handling. The curriculum is designed for operators of all ages and will be available to the general public. A critical hands-on learning experience is a key component to this course. It is designed to be incorporated into existing safety programs offered by organizations such as the U.S. Coast Guard Auxiliary, the U.S. Power Squadrons, marine enforcement agencies, and aquatic centers. This course should be available next spring.
- ❑ Cal Boating is producing a 30-second public service announcement on the subject of personal watercraft safety for distribution to television stations statewide this summer.





ALCOHOL- RELATED FATALITIES

ALCOHOL-RELATED FATALITIES

Capsule Statistics

- ❑ Of the 58 fatalities, 49 were examined to determine their alcohol level. Of these 49 victims, 10 (20%) had blood alcohol levels equal to or greater than 0.035%. Seven of the victims were operators and three were passengers. Five fatalities involved motorized vessels and 5 involved non-motorized vessels.
- ❑ 37 of the 49 victims tested for alcohol-relatedness were killed in **accidents involving motorized vessels**. Of that group, 14% were alcohol-related. This percentage was significantly lower than any rate during the previous three years.
- ❑ Among the 10 alcohol-related fatalities, 4 occurred on rivers, 3 on lakes, 1 in the Sacramento/San Joaquin Delta, 1 on the Colorado River and 1 in ocean/bay waters. Overall, 6 fatalities occurred in Northern California, and 4 in Southern California.

Cal Boating Involvement in Alcohol Safety Awareness

- ❑ Cal Boating continues its award-winning radio ad campaign promoting the dangers of drinking alcohol while boating. This safety message is being heard on radio stations throughout California and targets boaters with the highest accident rates.
- ❑ Cal Boating is producing a 30-second public service announcement on the dangers of mixing alcohol and boating for distribution to television stations statewide this summer.
- ❑ Cal Boating will continue to notify law enforcement agencies statewide about alcohol-related fatalities and encourage the agencies to strengthen their educational and enforcement efforts in this area. Cal Boating also will reinforce this message at all training classes we offer for law enforcement.



1980-1998 Reportable Boating Accidents in California

<i>Year</i>	<i>Total Number of Accidents</i>	<i>Total Number of Injuries</i>	<i>Total Number of Fatalities</i>	<i>Total Amount of Property Damage</i>
1980	657	270	112	\$2,039,800
1981	728	319	87	\$3,655,630
1982	696	323	103	\$2,497,000
1983	648	333	95	\$3,713,100
1984	791	341	93	\$2,491,700
1985	869	403	76	\$4,246,400
1986	741	319	68	\$2,645,500
1987	905	325	54	\$3,381,600
1988	745	333	51	\$2,396,100
1989	632	371	43	\$3,669,800
1990	761	416	50	\$3,131,200
1991	750	421	58	\$2,653,800
1992	689	447	59	\$4,360,100
1993	743	434	67	\$2,052,800
1994	709	386	40	\$1,740,300
1995	833	490	52	\$2,536,500
1996	850	537	56	\$2,241,700
1997	925	526	43	\$3,266,800
1998	772	413	58	\$2,299,600

An accident is considered reportable if: a person dies, disappears, or is injured, requiring medical attention beyond first aid; damage to a vessel or other property damage exceeds \$500; or there is complete loss of a vessel.

Not all accidents are reported to Cal Boating, due to ignorance of the reporting law.

1998 Reportable Boating Accidents by County

County	Total Number of Accidents	Total Number of Injuries	Total Number of Fatalities	Total Amount of Property Damage
Alameda	10	1	1	\$23,100
Amador	1	0	0	\$1,700
Butte	7	7	0	\$4,500
Calaveras	10	7	1	\$12,800
Colusa	4	0	0	\$11,500
Contra Costa	39	15	4	\$163,400
Del Norte	3	0	0	\$7,750
El Dorado	15	7	2	\$44,450
Fresno	9	6	0	\$11,450
Humboldt	6	1	1	\$24,000
Imperial	8	6	2	\$18,100
Kern	15	12	1	\$20,850
Kings	1	1	0	\$600
Lake	9	7	0	\$22,000
Los Angeles	68	29	2	\$408,500
Madera	6	2	1	\$7,750
Marin	13	4	3	\$24,850
Mariposa	3	3	0	\$0
Mendocino	5	1	0	\$13,800
Merced	2	2	0	\$0
Monterey	13	7	2	\$20,000
Napa	24	12	2	\$81,500
Nevada	5	4	0	\$14,200
Orange	5	4	0	\$5,450
Placer	10	5	1	\$43,950

