

2019 Recreational Boating Accident Statistics

Division of Boating and Waterways
California Department of Parks and Recreation



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OUR MISSION

The California Department of Parks and Recreation Division of Boating and Waterways (DBW) brings together a body of knowledge as the state's expert in recreational boating-related matters, including public access, safety and education, marine law enforcement, and consumer and environmental protection.

DIVISION OF BOATING AND WATERWAYS

For decades, California's reputation as a boater's paradise with an abundance of recreational opportunities has lured millions of visitors to California's State Park System and thousands of miles of waterways and coastline. For more than 60 years, DBW has improved and safeguarded the boating experience for all users – from Mission Bay in San Diego to Lake Siskiyou in Siskiyou County, and along every lake, river and stream in between.

DBW is responsible for planning, developing, and improving facilities on state-owned and state-managed properties, including those in the State Park System and State Water Project properties. The division also provides funding to local and public agencies to renew deteriorated facilities or develop new public access. Additionally, DBW is heavily involved in furthering environmentally sound boating practices through its clean and green programs and research on climate change and wave prediction as they relate to navigation and coastal protection.

PURPOSE FOR COLLECTING RECREATIONAL BOATING ACCIDENTS

DBW collects and analyzes boating accident reports to develop safety strategies, inform outreach campaigns and make recommendations to the United States Coast Guard and other law enforcement entities in the interest of reducing boating accidents, injuries and fatalities on California's waterways.

Information contained in the reports is confidential and may not be used in prosecuting any violations which may have occurred, nor in civil litigation of any kind.

ACCIDENT REPORTING AS REQUIRED BY STATE LAW

In accordance with 14 CCR § 6504, a boat owner/operator must report their boat accident to DBW if the accident results in death, disappearance or injury to a person requiring medical attention beyond first aid, damage to a vessel or other property exceeding \$500 or complete loss of a vessel, regardless of value. Boat accidents must be reported to DBW within the following specific time periods:

Within 48 hours of an accident that involves:

- Death occurring within 24 hours of the accident
- Disappearance of a person
- Injury beyond first aid

Within 10 days of an accident that involves:

- A person who dies more than 24 hours after an accident occurs
- Property damage exceeding \$500, or there is a complete loss of a vessel

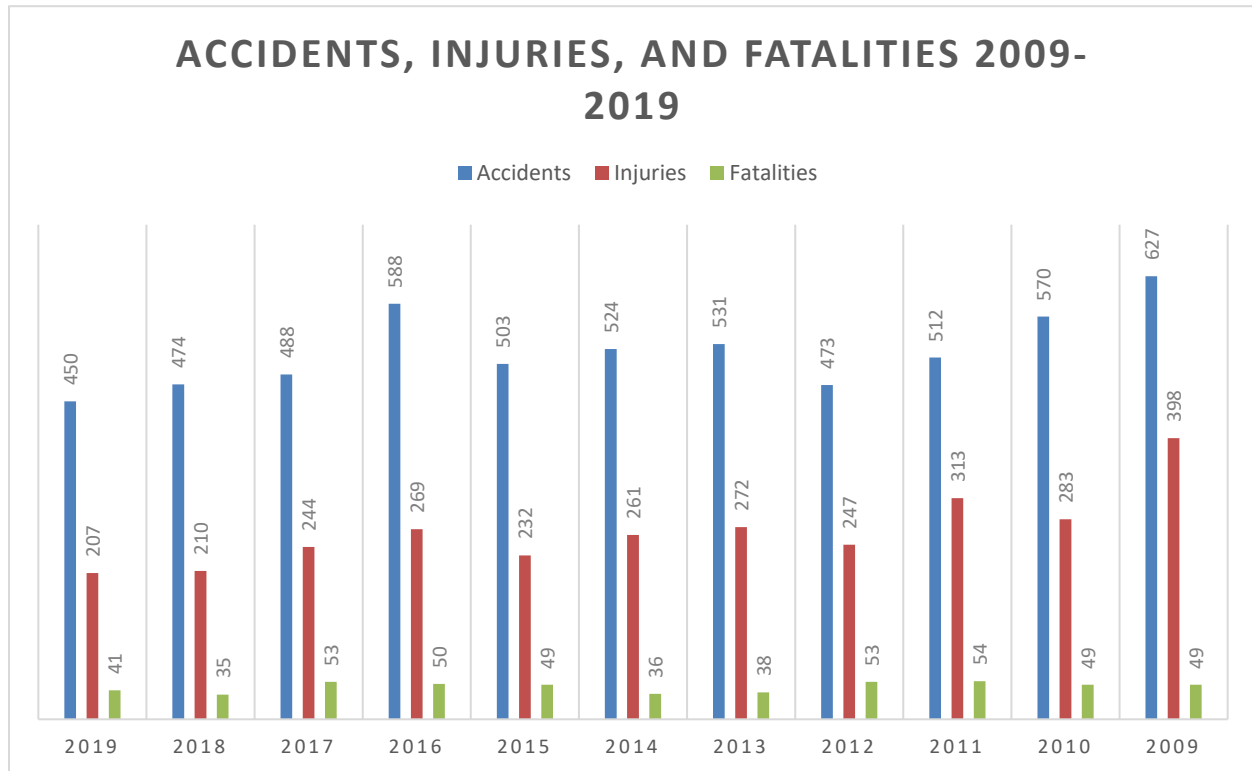
REPORTABLE BOATING ACCIDENTS

A vessel is considered to be involved in a “boating accident” whenever a death, missing person, personal injury, property damage, or total vessel loss results from the vessel’s operation, construction, seaworthiness, equipment or machinery.

The following are examples of accident types that must be reported:

- Grounding, capsizing, sinking, or flooding/swamping.
- Falls-in overboard a vessel.
- Person(s) ejected from a vessel.
- Fire or explosions that occur while underway and while anchored, moored or docked if the fire resulted from the vessel or vessel equipment.
- Water-skiing or mishap involving a towable device.
- Collision with another vessel or object.
- Striking a submerged object.
- A person struck by a vessel, propeller, propulsion unit, or steering machinery.
- Carbon monoxide exposure.
- Electrocuting due to stray current related to a vessel.
- Casualties:
 - While swimming from a vessel that is not anchored, moored or docked.
 - Where natural causes served as a contributing factor in the death of an individual but the determined cause of death was drowning.
 - From natural phenomena such as interaction with marine life and interaction with nature.
 - Where a person falls off an anchored vessel.
 - That result when a person departs an anchored, disabled vessel to make repairs, such as unfouling an anchor or cleaning out the intake of a jet-propelled vessel.

