

# 2011

## California Recreational Boating Accident Statistics

State of California  
The Natural Resources Agency

California Department of  
Boating and Waterways

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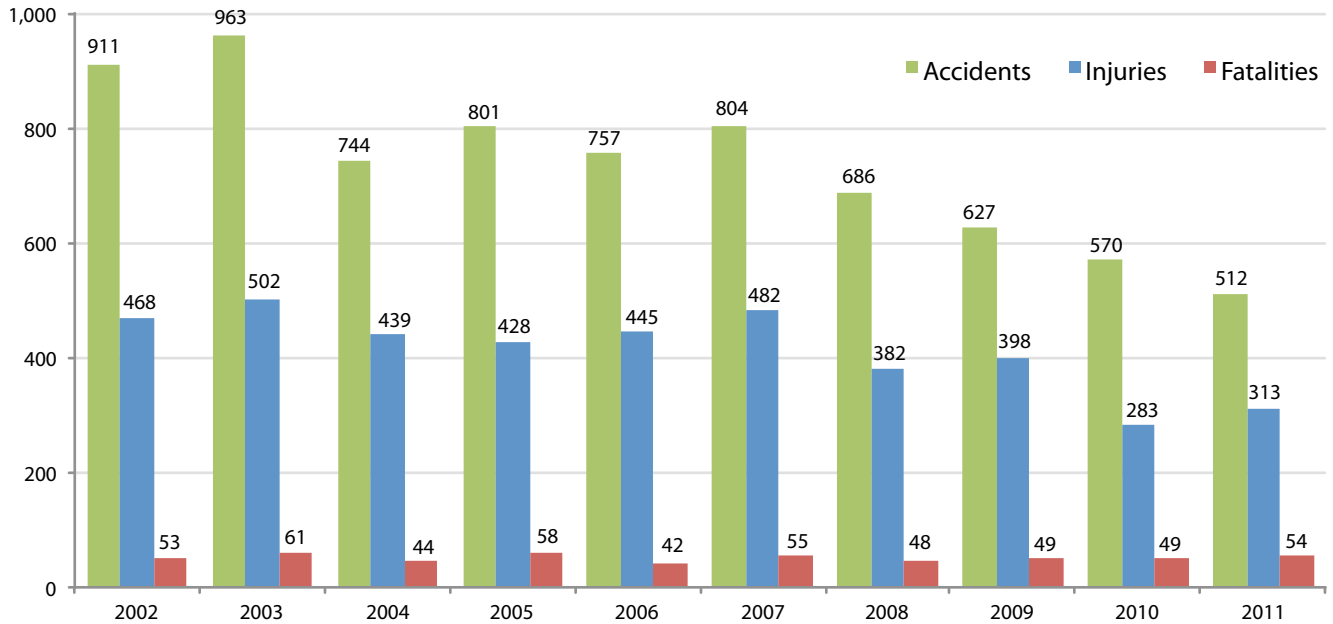




# California

# Boating Accident Statistics

## California Boating Accidents, Injuries and Fatalities 2002-2011



## California Boating Accidents by Location 2010-2011

Waterway Categories	Accidents		Injuries		Fatalities	
	2010	2011	2010	2011	2010	2011
Northern Lake	141	137	86	100	5	9
Southern Lake	52	68	34	56	8	7
Northern Coast	18	23	14	10	8	2
Southern Coast	189	133	35	53	8	10
Northern River	30	27	13	16	5	9
Southern River	9	10	4	13	4	6
SF Bay Area	25	31	5	9	6	5
Delta	75	58	64	32	2	2
Colorado River	31	25	28	24	3	4
<b>Totals</b>	<b>570</b>	<b>512</b>	<b>283</b>	<b>313</b>	<b>49</b>	<b>54</b>

## Property Damage 2002-2011

Year	Property Damage
2002	\$3,732,850.00
2003	\$3,820,000.00
2004	\$4,073,400.00
2005	\$3,584,700.00
2006	\$8,913,375.00
2007	\$10,643,800.00
2008	\$5,899,184.00
2009	\$4,484,105.00
2010	\$4,040,700.00
2011	\$2,142,655.00



## Boating Accidents

## Vessel Registration

County	Accidents	Injuries	Fatalities	Property Damage	Number of Personal Watercraft (PWC)	Number of Vessels (includes PWC)
Alameda	6	0	1	\$27,550.00	3,593	23,339
Alpine	0	0	0	\$0.00	7	128
Amador	1	0	0	\$3,500.00	237	3,257
Butte	3	3	0	\$77,000.00	1,565	16,707
Calaveras	2	2	0	\$5,000.00	655	6,289
Colusa	0	0	0	\$0.00	148	1,460
Contra Costa	22	8	4	\$39,130.00	5,700	33,552
Del Norte	2	1	1	\$5,000.00	59	1,541
El Dorado	4	4	2	\$11,000.00	1,394	14,577
Fresno	16	14	4	\$19,100.00	3,019	22,238
Glenn	2	1	1	\$800.00	163	1,920
Humboldt	1	2	0	\$550.00	563	7,690
Imperial	4	1	0	\$4,900.00	499	2,189
Inyo	0	0	0	\$0.00	153	1,104
Kern	5	4	0	\$1,400.00	3,700	16,830
Kings	1	3	0	\$0.00	640	2,878
Lake	8	5	1	\$6,800.00	1,296	11,448
Lassen	0	0	0	\$0.00	298	3,271
Los Angeles	32	20	7	\$131,750.00	33,030	106,307
Madera	6	14	0	\$9,050.00	842	6,304
Marin	15	5	2	\$60,550.00	524	8,053
Mariposa	5	0	0	\$7,300.00	156	1,654
Mendocino	1	0	0	\$1,500.00	437	5,006
Merced	2	1	0	\$1,150.00	856	6,563
Modoc	0	0	0	\$0.00	45	786
Mono	1	0	0	\$5,000.00	142	1,475
Monterey	8	2	0	\$24,650.00	1,053	8,016
Napa	13	5	1	\$40,550.00	556	5,751
Nevada	5	3	0	\$8,250.00	620	9,547
Orange	46	19	3	\$111,700.00	18,060	61,270
Placer	15	11	1	\$40,750.00	2,548	20,528
Plumas	4	4	0	\$5,300.00	238	3,722
Riverside	14	10	1	\$13,000.00	16,931	49,399
Sacramento	16	12	2	\$110,500.00	5,925	43,172
San Benito	0	0	0	\$0.00	292	1,740
San Bernardino	28	22	5	\$61,600.00	16,049	48,553

