



**NEW YORK**  
STATE OF  
OPPORTUNITY™

# Parks, Recreation and Historic Preservation



## 2014 Recreational Boating Report

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## Executive Summary

This recreational boating report has been prepared in order to help us better understand why accidents happen while affording possible insights as to how to prevent them.

Recreational boating in New York State is a \$2 billion industry enjoyed by millions of residents and visitors alike. With nearly 450,000 registered powerboats and roughly another 300,000 non-powered watercraft, New York ranks 8<sup>th</sup> in the nation for registered boats. In fact, New York has almost as many registered watercraft as all of New England. Clearly, recreational boating is large piece of the economy in the Empire State.

Each year the states report all recreational boating accidents, occurring in that state, to the US Coast Guard. In the Coast Guard's 2013 report, New York accounted for 3.2% of all reported boating deaths. However each state's fatality rate, when considered against the number of registered boats in that state, is generally a better barometer of boating safety. In 2013, the USCG reported New York's fatality rate as 3.9 deaths / 100,000 registered watercraft, putting New York 21<sup>st</sup> in the nation compared with other



states. However, this does not tell the entire story. In examining the reports, we know that a multitude of factors are involved in boating deaths. For instance, we now know from a recent Coast Guard survey that the northeast has a larger percentage of paddle craft than the rest of the country. Closer scrutiny reveals that states like New York also have a far higher percentage of paddle craft deaths than

the national average. When you separate out the deaths involving non-mechanically propelled watercraft, it reduces the fatality rate to 2.4 deaths / 100,000 registered

watercraft in 2013. This is a number significantly lower than the national average of 3.5.

Since 1980, recreational boating deaths in New York State have declined 56% while registered watercrafts have increased 41%. So how might boating accidents be further reduced? New York has long recognized and stressed the importance of educating boaters, beginning as early as 1959 when the boater education course for youths, known at the time as "Make Sure, Make Shore" was instituted. That program was then expanded to include all personal watercraft operators and then boaters born after May 1, 1996.

Presently, New York ranks 4<sup>th</sup> in the nation for students receiving classroom delivered courses of instruction and 7<sup>th</sup> in the overall number of students receiving boating safety training. Nearly 20,000 students take the NASBLA approved New York Safe Boating course each year, with more than 283,000 students completing the course since the year 2000.

What causes recreational boating accidents on the water and what has the accident data told us? Clearly the leading cause of boating deaths is drowning. The Coast Guard has suggested that nearly 80% of all boating fatalities nationally might have been prevented if the victims had simply been wearing a PFD.

More importantly, we also know how deadly unexpected cold water immersion can be in both the early and late boating seasons. There are fewer reported accidents during the cold weather months, but a higher percentage of them result in a fatality. Recent



information reveals that cold water immersion can overcome a victim significantly faster than the effects of hypothermia. This is because the physiology of cold water immersion involves uncontrollable physical reactions such as a gasp reflex, hyperventilation, unconsciousness, elevated heart rate and vasodilation. All of which can quickly overcome a boater in distress. A properly fastened PFD, along with proper cold weather clothing, is the surest way to ensure survival in cold water longer. This, coupled with the fact that the vast majority of boating deaths (80%) involve boats less than 21 feet in length, led to legislation requiring everyone on watercraft of that length and smaller to wear a PFD between November 1<sup>st</sup> and May 1<sup>st</sup>.

Alcohol and drug use are another significant cause of fatal boating accidents in New York. Between 2005 and 2014 alcohol and drug use was found to be a primary contributing factor in 52 fatalities (24%) of all boating deaths. In 2014 alcohol or drugs are known to have been present in 11 of the 27 fatalities (41%). These substances can impair both judgment and reaction time.

In summary, we may now better understand that by taking some simple proactive steps, we can reasonably assure a safe day on the water. First, always assess the risks and wear a PFD when conditions require. Never mix alcohol and boating since, along with the environmental stressors associated with being on the water, it greatly impairs one's ability to stay alert and react. Of course it's essential to understand as much as possible about boating before heading out so consider taking a safe boating class. Always equip your boat with the required safety equipment, file a float plan and don't forget to bring a cellphone or marine radio, in the event you need to summon assistance.

The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) has been charged with the responsibility of providing the public with a safe and enjoyable boating environment. It is the state's goal to develop safe boating habits through education combined with enforcement of the Navigation Law.



## Law Enforcement Activity

| Law Enforcement Agency | Total Vessel Hours | Total MLE Hours | Searches and Assists | Total Vessel Inspections | BWI Arrests | Total Arrests |
|------------------------|--------------------|-----------------|----------------------|--------------------------|-------------|---------------|
| <b>County</b>          |                    |                 |                      |                          |             |               |
| <b>ALLEGANY</b>        | 461                | 1276            | 10                   | 54                       | 0           | 4             |
| <b>CATTAUGUS</b>       | 389                | 751             | 23                   | 83                       | 0           | 3             |
| <b>CAYUGA</b>          | 1342               | 3144            | 24                   | 41                       | 0           | 17            |
| <b>CHAUTAUQUA</b>      | 2166               | 4366            | 246                  | 2536                     | 3           | 48            |
| <b>CHENANGO</b>        | 44                 | 75              | 3                    | 0                        | 0           | 0             |
| <b>CLINTON</b>         | 609                | 3104            | 19                   | 168                      | 2           | 43            |
| <b>COLUMBIA</b>        | 297                | 826             | 18                   | 30                       | 0           | 10            |
| <b>DUTCHESS</b>        | 430                | 1080            | 19                   | 28                       | 0           | 0             |
| <b>ERIE</b>            | 2235               | 44770           | 70                   | 67                       | 7           | 198           |
| <b>ESSEX</b>           | 194                | 387             | 4                    | 32                       | 0           | 0             |
| <b>GREENE</b>          | 346                | 1158            | 28                   | 19                       | 0           | 1             |
| <b>HAMILTON</b>        | 1523               | 1960            | 29                   | 187                      | 0           | 31            |
| <b>HERKIMER</b>        | 370                | 584             | 13                   | 8                        | 0           | 0             |
| <b>LEWIS</b>           | 100                | 285             | 0                    | 22                       | 0           | 9             |
| <b>LIVINGSTON</b>      | 2400               | 4551            | 59                   | 12                       | 2           | 18            |
| <b>MADISON</b>         | 31                 | 154             | 1                    | 0                        | 0           | 0             |
| <b>MONROE</b>          | 829                | 4791            | 249                  | 167                      | 5           | 109           |
| <b>NASSAU</b>          | 14662              | 36894           | 132                  | 247                      | 1           | 480           |
| <b>NIAGARA</b>         | 709                | 2728            | 21                   | 349                      | 0           | 43            |
| <b>ONEIDA</b>          | 745                | 2447            | 36                   | 4                        | 2           | 47            |
| <b>ONONDAGA</b>        | 936                | 2678            | 24                   | 200                      | 11          | 46            |
| <b>ONTARIO</b>         | 913                | 2205            | 20                   | 205                      | 0           | 26            |
| <b>ORANGE</b>          | 653                | 1037            | 14                   | 33                       | 0           | 8             |
| <b>ORLEANS</b>         | 898                | 3321            | 38                   | 243                      | 0           | 3             |
| <b>OSWEGO</b>          | 458                | 2569            | 12                   | 33                       | 0           | 3             |
| <b>OTSEGO</b>          | 138                | 337             | 4                    | 6                        | 0           | 8             |
| <b>PUTNAM</b>          | 828                | 1205            | 35                   | 93                       | 0           | 9             |
| <b>ROCKLAND</b>        | 800                | 3991            | 133                  | 69                       | 0           | 19            |
| <b>ST. LAWRENCE</b>    | 38                 | 101             | 0                    | 56                       | 0           | 0             |
| <b>SARATOGA</b>        | 325                | 471             | 21                   | 223                      | 1           | 46            |
| <b>SCHUYLER</b>        | 55                 | 146             | 3                    | 93                       | 3           | 13            |
| <b>SENECA</b>          | 575                | 1149            | 13                   | 70                       | 0           | 4             |
| <b>STEUBEN</b>         | 118                | 1563            | 8                    | 121                      | 0           | 7             |
| <b>SUFFOLK</b>         | 5400               | 148000          | 309                  | 312                      | 6           | 317           |
| <b>SULLIVAN</b>        | 54                 | 54              | 0                    | 0                        | 0           | 11            |
| <b>TOMPKINS</b>        | 74                 | 152             | 5                    | 0                        | 0           | 0             |
| <b>ULSTER</b>          | 520                | 1040            | 118                  | 226                      | 0           | 33            |
| <b>WARREN</b>          | 764                | 1513            | 72                   | 63                       | 0           | 0             |
| <b>WAYNE</b>           | 356                | 2525            | 49                   | 17                       | 0           | 9             |
| <b>WESTCHESTER</b>     | 1312               | 5120            | 118                  | 211                      | 4           | 57            |
| <b>WYOMING</b>         | 163                | 172             | 7                    | 1                        | 0           | 0             |
| <b>YATES</b>           | 887                | 2479            | 41                   | 4396                     | 0           | 53            |
| <b>NEW YORK CITY</b>   | 123800             | 303400          | 305                  | 1676                     | 1           | 383           |

| Law Enforcement Agency             | Total Vessel Hours | Total MLE Hours | Searches and Assists | Total Vessel Inspections | BWI Arrests | Total Arrests |
|------------------------------------|--------------------|-----------------|----------------------|--------------------------|-------------|---------------|
| <b>Municipalities</b>              |                    |                 |                      |                          |             |               |
| <b>ASHAROKEN</b>                   | 197                | 233             | 7                    | 10                       | 0           | 4             |
| <b>BABYLON</b>                     | 1680               | 2010            | 8                    | 78                       | 0           | 48            |
| <b>EAST HAMPTON</b>                | 491                | 9080            | 66                   | 127                      | 5           | 55            |
| <b>EVANS</b>                       | 88                 | 248             | 6                    | 17                       | 0           | 3             |
| <b>GLEN COVE</b>                   | 784                | 2330            | 168                  | 12                       | 0           | 10            |
| <b>HAMBURG</b>                     | 115                | 242             | 6                    | 12                       | 0           | 4             |
| <b>HEMPSTEAD</b>                   | 2408               | 17360           | 107                  | 190                      | 1           | 75            |
| <b>HUNTINGTON</b>                  | 2300               | 6200            | 127                  | 205                      | 0           | 474           |
| <b>MAMARONECK</b>                  | 1960               | 3880            | 50                   | 251                      | 4           | 81            |
| <b>NEW ROCHELLE</b>                | 1864               | 5716            | 71                   | 145                      | 0           | 86            |
| <b>NORTH HEMPSTEAD</b>             | 2408               | 17360           | 107                  | 190                      | 1           | 75            |
| <b>NORTHPORT</b>                   | 723                | 723             | 9                    | 35                       | 0           | 0             |
| <b>OSSINING</b>                    | 192                | 384             | 4                    | 2                        | 0           | 0             |
| <b>OYSTER BAY</b>                  | XXX                | 27040           | 0                    | 250                      | 0           | 207           |
| <b>QUOGUE</b>                      | 381                | 508             | 8                    | 117                      | 1           | 48            |
| <b>RIVERHEAD</b>                   | 550                | 2400            | 12                   | 111                      | 2           | 37            |
| <b>RYE</b>                         | 333                | 3037            | 19                   | 78                       | 0           | 42            |
| <b>SMITHTOWN</b>                   | 4036               | 10151           | 104                  | 224                      | 0           | 264           |
| <b>SOUTHAMPTON</b>                 | 1249               | 9800            | 64                   | 315                      | 0           | 259           |
| <b>SOUTHOLD</b>                    | 700                | 6250            | 33                   | 791                      | 2           | 206           |
| <b>Other Agencies</b>              |                    |                 |                      |                          |             |               |
| <b>STATE PARK POLICE</b>           | XXX                | 3959            | 67                   | 56                       | 10          | 152           |
| <b>STATE POLICE</b>                | 2285               | 2529            | 5                    | 234                      | 6           | 34            |
| <b>LAKE GEORGE PARK COMMISSION</b> | 4530               | 6293            | 424                  | 484                      | 4           | 147           |
| <b>Totals</b>                      | <b>199221</b>      | <b>738289</b>   | <b>3825</b>          | <b>16335</b>             | <b>84</b>   | <b>4427</b>   |



## 2014 Vessel Registrations by County and Length

| County             | Total | Uncoded | Class A<br><16' | Class 1<br>16-25' | Class 2<br>26-39' | Class 3<br>40-64' | Class 4<br>≥ 65' |
|--------------------|-------|---------|-----------------|-------------------|-------------------|-------------------|------------------|
| <b>ALBANY</b>      | 8859  | 22      | 3483            | 4766              | 542               | 32                | 14               |
| <b>ALLEGANY</b>    | 1866  | 5       | 767             | 1074              | 19                | 0                 | 1                |
| <b>BRONX</b>       | 2285  | 5       | 811             | 1000              | 413               | 39                | 17               |
| <b>BROOME</b>      | 6771  | 18      | 3124            | 3321              | 285               | 14                | 9                |
| <b>CATTARAUGUS</b> | 2829  | 6       | 1085            | 1647              | 83                | 3                 | 5                |
| <b>CAYUGA</b>      | 5262  | 18      | 1956            | 3026              | 252               | 10                | 0                |
| <b>CHAUTAUQUA</b>  | 6312  | 26      | 2157            | 3773              | 337               | 17                | 2                |
| <b>CHEMUNG</b>     | 4032  | 2       | 1653            | 2176              | 191               | 10                | 0                |
| <b>CHENANGO</b>    | 2242  | 0       | 1230            | 956               | 50                | 5                 | 1                |
| <b>CLINTON</b>     | 5737  | 13      | 2737            | 2730              | 245               | 9                 | 3                |
| <b>COLUMBIA</b>    | 2824  | 4       | 1223            | 1490              | 98                | 8                 | 1                |
| <b>CORTLAND</b>    | 2147  | 7       | 975             | 1108              | 53                | 3                 | 1                |
| <b>DELAWARE</b>    | 1202  | 0       | 603             | 556               | 42                | 0                 | 1                |
| <b>DUTCHESS</b>    | 6453  | 10      | 2836            | 3018              | 549               | 35                | 5                |
| <b>ERIE</b>        | 24189 | 64      | 8379            | 13367             | 2182              | 181               | 16               |
| <b>ESSEX</b>       | 4437  | 10      | 1913            | 2385              | 120               | 6                 | 3                |
| <b>FRANKLIN</b>    | 4273  | 2       | 2205            | 2011              | 50                | 0                 | 5                |
| <b>FULTON</b>      | 4329  | 9       | 1939            | 2198              | 179               | 4                 | 0                |
| <b>GENESEE</b>     | 2170  | 4       | 865             | 1229              | 62                | 7                 | 3                |
| <b>GREENE</b>      | 2289  | 5       | 895             | 1210              | 168               | 9                 | 2                |
| <b>HAMILTON</b>    | 1939  | 7       | 929             | 983               | 17                | 2                 | 1                |
| <b>HERKIMER</b>    | 3502  | 13      | 1583            | 1828              | 75                | 2                 | 1                |
| <b>JEFFERSON</b>   | 10962 | 57      | 4456            | 5713              | 698               | 34                | 4                |
| <b>KINGS</b>       | 4319  | 1       | 1582            | 1661              | 928               | 116               | 31               |
| <b>LEWIS</b>       | 2195  | 1       | 1149            | 1015              | 29                | 1                 | 0                |
| <b>LIVINGSTON</b>  | 3819  | 10      | 1631            | 2096              | 74                | 6                 | 2                |
| <b>MADISON</b>     | 4278  | 7       | 1754            | 2328              | 181               | 6                 | 2                |
| <b>MONROE</b>      | 26881 | 70      | 10693           | 14272             | 1716              | 115               | 15               |
| <b>MONTGOMERY</b>  | 1919  | 11      | 861             | 981               | 64                | 1                 | 1                |
| <b>NASSAU</b>      | 29000 | 69      | 8939            | 13663             | 5607              | 674               | 48               |
| <b>NEW YORK</b>    | 4531  | 3       | 1259            | 1958              | 1096              | 189               | 26               |
| <b>NIAGARA</b>     | 8262  | 35      | 2889            | 4652              | 650               | 28                | 8                |

