NEW YORK
STATE OF
OPPORTUNITY.

Parks, Recreation
and Historic Preservation

2015 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 New York ranks ninth in the nation for registered boats. Seven of the eight states with larger registrations have more stringent requirements. Some include registrations for sailboats and paddle craft. Clearly, recreational boating is large piece of the economy in the Empire State.

In 2015, New York had 16 reported boating fatalities. However the fatality rate when considered against the number of registered boats is generally a better barometer of boating safety. In 2014 New York's fatality rate was 6.01 deaths / 100,000 registered watercraft, putting New York 30th in the nation. In 2015 that number dropped to 3.58 the 5th lowest since 1970. 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 know that the northeast has a larger percentage of paddle craft than the rest of the country. Closer scrutiny reveals that New York also has a far higher percentage of paddle craft deaths than the national average. In 2015 paddle craft accounted for eight or 50% of all fatalities in New York or the second highest percentage since 2005.

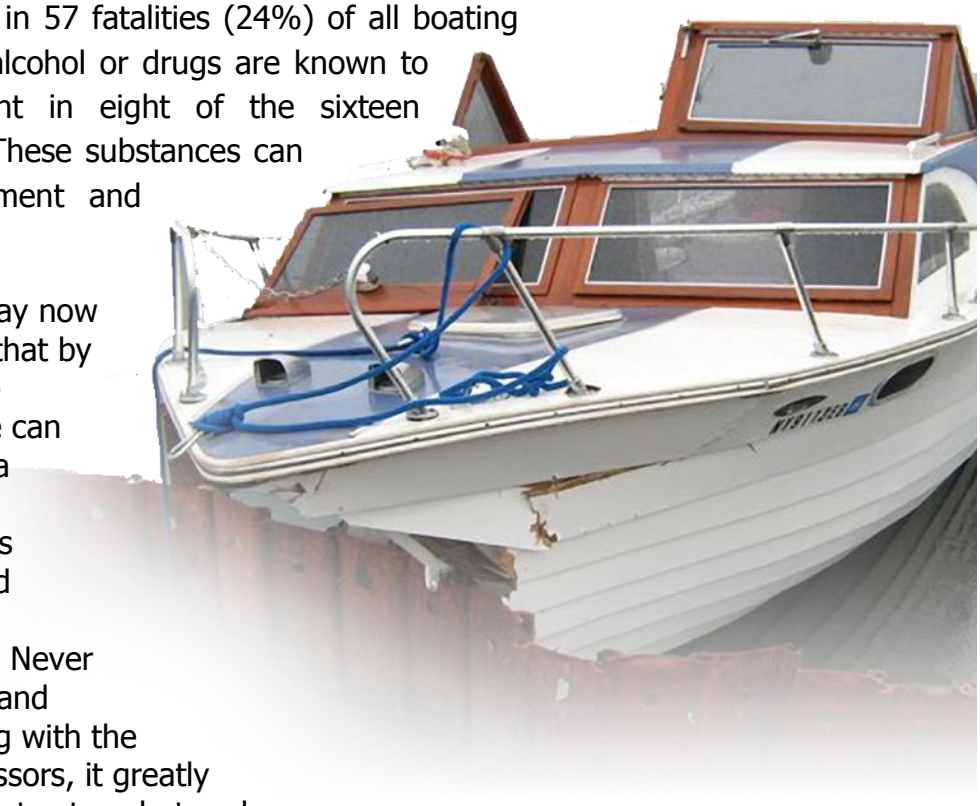
Since 1973, New York's worst year on record, recreational boating deaths in New York State have declined 87.9% while registered watercrafts have increased 20.1%. So how might boating accidents be further reduced? New York has long recognized and stressed the importance of educating boaters, beginning 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. 2015 saw the introduction of online education and over 21,000 students taking boating safety education, with more than 300,000 since the year 2000.

What causes recreational boating accidents on the water in New York and what has the accident data told us? Clearly the leading cause of boating deaths is drowning. Since 2005, 87% of all these fatalities were not wearing a PFD. Further an additional 11.9% of those were required by law to wear a PFD at the time of the accident. 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 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 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.

Alcohol and drug use are another significant cause of fatal boating accidents in New York. Between 2005 and 2015 alcohol and drug use was found to be a primary contributing factor in 57 fatalities (24%) of all boating deaths. In 2015 alcohol or drugs are known to have been present in eight of the sixteen fatalities (50%). 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, drugs and boating since, along with the environmental stressors, 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
County						
ALBANY	113	248	17	18	0	1
ALLEGANY	415	1008	9	44	0	5
CATTAURAUGUS	556	645	14	85	0	6
CAYUGA	1444	3202	31	49	0	60
CHAUTAUQUA	2283	5458	228	3104	1	126
CHENANGO	10	43	3	5	0	0
CLINTON	585	3363	23	229	2	64
COLUMBIA	158	432	18	19	0	7
CORTLAND	17	98	0	0	0	0
DUTCHESS	535	1285	29	53	0	4
ERIE	1558	3116	53	119	18	159
ESSEX	143	451	9	42	0	1
GREENE	334	1049	24	24	0	2
HAMILTON	1416	1926	13	207	0	31
HERKIMER	493	1347	31	12	2	7
JEFFERSON	144	352	7	16	0	5
LEWIS	152	299	0	20	0	5
LIVINGSTON	1700	2032	65	21	1	6
MADISON	76	369	3	2	0	0
MONROE	1033	4857	192	248	3	110
Nassau	12095	30478	98	314	3	312
NIAGARA	565	2361	25	225	0	23
ONEIDA	589	1660	30	34	1	63
ONONDAGA	826	2123	21	261	8	45
ONTARIO	1182	2772	21	244	3	23
ORANGE	344	900	3	16	0	0
ORLEANS	588	3141	32	216	0	0
OSWEGO	378	1794	8	16	0	1
OTSEGO	98	304	4	30	0	1
PUTNAM	857	1355	38	115	0	17
ROCKLAND	1440	4605	117	91	1	50
ST. LAWRENCE	102	148	1	97	0	0
SCHENECTADY	254	344	15	29	1	26
SENECA	379	847	13	32	0	2
STEUBEN	170	1306	6	297	0	24
SUFFOLK (POLICE DEPT.)	7020	170000	503	280	3	2097
SULLIVAN	11	16	4	3	0	6
TOMPKINS	84	195	4	3	0	0
ULSTER	536	1376	72	219	1	13
WARREN	753	1439	89	49	0	0
WAYNE	441	3183	54	29	2	11
WYOMING	170	187	4	2	0	0
YATES	889	2223	14	4974	0	23