BOATING ACCIDENT STATISTICS



CALIFORNIA BOATING ACCIDENTS BY LOCATIONS 2018-2019

Accidents by Location:	2018 Accidents	2019 Accidents	2018 Injuries	2019 Injuries	2018 Fatalities	2019 Fatalities
Northern River	101	35	61	15	11	8
Northern Lake	64	131	32	76	7	17
Northern Coast	31	28	11	3	2	2
Delta	165	27	51	23	5	1
San Francisco Bay Area	16	13	6	5	2	0
Southern River	5	22	2	8	2	3
Southern Lake	33	34	12	23	4	5
Southern Coast	36	156	19	52	2	5
Unknown	23	4	16	2	0	0
Totals	474	450	210	207	35	41

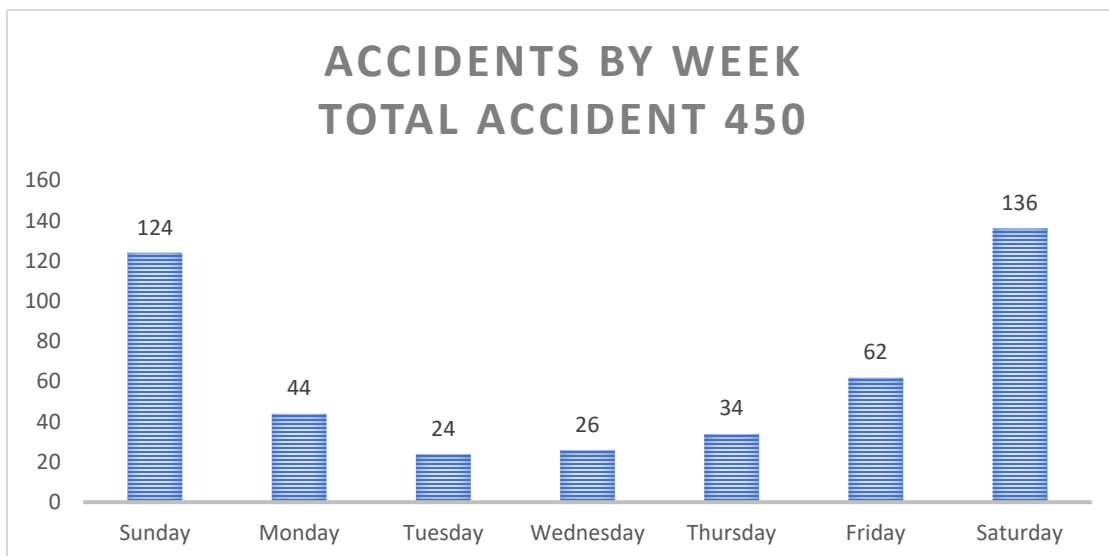
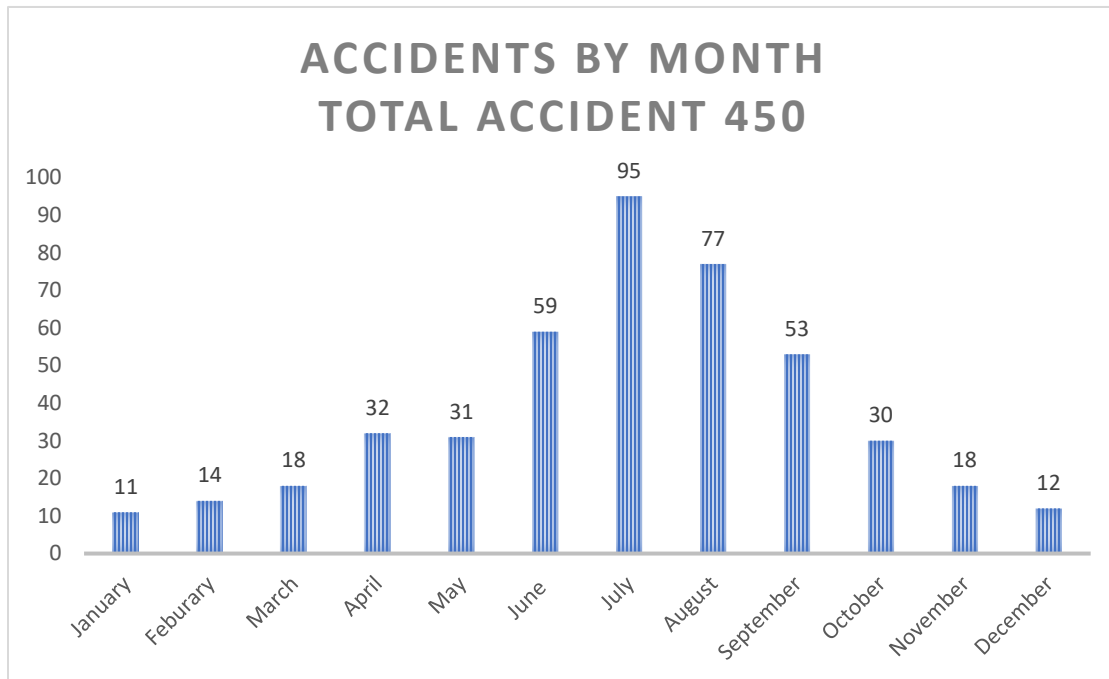
2019 BOATING ACCIDENTS

