



Parks, Recreation and Historic Preservation

2018 Recreational Boating Report



Table of Contents

Executive Summary:	3
Law Enforcement Activity:	6
Vessel Registrations:	
County and Length	8
Length and Hull Material	10
Accident History 1970-2018:	11
Accident Analysis 2018:	
County and Waterway	14
Accident Type	19
Accident Type and Operation	20
Accident Cause	23
Accident Type and Cause	24
Vessel Type and Accident Type	27
Operator Age	31
Operator Age and Education	32
Operator Age and Experience	33
Injuries	34
Summary of Fatal Accidents	35
Fatal Accident Analysis 2005-2018:	
Vessel Operation	38
Accident Type	39
Accident Cause	40
Cause of Fatality	41
Month of the Year	42
Day of the Week	43
Time of Day	44
Paddle Craft Analysis 2005-2018:	45
PWC History 1992-2018:	46
Boating Safety Education:	
Education History 2000-2018	47
Student Age	48

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 438,891 registered powerboats New York ranks ninth in the nation for registered boats. Of the eight states ahead of New York, seven of them have expanded requirements for registration, including registrations for sailboats and paddle craft. Clearly, recreational boating is a large piece of the economy in the Empire State.



In 2018, New York had 17 fatal boating accidents reported resulting in 19 fatalities and 19 lives lost prematurely. When fatalities in 2017 were considered against the number of registered boats, New York's fatality rate was 4.95 deaths per each 100,000-registered watercraft. This placed New York 31st in the nation. In 2018 that number fell to 4.33. The long-term

average is 4.52 as calculated since the year 2000. New York saw an increase in injuries from last year at 108. There was also an increase in total accidents this year compared to last year however we have had less fatalities.

If you compare 2018 to 1973, New York's worst year on record, recreational boating deaths in New York State are just 16.7% of what they were. Meanwhile there are approximately 73,000 more registered boats and countless more unregistered paddle craft. This significant decrease can largely be contributed to a few key factors. The federal government created many important safety standards for boat manufacturers, most notable the Federal Boat Safety Act of 1971. Improvements in technology, such as the cell phone have allowed for faster response and increased availability of communication with boaters in need. Improvements in PFDs have made them far more

comfortable to wear. Specific PFDs have been developed to maximize safety for specific on water activities such as wake boarding and personal watercraft operation. Legislation has strengthened BWI laws and changed the perception of drinking alcohol on the water. Changes to boater education laws have expanded the mandatory requirements first from youths, then to personal watercraft operators and now to include all boat operators born after May 1, 1996. Online education has further made boating education accessible to all. Availability of equipment, training and funding through grant programs have led to an enhanced marine law enforcement capability.

What causes recreational boating accidents fatalities on the water in New York? Clearly the leading type of boating deaths is drowning. During the period 2005 - 2015, 87% of all victims were not wearing a PFD. Of those victims, 12% of them were required by law to wear a

PFD at the time of the accident, but chose not to. It is impossible to tell how many people have been saved by wearing a PFD but the potential consequences of not wearing one are clearly evident.



We also know how deadly an impact unexpected cold water immersion can be in both the early and late boating seasons. There are far fewer reported accidents during the cold weather months, but a much higher percentage of them result in a fatality. 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 vasoconstriction. 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 most of boating deaths 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 1st and May 1st. Following the passage of this legislation New York has seen a decrease in the percentage of fatalities occurring during that time.

Alcohol and drug use are another significant cause of fatal boating accidents in New York. Between 2005 and 2018, alcohol and drug use was found to be the primary contributing factor in 66 fatalities (21%) of all boating deaths. In 2018 alcohol or drugs are known to have been present in four of the twenty-two fatalities (15.8%). These substances can impair both judgment and reaction time.

Non-motorized water craft represented nine of the nineteen fatalities (41%) in 2018. This is a decrease of five compared to the prior year. The size of non-motorized segment of the boating population is difficult to determine since a registration is not required in New York State. Most of these accidents involve the victim exiting the craft unexpectedly either by capsizing or falling overboard. Once in the water the use of a PFD may have assisted them in surviving.



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, drugs and boating. Add in the environmental stressors from being on the water and 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 boating safety course. 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) goal is providing the public with a safe and enjoyable boating environment. This is accomplished by developing 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
County						
ALBANY	30	180	0	5	0	1
ALLEGANY	288	717	6	18	0	0
CATTARAUGUS	297	412	5	59	0	1
CAYUGA	462	1160	7	51	0	8
CHAUTAUQUA	2342	5603	273	2345	1	74
CHENANGO	31	45	1	0	0	0
CLINTON	415	1736	16	161	2	8
COLUMBIA	234	557	8	34	0	15
CORTLAND	31	129	1	60	0	1
DUTCHESS	846	1765	54	43	0	6
ERIE	1100	2900	104	205	5	141
FULTON	141	363	3	4	0	8
GREENE	185	708	11	6	0	0
HAMILTON	1439	1904	39	252	0	40
HERKIMER	160	737	9	4	0	0
JEFFERSON	58	145	5	7	0	2
LEWIS	483	681	0	194	0	9
LIVINGSTON	2064	2600	74	20	0	15
MADISON	71	473	1	28	0	6
MONROE	650	4599	166	238	1	61
NASSAU	13965	35000	104	771	0	576
NIAGARA	615	2780	45	158	1	35
ONEIDA	461	1606	32	3	0	32
ONONDAGA	944	4141	25	175	17	87
ONTARIO	1159	2558	62	91	0	3
ORANGE	272	751	7	4	0	0
ORLEANS	234	234	22	69	0	0
OSWEGO	538	675	10	190	0	34
OTSEGO	63	203	9	11	0	1
PUTNAM	810	1481	25	34	0	8
ROCKLAND	2119	4844	136	74	2	15
ST. LAWRENCE	280	328	1	100	0	1
SARATOGA	503	880	40	203	0	15
SCHENECTADY	542	1405	13	15	0	12
SENECA	332	899	11	3	0	0
STEUBEN	228	1300	22	190	2	5
SUFFOLK COUNTY POLICE DEPARTMENT	5238	158800	847	316	1	1363
SUFFOLK COUNTY SHERIFF	1550	4468	49	178	52	35
SULLIVAN	128	262	8	2	0	12
TOMPKINS	53	145	5	2	0	0
ULSTER	1058	1178	118	337	0	28

Law Enforcement Agency	Total Vessel Hours	Total MLE Hours	Searches and Assists	Total Vessel Inspections	BWI Arrests	Total Arrests
County (Continued)						
WARREN	951	2340	117	16	7	24
WASHINGTON	27	76	0	42	0	0
WAYNE	340	2878	37	31	0	5
WESTCHESTER	1756	6212	93	189	2	112
WYOMING	126	134	1	12	0	0
YATES	980	2832	29	4018	2	79
Municipalities						
ASHAROKEN	2144	326	2	17	0	0
BABYLON	1300	1100	24	65	0	187
CARMEL	136	465	14	0	0	0
CAZENOVIA	122	122	1	25	0	0
DOBBS FERRY	24	8	0	0	0	0
EAST HAMPTON	815	1200	40	92	1	12
EVANS	98	98	11	0	0	0
GLEN COVE	888	3313	35	49	0	17
GREENWOOD LAKE	283	714	10	49	0	11
HASTINGS	24	162	2	0	0	0
HEMPSTEAD	1620	17750	67	470	0	99
HUNTINGTON	2450	6900	124	120	0	384
IRVINGTON	27	69	1	5	0	0
ISLIP	247	4310	11	144	0	156
MAMARONECK	1002	3370	52	120	2	73
NEW ROCHELLE	1448	4496	36	52	1	90
NEW YORK CITY	123800	369900	546	1345	4	277
NORTH HEMPSTEAD	4045	8365	134	489	0	0
NORTHPORT	823	822	43	46	0	2
OSSINING	129	239	9	12	0	0
OYSTER BAY	3640	24480	140	350	1	49
PHOENIX	19	36	0	3	0	0
PORT CHESTER	329	840	10	7	0	1
QUOGUE	209	275	7	6	0	3
RIVERHEAD	650	2400	26	112	1	10
RYE	409	4703	34	204	0	28
SHELTER ISLAND	695	1232	94	233	0	62
SMITHTOWN	5200	9463	100	106	0	248
SOUTHAMPTON	2650	13500	190	456	2	545
SOUTHOLD	640	7107	36	700	0	43
YONKERS	70	350	7	6	0	0
State Agencies						
DEPARTMENT OF ENVIRONMENTAL CONSERVATION	11236	38186	237	20899	4	1673
LAKE GEORGE PARK COMMISSION	4913	5991	292	735	7	141
PARK POLICE	1429.5	5197	54	381	18	367
STATE POLICE	1317	2819	17	304	2	57
Totals	221425	806128	5057	38570	138	7413

2018 Vessel Registrations by County and Length

County	Total	Uncoded	Class A <16'	Class 1 16-25'	Class 2 26-39'	Class 3 40-64'	Class 4 ≥ 65'
ALBANY	8694	22	3395	4650	574	39	14
ALLEGANY	1873	5	759	1086	20	1	2
BRONX	2351	5	926	931	439	37	13
BROOME	6623	17	3032	3259	295	15	5
CATTARAUGUS	2853	5	1054	1689	100	4	1
CAYUGA	5322	19	1954	3083	254	12	0
CHAUTAUQUA	6305	26	2129	3777	352	18	3
CHEMUNG	3845	2	1490	2165	176	10	2
CHENANGO	2263	0	1219	990	50	4	0
CLINTON	5993	12	2812	2883	271	12	3
COLUMBIA	2823	3	1181	1512	113	13	1
CORTLAND	2089	7	918	1104	57	3	0
DELAWARE	1199	0	606	549	43	1	0
DUTCHESS	6171	10	2759	2839	523	37	3
ERIE	24050	64	8229	13263	2288	183	23
ESSEX	4370	9	1823	2395	131	9	3
FRANKLIN	4278	4	2107	2105	57	1	4
FULTON	4504	8	1948	2348	195	4	1
GENESEE	2191	4	878	1238	64	4	3
GREENE	2240	5	875	1169	175	13	3
HAMILTON	1899	7	908	964	17	3	0
HERKIMER	3478	11	1472	1922	69	3	1
JEFFERSON	10984	54	4340	5849	706	34	1
KINGS	4326	0	1668	1550	960	111	37
LEWIS	2223	0	1149	1039	34	1	0
LIVINGSTON	3840	10	1590	2154	76	8	2
MADISON	4391	7	1732	2466	177	7	2
MONROE	26454	58	10513	14021	1738	115	9
MONTGOMERY	1956	8	875	997	73	1	2
NASSAU	27796	58	8881	12905	5192	701	59
NEW YORK	4524	2	1289	1919	1095	189	30
NIAGARA	7945	34	2667	4535	664	38	7

County	Total	Uncoded	Class A <16'	Class 1 16-25'	Class 2 26-39'	Class 3 40-64'	Class 4 >= 65'
ONEIDA	10947	33	4502	5998	395	17	2
ONONDAGA	20610	41	7906	11371	1182	101	9
ONTARIO	7476	25	2422	4735	277	16	1
ORANGE	8057	26	3880	3573	521	47	10
ORLEANS	1993	1	836	1037	114	5	0
OSWEGO	8862	14	3827	4493	508	19	1
OTSEGO	2417	6	995	1365	46	3	2
PUTNAM	2913	7	1122	1542	217	23	2
QUEENS	5987	9	2276	2648	946	77	31
RENSELAER	5668	3	2396	2956	289	23	1
RICHMOND	3568	7	1413	1460	619	58	11
ROCKLAND	3846	10	1844	1352	565	61	14
ST LAWRENCE	10343	16	4563	5462	280	17	5
SARATOGA	13805	17	5143	7878	734	29	4
SCHENECTADY	5533	12	2299	2920	283	16	3
SCHOHARIE	1100	0	506	551	38	3	2
SCHUYLER	1587	4	590	919	71	2	1
SENECA	2735	3	946	1615	153	15	3
STEUBEN	4898	2	1827	2929	133	6	1
SUFFOLK	63208	236	18754	31622	11227	1312	57
SULLIVAN	2985	1	1525	1377	68	9	5
TIOGA	2185	1	986	1109	86	2	1
TOMPKINS	3406	4	1126	2017	236	22	1
ULSTER	5055	7	2186	2413	417	29	3
WARREN	7174	34	2226	4361	533	11	9
WASHINGTON	3381	8	1404	1854	112	2	1
WAYNE	6447	18	2468	3507	426	26	2
WESTCHESTER	11009	14	3566	4898	2137	346	48
WYOMING	1640	1	571	1037	25	4	2
YATES	2485	4	785	1628	65	1	2
Out of State	13537	0	4694	7540	1146	140	17
TOTAL	444710	1040	166762	231523	40827	4073	485