Law Enforcement Agency	Total Vessel Hours	Total MLE Hours	Searches and Assists	Total Vessel Inspections	BWI Arrests	Total Arrests
Municipalities						
EAST HAMPTON	8357	1523	112	134	1	37
EVANS	64	164	6	0	0	3
GLEN COVE	694	1730	19	29	0	59
HASTINGS	4	4	0	0	0	0
HEMPSTEAD	2534	6540	120	305	0	151
HUNTINGTON	2400	5200	137	151	0	52
IRVINGTON	0	0	0	0	0	0
LLOYD HARBOR	980	1120	50	19	0	50
LONG BEACH	20	20	0	0	0	0
MAMARONECK	1820	3320	46	270	0	100
NEW ROCHELLE	1570	3414	86	94	0	97
NEW YORK CITY	123800	303400	421	1372	0	344
NORTH HEMPSTEAD	4600	8050	37	620	1	4
NORTHPORT	702	702	8	24	0	0
OSSINING	120	240	3	2	0	0
PORT CHESTER	199	199	19	10	0	0
QUOGUE	390	438	22	122	0	55
RIVERHEAD	705	1000	32	107	1	37
RYE	557	1433	67	322	0	15
SMITHTOWN	4857	5957	134	223	0	177
SOUTHAMPTON	2063	2063	103	362	2	548
SOUTHOLD	700	765	32	670	1	171
Other Agencies						
LAKE GEORGE PARK COMMISSION	4902	6285	387	506	6	171
STATE PARK POLICE	8471	5395	65	117	5	182
STATE POLICE	1349	2127	33	393	3	45
Totals	**214791**	**625422**	**3884**	**17745**	**70**	**5634**

2015 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	8863	24	3455	4782	555	33	14
ALLEGANY	1891	5	770	1094	20	0	2
BRONX	2278	5	831	959	429	39	15
BROOME	6767	18	3101	3324	304	13	7
CATTARAUGUS	2833	5	1086	1647	88	3	4
CAYUGA	5273	19	1938	3053	252	11	0
CHAUTAUQUA	6300	24	2139	3787	334	14	2
CHEMUNG	4002	2	1583	2210	195	12	0
CHENANGO	2226	0	1204	966	51	5	0
CLINTON	5828	15	2750	2780	268	12	3
COLUMBIA	2791	3	1191	1484	99	13	1
CORTLAND	2153	7	967	1123	52	3	1
DELAWARE	1169	0	601	523	45	0	0
DUTCHESS	6313	10	2792	2913	561	31	6
ERIE	24218	65	8311	13418	2224	180	20
ESSEX	4469	10	1925	2394	129	8	3
FRANKLIN	4212	2	2163	1988	54	1	4
FULTON	4364	9	1920	2237	193	5	0
GENESEE	2183	4	873	1232	65	6	3
GREENE	2282	5	880	1210	175	8	4
HAMILTON	1906	7	921	960	16	2	0
HERKIMER	3519	12	1571	1863	69	3	1
JEFFERSON	11050	56	4461	5784	712	35	2
KINGS	4321	1	1609	1621	939	120	31
LEWIS	2174	1	1135	1009	28	1	0
LIVINGSTON	3798	10	1613	2096	71	6	2
MADISON	4267	7	1713	2359	179	6	3
MONROE	26718	65	10677	14127	1721	113	15
MONTGOMERY	1897	8	838	986	63	1	1
NASSAU	28240	62	8765	13323	5375	665	50
NEW YORK	4483	2	1269	1909	1082	195	26
NIAGARA	8120	33	2790	4595	665	30	7

County	Total	Uncoded	Class A <16'	Class 1 16-25'	Class 2 26-39'	Class 3 40-64'	Class 4 >= 65'
ONEIDA	10966	36	4582	5942	392	14	0
ONONDAGA	20760	46	8053	11327	1230	97	7
ONTARIO	7430	21	2461	4658	271	18	1
ORANGE	8289	24	4003	3666	542	43	11
ORLEANS	2028	1	865	1048	109	5	0
OSWEGO	8886	15	3923	4449	477	19	3
OTSEGO	2430	4	1055	1317	47	5	2
PUTNAM	2933	7	1139	1537	226	22	2
QUEENS	6112	9	2215	2807	967	82	32
RENSSELAER	5707	5	2474	2932	272	23	1
RICHMOND	3622	9	1328	1550	656	67	12
ROCKLAND	4002	10	1876	1463	579	59	15
ST LAWRENCE	10320	14	4729	5275	284	14	4
SARATOGA	13299	16	4955	7605	688	30	5
SCHENECTADY	5610	15	2332	2969	275	16	3
SCHOHARIE	1053	0	502	510	37	2	2
SCHUYLER	1598	4	595	918	78	2	1
SENECA	2759	3	998	1593	147	15	3
STEUBEN	4972	3	1910	2926	131	1	1
SUFFOLK	63245	218	18437	32081	11233	1218	58
SULLIVAN	2992	0	1526	1374	80	7	5
TIOGA	2248	2	1045	1120	78	2	1
TOMPKINS	3402	4	1110	2028	238	22	0
ULSTER	5121	7	2260	2408	410	31	5
WARREN	7088	36	2274	4276	485	7	10
WASHINGTON	3335	10	1412	1797	113	3	0
WAYNE	6529	19	2555	3531	399	24	1
WESTCHESTER	11208	18	3581	5039	2179	340	51
WYOMING	1662	1	573	1056	26	4	2
YATES	2483	4	809	1606	61	1	2
Out of State	13585	0	4780	7496	1150	143	16
TOTAL	**446582**	**1057**	**168199**	**232060**	**40873**	**3910**	**483**

Registered Vessels: By Length and Hull Material

< 16 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	1762	80	8	28	28	1906
METAL	31273	41	49	1	555	31919
PLASTIC	7284	2507	149	32	1031	11003
FIBERGLASS	18841	48088	3328	409	4584	75250
INFLATABLE	9468	54	81	7	354	9964
STEEL	654	18	8	0	46	726
ALUMINUM	32576	138	170	10	1935	34829
OTHER	1819	523	38	3	219	2602
TOTAL	**103677**	**51449**	**3831**	**490**	**8752**	**168199**
16-25 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	1225	1918	115	51	24	3333
METAL	17745	142	995	0	41	18923
PLASTIC	3127	561	842	109	90	4729
FIBERGLASS	64966	12751	78589	2885	840	160031
INFLATABLE	196	9	6	2	1	214
STEEL	571	31	28	1	7	638
ALUMINUM	41588	199	1168	6	202	43163
OTHER	919	29	40	11	30	1029
TOTAL	**130337**	**15640**	**81783**	**3065**	**1235**	**232060**
26-39 ft	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	61	761	18	27	6	873
METAL	211	101	32	3	5	352
PLASTIC	78	362	141	64	4	649
FIBERGLASS	5167	14779	15526	2317	144	37933
INFLATABLE	4	3	2	0	0	9
STEEL	24	48	13	0	5	90
ALUMINUM	670	106	127	5	5	913
OTHER	13	23	6	7	5	54
TOTAL	**6228**	**16183**	**15865**	**2423**	**174**	**40873**
40-64 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	1	107	1	8	1	118
METAL	3	21	8	1	1	34
PLASTIC	1	47	2	10	0	60
FIBERGLASS	68	3027	250	241	14	3600
INFLATABLE	0	1	0	0	0	1
STEEL	5	29	5	4	2	45
ALUMINUM	14	18	7	2	1	42
OTHER	1	6	0	0	3	10
TOTAL	**93**	**3256**	**273**	**266**	**22**	**3910**
>65 FT	O/B	I/B	I/O	SAIL	OTHER	TOTAL
WOOD	2	6	1	0	0	9
METAL	10	4	2	0	2	18
PLASTIC	20	4	2	0	1	27
FIBERGLASS	81	153	69	4	23	330
INFLATABLE	21	0	0	0	2	23
STEEL	4	7	1	0	1	13
ALUMINUM	53	4	1	0	1	59
OTHER	1	1	0	0	2	4
TOTAL	**192**	**179**	**76**	**4**	**32**	**483**
Uncoded	O/B	I/B	I/O	SAIL	OTHER	TOTAL
TOTAL	**3**	**3**	**2**	**0**	**1049**	**1057**

ACCIDENTS

The chart below illustrates registration and accident figures for the years 1970 through 2015. 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.