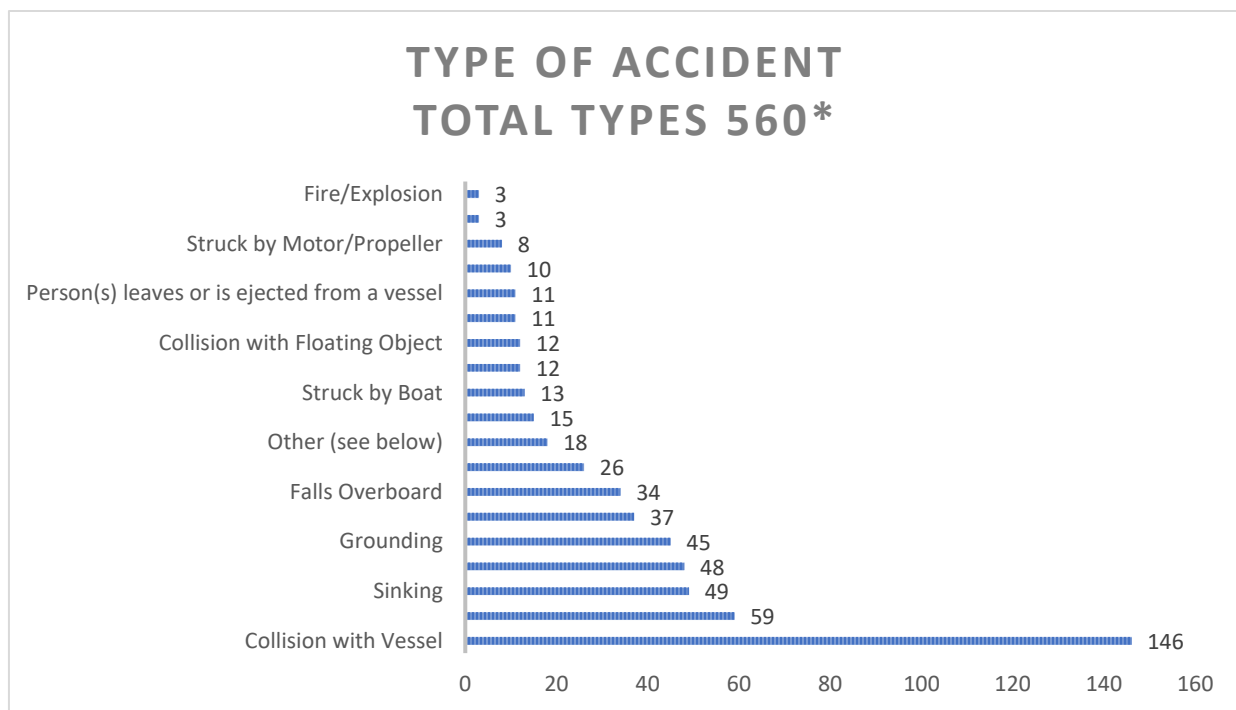
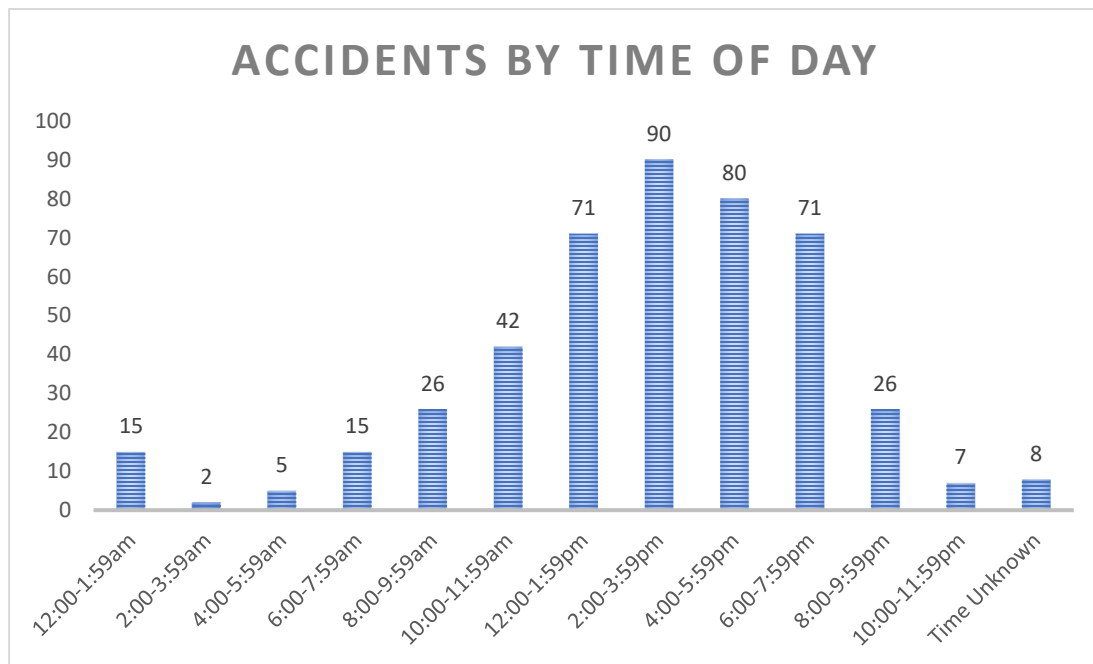
County	Accidents	Injuries	Fatalities	Property Damage
Alameda	5	0	2	\$109,956.63
Amador	5	1	1	\$3,900.00
Butte	6	2	1	\$23,500.00
Calaveras	7	7	0	\$11,000.00
Contra Costa	16	8	2	\$91,830.00
Del Norte	2	1	1	\$1,500.00
El Dorado	17	5	2	\$57,200.00
Fresno	7	1	1	\$22,400.00
Humboldt	3	0	0	\$51,200.00
Imperial	1	1	0	\$0.00
Kern	5	11	1	\$25,000.00
Lake	4	3	0	\$21,000.00
Lassen	1	0	1	\$0.00
Los Angeles	48	18	3	\$744,450.00
Madera	11	8	0	\$9,700.00
Marin	5	2	1	\$6,200.00
Mariposa	5	2	0	\$8,500.00
Mendocino	1	0	2	\$0.00
Merced	5	2	0	\$7,900.00
Mono	2	0	1	\$2,000.00
Monterey	3	0	1	\$29,360.00
Napa	8	1	0	\$123,300.00
Nevada	3	1	2	\$2,500.00
Orange	38	5	0	\$342,500.00
Placer	15	10	2	\$345,550.00
Plumas	2	0	0	\$7,500.00
Riverside	6	2	1	\$44,000.00
Sacramento	10	3	1	\$1,414,720.00
San Bernardino	24	11	3	\$63,100.00
San Diego	55	27	3	\$549,851.00
San Francisco	5	2	0	\$7,000.00
San Joaquin	23	21	3	\$189,398.50
San Luis Obispo	3	1	0	\$10,000.00
San Mateo	3	0	0	\$8,850.00
Santa Barbara	11	0	0	\$119,722.00
Santa Clara	2	1	0	\$5,000.00

Santa Cruz	7	0	0	\$34,817.19
Shasta	12	6	2	\$59,500.00
Sierra	2	0	1	\$5,000.00
Solano	7	3	0	\$19,800.00
Sonoma	10	4	0	\$34,200.00
Stanislaus	4	5	2	\$6,000.00
Sutter	1	0	0	\$10,000.00
Tehama	6	4	0	\$10,000.00
Trinity	2	2	0	\$8,000.00
Tulare	7	3	0	\$51,350.00
Tuolumne	14	20	0	\$3,072,500.00
Ventura	9	2	1	\$80,000.00
Yolo	1	1	0	\$0.00
Yuba	1	0	0	\$1,500.00
Total	450	207	41	\$7,852,255.32

PROPERTY DAMAGE 2009-2019

Year	Property Damage Amount
2019	\$7,852,255.32
2018	\$2,235,584.30
2017	\$3,239,871.99
2016	\$3,980,836.24
2015	\$3,398,027.00
2014	\$2,889,230.00
2013	\$2,407,635.00
2012	\$5,794,000.00
2011	\$2,142,655.00
2010	\$4,039,700.00
2009	\$4,484,105.00