Registered Vessels: By Length and Hull Material

< 16 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	1639	77	7	31	38	1792
METAL	27018	35	42	1	452	27548
PLASTIC	7088	2719	167	28	1107	11109
FIBERGLASS	18153	50282	3575	401	4864	77275
INFLATABLE	9209	58	74	6	362	9709
STEEL	642	17	7	0	42	708
ALUMINUM	33976	164	194	13	1988	36335
OTHER	1609	438	35	4	200	2286
TOTAL	99334	53790	4101	484	9053	166762
16-25 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	1186	1868	118	52	23	3247
METAL	15564	117	816	0	36	16533
PLASTIC	2923	485	791	101	86	4386
FIBERGLASS	64835	13121	74886	2703	846	156391
INFLATABLE	211	8	6	2	1	228
STEEL	602	32	30	1	9	674
ALUMINUM	47463	234	1180	6	217	49100
OTHER	862	25	43	12	22	964
TOTAL	133646	15890	77870	2877	1240	231523
26-39 ft	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	61	705	19	24	5	814
METAL	191	96	29	2	4	322
PLASTIC	82	353	163	65	5	668
FIBERGLASS	5560	14415	15419	2295	127	37816
INFLATABLE	5	3	1	0	0	9
STEEL	24	42	14	1	7	88
ALUMINUM	798	115	131	5	6	1055
OTHER	17	21	6	6	5	55
TOTAL	6738	15750	15782	2398	159	40827
40-64 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	2	95	1	7	1	106
METAL	2	18	6	1	1	28
PLASTIC	1	54	5	10	0	70
FIBERGLASS	108	3120	275	246	13	3762
INFLATABLE	1	1	0	0	0	2
STEEL	9	29	4	4	3	49
ALUMINUM	17	18	6	2	2	45
OTHER	1	6	1	0	3	11
TOTAL	141	3341	298	270	23	4073
>65 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	2	7	0	0	0	9
METAL	6	4	2	0	2	14
PLASTIC	20	4	1	0	1	26
FIBERGLASS	73	176	62	3	21	335
INFLATABLE	27	0	0	0	2	29
STEEL	1	8	0	0	1	10
ALUMINUM	52	4	1	0	2	59
OTHER	1	1	0	0	1	3
TOTAL	182	204	66	3	30	485
Uncoded	O/B	I/B	I/O	SAIL	OTHER	TOTAL
TOTAL	4	3	2	0	1031	1040

ACCIDENTS

The chart below illustrates registration and accident figures for the years 1970 through 2017. 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.

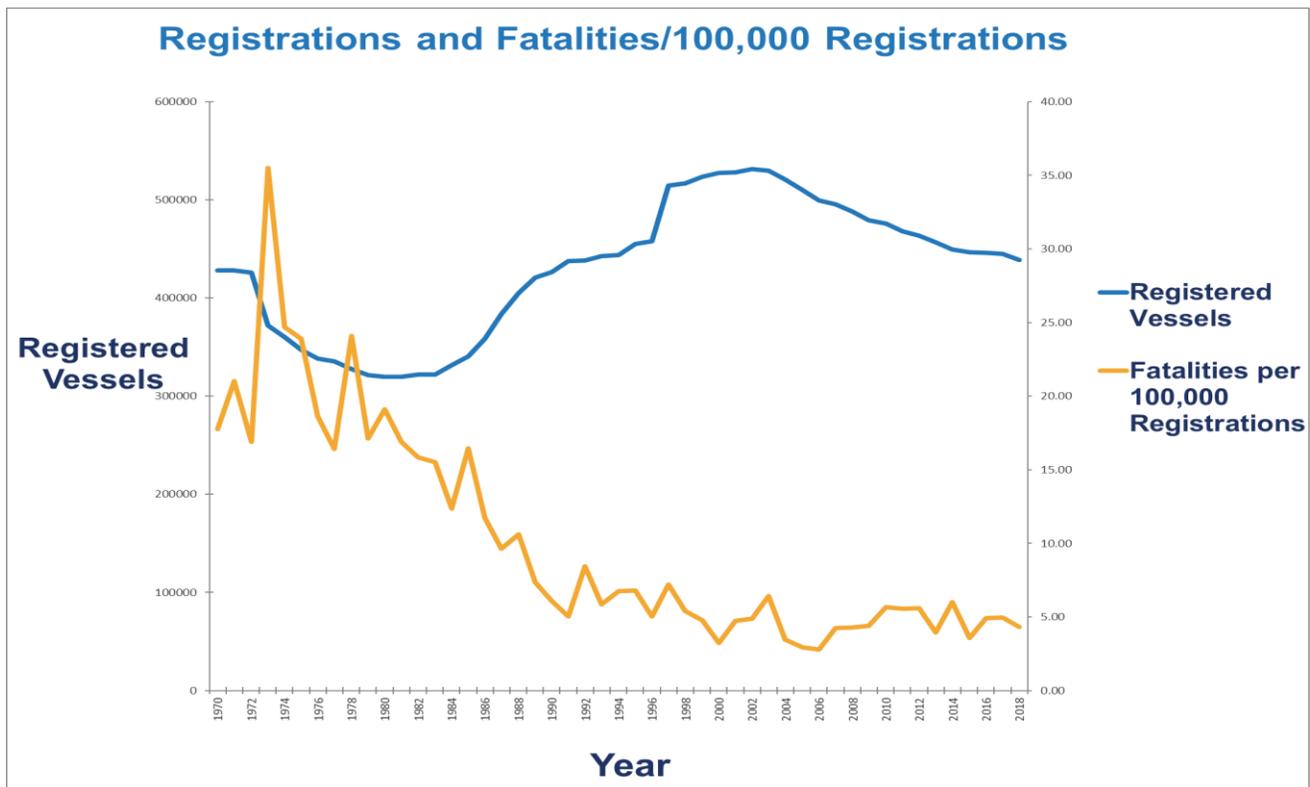
A reduction of collisions and fatalities can also be achieved by showing courtesy to other boaters. Boating education classes are also important, but boaters must be willing to apply what they have learned. Tougher laws are making it possible to remove dangerous boaters from our waterways. Education 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 the use of PFDs, 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 PFD. While legislation mandates that PFDs be worn in those instances, it is still incumbent upon the boater to use their best judgment; if the water is cold, wear a PFD, and dress for the weather!



Accident Data: 1970 - 2018

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
2015	3.58	446582	187	98	16
2016	4.93	446117	208	141	22
2017	4.95	444710	181	72	22
2018	4.33	438891	203	108	19



Accidents by County and Waterway

County / Waterway	Accidents	Injures	Fatalities
ALBANY	1	0	0
HUDSON RIVER	1	0	0
BRONX	4	1	1
EASTCHESTER BAY	2	0	0
LITTLE NECK BAY	1	1	1
LONG ISLAND SOUND	1	0	0
CAYUGA	4	2	0
CAYUGA LAKE	2	1	0
OWASCO LAKE	2	1	0
CHAUTAUQUA	9	4	1
CHAUTAUQUA LAKE	8	4	1
LAKE ONTARIO	1	0	0
CLINTON	2	1	1
LAKE CHAMPLAIN	2	1	1
DUTCHESS	2	2	1
HUDSON RIVER	2	2	1
ERIE	10	5	4
ELLICOTT CREEK	1	3	0
ERIE BARGE CANAL	1	0	0
LAKE ERIE	5	2	1
NIAGARA RIVER	2	0	1
NORTH MILLGROVE LAKE	1	0	2
ESSEX	5	2	2
LAKE CHAMPLAIN	1	0	0
LAKE GEORGE	1	0	1
LAKE PLACID	1	0	1
SCHROON LAKE	1	1	0
SCHROON RIVER	1	1	0
FRANKLIN	1	0	1
INDIAN LAKE	1	0	1
FULTON	4	2	0
SACANDAGA RESEVOIR	4	2	0
GREENE	3	2	0
HUDSON RIVER	3	2	0
HAMILTON	4	2	1
FOURTH LAKE	1	1	0
INDIAN LAKE	1	0	1
LONG LAKE	1	1	0
SEVENTH LAKE	1	0	0
HERKIMER	1	0	3
MOHAWK RIVER	1	0	3
JEFFERSON	10	5	0
LAKE OF THE WOODS	1	3	0
ST. LAWRENCE RIVER	9	2	0

County / Waterway	Accidents	Injures	Fatalities
KINGS	2	0	0
SHELL BANK BASIN	2	0	0
LEWIS	1	1	0
MOOSE RIVER	1	1	0
LIVINGSTON	7	10	0
CONESUS LAKE	7	10	0
MADISON	1	0	1
ONEIDA LAKE	1	0	1
MONROE	5	7	0
ERIE CANAL	1	3	0
IRONDEQUOIT BAY	2	2	0
LAKE ONTARIO	2	2	0
NASSAU	32	10	1
ATLANTIC OCEAN	1	0	0
EAST ROCKAWAY CHANNEL	1	1	0
GREAT ISLAND SOUND	1	0	0
GREAT SOUTH BAY	2	0	0
HEMPSTEAD HARBOR	1	0	1
HOG'S ISLAND CHANNEL	1	0	0
JONES BAY	1	1	0
JONES INLET	1	0	0
LONG ISLAND SOUND	4	3	0
MANHASSET BAY	4	0	0
MILBURN CREEK	1	0	0
MILL NECK CREEK	1	0	0
OYSTER BAY	4	1	0
OYSTER BAY HARBOR	1	0	0
REYNOLDS CHANNEL	2	0	0
SEAMAN'S CREEK	1	0	0
SLOOP CHANNEL	2	3	0
STATE BOAT CHANNEL	1	1	0
TOBAY BOAT BASIN	1	0	0
WOODCLEFT CANAL	1	0	0
NEW YORK	11	5	1
EAST RIVER	2	2	0
GREAT KILLS HARBOR	2	2	0
HARLEM RIVER	2	1	0
HUDSON RIVER	1	0	0
NEW YORK HARBOR	2	0	1
RARITAN BAY	1	0	0
UPPER BAY	1	0	0

County / Waterway	Accidents	Injures	Fatalities
NIAGARA	9	5	1
LAKE ONTARIO	4	1	1
MUD CREEK	1	2	0
NIAGARA RIVER	4	2	0
ONEIDA	7	5	1
CHITTING POND	1	3	0
ERIE BARGE CANAL	2	0	0
ONEIDA LAKE	3	2	0
OTTER LAKE	1	0	1
ONONDAGA	7	4	1
ONEIDA LAKE	3	3	1
SENECA RIVER	1	0	0
SKANEATELES LAKE	3	1	0
ONTARIO	2	0	0
CANANDAIGUA LAKE	2	0	0
ORANGE	1	0	0
HUDSON RIVER	1	0	0
ORLEANS	1	0	1
LAKE ONTARIO	1	0	1
OSWEGO	6	0	1
LAKE ONTARIO	3	0	1
ONEIDA LAKE	2	0	0
ONEIDA RIVER	1	0	0
OTSEGO	2	0	1
CANANDARAGO LAKE	2	0	1
QUEENS	19	11	2
ATLANTIC OCEAN	3	2	0
BEACH CHANNEL	3	2	0
EAST RIVER	3	0	0
FLUSHING BAY	1	0	0
JAMAICA BAY	5	4	1
ROCKAWAY POINT INLET	2	1	1
SHELLBANK BASIN	1	0	0
SOUTH CHANNEL	1	2	0
RICHMOND	1	1	0
GREAT KILLS HARBOR	1	1	0
ROCKLAND	2	0	0
HUDSON RIVER	2	0	0
SARATOGA	1	1	0
SACANDAGA LAKE	1	1	0
SCHENECTADY	2	0	0
MOHAWK RIVER	2	0	0
SCHUYLER	2	0	1
SENECA LAKE	1	0	0
WANETA LAKE	1	0	1
SENECA	1	3	0
SENECA LAKE	1	3	0