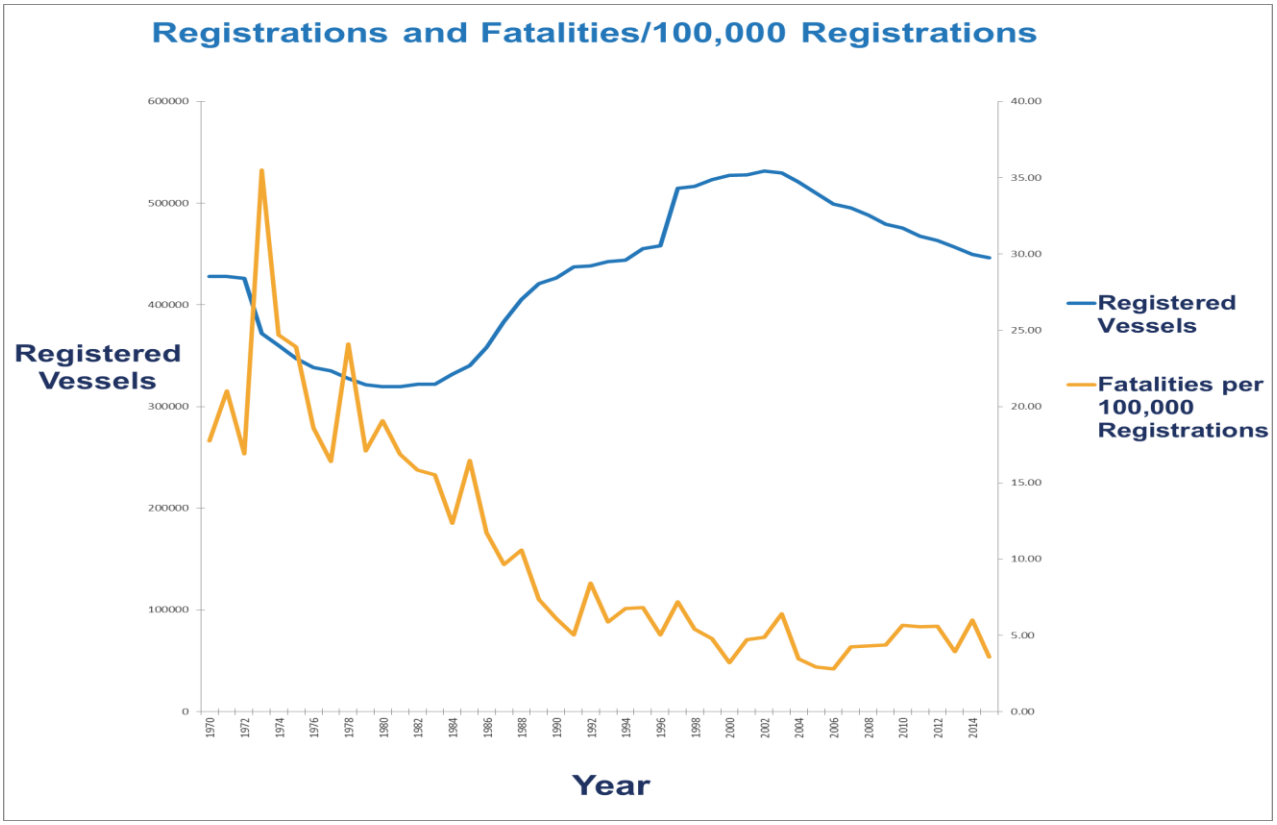
A reduction of collisions and fatalities can also be achieved by showing courtesy to other boaters. Boating education classes are also important, but boaters must be willing to apply what they have learned. Tougher laws are making it possible to remove dangerous boaters from our waterways. Education 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 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 - 2015

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

Accidents by County and Waterway

County / Waterway	Accidents	Injures	Fatalities
ALBANY	**2**	**0**	**0**
HUDSON RIVER	2	0	0
BRONX	**1**	**0**	**0**
EASTCHESTER BAY	1	0	0
CHAUTAUQUA	**6**	**1**	**2**
CHAUTAUQUA LAKE	5	1	2
LAKE ERIE	1	0	0
CLINTON	**1**	**0**	**0**
LAKE CHAMPLAIN	1	0	0
COLUMBIA	**1**	**1**	**0**
HUDSON RIVER	1	1	0
DUTCHESS	**1**	**0**	**1**
HUDSON RIVER	1	0	1
ERIE	**10**	**4**	**2**
EAST NIAGARA RIVER	2	2	0
ELLICOTT CREEK	1	0	1
LAKE ERIE	6	1	1
NIAGARA RIVER	1	1	0
ESSEX	**3**	**4**	**0**
LAKE FLOWER	1	2	0
LAKE PLACID	1	1	0
SCHROON LAKE	1	1	0
FULTON	**5**	**2**	**2**
DONALD G HILL WATER WORKS	1	0	1
SACANDAGA RESERVOIR	4	2	1
GREENE	**2**	**3**	**0**
HUDSON RIVER	2	3	0
HERKIMER	**1**	**2**	**0**
ERIE BARGE CANAL	1	2	0
JEFFERSON	**7**	**7**	**0**
LAKE ONTARIO	1	3	0
ST. LAWRENCE RIVER	6	4	0
KINGS	**9**	**11**	**2**
EAST MILL BASIN	1	1	0
GERRITSEN INLET	1	1	0
JAMAICA BAY	3	6	2
LOWER BAY	3	2	0
UPPER BAY	1	1	0
LIVINGSTON	**3**	**0**	**0**
CONESUS LAKE	3	0	0
MONROE	**3**	**1**	**0**
ERIE BARGE CANAL	1	0	0
IRONDEQUOIT BAY	1	1	0
LAKE ONTARIO	1	0	0