# Boating Accident Statistics

## Boating Accidents

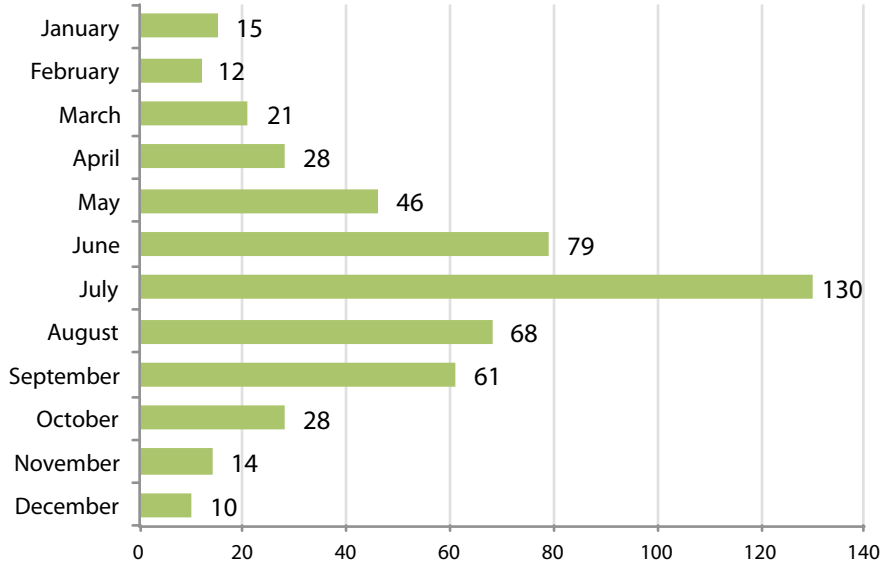
## Vessel Registration

County	Accidents	Injuries	Fatalities	Property Damage	Number of Personal Watercraft (PWC)	Number of Vessels (includes PWC)
San Diego	53	30	4	\$480,500.00	12,921	61,598
San Francisco	7	2	1	\$14,000.00	354	3,609
San Joaquin	27	10	0	\$119,100.00	3,564	24,971
San Luis Obispo	7	3	0	\$25,300.00	1,691	12,996
San Mateo	3	3	1	\$2,500.00	1,771	10,794
Santa Barbara	10	1	0	\$59,600.00	1,320	9,783
Santa Clara	11	9	0	\$47,000.00	4,493	24,535
Santa Cruz	1	0	0	\$1,500.00	656	7,292
Shasta	30	25	0	\$286,850.00	1,576	19,753
Sierra	0	0	0	\$0.00	15	332
Siskiyou	1	0	1	\$1,000.00	162	4,182
Solano	5	5	0	\$24,000.00	1,844	14,646
Sonoma	18	12	1	\$103,950.00	1,956	17,408
Stanislaus	5	6	1	\$14,225.00	2,593	17,897
Sutter	2	1	0	\$2,600.00	643	5,465
Tehama	6	4	1	\$12,350.00	407	4,623
Trinity	2	0	0	\$14,000.00	148	2,172
Tulare	5	4	3	\$1,500.00	1,500	9,028
Tuolumne	19	14	3	\$54,700.00	519	6,191
Ventura	8	2	0	\$33,650.00	4,933	22,914
Yolo	2	5	0	\$10,000.00	601	5,921
Yuba	2	1	2	\$0.00	482	4,593
Out of State	0	0	0	\$0.00	1,455	6,276
<b>Totals</b>	<b>512</b>	<b>313</b>	<b>54</b>	<b>\$2,142,655.00</b>	<b>167,597</b>	<b>855,243</b>