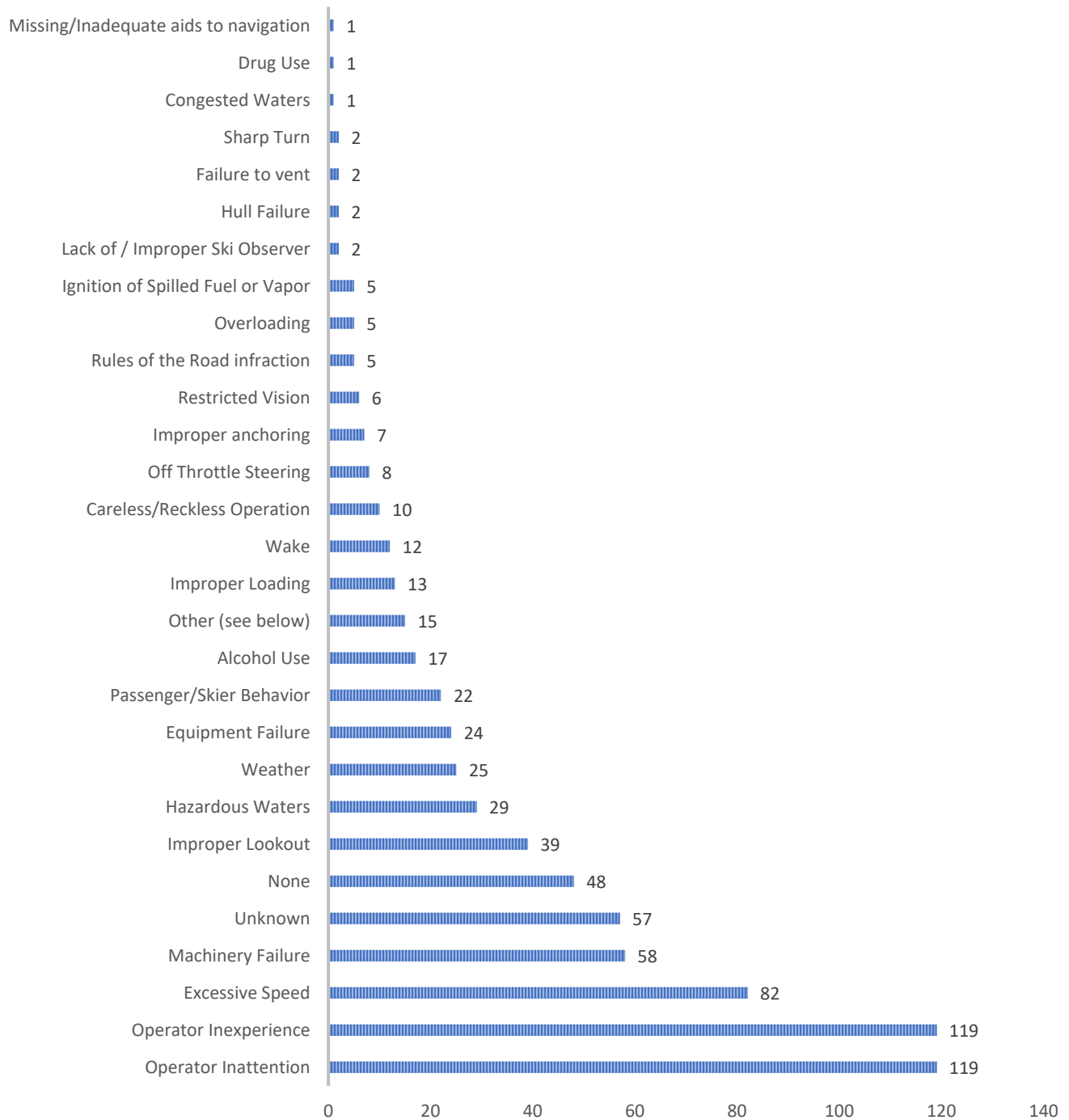


*Some accidents are represented by more than one accident type, which accounts for the accident types exceeding the number of accidents.

TYPE OF ACCIDENT BY VESSEL TYPE (PERCENTAGE)

Type of Accident	All Vessel s	Open Motorboat	Cabin Motorboat	Personal Watercraft	All Sail Boats	House boat/ Pontoon
Capsizing	8	7	2	4	2	13
Collision with Fixed Object	10	10	8	4	6	8
Collision with Floating Object	2	2	2	2	2	0
Collision with Vessel	32	24	51	55	59	47
Fall in Boat	2	2	0	1	3	8
Falls Overboard	7	3	2	25	3	4
Fire/Explosion	0	0	1	0	1	0
Fire/Explosion (Fuel)	2	3	5	0	0	0
Fire/Explosion (Other than Fuel)	3	2	7	0	2	0
Flooding/Swamping	12	16	13	2	3	4
Grounding	10	11	5	2	15	4
Other (see below)	4	2	4	1	3	8
Person(s) leaves or is ejected from a vessel	2	2	0	2	1	4
Sinking	10	14	9	1	3	8
Skier Mishap	5	12	0	2	0	0
Struck by Boat	2	4	2	4	0	0
Struck by Motor/Propeller	1	3	1	0	0	4
Struck Submerged Object	0	1	0	0	0	0
Unknown	2	1	1	1	0	0
Total Accidents Count	450	200	92	68	76	23

CAUSE OF ACCIDENT TOTAL 736*



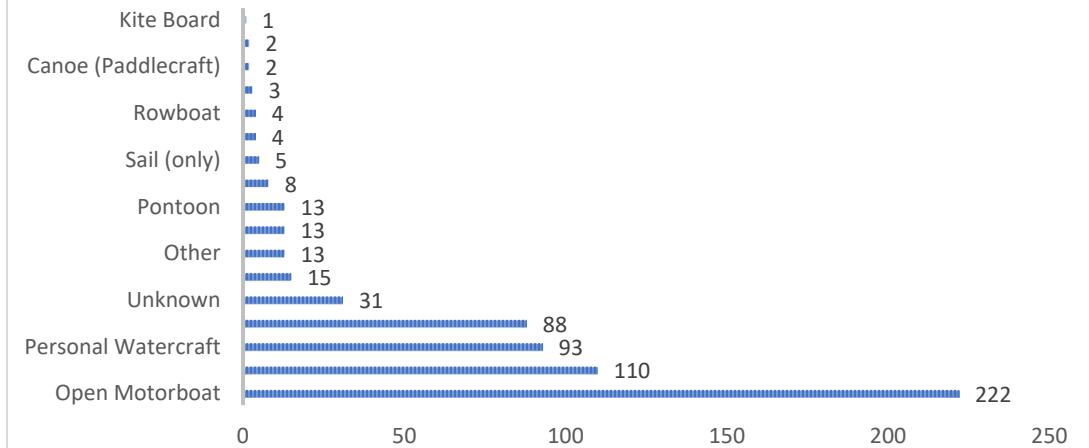
**Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed above.*

CAUSE OF ACCIDENT BY TYPE OF VESSEL (PERCENTAGE)

Cause of Accident	All Vessels	Open Motorboat	Cabin Motorboat	Personal Watercraft	All Sail Boats	Houseboat/Pontoon
Congested Waters	0	0	0	0	0	0
Drug Use	0	0	0	0	0	0
Equipment Failure	5	2	7	1	9	8
Excessive Speed	18	15	14	50	1	13
Failure to vent	0	0	1	0	0	0
Hazardous Waters	6	5	1	1	7	4
Hull Failure	0	0	1	0	0	0
Ignition of Spilled Fuel or Vapor	1	1	2	0	0	0
Improper anchoring	1	0	0	1	7	0
Improper Loading	2	2	0	2	0	0
Improper Lookout	8	6	10	11	6	17
Lack of / Improper Ski Observer	0	1	0	0	0	0
Machinery Failure	12	13	21	0	15	0
Missing/Inadequate Aids to Navigation	0	0	1	0	0	0
None	10	7	19	5	9	13
Off Throttle Steering	1	0	0	8	0	0
Operator Inattention	26	25	20	37	32	26
Operator Inexperience	26	20	16	59	20	26
Other (see below)	3	4	0	2	1	8
Overloading	1	1	0	0	0	4
Passenger/Skier Behavior	4	9	2	0	0	4
Restricted Vision	1	1	1	1	1	0
Rules of the Road infraction	1	1	0	2	1	0
Sharp Turn	0	0	0	0	1	0
Unknown	12	9	9	4	15	13
Wake	2	4	1	0	0	8
Weather	5	3	4	2	14	4
Total Accidents Count	450	190	83	67	64	23