| <b>County</b>       | <b>Total</b>  | <b>Uncoded</b> | <b>Class A<br/>&lt;16'</b> | <b>Class 1<br/>16-25'</b> | <b>Class 2<br/>26-39'</b> | <b>Class 3<br/>40-64'</b> | <b>Class 4<br/>≥ 65'</b> |
|---------------------|---------------|----------------|----------------------------|---------------------------|---------------------------|---------------------------|--------------------------|
| <b>ONEIDA</b>       | 10918         | 35             | 4587                       | 5879                      | 401                       | 16                        | 0                        |
| <b>ONONDAGA</b>     | 20956         | 51             | 8161                       | 11401                     | 1243                      | 93                        | 7                        |
| <b>ONTARIO</b>      | 7449          | 18             | 2533                       | 4601                      | 276                       | 20                        | 1                        |
| <b>ORANGE</b>       | 8488          | 25             | 4108                       | 3744                      | 554                       | 46                        | 11                       |
| <b>ORLEANS</b>      | 2010          | 1              | 870                        | 1031                      | 104                       | 4                         | 0                        |
| <b>OSWEGO</b>       | 8882          | 14             | 3960                       | 4417                      | 473                       | 16                        | 2                        |
| <b>OTSEGO</b>       | 2432          | 4              | 1076                       | 1299                      | 47                        | 5                         | 1                        |
| <b>PUTNAM</b>       | 2918          | 7              | 1129                       | 1528                      | 226                       | 25                        | 3                        |
| <b>QUEENS</b>       | 6224          | 12             | 2255                       | 2859                      | 988                       | 75                        | 35                       |
| <b>RENSELAER</b>    | 5709          | 5              | 2454                       | 2954                      | 273                       | 22                        | 1                        |
| <b>RICHMOND</b>     | 3679          | 9              | 1292                       | 1606                      | 693                       | 68                        | 11                       |
| <b>ROCKLAND</b>     | 4101          | 10             | 1894                       | 1518                      | 600                       | 63                        | 16                       |
| <b>ST LAWRENCE</b>  | 10290         | 16             | 4796                       | 5182                      | 280                       | 12                        | 4                        |
| <b>SARATOGA</b>     | 13123         | 16             | 4960                       | 7434                      | 679                       | 30                        | 4                        |
| <b>SCHENECTADY</b>  | 5658          | 15             | 2391                       | 2947                      | 285                       | 16                        | 4                        |
| <b>SCHOHARIE</b>    | 1079          | 0              | 522                        | 514                       | 40                        | 2                         | 1                        |
| <b>SCHUYLER</b>     | 1597          | 5              | 598                        | 913                       | 78                        | 2                         | 1                        |
| <b>SENECA</b>       | 2739          | 3              | 1007                       | 1563                      | 153                       | 11                        | 2                        |
| <b>STEUBEN</b>      | 5033          | 3              | 1932                       | 2960                      | 135                       | 2                         | 1                        |
| <b>SUFFOLK</b>      | 64026         | 228            | 18620                      | 32620                     | 11317                     | 1186                      | 55                       |
| <b>SULLIVAN</b>     | 3019          | 2              | 1525                       | 1397                      | 84                        | 6                         | 5                        |
| <b>TIOGA</b>        | 2289          | 3              | 1058                       | 1148                      | 78                        | 1                         | 1                        |
| <b>TOMPKINS</b>     | 3450          | 5              | 1156                       | 2032                      | 234                       | 23                        | 0                        |
| <b>ULSTER</b>       | 5179          | 7              | 2283                       | 2436                      | 422                       | 28                        | 3                        |
| <b>WARREN</b>       | 7113          | 37             | 2283                       | 4287                      | 488                       | 9                         | 9                        |
| <b>WASHINGTON</b>   | 3330          | 12             | 1439                       | 1766                      | 110                       | 3                         | 0                        |
| <b>WAYNE</b>        | 6602          | 19             | 2609                       | 3570                      | 378                       | 25                        | 1                        |
| <b>WESTCHESTER</b>  | 11442         | 20             | 3659                       | 5186                      | 2206                      | 325                       | 46                       |
| <b>WYOMING</b>      | 1672          | 1              | 597                        | 1043                      | 25                        | 5                         | 1                        |
| <b>YATES</b>        | 2486          | 4              | 819                        | 1605                      | 55                        | 1                         | 2                        |
| <b>Out of State</b> | 13481         | 0              | 4778                       | 7418                      | 1136                      | 138                       | 11                       |
| <b>TOTAL</b>        | <b>449489</b> | <b>1101</b>    | <b>169912</b>              | <b>233049</b>             | <b>41116</b>              | <b>3844</b>               | <b>467</b>               |

## Registered Vessels: By Length and Hull Material

| < 16 FT      | O/B           | I/B          | I/O          | SAIL        | OTHER       | TOTAL         |
|--------------|---------------|--------------|--------------|-------------|-------------|---------------|
| WOOD         | 1791          | 84           | 8            | 22          | 27          | 1932          |
| METAL        | 33580         | 42           | 55           | 2           | 599         | 34278         |
| PLASTIC      | 7348          | 2382         | 151          | 35          | 999         | 10915         |
| FIBERGLASS   | 19335         | 47797        | 3356         | 420         | 4467        | 75375         |
| INFLATABLE   | 9620          | 51           | 89           | 8           | 340         | 10108         |
| STEEL        | 641           | 16           | 8            | 0           | 46          | 711           |
| ALUMINUM     | 31632         | 134          | 162          | 11          | 1876        | 33815         |
| OTHER        | 1942          | 566          | 40           | 3           | 227         | 2778          |
| <b>TOTAL</b> | <b>105889</b> | <b>51072</b> | <b>3869</b>  | <b>501</b>  | <b>8581</b> | <b>169912</b> |
| 16-25 FT     | O/B           | I/B          | I/O          | SAIL        | OTHER       | TOTAL         |
| WOOD         | 1251          | 1926         | 120          | 45          | 23          | 3365          |
| METAL        | 18821         | 158          | 1078         | 0           | 48          | 20105         |
| PLASTIC      | 3221          | 574          | 850          | 109         | 91          | 4845          |
| FIBERGLASS   | 65361         | 12689        | 80667        | 2952        | 841         | 162510        |
| INFLATABLE   | 189           | 8            | 6            | 2           | 1           | 206           |
| STEEL        | 556           | 26           | 29           | 0           | 7           | 618           |
| ALUMINUM     | 38807         | 192          | 1149         | 5           | 178         | 40331         |
| OTHER        | 948           | 32           | 42           | 12          | 33          | 1067          |
| <b>TOTAL</b> | <b>129154</b> | <b>15605</b> | <b>83941</b> | <b>3125</b> | <b>1222</b> | <b>233047</b> |
| 26-39 ft     | O/B           | I/B          | I/O          | SAIL        | OTHER       | TOTAL         |
| WOOD         | 59            | 794          | 20           | 29          | 6           | 908           |
| METAL        | 220           | 113          | 37           | 3           | 5           | 378           |
| PLASTIC      | 76            | 367          | 133          | 63          | 3           | 642           |
| FIBERGLASS   | 4999          | 15020        | 15707        | 2309        | 156         | 38191         |
| INFLATABLE   | 3             | 3            | 2            | 0           | 0           | 8             |
| STEEL        | 25            | 45           | 10           | 1           | 6           | 87            |
| ALUMINUM     | 610           | 109          | 124          | 5           | 3           | 851           |
| OTHER        | 16            | 22           | 5            | 4           | 4           | 51            |
| <b>TOTAL</b> | <b>6008</b>   | <b>16473</b> | <b>16038</b> | <b>2414</b> | <b>183</b>  | <b>41116</b>  |
| 40-64 FT     | O/B           | I/B          | I/O          | SAIL        | OTHER       | TOTAL         |
| WOOD         | 1             | 106          | 2            | 8           | 0           | 117           |
| METAL        | 3             | 21           | 12           | 1           | 1           | 38            |
| PLASTIC      | 1             | 44           | 2            | 12          | 0           | 59            |
| FIBERGLASS   | 57            | 2985         | 238          | 247         | 13          | 3540          |
| INFLATABLE   | 0             | 0            | 0            | 0           | 0           | 0             |
| STEEL        | 3             | 28           | 5            | 3           | 2           | 41            |
| ALUMINUM     | 12            | 18           | 6            | 2           | 1           | 39            |
| OTHER        | 1             | 6            | 0            | 0           | 3           | 10            |
| <b>TOTAL</b> | <b>78</b>     | <b>3208</b>  | <b>265</b>   | <b>273</b>  | <b>20</b>   | <b>3844</b>   |
| >65 FT       | O/B           | I/B          | I/O          | SAIL        | OTHER       | TOTAL         |
| WOOD         | 1             | 4            | 1            | 0           | 0           | 6             |
| METAL        | 12            | 4            | 2            | 0           | 2           | 20            |
| PLASTIC      | 17            | 3            | 1            | 0           | 0           | 21            |
| FIBERGLASS   | 85            | 146          | 66           | 3           | 23          | 323           |
| INFLATABLE   | 23            | 0            | 0            | 0           | 1           | 24            |
| STEEL        | 5             | 8            | 1            | 0           | 1           | 15            |
| ALUMINUM     | 50            | 3            | 1            | 0           | 1           | 55            |
| OTHER        | 0             | 1            | 0            | 0           | 2           | 3             |
| <b>TOTAL</b> | <b>193</b>    | <b>169</b>   | <b>72</b>    | <b>3</b>    | <b>30</b>   | <b>467</b>    |
| Uncoded      | O/B           | I/B          | I/O          | SAIL        | OTHER       | TOTAL         |
| <b>TOTAL</b> | <b>4</b>      | <b>3</b>     | <b>2</b>     | <b>1092</b> | <b>0</b>    | <b>1101</b>   |

# ACCIDENTS

The chart below illustrates registration and accident figures for the years 1970 through 2014. During that time period, while vessel registrations have generally risen, accidents and fatalities have steadily decreased.

A collision between two or more vessels is still the most common type of boating accident and results in the most injuries. Boaters must recognize that the waterways are increasingly more crowded and that vessel operation must be adjusted accordingly. Operators must be constantly aware of what is happening around them. Mixing alcohol or drugs increases the level of danger when boating. Not only is it illegal, but the lessening of one's judgment and balance can have deadly consequences. Alcohol and drugs have been shown to be important contributing factors in many fatal incidents.

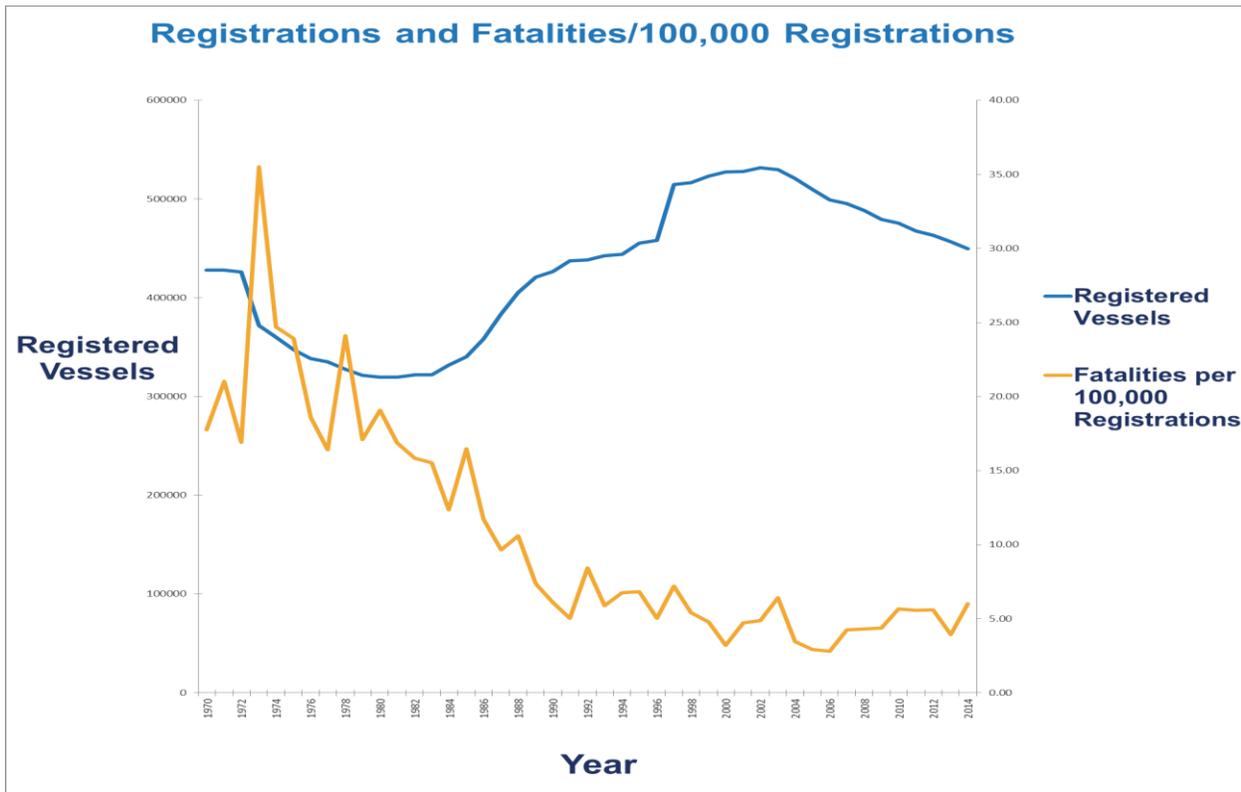
A reduction of collisions and fatalities can also be achieved by showing courtesy to other boaters. Boating education classes are also important, but boaters must be willing to apply what they have learned. Tougher laws are making it possible to remove dangerous boaters from our waterways. Education and enforcement must be combined with, and complemented by, fair and enforceable laws.

**Reportable Accidents**

For Recreational Vessels:

- Loss of Life or Disappearance
- Injury Involving More Than Basic First Aid
- Total Property Damage to any one party in Excess of \$1000

It is also vitally important to increase use of life jackets, especially in the off-season when the water is cold and when help may not be able to respond quickly. Roughly one quarter of all fatalities occur when boaters are operating during the off-season, in boats less than twenty-one feet in length, when victims may end up in the water without the benefit of a life jacket. While legislation mandates that life jackets be worn in those instances, it is still incumbent upon the boater to use their best judgment; if the water is cold, wear a life jacket, and dress for the weather!



## Accident Data: 1970 - 2014

| Year | Fatalities per 100,000 Registrations | Registered Vessels | Accidents | Injuries | Fatalities |
|------|--------------------------------------|--------------------|-----------|----------|------------|
| 1970 | 17.76                                | 427956             | 293       | 88       | 76         |
| 1971 | 21.02                                | 428114             | 318       | 87       | 90         |
| 1972 | 16.90                                | 426030             | 301       | 63       | 72         |
| 1973 | 35.51                                | 371764             | 349       | 139      | 132        |
| 1974 | 24.70                                | 360311             | 318       | 68       | 89         |
| 1975 | 23.90                                | 347211             | 368       | 129      | 83         |
| 1976 | 18.61                                | 338464             | 420       | 136      | 63         |
| 1977 | 16.40                                | 335288             | 500       | 132      | 55         |
| 1978 | 24.10                                | 327782             | 400       | Unknown  | 79         |
| 1979 | 17.11                                | 321470             | 293       | Unknown  | 55         |
| 1980 | 19.09                                | 319492             | 322       | 196      | 61         |
| 1981 | 16.89                                | 319641             | 308       | 197      | 54         |
| 1982 | 15.84                                | 321881             | 309       | 180      | 51         |
| 1983 | 15.53                                | 321881             | 390       | 248      | 50         |
| 1984 | 12.36                                | 331742             | 271       | 153      | 41         |
| 1985 | 16.46                                | 340300             | 319       | 182      | 56         |
| 1986 | 11.72                                | 358400             | 298       | 157      | 42         |
| 1987 | 9.64                                 | 383868             | 310       | 163      | 37         |
| 1988 | 10.61                                | 405331             | 362       | 120      | 43         |
| 1989 | 7.37                                 | 420885             | 333       | 109      | 31         |
| 1990 | 6.09                                 | 426617             | 323       | 119      | 26         |
| 1991 | 5.03                                 | 437579             | 265       | 119      | 22         |
| 1992 | 8.44                                 | 438342             | 228       | 130      | 37         |
| 1993 | 5.87                                 | 442745             | 226       | 138      | 26         |
| 1994 | 6.76                                 | 443856             | 222       | 90       | 30         |
| 1995 | 6.81                                 | 455189             | 291       | 130      | 31         |
| 1996 | 5.02                                 | 458092             | 325       | 168      | 23         |
| 1997 | 7.19                                 | 514538             | 322       | 182      | 37         |
| 1998 | 5.42                                 | 516738             | 326       | 181      | 28         |
| 1999 | 4.78                                 | 523321             | 315       | 193      | 25         |
| 2000 | 3.22                                 | 527426             | 288       | 127      | 17         |
| 2001 | 4.73                                 | 528113             | 288       | 140      | 25         |
| 2002 | 4.89                                 | 531579             | 284       | 152      | 26         |

| Year | Fatalities per 100,000 Registrations | Registered Vessels | Accidents | Injuries | Fatalities |
|------|--------------------------------------|--------------------|-----------|----------|------------|
| 2003 | 6.42                                 | 529844             | 303       | 137      | 34         |
| 2004 | 3.46                                 | 520758             | 204       | 93       | 18         |
| 2005 | 2.94                                 | 510185             | 219       | 143      | 15         |
| 2006 | 2.80                                 | 499301             | 183       | 101      | 14         |
| 2007 | 4.24                                 | 495623             | 206       | 133      | 21         |
| 2008 | 4.30                                 | 488167             | 215       | 104      | 21         |
| 2009 | 4.38                                 | 479161             | 191       | 78       | 21         |
| 2010 | 5.68                                 | 475688             | 243       | 128      | 27         |
| 2011 | 5.56                                 | 467828             | 226       | 190      | 26         |
| 2012 | 5.61                                 | 463539             | 241       | 126      | 26         |
| 2013 | 3.94                                 | 456909             | 195       | 112      | 18         |
| 2014 | 6.01                                 | 449489             | 194       | 103      | 27         |