County / Waterway	Accidents	Injures	Fatalities
ST. LAWRENCE	4	3	2
BLACK LAKE	2	1	2
ST. LAWRENCE RIVER	2	2	0
STEUBEN	1	1	0
KEUKA LAKE	1	0	0
ASHAROKEN BAY	1	1	0
SUFFOLK	120	58	6
ASHAROKEN BAY	1	1	0
ATLANTIC OCEAN	5	0	0
BABYLON COVE	1	0	0
BLOCK ISLAND SOUND	1	0	0
FIRE ISLAND INLET	1	1	0
GARDENERS BAY	3	1	0
GREAT PECONIC BAY	3	4	0
GREAT SOUTH BAY	33	17	2
HUNTINGTON HARBOR	4	1	0
LAKE MONTAUK	3	0	0
LAKE RONKONKOMA	1	3	0
LITTLE PECONIC BAY	1	1	0
LITTLE SWIFT CREEK	1	0	0
LONG ISLAND SOUND	10	3	2
MATTITUCK CREEK	1	0	0
MONTAUK HARBOR	1	0	0
MORICHES BAY	5	4	0
MORICHES INLET	1	0	0
MT. SINAI HARBOR	1	3	0
MUD CREEK	2	0	0
NARRASKATUCK CREEK	1	0	0
NEGUNTATOQUE CREEK	1	0	0
NORTHPORT BAY	3	2	1
NOYACK BAY	1	0	0
OYSTER BAY	1	1	0
PATCHOGUE BAY	2	0	0
PATCHOGUE RIVER	1	0	0
PECONIC BAY	4	0	0
PECONIC RIVER	2	0	0
PORT JEFFERSON HARBOR	3	3	0
QUINTUCK CREEK	1	0	0
SAG HARBOR BAY	5	3	0
SHELTER ISLAND SOUND	6	1	0
SHINNECOCK BAY	1	1	1
SHINNECOCK CANAL	1	0	0
SHINNECOCK BAY	2	1	0
STATE BOAT CHANNEL	1	1	0
THREE MILE HARBOR	4	0	0
WEST SHINNECOCK BAY	1	6	0

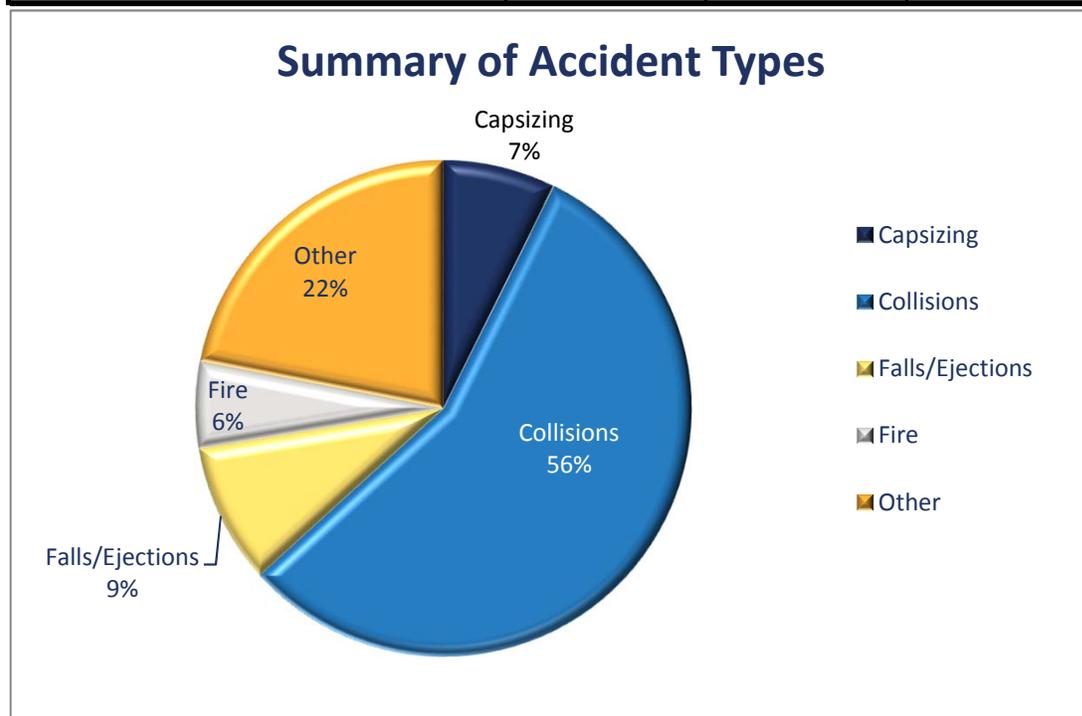
County / Waterway	Accidents	Injures	Fatalities
SULLIVAN	2	5	0
SWINGING BRIDGE RESEVOIR	2	5	0
TOMPKINS	4	0	0
CAYUGA LAKE	4	0	0
ULSTER	7	2	1
HUDSON RIVER	2	0	0
LAKE GEORGE	1	0	0
ROUNDOUT CREEK	3	2	0
WALLKILL RIVER	1	0	1
WARREN	27	10	1
LAKE GEORGE	26	9	1
SCHROON LAKE	1	1	0
WAYNE	6	3	0
LAKE ONTARIO	2	0	0
SODUS BAY	4	3	0
WESTCHESTER	24	5	3
HUDSON RIVER	6	4	3
LONG ISLAND SOUND	18	1	0
YATES	4	2	0
KEUKA LAKE	4	2	0



Accident Types

Accident Type	Vessels	Injuries	Fatalities
Capsizing	40	30	11
Carbon Monoxide Poisoning	1	0	2
Collision with Fixed Object	31	10	2
Collision with Floating Object	11	1	1
Collision With Commercial Boat	14	4	0
Collision With Recreational Boat	250	49	2
Falls Onboard Boat	6	6	0
Falls Overboard	9	5	6
Fire/Explosion (Fuel)	24	14	0
Fire/Explosion (Other)	7	2	0
Flooding/Swamping	26	2	3
Grounding	37	12	0
Other	20	3	1
Person Ejected From Vessel	35	24	10
Sinking	1	3	0
Skier Mishap	4	4	0
Struck by Boat	7	4	0
Struck by Propeller	3	3	0
Struck Submerged Object	15	2	0
Sudden Medical Condition	1	0	1
Unknown	5	3	2

Summary of Accident Types



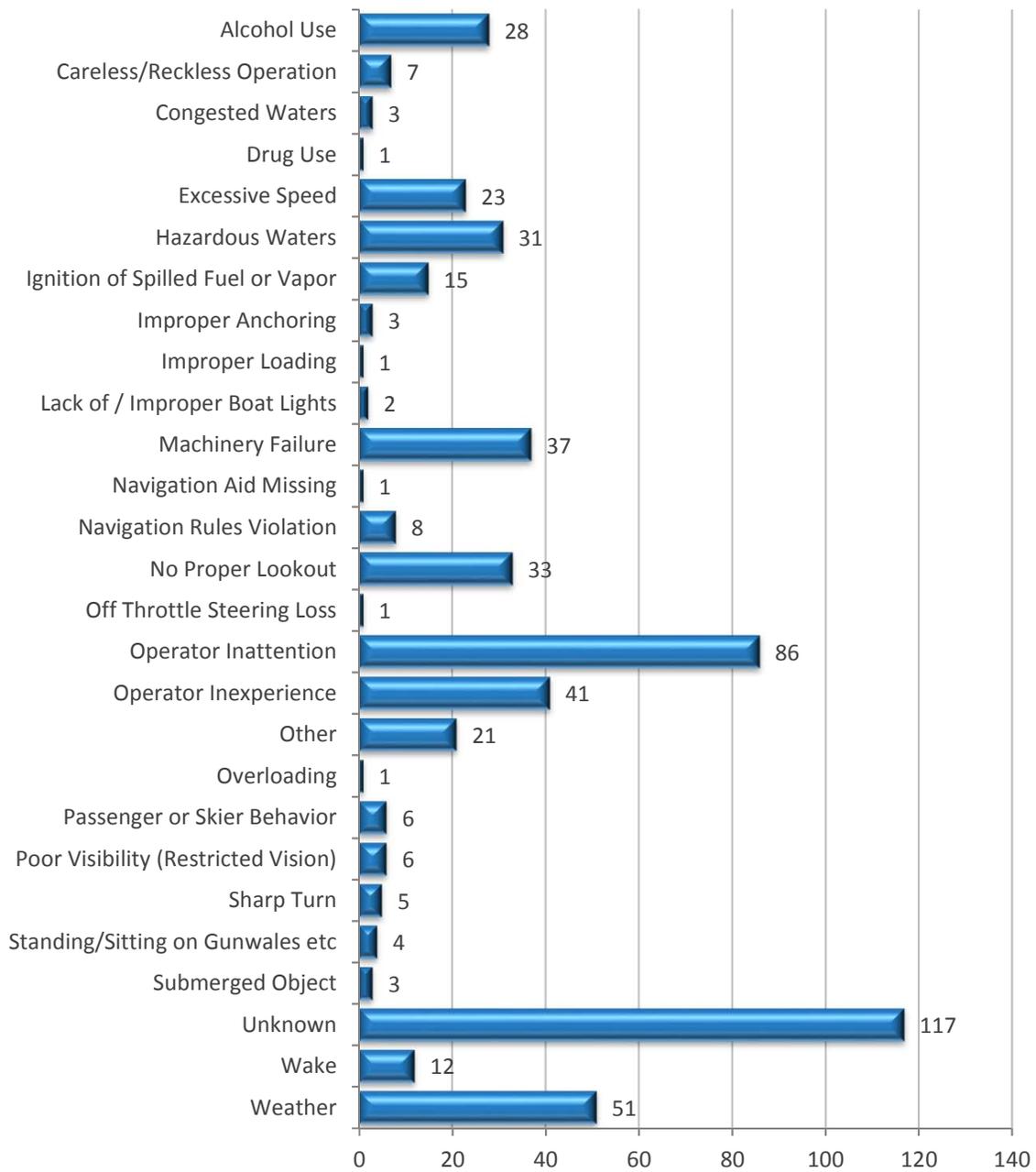
Accident Type and Vessel Operation

Accident Type	Operation	Vessels	Injuries	Fatalities
Capsizing	Being Towed	1	0	0
	Changing Direction	1	0	1
	Cruising	6	5	1
	Drifting	1	0	0
	Other	0	0	0
	Rowing or Paddling	9	7	2
	Sailing	0	0	0
	Towing Another Vessel	2	0	0
	Unknown	5	4	0
Carbon Monoxide Poisoning	Unknown	1	0	2
Collision With Fixed Object	Changing Direction	2	0	0
	Cruising	18	8	1
	Cruising, Changing Speed	1	0	0
	Docking/Undocking	1	0	0
	Docking/ Undocking, Sailing	1	0	0
	Drifting	0	0	0
	Unknown	3	0	0
Collision With Floating Object	Cruising	4	1	1
	Docking/ Undocking	1	0	0
	Sailing	1	0	0
	Unknown	1	0	0
Collision With Commercial Boat	Changing Direction	0	0	0
	Cruising	3	2	0
	Drifting	4	2	0
	Tied to Dock/Mooring	0	0	0
	Unknown	0	0	0
Collision With Recreational Boat	At Anchor	9	2	0
	Changing Direction	4	1	0
	Changing Speed	3	2	0
	Changing Speed, Changing Direction	0	0	0
	Cruising	33	15	2
	Cruising, Changing Direction	1	0	0
	Cruising, Drifting	1	0	0
	Docking/Undocking	15	2	0
	Docking/Undocking, Changing Direction	0	0	0
	Drifting	10	2	0
	Launching	1	0	0
	Other	6	1	0
	Rowing or Paddling	0	0	0
	Sailing	1	0	0
Sailing, Changing Direction	0	0	0	