VESSELS INVOLVED IN ALL ACCIDENTS BY TYPE

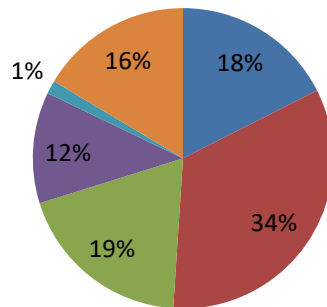
TOTAL VESSELS: 627*



**There may be more vessels than accidents, as there may be multiple vessels involved in one accident.*

VESSELS INVOLVED IN ALL ACCIDENTS BY LENGTH

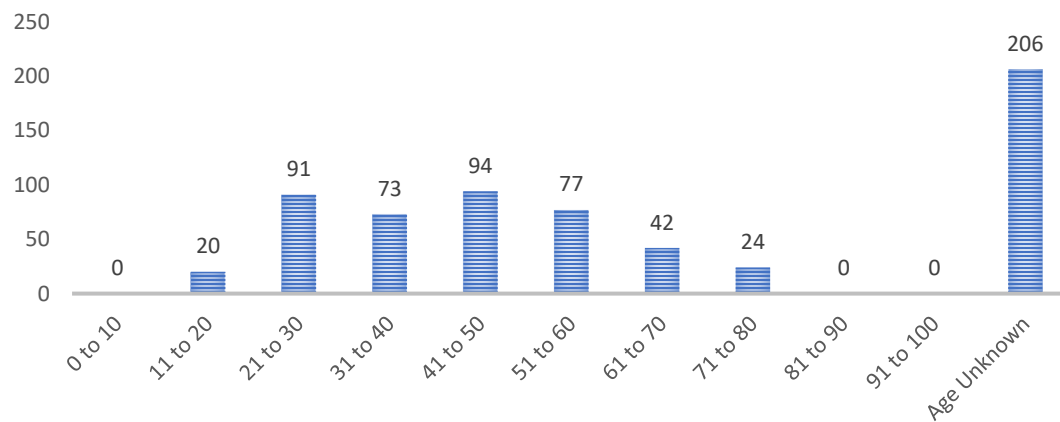
■ Vessels < 16 feet
 ■ Vessels 16-25 feet
 ■ Vessels 26-39 feet
■ Vessels 40-65 feet
 ■ Vessels over 65 feet
 ■ Vessels Unknown Size



2019 OWNERSHIP STATUS OF VESSELS INVOLVED IN ACCIDENTS

Operated By	All Vessels	Open Motorboat	Personal Watercraft
Operated by Owner	251	115	19
Operated by Renter	78	27	34
No Operator	147	33	2
Total Vessels	627	222	93

OPERATORS INVOLVED IN ALL ACCIDENTS BY AGE TOTAL VESSELS WITH OPERATORS 627 TOTAL VESSELS 774



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

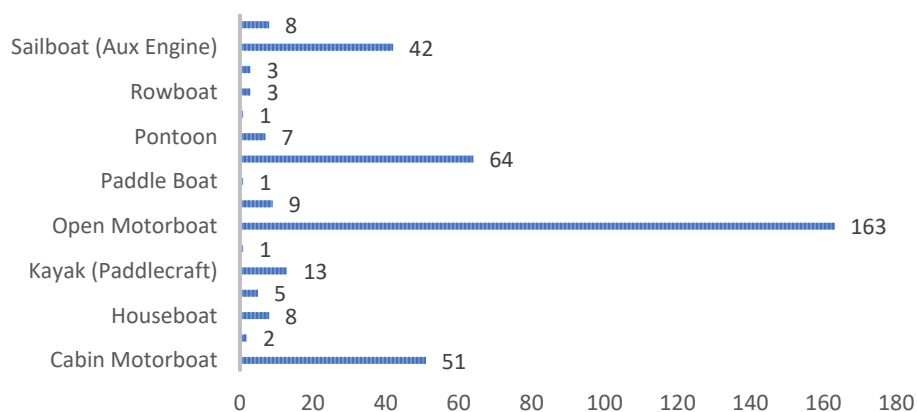
OPERATOR EDUCATION

Types of Education	Operator Education
American Red Cross	5
State Course	19
US Power Squadron	3
USCG Auxiliary	7
USCG Captains License	3
Other	25
Informal	102
None	171
Unknown	292
No Operator	147
Total	774

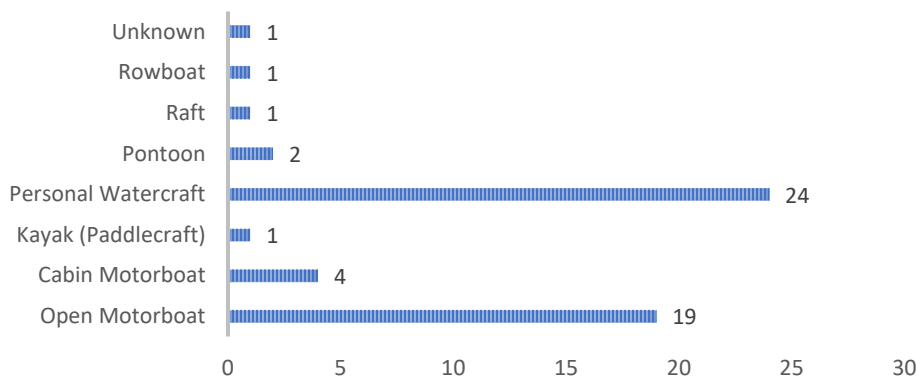
GENDER OF OPERATORS INVOLVED IN ACCIDENTS

Gender	Number of Operators
Female	61
Male	381
Unknown	185
No Operator	147
Total	774