## Accidents by County and Waterway

| County / Waterway          | Accidents | Injures   | Fatalities |
|----------------------------|-----------|-----------|------------|
| <b>Bronx</b>               | <b>4</b>  | <b>1</b>  | <b>2</b>   |
| EASTCHESTER BAY            | 2         | 1         | 1          |
| LONG ISLAND SOUND          | 2         | 0         | 1          |
| <b>Cayuga</b>              | <b>2</b>  | <b>2</b>  | <b>0</b>   |
| OWASCO LAKE                | 1         | 2         | 0          |
| SENECA RIVER               | 1         | 0         | 0          |
| <b>Chautauqua</b>          | <b>4</b>  | <b>3</b>  | <b>1</b>   |
| CATTARAUGUS CREEK          | 1         | 0         | 0          |
| CHATAUQUA LAKE             | 2         | 2         | 1          |
| CHAUTAUQUA LAKE            | 1         | 1         | 0          |
| <b>Chemung</b>             | <b>1</b>  | <b>0</b>  | <b>1</b>   |
| West Branch Delaware River | 1         | 0         | 1          |
| <b>Clinton</b>             | <b>1</b>  | <b>2</b>  | <b>0</b>   |
| LAKE CHAMPLAIN             | 1         | 2         | 0          |
| <b>Columbia</b>            | <b>1</b>  | <b>1</b>  | <b>0</b>   |
| HUDSON RIVER               | 1         | 1         | 0          |
| <b>Erie</b>                | <b>4</b>  | <b>3</b>  | <b>0</b>   |
| Niagara River              | 4         | 3         | 0          |
| <b>Fulton</b>              | <b>1</b>  | <b>1</b>  | <b>0</b>   |
| SACANDAGA RESEVOIR         | 1         | 1         | 0          |
| <b>Greene</b>              | <b>2</b>  | <b>0</b>  | <b>0</b>   |
| HUDSON RIVER               | 2         | 0         | 0          |
| <b>Hamilton</b>            | <b>2</b>  | <b>1</b>  | <b>0</b>   |
| 5th LAKE CANAL             | 1         | 0         | 0          |
| BLUE MOUNTAIN LAKE         | 1         | 1         | 0          |
| <b>Herkimer</b>            | <b>1</b>  | <b>0</b>  | <b>1</b>   |
| ERIE BARGE CANAL           | 1         | 0         | 1          |
| <b>Jefferson</b>           | <b>6</b>  | <b>3</b>  | <b>1</b>   |
| BLACK RIVER                | 1         | 1         | 1          |
| LAKE ONTARIO               | 2         | 0         | 0          |
| ST. LAWRENCE RIVER         | 3         | 2         | 0          |
| <b>Kings</b>               | <b>2</b>  | <b>1</b>  | <b>1</b>   |
| GRAVESEND BAY              | 1         | 1         | 0          |
| SHELL BANK CREEK           | 1         | 0         | 1          |
| <b>Livingston</b>          | <b>3</b>  | <b>0</b>  | <b>0</b>   |
| CONESUS LAKE               | 3         | 0         | 0          |
| <b>Monroe</b>              | <b>7</b>  | <b>11</b> | <b>1</b>   |
| GENESEE RIVER              | 1         | 0         | 0          |
| HONEOYE CREEK              | 1         | 0         | 1          |
| IRONDEQUOIT BAY            | 1         | 3         | 0          |
| IRONDEQUOIT CREEK          | 1         | 0         | 0          |
| LAKE ONTARIO               | 3         | 8         | 0          |

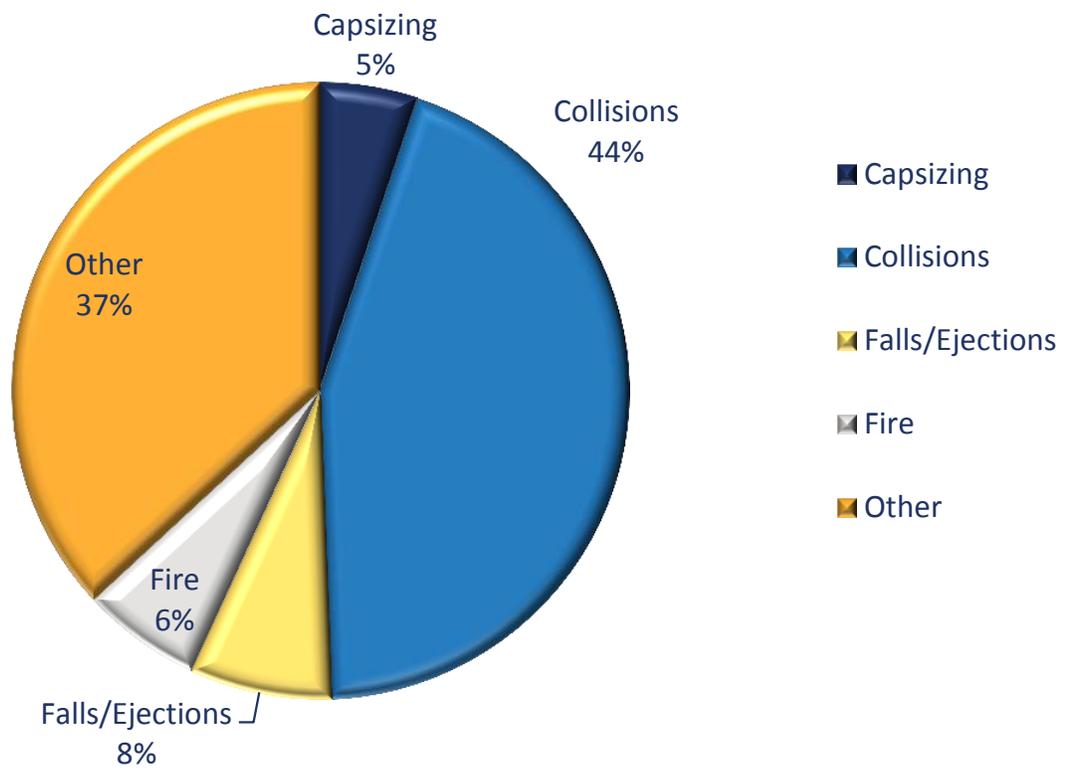
| County / Waterway      | Accidents | Injures   | Fatalities |
|------------------------|-----------|-----------|------------|
| <b>Nassau</b>          | <b>24</b> | <b>11</b> | <b>4</b>   |
| ATLANTIC OCEAN         | 2         | 3         | 0          |
| BALDWIN BAY            | 1         | 0         | 1          |
| EAST ROCKAWAY CHANNEL  | 1         | 0         | 0          |
| GREAT SAND CREEK       | 1         | 0         | 0          |
| HEMPSTEAD BAY          | 1         | 1         | 0          |
| HEMPSTEAD HARBOR       | 3         | 1         | 0          |
| HEWLETT BAY            | 1         | 0         | 0          |
| HIGH FLATS DRAIN       | 1         | 1         | 0          |
| LONG CREEK             | 2         | 1         | 1          |
| LONG ISLAND SOUND      | 3         | 0         | 1          |
| MANHASSET BAY          | 1         | 0         | 1          |
| OYSTER BAY             | 2         | 1         | 0          |
| REYNOLDS CHANNEL       | 1         | 2         | 0          |
| SEAFORD CREEK          | 1         | 1         | 0          |
| SLOOP CHANNEL          | 1         | 0         | 0          |
| STATE BOAT CHANNEL     | 1         | 0         | 0          |
| TIDEWAY RIVER          | 1         | 0         | 0          |
| <b>New York</b>        | <b>5</b>  | <b>1</b>  | <b>0</b>   |
| EAST RIVER             | 3         | 1         | 0          |
| HUDSON RIVER           | 1         | 0         | 0          |
| UPPER BAY              | 1         | 0         | 0          |
| <b>Niagara</b>         | <b>4</b>  | <b>0</b>  | <b>2</b>   |
| LAKE ONTARIO           | 3         | 0         | 2          |
| UPPER NIAGARA RIVER    | 1         | 0         | 0          |
| <b>Oneida</b>          | <b>3</b>  | <b>1</b>  | <b>1</b>   |
| DELTA LAKE             | 1         | 1         | 1          |
| KAYUTA LAKE            | 1         | 0         | 0          |
| ONEIDA LAKE            | 1         | 0         | 0          |
| <b>Onondaga</b>        | <b>5</b>  | <b>2</b>  | <b>2</b>   |
| ONEIDA LAKE            | 3         | 2         | 0          |
| OTISCO LAKE            | 1         | 0         | 1          |
| SENECA RIVER           | 1         | 0         | 1          |
| <b>Ontario</b>         | <b>1</b>  | <b>1</b>  | <b>0</b>   |
| CANANDAIGUA LAKE       | 1         | 1         | 0          |
| <b>Oswego</b>          | <b>4</b>  | <b>4</b>  | <b>0</b>   |
| LAKE ONTARIO           | 1         | 2         | 0          |
| ONEIDA LAKE            | 1         | 0         | 0          |
| OSWEGO RIVER           | 1         | 0         | 0          |
| SANDY POND             | 1         | 2         | 0          |
| <b>Putnam</b>          | <b>3</b>  | <b>0</b>  | <b>1</b>   |
| CROTON FALLS RESERVOIR | 1         | 0         | 1          |
| LAKE MAHOPAC           | 2         | 0         | 0          |
| <b>Queens</b>          | <b>7</b>  | <b>9</b>  | <b>0</b>   |
| EAST RIVER             | 2         | 2         | 0          |
| JAMAICA BAY            | 4         | 6         | 0          |
| SHELL BANK BASIN       | 1         | 1         | 0          |

| County / Waterway    | Accidents | Injures   | Fatalities |
|----------------------|-----------|-----------|------------|
| <b>Richmond</b>      | <b>2</b>  | <b>8</b>  | <b>1</b>   |
| GREAT KILLS          | 1         | 7         | 0          |
| RARITAN BAY          | 1         | 1         | 1          |
| <b>Rockland</b>      | <b>1</b>  | <b>0</b>  | <b>0</b>   |
| HUDSON RIVER         | 1         | 0         | 0          |
| <b>Saratoga</b>      | <b>3</b>  | <b>0</b>  | <b>2</b>   |
| FISH CREEK           | 1         | 0         | 0          |
| SACANDAGA RESEVOIR   | 1         | 0         | 1          |
| STEWARTS POND        | 1         | 0         | 1          |
| <b>Schuyler</b>      | <b>2</b>  | <b>2</b>  | <b>0</b>   |
| SENECA LAKE          | 2         | 2         | 0          |
| <b>Seneca</b>        | <b>3</b>  | <b>1</b>  | <b>0</b>   |
| CAYUGA LAKE          | 1         | 1         | 0          |
| SENECA LAKE          | 2         | 0         | 0          |
| <b>St Lawrence</b>   | <b>1</b>  | <b>2</b>  | <b>0</b>   |
| ST. LAWRENCE RIVER   | 1         | 2         | 0          |
| <b>Steuben</b>       | <b>1</b>  | <b>1</b>  | <b>0</b>   |
| KEUKA LAKE           | 1         | 1         | 0          |
| <b>Suffolk</b>       | <b>47</b> | <b>18</b> | <b>3</b>   |
| ATLANTIC OCEAN       | 4         | 0         | 0          |
| BLOCK ISLAND SOUND   | 1         | 1         | 0          |
| GARDINER'S BAY       | 3         | 1         | 0          |
| GREAT PECONIC BAY    | 1         | 1         | 0          |
| GREAT SOUTH BAY      | 8         | 3         | 0          |
| HUNTINGTON HARBOR    | 2         | 0         | 0          |
| LAKE RONKONKOMA      | 1         | 0         | 1          |
| LITTLE PECONIC BAY   | 3         | 1         | 0          |
| LONG ISLAND SOUND    | 5         | 1         | 1          |
| MONTAUK HARBOR       | 1         | 0         | 0          |
| MORICHES BAY         | 1         | 0         | 0          |
| NAPEAGUE BAY         | 1         | 1         | 0          |
| Napeague Harbor      | 1         | 0         | 1          |
| NISSEQUOGUE RIVER    | 2         | 4         | 0          |
| PECONIC BAY          | 3         | 1         | 0          |
| PECONIC RIVER        | 1         | 0         | 0          |
| QUOGUE CANAL         | 1         | 0         | 0          |
| SAG HARBOR BAY       | 2         | 0         | 0          |
| SHELTER ISLAND SOUND | 1         | 2         | 0          |
| SHINNECOCK BAY       | 3         | 2         | 0          |
| STRONGS CANAL        | 1         | 0         | 0          |
| WEST SHINNECOCK BAY  | 1         | 0         | 0          |
| <b>Sullivan</b>      | <b>1</b>  | <b>0</b>  | <b>1</b>   |
| UPPER DELAWARE RIVER | 1         | 0         | 1          |
| <b>Tompkins</b>      | <b>1</b>  | <b>0</b>  | <b>0</b>   |
| CAYUGA LAKE          | 1         | 0         | 0          |
| <b>Ulster</b>        | <b>2</b>  | <b>3</b>  | <b>0</b>   |
| HUDSON RIVER         | 2         | 3         | 0          |

| County / Waterway  | Accidents | Injures  | Fatalities |
|--------------------|-----------|----------|------------|
| <b>Warren</b>      | <b>19</b> | <b>5</b> | <b>2</b>   |
| BRANT LAKE         | 1         | 0        | 0          |
| LAKE GEORGE        | 17        | 4        | 2          |
| SCHROON LAKE       | 1         | 1        | 0          |
| <b>Wayne</b>       | <b>5</b>  | <b>2</b> | <b>0</b>   |
| ERIE BARGE CANAL   | 1         | 0        | 0          |
| LAKE ONTARIO       | 1         | 0        | 0          |
| SODUS BAY          | 3         | 2        | 0          |
| <b>Westchester</b> | <b>7</b>  | <b>0</b> | <b>0</b>   |
| HUDSON RIVER       | 1         | 0        | 0          |
| LONG ISLAND SOUND  | 6         | 0        | 0          |
| <b>Yates</b>       | <b>2</b>  | <b>3</b> | <b>0</b>   |
| KEUKA LAKE         | 1         | 1        | 0          |
| SENECA LAKE        | 1         | 2        | 0          |



