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## FOREWORD

Under the authority of Title 46, United States Code, the Inspections \& Compliance Directorate has been delegated the responsibility to collect, analyze, and annually publish statistical information obtained from recreational boat numbering and casualty reporting systems. Within the Directorate, the Office of Auxiliary and Boating Safety, Boating Safety Division has Recreational Boating Safety Program responsibility.

Recreational Boating Statistics 2013, the 55th annual report, contains statistics on recreational boating accidents and state vessel registration. This publication is a result of the coordinated effort of the Coast Guard and those states and territories that have Federally-approved boat numbering and casualty reporting systems. These include all States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Recreational Boating Statistics 2013 may be copied and distributed freely in the interest of boating safety. For questions and suggestions regarding content, use the address, telephone number, or email address at the top of this page. For an electronic copy, visit the Boating Safety Division website at www.uscgboating.org.


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## 2013 EXECUTIVE SUMMARY



- In 2013, the Coast Guard counted 4,062 accidents that involved 560 deaths, 2,620 injuries, and approximately $\$ 39$ million dollars of damage to property as a result of recreational boating accidents.
- The fatality rate was 4.7 deaths per 100,000 registered recreational vessels. This rate represents a $13 \%$ decrease from last year's fatality rate of 5.4 deaths per 100,000 registered recreational vessels.
- Compared to 2012, the number of accidents decreased $10 \%$, the number of deaths decreased $14 \%$, and the number of injuries decreased $12.7 \%$.
- Where cause of death was known, seventy-seven (77) percent of fatal boating accident victims drowned. Of those drowning victims with reported life jacket usage, eighty-four (84) percent were not wearing a life jacket.
- Where instruction was known, twenty (20) percent of deaths occurred on boats where the operator had received boating safety instruction. Only thirteen (13) percent of deaths occurred on vessels where the operator had received boating safety instruction from a course provider offering a course meeting the U.S. Coast Guardrecognized national standards.
- Eight out of every ten boaters who drowned were using vessels less than 21 feet in length.
- Operator inattention, improper lookout, operator inexperience, excessive speed, and machinery failure rank as the top five primary contributing factors in accidents.
- Alcohol use is the leading known contributing factor in fatal boating accidents; where the primary cause was known, it was listed as the leading factor in $16 \%$ of deaths.
- Twenty-two children under age thirteen lost their lives while boating in 2013. Eight children or approximately thirty-six (36) percent of the children who died in 2013 died from drowning. Five children or $62.5 \%$ of those who drowned were not wearing a life jacket as required by state and federal law.
- Where data was known, the most common types of vessels involved in reported accidents were open motorboats (46\%), personal watercraft (18\%), and cabin motorboats (17\%).
- The $11,993,067$ recreational vessels registered by the states in 2013 represent a $0.9 \%$ decrease from last year when 12,101,936 recreational vessels were registered.


## Mission and Strategic Plan of the National Recreational Boating Safety Program

The mission of the National Recreational Boating Safety (RBS) Program is "to ensure the public has a safe, secure, and enjoyable recreational boating experience by implementing programs that minimize the loss of life, personal injury, and property damage while cooperating with environmental and national security efforts".

The Strategic Plan of the National Recreational Boating Safety Program delineates the Program's eleven objectives to reduce casualties which include 1) tracking and increasing the number of educated boaters; 2) delivering effective boating safety messages to target audiences; 3) increasing the number of on-the-water boating instruction recipients; 4) studying and increasing life jacket wear rates; 5) increasing boater knowledge of and compliance with navigation rules; 6) decreasing boating under the influence; 7) decreasing the number of defective vessels; 8) increasing boater compliance with vessel carriage requirements; 9) increasing the accuracy and reporting rates of reportable accidents; 10) conducting research and development of boating safety initiatives; and 11) measuring the effectiveness of nonprofit organization grant projects.

To that end, the data in this report is used in many Strategic Plan measurements. Contributing factor data is used to measure navigation rules compliance outlined in Objective 5. Alcohol use as a contributing factor is used to measure boating under the influence in Objective 6. Data collection as a whole is focused upon in Objective 9, Accident Reporting. Further, data is used for research endeavors outlined in Objective 10. To view the Strategic Plan of the Program, please visit the Office's website at http:// www.uscgboating.org.

## Overview of Statistics

This report contains statistics on registered recreational vessels and boating accidents during calendar year 2013. Data used to compile the recreational boating accident statistics come from three sources:

- Boating Accident Report (BAR) data forwarded to the Coast Guard by states with an approved casualty reporting system; and
- Reports of Coast Guard investigations of fatal boating accidents that occurred on waters under Federal jurisdiction. Recreational boating accident investigation data are used if submitted to the Coast Guard and are relied on as much as possible to provide accurate accident statistics. In the absence of investigation data, information is collected from the accident reports filed by boat operators; and
- Reports received from news media sources that the Coast Guard did not receive investigative data on by the state. The following table reflects the number of accidents, deaths, injuries, and losses of vessels that were captured in news media sources that met reporting requirements for which the Coast Guard did not receive a report.

| Table 2 - NEWS MEDIA ACCIDENTS AND CASUALTIES 2013 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Accidents | Deaths | Injuries | Losses of vessels | Damages |
| Nationally | 61 | 29 | 59 | 12 | $\$ 1,378,020$ |

## Changes to the Publication

Some of the tables in this edition of the Statistics have changed because of alterations to the content on the Coast Guard's Boating Accident Report (BAR) form. One of the most dramatic changes lies in the cause categories. "Passenger/skier behavior" and "careless/reckless operation" were removed from the latest BAR form because it was believed that the public would not report a negative behavior about themselves. Since these categories were removed from the Coast Guard form, they will not be reported in the national publication. For those jurisdictions that did not use the Coast Guard form to collect information and still used passenger/skier behavior and careless/reckless operation as a cause, the Coast Guard coded their cause according to the choices on the Coast Guard BAR form. An example of a case where the Coast Guard was able to code one of these causes to one available on the Coast Guard form is as follows: if a jurisdiction had selected "passenger/skier behavior" to describe an accident where an
occupant stood up in a canoe which led to the capsizing of the vessel, the Coast Guard coded this cause as "improper loading" instead of "passenger/skier behavior". An example of a case where the Coast Guard was not able to code one of these causes to a cause available on the Coast Guard form is as follows: a passenger on a vessel became injured while jumping out of a vessel while it was in motion. In this case, the Coast Guard coded the accident as "other" and captured "passenger/skier behavior" in the "other accident cause" category. "Careless/reckless operation" was likewise coded such that when applicable, it was coded as "Rules of the Road". In other cases, the cause was coded as "other".

Other changes include a graph that was added on page 18 to reflect the percent of accidents that are fatal by time of day. A graph and table were added on page 48 to reflect the percent of deaths attributed to each vessel type for years 2004-2013. A graph was added on page 51 to reflect the number of injured victims under age 18 by age group and injury type on personal watercraft. A graph and table were modified on page 57 to reflect the motorized fatality rate by year. A table was modified on page 67 to provide fatality rates by state. The boating accident report form on pages (69-74) of this report was revised in September 2011 to reflect the addition of a privacy statement and instructions, as well as a field for the date of birth of the operator and injured victim.

Finally, four of the statistics in the Executive Summary were changed to remove the records where values were unknown. This new calculation method affects the fourth, fifth, eighth, and tenth bullet points. To find information on the number of "unknown" cases excluded, please reference Tables 35 (on page 62 ), 22 (on page 45 ), 5 (on page 19), and 7 (on page 24 ) respectively.

## Accident Reporting as Required by Federal Law

Under federal regulations (33 CFR Part 173; Subpart C - Casualty and Accident Reporting) the operator of any numbered vessel that was not required to be inspected or a vessel that was operated for recreational purposes is required to file a BAR when, as a result of an occurrence that involves the vessel or its equipment:

1. A person dies; or
2. A person disappears from the vessel under circumstances that indicate death or injury; or
3. A person is injured and requires medical treatment beyond first aid; or
4. Damage to vessels and other property totals $\$ 2,000$ or more; or

5 . There is a complete loss of any vessel.
If the above conditions are met, the federal regulations state that the operator or owner must report their accident to a state reporting authority, abbreviated in this publication as "state". The reporting authority can be either the state where the accident occurred, the state in which the vessel was numbered, or, if the vessel does not have a number, the state where the vessel was principally used. The owner must submit the report if the operator is deceased or unable to make the report.

The regulations also state the acceptable length of time in which the accident report must be submitted to the reporting authority. Boat operators or owners must submit:

1. Accident reports within 48 hours of an occurrence if:
a. A person dies within 24 hours of the occurrence; or
b. A person requires medical treatment beyond first aid; or
c. A person disappears from the vessel.
2. Accident reports within 10 days of an occurrence if there is damage to the vessel/property only.

The minimum reporting requirements are set by Federal regulation, but states are allowed to have more stringent requirements. For example, some states have a lower threshold for reporting damage to vessels and other property.

Federal Regulations (33 CFR 174.121) require accident report data to be forwarded to Coast Guard Headquarters within 30 days of receipt by a state.

The statistics in this publication cover boating accidents reported on waters of joint federal and state jurisdiction, exclusive state jurisdiction, sole federal jurisdiction, and some private waters. Most states use BAR forms that are similar to the Coast Guard form. A copy of the Coast Guard BAR form used for this report is on pages 69-74.

## Casualty and Accident Reporting Guidelines

Casualty and accident reporting applies to each "vessel" used by its operator for recreational purposes or vessels that are required to be numbered and are not subject to inspection.

This publication reflects watercraft that have been deemed a "vessel." Terms used to describe the various types of watercraft are: airboat, auxiliary sailboat, cabin motorboat, canoe, houseboat, inflatable boat, kayak, open motorboat, personal watercraft, pontoon, raft, rowboat, sailboat, and stand up paddleboard. Reports received involving watercraft that have not been determined to be "vessels" to date, such as single unmodified innertubes, have not been included in the statistics in the main body of this report.

## "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 are used in this report:

- Grounding, capsizing, sinking, or flooding/swamping
- Falls in or overboard a vessel
- Persons 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 other 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
- Electrocution due to stray current related to a vessel
- Casualties while swimming from a vessel that is not anchored, moored, or docked
- Casualties where natural causes served as a contributing factor in the death of an individual but the determined cause of death was drowning
- Casualties from natural phenomena such as interaction with marine life (i.e. leaping sturgeon causes casualty to person) and interaction with nature (i.e. mountain side falls onto vessel causing casualties)
- Casualties where a person falls off an anchored vessel
- Casualties 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


## "Non-Reportable" Boating Accidents

Not every occurrence involving a vessel is considered within the scope of the National Recreational Boating Safety Program. The following occurrences involving a vessel may be required to be reported to the state, but for statistical purposes are excluded from this report and are considered "non-reportable" boating accidents:

- A person dies, is injured, or is missing as a result of self-inflicted wounds, alcohol poisoning, gunshot wounds, or the ingestion of drugs, controlled substances, or poison
- A person dies, is injured, or is missing as a result of assault by another person or persons while aboard a vessel
- A person dies or is injured from natural causes while aboard a vessel where the vessel did not con-
tribute to the casualty
- A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from an anchored, moored, or docked vessel
- A person dies, is injured, or is missing as a result of swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from a place of inherent safety, such as the shore or pier
- Property damage occurs or a person dies, is injured, or is missing while preparing a vessel for launching or retrieving and the vessel is not on the water and capable / ready for its intended use
- Property damage occurs or a person dies, is injured, or is missing as a result of a fire on shore or a pier that spreads to a vessel or vessels
- Property damage occurs to a docked or moored vessel or a person dies, is injured, or is missing from such a vessel as a result of storms, or unusual tidal or sea conditions; and when a vessel gets underway in those conditions in an attempt to rescue persons or vessels
- Property damage occurs to a docked or moored vessel due to lack of maintenance on the vessel or the structure to which it was moored
- Property damage occurs to a docked or moored vessel due to theft or vandalism
- Property damage occurs to, a person dies or is injured on, or a person is missing from a nonpropelled residential platform or other watercraft used primarily as a residence that is not underway
- Casualties that result from falls from or on docked vessels or vessels that are moored to a permanent structure
- Casualties that result from a person climbing aboard an anchored vessel from the water or swimming near an anchored vessel (unless the casualty was related to carbon monoxide exposure or stray electric current)
- Fire or explosions on anchored, docked, or moored boats where the cause of the fire was not attributed to the vessel or vessel equipment
- Casualty or damage that results when the vehicle used for trailering the vessel fails
- Casualties or damage that occur during accidents that only involve watercraft that have not been deemed a vessel
- Casualties or damage that occur when the only vessel(s) involved are being used solely for governmental, commercial, or criminal activity
- Casualties or damage that occur when the only vessel(s) involved are not required to be numbered and are being used exclusively for racing (exclusion in 33 CFR 173.13(a))
- Casualties or damage that occur when the only vessel(s) involved are foreign vessels and thus not subject to U.S. federal reporting requirements

A list of "non-reportable" scenarios and their associated casualty counts can be found in Table 3.

| Table 3 Non-Reportable Scenarios with their Casualty Count 2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Does not meet Coast Guard policy | Accidents | Deaths | Injuries | Vessels Lost | Damages |
| A person dies or is injured from natural causes while aboard a vessel where the vessel did not contribute to the casualty | 1 |  | 10 |  | $0 \quad \$ 0$ |
| A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from an anchored, moored, or docked vessel | 5 |  | 3 |  | $0 \quad \$ 0$ |
| A person dies, is injured, or is missing as a result of selfinflicted wounds, alcohol poisoning, gunshot wounds, or the ingestion of drugs, controlled substances, or poison | 1 |  | 0 |  | 0 \$0 |
| A person dies, is injured, or is missing as a result of swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from a place of inherent safety, such as the shore or pier | 5 |  | 4 |  | 0 \$0 |
| Casualties or damage that occur during accidents that only involve watercraft that have not been deemed a vessel | 2 | 1 | 1 |  | 0 \$0 |
| Casualties or damage that occur when the only vessel(s) involved are being used solely for governmental, commercial, or criminal activity | 155 | 13 | 103 |  | 6\$1,040,540 |
| Casualties or damage that occur when the only vessel(s) involved are foreign vessels and thus not subject to U.S. federal reporting requirements | 1 | 4 | 4 |  | 0 \$150,000 |
| Casualties that result from a person climbing aboard an anchored vessel from the water or swimming near an anchored vessel | ${ }^{3}$ | 0 | 3 |  | 0 \$0 |
| Casualties that result from falls from or on docked vessels or vessels that are moored to a permanent structure | ${ }^{7}$ |  | 5 |  | 0 \$0 |
| Casualty or damage that results when the vehicle used for trailering the vessel fails | ${ }^{1}$ | 0 | 0 |  | 0 \$26,000 |
| Fire or explosions on anchored, docked, or moored boats where the cause of the fire was not attributed to the vessel or vessel equipment | ${ }^{1}$ | 0 | 0 |  | $1 \quad \$ 0$ |
| Property damage occurs or a person dies, is injured, or is missing as a result of a fire on shore or a pier that spreads to a vessel or vessels | ${ }^{1}$ | 0 | 0 | 0 | 0 \$70,000 |
| Property damage occurs or a person dies, is injured, or is missing while preparing a vessel for launching or retrieving and the vessel is not on the water and capable / ready for its intended use | $\square$ | 1 | 0 |  | 0 \$9,695 |
| Property damage occurs to a docked or moored vessel due to lack of maintenance on the vessel or the structure to which it was moored | 22 | 0 | 0 |  | 1 \$157,700 |
| Property damage occurs to a docked or moored vessel due to theft or vandalism | 5 | 0 | 0 | 0 | 0 \$12,100 |
| Property damage occurs to a docked or moored vessel or a person dies, is injured, or is missing from such a vessel as a result of storms, or unusual tidal or sea conditions; and when a vessel gets underway in those conditions in an attempt to rescue person | 17 | 0 | 0 |  | 3 \$90,330 |
| Does not meet federal reporting requirements | 423 | 0 | 34 |  | 0 \$322,928 |
| Total | 653 | 30 | 150 |  | 1 \$1,879,293 |

## Use of Statistics

Following are some important points that users of these statistics need to be aware of:

1. An approved casualty reporting system does not include every accident involving a vessel that is being used for recreational purposes. Some accidents are not in the system because they are not required to be reported. Many accidents are not reported because boaters are not aware of the accident reporting regulations or fail to comply with such regulations.