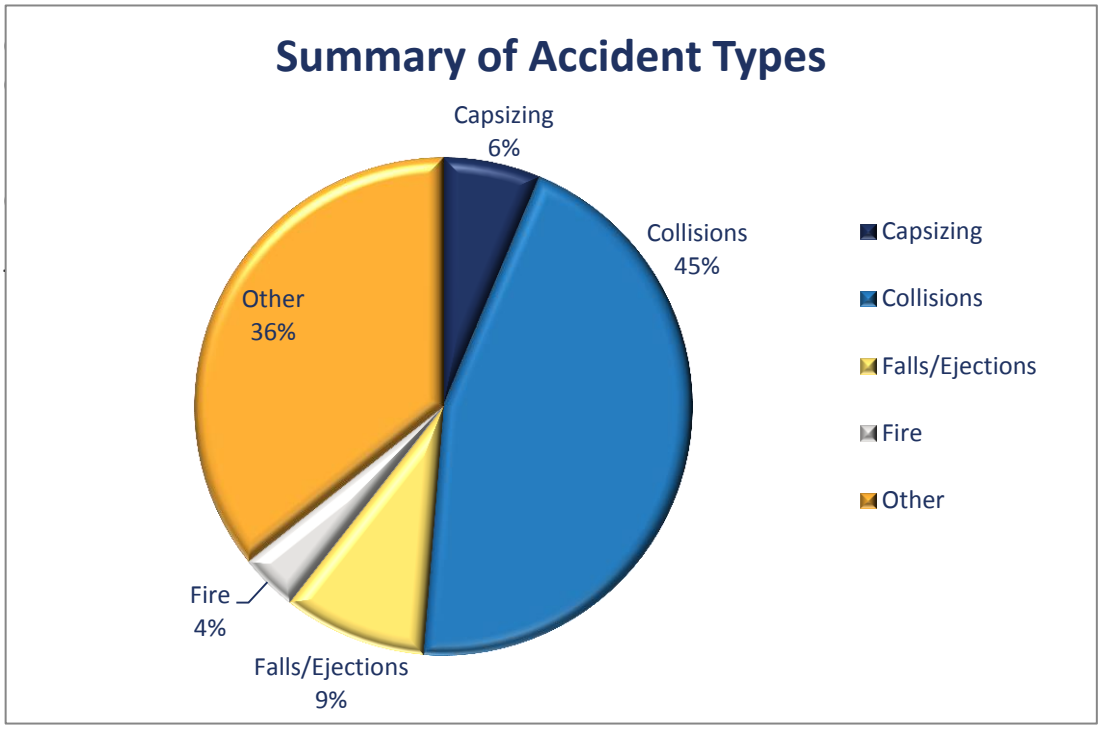
County / Waterway	Accidents	Injures	Fatalities
NASSAU	**10**	**4**	**0**
DOMAR CANAL	1	0	0
EAST BAY	1	1	0
FLAT CREEK	1	1	0
HOG'S ISLAND CHANNEL	1	0	0
LONG ISLAND SOUND	1	0	0
MANHASSET BAY	1	0	0
OYSTER BAY	2	1	0
REYNOLDS CHANNEL	2	1	0
NEW YORK	**2**	**1**	**0**
EAST RIVER	1	0	0
HARLEM RIVER	1	1	0
NIAGARA	**1**	**0**	**0**
NIAGARA RIVER	1	0	0
ONEIDA	**4**	**2**	**0**
ERIE BARGE CANAL	1	0	0
ONEIDA LAKE	3	2	0
ONONDAGA	**4**	**2**	**3**
ONONDAGA LAKE	1	2	0
SENECA RIVER	2	0	3
SKANEATELES LAKE	1	0	0
OSWEGO	**3**	**0**	**0**
ONEIDA LAKE	2	0	0
ONEIDA RIVER	1	0	0
PUTNAM	**2**	**2**	**0**
LAKE MAHOPAC	1	2	0
LAKE OSCAWANA	1	0	0
QUEENS	**4**	**3**	**0**
EAST RIVER	1	0	0
JAMAICA BAY	3	3	0
RICHMOND	**1**	**0**	**0**
RARITAN BAY	1	0	0
ROCKLAND	**1**	**0**	**0**
HUDSON RIVER	1	0	0
SARATOGA	**2**	**2**	**0**
SARATOGA LAKE	2	2	0
SCHENECTADY	**1**	**1**	**0**
MOHAWK RIVER	1	1	0
SENECA	**1**	**2**	**0**
CAYUGA LAKE	1	2	0
ST. LAWRENCE	**3**	**6**	**0**
HIGLEY FLOW	1	3	0
ST. LAWRENCE RIVER	2	3	0

County / Waterway	Accidents	Injures	Fatalities
SUFFOLK	**45**	**14**	**0**
COECLES HARBOR	1	0	0
CONNETQUOT RIVER	1	0	0
CUTCHOGUE HARBOR	1	1	0
FISHERS ISLAND SOUND	1	0	0
GARDINER'S BAY	1	1	0
GREAT SOUTH BAY	11	3	0
HUNTINGTON HARBOR	2	0	0
LAKE MONTAUK	1	0	0
LONG ISLAND SOUND	1	0	0
MATTITUCK INLET	1	0	0
MONTAUK HARBOR	1	0	0
MORICHES BAY	2	0	0
MORICHES CREEK	1	0	0
MORICHES INLET	1	0	0
MOUNT SINAI HARBOR	1	0	0
NORTHPORT BAY	1	0	0
PATCHOGUE BAY	1	1	0
PECONIC BAY	3	1	0
SAG HARBOR BAY	2	1	0
SHELTER ISLAND SOUND	1	0	0
SHINNECOCK BAY	3	3	0
SHINNECOCK CANAL	2	0	0
SHORE ROAD CREEK	1	0	0
SMITHTOWN BAY	2	1	0
SOUTHOLD BAY	1	2	0
STONY BROOK HARBOR	1	0	0
SULLIVAN	**1**	**0**	**0**
WHITE LAKE	1	0	0
TOMPKINS	**1**	**1**	**0**
CAYUGA LAKE	1	1	0
ULSTER	**2**	**0**	**1**
HUDSON RIVER	1	0	0
ONTEORA LAKE	1	0	1
WARREN	**20**	**9**	**1**
HUDSON RIVER	1	0	1
LAKE GEORGE	19	9	0
WAYNE	**2**	**2**	**0**
ERIE BARGE CANAL	1	2	0
LAKE ONTARIO	1	0	0
WESTCHESTER	**18**	**10**	**2**
HUDSON RIVER	7	7	1
LONG ISLAND SOUND	9	3	0
NEW CROTON RESERVOIR	1	0	1
NEW ROCHELLE LOWER HARBOR	1	0	0

County / Waterway	Accidents	Injures	Fatalities
WYOMING	**1**	**1**	**0**
SILVER LAKE	1	1	0
YATES	**3**	**0**	**0**
KEUKA LAKE	2	0	0
SENECA LAKE	1	0	0

Accident Types

Accident Type	Vessels	Injuries	Fatalities
Capsizing	17	8	6
Carbon Monoxide Poisoning	2	2	1
Collision w/ Fixed Object	18	9	0
Collision w/ Floating Object	3	2	0
Collision With Recreational Boat	100	14	0
Falls Onboard Boat	6	6	0
Falls Into Boat	2	3	0
Falls Overboard	4	0	3
Fire/Explosion (Fuel)	8	10	0
Fire/Explosion (Other)	2	0	0
Flooding/Swamping	13	9	2
Grounding	20	9	0
Other	5	2	1
Person Ejected From Vessel	13	9	2
Skier Mishap	2	2	0
Struck by Boat	2	2	0
Struck by Propeller	2	2	0
Struck Submerged Object	6	3	0
Sudden Medical Condition	1	1	0
Unknown	43	5	1