## Summary of Accident Types

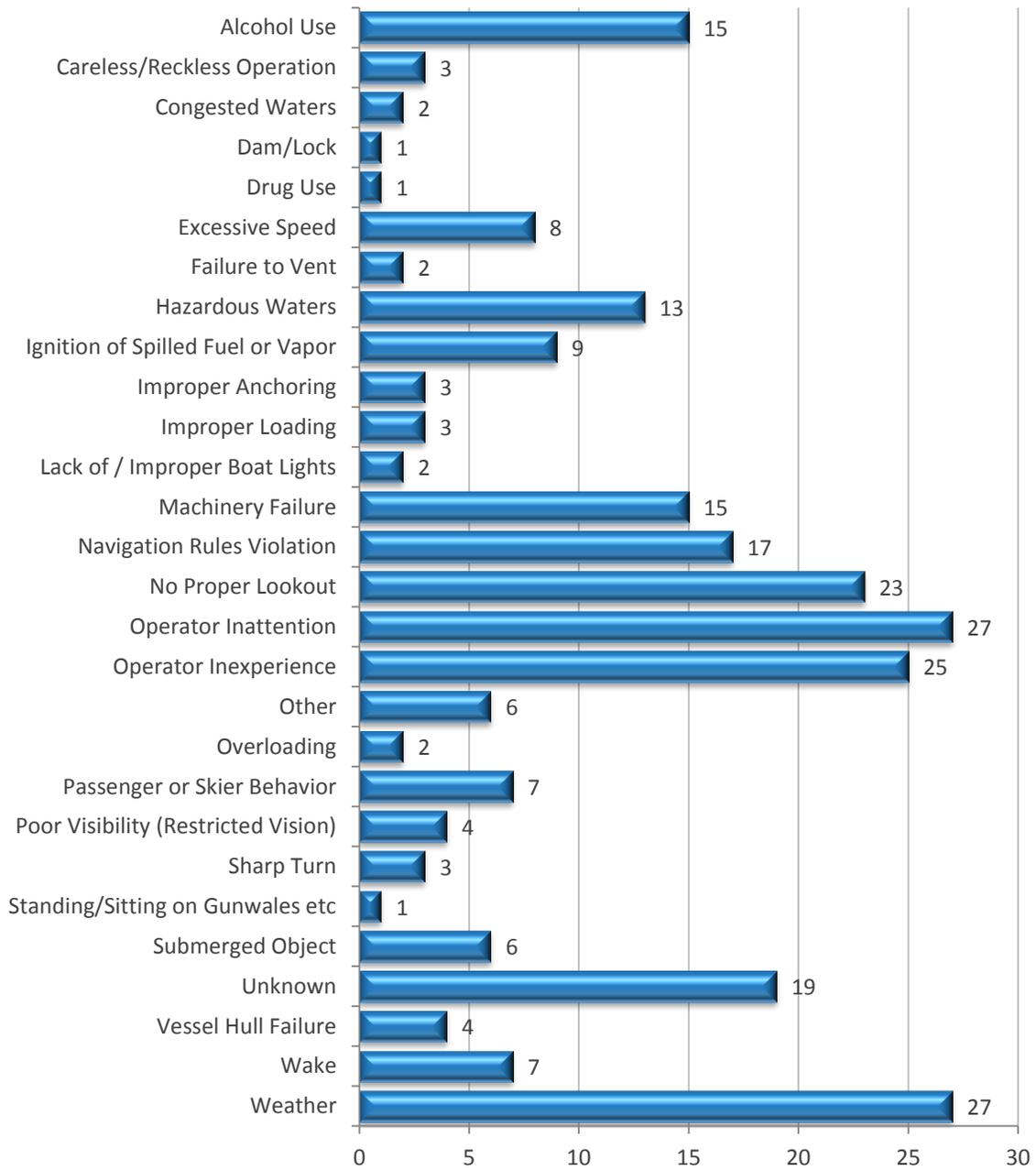


## Accident Type and Vessel Operation

| Accident Type                    | Operation                            | Vessels | Injuries | Fatalities |
|----------------------------------|--------------------------------------|---------|----------|------------|
| Capsizing                        | Cruising                             | 2       | 4        | 0          |
|                                  | Drifting                             | 3       | 2        | 1          |
|                                  | Rowing or Paddling                   | 5       | 4        | 3          |
|                                  | Sailing                              | 3       | 0        | 1          |
| Carbon Monoxide Poisoning        | Cruising                             | 1       | 2        | 0          |
| Collision With Fixed Object      | Cruising                             | 13      | 20       | 0          |
|                                  | Docking/Undocking                    | 1       | 1        | 0          |
|                                  | Drifting                             | 1       | 0        | 0          |
|                                  | Other                                | 1       | 0        | 0          |
|                                  | Rowing or Paddling                   | 2       | 0        | 2          |
|                                  | Tied to Dock/Mooring                 | 2       | 0        | 0          |
| Collision With Floating Object   | Changing Speed                       | 1       | 2        | 0          |
|                                  | Cruising                             | 2       | 1        | 0          |
| Collision With Recreational Boat | Being Towed                          | 2       | 0        | 0          |
|                                  | Changing Direction                   | 7       | 2        | 0          |
|                                  | Changing Speed                       | 3       | 1        | 0          |
|                                  | Changing Speed, Tied to Dock/Mooring | 1       | 1        | 0          |
|                                  | Cruising                             | 22      | 3        | 0          |
|                                  | Cruising, Changing Direction         | 2       | 0        | 0          |
|                                  | Docking/Undocking                    | 10      | 0        | 0          |
|                                  | Drifting                             | 8       | 3        | 0          |
|                                  | Other                                | 1       | 0        | 0          |
|                                  | Sailing                              | 6       | 0        | 0          |
|                                  | Sailing, Changing Direction          | 1       | 0        | 0          |
|                                  | Tied to Dock/Mooring                 | 23      | 1        | 0          |
|                                  | Towing another vessel                | 3       | 0        | 0          |
|                                  | Unknown                              | 1       | 0        | 0          |
| Fall Onboard Boat                | Cruising                             | 4       | 3        | 0          |
| Falls Into Boat                  | Docking/Undocking                    | 1       | 1        | 0          |
| Falls Overboard                  | Changing Direction                   | 2       | 2        | 0          |
|                                  | Cruising                             | 1       | 2        | 0          |
|                                  | Docking/Undocking                    | 1       | 0        | 1          |
|                                  | Drifting                             | 2       | 0        | 2          |
| Fire/Explosion (Fuel)            | At Anchor                            | 1       | 0        | 0          |
|                                  | Changing Speed                       | 1       | 1        | 0          |
|                                  | Cruising                             | 1       | 0        | 0          |
|                                  | Tied to Dock/Mooring                 | 5       | 3        | 1          |
| Fire/Explosion (Other)           | Cruising                             | 2       | 0        | 0          |
|                                  | Tied to Dock/Mooring                 | 6       | 0        | 0          |

| Accident Type                           | Operation  | Vessels | Injuries | Fatalities |
|---|--|---------|----------|------------|
| Flooding/Swamping                       | At Anchor  | 3       | 1        | 1          |
|   | Being Towed  | 1       | 0        | 0          |
|   | Changing Direction                                       | 1       | 0        | 0          |
|   | Changing Speed   | 1       | 0        | 0          |
|   | Cruising   | 12      | 4        | 2          |
|   | Drifting   | 4       | 0        | 0          |
|   | Sailing  | 2       | 0        | 0          |
|   | Tied to Dock/Mooring                                     | 1       | 1        | 1          |
|   | Towing another vessel,<br>Sailing                        | 1       | 0        | 0          |
|   | Unknown  | 2       | 0        | 0          |
| Grounding                               | Cruising   | 29      | 19       | 2          |
|   | Drifting   | 3       | 0        | 0          |
|   | Unknown  | 1       | 0        | 1          |
| Other                                   | Drifting   | 1       | 1        | 0          |
|   | Docking/Undocking  | 1       | 1        | 0          |
|   | Other  | 1       | 0        | 0          |
|   | At Anchor  | 1       | 1        | 0          |
| Person Leaves Or Is Ejected From Vessel | At Anchor  | 1       | 0        | 1          |
|   | Changing Speed, Changing<br>Cruising, Changing Direction | 2       | 2        | 0          |
|   | Drifting   | 4       | 1        | 4          |
|   | Unknown  | 1       | 0        | 1          |
| Sinking                                 | Unknown  | 1       | 0        | 1          |
| Skier Mishap                            | Changing Direction                                       | 1       | 1        | 0          |
|   | Cruising   | 1       | 1        | 0          |
|   | Unknown  | 2       | 2        | 0          |
| Struck by Boat                          | Docking/Undocking  | 2       | 2        | 0          |
|   | Drifting   | 1       | 1        | 0          |
|   | Launching  | 1       | 1        | 0          |
| Struck by Propeller or Propulsion Unit  | Changing Direction                                       | 1       | 0        | 0          |
|   | Changing Speed, Changing<br>Direction                    | 1       | 0        | 1          |
|   | Cruising   | 1       | 1        | 0          |
|   | Drifting   | 1       | 0        | 0          |
|   | Unknown  | 1       | 1        | 0          |
| Struck Submerged Object                 | Cruising   | 5       | 0        | 0          |
| Sudden Medical Condition                | Drifting   | 1       | 1        | 0          |
| Unknown                                 | Cruising   | 3       | 0        | 0          |
|   | Drifting   | 1       | 0        | 0          |
|   | Unknown  | 4       | 0        | 2          |

## Cause of Accident by Vessel



## Accident Type and Cause

| Accident Type                    | Cause                               | Vessels         | Injures | Fatalities |
|----------------------------------|-------------------------------------|-----------------|---------|------------|
| Capsizing                        | Alcohol Use                         | 1               | 2       | 0          |
|                                  | Drug Use                            | 1               | 0       | 1          |
|                                  | Hazardous Waters                    | 1               | 2       | 0          |
|                                  | Improper Anchoring                  | 1               | 1       | 1          |
|                                  | Operator Inexperience               | 1               | 1       | 0          |
|                                  | Unknown                             | 3               | 2       | 2          |
|                                  | Wake                                | 1               | 2       | 0          |
|                                  | Weather                             | 4               | 0       | 1          |
| Carbon Monoxide Poisoning        | Failure to Vent                     | 1               | 2       | 0          |
| Collision With Fixed Object      | Alcohol Use                         | 1               | 2       | 0          |
|                                  | Careless/Reckless Operation         | 1               | 2       | 0          |
|                                  | Dam/Lock                            | 1               | 0       | 0          |
|                                  | Hazardous Waters                    | 2               | 0       | 2          |
|                                  | Machinery Failure                   | 2               | 1       | 0          |
|                                  | No Proper Lookout                   | 3               | 5       | 0          |
|                                  | Operator Inattention                | 4               | 5       | 0          |
|                                  | Operator Inexperience               | 3               | 5       | 0          |
|                                  | Unknown                             | 2               | 1       | 0          |
|                                  | Wake                                | 1               | 0       | 0          |
|                                  | Collision With Floating Object      | Excessive Speed | 1       | 2          |
| No Proper Lookout                |                                     | 1               | 0       | 0          |
| Other                            |                                     | 1               | 1       | 0          |
| Collision With Recreational Boat | Alcohol Use                         | 2               | 0       | 0          |
|                                  | Congested Waters                    | 2               | 0       | 0          |
|                                  | Excessive Speed                     | 1               | 0       | 0          |
|                                  | Hazardous Waters                    | 2               | 0       | 0          |
|                                  | Lack of / Improper Boat Lights      | 1               | 0       | 0          |
|                                  | Machinery Failure                   | 3               | 0       | 0          |
|                                  | Navigation Rules Violation          | 16              | 4       | 0          |
|                                  | No Proper Lookout                   | 13              | 2       | 0          |
|                                  | Operator Inattention                | 9               | 1       | 0          |
|                                  | Operator Inexperience               | 5               | 1       | 0          |
|                                  | Poor Visibility (Restricted Vision) | 1               | 0       | 0          |
|                                  | Unknown                             | 23              | 3       | 0          |
|                                  | Wake                                | 1               | 0       | 0          |
|                                  | Weather                             | 11              | 0       | 0          |
| Fall Onboard Boat                | Excessive Speed                     | 1               | 1       | 0          |
|                                  | Passenger or Skier Behavior         | 1               | 1       | 0          |
|                                  | Wake                                | 1               | 0       | 0          |
|                                  | Weather                             | 1               | 1       | 0          |
|                                  | Operator Inexperience               | 1               | 1       | 0          |

| Accident Type                           | Cause                               | Vessels | Injures | Fatalities |
|---|-------------------------------------|---------|---------|------------|
| Falls Overboard                         | Alcohol Use                         | 1       | 0       | 1          |
|   | Passenger or Skier Behavior         | 2       | 2       | 0          |
|   | Standing/Sitting on Gunwales etc    | 1       | 0       | 1          |
|   | Unknown                             | 2       | 2       | 1          |
| Fire/Explosion (Fuel)                   | Failure to Vent                     | 1       | 1       | 0          |
|   | Ignition of Spilled Fuel or Vapor   | 4       | 3       | 1          |
|   | Machinery Failure                   | 1       | 0       | 0          |
|   | OTHER-Operator Error                | 1       | 0       | 0          |
|   | Unknown                             | 1       | 0       | 0          |
| Fire/Explosion (Other)                  | Machinery Failure                   | 1       | 0       | 0          |
|   | Unknown                             | 7       | 0       | 0          |
| Flooding/Swamping                       | Hazardous Waters                    | 2       | 0       | 0          |
|   | Improper Anchoring                  | 2       | 1       | 1          |
|   | Improper Loading                    | 2       | 1       | 1          |
|   | Machinery Failure                   | 3       | 2       | 0          |
|   | Operator Inexperience               | 1       | 0       | 0          |
|   | OTHER-Improper Mooring              | 1       | 1       | 1          |
|   | Overloading                         | 2       | 0       | 1          |
|   | Unknown                             | 3       | 0       | 0          |
|   | Vessel Hull Failure                 | 4       | 0       | 0          |
|   | Wake                                | 1       | 0       | 0          |
|   | Weather                             | 7       | 1       | 0          |
| Grounding                               | Alcohol Use                         | 3       | 1       | 1          |
|   | Careless/Reckless Operation         | 1       | 2       | 0          |
|   | Hazardous Waters                    | 3       | 2       | 0          |
|   | Machinery Failure                   | 4       | 2       | 0          |
|   | No Proper Lookout                   | 3       | 8       | 0          |
|   | Operator Inattention                | 7       | 1       | 1          |
|   | Operator Inexperience               | 5       | 0       | 0          |
|   | Poor Visibility (Restricted Vision) | 4       | 2       | 0          |
|   | Unknown                             | 3       | 1       | 1          |
| Other                                   | Operator Inattention                | 1       | 1       | 0          |
|   | Other                               | 2       | 1       | 0          |
|   | Wake                                | 1       | 1       | 0          |
| Person Leaves Or Is Ejected From Vessel | Alcohol Use                         | 2       | 0       | 2          |
|   | Careless/Reckless Operation         | 1       | 1       | 0          |
|   | Hazardous Waters                    | 2       | 1       | 2          |
|   | Improper Loading                    | 1       | 0       | 1          |
|   | Sharp Turn                          | 2       | 3       | 0          |
| Sinking                                 | Unknown                             | 1       | 0       | 1          |
| Skier Mishap                            | Passenger or Skier Behavior         | 3       | 3       | 0          |
|   | Sharp Turn                          | 1       | 1       | 0          |
| Struck by Boat                          | Operator Inattention                | 2       | 2       | 0          |
|   | Passenger or Skier Behavior         | 1       | 1       | 0          |
|   | Weather                             | 1       | 1       | 0          |

| Accident Type                          | Cause                | Vessels | Injures | Fatalities |
|--|----------------------|---------|---------|------------|
| Struck by Propeller or Propulsion Unit | Alcohol Use          | 1       | 0       | 1          |
|  | Hazardous Waters     | 1       | 0       | 0          |
|  | Operator Inattention | 1       | 1       | 0          |
|  | Unknown              | 1       | 1       | 0          |
|  | Weather              | 1       | 0       | 0          |
| Struck Submerged Object                | Submerged Object     | 5       | 0       | 0          |
| Sudden Medical Condition               | Other                | 1       | 1       | 0          |
| Unknown                                | Alcohol Use          | 1       | 0       | 1          |
|  | Excessive Speed      | 1       | 0       | 0          |
|  | Unknown              | 5       | 0       | 1          |
|  | Wake                 | 1       | 0       | 0          |



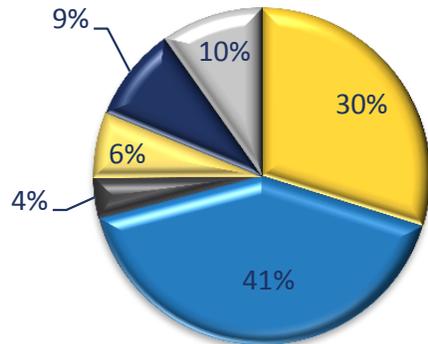
## Vessel Type and Accident Type

| Vessel Type     | Accident Type                          | Vessels | Injuries | Fatalities |
|-----------------|--|---------|----------|------------|
| Airboat         | Flooding/Swamping                      | 1       | 0        | 0          |
| Auxillary Sail  | Capsizing                              | 1       | 0        | 0          |
|                 | Collision With Fixed Object            | 1       | 0        | 0          |
|                 | Collision With Recreational Boat       | 10      | 0        | 0          |
|                 | Flooding/Swamping                      | 1       | 0        | 0          |
|                 | Grounding                              | 3       | 1        | 0          |
|                 | Sinking                                | 1       | 0        | 1          |
| Cabin Motorboat | Carbon Monoxide Poisoning              | 1       | 2        | 0          |
|                 | Collision With Fixed Object            | 10      | 16       | 0          |
|                 | Collision With Floating Object         | 2       | 3        | 0          |
|                 | Collision With Recreational Boat       | 23      | 0        | 0          |
|                 | Fire/Explosion (Fuel)                  | 3       | 0        | 1          |
|                 | Fire/Explosion (Other)                 | 6       | 0        | 0          |
|                 | Flooding/Swamping                      | 7       | 1        | 1          |
|                 | Grounding                              | 12      | 10       | 1          |
|                 | Other                                  | 2       | 2        | 0          |
|                 | Struck by Boat                         | 2       | 2        | 0          |
|                 | Struck by Propeller or Propulsion Unit | 3       | 0        | 1          |
|                 | Struck Submerged Object                | 4       | 0        | 0          |
|                 | Unknown                                | 1       | 0        | 0          |
| Canoe           | Capsizing                              | 3       | 5        | 1          |
|                 | Collision With Fixed Object            | 1       | 0        | 1          |
|                 | Collision With Recreational Boat       | 1       | 0        | 0          |
|                 | Leaves or Ejected From Vessel          | 1       | 0        | 1          |
| Kayak           | Capsizing                              | 5       | 3        | 3          |
|                 | Collision With Fixed Object            | 1       | 0        | 1          |
|                 | Other                                  | 1       | 0        | 0          |
|                 | Leaves or Ejected From Vessel          | 1       | 0        | 1          |
| Kite Board      | Grounding                              | 1       | 0        | 1          |
| Open Motorboat  | Capsizing                              | 1       | 0        | 0          |
|                 | Collision With Fixed Object            | 4       | 4        | 0          |
|                 | Collision With Floating Object         | 1       | 0        | 0          |
|                 | Collision With Recreational Boat       | 33      | 5        | 0          |
|                 | Fall on Boat                           | 3       | 2        | 0          |
|                 | Falls in Boat                          | 1       | 1        | 0          |
|                 | Falls Overboard                        | 3       | 2        | 1          |
|                 | Fire/Explosion (Fuel)                  | 4       | 3        | 0          |
|                 | Flooding/Swamping                      | 15      | 5        | 3          |
|                 | Grounding                              | 10      | 2        | 1          |
|                 | Other                                  | 1       | 1        | 0          |
|                 | Leaves or Ejected From Vessel          | 2       | 1        | 2          |
|                 | Skier Mishap                           | 4       | 4        | 0          |
| Struck by Boat  | 1                                      | 1       | 0        |            |