In an attempt to make sure all fatal boating accidents are captured by the casualty reporting system and required data are input into the Boating Accident Report Database (BARD) System, the Coast Guard notifies and provides information from its Marine Information for Safety and Law Enforcement (MISLE) system to state Boating Law Administrators (BLAs) of fatal accidents that occurred in their state. The Coast Guard also sends news media stories to state BLAs on fatal and non-fatal boating accidents that occur in their state to capture accidents that may have been missed.
2. Federal regulations do not require the reporting of accidents on private waters where states have no jurisdiction. Reports of accidents on such waters are included in this report when received by the Coast Guard if they satisfy the other requirements for inclusion.
3. Non-fatal accidents cannot be assumed to have occurred in numbers proportional to the reported statistics because the act of reporting an accident is not a random sampling of accidents in the statistical sense. Rather, selection is based on the ability and willingness of those involved to file a report.
4. The fluctuations in non-fatal accident statistics from year to year may be caused by factors other than the change in the total number of recreational boating accidents. A small change in the low reporting rate may cause a relatively large change in the statistics.

The statistics in this publication are based on accident data submitted by reporting states as of April 8, 2014 with subsequent updates as information is reviewed and standardized. This publication covers only accidents meeting the aforementioned reporting requirements.

Accident Causes \& Conditions

## Explanation of Accident Causes and Conditions Section

The following eighteen tables and figures focus on the causes of accidents with a special focus on alcohol use, the operation and activity at the time of accident, weather and water conditions, vessel information, and the time of accidents.

## Percent of Accidents that are Fatal by Month (Figure 1 \& Table 4, Page 17)

This table provides information about total accidents, fatal accidents, non-fatal accidents, and deaths. The figure focuses on the percent of fatal accidents by month.

As a background note, fatal accidents are accidents that involve at least one death. For example, a fatal accident could be a capsizing that resulted in three deaths. It was an accident that had at least one death.

## Percent of Accidents that are Fatal by Time Period (Figure 2, Page 18)

This table reflects the percentage of accidents that are fatal by time period. The two categories in which accidents are more frequently fatal span the hours between midnight and 4:30am.

Primary Contributing Factor of Accidents \& Casualties (Table 5, Page 19)
The "contributing factors" of an accident are the causes of the accident. In the Coast Guard's national accident reporting database, there are allowances for up to four causes. This table reflects the first cause listed for all accidents, deaths, and injuries nationwide.

For the purposes of displaying information in a simplified manner, the Coast Guard divided the contributing factor categories into five larger categories: operation of vessel, loading of passengers or gear, failure of vessel or vessel equipment, environment, and miscellaneous. These five categories are situated in the leftmost column of the table and have the total number of accidents, deaths, and injuries associated with each category under the category name.

## Machinery \& Equipment Primary Contributing Factor of Accidents \& Casualties (Table 6, Page 20)

This table reflects the number of accidents, deaths, and injuries where machinery or equipment failure was listed as a first cause of the accident. The table also delineates the different types of failure that were listed.

## Primary Contributing Factor of Accidents (Figure 3, Page 21)

This figure reflects the first cause of accidents for all accidents nationwide.

## Primary Contributing Factor of Deaths (Figure 4, Page 22)

This figure reflects the first cause listed for all deaths.

## Primary Contributing Factor of Injuries (Figure 5, Page 23)

This figure reflects the first cause listed for all injuries.
Number of Vessels in Accidents by Vessel Type \& Primary Contributing Factor (Table 7, Page 24) This table looks at the number of vessels involved in accidents by vessel type and the primary cause of the accident.

## Alcohol Use as a Contributing Factor in Accidents \& Casualties by State 2009-2013 (Table 8, Page 25)

This table reflects a tally of all four causes of accidents listed for all national accidents, deaths, and injuries.

This table lists accidents where alcohol use by the vessel's occupants was listed as a direct or indirect cause of the accident. There are other cases in the national database where alcohol use is listed as being involved in the accident but it was not determined to be a cause of the accident.

## Vessel Operation at the Time of Accident (Table 9, Page 26)

This table focuses on the vessel operation at the time of the accident. The table lists information about the number of vessels involved, the resulting number of deaths, and the resulting number of injuries.

## Vessel Activity at the Time of Accident (Table 10, Page 26)

This table examines the vessel and victim activity at the time of the accident. The table provides information about the number of vessels involved, the resulting number of deaths, and the resulting number of injuries.

## Weather \& Water Conditions (Table 11, Page 27)

This table documents some of the environmental characteristics of accidents. It focuses on accidents, deaths and injuries by type of body of water, water conditions, wind level, visibility, and water temperature.

## Time Related Data (Table 12, Page 28)

These three sections independently examine time-related information for accidents, deaths, and injuries. The top section documents the number of accidents, deaths and injuries that occurred during a time frame. The middle section documents the number of accidents, deaths, and injuries that occurred during a given month. Finally, the bottom section documents the number of accidents, deaths, and injuries that occurred during a given day of the week.

Each section examines the national data separately and should not be combined to draw conclusions. For instance, one cannot use them to deduce that the majority of accidents occur from 2:31 pm-4:30 pm in July on the weekends. However, you could deduce that $2: 31 \mathrm{pm}-4: 30 \mathrm{pm}$ was the time frame with the highest number of accidents. Furthermore, the month with the highest number of accidents was July. Finally, the two days of the week with the greatest number of accidents were Saturday and Sunday.

## Vessel Information (Table 13, Page 29)

This table documents some of the characteristics of vessels involved in accidents. It provides information about the number of accidents, deaths, and injuries by horsepower, year built, length, and hull material.

## Rental Status of Vessels Involved in Accidents (Table 14, Page 30)

This table examines whether a vessel involved in an accident was rented. It also provides information on whether deaths and injuries occurred on rented vessels.

## Number \& Percent of Deaths by Vessel Length (Figure 6 \& Table 15, Page 31)

This table focuses on the number of deaths by vessel length. Deaths are categorized into drownings and non-drownings. The table also provides a percentage of all deaths that were caused by drowning.

Figure 1 PERCENT OF ACCIDENTS THAT ARE FATAL BY MONTH WITH THE NUMBER OF FATAL ACCIDENTS 2013


Table 4 - PERCENT OF ACCIDENTS THAT ARE FATAL BY MONTH 2013

| Month <br> Fatal <br> Accidents | Non-Fatal <br> Accidents | Total <br> Accidents | Accidents <br> Resulting in <br> Deaths | Total Deaths |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| January | 17 | 75 | 92 | $18 \%$ | 19 |
| February | 8 | 71 | 79 | $10 \%$ | 8 |
| March | 30 | 120 | 150 | $20 \%$ | 32 |
| April | 32 | 156 | 188 | $17 \%$ | 35 |
| May | 65 | 405 | 470 | $14 \%$ | 76 |
| June | 85 | 650 | 735 | $12 \%$ | 99 |
| July | 79 | 841 | 920 | $9 \%$ | 83 |
| August | 62 | 595 | 657 | $9 \%$ | 64 |
| September | 65 | 351 | 416 | $16 \%$ | 72 |
| October | 24 | 128 | 152 | $16 \%$ | 25 |
| November | 20 | 96 | 116 | $17 \%$ | 21 |
| December | 23 | 64 | 87 | $26 \%$ | 26 |
| Total | 510 | 3552 | 4062 | $13 \%$ | 560 |

Figure 2 PERCENT OF ACCIDENTS THAT ARE FATAL BY TIME PERIOD WITH THE NUMBER OF FATAL ACCIDENTS 2013


|  |  | Accidents | Deaths | Injuries |
| :---: | :---: | :---: | :---: | :---: |
| Operation of Vessel <br> 2264 Accidents <br> 233 Deaths <br> 1637 Injuries | Alcohol use | 236 | 75 | 187 |
|  | Drug use | 6 | 2 | 4 |
|  | Excessive speed | 319 | 19 | 289 |
|  | Failure to ventilate | 28 | 0 | 24 |
|  | Improper lookout | 396 | 19 | 247 |
|  | Inadequate onboard navigation lights | 11 | 0 | 9 |
|  | Navigation rules violation | 208 | 15 | 161 |
|  | Operator inattention | 567 | 57 | 371 |
|  | Operator inexperience | 385 | 34 | 262 |
|  | Restricted vision | 48 | 5 | 31 |
|  | Sharp turn | 59 | 7 | 51 |
|  | Starting in gear | 1 | 0 | 1 |
| Loading of Passengers or Gear <br> 138 Accidents <br> 61 Deaths <br> 62 Injuries | Improper anchoring | 26 | 5 | 6 |
|  | Improper loading | 41 | 15 | 22 |
|  | Overloading | 35 | 27 | 12 |
|  | People on gunwale, bow or transom | 36 | 14 | 22 |
| Failure of Boat or Boat Equipment 390 Accidents <br> 16 Deaths <br> 110 Injuries | Equipment failure | 48 | 3 | 14 |
|  | Hull failure | 56 | 4 | 15 |
|  | Machinery failure | 286 | 9 | 81 |
| Environment 620 Accidents 105 Deaths 388 Injuries | Congested waters | 16 | 0 | 8 |
|  | Dam/lock | 8 | 3 | 9 |
|  | Force of wave/wake | 188 | 7 | 170 |
|  | Hazardous waters | 182 | 53 | 88 |
|  | Missing/inadequate navigation aids | 45 | 2 | 21 |
|  | Weather | 181 | 40 | 92 |
| Miscellaneous <br> 650 Accidents 145 Deaths 423 Injuries | Carbon monoxide exposure | 2 | 0 | 5 |
|  | Ignition of fuel or vapor | 52 | 0 | 52 |
|  | Sudden medical condition | 24 | 17 | 6 |
|  | Other | 400 | 45 | 310 |
|  | Unknown | 172 | 83 | 50 |
| All Categories Combined |  | 4062 | 560 | 2620 |


|  | Table 6-MACHINERY \& EQUIPMENT PRIMARY CONTRIBUTING FACTOR OF ACCIDENTS \& CASUALTIES 2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  | Accidents | Deaths | Injuries |
| Machinery Failure | Electrical system failure | 42 | 0 | 5 |
|  | Engine failure | 131 | 4 | 28 |
|  | Exhaust system failure | 4 | 2 | 3 |
|  | Fuel system failure | 24 | 0 | 11 |
|  | Shift failure | 26 | 0 | 5 |
|  | Steering system failure | 29 | 3 | 17 |
|  | Throttle failure | 23 | 0 | 9 |
|  | Ventilation system failure | 4 | 0 | 3 |
|  | Not specified | 3 | 0 | 0 |
| Equipment Failure | Auxiliary equipment failure | 24 | 1 | 2 |
|  | Fire extinguisher failure | 0 | 0 | 0 |
|  | Onboard navigation aids | 1 | 0 | 0 |
|  | Sail dismasting | 0 | 0 | 0 |
|  | Seat broke loose | 8 | 2 | 6 |
|  | Other | 15 | 0 | 6 |
|  | Not specified | 0 | 0 | 0 |



Number of Accidents


Number of Deaths


Number of Injuries


Table 8 - ALCOHOL USE AS A CONTRIBUTING FACTOR IN ACCIDENTS \& CASUALTIES BY STATE 2009-2013

|  | Accidents |  |  |  |  | Deaths |  |  |  |  | Injuries |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2009 | 2010 | 2011 | 2012 | 2013 | 2009 | 2010 | 2011 | 2012 | 2013 |
| USA | 397 | 395 | 361 | 368 | 305 | 165 | 154 | 149 | 140 | 94 | 422 | 344 | 306 | 313 | 251 |
| AL | 10 | 12 | 8 | 11 | 7 | 4 | 5 | 6 | 1 | 4 | 9 | 8 | 11 | 13 | 5 |
| AK | 4 | 1 | 8 | 2 | 2 | 3 | 1 | 8 | 2 | 4 | 2 | 0 | 0 | 0 | 0 |
| AZ | 9 | 9 | 7 | 7 | 7 | 1 | 3 | 0 | 3 | 2 | 10 | 10 | 8 | 7 | 9 |
| AR | 9 | 2 | 7 | 8 | 5 | 4 | 0 | 4 | 2 | 2 | 5 | 2 | 3 | 10 | 3 |
| CA | 22 | 15 | 13 | 14 | 17 | 11 | 4 | 3 | 6 | 2 | 28 | 17 | 13 | 13 | 15 |
| CO | 9 | 1 | 3 | 10 | 4 | 3 | 0 | 0 | 4 | 0 | 11 | 0 | 3 | 8 | 5 |
| CT | 9 | 4 | 1 | 6 | 2 | 5 | 2 | 0 | 4 | 0 | 11 | 1 | 7 | 4 | 1 |
| DE | 0 | 2 | 0 | 2 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| DC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FL | 33 | 39 | 25 | 30 | 32 | 17 | 15 | 7 | 9 | 10 | 43 | 27 | 24 | 30 | 22 |
| GA | 12 | 11 | 16 | 8 | 11 | 3 | 5 | 0 | 4 | 4 | 11 | 6 | 18 | 8 | 7 |
| HI | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| ID | 9 | 14 | 7 | 10 | 8 | 4 | 6 | 4 | 2 | 2 | 13 | 11 | 4 | 12 | 8 |
| IL | 11 | 18 | 18 | 13 | 6 | 3 | 6 | 9 | 5 | 1 | 15 | 18 | 13 | 10 | 3 |
| IN | 2 | 2 | 7 | 4 | 2 | 0 | 0 | 4 | 0 | 0 | 2 | 0 | 3 | 3 | 2 |
| IA | 5 | 10 | 2 | 7 | 4 | 2 | 2 | 1 | 7 | 2 | 2 | 6 | 0 | 7 | 0 |
| KS | 0 | 1 | 3 | 3 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| KY | 10 | 10 | 4 | 6 | 5 | 3 | 5 | 2 | 2 | 0 | 8 | 10 | 6 | 2 | 6 |
| LA | 23 | 9 | 6 | 16 | 9 | 17 | 5 | 2 | 6 | 3 | 36 | 13 | 12 | 11 | 12 |
| ME | 5 | 4 | 6 | 3 | 3 | 2 | 1 | 4 | 1 | 0 | 4 | 7 | 2 | 3 | 2 |
| MD | 13 | 11 | 12 | 11 | 10 | 6 | 1 | 3 | 4 | 1 | 14 | 10 | 14 | 16 | 5 |
| MA | 5 | 11 | 5 | 10 | 8 | 4 | 6 | 4 | 5 | 3 | 3 | 3 | 3 | 8 | 6 |
| MI | 12 | 16 | 11 | 8 | 6 | 9 | 8 | 4 | 1 | 1 | 10 | 11 | 9 | 4 | 4 |
| MN | 12 | 6 | 8 | 9 | 8 | 4 | 3 | 6 | 3 | 3 | 13 | 2 | 7 | 7 | 5 |
| MS | 2 | 4 | 4 | 4 | 7 | 2 | 4 | 2 | 1 | 3 | 2 | 1 | 1 | 5 | 5 |
| MO | 11 | 14 | 9 | 12 | 15 | 3 | 2 | 2 | 2 | 6 | 12 | 11 | 13 | 8 | 20 |
| MT | 3 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 6 | 0 | 2 | 0 | 0 |
| NE | 6 | 4 | 4 | 4 | 1 | 2 | 2 | 2 | 1 | 0 | 4 | 4 | 5 | 14 | 2 |
| NV | 6 | 3 | 4 | 3 | 2 | 1 | 1 | 2 | 0 | 1 | 7 | 2 | 2 | 7 | 1 |
| NH | 3 | 0 | 2 | 3 | 1 | 1 | 0 | 1 | 2 | 0 | 4 | 0 | 1 | 0 | 4 |
| NJ | 4 | 2 | 9 | 6 | 6 | 1 | 2 | 3 | 2 | 0 | 4 | 0 | 2 | 6 | 3 |
| NM | 2 | 5 | 1 | 3 | 2 | 1 | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| NY | 11 | 22 | 17 | 16 | 14 | 7 | 4 | 7 | 11 | 6 | 13 | 21 | 19 | 9 | 12 |
| NC | 13 | 15 | 11 | 11 | 12 | 5 | 6 | 2 | 3 | 4 | 11 | 18 | 8 | 10 | 8 |
| ND | 2 | 1 | 1 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| OH | 9 | 17 | 18 | 10 | 7 | 2 | 8 | 5 | 4 | 1 | 9 | 9 | 21 | 12 | 3 |
| OK | 3 | 11 | 12 | 8 | 3 | 3 | 5 | 6 | 3 | 3 | 3 | 5 | 6 | 8 | 4 |
| OR | 5 | 6 | 4 | 1 | 3 | 1 | 1 | 2 | 1 | 3 | 4 | 8 | 1 | 0 | 2 |
| PA | 6 | 2 | 8 | 9 | 4 | 2 | 1 | 4 | 5 | 1 | 10 | 2 | 2 | 4 | 3 |
| RI | 2 | 2 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 6 |
| SC | 5 | 7 | 7 | 14 | 6 | 0 | 4 | 5 | 5 | 4 | 5 | 5 | 3 | 12 | 4 |
| SD | 5 | 1 | 2 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 6 | 2 | 1 | 0 | 3 |
| TN | 15 | 16 | 5 | 6 | 7 | 4 | 8 | 2 | 1 | 3 | 11 | 17 | 6 | 3 | 5 |
| TX | 17 | 31 | 15 | 21 | 19 | 9 | 8 | 5 | 6 | 5 | 14 | 46 | 8 | 16 | 17 |
| UT | 1 | 4 | 6 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 0 | 8 | 5 | 0 | 0 |
| VT | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| VA | 7 | 2 | 5 | 3 | 3 | 2 | 1 | 2 | 1 | 0 | 5 | 5 | 10 | 0 | 3 |
| WA | 11 | 3 | 14 | 14 | 14 | 6 | 1 | 7 | 7 | 5 | 13 | 6 | 11 | 7 | 8 |
| WV | 3 | 5 | 4 | 1 | 0 | 1 | 3 | 4 | 0 | 0 | 3 | 1 | 2 | 1 | 0 |
| WI | 18 | 6 | 19 | 14 | 9 | 5 | 3 | 11 | 8 | 2 | 15 | 4 | 17 | 9 | 9 |
| WY | 2 | 3 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 7 | 3 | 0 | 4 | 0 |
| GU | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PR | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| VI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CNMI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 9 - VESSEL OPERATION AT THE TIME OF ACCIDENT 2013