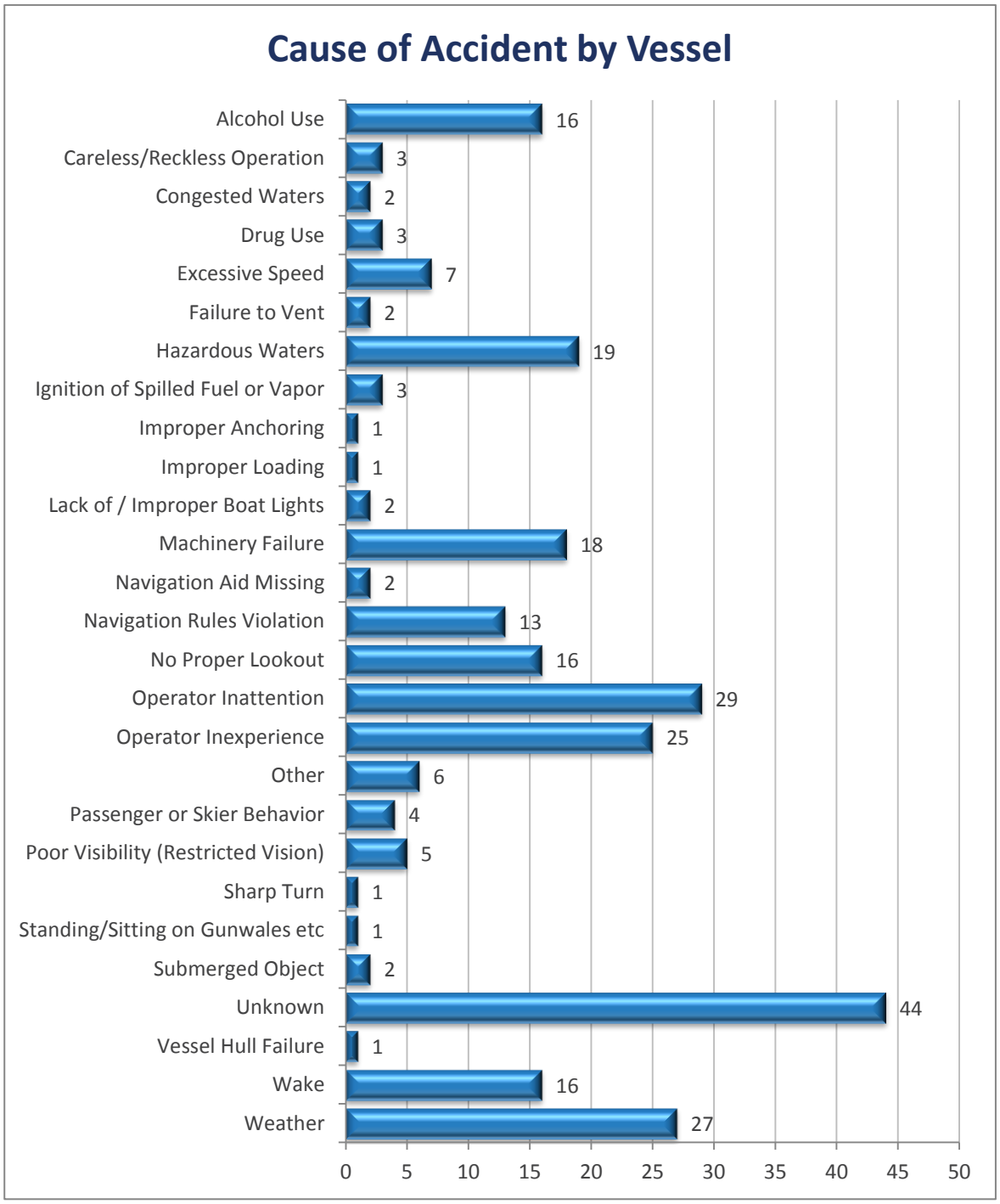


Accident Type and Vessel Operation

Accident Type	Operation	Vessels	Injuries	Fatalities
Capsizing	At Anchor	1	2	0
	Being Towed	1	0	0
	Cruising	1	0	0
	Drifting	2	2	1
	Rowing or Paddling	11	4	5
	Towing another vessel	1	0	0
Carbon Monoxide Poisoning	Cruising	1	2	0
	Tied to Dock/Mooring	1	0	1
Collision With Fixed Object	Cruising	11	9	0
	Docking/Undocking	2	0	0
	Drifting	1	0	0
	Tied to Dock/Mooring	4	0	0
Collision With Floating Object	Cruising	3	2	0
Collision With Recreational Boat	At Anchor	2	0	0
	Changing Direction	6	1	0
	Changing Speed	1	0	0
	Changing Speed, Cruising	1	2	0
	Cruising	29	6	0
	Cruising, Changing Direction	1	1	0
	Cruising, Sailing	1	0	0
	Docking/Undocking	17	1	0
	Drifting	10	3	0
	Sailing	1	0	0
	Tied to Dock/Mooring	27	0	0
	Towing another vessel	1	0	0
	Towing another vessel, Changing Speed	1	0	0
	Unknown	2	0	0
Falls Onboard Boat	Changing Speed, Cruising	1	1	0
	Cruising	4	4	0
	Tied to Dock/Mooring	1	1	0
Falls Into Boat	Cruising	2	3	0
Falls Overboard	Cruising	1	0	0
	Other	1	0	1
	Rowing or Paddling	1	0	1
	Unknown	1	0	1

Accident Type	Operation	Vessels	Injuries	Fatalities
Fire/Explosion (Fuel)	Cruising	3	1	0
	Docking/Undocking	1	3	0
	Drifting	1	2	0
	Launching	1	1	0
	Other	1	1	0
	Other, Tied to Dock/Mooring	1	2	0
Fire/Explosion (Other)	Tied to Dock/Mooring	2	0	0
Flooding/Swamping	At Anchor	1	0	0
	Cruising	7	7	2
	Drifting	2	0	0
	Rowing or Paddling	1	1	0
	Sailing	1	0	0
	Tied to Dock/Mooring	1	1	0
Grounding	Being Towed	2	0	0
	Cruising	15	9	0
	Cruising, Sailing	1	0	0
	Drifting	1	0	0
	Unknown	1	0	0
Other	Cruising	1	0	0
	Cruising	1	1	0
	Cruising	1	0	1
	Sailing	1	1	0
	Sailing	1	0	0
Person Ejected From Vessel	Changing Direction	2	2	0
	Changing Speed	1	1	0
	Cruising	5	4	1
	Drifting	2	1	1
	Rowing or Paddling	2	0	0
	Sailing	1	1	0
Skier Mishap	Changing Speed	1	1	0
	Cruising	1	1	0
Struck by Boat	Unknown	2	2	0
Struck by Propeller	Drifting	2	2	0
Struck Submerged Object	Cruising	6	3	0
Sudden Medical Condition	Cruising	1	1	0

Accident Type	Operation	Vessels	Injuries	Fatalities
Unknown	At Anchor	3	1	0
	Changing Speed	1	0	0
	Cruising	18	3	0
	Cruising, Changing Direction	1	0	0
	Docking/Undocking	4	0	0
	Drifting	4	0	0
	Other	2	1	0
	Rowing or Paddling	1	0	1
	Sailing	3	0	0
	Tied to Dock/Mooring	5	0	0
	Towing another vessel	1	0	0