| Vessel Type                   | Accident Type                          | Vessels | Injuries | Fatalities |
|-------------------------------|--|---------|----------|------------|
| Open Motorboat<br>(Continued) | Struck by Propeller or Propulsion Unit | 2       | 2        | 0          |
|                               | Struck Submerged Object                | 1       | 0        | 0          |
|                               | Sudden Medical Condition               | 1       | 1        | 0          |
|                               | Unknown                                | 4       | 0        | 2          |
| Personal Watercraft           | Capsizing                              | 1       | 2        | 0          |
|                               | Collision With Recreational Boat       | 11      | 3        | 0          |
|                               | Fall on Boat                           | 1       | 1        | 0          |
|                               | Falls Overboard                        | 2       | 2        | 1          |
|                               | Fire/Explosion (Fuel)                  | 1       | 1        | 0          |
|                               | Flooding/Swamping                      | 1       | 0        | 0          |
|                               | Grounding                              | 3       | 4        | 0          |
|                               | Leaves or Ejected From Vessel          | 2       | 2        | 0          |
|                               | Struck by Boat                         | 1       | 1        | 0          |
| Pontoon Boat                  | Collision With Fixed Object            | 2       | 0        | 0          |
|                               | Collision With Recreational Boat       | 9       | 3        | 0          |
|                               | Grounding                              | 2       | 0        | 0          |
| Raft                          | Leaves or Ejected From Vessel          | 1       | 0        | 1          |
| Rowboat                       | Falls Overboard                        | 1       | 0        | 1          |
| Sail (only)                   | Capsizing                              | 2       | 0        | 1          |
|                               | Collision With Recreational Boat       | 3       | 0        | 0          |
|                               | Flooding/Swamping                      | 3       | 0        | 0          |
| Unknown                       | Collision w/ Fixed Object              | 1       | 1        | 0          |
|                               | Fire/Explosion (Other)                 | 2       | 0        | 0          |
|                               | Grounding                              | 2       | 2        | 0          |
|                               | Leaves or Ejected From Vessel          | 1       | 2        | 0          |
|                               | Unknown                                | 3       | 0        | 0          |

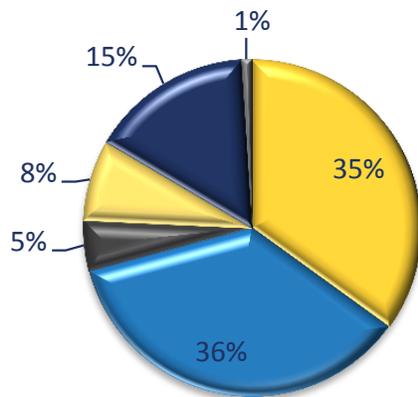


## Vessel Types



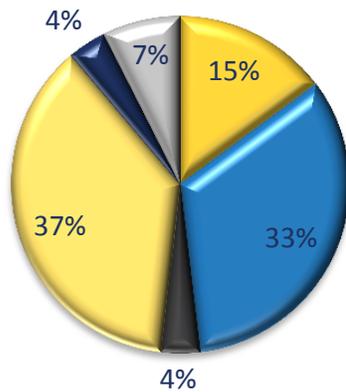
- Cabin Motorboat
- Open Motorboat
- Other / Unknown
- Paddlecraft
- Personal Watercraft
- Sailboats

## Injuries



- Cabin Motorboat
- Open Motorboat
- Other / Unknown
- Paddlecraft
- Personal Watercraft
- Sailboats

## Fatalities

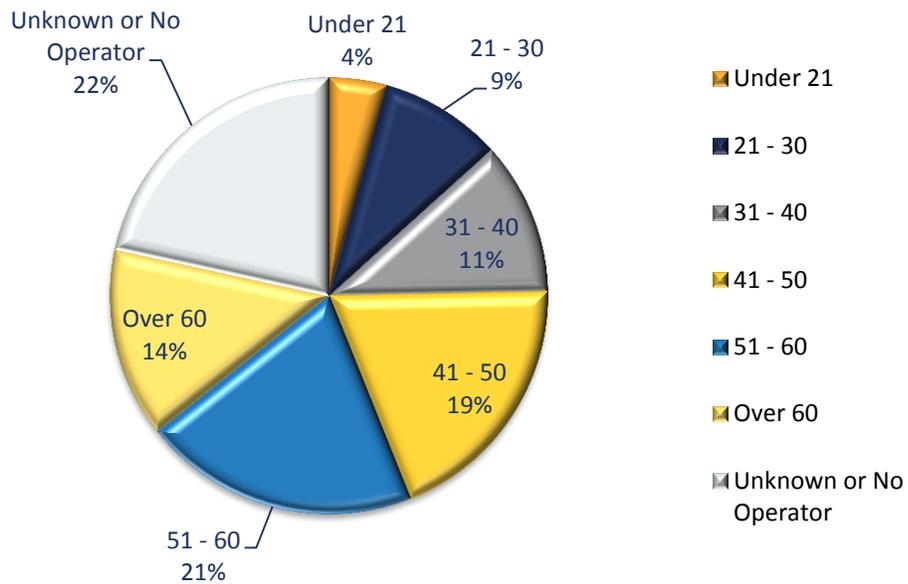


- Cabin Motorboat
- Open Motorboat
- Other / Unknown
- Paddlecraft
- Personal Watercraft
- Sailboats

## Operator Age

| Age Group              | Vessels | Injures | Fatalities |
|------------------------|---------|---------|------------|
| Under 21               | 11      | 7       | 0          |
| 21 - 30                | 23      | 14      | 5          |
| 31 - 40                | 29      | 9       | 5          |
| 41 - 50                | 49      | 31      | 4          |
| 51 - 60                | 52      | 20      | 6          |
| Over 60                | 36      | 12      | 7          |
| Unknown or No Operator | 55      | 10      | 0          |

### Vessels by Operator Age



## Age of Operator and Boating Education

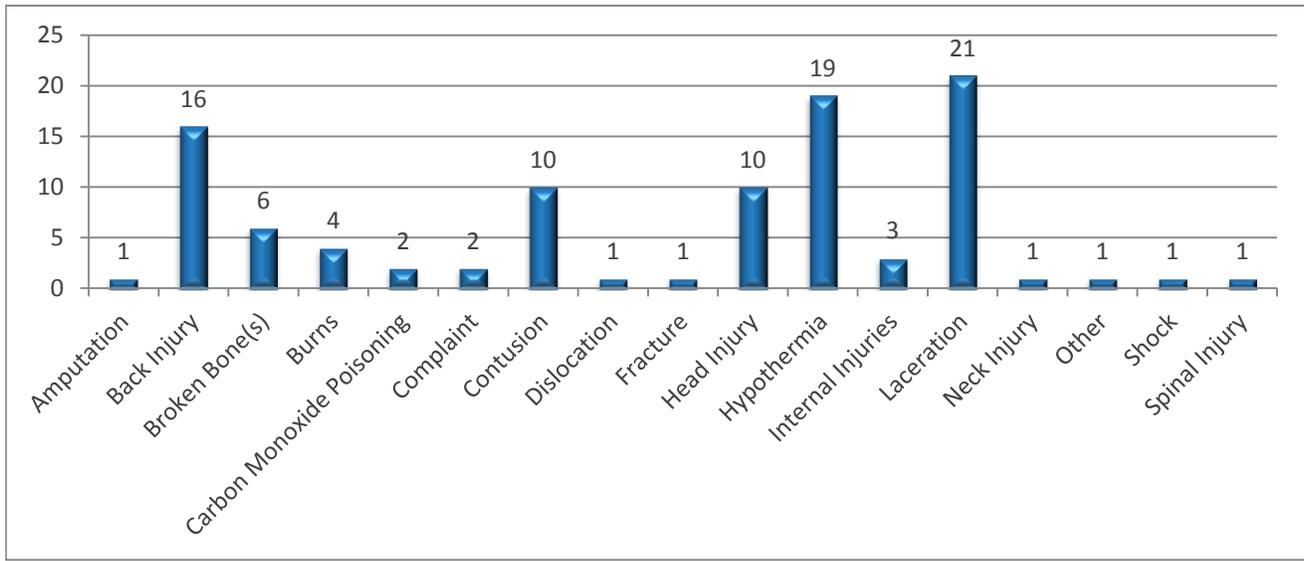
| Age Group | Education         | Vessels | Injuries | Fatalities |
|-----------|-------------------|---------|----------|------------|
| Under 21  | None              | 1       | 2        | 0          |
|           | State Course      | 7       | 4        | 0          |
|           | Unknown           | 3       | 1        | 0          |
| 21 - 30   | None              | 11      | 7        | 1          |
|           | State Course      | 1       | 0        | 0          |
|           | Unknown           | 9       | 6        | 4          |
|           | US Power Squadron | 2       | 1        | 0          |
| 31 - 40   | Internet Course   | 1       | 0        | 0          |
|           | None              | 11      | 5        | 2          |
|           | State Course      | 7       | 0        | 0          |
|           | Unknown           | 8       | 3        | 3          |
|           | USCG Auxiliary    | 2       | 1        | 0          |
| 41 - 50   | Internet Course   | 2       | 1        | 1          |
|           | None              | 16      | 10       | 0          |
|           | State Course      | 11      | 13       | 0          |
|           | Unknown           | 15      | 6        | 2          |
|           | US Power Squadron | 1       | 0        | 0          |
|           | USCG Auxiliary    | 4       | 1        | 1          |
| 51 - 60   | Internet Course   | 1       | 0        | 0          |
|           | None              | 17      | 9        | 0          |
|           | State Course      | 12      | 3        | 1          |
|           | Unknown           | 18      | 6        | 5          |
|           | US Power Squadron | 1       | 0        | 0          |
|           | USCG Auxiliary    | 3       | 2        | 0          |
| Over 60   | None              | 13      | 3        | 1          |
|           | State Course      | 3       | 2        | 0          |
|           | Unknown           | 13      | 1        | 6          |
|           | US Power Squadron | 3       | 3        | 0          |
|           | USCG Auxiliary    | 4       | 3        | 0          |
| Unknown   | None              | 1       | 0        | 0          |
|           | State Course      | 1       | 0        | 0          |
|           | Unknown           | 53      | 10       | 0          |



## Age of Operator and Boating Experience

| Operator Age | Experience      | Vessels | Injuries | Fatalities |
|--------------|-----------------|---------|----------|------------|
| Under 21     | Under 10 Hours  | 1       | 0        | 0          |
|              | 10 to 100 Hours | 5       | 2        | 0          |
|              | 100-500 Hrs.    | 1       | 1        | 0          |
|              | Over 500 Hrs.   | 1       | 0        | 0          |
|              | Unknown         | 3       | 4        | 0          |
| 21 - 30      | Under 10 Hours  | 6       | 2        | 1          |
|              | 10 to 100 Hours | 5       | 5        | 1          |
|              | 100-500 Hrs.    | 6       | 2        | 0          |
|              | Over 500 Hrs.   | 1       | 1        | 0          |
|              | Unknown         | 5       | 4        | 3          |
| 31 - 40      | Under 10 Hours  | 2       | 1        | 0          |
|              | 10 to 100 Hours | 5       | 2        | 1          |
|              | 100-500 Hrs.    | 7       | 4        | 0          |
|              | Over 500 Hrs.   | 8       | 2        | 0          |
|              | Unknown         | 7       | 0        | 4          |
| 41 - 50      | Under 10 Hours  | 3       | 2        | 0          |
|              | 10 to 100 Hours | 9       | 12       | 0          |
|              | 100-500 Hrs.    | 14      | 10       | 1          |
|              | Over 500 Hrs.   | 17      | 6        | 1          |
|              | Unknown         | 6       | 1        | 2          |
| 51 - 60      | Under 10 Hours  | 1       | 0        | 0          |
|              | 10 to 100 Hours | 7       | 6        | 0          |
|              | 100-500 Hrs.    | 15      | 6        | 0          |
|              | Over 500 Hrs.   | 18      | 4        | 2          |
|              | Unknown         | 11      | 4        | 4          |
| Over 60      | Under 10 Hours  | 2       | 1        | 1          |
|              | 10 to 100 Hours | 2       | 0        | 0          |
|              | 100-500 Hrs.    | 4       | 0        | 1          |
|              | Over 500 Hrs.   | 22      | 11       | 2          |
|              | Unknown         | 6       | 0        | 3          |
| Unknown      | Under 10 Hours  | 1       | 0        | 0          |
|              | 10 to 100 Hours | 1       | 0        | 0          |
|              | Over 500 Hrs.   | 1       | 0        | 0          |
|              | Unknown         | 52      | 10       | 0          |

## Injuries



## Type of Injury, Type of Vessel

| Vessel          | Injury Type       | Injuries    | Vessel                        | Injury Type         | Injuries    |   |
|-----------------|-------------------|-------------|-------------------------------|---------------------|-------------|---|
| Auxillary Sail  | Back Injury       | 1           | Open Motorboat<br>(Continued) | Contusion           | 5           |   |
| Cabin Motorboat | Amputation        | 1           |                               | Head Injury         | 3           |   |
|                 | Back Injury       | 6           |                               | Hypothermia         | 2           |   |
|                 | Broken Bone(s)    | 2           |                               | Laceration          | 8           |   |
|                 | Carbon Monoxide   | 2           |                               | Neck Injury         | 1           |   |
|                 | Complaint         | 1           |                               | Other (Describe)    | 1           |   |
|                 | Contusion         | 3           |                               | Unknown             | 1           |   |
|                 | Fracture          | 1           |                               | Personal Watercraft | Back Injury | 1 |
|                 | Head Injury       | 4           |                               |                     | Burns       | 1 |
|                 | Internal Injuries | 3           |                               |                     | Contusion   | 2 |
|                 | Laceration        | 10          | Dislocation                   |                     | 1           |   |
| Spinal Injury   | 1                 | Head Injury | 3                             |                     |             |   |
| Sprain/Strain   | 2                 | Hypothermia | 6                             |                     |             |   |
| Canoe           | Hypothermia       | 5           | Laceration                    |                     | 1           |   |
| Kayak           | Hypothermia       | 2           | Shock                         |                     | 1           |   |
|                 | Laceration        | 1           | Pontoon Boat                  |                     | Back Injury | 2 |
| Open Motorboat  | Back Injury       | 6           |                               |                     | Complaint   | 1 |
|                 | Broken Bone(s)    | 4           | Unknown                       | Hypothermia         | 4           |   |
|                 | Burns             | 3           |                               | Laceration          | 1           |   |