|  | Vessels Involved | Deaths | Injuries |
| :--- | :---: | :---: | :---: |
| Totals | 5458 | 560 | 2620 |
| At anchor | 184 | 23 | 65 |
| Being towed | 39 | 2 | 6 |
| Changing direction | 548 | 22 | 360 |
| Changing speed | 475 | 20 | 269 |
| Cruising | 2232 | 176 | 1284 |
| Docking/undocking | 212 | 3 | 52 |
| Drifting | 534 | 137 | 241 |
| Idling | 52 | 6 | 42 |
| Launching/loading | 51 | 3 | 24 |
| Rowing/paddling | 203 | 100 | 91 |
| Sailing | 99 | 13 | 37 |
| Tied to dock/moored | 622 | 1 | 63 |
| Towing | 32 | 1 | 12 |
| Trolling | 21 | 9 | 11 |
| Other | 43 | 4 | 18 |
| Unknown | 111 | 40 | 45 |

Table 10 - VESSEL ACTIVITY AT THE TIME OF ACCIDENT 2013

|  | Vessels Involved | Deaths | Injuries |
| :--- | :---: | :---: | :---: |
| Totals | 5458 | 560 | 2620 |
| Boating/relaxation | 3245 | 262 | 1635 |
| Commercial | 67 | 0 | 9 |
| Fishing | 656 | 199 | 299 |
| Fueling | 25 | 1 | 29 |
| Government | 20 | 0 | 2 |
| Hunting | 35 | 12 | 23 |
| Racing | 29 | 5 | 16 |
| Repairs | 52 | 5 | 21 |
| Starting engine | 58 | 1 | 34 |
| Swimming/snorkeling | 66 | 28 | 36 |
| Towed watersports | 499 | 20 | 464 |
| Towing | 63 | 4 | 15 |
| Whitewater | 39 | 20 | 13 |
| Other | 19 | 1 | 13 |
| None; not in operation | 532 | 0 | 5 |
| Unknown | 53 | 2 | 6 |


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Accidents | Deaths | Injuries |
|  |  | 4062 | 560 | 2620 |
| TYPE OF BODY OF WATER | Lakes, Ponds, Reservoirs, Dams, Gravel Pits | 1805 | 265 | 1280 |
|  | Rivers, Streams, Creeks, Swamps, Bayous | 870 | 169 | 574 |
|  | Bays, Inlets, Marinas, Sounds, Harbors, Channels, Canals, Sloughs, Coves | 974 | 74 | 560 |
|  | Ocean/Gulf | 297 | 40 | 150 |
|  | Great Lakes (not tributaries) | 113 | 12 | 52 |
|  | Unknown | 3 | 0 | 4 |
| WATER CONDITIONS | Calm (waves less than 6") | 2298 | 253 | 1538 |
|  | Choppy (waves 6" to 2') | 1108 | 152 | 716 |
|  | Rough (waves 2' to 6') | 395 | 67 | 209 |
|  | Very Rough (waves larger than 6') | 58 | 15 | 35 |
|  | Unknown | 203 | 73 | 122 |
| WIND | None | 340 | 38 | 219 |
|  | Light (0-6 mph) | 2231 | 262 | 1577 |
|  | Moderate ( $7-14 \mathrm{mph}$ ) | 1000 | 143 | 585 |
|  | Strong ( $15-25 \mathrm{mph}$ ) | 309 | 55 | 138 |
|  | Storm (over 25 mph ) | 44 | 18 | 22 |
|  | Unknown | 138 | 44 | 79 |
| VISIBILITY | Poor - Day | 58 | 13 | 28 |
|  | Poor - Night | 104 | 16 | 70 |
|  | Poor - Unknown if day or night | 9 | 10 | 10 |
|  | Fair - Day | 168 | 29 | 89 |
|  | Fair - Night | 123 | 22 | 78 |
|  | Fair- Unknown if day or night | 20 | 3 | 12 |
|  | Good - Day | 2938 | 349 | 1948 |
|  | Good - Night | 338 | 45 | 203 |
|  | Good- Unknown if day or night | 126 | 26 | 71 |
|  | Unknown - Day | 100 | 35 | 58 |
|  | Unknown - Night | 33 | 7 | 30 |
|  | Unknown - Unknown if day or night | 45 | 5 | 23 |
| WATER TEMPERATURE | 39 degrees F and below | 29 | 8 | 16 |
|  | 40-49 degrees F | 110 | 30 | 79 |
|  | 50-59 degrees F | 325 | 70 | 168 |
|  | 60-69 degrees F | 688 | 109 | 433 |
|  | 70-79 degrees F | 1383 | 119 | 904 |
|  | 80-89 degrees F | 858 | 101 | 593 |
|  | 90 degrees F and above | 18 | 4 | 12 |
|  | Unknown | 651 | 119 | 415 |


|  | Table 12- TIME RELATED DATA 2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Accidents | Deaths | Injuries |
|  |  | 4062 | 560 | 2620 |
| (ime of Day | 12:00 am to 2:30 am | 105 | 21 | 54 |
|  | 2:31 am to 4:30 am | 39 | 9 | 19 |
|  | 4:31 am to 6:30 am | 52 | 10 | 25 |
|  | 6:31 am to 8:30 am | 112 | 15 | 66 |
|  | 8:31 am to 10:30 am | 275 | 40 | 154 |
|  | 10:31 am 12:30 pm | 459 | 51 | 295 |
|  | 12:31 pm to 2:30 pm | 651 | 82 | 440 |
|  | 2:31 pm to 4:30 pm | 863 | 115 | 537 |
|  | 4:31 pm to $6: 30 \mathrm{pm}$ | 698 | 82 | 467 |
|  | 6:31 pm to 8:30 pm | 439 | 64 | 283 |
|  | 8:31 pm to 10:30 pm | 230 | 33 | 171 |
|  | 10:31 pm to 11:59 pm | 87 | 12 | 86 |
|  | Unknown | 52 | 26 | 23 |
| Month of Year | January | 92 | 19 | 43 |
|  | February | 79 | 8 | 52 |
|  | March | 150 | 32 | 90 |
|  | April | 188 | 35 | 108 |
|  | May | 470 | 76 | 303 |
|  | June | 735 | 99 | 500 |
|  | July | 920 | 83 | 649 |
|  | August | 657 | 64 | 458 |
|  | September | 416 | 72 | 238 |
|  | October | 152 | 25 | 77 |
|  | November | 116 | 21 | 61 |
|  | December | 87 | 26 | 41 |
| Day of Week | Sunday | 994 | 109 | 684 |
|  | Monday | 367 | 67 | 236 |
|  | Tuesday | 288 | 42 | 173 |
|  | Wednesday | 326 | 51 | 171 |
|  | Thursday | 382 | 55 | 210 |
|  | Friday | 497 | 75 | 323 |
|  | Saturday | 1208 | 161 | 823 |


|  |  | Vessels Involved | Deaths | Injuries |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 5458 | 560 | 2620 |
| Hull Material | Aluminum | 862 | 190 | 425 |
|  | Fiberglass | 4087 | 253 | 2013 |
|  | Plastic | 126 | 48 | 55 |
|  | Rubber/Vinyl/Canvas | 55 | 19 | 28 |
|  | Steel | 36 | 1 | 12 |
|  | Wood | 84 | 13 | 22 |
|  | Other | 3 | 0 | 1 |
|  | Unknown | 205 | 36 | 64 |
| Horsepower | No Engine | 367 | 158 | 165 |
|  | 10 hp or less | 122 | 34 | 62 |
|  | 11-25 hp | 157 | 31 | 67 |
|  | 26-75 hp | 476 | 68 | 213 |
|  | 76-150 hp | 1109 | 87 | 623 |
|  | 151-250 hp | 778 | 35 | 378 |
|  | Over 250 hp | 1066 | 28 | 451 |
|  | Unknown | 1383 | 119 | 661 |
| Year Built | 2013 | 236 | 22 | 123 |
|  | 2012 | 237 | 21 | 131 |
|  | 2010-2011 | 285 | 24 | 145 |
|  | 2008-2009 | 295 | 15 | 169 |
|  | 2006-2007 | 459 | 37 | 229 |
|  | 2000-2005 | 1103 | 70 | 584 |
|  | Prior to 2000 | 2267 | 231 | 1037 |
|  | Unknown | 576 | 140 | 202 |
| Length | Less than 16 feet | 1514 | 264 | 905 |
|  | 16 feet to <26 feet | 2412 | 219 | 1297 |
|  | 26 feet to<40 feet | 804 | 30 | 255 |
|  | 40 feet to 65 feet | 348 | 5 | 59 |
|  | More than 65 feet | 84 | 7 | 5 |
|  | Unknown | 296 | 35 | 99 |




Accident Types

## Explanation of Accident Types Section

The following section contains six tables that examine data related to the events, called accident types, in accidents. The tables focus on these events and present information by state, vessel type, vessel length, engine type, and propulsion.

In the Coast Guard's national database, there are four fields that can be used to define the series of events in an accident. By events, we mean the series of occurrences that passed during an accident. If a wave broke over a vessel causing it to take on water, capsize, and eject its occupant, the Coast Guard would categorize this accident by three events. First, there was a flooding/swamping. Then, there was a capsizing. Third, there was an ejection.

With the exception of one table, the tables and figures in this report focus only on the first event in the sequence. The rationale for providing only the first accident type is to keep the tables simplistic; if we added the second, third, and fourth events in the boating sequence, our accident, casualty, and damage totals would not match up because they would be double-counting the accidents, casualties, and damages for cases that had more than one event.

## Accident, Vessel \& Casualty Numbers by Primary Accident Type (Table 16, Page 35)

This table focuses on the first event in a boating accident and provides information on the number of accidents, vessels, and casualties attributed to that first event. The deaths section is also separated by the categories drownings and non-drownings.

## Five-year Summary of Frequency of Events in Accidents \& Casualties Nationwide 2009-2013 (Table 17, Pages 36-39)

As mentioned in the introductory paragraph, there are four fields that can be used to define the series of events in an accident. This table focuses on the first three events in an accident and the number of casualties associated with each event. The Coast Guard leaves out the fourth because it is not a standardized field.

Using the example in the opening paragraphs, the flooding/swamping would fall under the intersection of the column "First Event in an Accident" and the row "Flooding/swamping". The capsizing would be marked under the column "Second Event in an Accident" and the row "Capsizing". Finally, the ejection would be marked under the column "Third Event in an Accident" and the row "Ejected from Vessel".

This table focuses on the frequency that these events occurred nationally and the total number of deaths that were associated with each accident type. If we turn back to our example and focus on deaths as a result of flooding/swamping, we see that there were 430 accidents where flooding/swamping was the first event in the boating accident. There were 67 deaths associated with this first event type. However, there were other accidents that involved a flooding/swamping as a second or third occurrence. There were 228 accidents and 16 deaths associated with flooding/swamping as a second event and 54 accidents and 11 deaths associated with flooding/swamping as a third event. All combined, you get the sixth column of the table that looks at how many deaths were associated with an event that occurred either as the first, second, or third occurrence in an accident. Please note that in this table deaths are not separated by first, second and third event. In the example, there were 712 accidents and 94 deaths associated with flooding/swamping as a first, second or third event.

This table can be difficult to understand, especially when the reader is under the expectation that the tallies of the casualty columns will equal the numbers published at the front of this report that reference the number of reportable accidents and deaths.

## Number of Vessels in Accidents by Vessel Length \& Primary Accident Type (Table 18, Page 40)

 This table displays the types of accidents by the length of vessel. The table lists vessel length by foot for vessels of lengths $4 \mathrm{ft}-39 \mathrm{ft}$. After 39 ft , information is categorized in ranges. This table also provides information about the number of casualties and vessels associated by length of vessel.Number of Vessels in Accidents by Vessel Type \& Primary Accident Type (Table 19, Page 41) This table examines the first event of a boating accident for all vessels involved in an accident. It also provides information about the casualties associated with each vessel type.

Number of Vessels in Accidents by Primary Accident Type \& Propulsion Type (Table 20, Page 42) This table provides information about the number of vessels involved in accidents by primary accident type and propulsion.