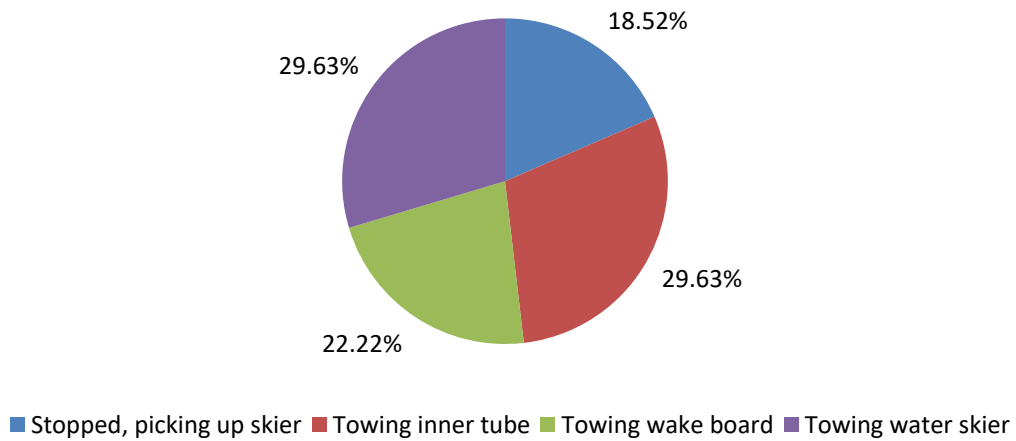
TYPE OF VESSEL OPERATED BY MEN INVOLVED IN ACCIDENTS



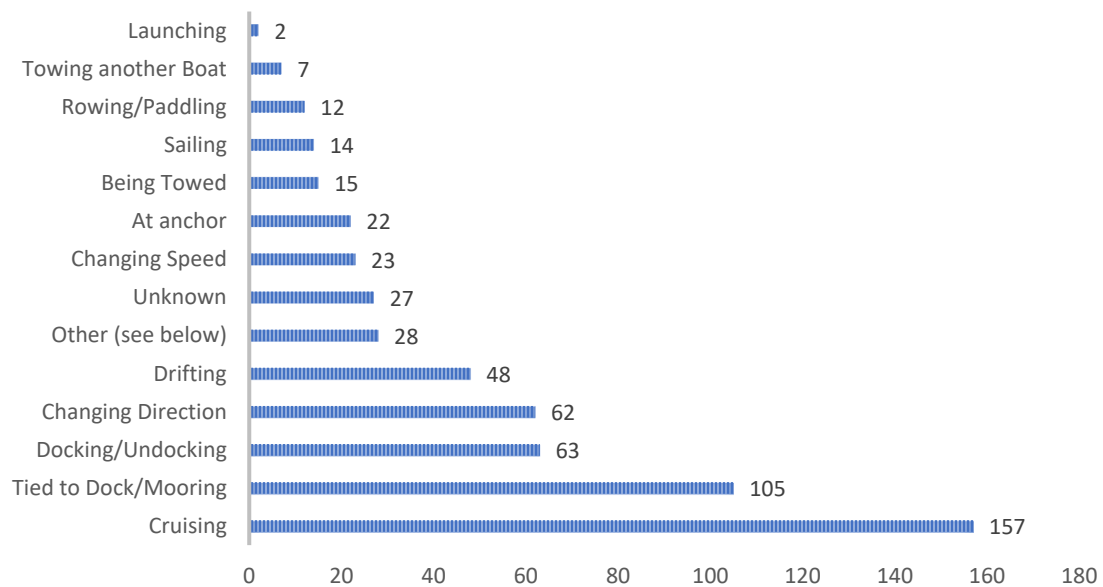
TYPE OF VESSELS OPERATED BY WOMEN INVOLVED IN ACCIDENTS



ACCIDENTS INVOLVING TOWING SPORTS

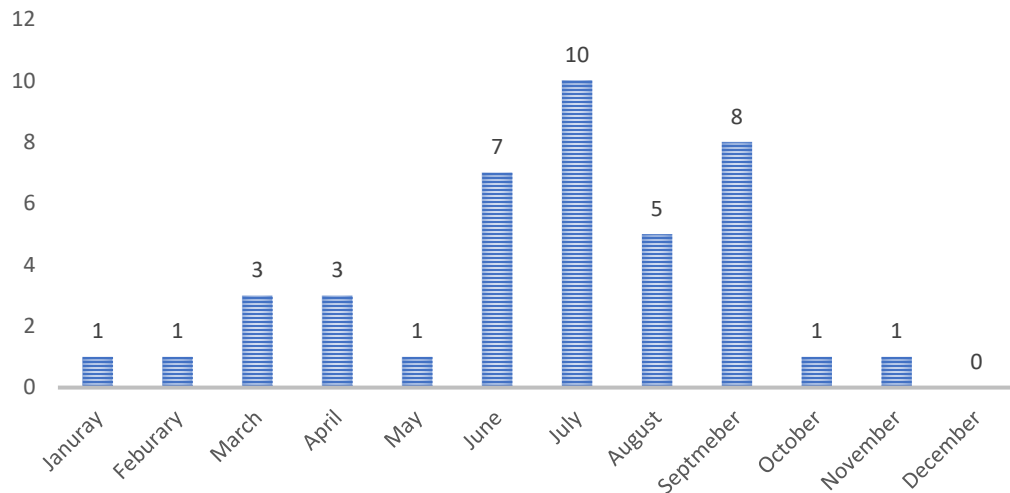


OPERATION AT TIME OF ACCIDENT TOTAL VESSELS 585*

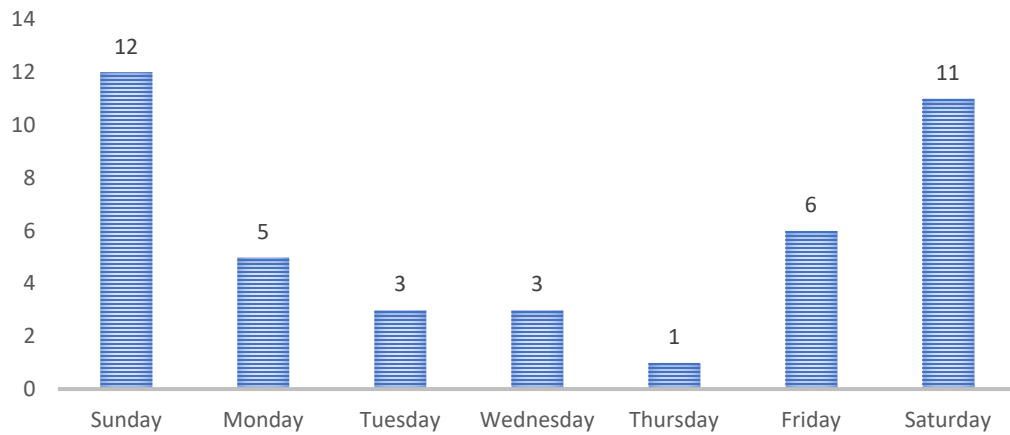


**Some accidents are represented by more than one form of operation.*

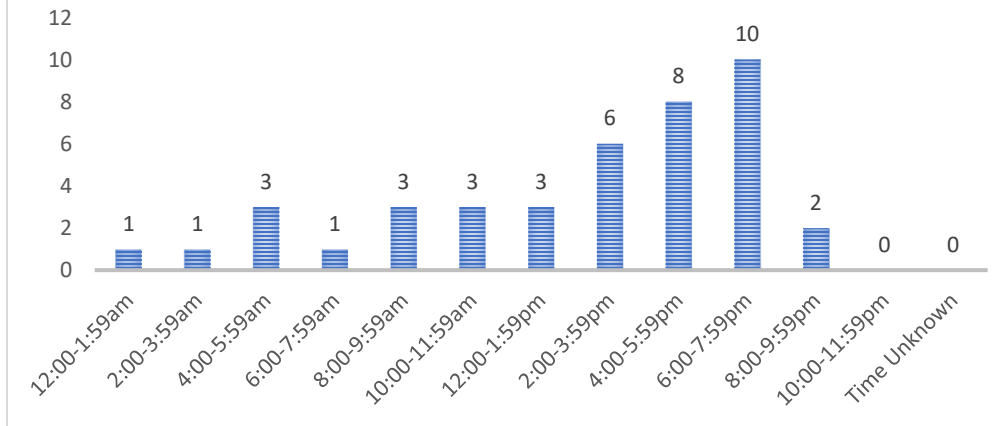
FATALITIES BY MONTH TOTAL FATALS 41



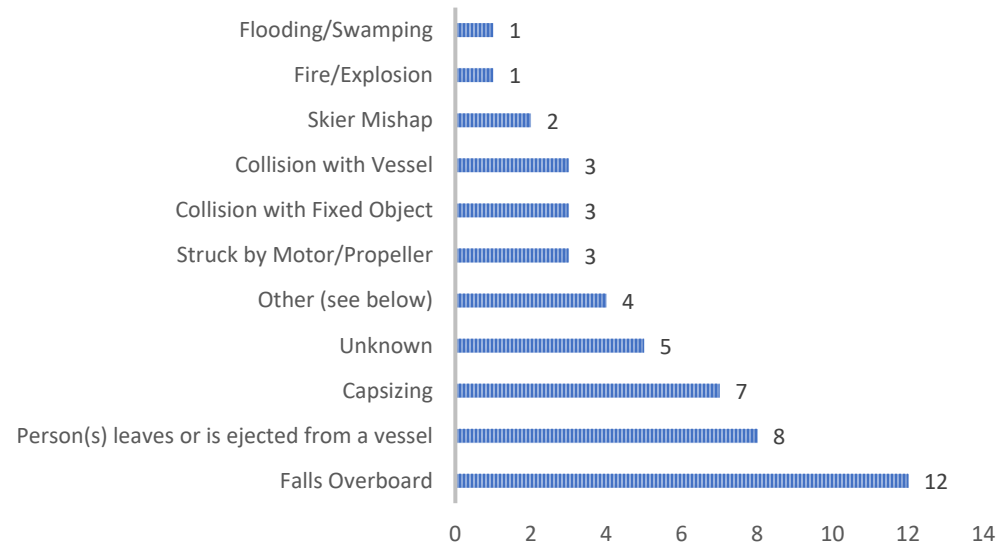
FATALITIES BY DAY OF THE WEEK TOTAL FATALS 41