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1998 Reportable Boating Accidents by County *(continued)*

County	Total Number of Accidents	Total Number of Injuries	Total Number of Fatalities	Total Amount of Property Damage
Plumas	2	0	0	\$5,000
Riverside	29	20	2	\$51,900
Sacramento	22	11	3	\$78,400
San Bernardino	68	46	4	\$285,650
San Diego	83	28	1	\$296,600
San Francisco	9	7	0	\$44,200
San Joaquin	65	41	0	\$134,350
San Luis Obispo	9	4	3	\$40,600
San Mateo	12	6	4	\$32,000
Santa Barbara	4	0	0	\$16,000
Santa Clara	11	8	1	\$3,700
Santa Cruz	4	1	0	\$8,600
Shasta	49	30	2	\$72,050
Sierra	1	2	0	\$0
Siskiyou	1	1	0	\$0
Solano	14	3	3	\$28,950
Sonoma	16	4	7	\$72,850
Stanislaus	13	6	0	\$12,350
Sutter	1	0	1	\$0
Tehama	4	1	0	\$6,250
Trinity	10	10	0	\$3,500
Tulare	8	6	2	\$1,350
Tuolumne	21	16	1	\$34,150
Ventura	16	10	1	\$80,350
Yolo	2	1	0	\$600
Yuba	7	8	0	\$4,000
TOTAL	772	413	58	\$2,299,600

An accident is considered reportable if: a person dies, disappears, or is injured, requiring medical attention beyond first aid; damage to a vessel or other property damage exceeds \$500; or there is complete loss of a vessel.

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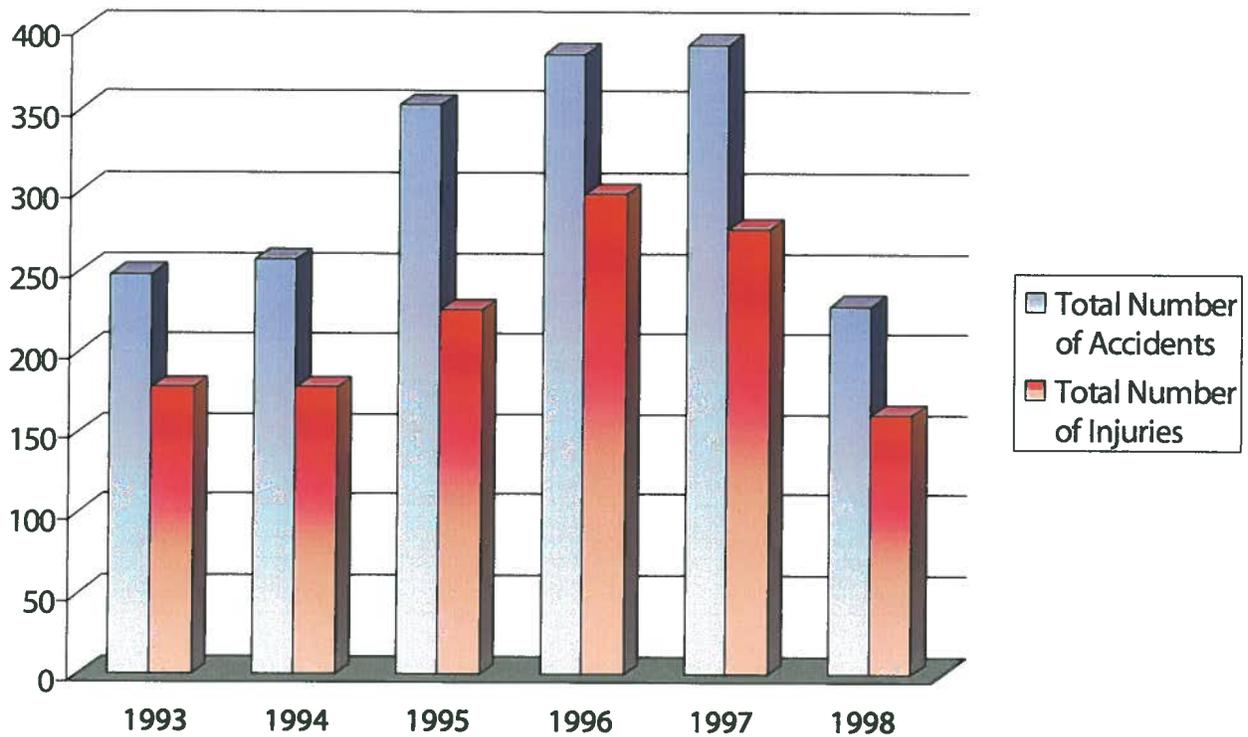
1998 Reportable PWC Accidents by County