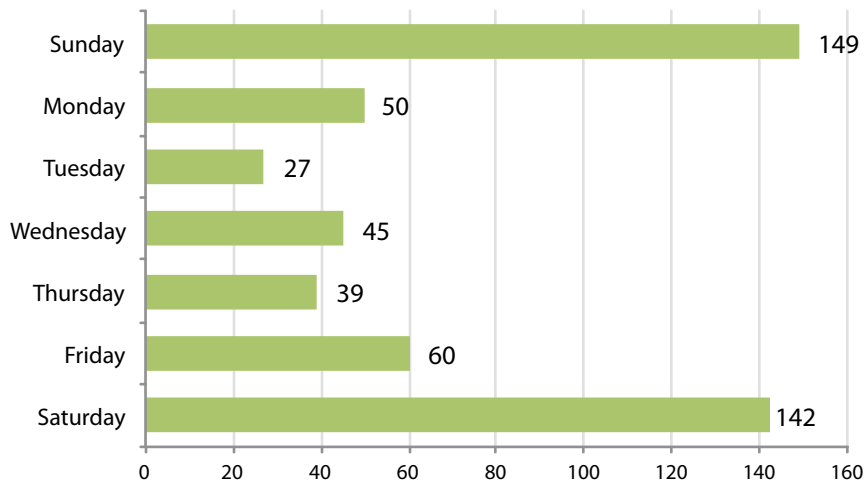


# California

## Accidents by Month (Total Accidents 512)



## Accidents by Day of the Week (Total Accidents 512)

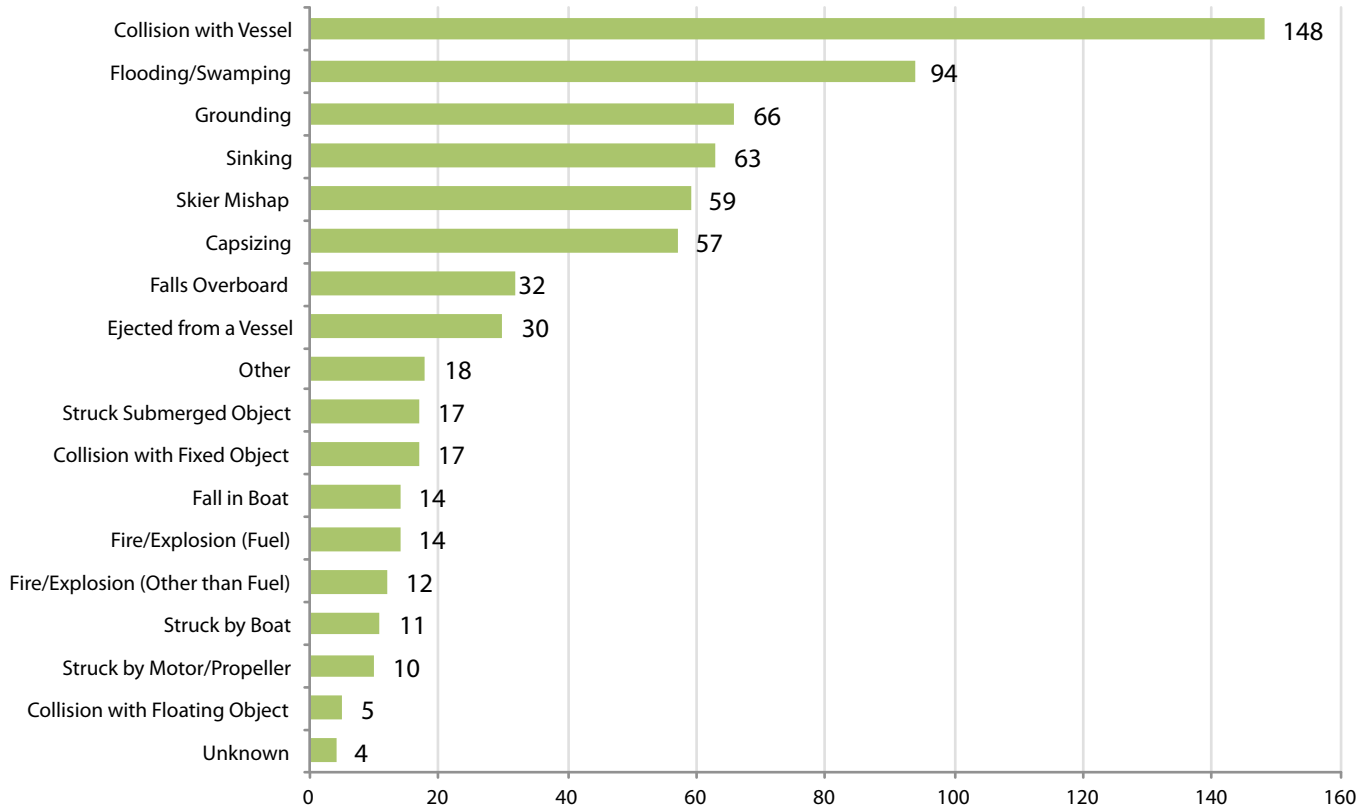


## Accidents by Time of Day

Time of Day	Number of Accidents
12:00-1:59 a.m.	6
2:00-3:59 a.m.	8
4:00-5:59 a.m.	4
6:00-7:59 a.m.	12
8:00-9:59 a.m.	24
10:00-11:59 a.m.	42
12:00-1:59 p.m.	79
2:00-3:59 p.m.	130
4:00-5:59 p.m.	102
6:00-7:59 p.m.	65
8:00-9:59 p.m.	23
10:00-11:59 p.m.	11
Time Unknown	6
<b>Total Accidents</b>	<b>512</b>

# Boating Accident Statistics

## Type of Accidents (Total Types 671\* Total Accidents 512)



\*Some accidents are represented by more than one accident type, which accounts for the accident types exceeding the number of accidents.

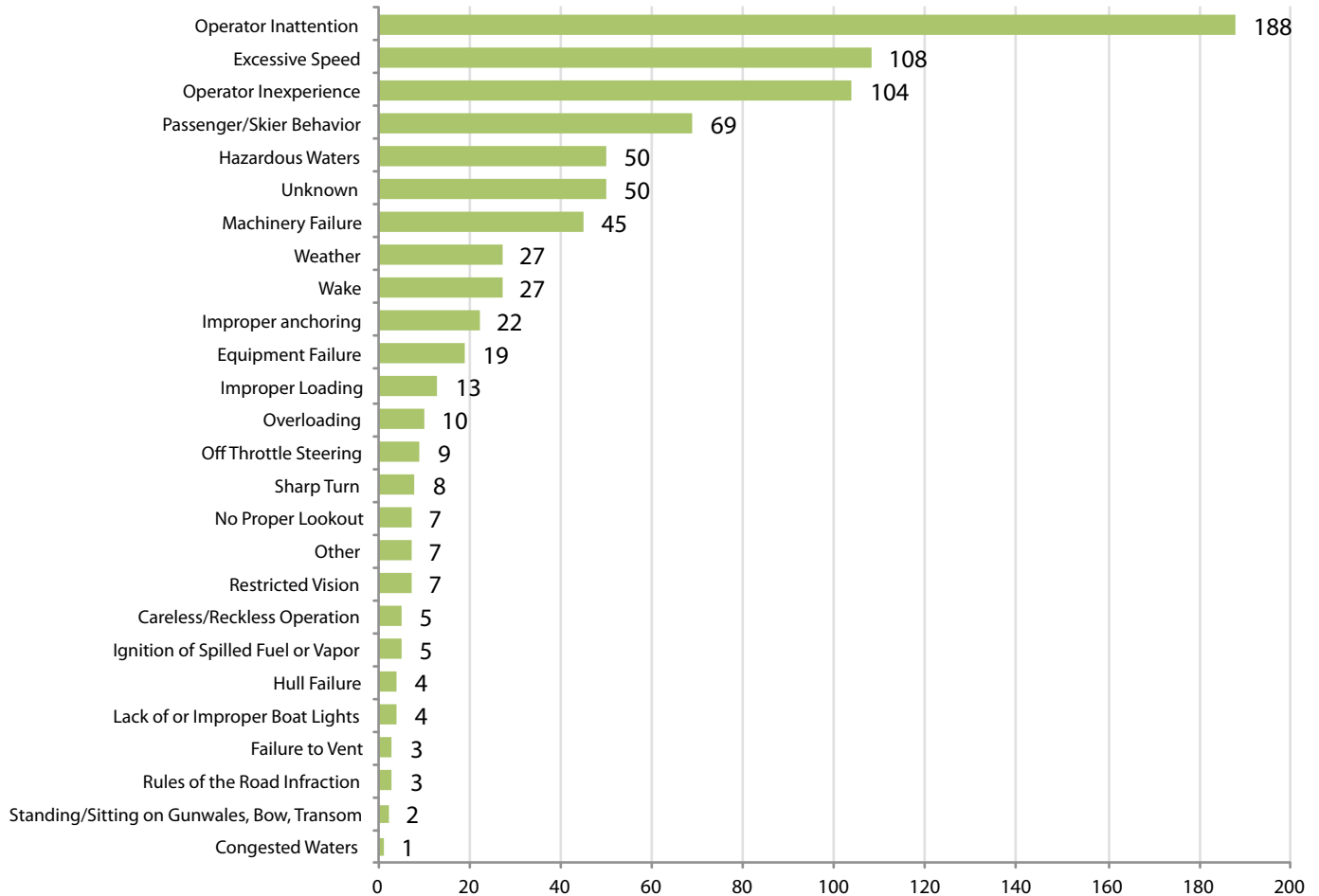
## Type of Accident by Vessel Type

Type of Accident	All Vessels	Open Motorboat	Cabin Motorboat	Personal Watercraft	All Sailboats	Houseboat/Pontoon	Canoe/Kayak
Collision with Vessel	29%	23%	53%	54%	51%	78%	10%
Flooding/Swamping	18%	23%	18%	3%	7%	6%	5%
Grounding	13%	12%	11%	2%	24%	6%	5%
Sinking	12%	15%	11%	1%	7%	6%	5%
Skier Mishap	12%	18%	0%	11%	0%	0%	0%
Capsizing	11%	12%	5%	0%	8%	0%	50%
Falls Overboard	6%	5%	4%	0%	3%	6%	15%
Ejected from a Vessel	6%	6%	3%	10%	3%	6%	0%
Struck Submerged Object	3%	5%	0%	0%	0%	0%	5%
Collision with Fixed Object	3%	1%	9%	1%	10%	0%	0%



# California

## Causes of Accidents (Total Causes 797\* Total Accidents 512)



\*Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed above.

