

2013

California Recreational Boating Accident Statistics

State of California
Natural Resources Agency

California State Parks
Division of Boating and Waterways

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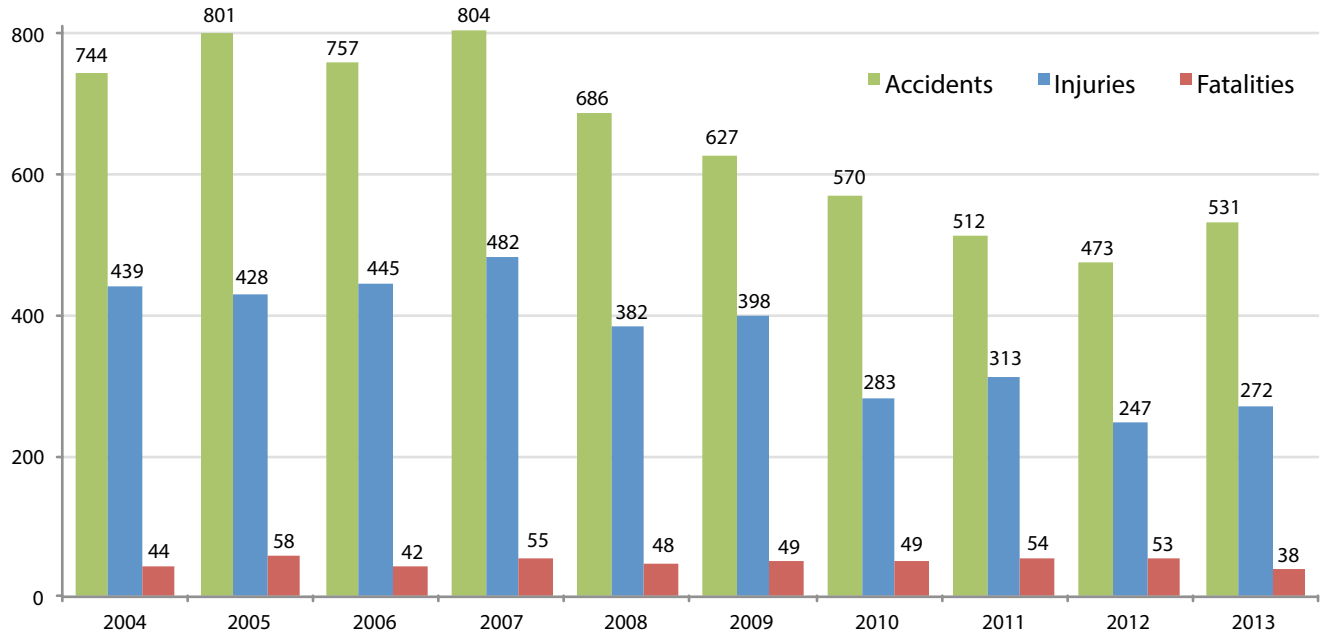




California

Boating Accident Statistics

Accidents, Injuries, and Fatalities 2004-2013



California Boating Accidents by Location 2012-2013

| Waterways | Accidents | | Injuries | | Fatalities | |
|----------------|------------|------------|------------|------------|------------|-----------|
| | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 |
| Northern Lake | 151 | 163 | 96 | 126 | 18 | 15 |
| Southern Lake | 48 | 73 | 24 | 42 | 6 | 2 |
| Northern Coast | 23 | 31 | 17 | 5 | 9 | 3 |
| Southern Coast | 125 | 148 | 39 | 51 | 9 | 4 |
| Northern River | 23 | 20 | 17 | 7 | 5 | 6 |
| Southern River | 2 | 0 | 0 | 0 | 0 | 0 |
| SF Bay Area | 15 | 26 | 6 | 12 | 0 | 3 |
| Delta | 66 | 54 | 34 | 22 | 5 | 5 |
| Colorado River | 20 | 16 | 14 | 7 | 1 | 0 |
| Totals | 473 | 531 | 247 | 272 | 53 | 38 |

Property Damage 2004-2013

| Year | Property Damage |
|------|-----------------|
| 2004 | \$4,073,400 |
| 2005 | \$3,584,700 |
| 2006 | \$8,913,375 |
| 2007 | \$10,643,800 |
| 2008 | \$5,899,184 |
| 2009 | \$4,484,105 |
| 2010 | \$4,040,700 |
| 2011 | \$2,142,655 |
| 2012 | \$5,794,000 |
| 2013 | \$2,407,635 |



California

2013 Boating Accidents

Vessel Registration

| County | Accidents | Injuries | Fatalities | Property Damage | Number of Personal Watercraft (PWC) | Number of Vessels (includes PWC) |
|----------------|-----------|----------|------------|-----------------|-------------------------------------|----------------------------------|
| Alameda | 7 | 3 | 1 | \$19,550.00 | 2,443 | 22,311 |
| Alpine | 0 | 0 | 0 | \$0.00 | 4 | 115 |
| Amador | 2 | 3 | 0 | \$5,000.00 | 170 | 3,207 |
| Butte | 17 | 12 | 0 | \$16,550.00 | 1,088 | 16,331 |
| Calaveras | 3 | 3 | 0 | \$9,100.00 | 568 | 6,251 |
| Colusa | 2 | 0 | 0 | \$19,000.00 | 108 | 1,461 |
| Contra Costa | 19 | 3 | 2 | \$102,685.00 | 3,820 | 32,536 |
| Del Norte | 2 | 1 | 1 | \$3,000.00 | 51 | 1,573 |
| El Dorado | 7 | 5 | 1 | \$13,050.00 | 1,010 | 14,145 |
| Fresno | 11 | 2 | 0 | \$45,100.00 | 1,925 | 21,623 |
| Glenn | 1 | 0 | 1 | \$0.00 | 104 | 1,894 |
| Humboldt | 5 | 1 | 1 | \$31,850.00 | 390 | 7,696 |
| Imperial | 0 | 0 | 0 | \$0.00 | 339 | 2,116 |
| Inyo | 0 | 0 | 0 | \$0.00 | 88 | 1,046 |
| Kern | 5 | 5 | 1 | \$4,300.00 | 2,368 | 16,182 |
| Kings | 0 | 0 | 0 | \$0.00 | 417 | 2,785 |
| Lake | 7 | 5 | 1 | \$42,500.00 | 1,483 | 11,242 |
| Lassen | 0 | 0 | 0 | \$0.00 | 205 | 3,122 |
| Los Angeles | 36 | 16 | 1 | \$520,850.00 | 20,268 | 98,748 |
| Madera | 5 | 7 | 0 | \$20,000.00 | 637 | 6,139 |
| Marin | 10 | 3 | 3 | \$22,225.00 | 318 | 7,740 |
| Mariposa | 2 | 2 | 0 | \$35,000.00 | 123 | 1,595 |
| Mendocino | 2 | 1 | 0 | \$7,000.00 | 283 | 4,949 |
| Merced | 3 | 0 | 0 | \$4,600.00 | 558 | 6,424 |
| Modoc | 0 | 0 | 0 | \$0.00 | 30 | 737 |
| Mono | 1 | 0 | 0 | \$8,000.00 | 100 | 1,431 |
| Monterey | 6 | 3 | 0 | \$19,500.00 | 668 | 7,726 |
| Napa | 16 | 8 | 0 | \$33,400.00 | 393 | 5,559 |
| Nevada | 8 | 4 | 2 | \$3,150.00 | 436 | 9,325 |
| Orange | 60 | 11 | 0 | \$237,800.00 | 11,810 | 57,323 |
| Placer | 10 | 16 | 0 | \$23,100.00 | 1,867 | 20,189 |
| Plumas | 8 | 7 | 2 | \$6,000.00 | 287 | 3,612 |
| Riverside | 14 | 9 | 0 | \$27,000.00 | 10,273 | 47,402 |
| Sacramento | 16 | 7 | 4 | \$78,050.00 | 3,753 | 41,528 |
| San Benito | 0 | 0 | 0 | \$0.00 | 178 | 1,709 |
| San Bernardino | 28 | 9 | 0 | \$80,250.00 | 10,167 | 46,063 |