<i>County</i>	<i>Total Number of Accidents</i>	<i>Total Number of Injuries</i>	<i>Total Number of Fatalities</i>	<i>Total Amount of Property Damage</i>
Alameda	1	1	0	\$4,000
Amador	1	0	0	\$1,700
Butte	1	2	0	\$700
Calaveras	3	4	0	\$5,000
Colusa	1	0	0	\$3,000
Contra Costa	6	4	0	\$5,900
El Dorado	3	2	0	\$6,800
Fresno	3	2	0	\$2,900
Imperial	2	3	1	\$5,800
Kern	8	6	0	\$17,850
Kings	1	1	0	\$600
Lake	3	3	0	\$9,200
Los Angeles	25	15	0	\$49,900
Madera	2	2	0	\$4,500
Marin	1	1	0	\$0
Mariposa	1	1	0	\$0
Monterey	4	3	0	\$5,200
Napa	11	3	0	\$42,650
Nevada	1	0	0	\$4,100
Placer	5	5	0	\$4,850
Plumas	1	0	0	\$4,000
Riverside	12	12	0	\$12,600
Sacramento	5	3	0	\$12,900
San Bernardino	33	26	3	\$73,400
San Diego	26	15	1	\$38,400
San Francisco	1	0	0	\$900
San Joaquin	14	11	0	\$14,600
Santa Clara	5	5	0	\$1,700
Shasta	15	10	1	\$15,900
Siskiyou	1	1	0	\$0
Solano	2	2	0	\$800
Sonoma	5	0	2	\$6,550
Stanislaus	7	2	0	\$10,150
Tehama	1	0	0	\$3,500
Trinity	3	4	0	\$1,000
Tulare	4	3	0	\$800
Tuolumne	8	6	0	\$11,200
Ventura	3	3	1	\$1,000
TOTAL	229	161	9	\$384,050

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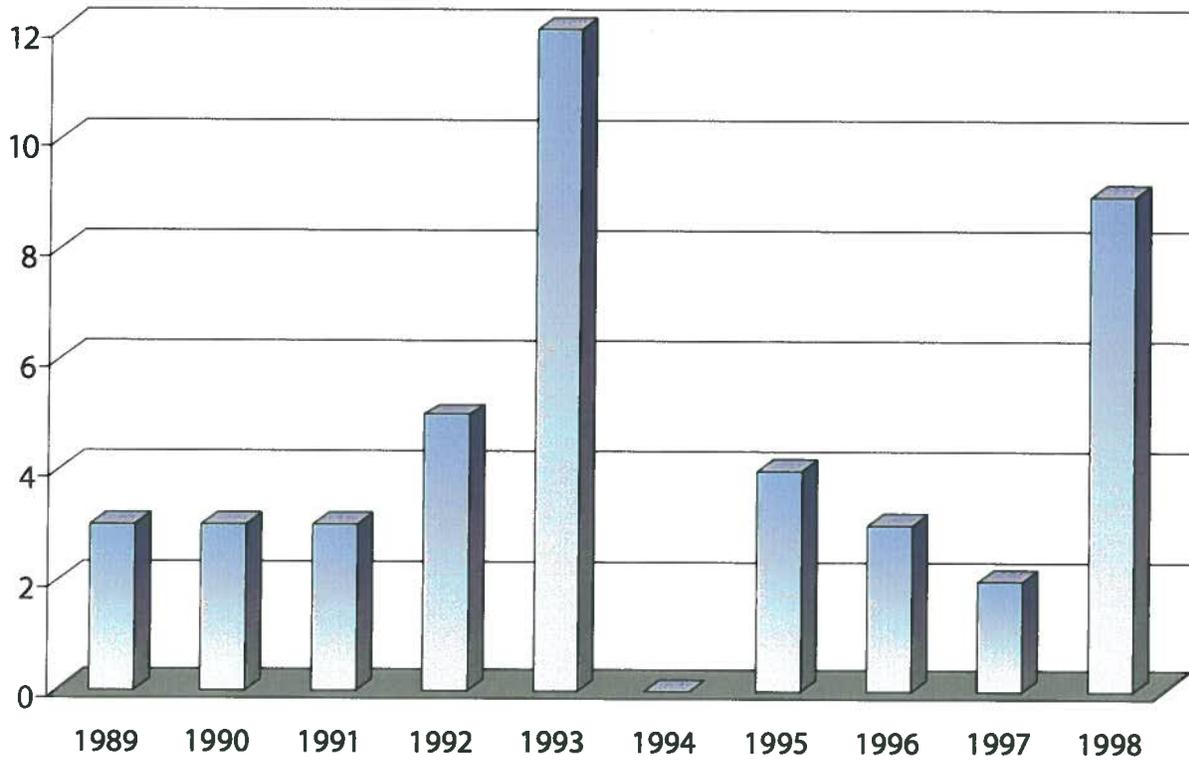
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California PWC Accident Trends