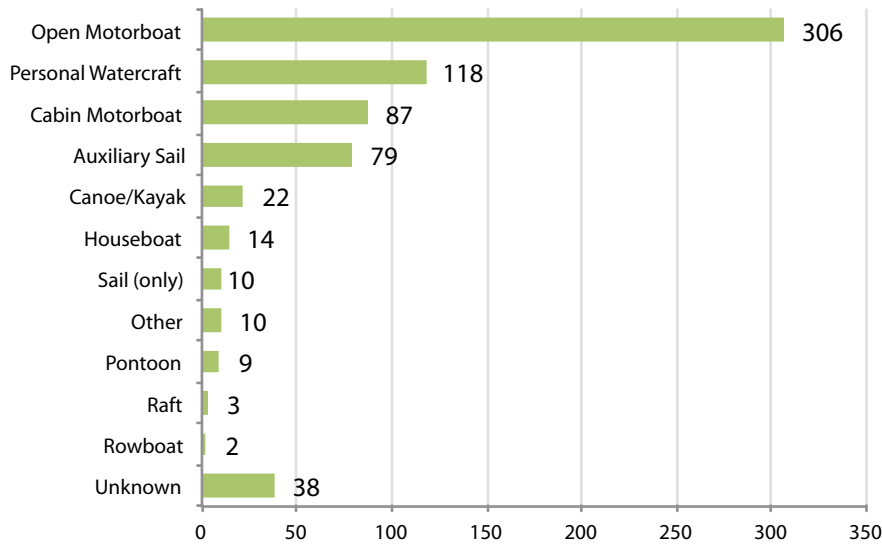
## Cause of Accident by Type of Vessel

Cause of Accident	All Vessels	Open Motorboat	Cabin Motorboat	Personal Watercraft	All Sailboats	Houseboat/Pontoon	Canoe/Kayak
Machinery Failure	9%	11%	11%	2%	11%	0%	0%
Operator Inattention	37%	38%	42%	57%	36%	39%	5%
Operator Inexperience	20%	16%	18%	51%	15%	33%	25%
Excessive Speed	21%	23%	15%	49%	10%	22%	0%
Improper Anchoring	4%	1%	9%	0%	15%	11%	0%
Weather	5%	5%	8%	0%	10%	6%	0%
Passenger/ Skier Behavior	13%	20%	3%	7%	3%	6%	0%



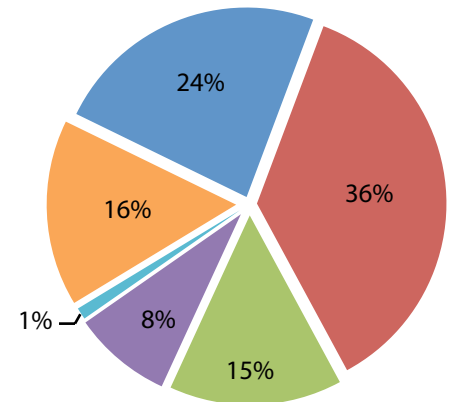
# Boating Accident Statistics

## Vessels Involved in All Accidents by Type (Total Vessels 698)



## Vessels Involved in All Accidents by Length

Length of Vessels	Number of Vessels
<16 feet	164
16-25 feet	254
26-39 feet	103
40-65 feet	59
>65 feet	7
Unknown	111
<b>Total Vessels</b>	<b>698</b>



## Ownership Status of Vessels Involved in Accidents

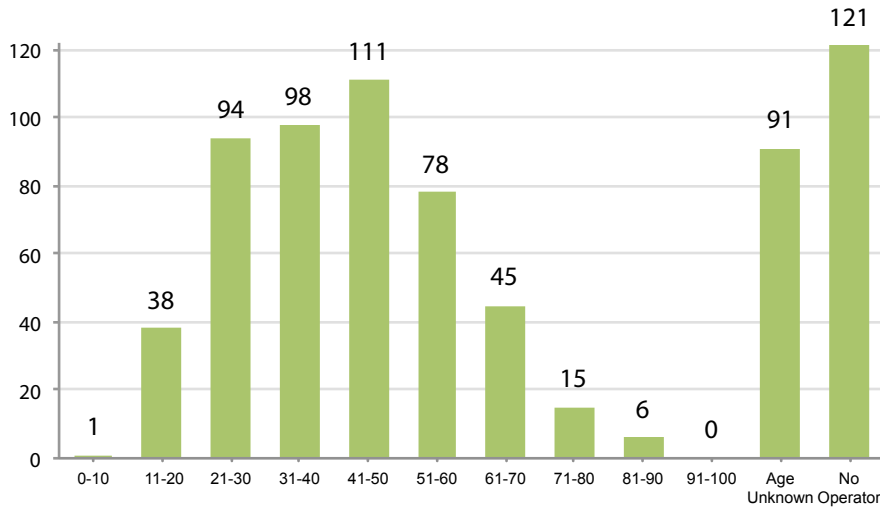
Operated By	All Vessels		Open Motorboats		Personal Watercraft	
	Number of Vessels	Percent of Vessels	Number of Vessels	Percent of Vessels	Number of Vessels	Percent of Vessels
Operated by Owner	328	47%	186	61%	31	26%
Operated by Borrower	146	21%	60	20%	52	44%
Operated by Renter	53	8%	15	5%	20	17%
Unknown	50	7%	12	4%	14	12%
No Operator	121	17%	33	11%	1	1%
<b>Total Vessels</b>	<b>698</b>	<b>100%</b>	<b>306</b>	<b>100%</b>	<b>118</b>	<b>100%</b>



# California

## Operators Involved in All Accidents by Age

(Total Operators 577 Total Vessels 698)



The category No Operator reflects situations in which vessels were anchored or docked with no operator in command.

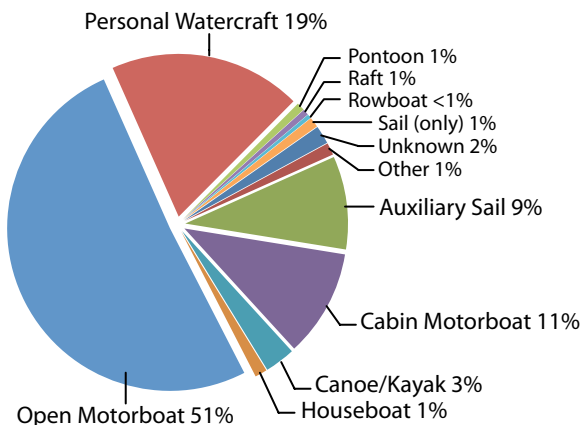
## Operator Education

Type of Education	Number of Operators
American Red Cross	6
State Course	15
U.S. Power Squadron	1
USCG Auxiliary	16
Other	5
Informal	172
None	182
Unknown	180
No Operator	121
<b>Total</b>	<b>698</b>