Boating Accident Statistics

2013 Boating Accidents

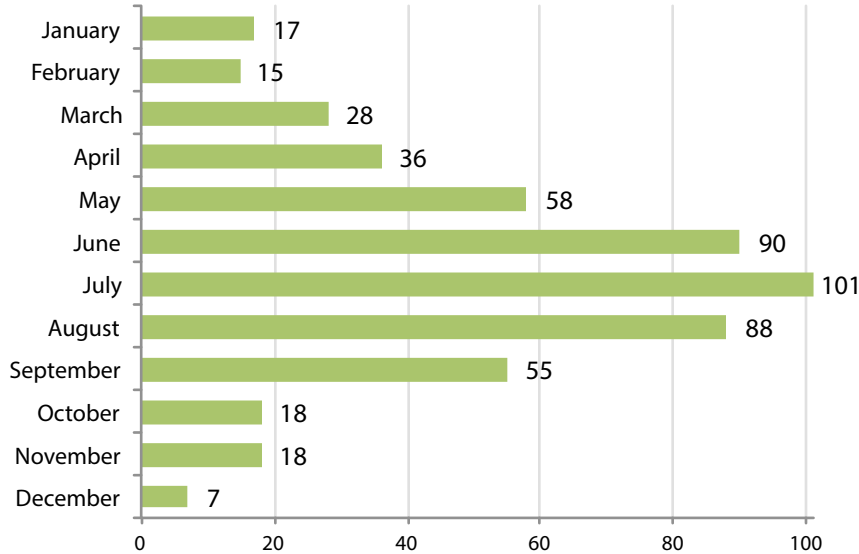
Vessel Registration

| County | Accidents | Injuries | Fatalities | Property Damage | Number of Personal Watercraft (PWC) | Number of Vessels (includes PWC) |
|-----------------|------------|------------|------------|-----------------------|-------------------------------------|----------------------------------|
| San Diego | 47 | 32 | 1 | \$143,650.00 | 8,345 | 58,917 |
| San Francisco | 7 | 3 | 0 | \$30,400.00 | 213 | 3,613 |
| San Joaquin | 27 | 13 | 0 | \$202,375.00 | 2,283 | 24,386 |
| San Luis Obispo | 11 | 5 | 3 | \$66,000.00 | 1,269 | 12,659 |
| San Mateo | 5 | 2 | 0 | \$81,000.00 | 1,258 | 10,355 |
| Santa Barbara | 6 | 0 | 0 | \$20,900.00 | 851 | 9,298 |
| Santa Clara | 7 | 8 | 2 | \$21,000.00 | 2,779 | 23,147 |
| Santa Cruz | 4 | 0 | 0 | \$10,000.00 | 416 | 7,039 |
| Shasta | 28 | 20 | 1 | \$21,350.00 | 1,123 | 19,264 |
| Sierra | 0 | 0 | 0 | \$0.00 | 16 | 329 |
| Siskiyou | 1 | 1 | 1 | \$1,000.00 | 135 | 4,079 |
| Solano | 4 | 4 | 1 | \$3,000.00 | 1,162 | 14,054 |
| Sonoma | 21 | 5 | 1 | \$138,200.00 | 1,281 | 16,983 |
| Stanislaus | 10 | 11 | 1 | \$21,000.00 | 1,557 | 17,356 |
| Sutter | 1 | 0 | 0 | \$2,100.00 | 446 | 5,365 |
| Tehama | 1 | 0 | 2 | \$0.00 | 256 | 4,554 |
| Trinity | 4 | 6 | 0 | \$1,500.00 | 111 | 2,104 |
| Tulare | 3 | 1 | 0 | \$6,000.00 | 938 | 8,765 |
| Tuolumne | 12 | 5 | 1 | \$113,000.00 | 375 | 5,922 |
| Ventura | 6 | 1 | 0 | \$7,500.00 | 3,254 | 21,470 |
| Yolo | 2 | 0 | 2 | \$0.00 | 415 | 5,774 |
| Yuba | 11 | 9 | 1 | \$80,050.00 | 310 | 4,523 |
| Out of State | N/A | N/A | N/A | N/A | 0 | 6,699 |
| Totals | 531 | 272 | 38 | \$2,407,635.00 | 107,523 | 820,490 |



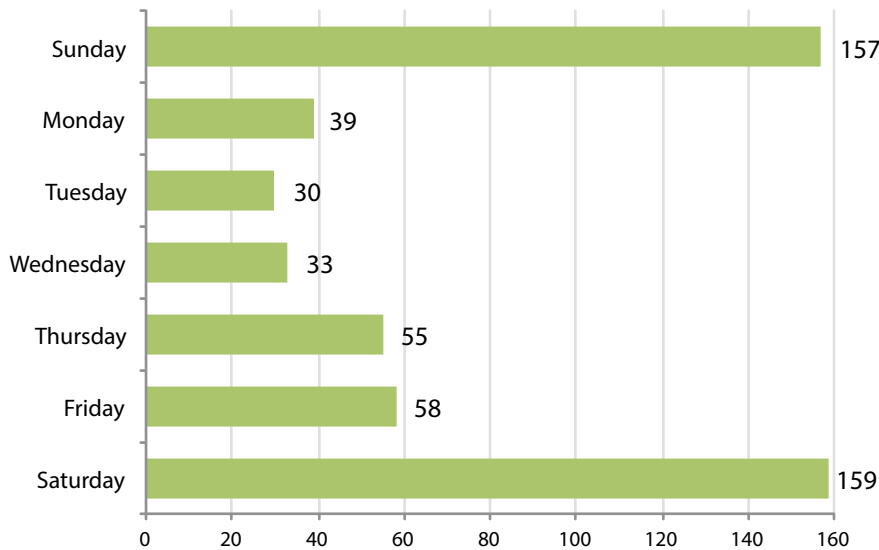
California

2013 Accidents by Month (Total Accidents 531)



2013 Accidents by Day of the Week (Total Accidents 531)

(Total Accidents 531)