Accident Type	Operation	Vessels	Injuries	Fatalities
Collision With Recreational Boat (cont.)	Tied to Dock/Mooring	19	0	0
	Towing Another Vessel	1	0	0
	Unknown	8	3	0
Fall Onboard Boat	At Anchor	0	0	0
	Being Towed	1	1	0
	Cruising	2	2	0
	Drifting	0	0	0
Falls Overboard	At Anchor	1	0	2
	Cruising	1	2	0
	Drifting	0	0	0
	Rowing or Paddling	1	0	1
	Sailing	1	1	0
	Unknown	0	0	0
Fire/Explosion (Fuel)	At Anchor	1	0	0
	Cruising	6	2	0
	Docking/ Undocking	1	3	0
	Launching	0	0	0
	Other	0	0	0
	Tied to Dock/Mooring	3	2	0
Fire/Explosion (Other)	Cruising	1	0	0
	Drifting	0	0	0
	Tied to Dock/Mooring	0	0	0
Flooding/Swamping	At Anchor	3	0	0
	Being Towed	1	0	0
	Changing Speed	2	0	0
	Cruising	2	0	0
	Drifting	3	0	2
	Other	1	0	0
	Rowing or Paddling	2	3	0
	Sailing	1	0	0
	Tied to Dock/Mooring	1	0	0
	Unknown	1	2	0
Grounding	Changing Direction	0	0	0
	Cruising	9	5	0
	Drifting	1	0	0
	Launching	1	0	0
	Unknown	2	0	0
Other	Cruising	3	1	0
	Docking/ Undocking	2	0	0
	Drifting	1	0	1
	Other	1	0	0
	Rowing or Paddling	1	0	0
	Sailing	0	0	0
	Tied to Dock/Mooring	1	0	0
	Towing Another Vessel	2	0	0

Accident Type	Operation	Vessels	Injuries	Fatalities
Person Ejected From Vessel	At Anchor	1	2	0
	Changing Direction	1	1	0
	Changing Speed	2	1	1
	Cruising	12	10	1
	Docking/ Undocking	1	1	0
	Drifting	0	0	0
	Other	2	1	1
	Sailing	2	1	0
	Unknown	1	0	0
Skier Mishap	Cruising	3	3	0
	Unknown	1	1	0
Struck by Boat	Changing Speed	0	0	0
	Cruising	2	2	0
	Tied to Dock/Mooring	1	0	0
Struck by Propeller	Drifting	0	0	0
	Other	1	1	0
Struck Submerged Object	Cruising	7	2	0
	Drifting	2	0	0
	Other	1	0	0
	Unknown	0	0	0
Sudden Medical Condition	Drifting	0	0	0
Unknown	Changing Speed	0	0	0
	Drifting	0	0	0
	Rowing or Paddling	0	0	0
	Unknown	0	0	0

Cause of Accident by Vessel



Accident Type and Cause

Accident Type	Cause	Vessels	Injures	Fatalities
Capsizing	Alcohol Use	1	0	1
	Careless/Reckless Operation	3	1	0
	Excessive Speed	2	5	1
	Hazardous Waters	5	3	1
	Machinery Failure	2	0	0
	Operator Inattention	1	1	0
	Operator Inexperience	1	0	0
	Other	1	0	0
	Standing/Sitting on Gunwales etc	1	3	0
	Weather	8	3	1
Carbon Monoxide Poisoning	Other	1	0	2
Collision w/ Fixed Object	Alcohol Use	3	1	0
	Excessive Speed	2	1	0
	Hazardous Waters	1	0	0
	No Proper Lookout	6	0	1
	Operator Inattention	7	4	1
	Operator Inexperience	2	1	0
	Other	1	0	0
	Unknown	1	1	0
Collision w/ Floating Object	Alcohol Use	1	0	0
	No Proper Lookout	1	0	0
	Operator Inattention	1	0	0
	Operator Inexperience	1	0	1
	Unknown	1	0	0
	Wake	1	0	0
	Weather	1	1	0
Collision With Commercial Boat	Navigation Rules Violation	1	2	0
	No Proper Lookout	1	2	0
	Operator Inattention	1	0	0
	Operator Inexperience	1	0	0
	Poor Visibility (Restricted Vision)	1	0	0
	Unknown	2	0	0
Collision With Recreational Boat	Alcohol Use	4	4	0
	Excessive Speed	6	1	1
	Hazardous Waters	6	3	0
	Improper Anchoring	2	0	0
	Lack of / Improper Boat Lights	1	0	0
	Machinery Failure	4	1	0
	Navigation Rules Violation	2	2	0
	No Proper Lookout	8	1	0
	Operator Inattention	24	7	1
	Operator Inexperience	6	2	0
	Other	4	3	0

Accident Type	Cause	Vessels	Injures	Fatalities
Collision With Recreational Boat (Cont.)	Poor Visibility (Restricted Vision)	2	0	0
	Unknown	28	3	0
	Weather	9	0	0
Fall on Boat	Other	1	1	0
	Poor Visibility (Restricted Vision)	1	1	0
	Wake	1	1	0
Falls Overboard	Alcohol Use	1	0	1
	Operator Inexperience	1	2	0
	Passenger or Skier Behavior	1	0	2
	Weather	1	1	0
Fire/Explosion (Fuel)	Ignition of Spilled Fuel or Vapor	7	5	0
	Machinery Failure	2	0	0
	Other	1	1	0
	Unknown	1	1	0
Fire/Explosion (Other)	Unknown	1	0	0
Flooding/Swamping	Alcohol Use	1	0	0
	Hazardous Waters	4	0	0
	Improper Anchoring	1	0	0
	Machinery Failure	2	0	0
	Operator Inattention	1	0	0
	Other	1	2	0
	Unknown	1	0	0
	Wake	2	0	0
	Weather	3	0	2
Grounding	Alcohol Use	1	0	0
	Hazardous Waters	1	2	0
	No Proper Lookout	1	0	0
	Operator Inattention	6	0	0
	Operator Inexperience	4	3	0
Other	Alcohol Use	2	0	1
	Hazardous Waters	1	0	0
	Ignition of Spilled Fuel or Vapor	1	0	0
	Machinery Failure	1	0	0
	Operator Inattention	3	0	0
	Operator Inexperience	1	1	0
	Other	5	1	0
	Unknown	2	0	0
Weather	1	0	0	

Accident Type	Cause	Vessels	Injures	Fatalities
Person Leaves Or Is Ejected From Vessel	Alcohol Use	2	3	0
	Careless/Reckless Operation	1	1	0
	Excessive Speed	1	1	0
	Hazardous Waters	1	0	0
	Machinery Failure	1	0	0
	Operator Inexperience	1	1	0
	Sharp Turn	3	2	1
	Standing/Sitting on Gunwales etc	1	1	0
	Unknown	6	4	1
	Wake	4	4	0
	Weather	1	1	0
Sinking	Alcohol Use	1	3	0
Skier Mishap	Other	1	1	0
	Unknown	1	1	0
	Wake	2	2	0
Struck by Boat	No Proper Lookout	1	1	0
	Operator Inexperience	1	1	0
	Unknown	1	0	0
Struck by Propeller	Other	1	1	0
Struck Submerged Object	Alcohol Use	1	0	0
	Hazardous Waters	3	0	0
	No Proper Lookout	1	0	0
	Operator Inattention	2	1	0
	Operator Inexperience	1	1	0
	Other	2	0	0
	Unknown	1	0	0

Vessel Type and Accident Type

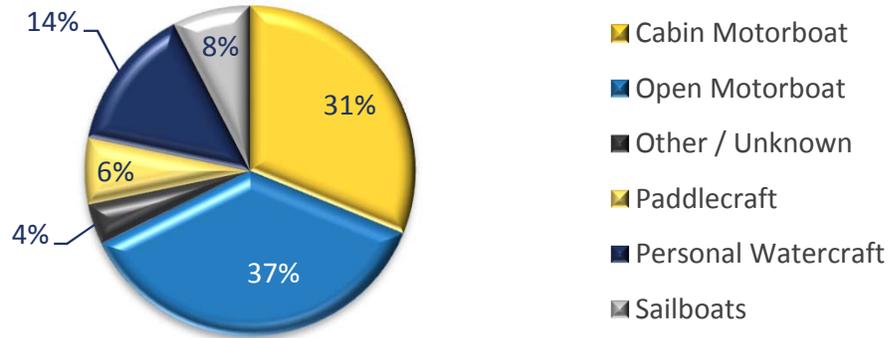
Vessel Type	Accident Type	Vessels	Injuries	Fatalities
Air boat	Collision With Recreational Boat	1	0	0
Auxiliary sail	Capsizing	1	0	0
	Collision w/ Fixed Object	1	0	0
	Collision w/ Floating Object	1	0	0
	Collision With Recreational Boat	18	0	0
	Flooding/Swamping	1	0	0
	Grounding	1	0	0
	Struck by Boat	1	0	0
	Struck Submerged Object	1	1	0
Cabin motorboat	Carbon Monoxide Poisoning	1	0	2
	Collision w/ Fixed Object	10	4	1
	Collision w/ Floating Object	6	0	0
	Collision With Commercial Boat	5	2	0
	Collision With Recreational Boat	99	8	0
	Fall on Boat	2	2	0
	Falls Overboard	1	1	0
	Fire/Explosion (Fuel)	20	13	0
	Fire/Explosion (Other)	4	1	0
	Flooding/Swamping	5	0	1
	Grounding	13	4	0
	Other	4	0	1
	Person Leaves Or Is Ejected From Vessel	1	1	0
	Struck by Propeller or Propulsion Unit	1	1	0
	Struck Submerged Object	11	1	0
	Sudden Medical Condition	1	0	1
	Unknown	1	0	0
	Canoe	Capsizing	3	3
Falls Overboard		1	0	1
Unknown		1	3	0
Commercial Boat	Collision With Recreational Boat	3	0	0
	Other	1	0	0
Government Vessel	Collision With Recreational Boat	1	0	0
Houseboat	Collision w/ Fixed Object	1	0	0
	Collision With Recreational Boat	2	0	0
	Struck by Boat	1	0	0
Inflatable	Flooding/Swamping	1	2	0
Kayak	Capsizing	18	12	5
	Flooding/Swamping	3	0	0
	Other	1	0	0
	Person Leaves Or Is Ejected From Vessel	1	0	1
	Unknown	2	0	2

Vessel Type	Accident Type	Vessels	Injuries	Fatalities
Open motorboat	Capsizing	6	7	1
	Collision w/ Fixed Object	15	6	0
	Collision w/ Floating Object	1	0	0
	Collision With Commercial Boat	6	2	0
	Collision With Recreational Boat	74	18	0
	Fall on Boat	3	3	0
	Falls Overboard	1	0	1
	Fire/Explosion (Fuel)	4	1	0
	Fire/Explosion (Other)	1	0	0
	Flooding/Swamping	14	0	0
	Grounding	17	6	0
	Other	5	0	0
	Person Leaves Or Is Ejected From Vessel	16	11	4
	Skier Mishap	4	4	0
	Struck by Boat	3	2	0
	Struck by Propeller or Propulsion Unit	2	2	0
	Struck Submerged Object	3	0	0
Pedal Boat	Collision With Recreational Boat	2	2	0
	Person Leaves Or Is Ejected From Vessel	1	0	3
Personal watercraft	Capsizing	5	1	1
	Collision w/ Fixed Object	2	0	0
	Collision w/ Floating Object	2	1	1
	Collision With Commercial Boat	3	0	0
	Collision With Recreational Boat	27	19	2
	Fall on Boat	1	1	0
	Falls Overboard	1	2	0
	Fire/Explosion (Other)	1	1	0
	Flooding/Swamping	1	0	0
	Grounding	3	2	0
	Other	5	2	0
	Person Leaves Or Is Ejected From Vessel	14	11	2
	Struck by Boat	1	1	0
Unknown	1	0	0	
Pontoon boat	Capsizing	1	1	0
	Collision w/ Fixed Object	1	0	0
	Collision w/ Floating Object	1	0	0
	Collision With Recreational Boat	8	2	0
	Grounding	1	0	0
	Other	1	1	0
Rowboat	Capsizing	1	0	2
	Falls Overboard	1	0	2
	Flooding/Swamping	1	0	2

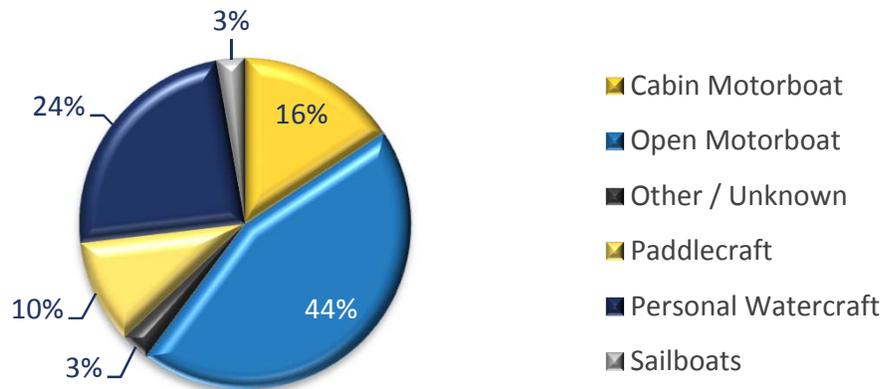
Vessel Type	Accident Type	Vessels	Injuries	Fatalities
Sail only	Capsizing	3	2	0
	Collision w/ Fixed Object	1	0	0
	Collision With Recreational Boat	6	0	0
	Falls Overboard	1	1	0
	Fire/Explosion (Other)	1	0	0
	Grounding	1	0	0
	Other	1	0	0
	Person Leaves Or Is Ejected From Vessel	2	1	0
	Struck by Boat	1	1	0
SUP	Capsizing	1	1	0
	Falls Overboard	2	0	2
	Sinking	1	3	0
Unknown	Capsizing	1	3	0
	Collision With Recreational Boat	10	0	0
	Falls Overboard	1	1	0
	Grounding	1	0	0
	Other	1	0	0