## 2014 Summary of Fatal Accidents

| Date   | County     | Waterway          | Cause              | Vessel          | Accident Type             | Fatalities |
|--|------------|-------------------|--------------------|-----------------|---------------------------|------------|
| 4/21/2014  | JEFFERSON  | BLACK RIVER       | Improper Anchoring | Canoe           | Capsizing                 | 1          |
| <p>A couple was in a canoe. The male was attempting to anchor. As the anchor caught the bottom the vessel turned sideways, exposing the beam to the current, causing it to capsize. Both occupants were thrown into the river and neither was wearing a PFD. The woman was rescued, but the man remains missing. It is not known if alcohol contributed to the accident.</p>   |            |                   |                    |                 |                           |            |
| 5/4/2014   | SUFFOLK    | LONG ISLAND SOUND | Unknown            | Auxillary Sail  | Sinking                   | 1          |
| <p>Local police received a call regarding a boat taking on water. Around the same time, the County Emergency Response Center also received a call from a friend of the boater stating that he had received a text indicating a boater in distress. The USCG was notified and a search began. The operator was recovered by USCG the following day. It is not known what happened to the vessel or what caused the accident. Although the victim was found with a PFD, the waist straps were loose and his head was not through the neck area. It is not known if alcohol contributed to the accident.</p>                    |            |                   |                    |                 |                           |            |
| 5/9/2014   | CHAUTAUQUA | CHATAUQUA LAKE    | Other              | Open Motorboat  | Flooding/Swamping         | 1          |
| <p>The vessel, with two individuals onboard, was moored to a bridge piling using an anchor and line. The stern was facing incoming waves, which swamped the vessel, causing it to capsize. Both individuals onboard were exposed to cold water for an extended period of time but were wearing PFDs. Both individuals were rescued and treated for exposure. One of the individuals experienced cardiac arrest while in the water and was later pronounced dead at the hospital. Alcohol was not a factor.</p>   |            |                   |                    |                 |                           |            |
| 5/11/2014  | CHEMUNG    | CHEMUNG RIVER     | Hazardous Waters   | Kayak           | Collision w/ Fixed Object | 1          |
| <p>A mother and daughter were in a kayak on the swollen river. The mother was on her cell phone with her husband at the time. As they passed the outlet of another creek, the current in the river increased significantly. Further down the river the kayak collided with a tree trunk and overturned. Both women were thrown into the water, but only one was able to make it to shore. The second individual was pinned in the kayak beneath the downed tree and drowned. Neither individual was wearing a PFD. A partially empty bottle of wine was found in the kayak after it was recovered.</p>                       |            |                   |                    |                 |                           |            |
| 5/15/2014  | NIAGARA    | LAKE ONTARIO      | Alcohol Use        | Open Motorboat  | Unknown                   | 1          |
| <p>The girlfriend of the individual reported him missing to the police department when he failed to return home the night before, having gone sailing. The individual's van and trailer were located at a local boat launch. A fisherman stated he had seen the missing individual in his boat leaving the harbor the day before. A bartender at a local restaurant also indicated that he had served the missing individual just prior to him leaving the harbor. A large scale search was conducted however no trace of the missing individual, his boat, or any debris was recovered. The individual remains missing.</p> |            |                   |                    |                 |                           |            |
| 5/23/2014  | WARREN     | LAKE GEORGE       | Alcohol Use        | Cabin Motorboat | Grounding                 | 1          |
| <p>A vessel with one individual onboard headed home one night after having dinner with friends. As the vessel approached its dock it ran aground, striking numerous trees and rocks along the shoreline. The operator died of injuries suffered in the accident. A PFD was not worn and the BAC was reported as 0.27. The operator was a holder of a boating safety certificate.</p>   |            |                   |                    |                 |                           |            |
| 5/24/2014  | MONROE     | HONEOYE CREEK     | Hazardous Waters   | Canoe           | Collision w/ Fixed Object |            |
| <p>Three male occupants set out in their canoe behind Honeoye Falls in swift water. They traveled down river striking a tree in the middle of the creek, causing the hull of the canoe to crack. The vessel took on water and capsized. Two of the individuals onboard were able to swim to shore. The third became trapped underneath debris and drowned. Witnesses stated that the victim had been wearing a PFD prior to the accident, however none was found on the victim when he was recovered. Alcohol was not a factor.</p>  |            |                   |                    |                 |                           |            |

| Date  | County   | Waterway             | Cause                | Vessel              | Accident Type                           | Fatalities |
|---|----------|----------------------|----------------------|---------------------|---|------------|
| 5/25/2014   | SULLIVAN | UPPER DELAWARE RIVER | Hazardous Waters     | Raft                | Person Leaves Or Is Ejected From Vessel | 1          |
| An individual was rafting on the river with friends in a rented raft. He decided to take a swim and removed his PFD. He performed a diver type roll off the raft, surfaced once then submerged. The individual was recovered some time later. The BAC was 0.07.   |          |                      |                      |                     |   |            |
| 5/26/2014   | ONEIDA   | DELTA LAKE           | Hazardous Waters     | Open Motorboat      | Person Leaves Or Is Ejected From Vessel | 1          |
| Two individuals were on a boat when the fourteen year old jumped off to go swimming without a PFD. The vessel began to drift and he had trouble swimming back toward the boat. The operator, an adult, jumped in without a PFD to assist. The operator also began to struggle. A nearby boater was able to rescue the youth. The operator however slipped underwater and was unable to be rescued. The operator was under the influence of alcohol at the time of the accident.   |          |                      |                      |                     |   |            |
| 6/27/2014   | BRONX    | LONG ISLAND SOUND    | Alcohol Use          | Open Motorboat      | Person Leaves Or Is Ejected From Vessel | 1          |
| Two individuals on a vessel jumped overboard when another vessel appeared to be bearing down on them in a close quarter's situation. One individual was wearing a PFD and was rescued. The other was not and was unresponsive when later recovered. Searches following the recovery were unable to locate a vessel matching the description of the other vessel. The deceased was found to have a BAC of 0.15 along with marijuana in his system.   |          |                      |                      |                     |   |            |
| 6/30/2014   | KINGS    | SHELL BANK CREEK     | Alcohol Use          | Personal Watercraft | Falls Overboard                         | 1          |
| A victim was observed falling off his PWC. The victim was unable to swim back and reboard the craft. He was not wearing a PFD and under the influence of alcohol.   |          |                      |                      |                     |   |            |
| 7/1/2014  | WARREN   | LAKE GEORGE          | Operator Inattention | Open Motorboat      | Grounding                               | 1          |
| A vessel was trolling with down riggers when the depth of the water suddenly decreased. The down rigger weights got caught on the bottom causing the vessel came to an abrupt halt. Waves then came over the transom causing the vessel to fill with water. Everyone onboard grabbed a PFD. The operator cut the down rigger cables, however the vessel continued to take on water and capsized. Two individuals were able to stay with the capsized vessel. The third, although in a PFD, had not fastened the straps and disappeared beneath the water. Alcohol was not a factor. |          |                      |                      |                     |   |            |
| 7/6/2014  | ONONDAGA | SENECA RIVER         | Improper Loading     | Canoe               | Person Leaves Or Is Ejected From Vessel | 1          |
| Three individuals, not wearing PFDs, were drifting in a canoe while fishing. At one point one person fell overboard and while attempting to get back on board caused the canoe to capsize. Everyone was thrown into the water. One individual was unable to keep his head above water. All three were rescued by a passing vessel that brought them to shore. CPR was performed on the one individual and he was transported to the hospital where he died of severe brain damage. The deceased had prescription drugs and marijuana in his system at the time.                     |          |                      |                      |                     |   |            |
| 7/20/2014   | SUFFOLK  | Napeague Harbor      | Unknown              | Kite Board          | Grounding                               | 1          |
| After a kite boarder failed to return to his residence, his family went looking for him. He was found later floating in the water, secured to his kite. It is not known what contributed to the accident. It is not known if alcohol was involved.  |          |                      |                      |                     |   |            |
| 7/26/2014   | SARATOGA | SACANDAGA RESEVOIR   | Unknown              | Open Motorboat      | Falls Overboard                         | 1          |
| While docking a pontoon boat, the victim fell into the water and drowned. Other passengers who had been onboard were unable to provide assistance in time. It is not known what caused the victim to fall overboard. It is not known if alcohol was involved.   |          |                      |                      |                     |   |            |
| 7/30/2014   | NASSAU   | LONG ISLAND SOUND    | Unknown              | Open Motorboat      | Unknown                                 | 1          |
| A vessel was found grounded on a beach with the motor down, in gear but not running. No one was onboard. The owner of the vessel had been reported missing to the local police department and would later be recovered.   |          |                      |                      |                     |   |            |

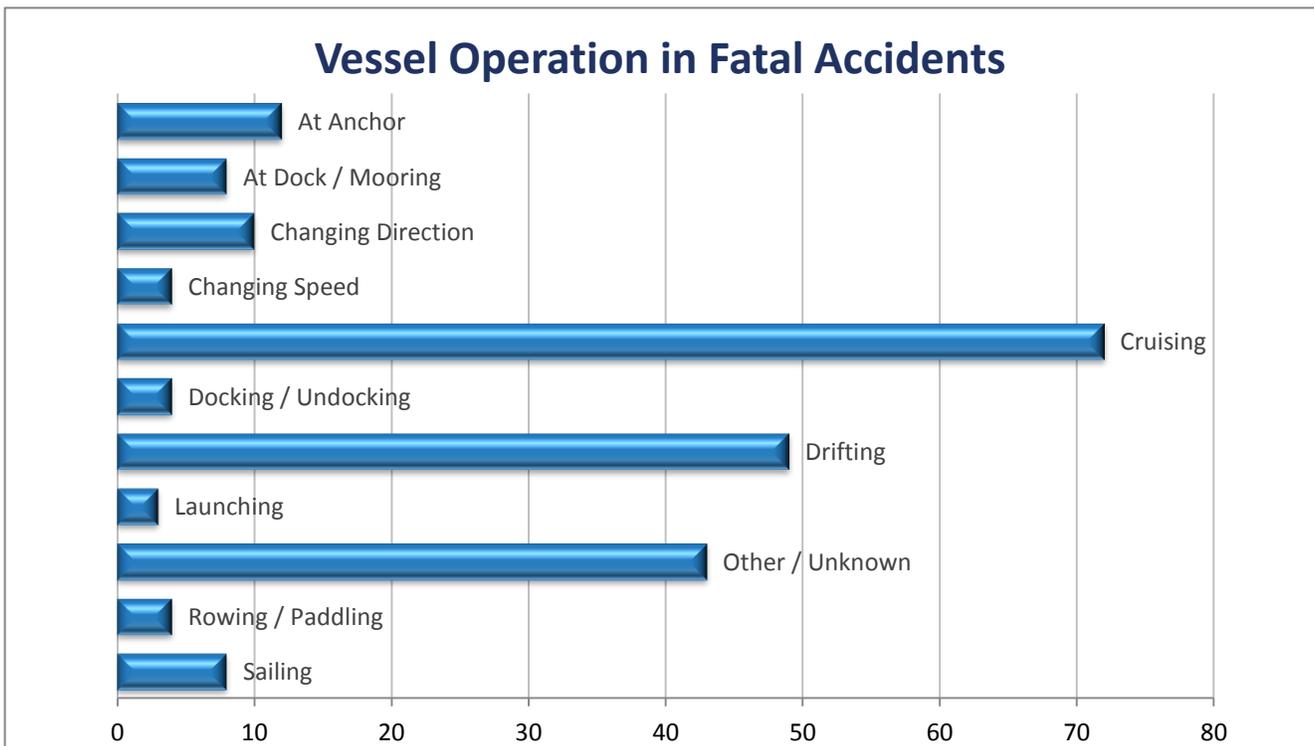
| Date  | County   | Waterway               | Cause                             | Vessel          | Accident Type                           | Fatalities |
|---|----------|------------------------|-----------------------------------|-----------------|---|------------|
| 8/10/2014   | NASSAU   | BALDWIN BAY            | Alcohol Use                       | Cabin Motorboat | Struck by Propeller or Propulsion Unit  | 1          |
| Several of the eleven passengers onboard a large recreational vessel had been swimming. Before starting up the engines to leave, the operator failed to properly account for everyone onboard and struck one of the passengers still in the water. The victim died at the hospital as a result of his injuries. The operator was had a BAC of 0.10. The victim had a BAC of 0.32.   |          |                        |                                   |                 |   |            |
| 8/14/2014   | SUFFOLK  | LAKE RONKONKOMA        | Drug Use                          | Kayak           | Capsizing                               | 1          |
| Witnesses near the lake heard a kayaker calling for help before disappearing under the water. Police recovered a backpack on shore that belonged to the kayaker containing alcohol and narcotics. The kayak was also recovered and was found to have a hole in it. The victim had been wearing a PFD but it slipped off while he was in the water. The victim was later recovered having a BAC of 0.04 and marijuana in his system at the time of the accident.   |          |                        |                                   |                 |   |            |
| 8/19/2014   | PUTNAM   | CROTON FALLS RESERVOIR | Standing/Sitting on Gunwales etc  | Rowboat         | Falls Overboard                         | 1          |
| The operator was sitting on top of an unsecured seat in a small rowboat when he lost his balance and fell overboard. A passenger also fell overboard as a result. The passenger was able to swim to shore while the operator was not. Neither individual was wearing a PFD. Alcohol was not a factor.   |          |                        |                                   |                 |   |            |
| 8/19/2014   | NIAGARA  | LAKE ONTARIO           | Weather                           | Sail (only)     | Capsizing                               | 1          |
| The operator was sailing a small sail boat when the vessel capsized from the wind and waves. The victim was observed unconscious and floating face up in his PFD. A nearby witness was able to jump in the water and retrieve the victim. The victim was placed onto a fire rescue boat where CPR was started. He was later pronounced dead at the hospital. Alcohol was not involved.  |          |                        |                                   |                 |   |            |
| 8/20/2014   | NASSAU   | MANHASSET BAY          | Ignition of Spilled Fuel or Vapor | Cabin Motorboat | Fire/Explosion (Fuel)                   | 1          |
| The vessel, with two people onboard and still moored to the dock, caught fire and exploded after fueling at a fuel dock. One individual was able to jump off the vessel and later rescued. The other was not. The exact cause of the fire is not known.   |          |                        |                                   |                 |   |            |
| 8/26/2014   | ONONDAGA | OTISCO LAKE            | Alcohol Use                       | Kayak           | Person Leaves Or Is Ejected From Vessel | 1          |
| A deceased male was found floating in a lake by two kayakers. A kayak was found containing fishing gear that had recently been purchased by the individual. The victim had no prior experience in operating a kayak. The victim had a history of heart issues which may have contributed to his death. He was not wearing a PFD, nor was one able to be located. The victim had a BAC of 0.04.  |          |                        |                                   |                 |   |            |
| 9/1/2014  | NASSAU   | LONG CREEK             | Improper Loading                  | Cabin Motorboat | Flooding/Swamping                       | 1          |
| While underway, the vessel experienced flooding. It is suspected that the arrangement of the nine persons onboard contributed to the flooding. Everyone onboard entered the water as a result of the flooding and subsequently lost contact with the vessel. Other nearby vessels were able to rescue everyone who was onboard. One passenger suffered a heart attack and another had experienced chest pains while in the water. Both individuals were transported to the hospital. The victim who had suffered the heart attack passed away at the hospital. The deceased had not been wearing a PFD. Alcohol was not involved. |          |                        |                                   |                 |   |            |
| 9/20/2014   | SARATOGA | STEWARTS POND          | Unknown                           | Kayak           | Capsizing                               | 1          |
| An individual utilized a kayak found at a rented vacation home where he was staying with fellow college students. Witnesses state that they saw him capsize and struggle in the water before disappearing beneath the surface. It is not known what contributed to the accident.  |          |                        |                                   |                 |   |            |
| 10/14/2014  | RICHMOND | RARITAN BAY            | Improper Anchoring                | Open Motorboat  | Flooding/Swamping                       | 1          |
| A vessel with two people on board, ages 82 and 84, was anchored from both the bow and the stern with the stern facing into the waves. The vessel began taking water over the transom. The bilge pumps were unable to keep up. The operator cut the stern anchor line as the vessel rolled to starboard, then capsized. Both individuals onboard were thrown into the water, neither of whom was wearing a PFD. One individual was able to hold onto the overturned vessel until rescue arrived. The other suffered a heart attack while in the water and did not survive. Alcohol was not involved.                               |          |                        |                                   |                 |   |            |

| Date   | County   | Waterway         | Cause       | Vessel         | Accident Type     | Fatalities |
|--|----------|------------------|-------------|----------------|-------------------|------------|
| 11/15/2014   | HERKIMER | ERIE BARGE CANAL | Overloading | Open Motorboat | Flooding/Swamping | 1          |
| A small vessel was travelling westbound, with three occupants not wearing PFDs, when it capsized. All occupants were thrown into the water. Two occupants were able to swim to shore. The third was pulled to shore and transported to the hospital, where he was pronounced dead. Alcohol was not involved. |          |                  |             |                |                   |            |
| 11/24/2014   | BRONX    | EASTCHESTER BAY  | Unknown     | Kayak          | Capsizing         | 1          |
| Police were contacted by an individual concerned about a kayaker that had failed to return home. Earlier, this person had gone for a swim and then departed the area in his kayak. A search of the area located the victim in the water, just off the shore. It is not known what caused the accident.       |          |                  |             |                |                   |            |