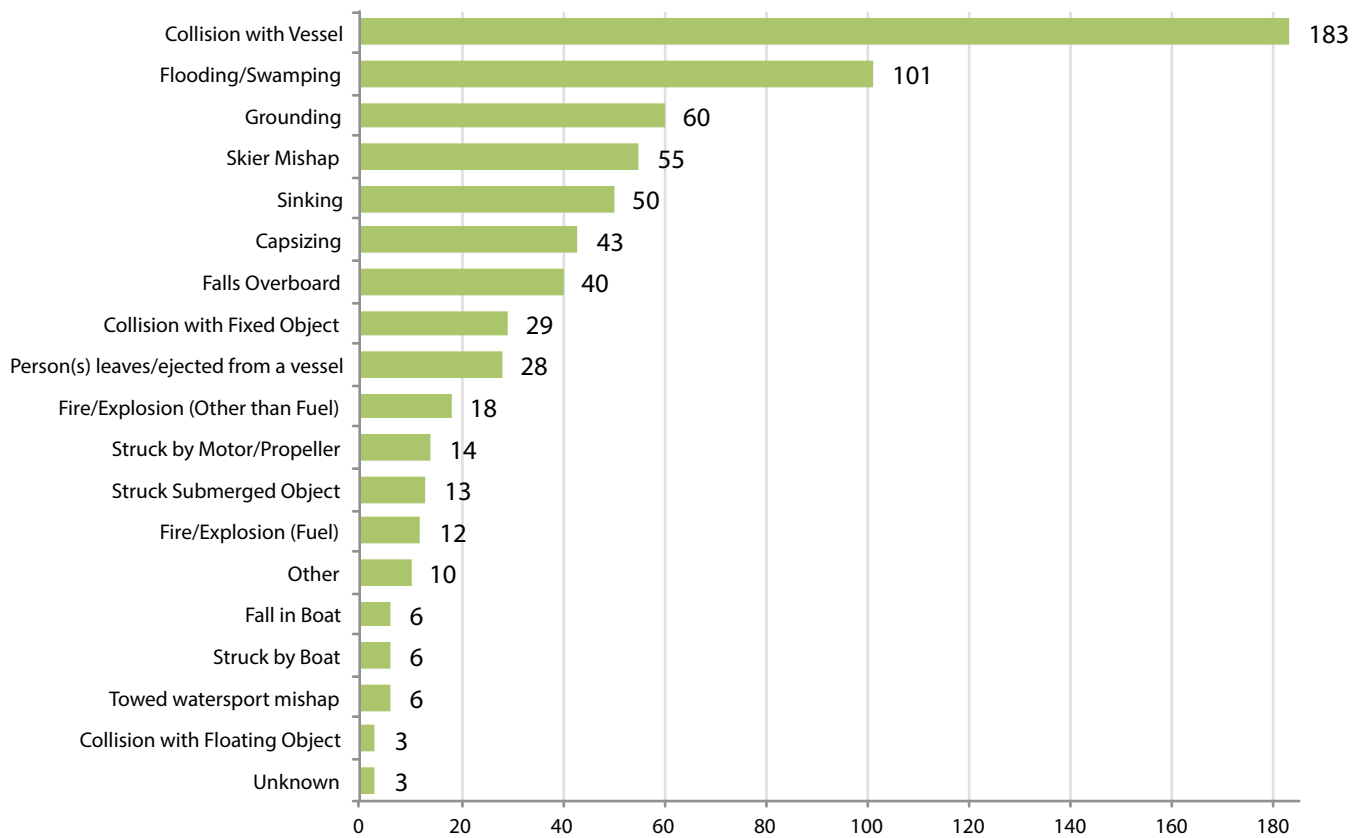


2013 Accidents by Time of Day

| Time of Day | Number of Accidents |
|------------------------|---------------------|
| 12:00-1:59 a.m. | 9 |
| 2:00-3:59 a.m. | 2 |
| 4:00-5:59 a.m. | 3 |
| 6:00-7:59 a.m. | 16 |
| 8:00-9:59 a.m. | 24 |
| 10:00-11:59 a.m. | 54 |
| 12:00-1:59 p.m. | 92 |
| 2:00-3:59 p.m. | 111 |
| 4:00-5:59 p.m. | 112 |
| 6:00-7:59 p.m. | 64 |
| 8:00-9:59 p.m. | 25 |
| 10:00-11:59 p.m. | 11 |
| Time Unknown | 8 |
| Total Accidents | 531 |

Boating Accident Statistics

2013 Type of Accidents (Total Types: 680* Total Accidents: 531)



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

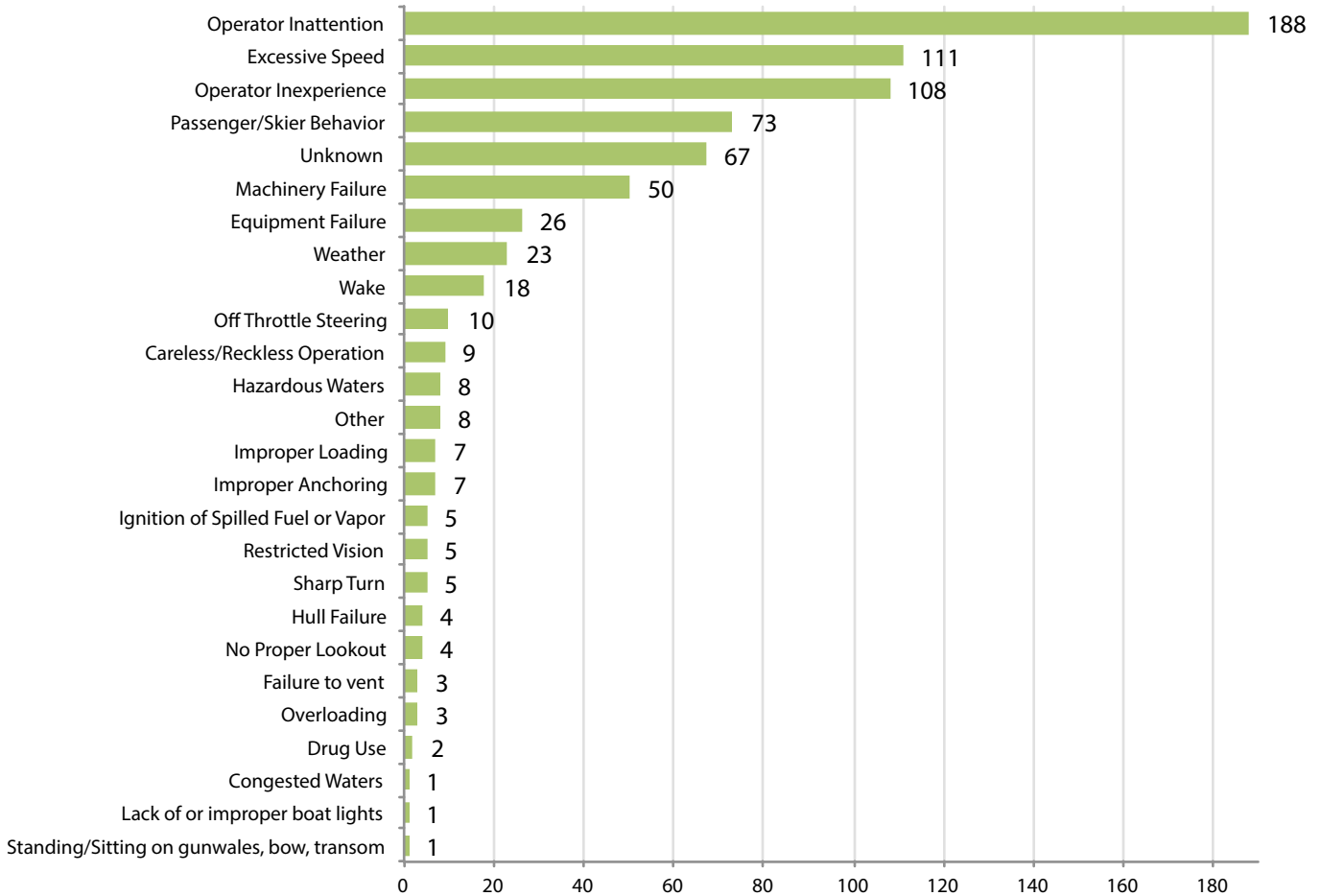
2013 Type of Accident by Vessel Type

| Type of Accident | All Vessels | Open Motorboat | Cabin Motorboat | Personal Watercraft | All Sailboats | Houseboat/Pontoon | Canoe/Kayak |
|--|-------------|----------------|-----------------|---------------------|---------------|-------------------|-------------|
| Collision with Vessel | 34% | 29% | 58% | 63% | 59% | 47% | 6% |
| Flooding/Swamping | 19% | 22% | 23% | 8% | 8% | 13% | 6% |
| Grounding | 11% | 11% | 6% | 5% | 20% | 0% | 13% |
| Skier Mishap | 10% | 18% | 0% | 2% | 0% | 3% | 0% |
| Sinking | 9% | 11% | 14% | 2% | 4% | 3% | 0% |
| Capsizing | 8% | 7% | 2% | 6% | 3% | 0% | 50% |
| Falls Overboard | 8% | 8% | 2% | 8% | 1% | 9% | 19% |
| Collision with Fixed Object | 5% | 5% | 7% | 0% | 9% | 3% | 6% |
| Person(s) leaves/ejected from a vessel | 5% | 4% | 1% | 12% | 3% | 16% | 6% |
| Fire/Explosion (Other than Fuel) | 3% | 3% | 5% | 0% | 3% | 6% | 0% |