Number of Vessels in Accidents by Primary Accident Type \& Engine Type (Table 21, Page 42) This table provides information about the number of casualties and vessels associated by engine and primary accident type. This table focuses on vessels propelled by a propeller.

|  | Accidents | Vessels Involved | Drowning Deaths | Other Deaths | Total Deaths | Total Injuries | Damages |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All Accident Types | 4062 | 5458 | 398 | 162 | 560 | 2620 | 39,175,826 |
| Capsizing | 256 | 273 | 93 | 19 | 112 | 147 | \$2,083,107 |
| Carbon monoxide poisoning | 11 | 11 | 0 | 4 | 4 | 31 | \$0 |
| Collision with fixed object | 427 | 502 | 36 | 20 | 56 | 269 | \$4,165,670 |
| Collision with floating object | 43 | 44 | 2 | 0 | 2 | 16 | \$452,523 |
| Collision with commercial vessel | 19 | 38 | 1 | 4 | 5 | 6 | \$266,270 |
| Collision with governmental vessel | 9 | 18 | 0 | 0 | 0 | 10 | \$78,528 |
| Collision with recreational vessel | 947 | 1993 | 5 | 31 | 36 | 619 | \$6,188,215 |
| Collision with submerged object | 145 | 149 | 6 | 4 | 10 | 60 | \$3,002,991 |
| Departed vessel | 85 | 89 | 44 | 8 | 52 | 38 | \$4,500 |
| Ejected from vessel | 167 | 178 | 16 | 6 | 22 | 155 | \$509,435 |
| Electrocution | 4 | 4 | 0 | 2 | 2 | 2 | \$5,000 |
| Fall in vessel | 136 | 152 | 1 | 2 | 3 | 138 | \$73,384 |
| Falls overboard | 281 | 301 | 120 | 29 | 149 | 131 | \$83,350 |
| Fire/explosion (fuel) | 137 | 164 | 0 | 0 | 0 | 101 | \$5,706,234 |
| Fire/explosion (non-fuel) | 73 | 132 | 0 | 0 | 0 | 3 | \$5,655,767 |
| Fire/explosion (unknown origin) | 9 | 13 | 0 | 0 | 0 | 3 | \$370,900 |
| Flooding/swamping | 430 | 468 | 58 | 9 | 67 | 144 | \$5,556,883 |
| Grounding | 399 | 411 | 3 | 12 | 15 | 255 | \$4,544,759 |
| Person struck by propeller | 58 | 59 | 0 | 1 | 1 | 58 | \$500 |
| Person struck by vessel | 26 | 37 | 0 | 1 | 1 | 31 | \$2,500 |
| Sinking | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| Skier mishap | 332 | 348 | 4 | 7 | 11 | 352 | \$810 |
| Sudden medical condition | 4 | 4 | 4 | 0 | 4 | 0 | \$0 |
| Other | 57 | 63 | 0 | 1 | 1 | 50 | \$421,500 |
| Unknown | 7 | 7 | 5 | 2 | 7 | 1 | \$3,000 |


| Table 17 - FREQUENCY OF EVENTS IN ACCIDENTS \& CASUALTIES NATIONWIDE |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2013 |  |  |  |  |  |  |  |
| Capsizing | 256 | 262 | 41 | 559 | 175 | 333 | \$4,568,312 |
| Carbon monoxide poisoning | 11 | 0 | 0 | 11 | 4 | 31 | \$0 |
| Collision with fixed object | 427 | 64 | 4 | 495 | 60 | 291 | \$4,778,809 |
| Collision with floating object | 43 | 2 | 0 | 45 | 2 | 17 | \$455,023 |
| Collision with commercial vessel | 19 | 1 | 0 | 20 | 5 | 6 | \$270,470 |
| Collision with governmental vessel | 9 | 1 | 0 | 10 | 0 | 10 | \$86,128 |
| Collision with recreational vessel | 947 | 52 | 3 | 1002 | 37 | 656 | \$6,495,709 |
| Collision with submerged object | 145 | 1 | 0 | 146 | 10 | 60 | \$3,022,991 |
| Departed vessel | 85 | 34 | 11 | 130 | 66 | 61 | \$326,635 |
| Ejected from vessel | 167 | 541 | 319 | 1027 | 268 | 925 | \$6,463,758 |
| Electrocution | 4 | 0 | 0 | 4 | 2 | 2 | \$5,000 |
| Fall in vessel | 136 | 286 | 48 | 470 | 22 | 655 | \$4,069,745 |
| Falls overboard | 281 | 31 | 1 | 313 | 156 | 158 | \$89,135 |
| Fire/explosion (fuel) | 137 | 6 | 0 | 143 | 0 | 101 | \$6,309,934 |
| Fire/explosion (non-fuel) | 73 | 1 | 0 | 74 | 0 | 3 | \$5,905,767 |
| Fire/explosion (unknown origin) | 9 | 0 | 0 | 9 | 0 | 3 | \$370,900 |
| Flooding/swamping | 430 | 228 | 54 | 712 | 94 | 249 | \$12,762,290 |
| Grounding | 399 | 50 | 12 | 461 | 21 | 278 | \$5,771,281 |
| Person struck by boat | 58 | 85 | 31 | 174 | 23 | 162 | \$160,560 |
| Person struck by propeller | 26 | 207 | 18 | 251 | 24 | 309 | \$653,828 |
| Sinking | 0 | 90 | 56 | 146 | 20 | 23 | \$5,077,352 |
| Skier mishap | 332 | 9 | 0 | 341 | 12 | 365 | \$1,110 |
| Sudden medical condition | 4 | 3 | 1 | 8 | 5 | 3 | \$0 |
| Other | 57 | 9 | 0 | 66 | 1 | 59 | \$436,500 |
| Unknown | 7 | 0 | 0 | 7 | 7 | 1 | \$3,000 |
| 2012 |  |  |  |  |  |  |  |
| Capsizing | 289 | 295 | 38 | 622 | 194 | 385 | \$3,587,942 |
| Carbon monoxide poisoning | 13 | 0 | 0 | 13 | 3 | 25 | \$0 |
| Collision with fixed object | 475 | 53 | 3 | 531 | 51 | 367 | \$4,110,405 |
| Collision with floating object | 33 | 0 | 0 | 33 | 2 | 19 | \$182,267 |
| Collision with commercial vessel | 20 | 2 | 0 | 22 | 1 | 16 | \$296,968 |
| Collision with governmental vessel | 7 | 1 | 0 | 8 | 0 | 7 | \$26,900 |
| Collision with recreational vessel | 1010 | 33 | 5 | 1048 | 47 | 727 | \$6,787,720 |
| Collision with submerged object | 161 | 1 | 1 | 163 | 12 | 56 | \$1,019,215 |


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Departed vessel | 104 | 40 | 5 | 149 | 96 | 77 | \$113,749 |
| Ejected from vessel | 151 | 618 | 316 | 1085 | 269 | 1018 | \$5,120,544 |
| Electrocution | 1 | 0 | 0 | 1 | 2 | 6 | \$0 |
| Fall in vessel | 190 | 295 | 61 | 546 | 34 | 776 | \$2,588,780 |
| Falls overboard | 331 | 28 | 1 | 360 | 210 | 183 | \$201,491 |
| Fire/explosion (fuel) | 157 | 9 | 1 | 167 | 5 | 99 | \$2,979,827 |
| Fire/explosion (non-fuel) | 96 | 3 | 0 | 99 | 0 | 7 | \$9,929,520 |
| Fire/explosion (unknown origin) | 11 | 0 | 0 | 11 | 2 | 0 | \$940,500 |
| Flooding/swamping | 509 | 220 | 50 | 779 | 101 | 301 | \$11,888,553 |
| Grounding | 422 | 58 | 16 | 496 | 26 | 286 | \$7,811,552 |
| Person struck by boat | 37 | 215 | 18 | 270 | 30 | 319 | \$741,967 |
| Person struck by propeller | 55 | 99 | 27 | 181 | 19 | 187 | \$125,099 |
| Sinking | 0 | 130 | 61 | 191 | 28 | 64 | \$5,622,918 |
| Skier mishap | 387 | 19 | 0 | 406 | 20 | 414 | \$6,773 |
| Sudden medical condition | 2 | 0 | 0 | 2 | 1 | 1 | \$0 |
| Other | 53 | 4 | 0 | 57 | 4 | 48 | \$71,775 |
| Unknown | 1 | 0 | 0 | 1 | 1 | 0 | \$0 |
| 2011 |  |  |  |  |  |  |  |
| Capsizing | 316 | 271 | 41 | 628 | 249 | 381 | \$3,131,990 |
| Carbon Monoxide Poisoning | 7 | 0 | 0 | 7 | 3 | 14 | \$0 |
| Collision with Fixed Object | 460 | 47 | 6 | 513 | 59 | 406 | \$4,928,304 |
| Collision with Floating Object | 42 | 0 | 1 | 43 | 4 | 15 | \$579,330 |
| Collision with Commercial Vessel | 25 | 1 | 0 | 26 | 1 | 23 | \$575,665 |
| Collision with Governmental Vessel | 4 | 1 | 0 | 5 | 1 | 3 | \$13,000 |
| Collision with Recreational Vessel | 1002 | 48 | 4 | 1054 | 41 | 691 | \$6,575,400 |
| Collision with Submerged Object | 196 | 2 | 0 | 198 | 19 | 71 | \$2,134,076 |
| Departure from Vessel | 115 | 38 | 4 | 157 | 97 | 69 | \$71,515 |
| Ejected from Vessel | 222 | 597 | 308 | 1127 | 354 | 1072 | \$4,593,528 |
| Electrocution | 2 | 0 | 0 | 2 | 0 | 2 | \$0 |
| Fall in Vessel | 196 | 274 | 51 | 521 | 40 | 735 | \$3,164,234 |
| Falls Overboard | 359 | 30 | 1 | 390 | 213 | 182 | \$147,764 |
| Fire/Explosion (fuel) | 135 | 2 | 0 | 137 | 5 | 99 | \$3,349,516 |
| Fire/Explosion (non-fuel) | 72 | 1 | 0 | 73 | 1 | 8 | \$24,142,289 |
| Fire/Explosion (unknown origin) | 11 | 0 | 0 | 11 | 1 | 2 | \$1,059,368 |
| Flooding/Swamping | 501 | 185 | 29 | 715 | 111 | 246 | \$11,118,756 |


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grounding | 338 | 36 | 16 | 390 | 24 | 224 | \$5,301,218 |
| Person Struck by Propeller | 57 | 124 | 16 | 197 | 35 | 192 | \$91,412 |
| Person Struck by Vessel | 36 | 226 | 21 | 283 | 35 | 342 | \$545,642 |
| Sinking | 0 | 122 | 46 | 168 | 34 | 51 | \$4,079,266 |
| Skier Mishap | 436 | 4 | 0 | 440 | 14 | 461 | \$8,700 |
| Sudden Medical Condition | 2 | 0 | 0 | 2 | 1 | 1 | 0 |
| Other | 53 | 4 | 0 | 57 | 1 | 52 | \$64,350 |
| Unknown | 1 | 0 | 0 | 1 | 0 | 1 | \$0 |
| 2010 |  |  |  |  |  |  |  |
| Capsizing | 335 | 225 | 27 | 587 | 238 | 346 | \$3,125,976 |
| Carbon Monoxide Poisoning | 12 | 2 | 0 | 14 | 6 | 24 | \$15,750 |
| Collision with Fixed Object | 456 | 42 | 3 | 501 | 40 | 346 | \$4,275,598 |
| Collision with Floating Object | 52 | 0 | 0 | 52 | 8 | 27 | \$438,259 |
| Collision with Commercial Vessel | 29 | 2 | 0 | 31 | 8 | 22 | \$653,226 |
| Collision with Governmental Vessel | 8 | 1 | 0 | 9 | 0 | 4 | \$46,567 |
| Collision with Recreational Vessel | 1088 | 43 | 1 | 1132 | 68 | 769 | \$7,550,040 |
| Collision with Submerged Object | 169 | 1 | 0 | 170 | 8 | 43 | \$2,179,935 |
| Departure from Vessel | 100 | 39 | 3 | 142 | 85 | 65 | \$483,635 |
| Ejected from Vessel | 240 | 594 | 270 | 1104 | 310 | 1018 | \$6,046,912 |
| Electrocution | 4 | 0 | 1 | 5 | 2 | 8 | \$0 |
| Fall in Vessel | 207 | 341 | 45 | 593 | 29 | 866 | \$3,203,432 |
| Falls Overboard | 291 | 13 | 1 | 305 | 165 | 154 | \$139,335 |
| Fire/Explosion (fuel) | 159 | 2 | 0 | 161 | 2 | 92 | \$4,587,022 |
| Fire/Explosion (non-fuel) | 81 | 2 | 1 | 84 | 0 | 12 | \$6,428,251 |
| Fire/Explosion (unknown origin) | 6 | 0 | 0 | 6 | 0 | 0 | \$749,079 |
| Flooding | 448 | 155 | 31 | 634 | 94 | 236 | \$9,961,999 |
| Grounding | 309 | 47 | 15 | 371 | 20 | 236 | \$4,184,050 |
| Person Struck by Propeller | 49 | 114 | 16 | 179 | 27 | 178 | \$109,985 |
| Person Struck by Vessel | 31 | 221 | 19 | 271 | 32 | 325 | \$700,418 |
| Sinking | 2 | 108 | 40 | 150 | 28 | 45 | \$4,563,582 |
| Skier Mishap | 447 | 4 | 0 | 451 | 16 | 476 | \$42,045 |
| Other | 80 | 7 | 1 | 88 | 8 | 79 | \$90,125 |
| Unknown | 1 | 0 | 0 | 1 | 0 | 0 | \$0 |


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capsizing | 369 | 246 | 27 | 642 | 280 | 373 | \$2,694,728.00 |
| Carbon Monoxide Poisoning | 17 | 0 | 0 | 17 | 1 | 39 | \$0 |
| Collision with Fixed Object | 446 | 45 | 7 | 498 | 41 | 358 | \$5,331,520.99 |
| Collision with Floating Object | 73 | 2 | 0 | 75 | 3 | 38 | \$579,379.00 |
| Collision with Commercial Vessel | 29 | 1 | 1 | 31 | 13 | 29 | \$315,343.00 |
| Collision with Governmental Vessel | 2 | 0 | 0 | 2 | 0 | 0 | \$7,250.00 |
| Collision with Recreational Vessel | 1100 | 50 | 7 | 1157 | 54 | 858 | \$7,490,097.82 |
| Collision with Submerged Object | 165 | 5 | 0 | 170 | 13 | 58 | \$1,573,118.72 |
| Departed Vessel | 100 | 60 | 22 | 182 | 85 | 100 | \$843,575.00 |
| Ejected from Vessel | 176 | 636 | 225 | 1037 | 335 | 976 | \$3,717,657.00 |
| Electrocution | 0 | 0 | 1 | 1 | 0 | 1 | \$40,450.00 |
| Fall in Boat | 207 | 233 | 26 | 466 | 30 | 643 | \$1,692,143.08 |
| Falls Overboard | 349 | 32 | 3 | 384 | 201 | 204 | \$144,100.00 |
| Fire/Explosion (fuel) | 174 | 4 | 0 | 178 | 3 | 113 | \$5,692,477.00 |
| Fire/Explosion (non-fuel) | 74 | 12 | 1 | 87 | 4 | 19 | \$6,917,936.00 |
| Fire/Explosion (unknown origin) | 12 | 0 | 0 | 12 | 0 | 4 | \$1,646,100.00 |
| Flooding/Swamping | 436 | 151 | 30 | 617 | 122 | 207 | \$7,493,097.26 |
| Grounding | 308 | 52 | 17 | 377 | 19 | 244 | \$4,533,175.12 |
| Sinking | 8 | 129 | 85 | 222 | 49 | 45 | \$7,221,576.00 |
| Skier mishap | 464 | 1 | 0 | 465 | 13 | 491 | \$5,960.00 |
| Person Struck by Propeller | 67 | 97 | 20 | 184 | 25 | 182 | \$58,950.00 |
| Person Struck by Vessel | 49 | 205 | 27 | 281 | 26 | 355 | \$619,535.10 |
| Other | 101 | 18 | 0 | 119 | 1 | 120 | \$120,360.00 |
| Unknown | 4 | 0 | 0 | 4 | 4 | 4 | \$1,648,100.00 |