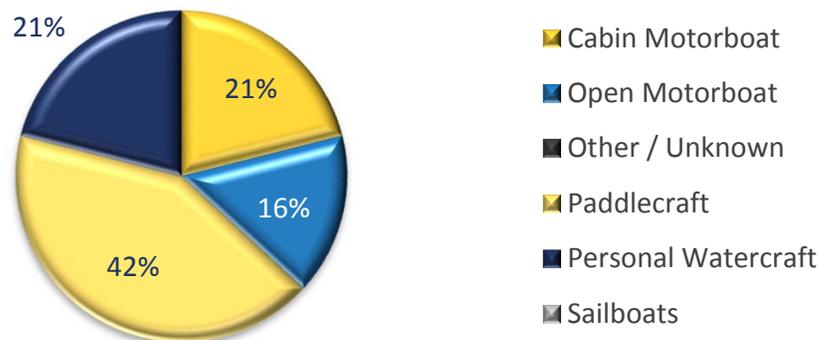
Accidents



Injuries



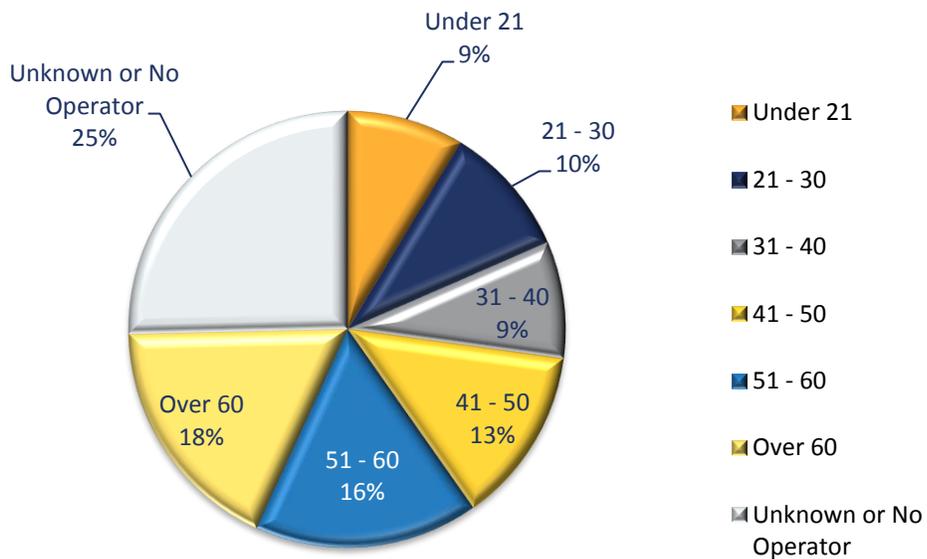
Fatalities



Operator Age

Age Group	Vessels	Injures	Fatalities
Under 21	24	14	1
21 - 30	27	18	3
31 - 40	24	18	1
41 - 50	36	15	4
51 - 60	46	16	3
Over 60	49	15	0
Unknown or No Operator	70	12	7

Vessels by Operator Age



Age of Operator and Boating Education

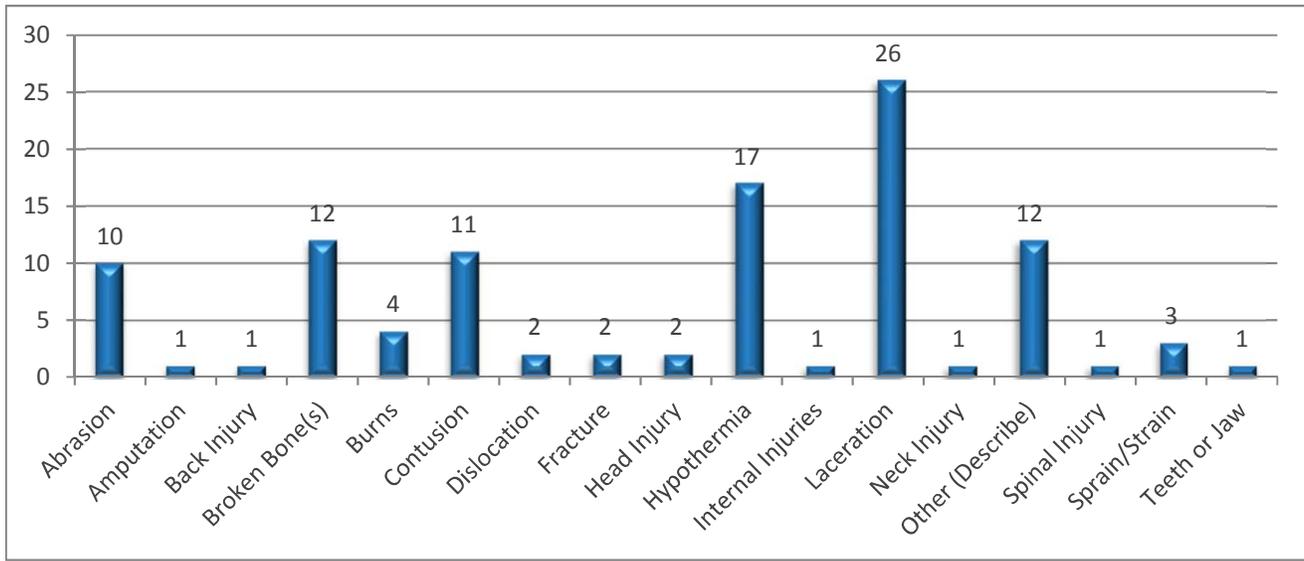
Age Group	Education	Vessels	Injuries	Fatalities
Under 21	Internet Course	3	0	3
	None	1	0	0
	State Course	9	0	6
	Unknown	9	1	2
	USCG Auxiliary	2	0	3
21 - 30	Internet Course	2	0	1
	None	7	1	5
	State Course	6	0	3
	Unknown	10	2	8
	US Power Squadron	1	0	0
	USCG Auxiliary	1	0	1
31 - 40	None	8	0	9
	State Course	2	1	1
	Unknown	14	0	8
41 - 50	Internet Course	1	0	0
	None	8	2	2
	State Course	10	0	6
	Unknown	16	2	7
	US Power Squadron	1	0	0
51 - 60	Internet Course	1	0	1
	None	9	0	2
	State Course	7	0	2
	Unknown	22	2	8
	US Power Squadron	3	0	1
	USCG Auxiliary	4	0	3
Over 60	Internet Course	2	0	0
	None	8	0	6
	State Course	9	0	4
	Unknown	21	0	5
	US Power Squadron	3	0	0
	USCG Auxiliary	6	0	0
Unknown	Unknown	70	7	12



Age of Operator and Boating Experience

Operator Age	Experience	Vessels	Injuries	Fatalities
Under 21	Under 10 Hours	5	1	0
	10 to 100 Hours	10	8	0
	100-500 Hrs.	3	3	0
	Over 500 Hrs.	1	1	0
	Unknown	5	1	1
21 - 30	Under 10 Hours	9	5	0
	10 to 100 Hours	3	3	1
	100-500 Hrs.	10	7	1
	Over 500 Hrs.	1	0	0
	Unknown	4	3	1
31 - 40	Under 10 Hours	4	3	0
	10 to 100 Hours	6	7	1
	100-500 Hrs.	4	0	0
	Over 500 Hrs.	5	3	0
	Unknown	5	5	0
41 - 50	Under 10 Hours	5	0	1
	10 to 100 Hours	6	4	0
	100-500 Hrs.	9	5	1
	Over 500 Hrs.	9	3	1
	Unknown	7	3	1
51 - 60	Under 10 Hours	1	0	0
	10 to 100 Hours	9	2	0
	100-500 Hrs.	11	4	1
	Over 500 Hrs.	13	4	0
	Unknown	12	6	2
Over 60	Under 10 Hours	3	0	0
	10 to 100 Hours	2	1	0
	100-500 Hrs.	14	6	0
	Over 500 Hrs.	24	7	0
	Unknown	6	1	0
Unknown	100-500 Hrs.	2	0	0
	Over 500 Hrs.	3	0	0
	Unknown	65	12	7

Injuries



Type of Injury, Type of Vessel

Vessel	Injury Type	Injuries	Vessel	Injury Type	Injuries	
Auxiliary sail	Laceration	1	Open motorboat	Neck Injury	1	
Cabin motorboat	Abrasion	1		Other	6	
	Broken Bone(s)	1		Spinal Injury	1	
	Burns	3		Sprain/Strain	2	
	Contusion	1		Unknown	1	
	Hypothermia	3		Paddleboard	Other	1
	Laceration	4			Personal watercraft	Abrasion
	Other	3		Broken Bone(s)		3
	Sprain/Strain	1		Contusion		1
	Inflatable	Laceration	2	Dislocation		2
Kayak		Broken Bone(s)	1	Fracture		1
	Contusion	1	Head Injury	2		
	Hypothermia	5	Hypothermia	1		
Open motorboat	Abrasion	6	Internal Injuries	1		
	Amputation	1	Laceration	9		
	Back Injury	1	Other	2		
	Broken Bone(s)	7	Teeth or Jaw	1		
	Burns	1	Pontoon boat	Laceration	1	
	Contusion	8	Sail only	Hypothermia	2	
	Fracture	1	SUP	Hypothermia	3	
	Laceration	9	Unknown	Hypothermia	3	

2018 Summary of Fatal Accidents

Date	County	Waterway	Cause	Vessel	Accident Type	Fatalities
2/13/2018	ULSTER	WALLKILL RIVER	Unknown	Kayak	Person Ejected From Vessel	1
<p>Individual overturned his kayak while traveling from his island to shore when ice flow supposedly knocked him into the water. He was later found with the cause being a drowning. He was alone at time of death. He did not wear a PFD. Operator was positive for drugs.</p>						
4/10/2018	ONONDAGA	ONEIDA LAKE	Alcohol Use	Canoe	Falls Overboard	1
<p>The victim was observed paddling a red canoe in the bay headed out to open water. The witness onshore called for help after observing the individual falling overboard intoxicated. The victim tried to swim to shore but was unable to do so in the extremely chilly water. The canoe was found upright with all the contents still inside. The victim was recovered a brief time after. His BAC was over 0.08.</p>						
5/12/2018	ERIE	LAKE ERIE	Operator Inattention	Cabin Motorboat	Collision w/ Fixed Object	1
<p>Operator of vessel while underway struck a break wall at night. A passenger onboard was ejected from the vessel and drowned. The operator was not wearing a PFD. Operator was positive for drugs and had a BAC of 0.11.</p>						
5/25/2018	WARREN	LAKE GEORGE	Weather	Kayak	Capsizing	1
<p>Vessel began taking on water due to weather and then capsized. Operator entered the water without a PFD. A witness from a nearby kayak entered the water in an unsuccessful attempt to rescue. Emergency services were able to locate the operator a short time later and was pronounced deceased at a nearby hospital. No indication of drugs or alcohol being a factor.</p>						
6/18/2018	WESTCHESTER	HUDSON RIVER	Operator Inexperience	Personal Watercraft	Collision w/ Floating Object	1
<p>Operator was traveling on the Hudson river when it struck an unidentified floating object. As a result, two individuals on board were ejected from vessel. One person swam to a nearby boat while the other tried to swim to shore. The individual that swam to shore was later found floating face down in the water, taken to shore for further medical assistance and was later pronounced dead. Both persons were wearing PFDs. There is no indication of drugs or alcohol being a factor.</p>						
6/18/2018	OTSEGO	CANANDARGO LAKE	Alcohol Use	Kayak	Capsizing	1
<p>Troopers were called after two teenagers on separate kayaks capsized in the water. The teenagers had been kayaking for about two hours when they decided to paddle back to the boat launch as a storm approached. The teens did not wear PFDs. One of the teens after being unable to find his friend, returned to shore and called for help. Due to the storm and the choppy conditions of the lake, recovery was delayed. The victim had a BAC of 0.07.</p>						
7/1/2018	SUFFOLK	GREAT SOUTH BAY	Other	Cabin Motorboat	Carbon Monoxide Poisoning	2
<p>Vessel was docked and found to be running connecting to shore power, with 1 male and 1 female found inside. Carbon Monoxide asphyxiation was the cause. Two CO detectors were on board. The BAC of the male was 0.11. He was positive for marijuana as well.</p>						