California

2013 Cause of Accidents (Total Causes: 747* Total Accidents: 531)



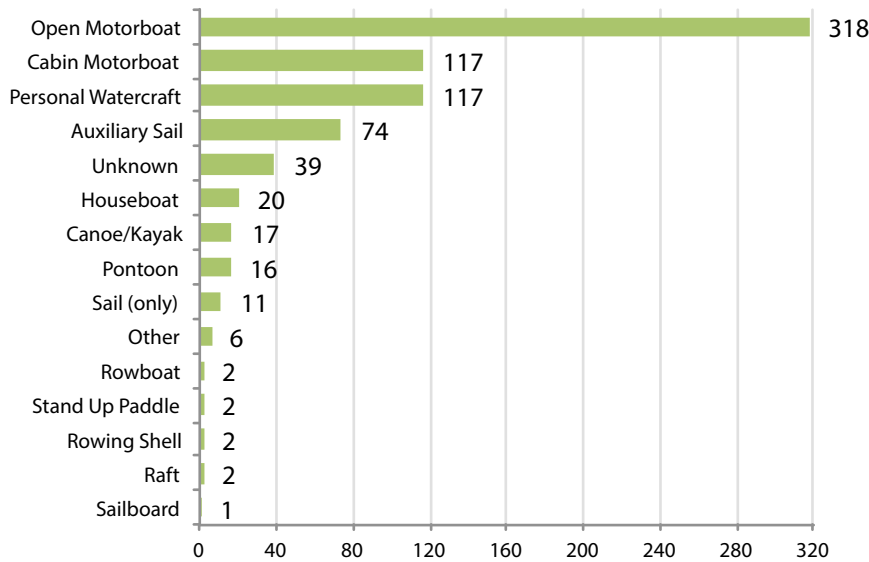
*Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed above.

2013 Cause of Accident by Type of Vessel

| Cause of Accident | All Vessels | Open Motorboat | Cabin Motorboat | Personal Watercraft | All Sailboats | Houseboat/Pontoon | Canoe/Kayak |
|--------------------------|-------------|----------------|-----------------|---------------------|---------------|-------------------|-------------|
| Operator Inattention | 35% | 37% | 42% | 46% | 39% | 22% | 19% |
| Excessive Speed | 21% | 21% | 15% | 57% | 12% | 6% | 0% |
| Operator Inexperience | 20% | 14% | 19% | 51% | 25% | 38% | 19% |
| Passenger/Skier Behavior | 14% | 21% | 0% | 2% | 1% | 31% | 0% |
| Machinery Failure | 9% | 10% | 16% | 2% | 15% | 0% | 0% |
| Equipment Failure | 5% | 4% | 9% | 1% | 7% | 3% | 0% |
| Weather | 4% | 4% | 4% | 0% | 8% | 3% | 13% |

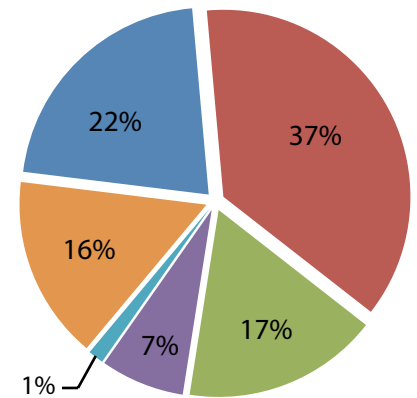
Boating Accident Statistics

2013 Vessels Involved in All Accidents by Type (Total Vessels 744)



2013 Vessels Involved in All Accidents by Length

| Length of Vessels | Number of Vessels |
|----------------------|-------------------|
| Vessels <16 feet | 161 |
| Vessels 16-25 feet | 275 |
| Vessels 26-39 feet | 126 |
| Vessels 40-65 feet | 54 |
| Vessels over 65 feet | 10 |
| Unknown | 118 |
| Total Vessels | 744 |



2013 Ownership Status of Vessels Involved in Accidents

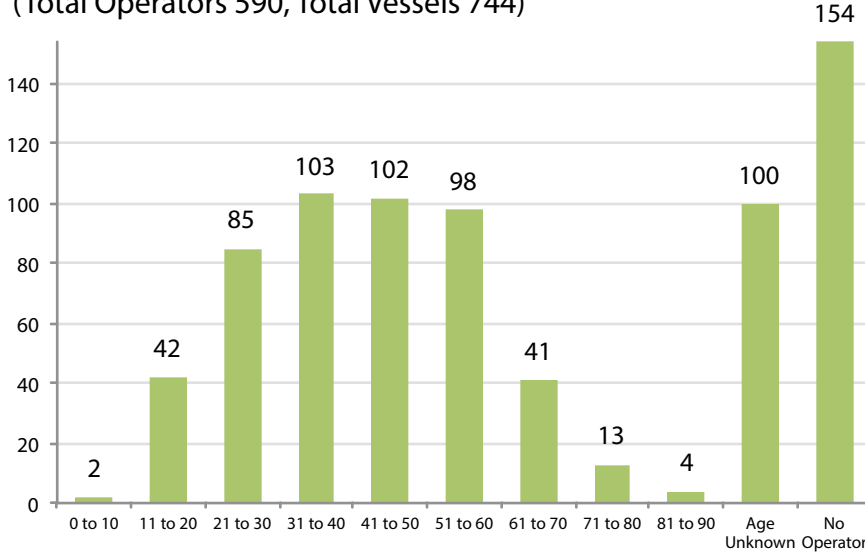
| Operated By | All Vessels | | Open Motorboats | | Personal Watercraft | |
|----------------------|-------------------|--------------------|-------------------|--------------------|---------------------|--------------------|
| | Number of Vessels | Percent of Vessels | Number of Vessels | Percent of Vessels | Number of Vessels | Percent of Vessels |
| Operated by Owner | 303 | 41% | 169 | 53% | 25 | 21% |
| Operated by Borrower | 171 | 23% | 75 | 24% | 49 | 42% |
| Operated by Renter | 68 | 9% | 20 | 6% | 35 | 30% |
| Unknown | 48 | 6% | 11 | 3% | 4 | 3% |
| No Operator | 154 | 21% | 43 | 14% | 4 | 3% |
| Total Vessels | 744 | 100% | 318 | 100% | 117 | 100% |



California

2013 Operators Involved in All Accidents by Age

(Total Operators 590, Total Vessels 744)



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

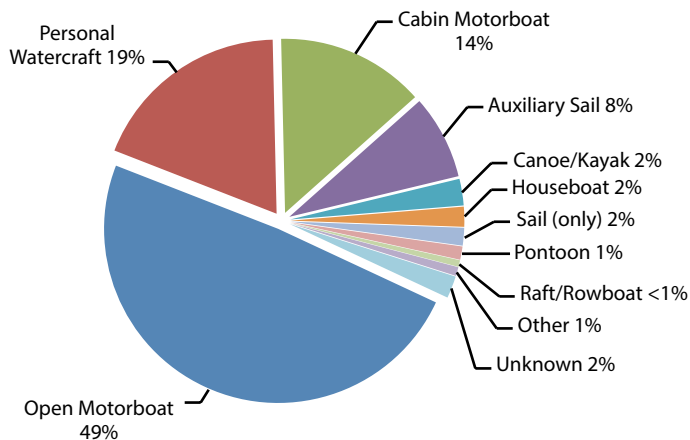
2013 Operator Education

| Type of Education | Number of Operators |
|---------------------|---------------------|
| American Red Cross | 7 |
| State Course | 26 |
| U.S. Power Squadron | 2 |
| USCG Auxiliary | 11 |
| Other | 2 |
| Informal | 207 |
| None | 166 |
| Unknown | 169 |
| No Operator | 154 |
| Total | 744 |

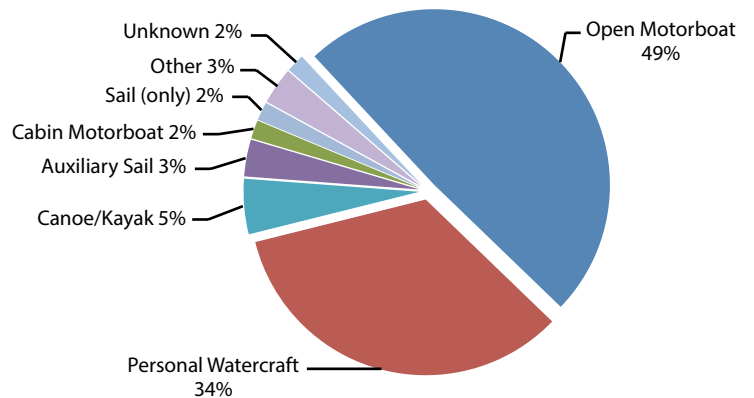
2013 Gender of Operators Involved in Accidents

| Gender | Number of Operators |
|----------------|---------------------|
| Male | 485 |
| Female | 59 |
| Gender Unknown | 46 |
| No Operator | 154 |
| Total | 744 |