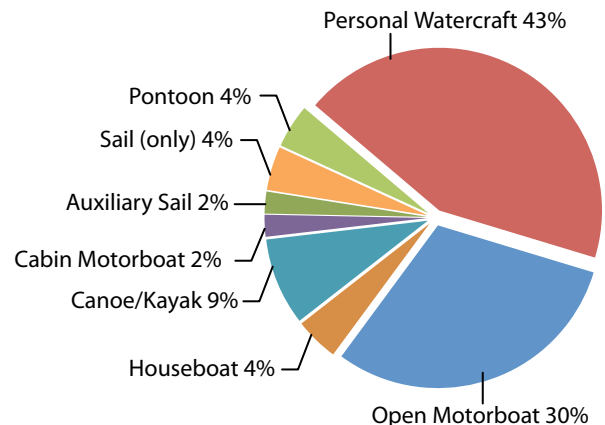
## Gender of Operators Involved in Accidents

Gender	Number of Operators
Male	497
Female	46
Gender Unknown	34
No Operator	121
<b>Total</b>	<b>698</b>

## Type of Vessels Operated by Men Involved in Accidents

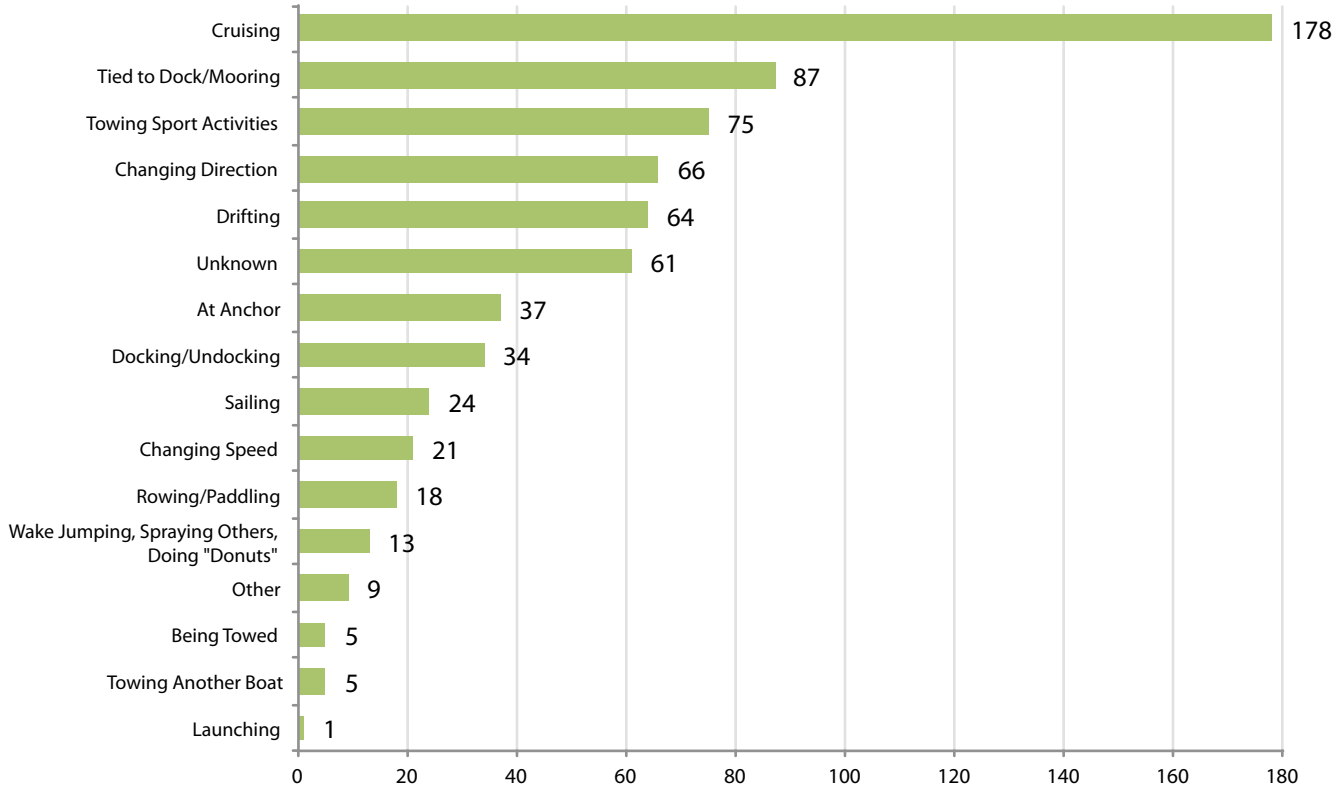


## Type of Vessels Operated by Women Involved in Accidents

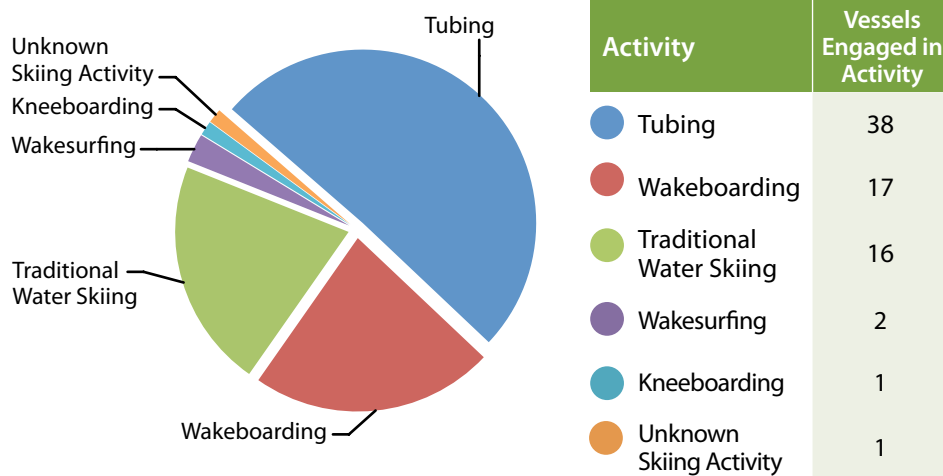


# Boating Accident Statistics

## Operation at Time of Accidents (Total Vessels 698)



## Accidents Involving Towing Sports\*

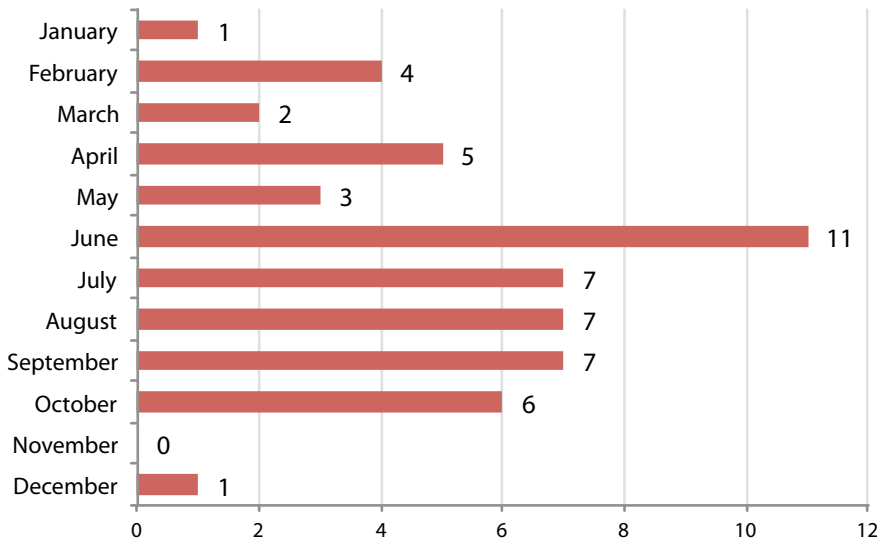