Cause of Accident by Vessel
Alcohol Use
Careless/Reckless Operation
Congested Waters
Drug Use
Excessive Speed
Failure to Vent
Hazardous Waters
Ignition of Spilled Fuel or Vapor
Improper Anchoring
Improper Loading
Lack of / Improper Boat Lights
Machinery Failure
Navigation Aid Missing
Navigation Rules Violation
No Proper Lookout
Operator Inattention
Operator Inexperience
Other
Passenger or Skier Behavior
Poor Visibility (Restricted Vision)
Sharp Turn
Standing/Sitting on Gunwales etc
Submerged Object
Unknown
Vessel Hull Failure
Wake
Weather
16
3
2
3
7
2
19
3
1
1
2
18
2
13
16
29
25
6
4
5
1
1
2
44
1
16
27
0
5
10
15
20
25
30
35
40
45
50

Accident Type and Cause

Accident Type	Cause	Vessels	Injures	Fatalities
Capsizing	Alcohol Use	1	2	0
	Drug Use	1	0	1
	Hazardous Waters	9	3	3
	Machinery Failure	1	2	0
	Operator Inexperience	1	0	0
	Other	1	0	1
	Wake	1	0	0
	Weather	2	1	1
Carbon Monoxide Poisoning	Other	2	2	1
Collision With Fixed Object	Alcohol Use	2	2	0
	Excessive Speed	1	0	0
	Hazardous Waters	1	0	0
	Machinery Failure	2	0	0
	Operator Inattention	6	5	0
	Operator Inexperience	1	2	0
	Poor Visibility (Restricted Vision)	1	0	0
	Wake	4	0	0
Collision With Floating Object	No Proper Lookout	2	2	0
	Operator Inattention	1	0	0
Collision With Recreational Boat	Alcohol Use	5	1	0
	Careless/Reckless Operation	2	1	0
	Congested Waters	2	0	0
	Drug Use	1	1	0
	Hazardous Waters	4	0	0
	Lack of / Improper Boat Lights	1	2	0
	Machinery Failure	2	0	0
	Navigation Rules Violation	11	4	0
	No Proper Lookout	12	1	0
	Operator Inattention	8	0	0
	Operator Inexperience	12	3	0
	Poor Visibility (Restricted Vision)	2	0	0
	Unknown	26	1	0
	Weather	12	0	0
Fall Onboard Boat	Excessive Speed	2	2	0
	Operator Inexperience	2	2	0
	Unknown	1	1	0
	Wake	1	1	0
Falls Into Boat	Alcohol Use	1	1	0
	Wake	1	2	0

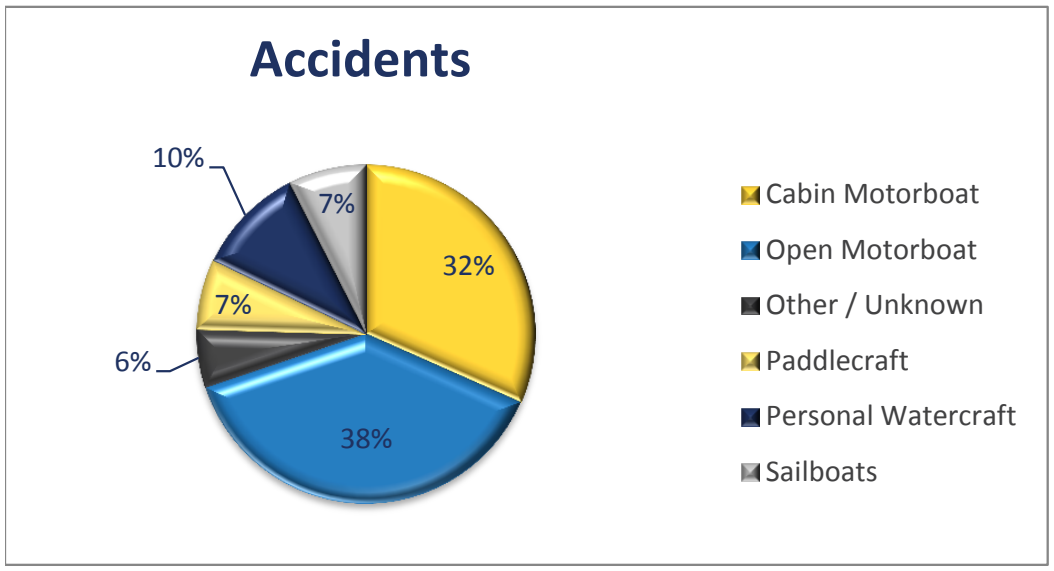
Accident Type	Cause	Vessels	Injures	Fatalities
Falls Overboard	Machinery Failure	1	0	1
	Passenger or Skier Behavior	1	0	0
	Unknown	2	0	2
Fire/Explosion (Fuel)	Failure to Vent	2	4	0
	Ignition of Spilled Fuel or Vapor	2	2	0
	Machinery Failure	3	2	0
	Other	1	2	0
Fire/Explosion (Other)	Other	1	0	0
	Unknown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

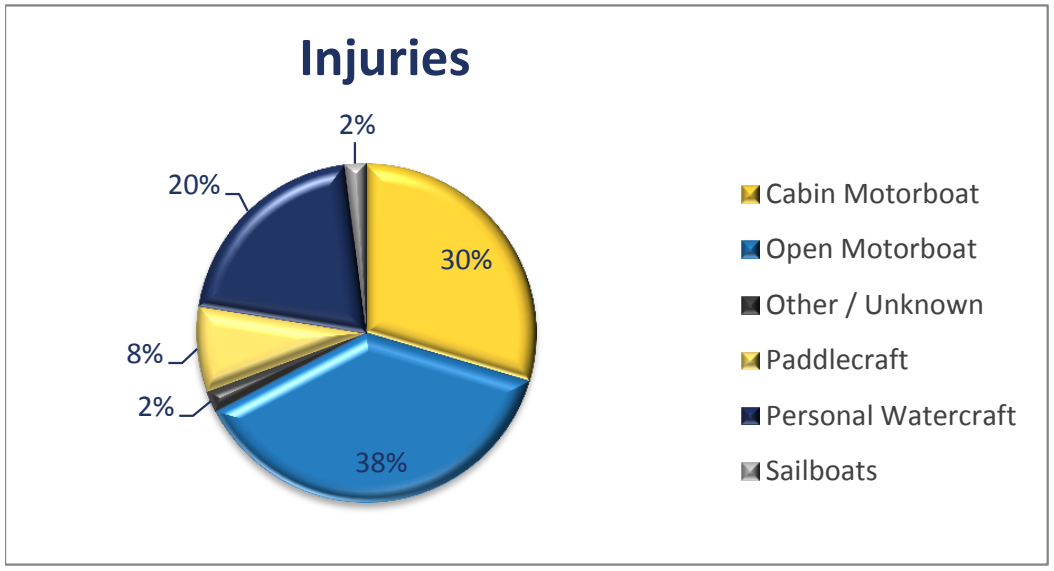
Accident Type	Cause	Vessels	Injures	Fatalities
Struck Submerged Object	Hazardous Waters	1	0	0
	Navigation Aid Missing	2	2	0
	Submerged Object	2	1	0
	Wake	1	0	0
Sudden Medical Condition	Wake	1	1	0
Unknown	Alcohol Use	3	0	1
	Excessive Speed	1	0	0
	Ignition of Spilled Fuel or Vapor	1	0	0
	Lack of / Improper Boat Lights	1	0	0
	Machinery Failure	4	1	0
	Navigation Rules Violation	2	0	0
	No Proper Lookout	1	0	0
	Operator Inattention	3	0	0
	Operator Inexperience	3	1	0
	Other	1	0	0
	Passenger or Skier Behavior	2	2	0
	Poor Visibility (Restricted Vision)	1	0	0
	Unknown	10	0	0
	Wake	5	1	0
	Weather	5	0	0