2013 Type of Vessels Operated by Men Involved in Accidents

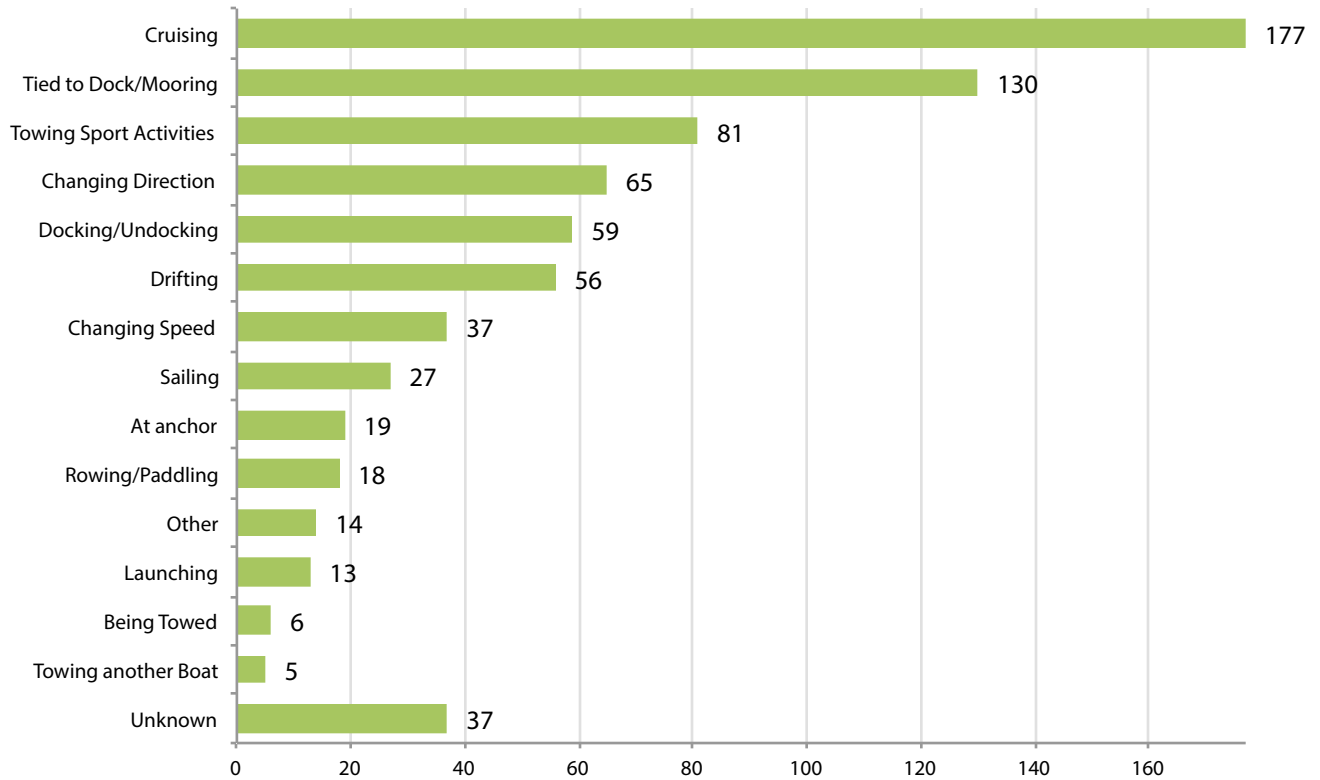


2013 Type of Vessels Operated by Women Involved in Accidents

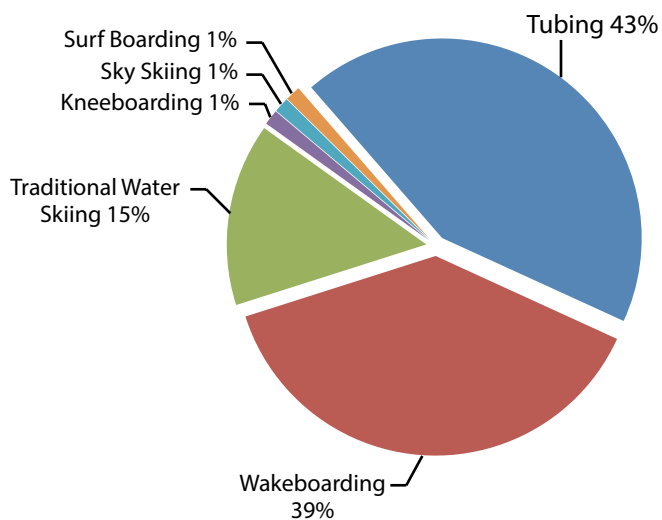


Boating Accident Statistics

2013 Operation at Time of Accident (Total Vessels 744)



2013 Accidents Involving Towing Sports*



| Activity | Vessels Engaged in Activity |
|--------------------------|-----------------------------|
| Tubing | 35 |
| Wakeboarding | 31 |
| Traditional Water Skiing | 12 |
| Kneeboarding | 1 |
| Sky Skiing | 1 |
| Surf Boarding | 1 |
| Total | 81 |

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

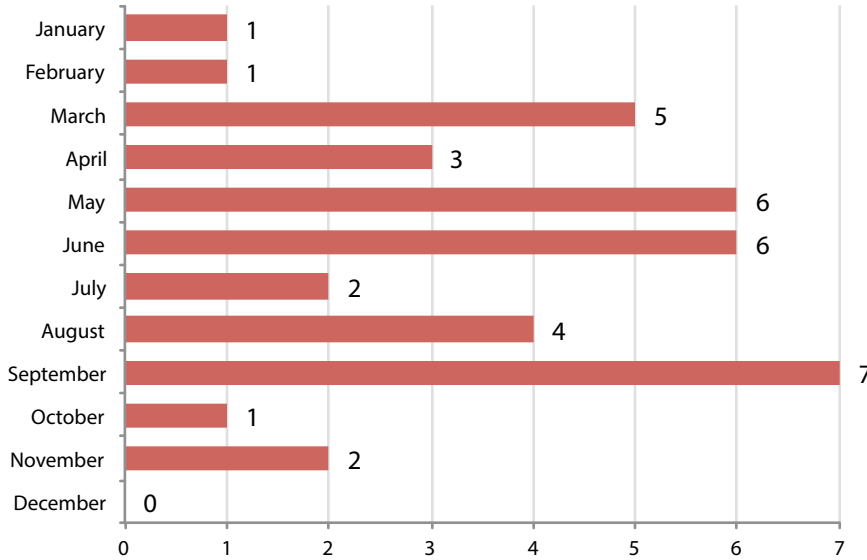
There was one accident involving 2 wakeboarding vessels. Consequently there were 81 vessels involved in 80 accidents involving tow sports.