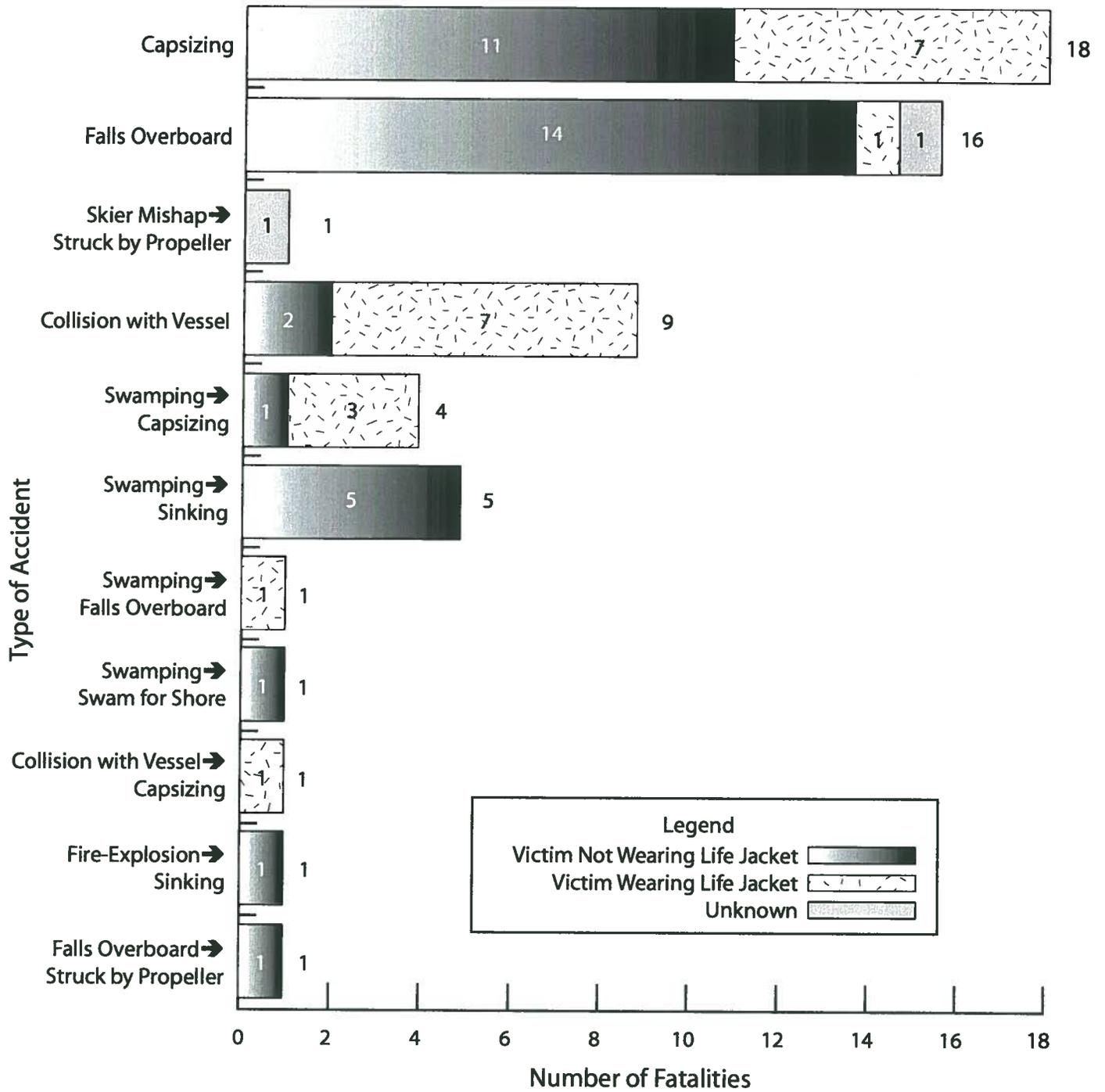
<i>Year</i>	<i>Total Number of Accidents</i>	<i>Total Number of Injuries</i>	<i>Total Number of Fatalities</i>	<i>Total Amount of Property Damage</i>
1993	248	178	5	\$306,900
1994	257	178	7	\$294,800
1995	353	226	6	\$579,550
1996	385	298	8	\$508,300
1997	391	276	8	\$709,450
1998	229	161	9	\$384,050