Table 18 - NUMBER OF VESSELS IN ACCIDENTS BY VESSEL LENGTH \& PRIMARY ACCIDENT TYPE 2013


|  | ｜lnjuries | － |  | గ్నN | N | P | $\stackrel{\infty}{\sim}{ }_{\sim}^{\circ}$ | \％ | T－ | $\bigcirc$ | $\stackrel{1}{\sim}$ |  | ल |  | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total deaths | \％ | m | $\bigcirc \stackrel{1}{\sim}$ | N | ${ }^{\circ} \mathrm{m}$ | $\underset{\sim}{\text { ¢ }}$ | － | － | O－M |  | $\infty$ | $\bigcirc$ |  |  |
|  | Deaths by causes other than drowning | O | － | m | $\infty$ 人 | N | $\checkmark$ | の¢ | N | 子 | f | $\cdots$ | $\bigcirc$ |  | $\bigcirc$ |
|  | Drownings | \％ | m | $\cdots$ | $\stackrel{\circ}{\text {－}}$ | \％ | $\cdots$ |  | $\cdots$ | $\stackrel{\sim}{\sim}$ | N | N | $\bigcirc$ |  | － |
|  | Unknown | 下 | O | 0 | 0 | 0 | $\bigcirc \mathrm{O}$ | $\sim$ | $\sim$ | 0 | 0 | 0 | 0 |  | 0 |
|  | Other | $\stackrel{¢}{6}$ | － | $\bigcirc$ | ${ }_{10}$ |  | नN | $\sim$ | 入 | － |  | － | － |  |  |
|  | Sudden medical condition | － | 0 | － | － | － | － | $\sim$ | 0 |  | －10 | － | $\bigcirc$ |  |  |
|  | Skier mishap | ¢ | － | $\bigcirc$ | ${ }_{7}{ }^{\circ}$ | 0 | － | $0 \left\lvert\, \begin{aligned} & \infty \\ & \underset{\sim}{\infty} \end{aligned}\right.$ | M | ${ }^{1}$ |  | － | $\bigcirc$ |  |  |
|  | Sinking | $\bigcirc$ | － | 00 |  |  | － |  | 00 | 0 |  | － | $\bigcirc$ |  | $\bigcirc$ |
|  | Person struck by vessel | ले | － | $\cdots$ | NO | 00 | － | $\bigcirc$ | $\cdots$ | mo | 0 | 0 | $\bigcirc$ |  |  |
|  | Person struck by propeller | $\bigcirc$ | 0 | $\bigcirc$ | no | － | O | $\bigcirc$ | $\bigcirc$ |  |  | 0 | $\bigcirc$ |  | ल |
| 员め | Grounding | 7 | o | ¢ F | 8 | N | $\sim$ | － | $\stackrel{\sim}{\square}$ |  | ¢ | $\checkmark$ | $\bigcirc$ | $\bigcirc$ | ल |
| $\begin{aligned} & \text { F } \\ & \underset{\sim}{\imath} \end{aligned}$ | Flooding／swamping | $\stackrel{\circ}{6}$ | $\cdots$ | J | ¢ |  | 0 | $\begin{aligned} & \infty \\ & \infty \\ & ल \end{aligned}$ | $\cdots$ |  |  |  | $\bigcirc$ |  |  |
| $\begin{aligned} & \text { 岂え } \\ & \stackrel{4}{>} \end{aligned}$ | Fire／explosion（unknown origin） | $\stackrel{\sim}{7}$ | $\bigcirc$ | \％M | m 0 | 0 | O |  | － | 00 | 0 | 0 | $\bigcirc$ |  | $\bigcirc$ |
|  | Fire／explosion（non－fuel） | $\stackrel{\text { N}}{\sim}$ | － | 50 | $\bigcirc$ | 7 | 0 | － | － | m | $\cdots$ | － | $\bigcirc$ | O | － |
| $\begin{aligned} & \text { ō } \\ & \text { ぶ } \end{aligned}$ | Fire／explosion（fuel） | $\stackrel{+}{\square}$ | － | $\bigcirc$ | $0^{\circ}$ |  | ， | － | N | $\overbrace{}^{\circ}$ |  | 0 | $\bigcirc$ | $\bigcirc$ | － |
|  | Falls overboard | － | － | ${ }^{\infty}$ | $7{ }^{-1}$ | $\sim$ | $0 \cdot$ | $\underset{A}{A}$ | $\mathrm{f}_{5}$ | $\stackrel{\circ}{\sim}$ | 10 | $\sim$ | $\bigcirc$ | － | － |
|  | Fall in vessel | N | $\sim$ | $\bigcirc$ | ～ | $0 \sim$ | $\cdots$ | $\bigcirc$ | M |  |  | － | $\bigcirc$ | － | － |
|  | Electrocution | $\checkmark$ | － | 00 | $\bigcirc$ | 0 | － | $\bigcirc$ | － | $\bigcirc$ | 0 | 0 | $\bigcirc$ | $\bigcirc$ | 0 |
| $\geqq$ | Ejected from vessel | $\stackrel{\infty}{\sim}$ | － | $\rightarrow$ | $\checkmark$ | － | － | $\bigcirc$ | \％ | － |  | － | 0 |  |  |
| $\begin{aligned} & \text { の } \\ & \text { む } \end{aligned}$ | Departed vessel | 8 | － | $\bigcirc$ | $\infty \sim$ | N | の | \％ |  | $\stackrel{\sim}{\sim}$ |  | $\checkmark$ | $\bigcirc$ |  | － |
|  | Collision with submerged object | $\stackrel{\square}{7}$ | － | $\stackrel{\sim}{2}$ | N |  | 0 | $\cdots$ | ल | $\bigcirc 0$ |  | － | 0 |  |  |
|  | Collision with recreational vessel | লু | $\cdots$ | $\underset{\sim}{9}$ | $\stackrel{\infty}{\underset{m}{\infty}}{ }^{\circ}$ | 0 ल | 0 | $\infty\left\|\begin{array}{l} n \\ 0 \\ 0 \end{array}\right\|$ | $\mathfrak{p}$ | ${\underset{\sim}{0}}^{\infty}$ |  |  | $\sim$ |  | ¢ |
| $\begin{aligned} & \stackrel{\sim}{w} \bar{\sim} \\ & \underset{\sim}{\mathbf{z}} \end{aligned}$ | Collision with governmental vessel | $\stackrel{0}{\sim}$ | － | $\bigcirc$ | NO | － | 0 | $\infty$ | 入 | $\bigcirc$ | 0 | 0 | $\bigcirc$ |  |  |
| $\sum$ | Collision with commercial vessel | \％ | $\sim$ | $\cdots$ | ${ }_{7} 0$ | 0 | 00 | 7 | m | 0 | 0 | 0 | $\bigcirc$ | $\llcorner$ | $\cdots$ |
|  | Collision with floating object | \％ | － | $\bigcirc$ | $\bigcirc$ |  | 0 | $\stackrel{\sim}{\sim}$ |  |  |  | － | $\bigcirc$ |  | － |
| $\begin{aligned} & \stackrel{\circ}{0} \\ & \stackrel{0}{0} \\ & \stackrel{\circ}{\square} \end{aligned}$ | Collision with fixed object | O | $\infty$ | No | $\stackrel{+}{\square}$ |  |  | － | $\bigcirc \bigcirc$ | $\cdots$ |  | － | $\bigcirc$ | $\bigcirc$ |  |
|  | Carbon monoxide exposure | $\cdots$ | － | $\bigcirc$ | m 0 | $\bigcirc$ | ，O | 06 | 0 | 00 |  | 0 | $\bigcirc$ |  | $\bigcirc$ |
|  | Capsizing | $\stackrel{N}{N}$ | $\checkmark$ |  | $\bigcirc$ | $0^{\circ}$ | $0 \underset{7}{ }$ |  | $9$ | 7 |  |  | $\bigcirc$ |  | $\pm$ |
|  | All accident types | $$ | O | $\underset{\sim}{\text { N }}$ | 800 | O－ | $\stackrel{\sim}{\text { N }}$ | $\underset{\sim}{\mathrm{M}} \underset{\sim}{n}$ | 䏩名 | 웅 | Oగ్గో | ${ }^{\infty}$ | $\infty$ | $\stackrel{\sim}{\sim}$ |  |
|  | $\frac{(1)}{50}$ |  |  |  |  |  |  |  |  |  |  |  |  | $\stackrel{\stackrel{\rightharpoonup}{\Phi}}{ \pm}$ | （1） |

Accident Types


# Operator \& Passenger Information 



## Explanation of Operator \& Passenger Information Section

The following section contains eleven tables and figures that examine data relating to the operators and passengers in accidents. Information is displayed by age, boating safety instruction, type of injury, and cause of death.

## Operator Information (Table 22, Page 45)

This table provides information about the operator. Information covers a variety of topics including age, boating operation hours experience, number of people onboard the vessel, and the boating safety instruction level of the operator.

Examples of "other" boating safety instruction include licenses issued from the Coast Guard, military training, police academy training, rental operator training, commercially-available courses, and camp training. Informal training signifies that the operator did not receive instruction in a formal classroom setting but rather learned from experience.

## Number of Deaths by Type of Operator Boating Instruction (Table 23 \& Figure 7, Page 46)

This table and accompanying figure focus on boating safety instruction for those operators who had a person die on their vessel. The table and figure both focus on instruction provided by the U.S. Coast Guard Auxiliary, U.S. Power Squadrons, American Red Cross, and State sources. The figure examines only deaths where the operator instruction was known.

## Number of Deaths by Vessel Type (Table 24 \& Figure 8, Page 47)

This table documents deaths by vessel type with a focus on drownings. It also provides the percentage of deaths by drowning by type of vessel.

## Percentage of Deaths by Vessel Type 2004-2013 (Figure 9 \& Table 25, Page 48)

This table and accompanying figure focus on the percentage of deaths that occurred on each vessel type for the past ten years. The figure may be interpreted by measuring the upper and lower bounds of the color-coded vessel type to obtain the percentage of deaths attributed to that vessel type within the year.

Please note that the percentages in the table have been rounded up.

## Number of Deceased Victims by Age \& Vessel Type (Table 26, Page 49)

This table documents the age of fatal accident victims by vessel type. It also delineates the number of drownings, non-drownings, and total deaths by age.

## Number of Injured Victims by Age \& Vessel Type (Table 27, Page 50)

This table documents the age of injured victims by vessel type.

## Nature of Primary Injury Type by Area of Injury (Table 28, Page 51)

This table focuses on the nature and area of the primary injury of injured victims.

## Number of Injured Victims under Age 18 by Age Group and Injury Type on Personal Watercraft (Figure 10, Page 51)

This table focuses on the number of injured victims from personal watercraft for specific age groups and by type of injury.

| Table 22 - OPERATOR INFORMATION 2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| - ${ }^{8}$ |  | Vessels Involved | Deaths | Injuries |
| 1 |  | 5458 | 560 | 2620 |
| Age of Operator | 12 years and under | 28 | 2 | 18 |
|  | 13 to 18 years | 276 | 15 | 169 |
|  | 19 to 25 years | 518 | 46 | 348 |
|  | 26 to 35 years | 727 | 80 | 432 |
|  | 36 to 55 years | 1797 | 214 | 1016 |
|  | Over 55 years | 1056 | 168 | 473 |
|  | Unknown | 336 | 29 | 100 |
|  | No operator | 720 | 6 | 64 |
| Operator's Experience | No Experience | 49 | 6 | 27 |
|  | Under 10 hours | 447 | 39 | 286 |
|  | 10 to 100 hours | 900 | 84 | 562 |
|  | 101 to 500 hours | 1626 | 133 | 857 |
|  | Over 500 Hours | 545 | 47 | 296 |
|  | Unknown | 1171 | 245 | 528 |
|  | No Operator | 720 | 6 | 64 |
| Number of Persons on Board | None | 500 | 0 | 3 |
|  | One | 1431 | 220 | 496 |
|  | Two | 1507 | 151 | 795 |
|  | Three | 619 | 82 | 382 |
|  | Four | 477 | 38 | 313 |
|  | Five | 262 | 13 | 170 |
|  | Six | 214 | 23 | 176 |
|  | Seven | 103 | 11 | 99 |
|  | Eight | 85 | 6 | 67 |
|  | Nine | 40 | 3 | 38 |
|  | Ten | 31 | 2 | 20 |
|  | More than 10 | 54 | 8 | 31 |
|  | Unknown | 135 | 3 | 30 |
| Education of Operator | American Red Cross | 16 | 0 | 13 |
|  | Informal | 218 | 8 | 133 |
|  | Internet Course | 99 | 2 | 57 |
|  | State Course | 591 | 32 | 318 |
|  | US Power Squadrons | 70 | 4 | 24 |
|  | USCG Auxiliary | 206 | 4 | 104 |
|  | Other | 152 | 10 | 67 |
|  | No Education | 2095 | 241 | 1213 |
|  | Unknown | 1291 | 253 | 627 |
|  | No Operator | 720 | 6 | 64 |

## BOATING SAFETY INSTRUCTION

| Table 23 - NUMBER OF DEATHS BY TYPE OF OPERATOR BOATING INSTRUCTION 2013 |  |
| :---: | :---: |
| $\%_{6}{ }^{\circ}$ Type of Boating Instruction | Deaths |
| American Red Cross | 0 |
| Informal | 8 |
| Internet Course | 2 |
| State | 32 |
| U.S. Coast Guard Auxiliary | 4 |
| U.S. Power Squadron | 4 |
| Other | 10 |
| No Education | 241 |
| Total Deaths - Known Operator Instruction | 301 |
| Total Deaths - Unknown Operator Instruction | 253 |
| Total Deaths - No Operator | 6 |
| Total Deaths - Known \& Unknown Operator Instruction | 560 |

Figure 7 PERCENT OF DEATHS BY KNOWN OPERATOR INSTRUCTION 2013



Figure 8 NUMBER OF DEATHS BY VESSEL TYPE 2013






|  | Table 27 - NUMBER OF INJURED VICTIMS BY AGE AND VESSEL TYPE 2013 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age of Injured Victim |  | $\begin{aligned} & \text { B. } \\ & \text { 훙 } \\ & \text { Q } \end{aligned}$ |  |  | $\begin{aligned} & 0 \\ & 0 \\ & \hline 0 \\ & \hline 0 \end{aligned}$ |  |  |  |  |  | 0 <br> 0 <br> 0 <br> 1 | $\begin{aligned} & 70 \\ & 0 \\ & \sum_{0}^{2} \\ & 0 \end{aligned}$ |  |  |  | $\begin{aligned} & \text { 움 } \\ & \text { 뭉 } \end{aligned}$ |  |
| All ages | 2620 | 43 | 53 | 223 | 70 | 26 | 18 | 40 | 1380 | 601 | 80 | 14 | 24 | 5 | 3 | 5 | 35 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 00 | 1 | 0 | 0 | 0 | 0 |
| 4 | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 6 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 1 |
| 9 | 19 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 5 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 10 | 29 | 0 | 0 | 2 | 0 | 3 | 1 | 0 | 14 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 27 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 11 | 10 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 12 | 37 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 22 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0-12 | 180 | 1 | 0 | 9 | 3 | 4 | 2 | 1 | 91 | 52 | 8 | 1 | 6 | 0 | 0 | 0 | 2 |
| 13-19 | 409 | 1 | 1 | 15 | 7 | 8 | 4 | 4 | 204 | 149 | 11 | 2 | 1 | 0 | 0 | 0 | 2 |
| 20-29 | 538 | 6 | 2 | 24 | 23 | 0 | 4 | 6 | 280 | 168 | 18 | 0 | 2 | 0 | 0 | 2 | 3 |
| 30-39 | 377 | 6 | 6 | 33 | 13 | 5 | 2 | 9 | 201 | 90 | 8 | 1 | 1 | 0 | 1 | 1 | 0 |
| 40-49 | 371 | 6 | 12 | 46 | 13 | 7 | 2 | 7 | 192 | 70 | 9 | 1 | 4 | 1 | 1 | 0 | 0 |
| 50-59 | 326 | 12 | 12 | 54 | 4 | 0 | 2 | 6 | 173 | 41 | 10 | 4 | 4 | 1 | 0 | 1 | 2 |
| 60-69 | 197 | 3 | 8 | 18 | 3 | 0 | 2 | 1 | 135 | 11 | 9 | 2 | 3 | 0 | 0 | 1 | 1 |
| 70-79 | 66 | 5 | 3 | 9 | 1 | 1 | 0 | 1 | 41 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 |
| 80 and Over | 22 | 2 | 3 | 4 | 0 | 0 | 0 | 0 | 10 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 134 | 1 | 6 | 11 | 3 | 1 | 0 | 5 | 53 | 20 | 3 | 0 | 3 | 3 | 1 | 0 | 24 |


| 10 | All Areas | Arm | Body | Foot | Hand | Head | Leg | Neck | Trunk | Other | Unknown |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All primary injury types | 2620 | 240 | 327 | 117 | 114 | 620 | 536 | 79 | 434 | 0 | 153 |
| Amputation | 28 | 2 | 0 | 2 | 19 | 0 | 5 | 0 | 0 | 0 | 0 |
| Broken bone | 451 | 66 | 0 | 33 | 22 | 58 | 164 | 7 | 87 | 0 | 14 |
| Burn | 88 | 8 | 15 | 4 | 8 | 8 | 28 | 2 | 2 | 0 | 13 |
| Carbon monoxide | 31 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concussion | 259 | 0 | 0 | 0 | 0 | 259 | 0 | 0 | 0 | 0 | 0 |
| Dislocation | 70 | 48 | 0 | 1 | 3 | 1 | 15 | 0 | 1 | 0 | 1 |
| Electric shock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hypothermia | 225 | 0 | 225 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Internal organ injury | 127 | 5 | 6 | 0 | 1 | 1 | 3 | 1 | 105 | 0 | 5 |
| Laceration | 618 | 47 | 2 | 43 | 42 | 233 | 181 | 4 | 36 | 0 | 30 |
| Scrape/bruise | 369 | 39 | 31 | 11 | 13 | 57 | 100 | 9 | 74 | 0 | 35 |
| Shock | 11 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spinal cord Injury | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 36 | 0 | 0 |
| Sprain/strain | 239 | 22 | 6 | 21 | 6 | 2 | 39 | 49 | 90 | 0 | 4 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 61 | 3 | 0 | 2 | 0 | 1 | 1 | 0 | 3 | 0 | 51 |

Figure 10 NUMBER OF INJURED VICTIMS UNDER AGE 18 BY AGE GROUP AND INJURY TYPE ON PERSONAL WATERCRAFT 2013


Casualty Data

(1) Responsibly

## Explanation of Casualty Data Section

This section contains eleven tables and figures that examine data relating to the victims in boating accidents. The following pages focus on historical casualty information, casualty-vessel information, and state-specific casualty information.