California

2013 Fatalities by Month

(Total Fatalities 38)

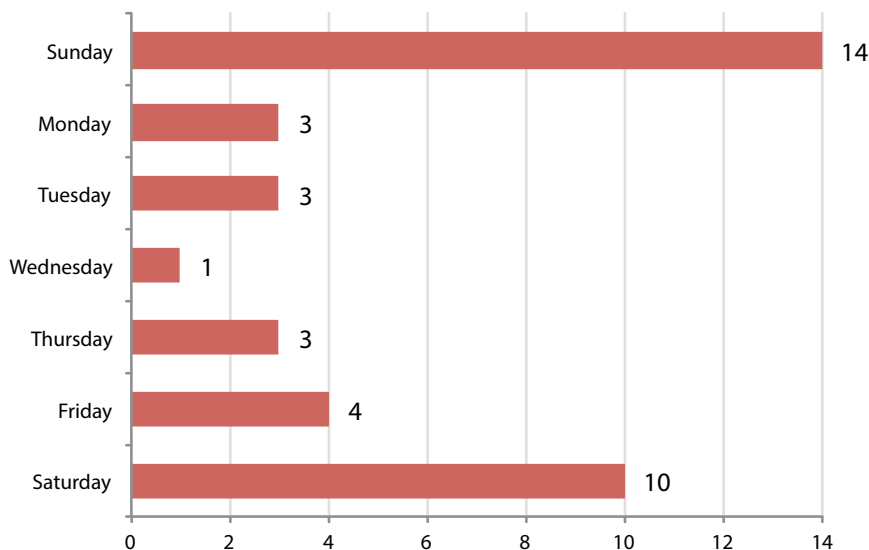


2013 Accidents by Time of Day

| Time of Day | Number of Fatalities |
|------------------------|----------------------|
| 12:00-1:59 a.m. | 0 |
| 2:00-3:59 a.m. | 0 |
| 4:00-5:59 a.m. | 0 |
| 6:00-7:59 a.m. | 2 |
| 8:00-9:59 a.m. | 2 |
| 10:00-11:59 a.m. | 3 |
| 12:00-1:59 p.m. | 7 |
| 2:00-3:59 p.m. | 10 |
| 4:00-5:59 p.m. | 8 |
| 6:00-7:59 p.m. | 1 |
| 8:00-9:59 p.m. | 3 |
| 10:00-11:59 p.m. | 2 |
| Time Unknown | 0 |
| Total Accidents | 38 |

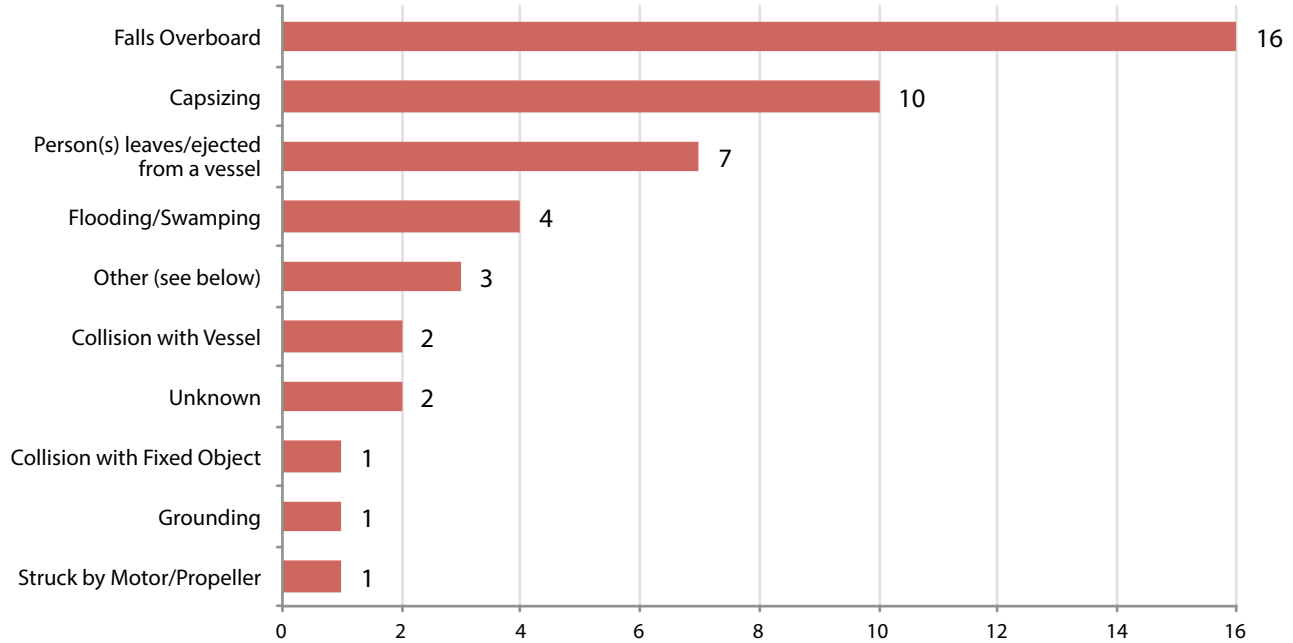
2013 Fatalities by Day of the Week

(Total Fatalities 38)



Boating Accident Statistics

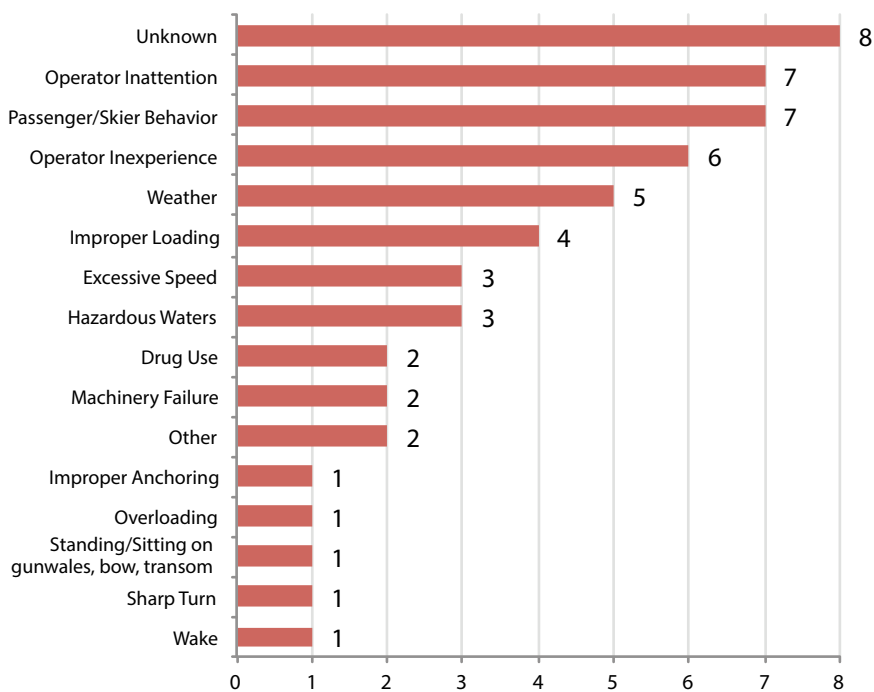
2013 Fatalities by Type of Accident (Total Types: 47* Total Fatalities: 38)



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

2013 Fatalities by Cause of Accident

(Total Causes: 54* Total Fatalities: 38)



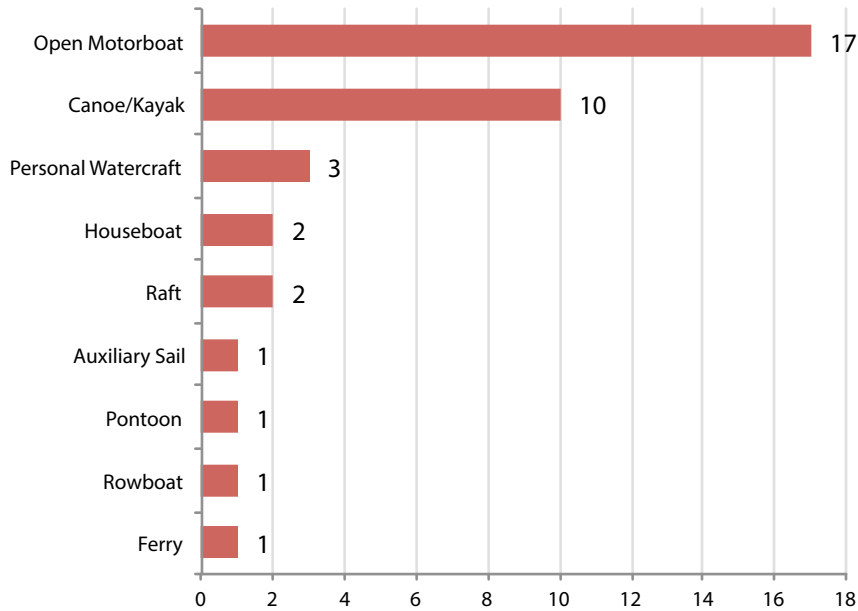
*Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed left.