FATAL ACCIDENTS BY TIME OF DAY

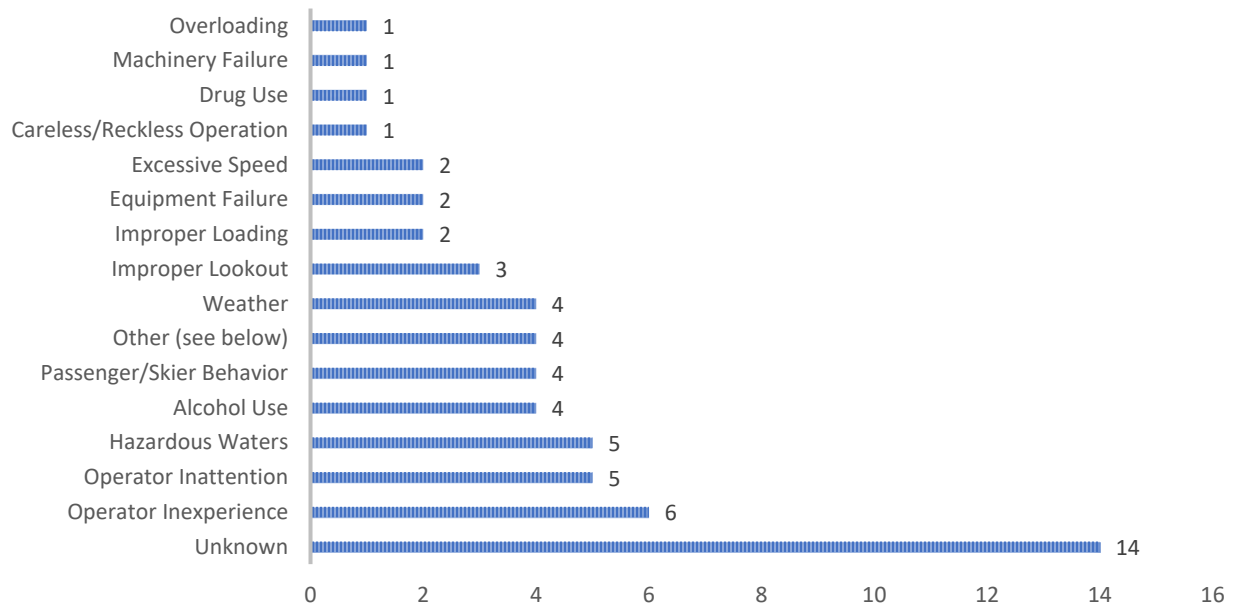


FATALITIES BY TYPE OF ACCIDENT TOTAL TYPES 49*



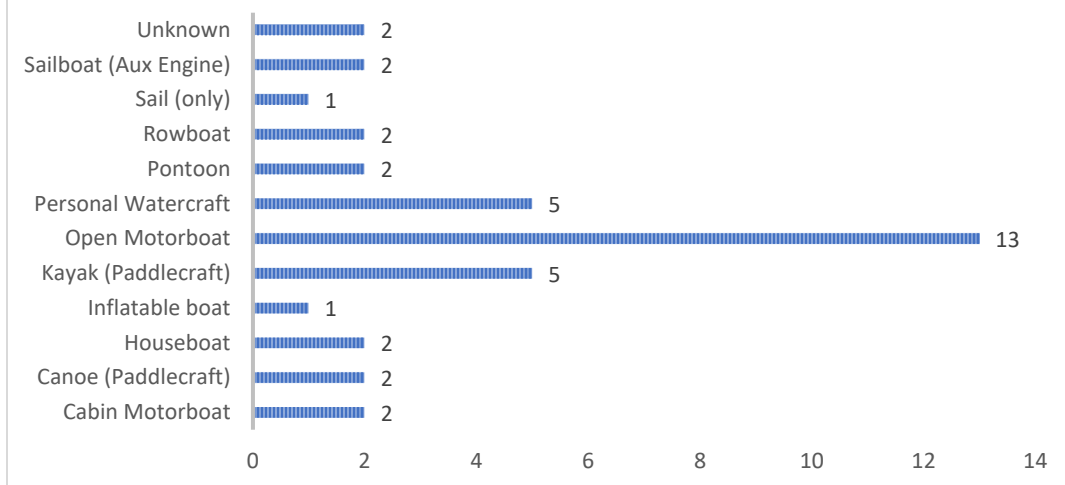
**Some accidents are represented by more than one accident type, which accounts for the accident types exceeding the number of accidents.*

FATALITIES BY CAUSE OF ACCIDENT TOTAL CAUSES 59*

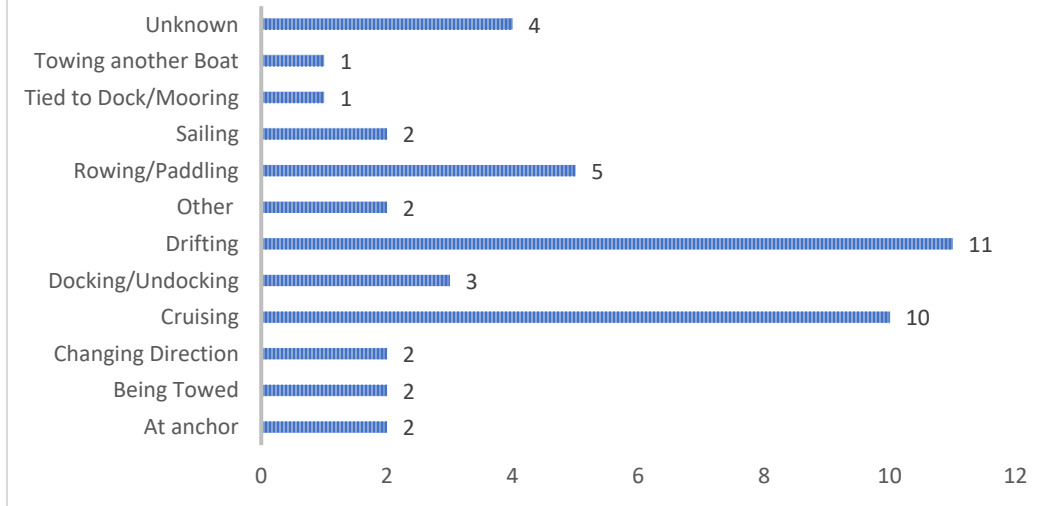


*Many accidents had more than one cause, which is reflected in this chart. The "other" category includes causes that do not fit into any of the other categories listed.