## Deaths, Injuries \& Accidents by Year 1997-2013 (Figure 11 \& Table 29, Page 54)

This figure and table document the number of accidents and casualties from 1997-2013.

## Accident, Casualty \& Damage Data by State (Table 30, Page 55)

This table provides accident, casualty, and damage information by state for the year 2013. Accidents are broken down into three levels of severity- fatal accidents, non-fatal injury accidents, and property damage only accidents. This table also provides the number of casualties and property damage by state.

## Distribution of Recreational Boating Deaths by State (Figure 12, Page 56)

This figure provides the percentage that each state contributed to the national death count. So, for instance, Michigan had 21 deaths. Out of the total national death count of 560 , Michigan contributed $3.8 \%$ $((21 / 560) * 100)$ of deaths to the national count. Please note that percentages have been rounded.

## Annual Recreational Boating Fatality Rates 1997-2013 (Figure 13 \& Table 31, Page 57)

This table and accompanying figure provide two fatality rates for years 1997-2013. The fatality rate is calculated by dividing the number of fatalities by the total national vessel registration. The Coast Guard then multiplied by a factor of 100,000 to arrive at the number of deaths per 100,000 registered vessels. One fatality rate takes into account all fatalities and all recreational registration data collected. The second fatality rate takes into account only fatalities that occurred on motorized vessels and only motorized recreational vessels registered.

## States Coded by their 2013 Fatality Rate (Figure 14, Page 58)

This figure displays states that are color-coded depending on their fatality rate which is expressed as the number of deaths that occurred in that state per 100,000 vessels that that state registered. It is important to note that not all states register the same types of vessels which could skew the fatality rates provided. Please see Table 38, Recreational Registration Data by State 2012-2013 to view the Scope of each state's registration system.

## Five-year Summary of Selected Accident Data by State 2009-2013 (Table 32, Page 59)

This table examines the number of accidents, fatal accidents, and fatalities by state for years 20092013.

## Number of Accidents by Primary Accident Type \& State (Table 33, Page 60-61)

This table documents the first accident event by state. It also provides information about the total number of accidents and casualties by state.

Number of Injured Victims by Primary Injury \& Vessel Type (Table 34, Page 62)
This table displays the number of injured victims by primary injury and vessel type.
Number of Fatal Victims by Life Jacket Wear, Cause of Death, \& Vessel Type (Table 35, Page 62) This table displays the number of fatal victims by vessel type and cause of death. The table also provides information on whether the deceased victim was wearing a life jacket.


Table 29 - DEATHS, INJURIES \& ACCIDENTS BY YEAR 1997-2013

| Year | Deaths | Injuries | Accidents |
| :---: | :---: | :---: | :---: |
| 1997 | 821 | 4555 | 8047 |
| 1998 | 815 | 4612 | 8061 |
| 1999 | 734 | 4315 | 7931 |
| 2000 | 701 | 4355 | 7740 |
| $2001^{*}$ | 681 | 4274 | 6419 |
| 2002 | 750 | 4062 | 5705 |
| 2003 | 703 | 3888 | 5438 |
| 2004 | 676 | 3363 | 4904 |
| 2005 | 697 | 3451 | 4969 |
| 2006 | 710 | 3474 | 4967 |
| 2007 | 685 | 3673 | 5191 |
| 2008 | 709 | 3331 | 4789 |
| 2009 | 736 | 3358 | 4730 |
| 2010 | 672 | 3153 | 4604 |
| 2011 | 758 | 3081 | 4588 |
| 2012 | 651 | 3000 | 4515 |
| 2013 | 560 | 2620 | 4062 |

* On July 2, 2001, the Federal threshold of property damage for reports of accidents involving recreational vessels changed from \$500 to \$2000.

Table 30 • ACCIDENT, CASUALTY \& DAMAGE DATA BY STATE 2013

|  | Number of Accidents |  |  |  | Persons Involved |  | Damages |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Fatal | Non-Fatal Injury | Property Damage | Deaths | Injured |  |
| Totals | 4062 | 510 | 1907 | 1645 | 560 | 2620 | \$39,175,826 |
| AK | 18 | 7 | 6 | 5 | 10 | 12 | \$195,000 |
| AL | 62 | 10 | 26 | 26 | 10 | 46 | \$1,319,016 |
| AR | 56 | 13 | 21 | 22 | 15 | 27 | \$206,600 |
| AZ | 95 | 9 | 62 | 24 | 9 | 84 | \$348,259 |
| CA | 426 | 34 | 206 | 186 | 37 | 277 | \$2,244,460 |
| CO | 32 | 2 | 24 | 6 | 2 | 30 | \$27,407 |
| CT | 35 | 1 | 13 | 21 | 1 | 18 | \$1,813,784 |
| DE | 8 | 0 | 4 | 4 | 0 | 5 | \$28,500 |
| DC | 5 | 0 | 2 | 3 | 0 | 2 | \$41,750 |
| FL | 685 | 51 | 295 | 339 | 58 | 406 | \$9,490,497 |
| GA | 92 | 15 | 55 | 22 | 16 | 73 | \$443,549 |
| HI | 14 | 4 | 4 | 6 | 4 | 6 | \$217,200 |
| IA | 24 | 3 | 15 | 6 | 3 | 17 | \$60,600 |
| ID | 42 | 5 | 24 | 13 | 5 | 31 | \$169,050 |
| IL | 59 | 8 | 24 | 27 | 9 | 38 | \$380,559 |
| IN | 44 | 4 | 25 | 15 | 5 | 31 | \$129,071 |
| KS | 24 | 5 | 8 | 11 | 5 | 9 | \$51,745 |
| KY | 31 | 4 | 16 | 11 | 5 | 19 | \$977,850 |
| LA | 96 | 15 | 57 | 24 | 15 | 92 | \$601,310 |
| MA | 83 | 12 | 33 | 38 | 12 | 47 | \$813,970 |
| MD | 110 | 13 | 62 | 35 | 14 | 77 | \$713,016 |
| ME | 54 | 3 | 29 | 22 | 4 | 35 | \$400,396 |
| MI | 92 | 19 | 36 | 37 | 21 | 47 | \$322,207 |
| MN | 75 | 10 | 37 | 28 | 12 | 47 | \$958,061 |
| MO | 111 | 16 | 59 | 36 | 16 | 86 | \$1,036,819 |
| MS | 41 | 12 | 20 | 9 | 13 | 31 | \$257,325 |
| MT | 16 | 6 | 5 | 5 | 6 | 10 | \$56,700 |
| NC | 139 | 14 | 70 | 55 | 16 | 90 | \$754,480 |
| ND | 5 | 2 | 3 | 0 | 2 | 3 | \$0 |
| NE | 25 | 0 | 19 | 6 | 0 | 24 | \$37,750 |
| NH | 40 | 1 | 19 | 20 | 1 | 23 | \$140,297 |
| NJ | 123 | 8 | 49 | 66 | 8 | 60 | \$151,590 |
| NM | 16 | 2 | 7 | 7 | 2 | 11 | \$86,097 |
| NV | 48 | 5 | 20 | 23 | 5 | 41 | \$388,030 |
| NY | 180 | 15 | 79 | 86 | 18 | 113 | \$2,699,367 |
| OH | 108 | 13 | 30 | 65 | 13 | 41 | \$1,412,163 |
| OK | 42 | 8 | 17 | 17 | 9 | 25 | \$458,800 |
| OR | 59 | 12 | 25 | 22 | 12 | 37 | \$453,925 |
| PA | 71 | 16 | 35 | 20 | 17 | 42 | \$132,623 |
| RI | 42 | 1 | 13 | 28 | 1 | 20 | \$935,476 |
| SC | 104 | 26 | 43 | 35 | 27 | 59 | \$710,700 |
| SD | 10 | 1 | 4 | 5 | 1 | 6 | \$36,300 |
| TN | 119 | 17 | 58 | 44 | 20 | 75 | \$2,373,362 |
| TX | 146 | 28 | 71 | 47 | 31 | 106 | \$976,580 |
| UT | 76 | 10 | 47 | 19 | 12 | 52 | \$111,873 |
| VA | 64 | 10 | 33 | 21 | 11 | 44 | \$720,195 |
| VT | 2 | 1 | 0 | 1 | 1 | 2 | \$100,000 |
| WA | 94 | 17 | 39 | 38 | 17 | 51 | \$983,840 |
| WI | 79 | 12 | 44 | 23 | 12 | 59 | \$847,905 |
| WV | 16 | 3 | 8 | 5 | 3 | 20 | \$59,587 |
| WY | 6 | 0 | 4 | 2 | 0 | 9 | \$9,845 |
| AS | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| GU | 1 | 1 | 0 | 0 | 1 | 0 | \$12,790 |
| CNMI | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| PR | 2 | 2 | 0 | 0 | 2 | 1 | \$0 |
| VI | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| Atlantic Ocean* | 10 | 3 | 1 | 6 | 4 | 1 | \$712,190 |
| Gulf of Mexico* | 3 | 0 | 1 | 2 | 0 | 2 | \$551,975 |
| Pacific Ocean* | 2 | 1 | 0 | 1 | 7 | 0 | \$13,385 |
| *1997 was the first year did not submit property | cs were compiled estimates to boa ages. The Coast | ccidents that occ owever, NJ noted adjusted NJ 's prop | urred three or more miles off d that accidents submitted to property damages to boats su | shore in the Atlantic Ocean and the Coast Guard that did not hav ch that each accident without an | acific Ocean and an injury or dea ijury or death had | more mile were considere $\$ 2000$ damages | the Gulf of Mexico. NJ have $\$ 2000$ or more in |



Figure 13 ANNUAL RECREATIONAL BOATING FATALITY RATES 1997-2013

Table 31 - ANNUAL RECREATIONAL BOATING FATALITY RATES 1997-2013

|  | All Deaths | All Registered Vessels | Fatality Rate | Motorized Vessel Deaths | Registered Motorized Vessels | Motorized Vessel Fatality Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1997 | 821 | 12,312,982 | 6.7 | 645 | 11,591,194 | 5.6 |
| 1998 | 815 | 12,565,930 | 6.5 | 637 | 11,637,361 | 5.5 |
| 1999 | 734 | 12,738,271 | 5.8 | 586 | 11,811,562 | 5.0 |
| 2000 | 701 | 12,782,143 | 5.5 | 543 | 11,648,769 | 4.7 |
| 2001 | 681 | 12,876,346 | 5.3 | 484 | 12,100,439 | 4.0 |
| 2002 | 750 | 12,854,054 | 5.8 | 612 | 11,918,688 | 5.1 |
| 2003 | 703 | 12,794,616 | 5.5 | 536 | 11,946,576 | 4.5 |
| 2004 | 676 | 12,781,476 | 5.3 | 515 | 11,878,783 | 4.3 |
| 2005 | 697 | 12,942,414 | 5.4 | 528 | 11,998,728 | 4.4 |
| 2006 | 710 | 12,746,126 | 5.6 | 535 | 11,802,419 | 4.5 |
| 2007 | 685 | 12,875,568 | 5.3 | 515 | 11,966,627 | 4.3 |
| 2008 | 709 | 12,692,892 | 5.6 | 518 | 11,841,281 | 4.4 |
| 2009 | 736 | 12,721,541 | 5.8 | 522 | 11,834,872 | 4.4 |
| 2010 | 672 | 12,438,926 | 5.4 | 469 | 11,597,326 | 4.0 |
| 2011 | 758 | 12,173,935 | 6.2 | 527 | 11,326,848 | 4.7 |
| 2012 | 651 | 12,101,936 | 5.4 | 476 | 11,226,268 | 4.2 |
| 2013 | 560 | 11,999,067 | 4.7 | 391 | 11,103,006 | 3.5 |


Note: This fatality rate is calculated using the number deaths in each state and the number of registered boats in each state Further, only the continguous jurisdictions and Hawaii and Alaska are represented.