Date	County	Waterway	Cause	Vessel	Accident Type	Fatalities
7/9/2018	ONEIDA	OTTER LAKE	Sharp Turn	Open Motorboat	Person Ejected From Vessel	1
<p>Boat Operator was towing a tube with two kids riding the tube. As the boat was cruising at a high rate of speed, the operator noticed an idled pontoon boat in the middle of the lake, and took evasive action to avoid collision. In doing so the tube took a wide turn and struck the pontoon boat, causing one of the riders to collide with the pontoon boat. The individual was given CPR with no result. There is no indication of drugs or alcohol being a factor.</p>						
7/14/2018	CHAUTAUGUA	CHAUTAUQUA LAKE	Alcohol Use	Cabin Motorboat	Other	1
<p>The operator went swimming off a boat that he was operating after consuming many alcoholic beverages. When he entered the water the boat engine was off and the vessel was drifting. When the operator became distressed while swimming, two teenaged passengers entered the water to assist him. They were unable to bring him to the surface however, and abandoned their efforts when they began to go under as well. The operator did not have on a PFD. After an extensive search from rescue services, the victim was found two days later. He had a BAC of .11.</p>						
8/3/2018	HAMILTON	INDIAN LAKE	Navigation Aid Not Performing Properly	Open Motorboat	Collision w/ Fixed Object	1
<p>Operator was traveling northbound at approximately 25 MPH. Vessel collided with unmarked rock and was ejected from vessel. Victim who was ejected was unable to swim. Victim did not wear a PFD. There is no indication of drugs or alcohol being a factor.</p>						
8/25/2018	ORLEANS	LAKE ONTARIO	Hazardous Waters	Open Motorboat	Capsizing	1
<p>Two men were fishing approximately 9 miles offshore in 500 feet of water. Their fishing boat encountered rough water and began to take on water. The boat eventually sunk. Both men were wearing PFD's. One man survived and the other was administered CPR but to no result. There is no indication of drugs or alcohol being a factor.</p>						
8/26/2018	ERIE	NIAGARA RIVER	Navigation Rules Violation	Personal Watercraft	Collision w/ Recreational Boat	1
<p>Vessel 1 (cabin motorboat) was travelling west bound on the in the area near the water intakes. A personal watercraft was operating southbound across the river into the path of Vessel 1. As the PWC was about to / or was crossing the path of vessel 1, both passengers of the PWC were either thrown or jumped, into the water. A passenger from the PWC got caught in vessel 1's propeller. Passengers on PWC were wearing PFDs. There is no indication of drugs or alcohol being a factor.</p>						
8/28/2018	BRONX	LITTLE NECK BAY	Excessive Speed	Personal Watercraft	Collision w/ Recreational Boat	1
<p>A PWC struck a 28-foot boat, which was anchored with a working anchor light displayed. The boat sustained damage on starboard bow. PWC sustained extensive damage on port side. PWC operator who wore a PFD suffered head injuries from blunt trauma and was pronounced dead. A passenger from the boat also suffered a broken hip. There is no indication of drugs or alcohol being a factor.</p>						
9/13/2018	ERIE	North Millgrove Lake (Private Prop.)	Standing/ Sitting on Gunwales, etc.	Rowboat	Falls Overboard	2
<p>Both occupants were fishing from a small rowboat when they both went overboard. Occupants were recovered from the lake but were unresponsive and life saving measures were unsuccessful. Both passengers did not wear PFDs. There is no indication of drugs or alcohol being a factor.</p>						
12/3/2018	SUFFOLK	SHINNECOCK BAY	Excessive Speed	Personal Watercraft	Capsizing	1

Date	County	Waterway	Cause	Vessel	Accident Type	Fatalities
<p>New York State Troopers were dispatched to a watercraft in distress. Rescuers responded and saved a male rider of a capsized personal watercraft, then found a second rider, who was found unresponsive and pronounced dead after he was transported to the hospital. The personal watercraft capsized due to the operator excessively speeding. There is no indication of alcohol or drugs being a factor.</p>						

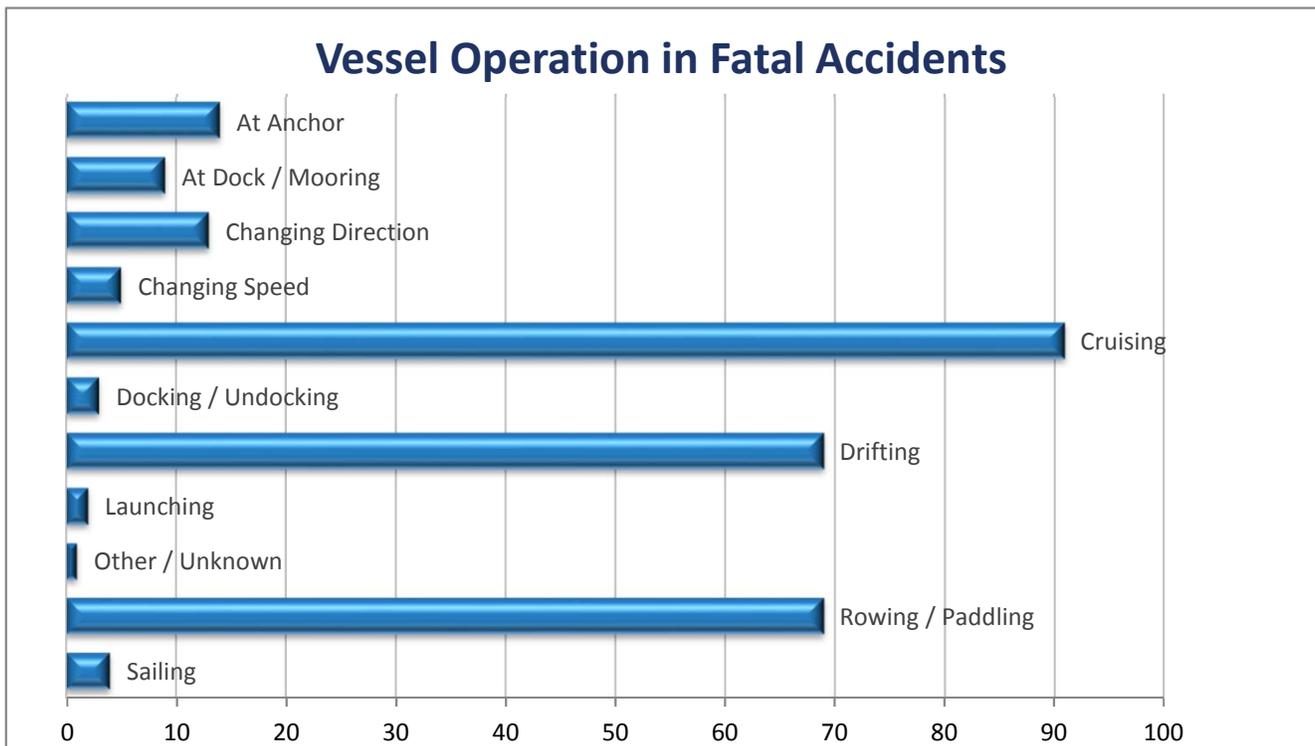
Date	County	Waterway	Cause	Vessel	Accident Type	Fatalities
12/28/2018	WESTCHESTER	HUDSON RIVER	Weather	Rowboat	Flooding/Swamping	2

Two men found in the frigid water with their boat capsized. The men, talked to their family about 5 p.m. and said they wanted to keep fishing. The two men were in a 12- to 15-foot aluminum rowboat and had life jackets on when they fell into the bitterly icy waters. A local fisherman came to the scene to go fishing and discovered the overturned capsized boat, and located one of the individuals. Police then found the second man in the water. There is no indication of drugs or alcohol being a factor.



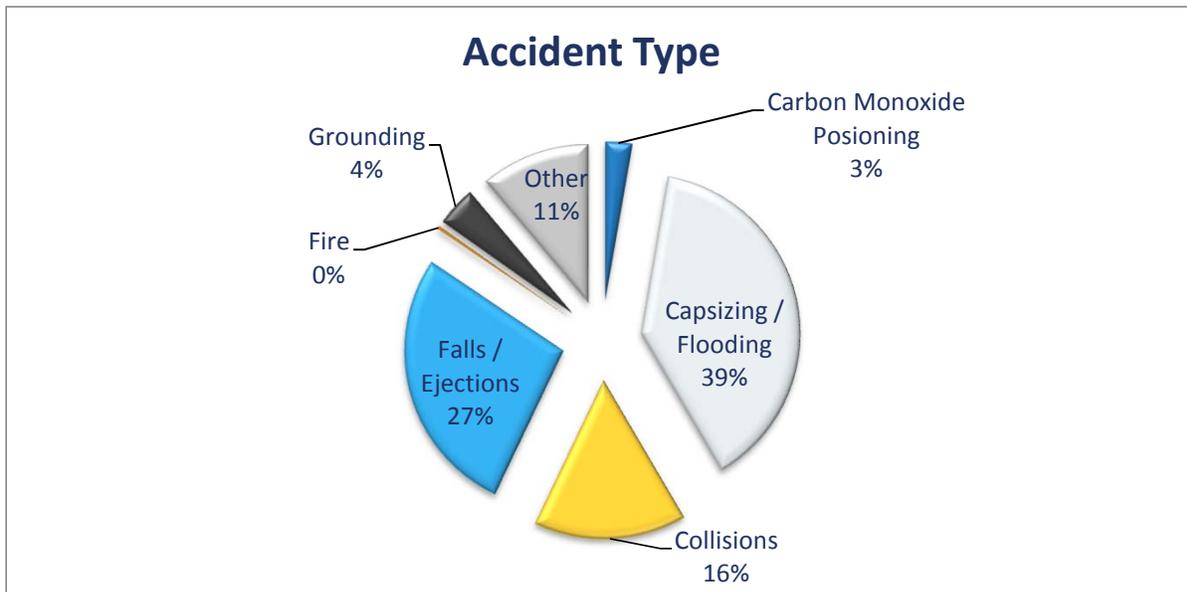
Vessel Operation in Fatal Boating Accidents 2005-2018

Operation	Fatalities
At Anchor	14
Changing Direction	7
Changing Speed	4
Changing Speed, Changing Direction	1
Cruising	86
Cruising, Changing Direction	5
Docking/Undocking	3
Drifting	68
Drifting, Launching	1
Launching	2
Other	1
Rowing or Paddling	69
Sailing	4
Tied to Dock/Mooring	9
Unknown	22