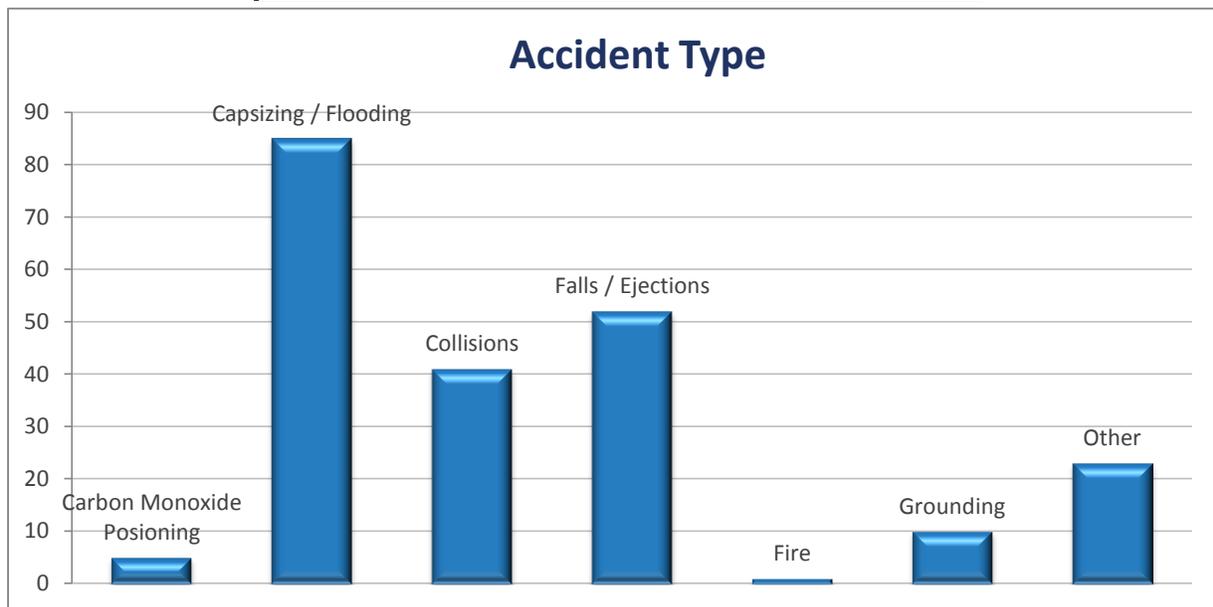
# Vessel Operation in Fatal Boating Accidents 2005-2014

| Operation                          | Fatalities |
|------------------------------------|------------|
| At Anchor                          | 12         |
| Changing Direction                 | 4          |
| Changing Speed                     | 3          |
| Changing Speed, Changing Direction | 1          |
| Cruising                           | 67         |
| Cruising, Changing Direction       | 5          |
| Docking/Undocking                  | 3          |
| Drifting                           | 48         |
| Drifting, Launching                | 1          |
| Launching                          | 2          |
| Other                              | 1          |
| Rowing or Paddling                 | 43         |
| Sailing                            | 4          |
| Tied to Dock/Mooring               | 8          |
| Unknown                            | 15         |



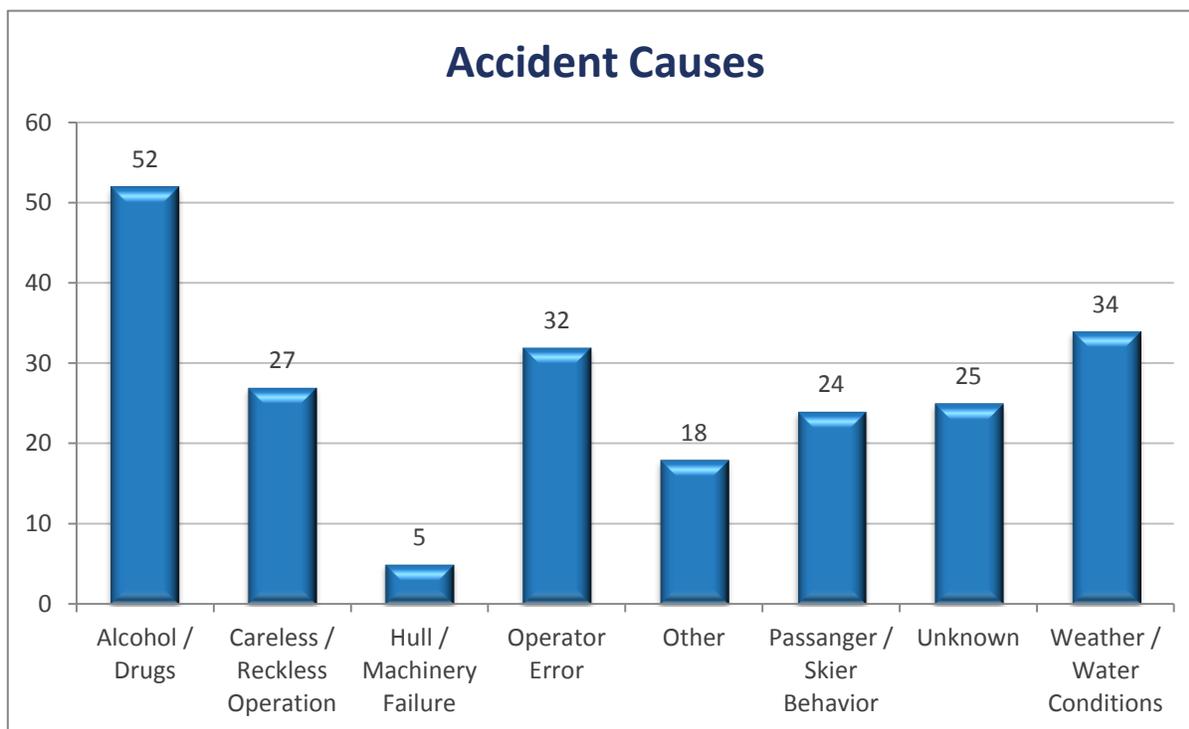
## Fatal Accident Type 2005-2014

| Accident Type                           | Fatalities |
|---|------------|
| Capsizing                               | 71         |
| Carbon Monoxide Poisoning               | 5          |
| Collision w/ Fixed Object               | 23         |
| Collision w/ Floating Object            | 3          |
| Collision w/ Vessel                     | 10         |
| Collision With Recreational Boat        | 3          |
| Collision with Tow Line                 | 2          |
| Falls in Boat                           | 2          |
| Falls Overboard                         | 32         |
| Fire/Explosion (Fuel)                   | 1          |
| Flooding/Swamping                       | 9          |
| Grounding                               | 10         |
| Person Leaves Or Is Ejected From Vessel | 18         |
| Sinking                                 | 5          |
| Skier Mishap                            | 5          |
| Struck by Boat                          | 3          |
| Struck by Propeller or Propulsion Unit  | 3          |
| Struck Submerged Object                 | 2          |
| Sudden Medical Condition                | 2          |
| Unknown                                 | 8          |

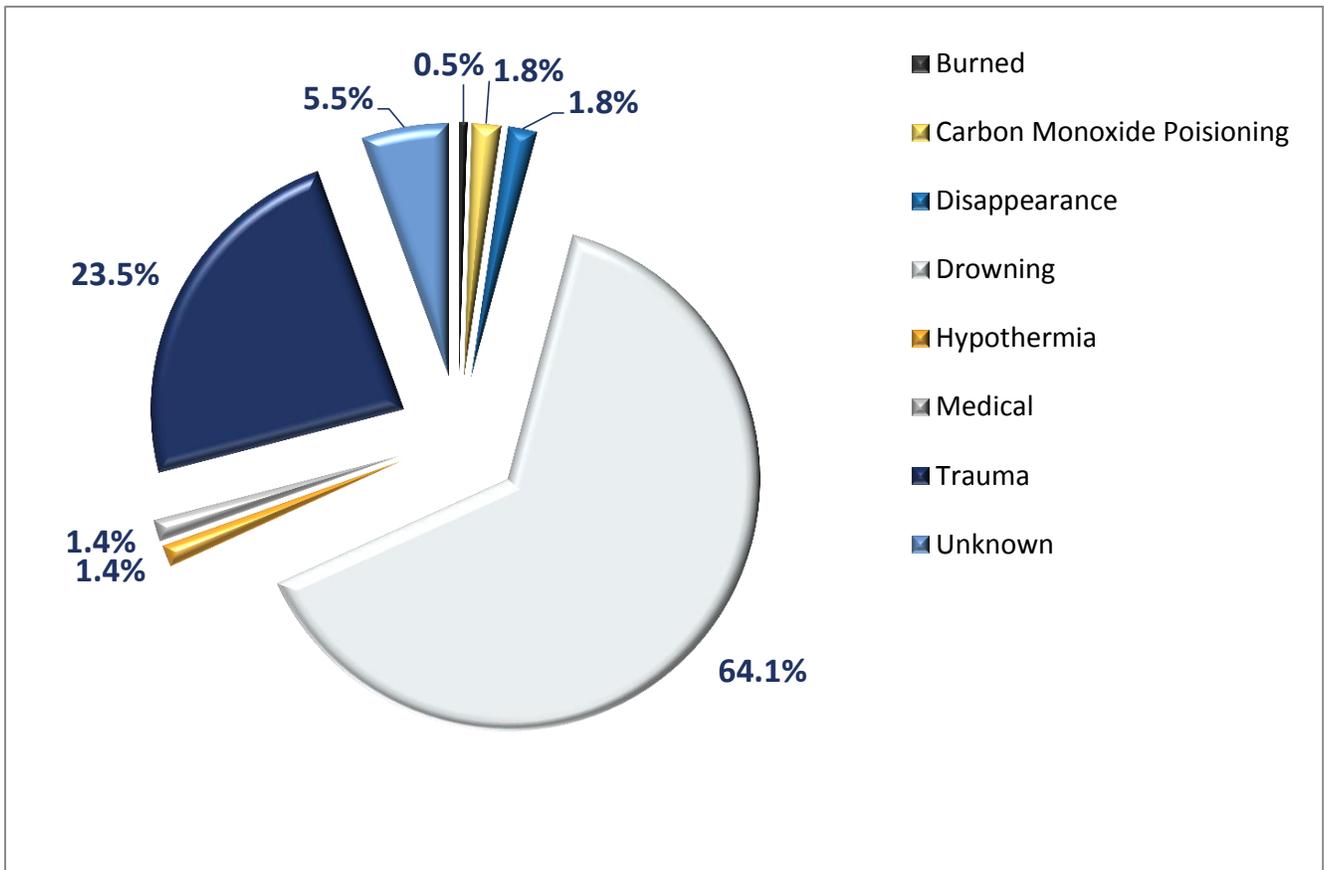


## Fatal Accidents Causes 2005-2014

| Accident Causes                   | Fatalities | Accident Causes              | Fatalities |
|-----------------------------------|------------|------------------------------|------------|
| Alcohol Use                       | 48         | Operator Inattention         | 8          |
| Careless/Reckless Operation       | 4          | Operator Inexperience        | 7          |
| Dam/Lock                          | 2          | Other                        | 9          |
| Drug Use                          | 4          | Overloading                  | 9          |
| Excessive Speed                   | 11         | Passenger or Skier Behavior  | 20         |
| Hazardous Waters                  | 23         | Poor Visibility              | 1          |
| Ignition of Spilled Fuel or Vapor | 1          | Sharp Turn                   | 3          |
| Improper Anchoring                | 4          | Standing/Sitting on Gunwales | 4          |
| Improper Loading                  | 2          | Unknown                      | 25         |
| Lack of / Improper Boat Lights    | 1          | Vessel Hull Failure          | 1          |
| Machinery Failure                 | 4          | Wake                         | 3          |
| No Proper Lookout                 | 13         | Weather                      | 10         |

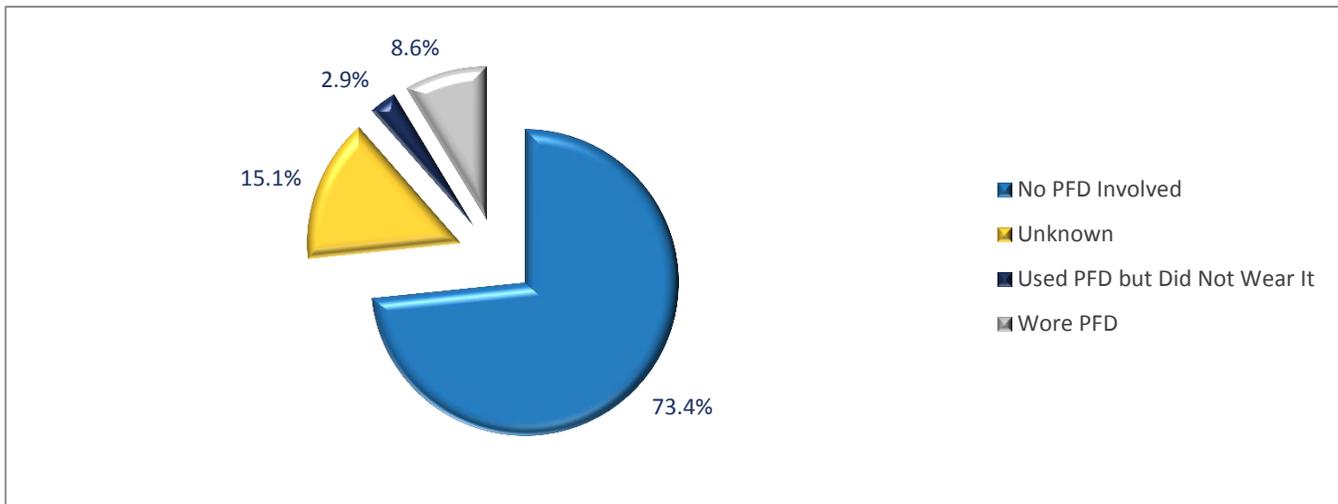


# Cause of Fatality 2005-2014



| Cause of Fatality         | Fatalities |
|---------------------------|------------|
| Burned                    | 1          |
| Carbon Monoxide Poisoning | 4          |
| Disappearance             | 4          |
| Drowning                  | 139        |
| Hypothermia               | 3          |
| Medical                   | 3          |
| Trauma                    | 51         |
| Unknown                   | 12         |

# PFD Use Amongst Drowning Fatalities 2005-2014



| PFD Use                      | Fatalities | Percentage |
|------------------------------|------------|------------|
| No PFD Involved              | 102        | 73.4%      |
| Unknown                      | 21         | 15.1%      |
| Used PFD but Did Not Wear It | 4          | 2.9%       |
| Wore PFD                     | 12         | 8.6%       |

| Law                         | Fatalities Required to Wear PFD | Percentage of Total Fatalities Not Wearing PFD |
|-----------------------------|---------------------------------|--|
| Cold Water Law              | 8                               | 7.5%   |
| Personal Watercraft         | 4                               | 3.8%   |
| Child Under 12 Years of Age | 2                               | 1.9%   |
| Towing of Persons           | 0                               | 0.0%   |
| <b>Total</b>                | <b>14</b>                       | <b>13.2%</b>                                   |

Of the accidents where individuals drowned and PFD use was known, 86.4% did not wear a PFD. 13.3% of those who did not wear a PFD were required to by law at the time of the accident. The cold water law has accounted for the largest portion of this despite not taking affect until November 1<sup>st</sup> 2009. Had the law been in effect in 2005 an additional seven people would have been required to wear their PFD.

**Cold Water Law** – Requires everyone onboard a pleasure vessel less than 21 feet to wear a PFD from Nov. 1<sup>st</sup> to May 1<sup>st</sup>

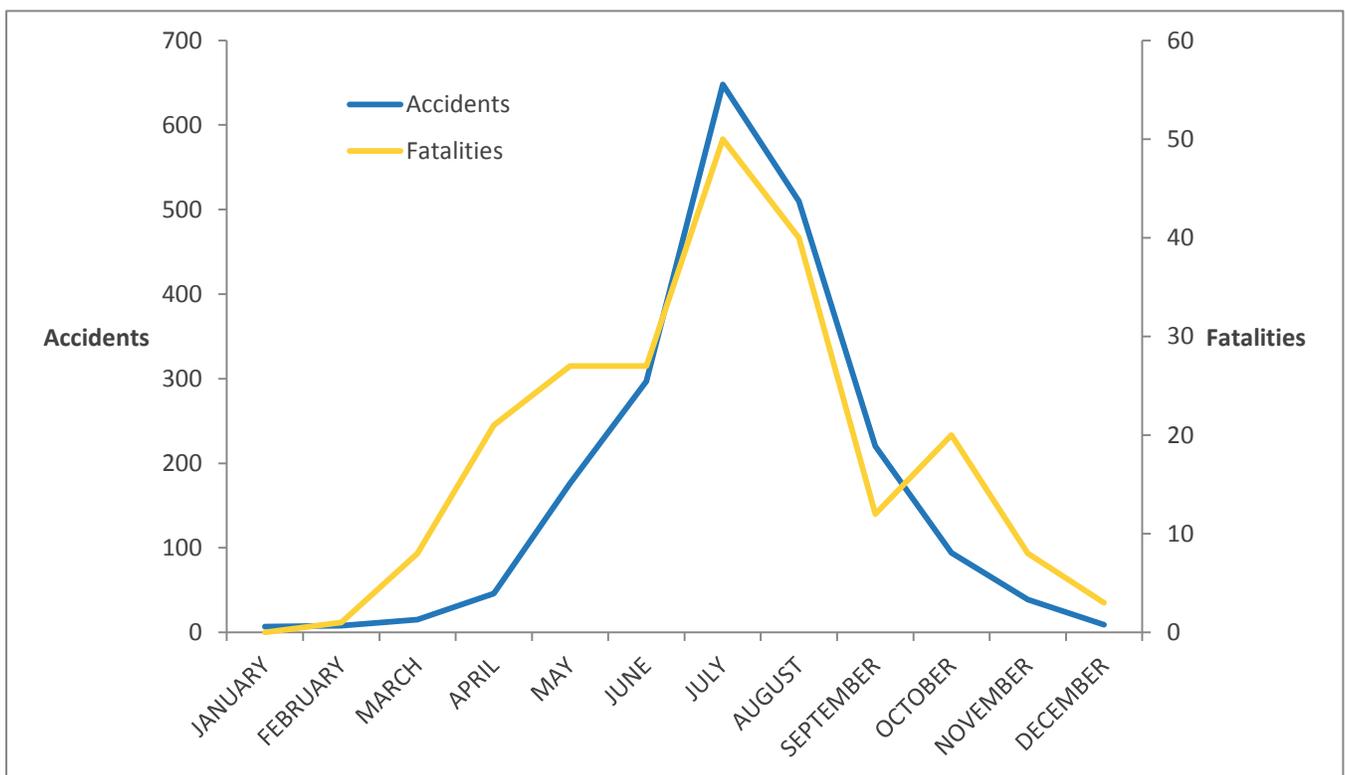
**Personal Watercraft** – Everyone onboard a personal watercraft is required to wear a PFD

**Child Under 12 Years of Age** – Everyone under the age of 12 is required to wear a PFD on pleasure vessels less than 65 feet except when in a fully enclosed cabin.