|  | Total Number of Accidents |  |  |  |  | Fatal Accidents |  |  |  |  | Deaths |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2010 | 2011 | 2012 | 2013 | 2009 | 2010 | 2011 | 2012 | 2013 | 2009 | 2010 | 2011 | 2012 | 2013 |
| Totals | 4730 | 4604 | 4588 | 4515 | 4062 | 646 | 605 | 686 | 578 | 510 | 736 | 672 | 758 | 651 | 560 |
| Alabama | 75 | 90 | 73 | 71 | 62 | 11 | 20 | 14 | 16 | 10 | 14 | 20 | 19 | 17 | 10 |
| Alaska | 19 | 24 | 20 | 23 | 18 | 13 | 8 | 13 | 15 | 7 | 14 | 11 | 15 | 22 | 10 |
| Arizona | 151 | 113 | 158 | 99 | 95 | 3 | 3 | 10 | 3 | 9 | 3 | 6 | 11 | 4 | 9 |
| Arkansas | 78 | 60 | 55 | 68 | 56 | 16 | 12 | 13 | 8 | 13 | 17 | 14 | 15 | 8 | 15 |
| California | 478 | 412 | 399 | 365 | 426 | 42 | 44 | 47 | 37 | 34 | 47 | 48 | 52 | 49 | 37 |
| Colorado | 60 | 53 | 58 | 46 | 32 | 12 | 6 | 9 | 8 | 2 | 13 | 7 | 10 | 9 | 2 |
| Connecticut | 56 | 52 | 42 | 49 | 35 | 8 | 6 | 8 | 6 | 1 | 8 | 7 | 8 | 6 | 1 |
| Delaware | 16 | 21 | 10 | 13 | 8 | 1 | 1 | 3 | 2 | 0 | 1 | 2 | 3 | 2 | 0 |
| DC | 0 | 1 | 4 | 2 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Florida | 610 | 608 | 685 | 662 | 685 | 53 | 65 | 56 | 48 | 51 | 67 | 69 | 61 | 50 | 58 |
| Georgia | 145 | 135 | 96 | 111 | 92 | 11 | 18 | 14 | 11 | 15 | 12 | 19 | 14 | 13 | 16 |
| Hawaii | 19 | 15 | 17 | 28 | 14 | 7 | 4 | 6 | 5 | 4 | 7 | 4 | 6 | 5 | 4 |
| Idaho | 74 | 67 | 57 | 66 | 42 | 13 | 9 | 11 | 11 | 5 | 15 | 13 | 12 | 11 | 5 |
| Illinois | 96 | 97 | 106 | 101 | 59 | 15 | 14 | 20 | 15 | 8 | 16 | 15 | 23 | 17 | 9 |
| Indiana | 42 | 43 | 50 | 43 | 44 | 13 | 6 | 10 | 2 | 4 | 13 | 8 | 10 | 2 | 5 |
| lowa | 37 | 54 | 38 | 33 | 24 | 3 | 6 | 4 | 8 | 3 | 3 | 6 | 4 | 11 | 3 |
| Kansas | 27 | 30 | 40 | 27 | 24 | 5 | 4 | 7 | 2 | 5 | 6 | 6 | 7 | 2 | 5 |
| Kentucky | 62 | 75 | 46 | 47 | 31 | 17 | 14 | 9 | 7 | 4 | 21 | 14 | 10 | 8 | 5 |
| Louisiana | 120 | 105 | 112 | 116 | 96 | 26 | 16 | 30 | 23 | 15 | 33 | 21 | 36 | 25 | 15 |
| Maine | 44 | 34 | 48 | 48 | 54 | 8 | 6 | 11 | 6 | 3 | 8 | 8 | 12 | 6 | 4 |
| Maryland | 174 | 196 | 184 | 145 | 110 | 16 | 9 | 17 | 11 | 13 | 17 | 9 | 19 | 11 | 14 |
| Massachusetts | 51 | 60 | 46 | 68 | 83 | 10 | 16 | 9 | 16 | 12 | 10 | 16 | 9 | 17 | 12 |
| Michigan | 131 | 132 | 129 | 103 | 92 | 32 | 25 | 24 | 14 | 19 | 36 | 27 | 26 | 16 | 21 |
| Minnesota | 82 | 82 | 75 | 84 | 75 | 14 | 11 | 14 | 12 | 10 | 15 | 12 | 16 | 15 | 12 |
| Mississippi | 39 | 17 | 34 | 57 | 41 | 15 | 7 | 11 | 11 | 12 | 16 | 8 | 11 | 12 | 13 |
| Missouri | 150 | 161 | 128 | 141 | 111 | 16 | 13 | 17 | 10 | 16 | 17 | 14 | 20 | 12 | 16 |
| Montana | 20 | 11 | 19 | 17 | 16 | 6 | 2 | 9 | 9 | 6 | 6 | 2 | 10 | 10 | 6 |
| Nebraska | 31 | 24 | 22 | 45 | 25 | 5 | 5 | 4 | 8 | 0 | 6 | 5 | 5 | 8 | 0 |
| Nevada | 67 | 59 | 42 | 57 | 48 | 6 | 2 | 7 | 3 | 5 | 7 | 2 | 7 | 4 | 5 |
| New Hampshire | 60 | 46 | 36 | 40 | 40 | 6 | 3 | 2 | 4 | 1 | 7 | 3 | 2 | 4 | 1 |
| New Jersey | 126 | 116 | 119 | 115 | 123 | 6 | 8 | 8 | 7 | 8 | 6 | 8 | 8 | 7 | 8 |
| New Mexico | 34 | 37 | 24 | 18 | 16 | 3 | 7 | 1 | 1 | 2 | 3 | 8 | 2 | 1 | 2 |
| New York | 148 | 211 | 173 | 197 | 180 | 19 | 24 | 25 | 21 | 15 | 23 | 27 | 28 | 27 | 18 |
| North Carolina | 144 | 148 | 144 | 145 | 139 | 19 | 23 | 27 | 22 | 14 | 19 | 24 | 28 | 23 | 16 |
| North Dakota | 7 | 11 | 10 | 10 | 5 | 0 | 3 | 3 | 1 | 2 | 0 | 3 | 5 | 1 | 2 |
| Ohio | 105 | 127 | 135 | 136 | 108 | 9 | 15 | 13 | 11 | 13 | 9 | 16 | 15 | 11 | 13 |
| Oklahoma | 55 | 51 | 57 | 71 | 42 | 10 | 12 | 10 | 12 | 8 | 14 | 13 | 11 | 15 | 9 |
| Oregon | 67 | 60 | 66 | 70 | 59 | 11 | 10 | 10 | 17 | 12 | 13 | 11 | 10 | 19 | 12 |
| Pennsylvania | 58 | 70 | 87 | 59 | 71 | 11 | 6 | 22 | 9 | 16 | 11 | 7 | 22 | 11 | 17 |
| Rhode Island | 50 | 34 | 26 | 31 | 42 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 3 | 1 |
| South Carolina | 95 | 102 | 93 | 108 | 104 | 7 | 25 | 17 | 13 | 26 | 11 | 27 | 19 | 14 | 27 |
| South Dakota | 21 | 18 | 13 | 18 | 10 | 3 | 2 | 2 | 3 | 1 | 3 | 4 | 2 | 4 | 1 |
| Tennessee | 117 | 116 | 117 | 147 | 119 | 19 | 17 | 21 | 16 | 17 | 22 | 19 | 22 | 21 | 20 |
| Texas | 168 | 163 | 197 | 162 | 146 | 34 | 27 | 34 | 32 | 28 | 38 | 28 | 37 | 32 | 31 |
| Utah | 87 | 103 | 109 | 99 | 76 | 8 | 10 | 8 | 6 | 10 | 11 | 10 | 8 | 8 | 12 |
| Vermont | 4 | 2 | 7 | 3 | 2 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |
| Virginia | 137 | 102 | 121 | 89 | 64 | 23 | 14 | 19 | 13 | 10 | 27 | 14 | 21 | 15 | 11 |
| Washington | 111 | 72 | 93 | 105 | 94 | 17 | 14 | 14 | 28 | 17 | 22 | 18 | 15 | 30 | 17 |
| West Virginia | 32 | 23 | 17 | 19 | 16 | 13 | 7 | 6 | 4 | 3 | 15 | 8 | 8 | 4 | 3 |
| Wisconsin | 102 | 104 | 110 | 110 | 79 | 15 | 17 | 19 | 23 | 12 | 16 | 18 | 22 | 23 | 12 |
| Wyoming | 18 | 15 | 16 | 9 | 6 | 4 | 1 | 5 | 1 | 0 | 4 | 1 | 6 | 1 | 0 |
| Guam | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| Puerto Rico | 9 | 12 | 3 | 1 | 2 | 3 | 2 | 1 | 1 | 2 | 4 | 3 | 1 | 2 | 2 |
| Virgin Islands | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 0 |
| AS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CNMI | 2 | 1 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *AT | 4 | 18 | 9 | 4 | 10 | 1 | 2 | 2 | 0 | 3 | 1 | 3 | 4 | 0 | 4 |
| ${ }^{*}$ GL | 4 | 2 | 4 | 6 |  | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 0 |
| *PC | 8 | 6 | 1 | 4 | 2 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 7 |
| Federal | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 1 | 0 |  |

*1997 was the first year statistics were compiled for accidents that occurred three or more miles offshore in the Atlantic Ocean and Pacific Ocean and nine or more

Casualty Data



| Table 34 - NUMBER OF INJURED VICTIMS BY PRIMARY INJURY \& VESSEL TYPE 2013 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Primary Injury |  | $\begin{aligned} & \text { B} \\ & \text { B. } \\ & \text { O} \\ & \text { On } \end{aligned}$ |  |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \mathrm{I} \\ & \stackrel{\rightharpoonup}{\omega} \\ & \stackrel{0}{D} \\ & \stackrel{O}{0} \end{aligned}$ |  | $\begin{aligned} & \overline{\hat{N}} \\ & \stackrel{N}{X} \end{aligned}$ |  |  | $\begin{aligned} & 0 \\ & 0 \\ & \stackrel{\rightharpoonup}{6} \\ & 0 \\ & 0 \end{aligned}$ |  |  |  | $\begin{aligned} & \left\|\begin{array}{c} 0 \\ 0 \\ 02 \\ 0 \\ 0 \end{array}\right\| \end{aligned}$ | $\begin{aligned} & \mathrm{O} \\ & \stackrel{\rightharpoonup}{\mathbf{D}} \end{aligned}$ |  |
| Amputation | 28 | 0 |  | 4 | 0 | 1 | 0 | 0 | 12 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 1 |
| Broken bone | 451 | 15 | 3 | 33 | 1 | 4 | 1 | 3 | 221 | 150 | 15 | 1 | 0 | 0 | 2 | 0 | 2 |
| Burns | 88 | 1 | 2 | 41 | 0 | 1 | 0 | 0 | 39 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Carbon monoxide | 31 | 0 | 0 | 6 | 0 | 18 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concussion | 259 | 2 | 4 | 16 | 1 | 0 | 1 | 2 | 147 | 73 | 7 | 0 | 6 | 0 | 0 | 0 | 0 |
| Dislocation | 70 | 1 | 1 | 2 | 2 | 0 | 1 | 2 | 43 | 14 | 2 | 0 | 2 | 0 | 0 | 0 | 0 |
| Electric shock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | , | 0 | 0 | 0 | 0 | 0 |
| Hypothermia | 225 | 0 | 13 | 2 | 46 | 0 | 8 | 16 | 109 | 7 | 4 | 7 | 8 | 3 | 0 | 0 |  |
| Internal organ injury | 127 | 1 | 3 | 14 | 5 | 0 |  |  | 50 | 37 | 7 | 3 | 0 | 1 | 0 | 0 | 2 |
| Laceration | 618 | 14 | 12 | 50 | 6 | 1 | 3 | 7 | 362 | 129 | 21 | 1 | 4 | 1 | 1 | 0 | 6 |
| Scrape/bruise | 369 | 6 | 8 | 29 | 6 | 0 | 2 | 2 | 197 | 103 | 11 | 0 | 2 | 0 | 0 | 3 | 0 |
| Shock | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Spinal cord injury | 43 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 29 | 6 | 1 |  | 0 | 0 | 0 | 1 | 0 |
| Sprain/strain | 239 | 2 | , | 19 | 3 | 1 | 0 | 4 | 137 | 60 | 7 | 1 | 1 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 61 | 0 | 2 | 2 | 0 | 0 | , | 2 | 20 | 12 | 1 | 0 | 0 | 0 | 0 | 1 | 21 |
| All Injuries | 2620 | 43 | 53 | 223 | 70 | 26 | 18 | 40 | 1380 | 601 | 80 | 14 | 24 | 5 | 3 | 5 | 35 |



Registration Data

## Explanation of Registration Data Section

The following section contains fives tables and figures that examine boat registration information. Registered vessels are those vessels that are required to be recorded by a state, which includes numbered vessels and other forms of registration. Not all states have the same registration requirements. While some states may only register vessels with a motor, others may register sailboats, canoes, kayaks, and rowboats in addition to those vessels with a motor.

## Recreational Vessel Registration by Year 1980-2013 (Table 36 \& Figure 15, Page 65)

This table provides information about recreational vessel registration for each year from 1980-2013.
The accompanying figure displays a trend line from 1980-2013.

## Recreational Vessel Registration by Length \& Means of Propulsion (Table 37, Page 66)

The top section of the table provides tallies for the number of mechanically-propelled vessels, the number of manually-propelled vessels, and a summation of these two categories. The middle section of the table documents mechanically-propelled vessel registration by length category and engine type. The bottom section of the table focuses on manually-propelled vessels.

## Registration Data by State 2012-2013 (Table 38, Page 67)

This table examines recreational vessel registration, deaths, and fatality rates by state for years 2013 and 2012. The fatality rate is calculated by dividing the number of fatalities by the total vessel registration. The Coast Guard then multiplied by a factor of 100,000 to arrive at the number of deaths per 100,000 registered vessels. This table also specifies the scope of the state's registration program.

Distribution of 2013 Recreational Vessel Registration by State (Figure 16, Page 68)
This figure provides the percentage that each state contributed to national registration figures. So, for instance, California registered 820,490 vessels. Out of the total national registration of 11,993,067, California contributed $6.8 \%((820,490 / 11,993,067)$ * 100) of registered vessels. Please note that percentages have been rounded.


# Table 37 - RECREATIONAL VESSEL REGISTRATION BY LENGTH AND MEANS OF PROPULSION 2013 

| Mechanically Propelled |  | Not Mechanically Propelled |  |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11,103,006 |  | 890,061 |  |  | $11,993,067$ |  |
| STATE REGISTERED BOATS THAT ARE MECHANICALLY PROPELLED |  |  |  |  |  |  |
|  | Means of Mechanical Propulsion |  | Auxiliary Sail |  |  |  |
|  | Inboard | Outboard | Sterndrive | Inboard | Outboard | Total |
| Under 16 feet | $1,201,371$ | $2,991,453$ | 171,446 | 9,371 | 15,939 | $4,389,580$ |
| 16 to less than 26 feet | 695,469 | $4,257,795$ | $1,146,963$ | 12,779 | 36,139 | $6,149,145$ |
| 26 to less than 40 feet | 159,995 | 120,743 | 152,931 | 37,210 | 10,230 | 481,109 |
| 40 to 65 feet | 43,834 | 6,971 | 12,118 | 5,530 | 716 | 69,169 |
| Over 65 feet | 5,820 | 1,981 | 2,901 | 3,276 | 25 | 14,003 |
| Total | $2,106,489$ | $7,378,943$ | $1,486,359$ | 68,166 | 63,049 | $11,103,006$ |

STATE REGISTERED BOATS NOT MECHANICALLY PROPELLED

| Rowboats | Sailboats | Canoes/Kayaks | Other Boats | Total |
| :---: | :---: | :---: | :---: | :---: |
| 102,557 | 113,440 | 429,003 | 245,061 | 890,061 |