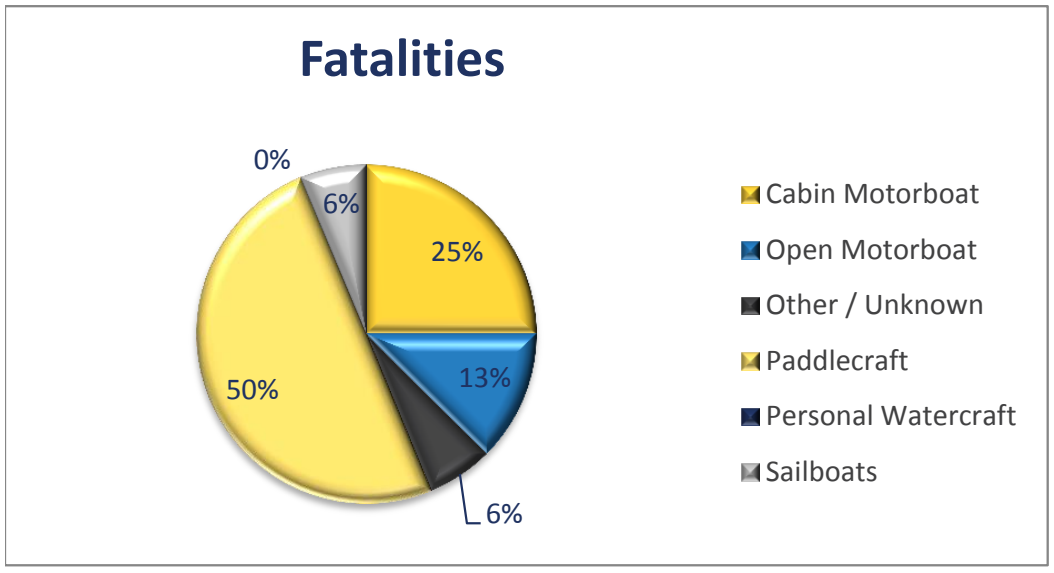
Vessel Type and Accident Type

Vessel Type	Accident Type	Vessels	Injuries	Fatalities
Auxillary Sail	Collision With Fixed Object	1	0	0
	Collision With Recreational Boat	6	0	0
	Grounding	1	0	0
	Other	2	1	0
	Person Leaves / Ejected From Vessel	2	1	1
	Unknown	5	0	0
Cabin Motorboat	Carbon Monoxide Poisoning	2	2	1
	Collision With Fixed Object	9	3	0
	Collision With Recreational Boat	32	2	0
	Fall Onboard Boat	1	1	0
	Falls Into Boat	1	2	0
	Fire/Explosion (Fuel)	3	5	0
	Fire/Explosion (Other)	2	0	0
	Flooding/Swamping	4	3	2
	Grounding	13	8	0
	Other	1	1	0
	Perosn Leaves / Ejected From Vessel	1	0	1
	Unknown	16	2	0
Catamaran	Struck Submerged Object	1	0	0
Crew Shell	Capsizing	1	0	0
Kayak	Capsizing	10	4	5
	Flooding/Swamping	1	1	0
	Perosn Leaves / Ejected From Vessel	2	0	0
	Unknown	1	0	1
Open Motorboat	Capsizing	4	2	0
	Collision With Fixed Object	6	5	0
	Collision With Floating Object	3	2	0
	Collision With Recreational Boat	36	5	0
	Fall Onboard Boat	4	4	0
	Falls Into Boat	1	1	0
	Falls Overboard	2	0	1
	Fire/Explosion (Fuel)	4	4	0
	Flooding/Swamping	6	2	0
	Grounding	6	1	0
	Other	1	0	1
	Perosn Leaves / Ejected From Vessel	1	1	0
	Skier Mishap	2	2	0
	Struck by Propeller	2	2	0
	Struck Submerged Object	3	2	0
	Sudden Medical Condition	1	1	0
	Unknown	16	3	0
Other	Collision With Recreational Boat	2	1	0

Vessel Type	Accident Type	Vessels	Injuries	Fatalities
Personal Watercraft	Collision With Fixed Object	1	1	0
	Collision With Recreational Boat	15	6	0
	Fall Onboard Boat	1	1	0
	Fire/Explosion (Fuel)	1	1	0
	Flooding/Swamping	1	3	0
	Perosn Leaves / Ejected From Vessel	6	6	0
	Struck by Boat	1	1	0
	Struck Submerged Object	2	1	0
Pontoon Boat	Collision With Recreational Boat	3	0	0
	Unknown	1	0	0
Rowboat	Capsizing	2	2	1
	Falls Overboard	1	0	1
	Perosn Leaves / Ejected From Vessel	1	1	0
Sail (only)	Collision With Fixed Object	1	0	0
	Collision With Recreational Boat	1	0	0
	Flooding/Swamping	1	0	0
Tow boat	Collision With Recreational Boat	1	0	0
Unknown	Collision With Recreational Boat	3	0	0
	Falls Overboard	1	0	1
	Other	1	0	0
	Struck by Boat	1	1	0
	Unknown	3	0	0
Weed Harvestor	Unknown	1	0	0
Wind Surf Board	Collision With Recreational Boat	1	0	0