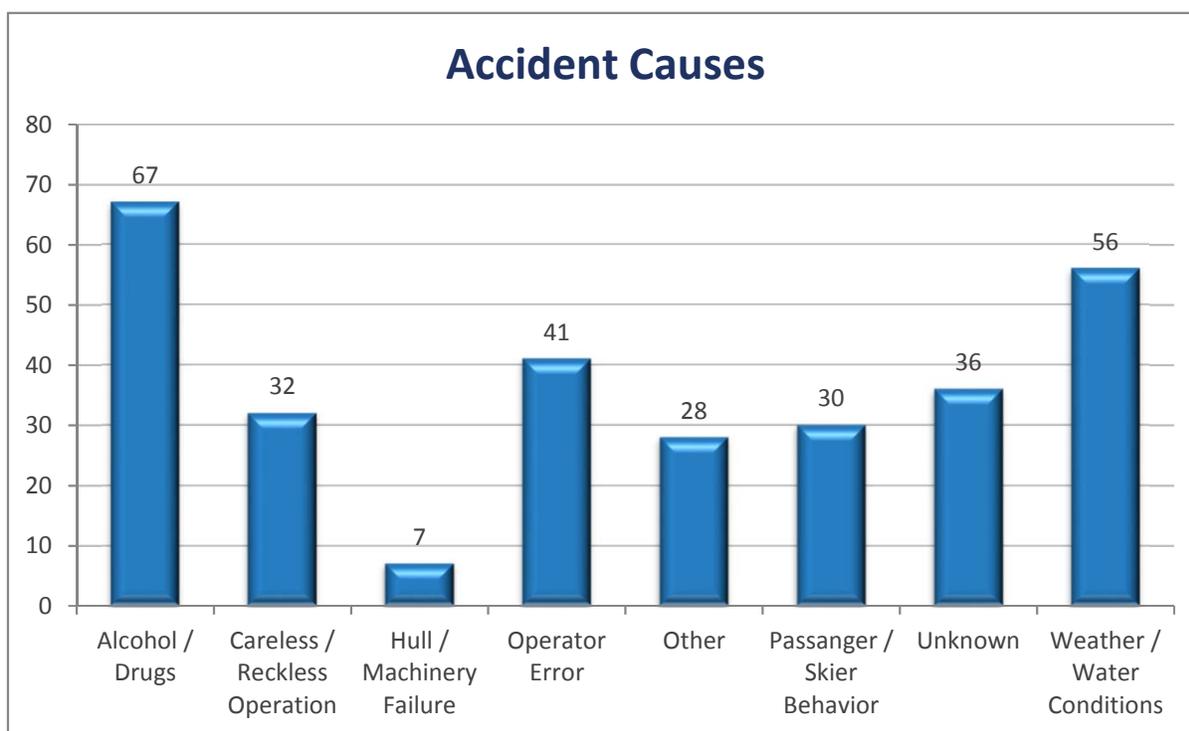
Fatal Accident Type 2005-2018

Accident Type	Fatalities
Capsizing	94
Carbon Monoxide Poisoning	8
Collision w/ Fixed Object	25
Collision w/ Floating Object	4
Collision w/ Vessel	10
Collision With Recreational Boat	7
Falls in Boat	2
Falls Overboard	44
Fire/Explosion (Fuel)	1
Flooding/Swamping	16
Grounding	12
Other	4
Person Leaves Or Is Ejected From Vessel	35
Sinking	5
Skier Mishap	6
Struck by Boat	3
Struck by Propeller or Propulsion Unit	3
Struck Submerged Object	2
Sudden Medical Condition	3
Unknown	12

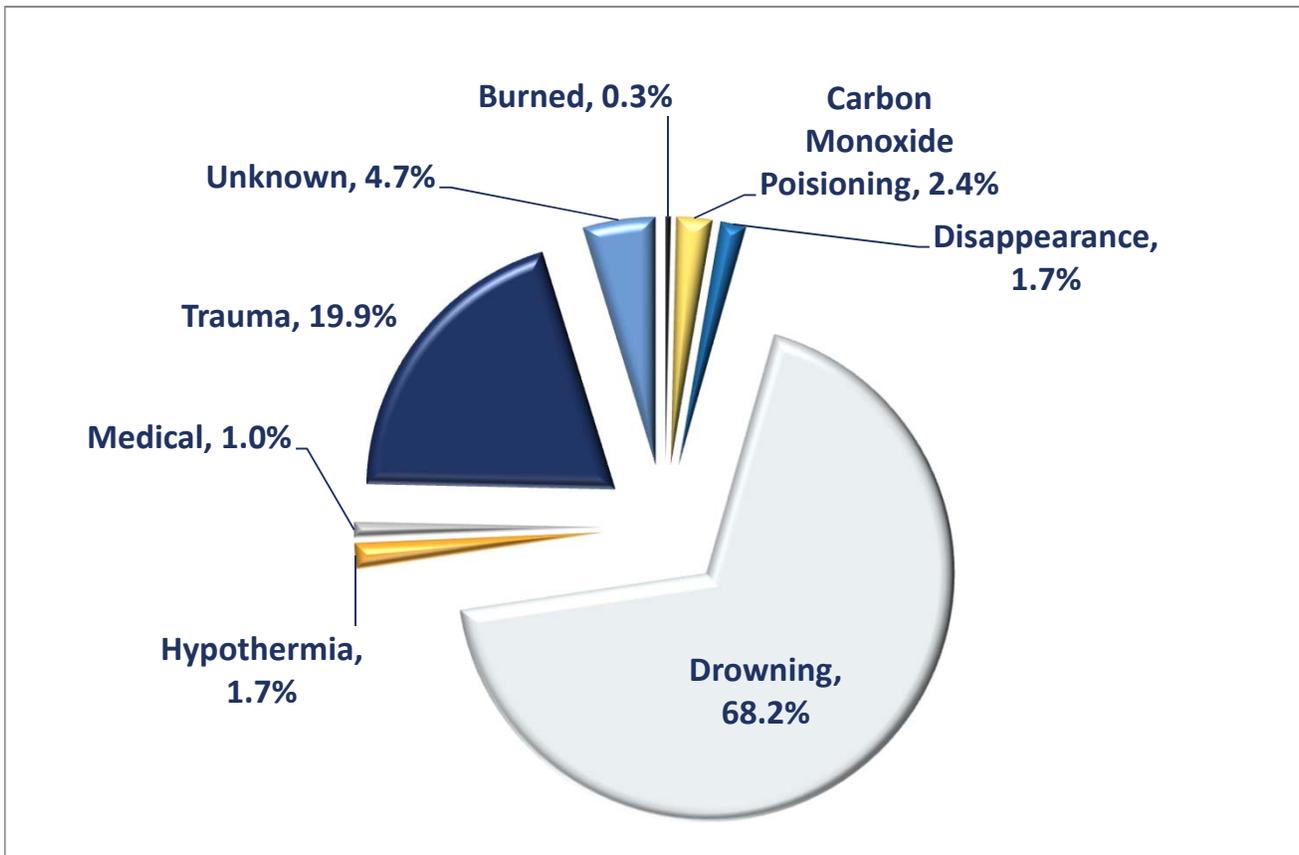


Fatal Accidents Causes 2005-2018

Accident Causes	Fatalities	Accident Causes	Fatalities
Alcohol Use	59	No Proper Lookout	15
Careless/Reckless Operation	4	Operator Inattention	10
Dam/Lock	2	Operator Inexperience	11
Drug Use	8	Other	15
Excessive Speed	13	Overloading	10
Hazardous Waters	31	Passenger or Skier Behavior	26
Ignition of Spilled Fuel or Vapor	1	Poor Visibility (Restricted Vision)	1
Improper Anchoring	4	Sharp Turn	4
Improper Loading	5	Standing/Sitting on Gunwales et	4
Lack of / Improper Boat Lights	2	Unknown	36
Machinery Failure	6	Vessel Hull Failure	1
Navigation Rules Violation	1	Wake	3
Navigation Rule Violation	1	Weather	24



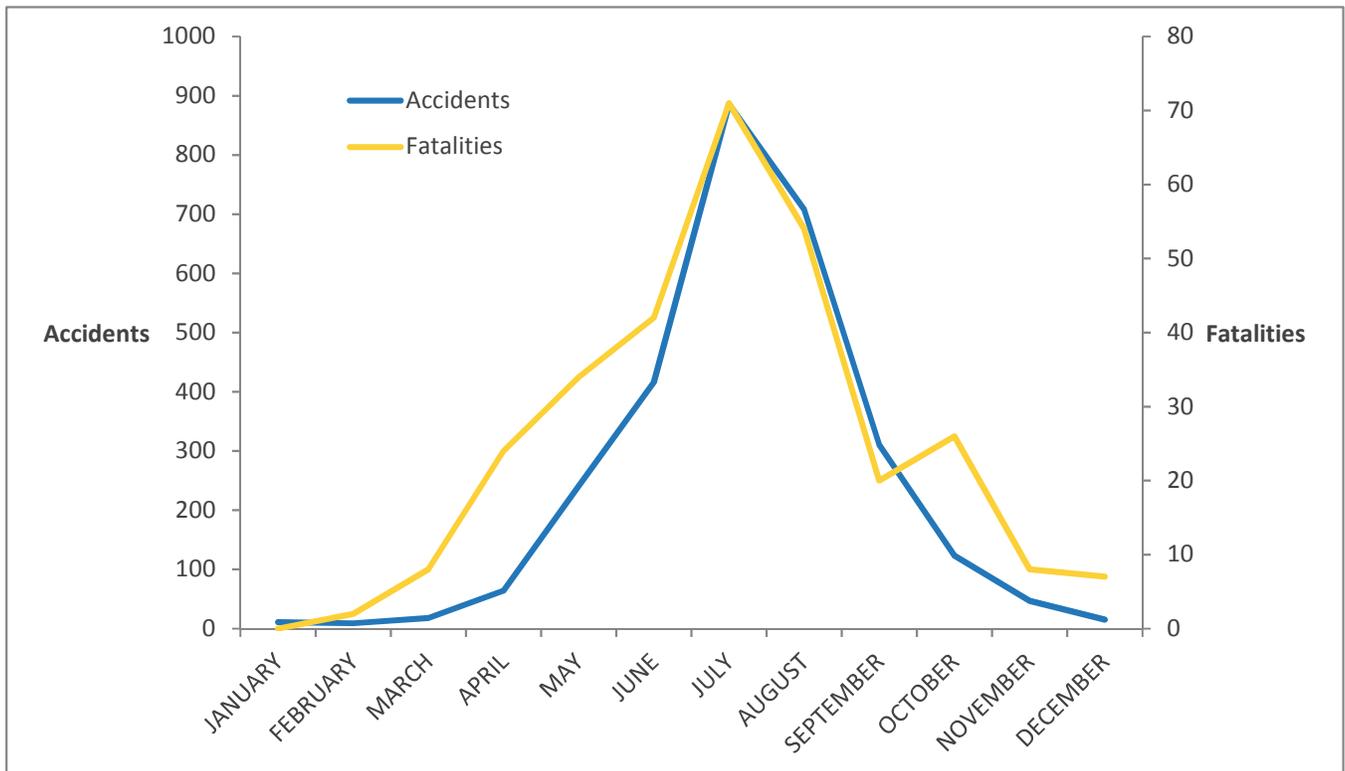
Cause of Fatality 2005-2018



Cause of Fatality	Fatalities
Burned	1
Carbon Monoxide Poisoning	7
Disappearance	5
Drowning	202
Hypothermia	5
Medical	3
Trauma	59
Unknown	14

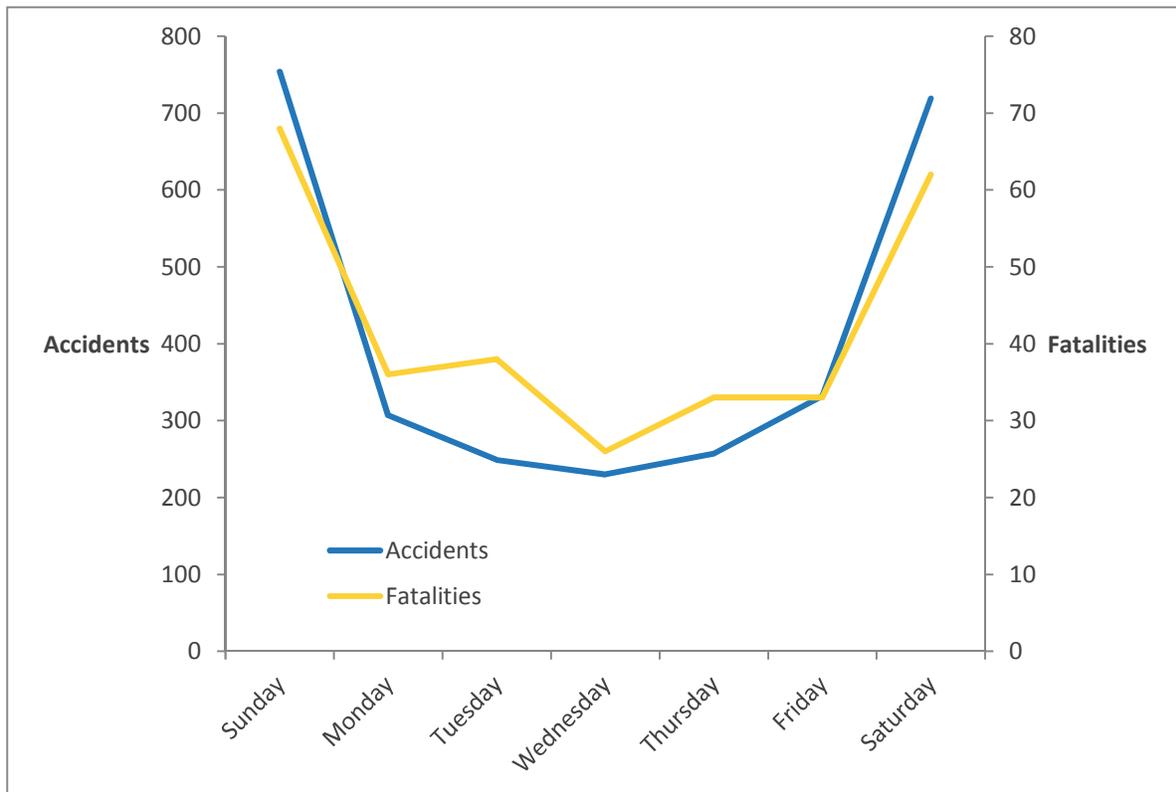
Accident Occurrence by Month 2005-2018

Month	Accidents	Fatalities
JANUARY	11	0
FEBRUARY	9	2
MARCH	18	8
APRIL	64	24
MAY	241	34
JUNE	416	42
JULY	886	71
AUGUST	708	54
SEPTEMBER	310	20
OCTOBER	123	26
NOVEMBER	47	8
DECEMBER	15	7