California

2013 Vessels Involved in Fatal Accidents

(Total Vessels 38)

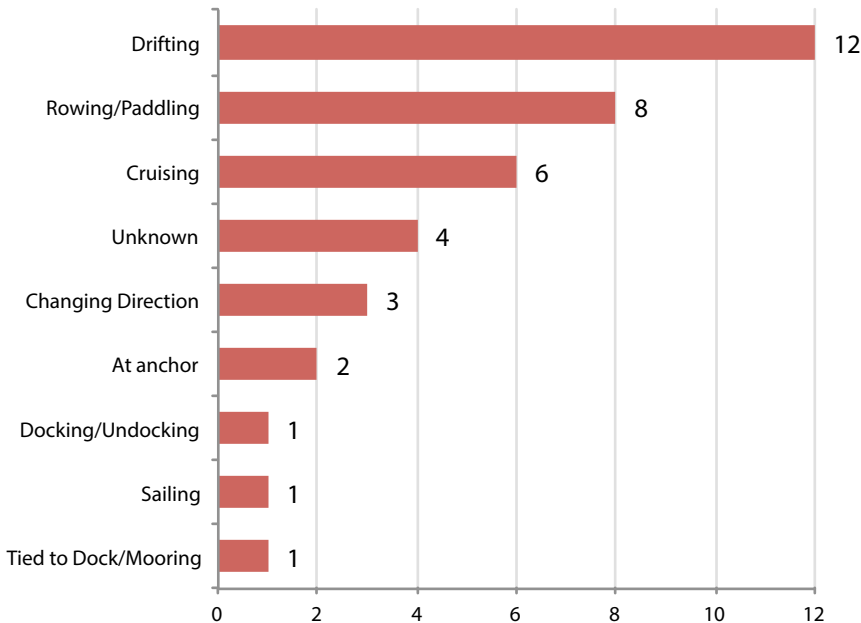


2013 Vessels Involved in Fatal Accidents by Length

| Length of Vessels | Number of Vessels |
|----------------------|-------------------|
| <16 feet | 13 |
| 16-25 feet | 10 |
| 26-39 feet | 2 |
| 40-65 feet | 0 |
| >65 feet | 1 |
| Unknown | 12 |
| Total Vessels | 38 |

2013 Operation at Time of Fatal Accident

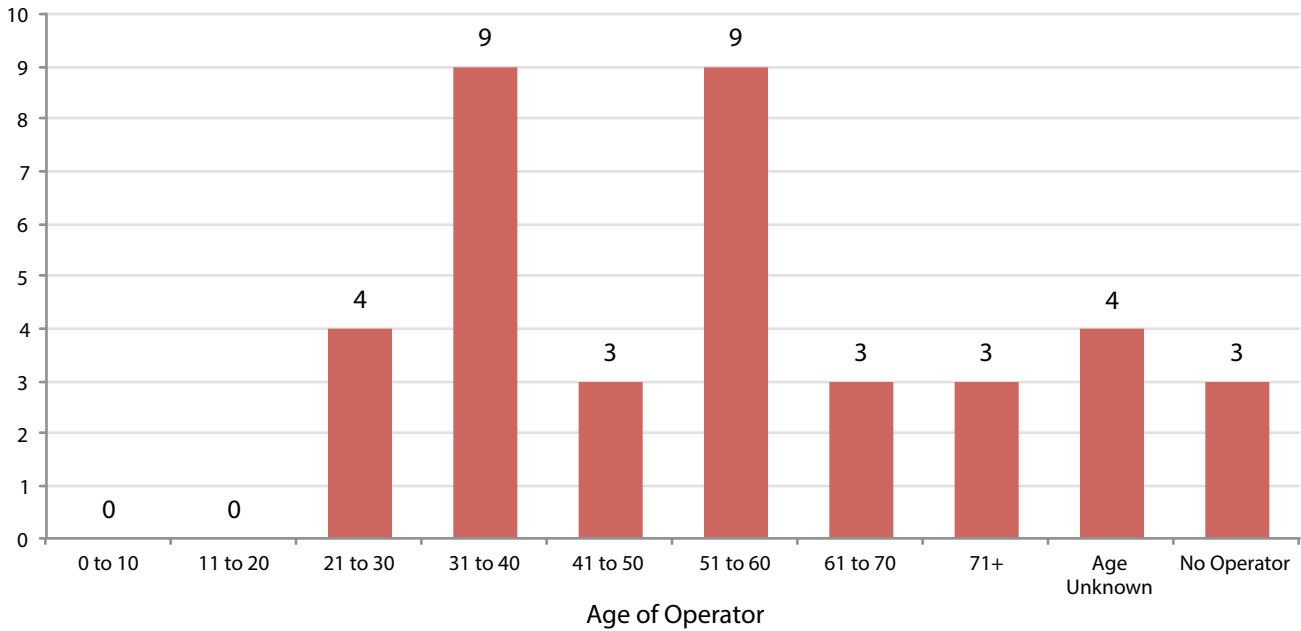
(Total Vessels 38)



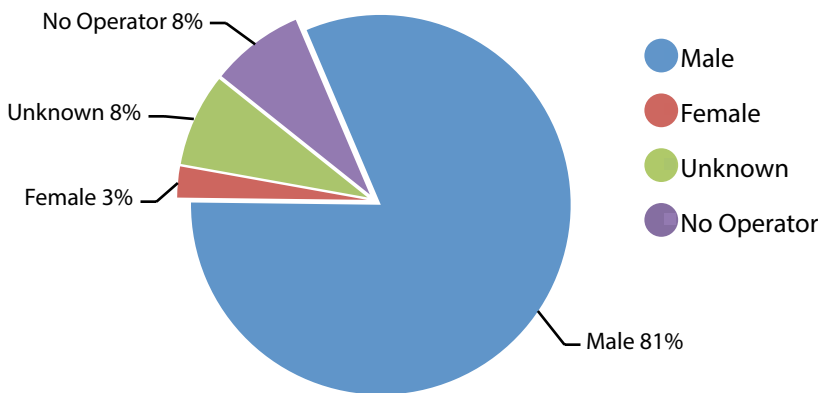
Boating Accident Statistics

2013 Operators Involved in Fatal Accidents by Age

(Total Operators: 35, Total Vessels: 38)



2013 Gender of Operators Involved in Fatal Accidents



2013 Operator Education

| Type of Education | Number of Operators |
|----------------------|---------------------|
| American Red Cross | 0 |
| State Course | 0 |
| U.S. Power Squadron | 0 |
| USCG Auxiliary | 0 |
| Other | 1 |
| Informal | 3 |
| None | 4 |
| Unknown | 27 |
| No Operator | 3 |
| Total Vessels | 38 |

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



California

2009-2013 Life Jacket Use by Cause of Death

| Cause of Death | Wearing Life Jacket | Not Wearing Life Jacket | Life Jacket Use Unknown | Total |
|-------------------------|---------------------|-------------------------|-------------------------|------------|
| Drowning | 34 | 116 | 5 | 155 |
| Trauma | 23 | 19 | 1 | 43 |
| Carbon Monoxide | 0 | 1 | 1 | 2 |
| Hypothermia | 1 | 0 | 0 | 1 |
| Other | 2 | 5 | 2 | 9 |
| Unknown Cause | 7 | 18 | 8 | 33 |
| Total Fatalities | 67 | 159 | 17 | 243 |