California Whitewater Fatality Trends (Recreational)



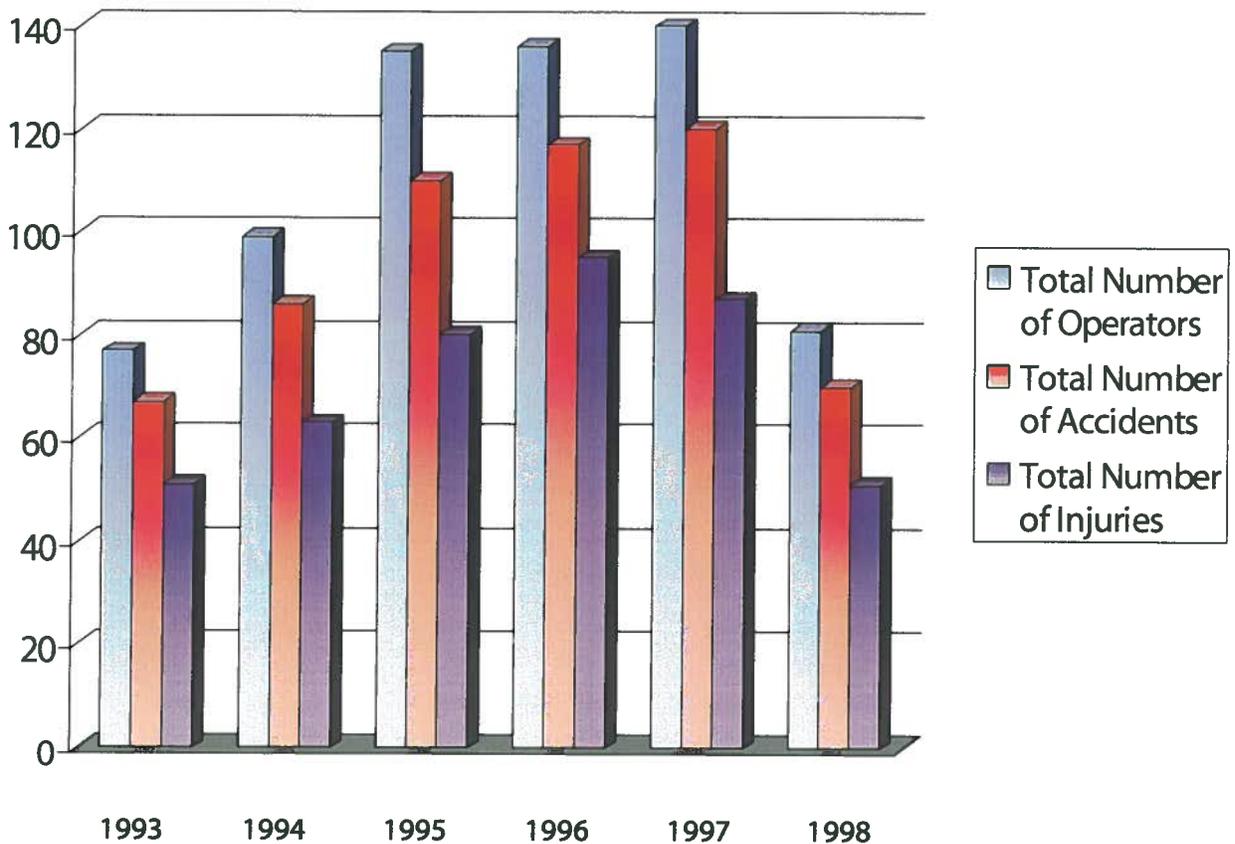
Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Recreational Whitewater Fatalities	3	3	3	5	12	0	4	3	2	9