\*Towing sports include persons being towed on lines behind vessels on water skis, wakeboards, wake skates, kneeboards, skurf boards, tubes and parasails.

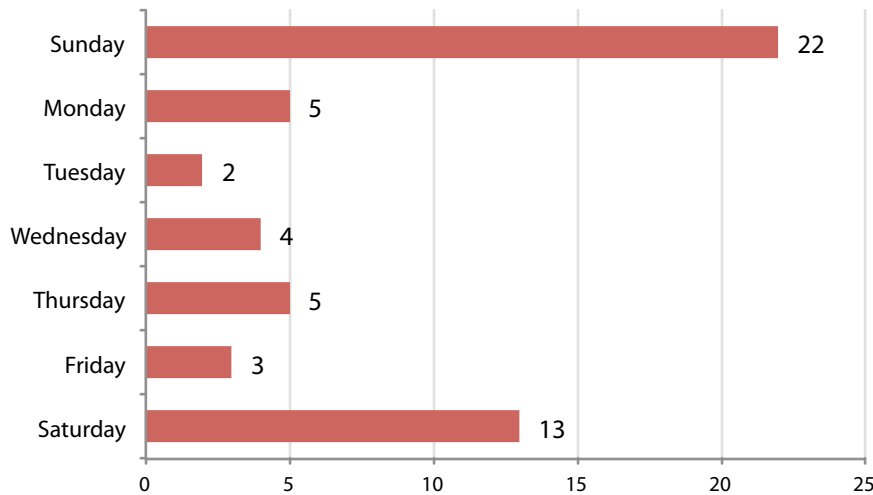


# California

## Fatalities by Month (Total Fatalities 54)



## Fatalities by Day of the Week (Total Fatalities 54)

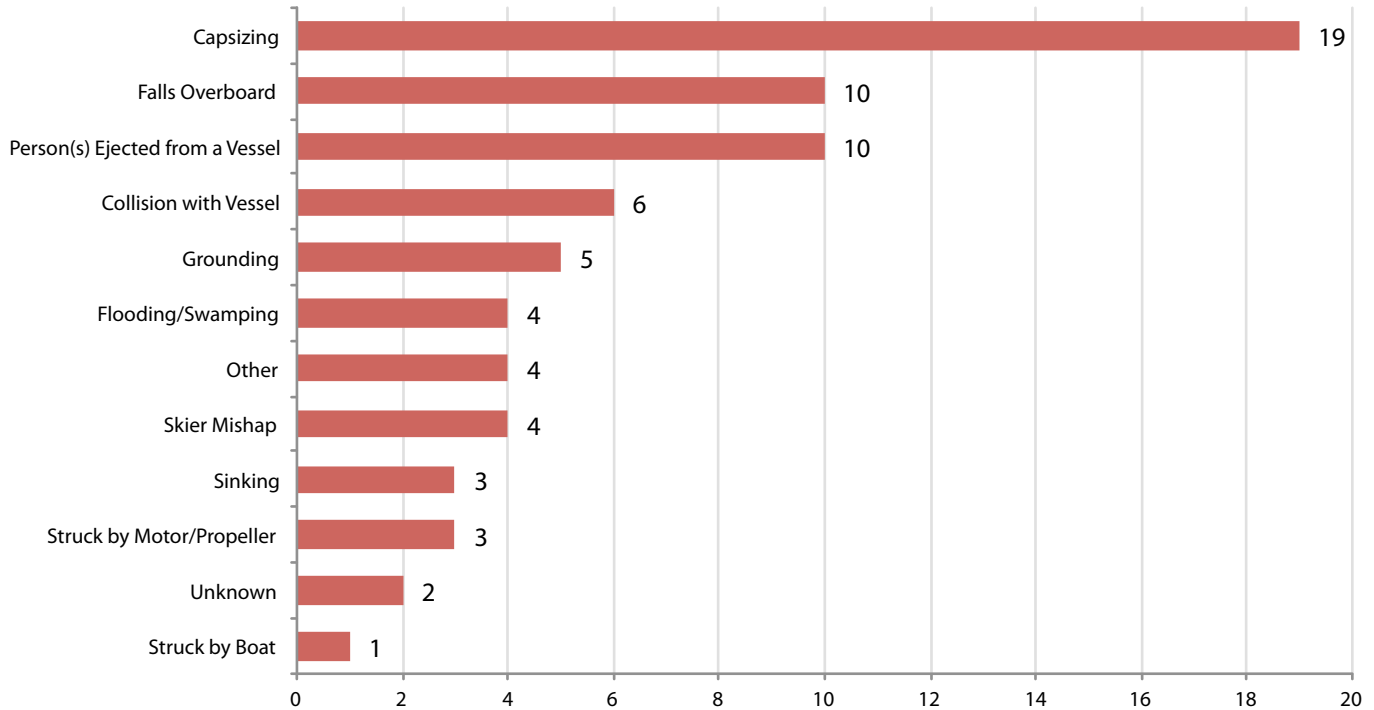


## Accidents by Time of Day

Time of Day	Number of Fatalities
12:00-1:59 a.m.	1
2:00-3:59 a.m.	0
4:00-5:59 a.m.	0
6:00-7:59 a.m.	0
8:00-9:59 a.m.	1
10:00-11:59 a.m.	5
12:00-1:59 p.m.	6
2:00-3:59 p.m.	12
4:00-5:59 p.m.	14
6:00-7:59 p.m.	9
8:00-9:59 p.m.	2
10:00-11:59 p.m.	3
Time Unknown	1
<b>Total Fatalities</b>	<b>54</b>