**Towing of Persons** – Everyone towed behind a vessel is required to wear a PFD

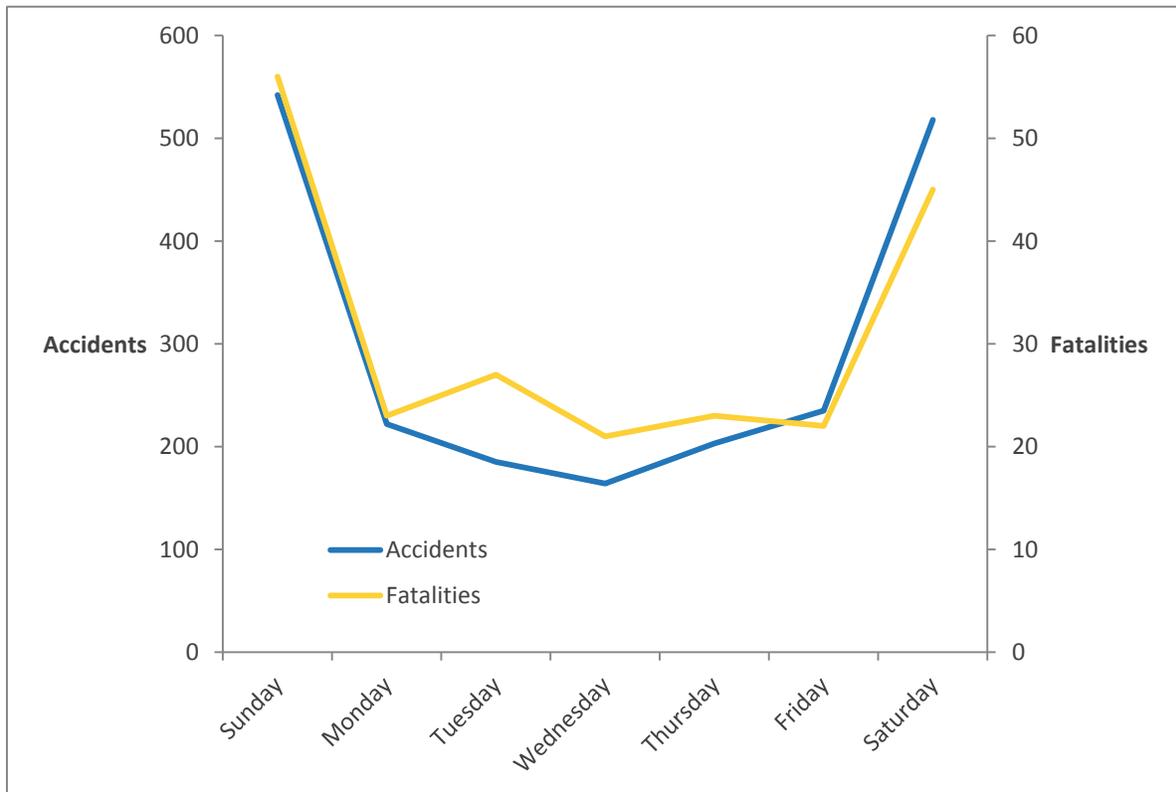
## Accident Occurrence by Month 2005-2014

| Month     | Accidents | Fatalities |
|-----------|-----------|------------|
| JANUARY   | 7         | 0          |
| FEBRUARY  | 8         | 1          |
| MARCH     | 15        | 8          |
| APRIL     | 46        | 21         |
| MAY       | 176       | 27         |
| JUNE      | 297       | 27         |
| JULY      | 648       | 50         |
| AUGUST    | 510       | 40         |
| SEPTEMBER | 220       | 12         |
| OCTOBER   | 94        | 20         |
| NOVEMBER  | 39        | 8          |
| DECEMBER  | 9         | 3          |



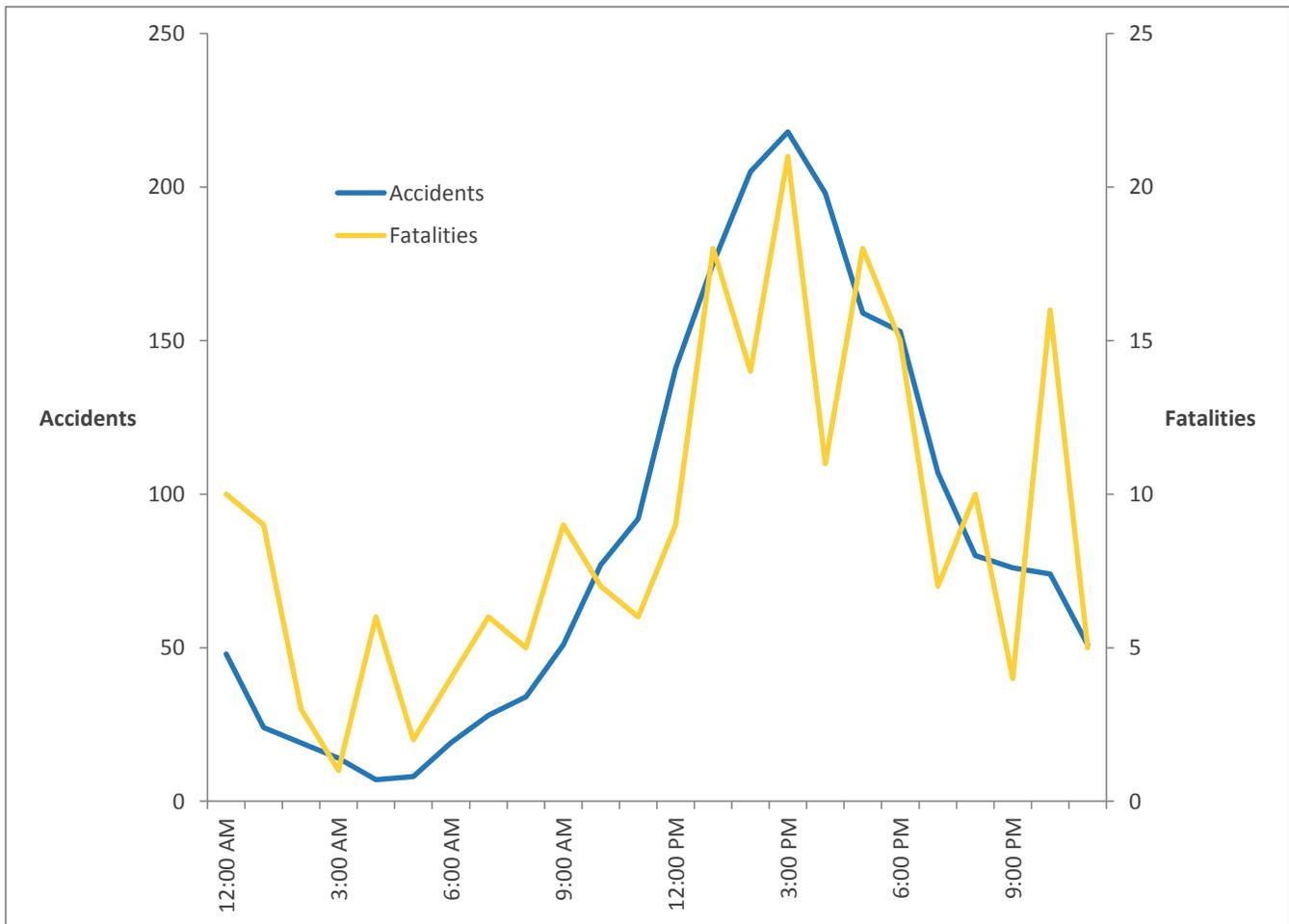
## Accident Occurrence by Day 2005-2014

| DAY       | Accidents | Fatalities |
|-----------|-----------|------------|
| Sunday    | 542       | 56         |
| Monday    | 222       | 23         |
| Tuesday   | 185       | 27         |
| Wednesday | 164       | 21         |
| Thursday  | 203       | 23         |
| Friday    | 235       | 22         |
| Saturday  | 518       | 45         |



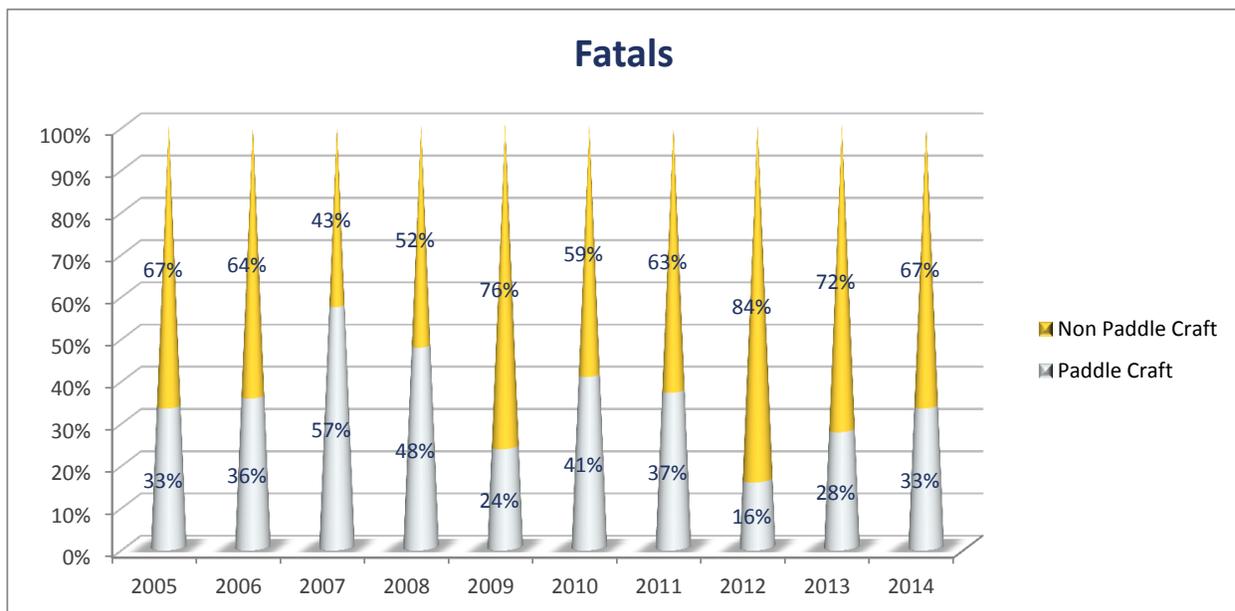
## Accident Occurrence by Time 2005-2014

| AM       |           |            | PM       |           |            |
|----------|-----------|------------|----------|-----------|------------|
| Time     | Accidents | Fatalities | Time     | Accidents | Fatalities |
| 12 to 1  | 48        | 10         | 12 to 1  | 141       | 9          |
| 1 to 2   | 24        | 9          | 1 to 2   | 175       | 18         |
| 2 to 3   | 19        | 3          | 2 to 3   | 205       | 14         |
| 3 to 4   | 14        | 1          | 3 to 4   | 218       | 21         |
| 4 to 5   | 7         | 6          | 4 to 5   | 198       | 11         |
| 5 to 6   | 8         | 2          | 5 to 6   | 159       | 18         |
| 6 to 7   | 19        | 4          | 6 to 7   | 153       | 15         |
| 7 to 8   | 28        | 6          | 7 to 8   | 107       | 7          |
| 8 to 9   | 34        | 5          | 8 to 9   | 80        | 10         |
| 9 to 10  | 51        | 9          | 9 to 10  | 76        | 4          |
| 10 to 11 | 77        | 7          | 10 to 11 | 74        | 16         |
| 11 to 12 | 92        | 6          | 11 to 12 | 51        | 5          |



## Paddle Craft Accidents 2005-2014

| Year | # of Paddle Craft | Injuries | Fatals |
|------|-------------------|----------|--------|
| 2005 | 8                 | 4        | 5      |
| 2006 | 6                 | 0        | 5      |
| 2007 | 16                | 4        | 12     |
| 2008 | 11                | 10       | 10     |
| 2009 | 8                 | 3        | 5      |
| 2010 | 17                | 8        | 11     |
| 2011 | 15                | 10       | 10     |
| 2012 | 10                | 8        | 4      |
| 2013 | 13                | 9        | 5      |
| 2014 | 15                | 8        | 9      |



Paddle Craft represent about 4% of the total accidents. They however contribute to about 35% of the total fatalities.

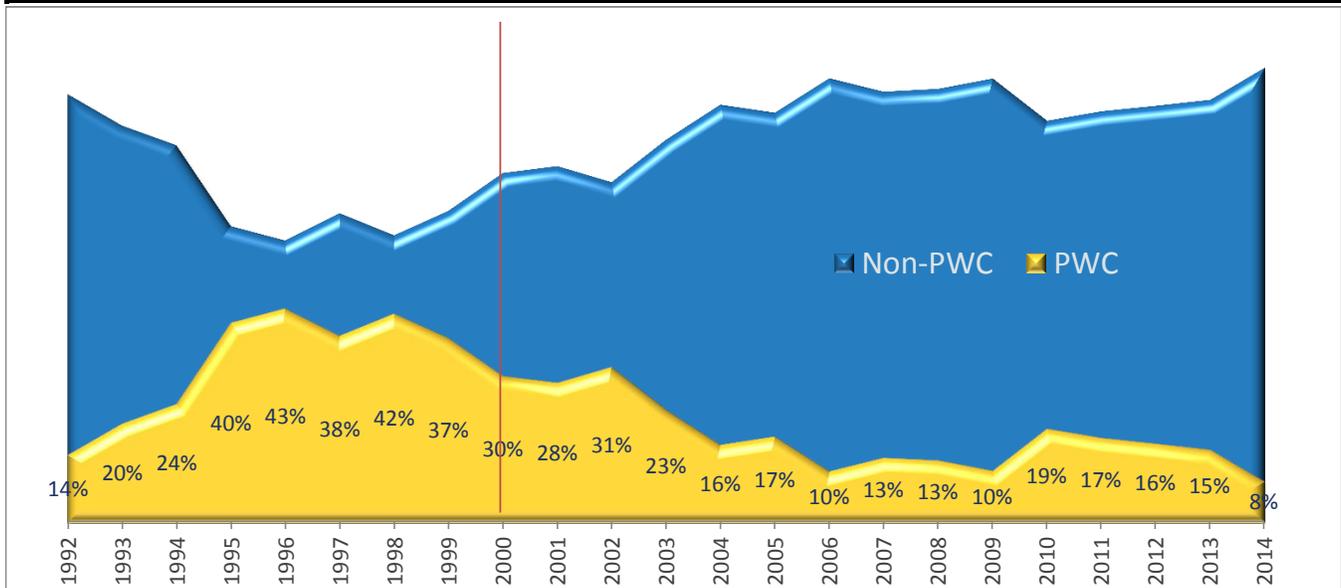
## PWC Accidents

| Year  | # of PWC | Injuries | Fatalities |
|-------|----------|----------|------------|
| 1992  | 31       | 1        | 21         |
| 1993  | 45       | 32       | 1          |
| 1994  | 53       | 33       | 3          |
| 1995  | 117      | 48       | 3          |
| 1996  | 140      | 62       | 2          |
| 1997  | 121      | 65       | 6          |
| 1998  | 137      | 66       | 3          |
| 1999  | 117      | 70       | 4          |
| 2000* | 85       | 35       | 1          |
| 2001  | 81       | 43       | 0          |
| 2002  | 89       | 47       | 2          |
| 2003  | 69       | 37       | 1          |
| 2004  | 32       | 17       | 1          |
| 2005  | 38       | 29       | 3          |
| 2006  | 19       | 16       | 1          |
| 2007  | 31       | 18       | 1          |
| 2008  | 27       | 21       | 0          |
| 2009  | 20       | 14       | 3          |
| 2010  | 46       | 25       | 1          |
| 2011  | 43       | 25       | 0          |
| 2012  | 51       | 25       | 3          |
| 2013  | 40       | 26       | 3          |
| 2014  | 23       | 16       | 1          |



\* Mandatory education for PWC operators begins

### Percentage of PWC Vessels Involved in Accidents



PWC accidents have declined significantly since implementation of mandatory education.

Whatever boat  
you choose . . .

Don't forget to  
wear your life jacket!



Scan for boating safety information  
and to find a boating safety course.



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