1998 Fatal Boating Accidents by Type and Life Jacket Usage



California Youth Operator Accident Trends

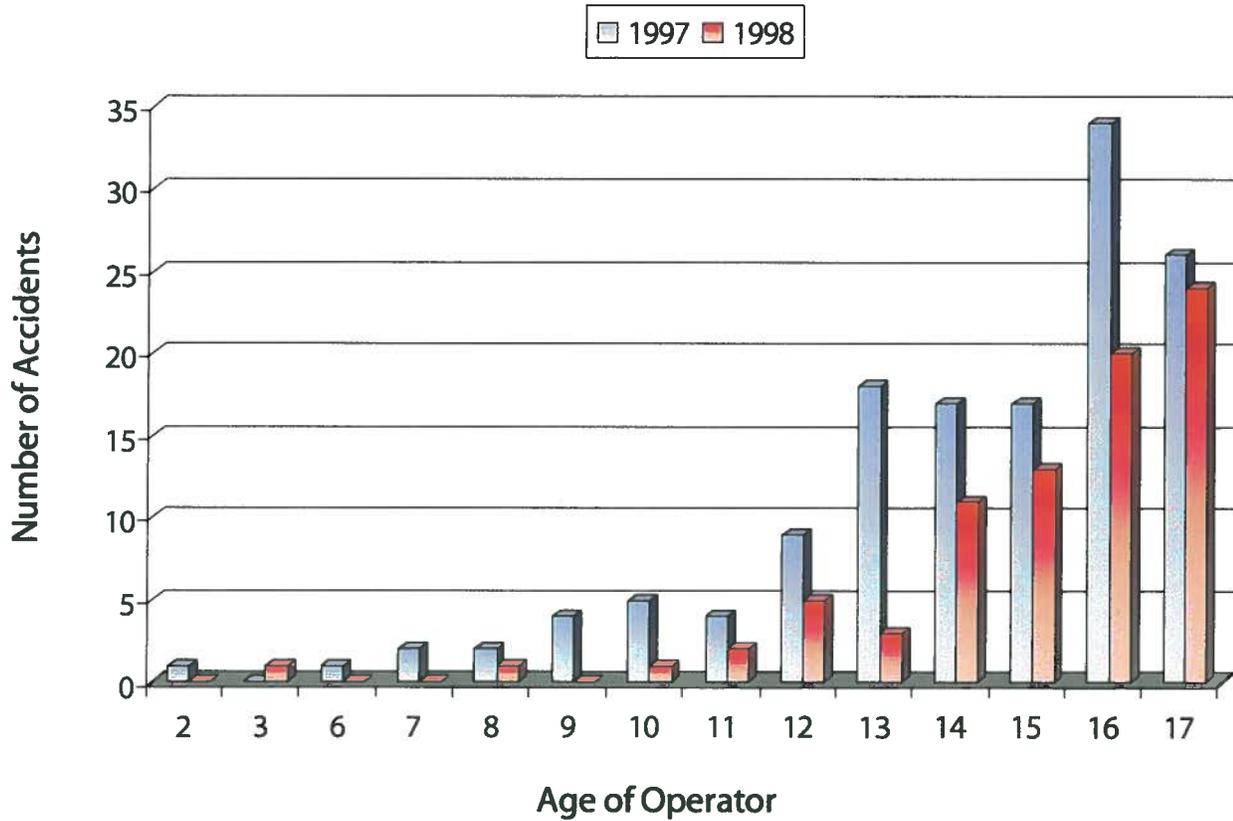
(Youth is under 18)



<i>Year</i>	<i>Total Number of Operators</i>	<i>Total Number of Accidents</i>	<i>Total Number of Injuries</i>	<i>Total Number of Fatalities</i>
1993	77	67	51	7
1994	99	86	63	3
1995	135	110	80	1
1996	136	117	95	3
1997	140	120	87	2
1998	81	70	51	6