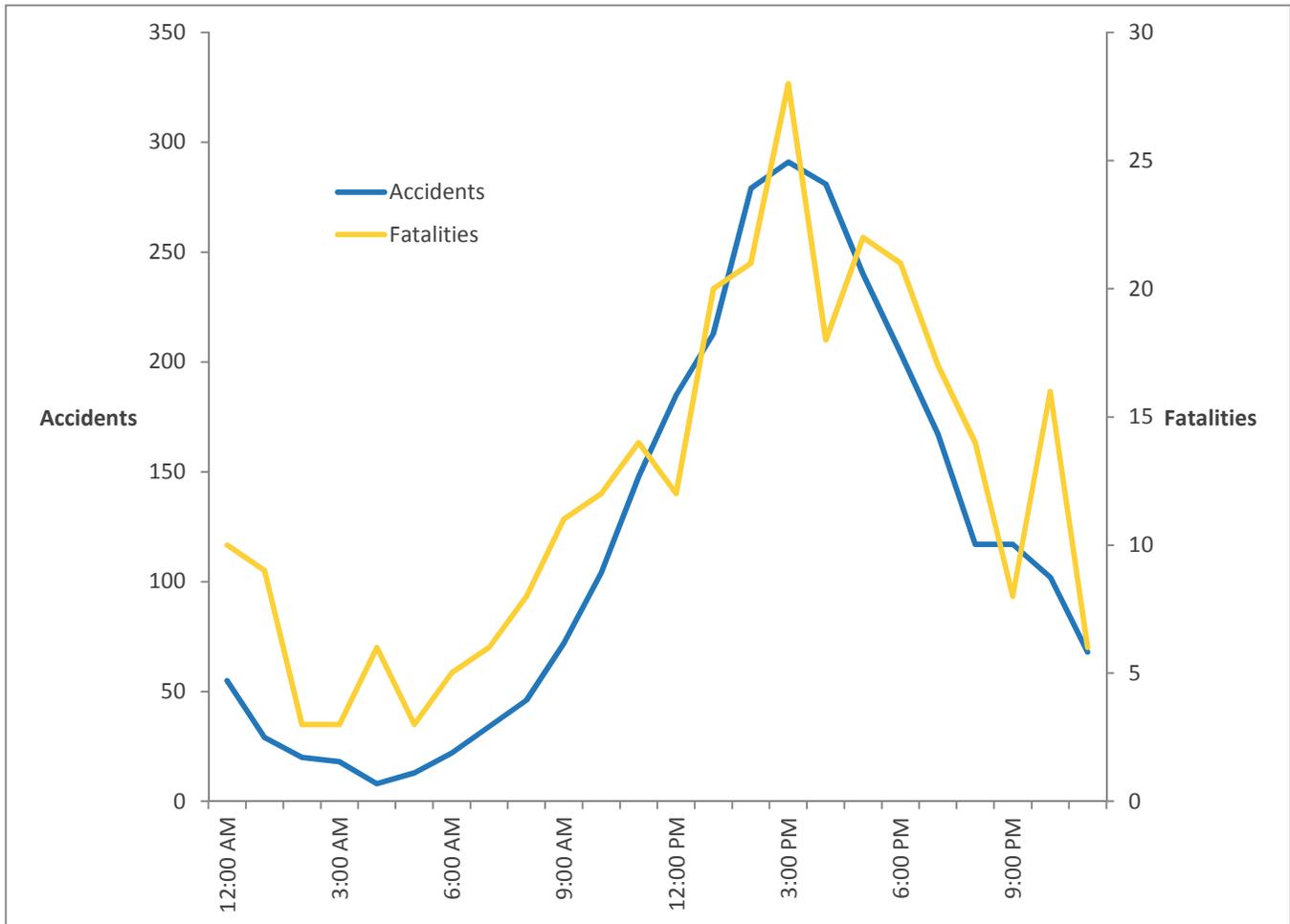
Accident Occurrence by Day 2005-2018

DAY	Accidents	Fatalities
Sunday	754	68
Monday	307	36
Tuesday	249	38
Wednesday	230	26
Thursday	257	33
Friday	332	33
Saturday	719	62



Accident Occurrence by Time 2005-2018

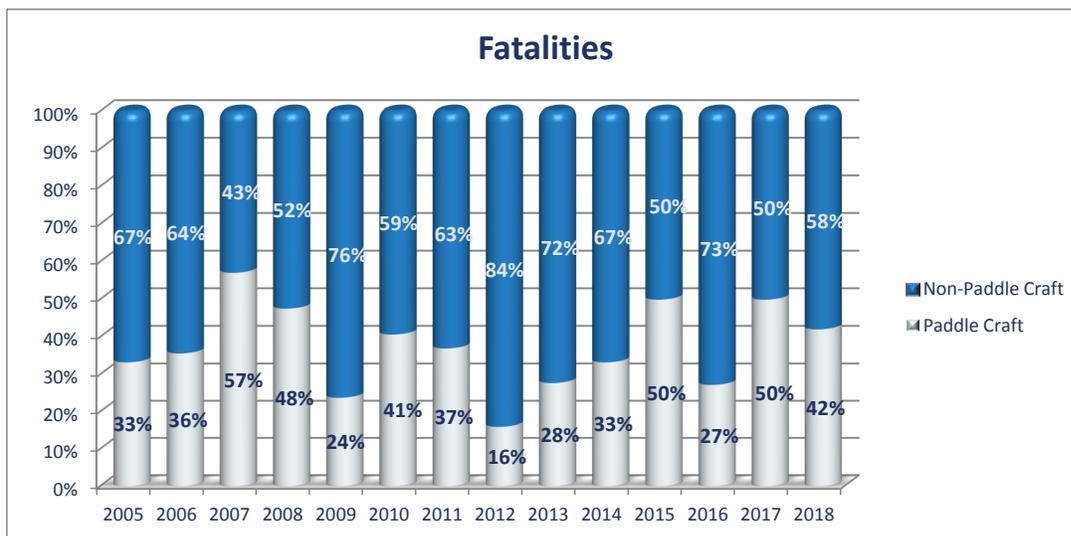
AM			PM		
Time	Accidents	Fatalities	Time	Accidents	Fatalities
12 to 1	55	10	12 to 1	185	12
1 to 2	29	9	1 to 2	213	20
2 to 3	20	3	2 to 3	279	21
3 to 4	18	3	3 to 4	291	28
4 to 5	8	6	4 to 5	281	18
5 to 6	13	3	5 to 6	240	22
6 to 7	22	5	6 to 7	204	21
7 to 8	34	6	7 to 8	167	17
8 to 9	46	8	8 to 9	117	14
9 to 10	72	11	9 to 10	117	8
10 to 11	104	12	10 to 11	102	16
11 to 12	148	14	11 to 12	68	6



Paddle Craft Accidents 2005-2018

Year	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
2015	19	8	8
2016	16	16	6
2017	19	10	11
2018	19	13	8

Paddlecraft: Rowboats, Canoes, Kayaks, Paddleboards and Crew Shells



Paddle Craft represent **7.0%** of the total vessels involved in accidents. They however contribute to **42%** of all 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
2015	28	20	0
2016	66	43	0
2017	28	15	2
2018	67	41	6



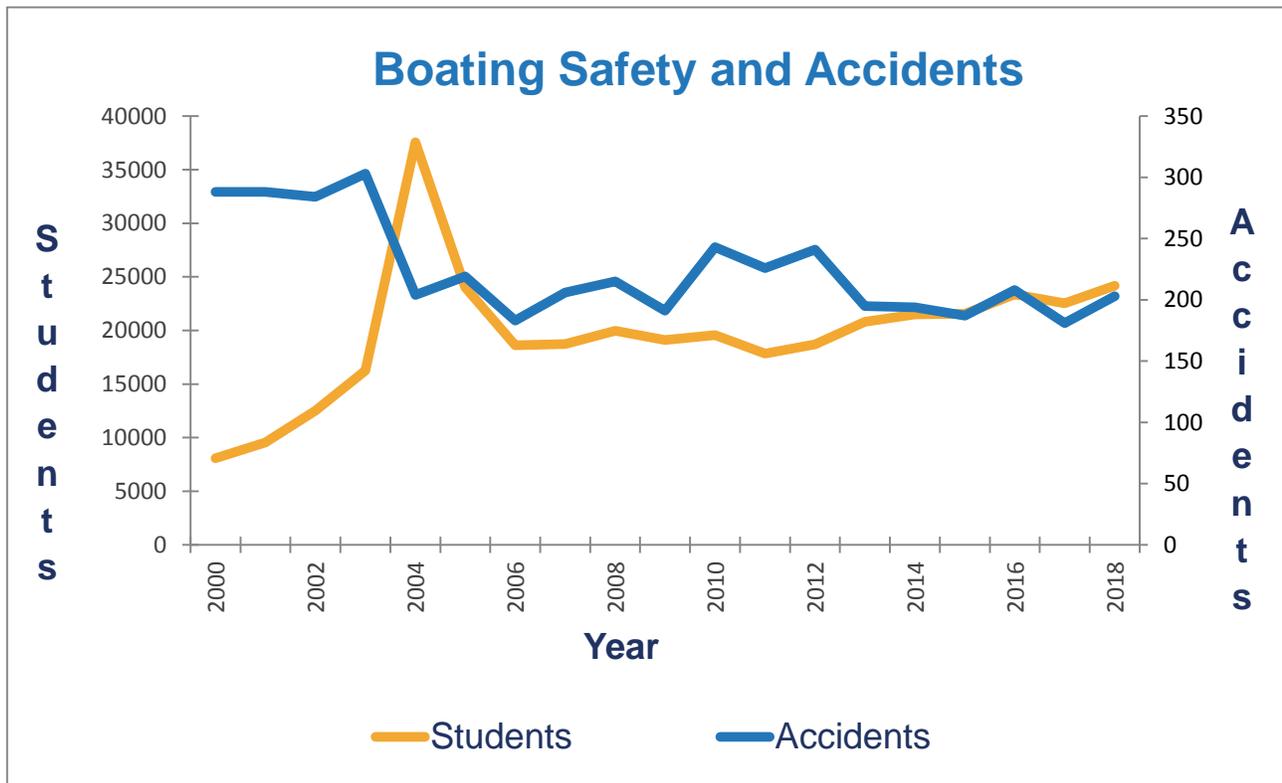
* Mandatory education for PWC operators begins

Percentage of PWC Vessels Involved in Accidents



Boating Safety Education History

Year	Students	Classroom Students	Online Students	Accidents
2000	8076	8076	XXX	288
2001	9558	9558	XXX	288
2002	12512	12512	XXX	284
2003	16260	16260	XXX	303
2004	37560	37560	XXX	204
2005	24044	24044	XXX	219
2006	18624	18624	XXX	183
2007	18738	18738	XXX	206
2008	19967	19967	XXX	215
2009	19093	19093	XXX	191
2010	19567	19567	XXX	243
2011	17826	17826	XXX	226
2012	18705	18705	XXX	241
2013	20806	20806	XXX	195
2014	21507	21507	XXX	194
2015	21559	12655	8904	187
2016	23373	8332	15041	208
2017	22540	7111	15429	181
2018	24168	6413	17755	203



Student Age

Age Group	Online	Classroom
Under 19	4702	2387
19 - 25	5219	812
26 - 35	3140	565
36 - 55	5615	1664
Over 55	1873	962