VESSELS INVOLVED IN FATAL ACCIDENTS TOTAL 39



OPERATION AT TIME OF FATAL ACCIDENT TOTAL VESSELS 45*

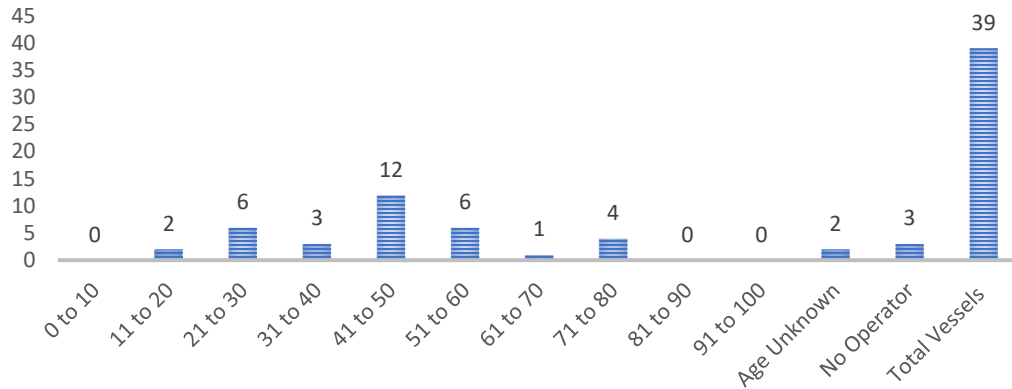


**Some accidents are represented by more than one form of operation.*

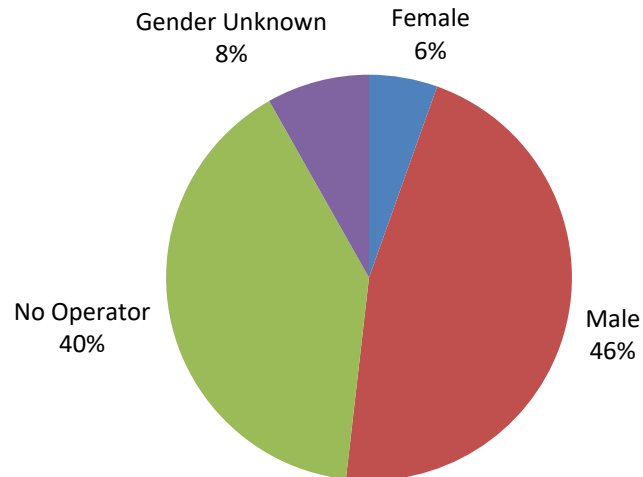
2019 VESSELS INVOLVED IN FATAL ACCIDENTS BY LENGTH

Length of Vessels	Number of Vessels
Vessels < 16 feet	13
Vessels 16-25 feet	9
Vessels 26-39 feet	6
Vessels 40-65 feet	2
Vessels Unknown Size	9
Total Vessels	39

OPERATOR INVOLVED IN FATAL ACCIDENT BY AGE **TOTAL OPERATORS 36** **TOTAL VESSELS 39**



GENDER OF OPERATOR INVOLVED IN FATAL ACCIDENT



2019 OPERATOR EDUCATION

Type of Education	Number of Operators
American Red Cross	0
State Course	0
US Power Squadron	0
USCG Auxiliary	1
USCG Captains License	0
Other	1
Informal	5
None	10
Unknown	19
No Operator	3
Total Vessels	39

2018-2019 LIFE JACKET USE BY CAUSE OF DEATH

Cause of Death	Wearing a Life Jacket		Not Wearing a Life Jacket		Lifejacket Use Unknown		Total	
	2018	2019	2018	2019	2018	2019	2018	2019
Drowning	4	3	16	14	5	0	25	17
Trauma	1	4	2	1	1	0	4	5
Heart Attack	0	0	1	0	0	0	1	0
Hypothermia	0	1	0	0	0	0	0	1
Other	0	0	0	2	0	1	0	3
Unknown Cause	0	3	2	7	2	3	4	13
Total Fatalities	6	11	21	26	8	4	35	41

2018-2019 LIFE JACKET USE BY VICTIM ACTIVITY

Victim Activity	Wearing a Life Jacket		Not Wearing a Life Jacket		Life Jacket Use Unknown		Total	
	2018	2019	2018	2019	2018	2019	2018	2019
General Recreation	2	5	7	13	0	0	9	18
Fishing	1	0	2	3	2	1	5	4
Hunting	0	0	1	0	0	0	1	0
Paddle Sports	1	1	1	1	4	0	6	2
Towing Sports	2	0	1	2	0	0	3	2
Swimming	0	0	4	4	1	0	5	4
Sailing/Windsurfing	0	1	0	0	0	2	0	3
Whitewater Sports	0	1	0	0	0	0	0	1
Unknown	0	3	5	3	1	1	6	7
Total Fatalities	6	11	21	26	8	4	35	41

2018-2019 LIFE JACKET USE BY VICTIM'S TYPE OF VESSEL

Type of Vessel	Wearing a Life Jacket		Not Wearing a Life Jacket		Life Jacket Use Unknown		Total	
	2018	2019	2018	2019	2018	2019	2018	2019
Open Motorboat/Pontoon	3	2	11	14	3	0	17	16
Cabin Motorboat	0	1	1	0	1	1	2	2
Personal Watercraft	1	4	0	1	0	0	1	5
Canoe/Inflatable/Kayak/Raft/Row/SUP	1	2	6	8	4	0	11	10
Sailboats/Sailboards	0	1	1	0	0	2	1	3
Other	0	0	1	0	0	0	1	0
Unknown	0	0	0	1	0	1	0	2
Kite Board	1	0	0	0	0	0	1	0
Houseboat	0	1	1	2	0	0	1	3
Total Fatalities	6	11	21	26	8	4	35	41

2015-2019 ALCOHOL INVOLVEMENT IN BOATING-RELATED FATALITIES

Accident Year	Alcohol Involved	Alcohol Not Involved	Percent Involving Alcohol Where Testing Conducted	Alcohol Testing Not Conducted	Total Fatalities
2015	7	19	27	23	49
2016	1	14	7	35	50
2017	1	12	8	40	53
2018	1	5	17	29	35
2019	2	8	20	31	41
Total Fatalities	13	61	18	163	237