# Boating Accident Statistics

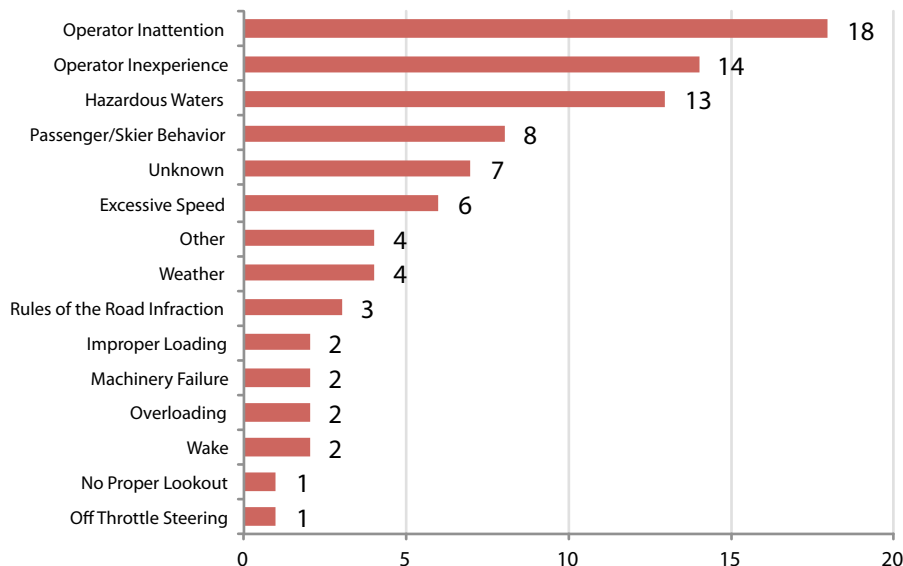
## Fatalities by Type of Accident (Total Types: 71\* Total Fatalities: 54)



\*Some accidents are represented by more than one accident type, which accounts for the accident types exceeding the number of accidents.

## Fatalities by Cause of Accident

(Total Causes: 87\* Total Fatalities: 54)



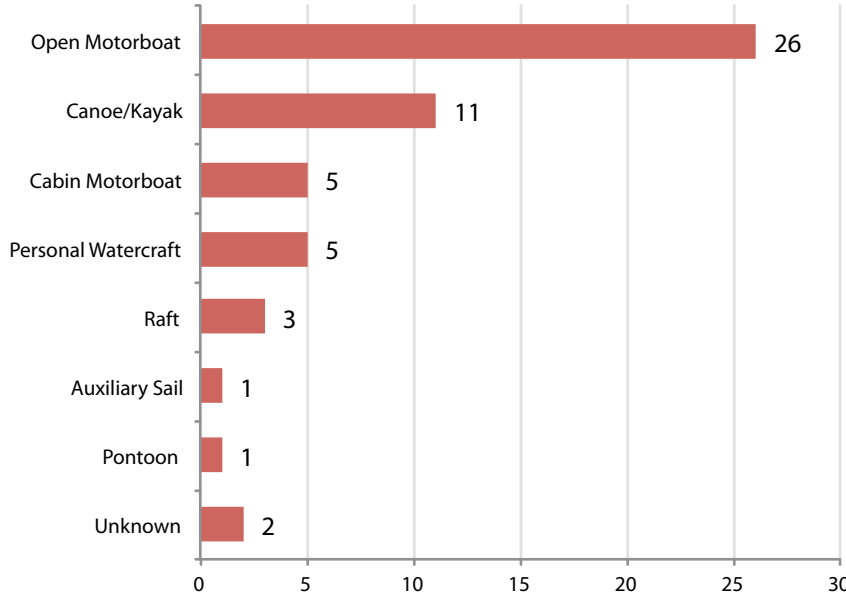
\*\*Blood alcohol test results were received for 35 of the 54 boating fatalities. Of these 35 fatalities, 10 (29%) were alcohol related.

\*Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed left.



# California

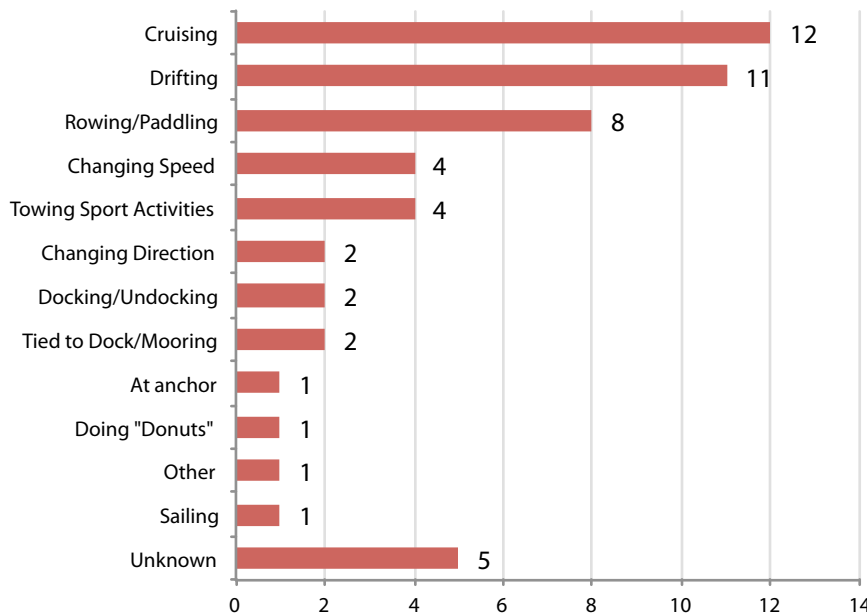
## Vessels Involved in Fatal Accidents (Total Vessels 54)



## Vessels Involved in Fatal Accidents by Length

Length of Vessels	Number of Vessels
<16 feet	13
16-25 feet	20
26-39 feet	3
40-65 feet	2
> 65 feet	0
Unknown	16
<b>Total Vessels</b>	<b>54</b>

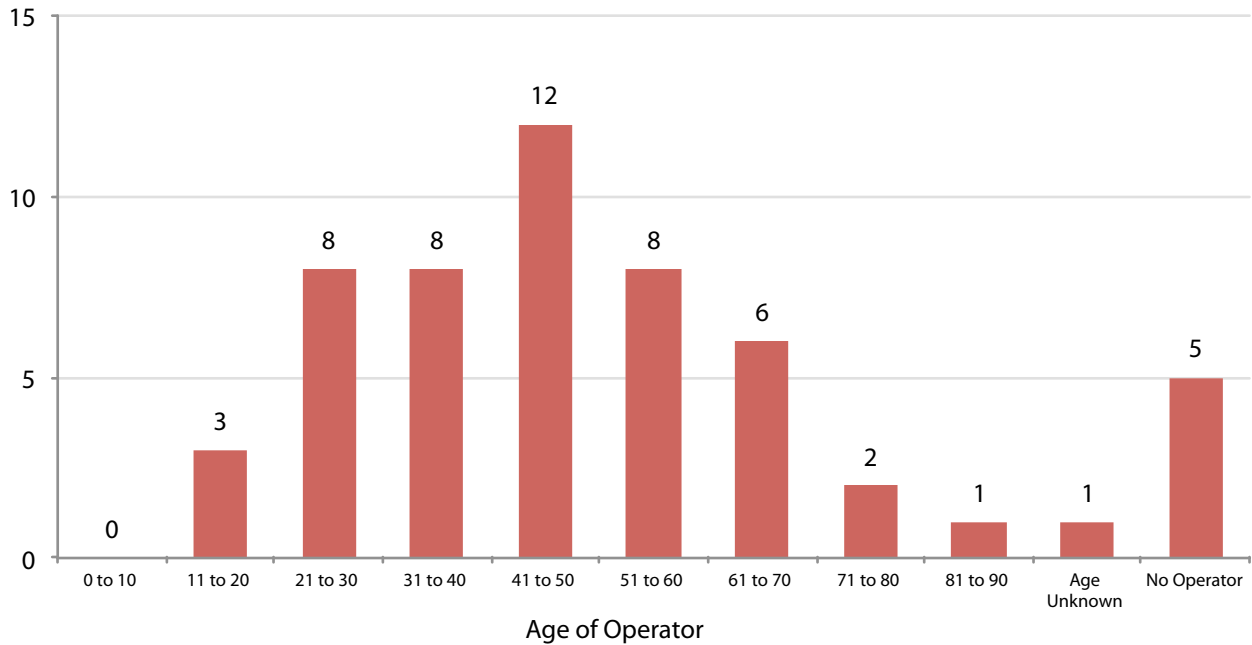
## Operation at Time of Fatal Accident (Total Vessels 54)