2009-2013 Life Jacket Use by Victim Activity

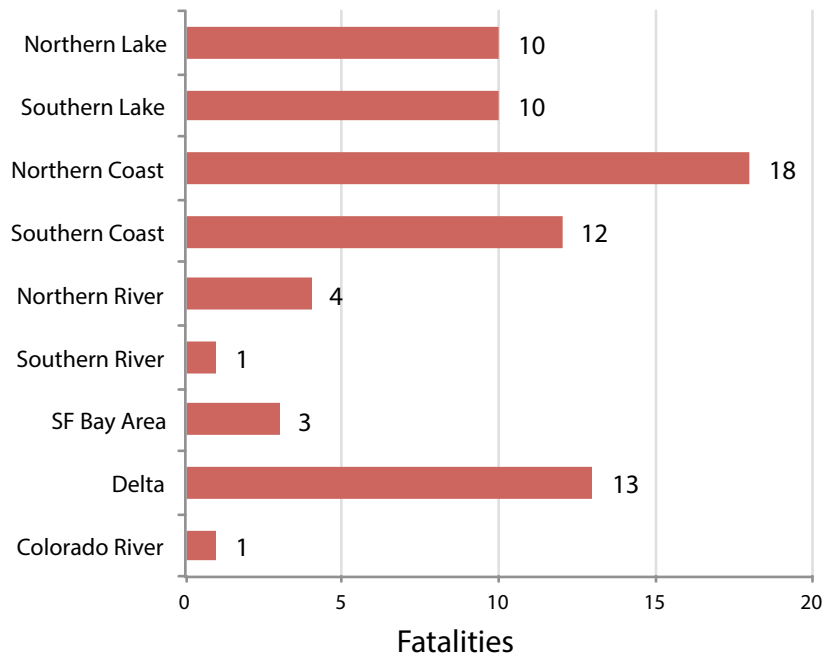
| Activity | Wearing Life Jacket | Not Wearing Life Jacket | Life Jacket Use Unknown | Total |
|-------------------------|---------------------|-------------------------|-------------------------|------------|
| General Recreation | 31 | 70 | 5 | 106 |
| Fishing | 7 | 61 | 4 | 72 |
| Hunting | 0 | 2 | 0 | 2 |
| Paddle Sports | 12 | 6 | 5 | 23 |
| Towing Sports | 6 | 1 | 0 | 7 |
| Swimming | 0 | 13 | 0 | 13 |
| Sailing/Windsurfing | 9 | 6 | 2 | 17 |
| Other | 2 | 0 | 1 | 3 |
| Total Fatalities | 67 | 159 | 17 | 243 |

2009-2013 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 | 18 | 80 | 4 | 102 |
| Cabin Motorboat | 0 | 20 | 2 | 22 |
| Personal Watercraft | 19 | 4 | 0 | 23 |
| Canoe/Kayak/Raft/Row | 20 | 35 | 7 | 62 |
| Sailboats/Sailboards | 10 | 8 | 2 | 20 |
| Other | 0 | 5 | 0 | 5 |
| Unknown | 0 | 7 | 2 | 9 |
| Total Fatalities | 67 | 159 | 17 | 243 |

Boating Accident Statistics

2009-2013 Boating-Related Fishing Fatalities by Waterway Categories (Fatalities 72)



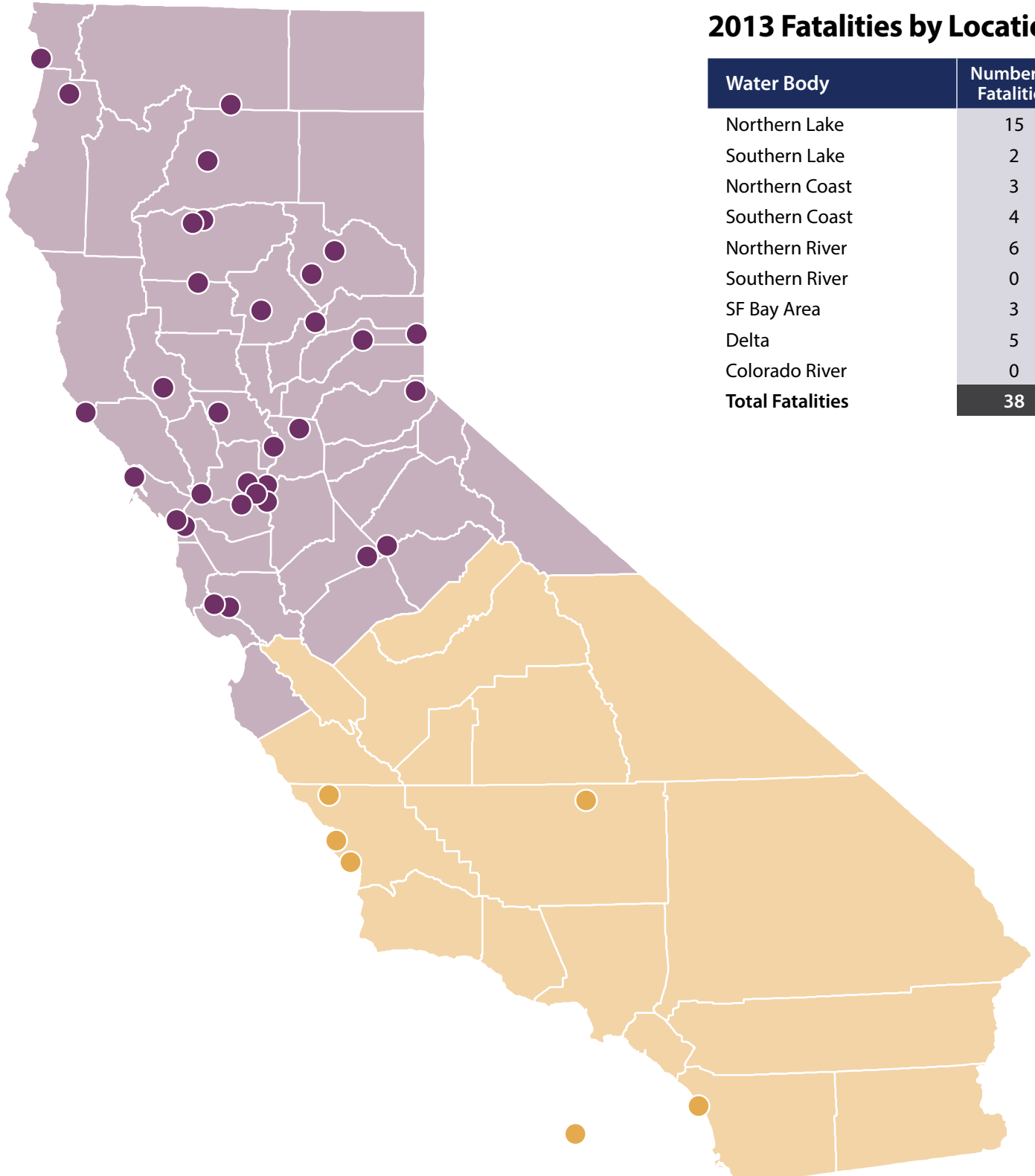
2009-2013 Alcohol Involvement in Boating-Related Fatalities

| Year | Alcohol Involved | Alcohol not Involved | % Involving Alcohol Where Alcohol Testing was Conducted | Alcohol Testing not Conducted | Total Fatalities |
|-------------------------|------------------|----------------------|---|-------------------------------|------------------|
| 2009 | 14 | 22 | 39% | 13 | 49 |
| 2010 | 9 | 26 | 26% | 14 | 49 |
| 2011 | 10 | 25 | 29% | 19 | 54 |
| 2012 | 12 | 22 | 35% | 19 | 53 |
| 2013 | 7 | 16 | 30% | 15 | 38 |
| Total Fatalities | 52 | 111 | 32% | 80 | 243 |



California

2013 California Recreational Boating Fatalities



2013 Fatalities by Location

| Water Body | Number of Fatalities |
|-------------------------|----------------------|
| Northern Lake | 15 |
| Southern Lake | 2 |
| Northern Coast | 3 |
| Southern Coast | 4 |
| Northern River | 6 |
| Southern River | 0 |
| SF Bay Area | 3 |
| Delta | 5 |
| Colorado River | 0 |
| Total Fatalities | 38 |