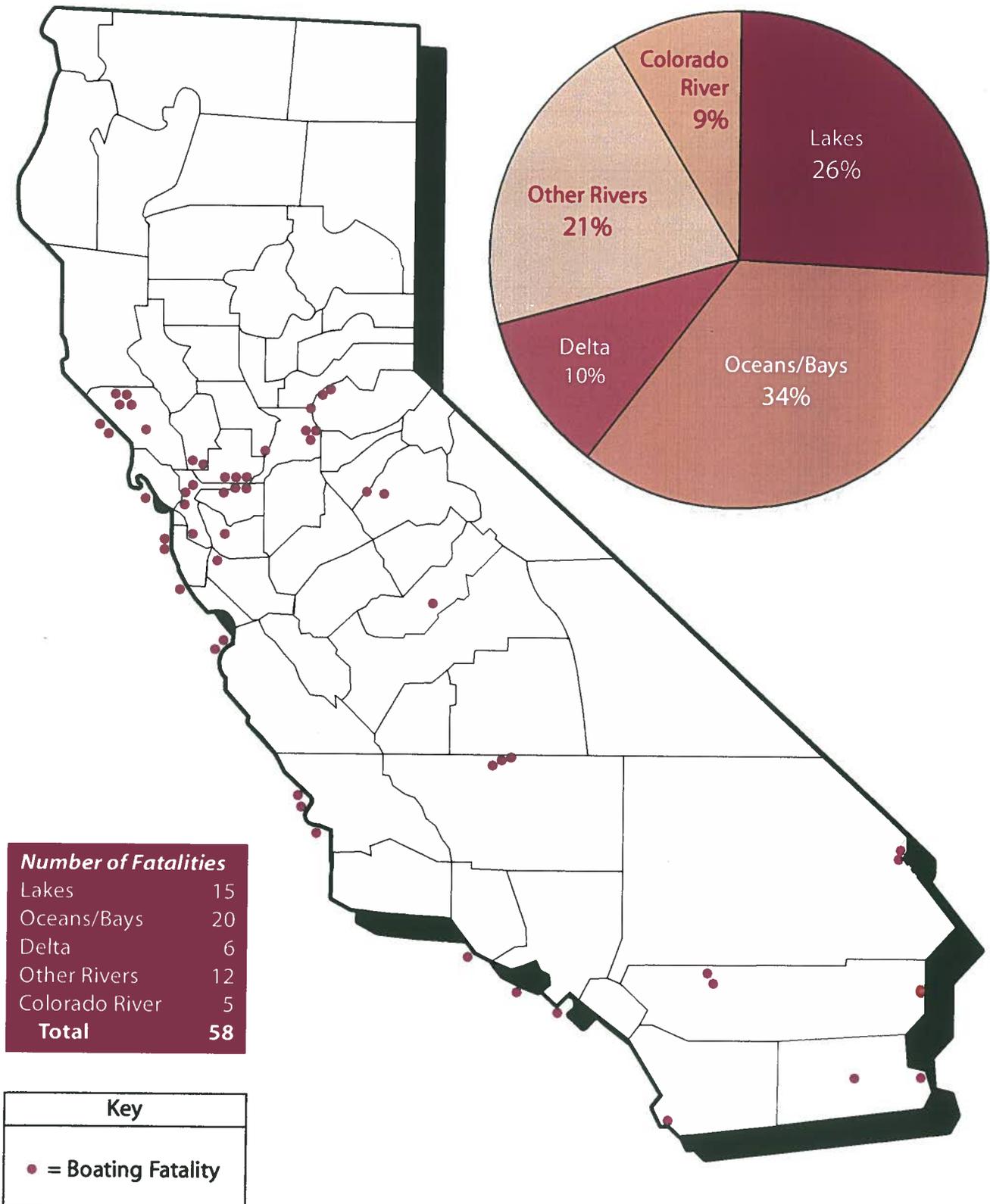
California Youth Operator Accident Trends

(Youth is under 18)



	2	3	6	7	8	9	10	11	12	13	14	15	16	17
1997	1	0	1	2	2	4	5	4	9	18	17	17	34	26
1998	0	1	0	0	1	0	1	2	5	3	11	13	20	24
<i>Percentage Decrease from 1997</i>								50%	44%	83%	35%	24%	41%	8%

1998 California Boating Fatalities by Location



Locations are approximate.