Registration Data

Table 38 - RECREATIONAL VESSEL REGISTRATION DATA BY STATE 2012-2013 | 2013 | 2012 |
| :---: | ---: |

| Totals | 2013 |  |  | 2012 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Registration | Deaths | Fatality Rate | Registration | Deaths | Fatality Rate | Scope of Current Boat Registration System |
|  | 11,993,067 | 560 | 4.7 | 12,101,936 | 651 | 5.4 |  |
| AL | 245,197 | 10 | 4.1 | 268,374 | 17 | 6.3 | All motorboats, sailboats and rental boats |
| AK | 49,939 | 10 | 20.0 | 50,142 | 22 | 43.9 | All undocumented powerboats |
| AS | 88 | 0 | 0 | 74 | 0 | 0.0 | All watercraft |
| AZ | 125,646 | 9 | 7.2 | 129,221 | 4 | 3.1 | All watercraft, except inflatables 12 feet in length or less |
| AR | 237,466 | 15 | 6.3 | 199,546 | 8 | 4.0 | All motorboats and sailboats |
| CA | 820,490 | 37 | 4.5 | 776,584 | 49 | 6.3 | All motorboats; sailboats over 8 feet in length |
| CO | 83,549 | 2 | 2.4 | 87,225 | 9 | 10.3 | All watercraft powered by motor or sail - sailboards exempt |
| CT | 101,887 | 1 | 1.0 | 103,992 | 6 | 5.8 | All motorboats; sailboats 19.5 feet or more in length |
| DE | 59,186 | 0 | 0 | 58,541 | 2 | 3.4 | All motorboats |
| DC | 2,622 | 0 | 0 | 2,118 | 0 | 0.0 | All watercraft |
| FL | 870,749 | 58 | 6.7 | 870,031 | 50 | 5.7 | All motorboats |
| GA | 319,871 | 16 | 5.0 | 323,116 | 13 | 4.0 | All motorboats; sailboats 12 feet or more in length |
| GU | 996 | 1 | 100.4 | 1,631 | 0 | 0.0 | All watercraft (estimated) |
| HI | 13,367 | 4 | 29.9 | 14,098 | 5 | 35.5 | All motorboats; sailboats over 8 feet in length |
| ID | 85,780 | 5 | 5.8 | 85,749 | 11 | 12.8 | All motorboats and sailboats |
| IL | 310,853 | 9 | 2.9 | 368,224 | 17 | 4.6 | All watercraft, except non-profit org. owned canoes and kayaks |
| IN | 214,889 | 5 | 2.3 | 214,487 | 2 | 0.9 | All motorboats |
| IA | 202,886 | 3 | 1.5 | 235,095 | 11 | 4.7 | All watercraft with exceptions (a) |
| KS | 83,422 | 5 | 6.0 | 85,840 | 2 | 2.3 | All motorboats and sailboats |
| KY | 174,218 | 5 | 2.9 | 175,286 | 8 | 4.6 | All motorboats, except electric motors 1 hp or less |
| LA | 307,464 | 15 | 4.9 | 305,081 | 25 | 8.2 | All motorboats; sailboats more than 12 feet in length |
| ME | 107,211 | 4 | 3.7 | 108,502 | 6 | 5.5 | All motorboats |
| MD | 181,544 | 14 | 7.7 | 185,626 | 11 | 5.9 | All motorboats |
| MA | 137,668 | 12 | 8.7 | 139,123 | 17 | 12.2 | All motorboats |
| MI | 795,875 | 21 | 2.6 | 804,088 | 16 | 2.0 | All watercraft with exceptions (b) |
| MN | 808,744 | 12 | 1.5 | 817,996 | 15 | 1.8 | All watercraft with exceptions (c) |
| MS | 130,959 | 13 | 9.9 | 133,556 | 12 | 9.0 | All motorboats and sailboats |
| MO | 297,562 | 16 | 5.4 | 300,714 | 12 | 4.0 | All motorboats; sailboats over 12 feet in length |
| MT | 63,438 | 6 | 9.5 | 54,642 | 10 | 18.3 | All motorboats; sailboats 12 feet or more in length |
| NE | 87,078 | 0 | , | 86,248 | 8 | 9.3 | All motorboats |
| NV | 46,327 | 5 | 10.8 | 50,499 | 4 | 7.9 | All motorboats, sailboats, rowboats |
| NH | 92,046 | 1 | 1.1 | 92,976 | 4 | 4.3 | All motorboats; sailboats 20 feet or more in length |
| NJ | 154,178 | 8 | 5.2 | 160,345 | 7 | 4.4 | All watercraft with exceptions (d) |
| NM | 34,862 | 2 | 5.7 | 36,846 | 1 | 2.7 | All motorboats and sailboats |
| NY | 456,909 | 18 | 3.9 | 463,539 | 27 | 5.8 | All motorboats |
| NC | 386,884 | 16 | 4.1 | 391,711 | 23 | 5.9 | All motorboats; sailboats more than 14 feet in length |
| ND | 69,381 | 2 | 2.9 | 62,799 | 1 | 1.6 | All watercraft |
| CNMI | 389 | 0 | 0 | 365 | 0 | 0.0 | All motorboats |
| OH | 449,541 | 13 | 2.9 | 441,732 | 11 | 2.5 | All watercraft |
| OK | 194,801 | 9 | 4.6 | 201,069 | 15 | 7.5 | All watercraft |
| OR | 166,664 | 12 | 7.2 | 169,188 | 19 | 11.2 | All motorboats; sailboats 12 feet or more in length |
| PA | 329,578 | 17 | 5.2 | 332,431 | 11 | 3.3 | All motorboats and certain non-powered craft (e) |
| PR | 23,882 | 2 | 8.4 | 30,342 | 2 | 6.6 | All motorboats; vessels adapted to hold a motor |
| RI | 39,602 | 1 | 2.5 | 40,451 | 3 | 7.4 | All watercraft except canoes, kayaks \& rowboats < 12 feet |
| SC | 466,589 | 27 | 5.8 | 460,564 | 14 | 3.0 | All watercraft |
| SD | 57,209 | 1 | 1.7 | 58,449 | 4 | 6.8 | All motorboats; all other boats over 12 feet in length |
| TN | 258,167 | 20 | 7.7 | 259,632 | 21 | 8.1 | All motorboats and sailboats |
| TX | 575,402 | 31 | 5.4 | 580,064 | 32 | 5.5 | All motorboats and sailboats 14 feet or more in length |
| UT | 66,012 | 12 | 18.2 | 70,144 | 8 | 11.4 | All motorboats and sailboats |
| VT | 30,008 | 1 | 3.2 | 28,987 | 0 | 0.0 | All motorboats |
| VI | 3,480 | 0 | 0 | 6,023 | 1 | 16.6 | All watercraft |
| VA | 237,551 | 11 | 4.6 | 239,878 | 15 | 6.3 | All motorboats |
| WA | 229,403 | 17 | 7.4 | 230,684 | 30 | 13.0 | All motorboats with exceptions (f); sailboats >16 ft in length |
| WV | 61,961 | 3 | 4.8 | 57,085 | 4 | 7.0 | All motorboats |
| WI | 613,516 | 12 | 2.0 | 622,563 | 23 | 3.7 | All motorboats; sailboats over 12 feet in length |
| WY | 28,081 | 0 |  | 28,620 | 1 | 3.5 | All motorboats and sailboats |
| Offshore/Fed |  | 11 |  |  | 2 |  |  |

(a) lowa excludes inflatables under 7 feet in length and canoes/kayaks under 13 feet in length. (b) Michigan excludes manually propelled boats 16 feet or less in length, and nonmotorized rafts, canoes, and kayaks. (c) Minnesota excludes nonmotorized boats nine feet or less in length, duckboats during duckhunting season, and riceboats during harvest season and seaplanes. (d) New Jersey excludes nonmotorized boats 12 feet or less in length and canoes, kayaks, racing shells and rowing sculls. (e) Pennsylvania registers non-powered craft using lakes or access areas owned by the State Fish \& Boat Com mission. (f) Washington excludes motorboats < 16 feet with motors 10 horsepower or less used solely on exclusive state waters.







| For each question below, please provide answers IF APPLICABLE AND IF KNOWN, otherwise leave blank. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| YOUR BOAT OPERATOR |  |  |  |  |  |
| NAME/ADDRESS |  |  |  |  |  |
| First Name |  | M | Last Nam |  |  |
| Street |  |  |  |  |  |
| City |  | State | Zip |  |  |
| AGE/GENDER/PHONE |  |  |  |  |  |
| Date of Birth (mm/dd/yyyy) | Age | Gender | Male | Female | Phone |
| YOUR BOAT OWNER |  |  |  |  |  |
| If same as your boat operator SKIP rest of YOUR BOAT OWNER section. |  |  |  |  |  |
| NAME/ADDRESS/PHONE |  |  |  |  |  |
| First Name |  | MI | Last Nam |  |  |
| Street |  |  |  |  |  |
| City |  | State | Zip |  | Phone |
| PERSON SUBMITTING THIS REPORT |  |  |  |  |  |
| If same as your boat operator OR owner, SKIP rest of PERSON SUBMITTING THIS REPORT section. |  |  |  |  |  |
| NAME/ADDRESS/PHONE/ROLE |  |  |  |  |  |
| First Name |  | MI | Last Nam |  |  |
| Street |  |  |  |  |  |
| City |  | State | Zip |  | Phone |
| I was a(n) (select one) |  |  |  |  |  |
| Other person on board this boat |  |  |  |  |  |
| Accident witness not on board this boat |  |  |  |  |  |
| Other (describe): |  |  |  |  |  |
| SIGNATURE OF PERSON SUBMITTING THIS REPORT |  |  |  |  |  |
| Your signature Date (mm/dd/yyyy) |  |  |  |  |  |
| An Agency may not conduct or sponsor and a person is not required to respond to an information collection, unless it displays a currently valid OMB Control Number. <br> The Coast Guard estimates that the average burden for this report form is 30 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (CG5422), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (1625-0003), Washington, DC 20503. |  |  |  |  |  |

## Glossary

Airboat - A boat propelled by an engine producing air thrust. This type of boat does not include ground effect vessels or air cushion vehicles (hovercraft).

At Anchor - Held in place in the water by an anchor; includes "moored" to a buoy or anchored vessel and "dragging anchor".

Auxiliary Sailboat - A sailboat also equipped with an engine.
Cabin Motorboat - A motorboat equipped with accommodation spaces, i.e., bunks or berths.
Canoe - A small narrow boat, propelled by paddles. Canoes usually are pointed at both bow and stern and are normally open on top, but can be covered.

Capsizing - Overturning of a vessel.
Carbon Monoxide Poisoning - Death or injury resulting from an odorless, colorless gas generated from auxiliary boat equipment (stoves, heaters, refrigerators, generators, hot water heaters, etc.), another boat's exhaust, or the exhaust of the vessel on which persons were either aboard or in close proximity.

Collision with Fixed Object - The striking of any fixed object, above or below the surface of the water.
Collision with Floating Object - Collision with any waterborne object above or below the surface that is free to move with the tide, current, or wind, except another vessel.

Collision with Commercial/Governmental/Recreational Vessel - Any striking together of two or more vessels, regardless of operation at the time of the accident, is a collision.

Collision with Submerged Object - A boat's collision with any waterborne or fixed object that is below the surface of the water.

Congested Waters - Where the body of water is either too small or narrow to safely accommodate the number of boats on it.

Cruising - Proceeding normally, unrestricted, with an absence of drastic rudder or engine changes.
Documented Vessel - A vessel of five or more net tons owned by a citizen of the United States and used exclusively for pleasure with a valid marine document issued by the Coast Guard. Documented vessels are not numbered.

Drifting - Underway, but proceeding over the bottom without use of engines, oars or sails; being carried along only by the tide, current, or wind.

Electrocution - Death or injury resulting from an electrical current that comes in contact with water causing electrocution of the victim.

Excessive Speed - Speed above that which a reasonable and prudent person would have operated under the conditions that existed. It is not necessarily a speed in excess of a posted limit.

Failure to Vent - Prior to starting the engine, failure to turn on the powered ventilation system that brings in "fresh air" and expels gasoline vapors from the engine compartment.

Fall in Vessel - Any operator or passenger who slips, trips, or falls on board or within the vessel.

Falls Overboard - Any operator or passenger who falls off of the vessel.
Fiberglass (plastic) hull - Hulls of fiber-reinforced plastic. The laminate consists of two basic components, the reinforcing material (glass filaments) and the plastic or resin in which it is embedded.

Fire/Explosion (fuel) - Accidental combustion of vessel fuel, liquids, including their vapors, or other substances such as wood.

Fire/Explosion (other) - Accidental burning or explosion of any material onboard except vessel fuels or their vapors.

Flooding/Swamping - Filling with water, regardless of method of ingress, but retaining sufficient buoyancy to remain on the surface.

Force of Wave/Wake - The track in the water of a moving boat; commonly used for the disturbance of the water (waves) resulting from the passage of the boat's hull.

Fueling - Any stage of the fueling operation; primarily concerned with introduction of explosive or combustible vapors or liquids on board.

Grounding - Running aground of a vessel, striking or pounding on rocks, reefs, or shoals; stranding.
Hazardous Waters - Rapid tidal flows (the vertical movement of water) and/or currents (the horizontal flow of water) resulting in hazardous conditions in which to operate a boat.

Houseboat - A motorized vessel designed primarily with accommodation spaces with little or no foredeck or cockpit, with low freeboard and with a low length to beam ratio.

Hull Failure - Defect or failure of the structural body of a vessel (i.e., hull material, design, or construction) not including superstructure, masts, or rigging.

Ignition of Spilled Fuel or Vapor - Accidental combustion of vessel fuel, liquids, and/or their vapors.
Improper Anchoring - Where a boat is either in the process of being anchored incorrectly or incorrectly held in place in the water by an anchor.

Improper Loading - Loading, including weight shifting, of the vessel causing instability, limited maneuverability, or dangerously reduced freeboard.

Improper Lookout - No proper watch; the failure of the operator to perceive danger because no one was serving as lookout, or the person so serving failed in that regard. Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

Inflatable - A vessel constructed with its sides and bow made of flexible tubes containing pressurized gas. On smaller inflatables, the floor and hull beneath it is often flexible.

Kayak - A small boat with a cockpit that is propelled by a double-bladed paddle by a sitting paddler.
Inadequate On-board Navigation Lights - Insufficient and/or improper lights shown by a boat that indicate course, position, and occupation, such as fishing or towing.

Machinery Failure - Defect and/or failure in the machinery or material, design or construction, or com-
ponents installed by the manufacturer involved in the mechanical propulsion of the boat (e.g., engine, transmission, fuel system, electric system, and steering system).

Missing or Inadequate Navigation Aids - The absence of or ineffective presence of navigation aids.
Motorboat - Any vessel equipped with propulsion machinery.
Numbered vessel - An undocumented vessel numbered by a state with an approved numbering system under Chapter 123 of title 46, U.S.C.

Open Motorboat - Craft of open construction specifically built for operating with a motor, including boats canopied or fitted with temporary partial shelters.

Operator Inattention - Failure on the part of the operator to pay attention to the vessel, its occupants, or the environment in which the vessel is operating.

Operator Inexperience - Lack of practical experience or knowledge in operating a vessel or, more particularly, the vessel involved in the accident.

Outboard - An engine not permanently affixed to the structure of the craft, regardless of the method or location used to mount the engine, e.g., motor wells, "kicker pits", motor pockets, etc.

Overloading - Excessive loading of the vessel causing instability, limited maneuverability, dangerously reduced freeboard, etc.

People on Gunwale, Bow or Transom - Standing/Sitting on the upper edge of the side of a boat, usually on a small projection above the deck; and/or standing/sitting on the most forward part of the boat; and/or standing/sitting on the back of the boat.

Person Struck by Vessel - A person is struck by a boat.
Person Struck by Propeller - A person is struck by the propeller, propulsion unit, or steering machinery.

Personal Watercraft - Craft designed to be operated by a person or persons sitting, standing or kneeling on the craft rather than within the confines of a hull.

Pontoon Boat - A boat consisting of a rigid structure connecting at least two parallel fore (front) and aft (back) rigid sealed buoyancy chambers.

Restricted Vision - A vessel operator's vision is said to be restricted when it is limited by a vessel's bow high trim, or by glare, sunlight, bright lights, a dirty windshield, spray, a canopy top, etc.

Rowboat - A open boat propelled by one or more persons using oars.
Rules of the Road Infraction - Violation of the statutory and regulatory rules governing the navigation of vessels.

Sailboat (only) - Any boat whose sole source of propulsion is the natural element (i.e., wind) or a boat designed or intended to be propelled primarily by sail, regardless of size or type.

Sharp Turn - An immediate or abrupt change in the boat's course of direction.
Sinking - Losing enough buoyancy to settle below the surface of the water.

Skier Mishap - Skier mishap is defined by persons (1) falling off their water-skis, (2) striking a fixed or submerged object, or by (3) becoming entangled or struck by the tow line. Also includes mishaps involving inner-tubes and other devices on which a person can be towed behind a boat.

Starting in Gear - The boat's engine is started with the transmission in forward or reverse.
Steel hull - Hulls of sheet steel or steel alloy, not those with steel ribs and wood, canvas, or plastic hull coverings.

Sterndrive - An inboard/outboard engine system, with the engine inside the hull connected to an external lower unit containing a propeller. Steering is achieved by turning the lower unit.

Sudden Medical Condition - An incident where a person on a vessel experiences an unexpected medical condition.

Towing - Engaged in towing any vessel or object, other than a person.
Weather - As a contributing factor of an accident, "Weather" is supposed to signify a stormy or windy condition, usually connoting rough or high seas and dangerous operating conditions.

Wood Hull - Hulls of plywood, molded plywood, wood planking, or any other wood fiber in its natural consistency, including those of wooden construction that have been "sheathed" with fiberglass or sheet metal.

| AL | Alabama | NJ | New Jersey |
| :--- | :--- | :--- | :--- |
| AK | Alaska | NM | New Mexico |
| AZ | Arizona | NY | New York |
| AR | Arkansas | NC | North Carolina |
| CA | California | ND | North Dakota |
| CO | Colorado | OH | Ohio |
| CT | Connecticut | OK | Oklahoma |
| DE | Delaware | OR | Oregon |
| DC | District of Columbia | PA | Pennsylvania |
| FL | Florida | RI | Rhode Island |
| GA | Georgia | SC | South Carolina |
| HI | Hawaii | SD | South Dakota |
| ID | Idaho | TN | Tennessee |
| IL | Illinois | TX | Texas |
| IN | Indiana | UT | Utah |
| IA | Iowa | VT | Vermont |
| KS | Kansas | WA | Virginia |
| KY | Kentucky | WV | Washington |
| LA | Louisiana | WI | Wisconsin |
| ME | Maine | WY | Wyoming |
| MD | Maryland | GU | Guam |
| MA | Massachusetts | PR | Puerto Rico |
| MI | Michigan | VI | Virgin Islands |
| MN | Minnesota | AS | American Samoa |
| MS | Mississippi | CNMI | Northern Mariana Islands |
| MO | Missouri | AT | Atlantic Ocean |
| MT | Montana | GL | Gulf of Mexico |
| NE | Nebraska | PC | Pacific Ocean |
| NV | Nevada |  |  |
| NH | New Hampshire |  |  |
|  |  |  |  |