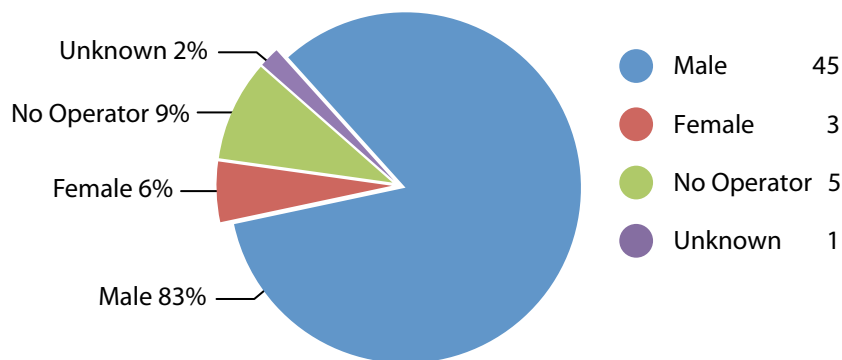
# Boating Accident Statistics

## Operators Involved in All Fatal Accidents by Age

(Total Operators: 49 Total Vessels: 54)



## Gender of Operators Involved in Fatal Accidents



## Operator Education

Type of Education	Number of Operators
American Red Cross	0
State Course	0
U.S. Power Squadron	0
USCG Auxiliary	0
Other	0
Informal	10
None	15
Unknown	24
No Operator	5
<b>Total Vessels</b>	<b>54</b>

The category No Operator reflects situations in which vessels were anchored or docked with no operator in command.



## 2007-2011 Life Jacket Use by Cause of Death

Cause of Death	Wearing Life Jacket	Not Wearing Life Jacket	Life Jacket Use Unknown	Total
Drowning	31	129	6	166
Trauma	29	22	0	51
Carbon Monoxide	0	0	0	0
Hypothermia	1	2	0	3
Other	5	9	1	15
Unknown Cause	2	13	5	20
<b>Total Fatalities</b>	<b>68</b>	<b>175</b>	<b>12</b>	<b>255</b>

## 2007-2011 Life Jacket Use by Victim Activity

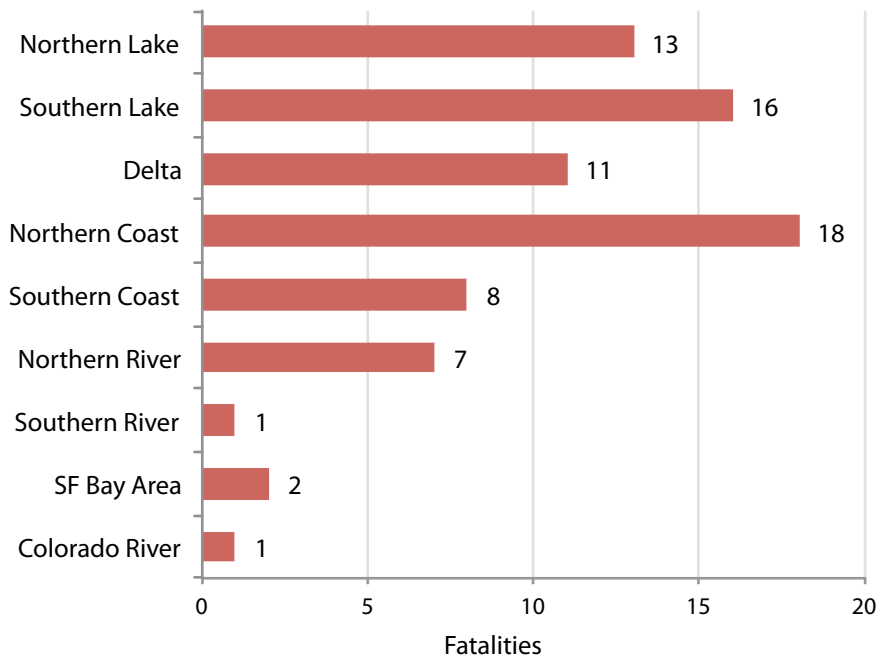
Activity	Wearing Life Jacket	Not Wearing Life Jacket	Life Jacket Use Unknown	Total
General Recreation	35	75	4	114
Fishing	9	67	1	77
Hunting	0	1	0	1
Paddle Sports	12	9	5	26
Towing Sports	9	3	0	12
Swimming	0	15	0	15
Sailing/Windsurfing	1	5	1	7
Other	2	0	1	3
<b>Total Fatalities</b>	<b>68</b>	<b>175</b>	<b>12</b>	<b>255</b>

## 2007-2011 Life Jacket Use by Victim's Type of Vessel

Type of Vessel	Wearing Life Jacket	Not Wearing Life Jacket	Life Jacket Use Unknown	Total
Open Motorboat/Pontoon	22	98	0	120
Cabin Motorboat	1	22	2	25
Personal Watercraft	23	6	0	29
Canoe/Kayak/Raft	18	32	7	57
Saiboats/Sailboards	4	9	2	15
Other	0	2	0	2
Unknown	0	6	1	7
<b>Total</b>	<b>68</b>	<b>175</b>	<b>12</b>	<b>255</b>



## 2007-2011 Boating-Related Fishing Fatalities by Waterway Categories (Fatalities 77)





## 2011 California Recreational Boating Fatalities

### Accidents by Location



Water Body	Number of Fatalities
Northern Lake	9
Southern Lake	7
Northern River	9
Southern River	6
Northern Coast	2
Southern Coast	10
San Francisco Bay Area	5
Delta	2
Colorado River	4
<b>Total Fatalities</b>	<b>54</b>