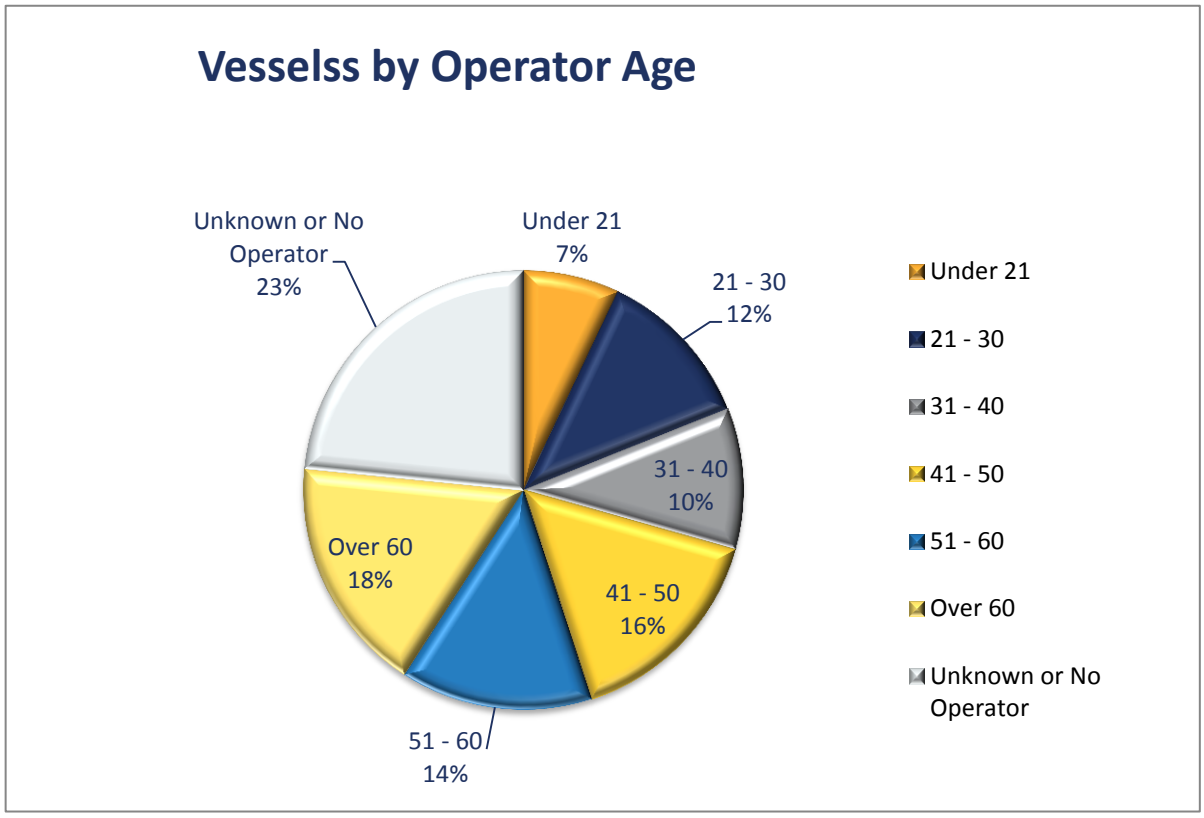

Accidents
10%
7%
32%
7%
6%
38%
Cabin Motorboat
Open Motorboat
Other / Unknown
Paddlecraft
Personal Watercraft
Sailboats


Injuries
2%
20%
30%
8%
2%
38%
Cabin Motorboat
Open Motorboat
Other / Unknown
Paddlecraft
Personal Watercraft
Sailboats


Fatalities
0%
6%
25%
13%
50%
6%
Cabin Motorboat
Open Motorboat
Other / Unknown
Paddlecraft
Personal Watercraft
Sailboats

Operator Age

Age Group	Vessels	Injures	Fatalities
Under 21	19	8	1
21 - 30	32	17	2
31 - 40	28	13	1
41 - 50	42	30	3
51 - 60	38	12	5
Over 60	47	12	4
Unknown or No Operator	63	6	0



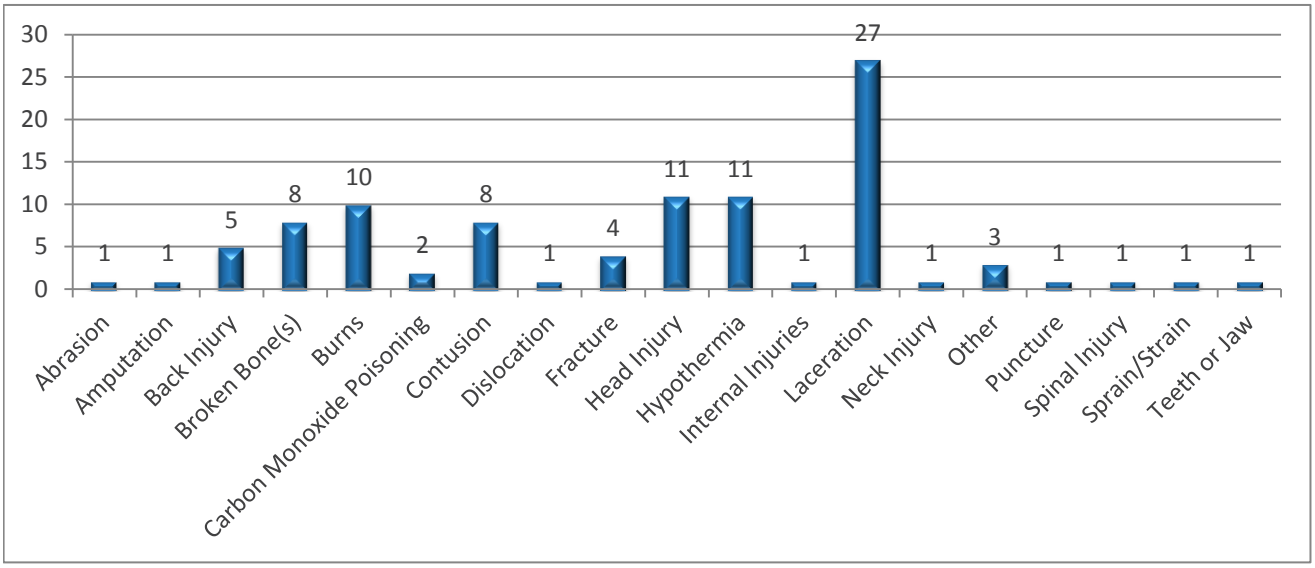
Age of Operator and Boating Education

Age Group	Education	Vessels	Injuries	Fatalities
Under 21	None	4	1	0
	State Course	6	1	0
	Unknown	5	3	1
	USCG Auxiliary	4	3	0
21 - 30	None	8	6	0
	State Course	10	6	0
	Unknown	13	5	2
	USCG Auxiliary	1	0	0
31 - 40	None	9	2	0
	State Course	6	6	0
	Unknown	12	5	1
	USCG Auxiliary	1	0	0
41 - 50	Internet Course	1	1	0
	None	13	10	0
	State Course	11	6	2
	Unknown	12	11	1
	US Power Squadron	2	1	0
	USCG Auxiliary	3	1	0
51 - 60	None	7	6	1
	State Course	7	3	0
	Unknown	17	2	4
	US Power Squadron	2	1	0
	USCG Auxiliary	5	0	0
Over 60	None	10	3	0
	State Course	13	2	1
	Unknown	20	7	3
	US Power Squadron	1	0	0
	USCG Auxiliary	2	0	0
	USCG License	1	0	0
Unknown	Internet Course	1	0	0
	State Course	1	0	0
	Unknown	61	6	0

Age of Operator and Boating Experience

Operator Age	Experience	Vessels	Injuries	Fatalities
Under 21	Under 10 Hours	4	2	0
	10 to 100 Hours	12	3	1
	Over 500 Hrs.	1	1	0
	Unknown	2	2	0
21 - 30	Under 10 Hours	9	5	0
	10 to 100 Hours	5	4	0
	100-500 Hrs.	9	5	0
	Over 500 Hrs.	3	1	0
	Unknown	6	2	2
31 - 40	Under 10 Hours	5	1	0
	10 to 100 Hours	8	7	0
	100-500 Hrs.	1	0	0
	Over 500 Hrs.	8	2	0
	Unknown	6	3	1
41 - 50	Under 10 Hours	6	4	2
	10 to 100 Hours	4	3	0
	100-500 Hrs.	6	2	0
	Over 500 Hrs.	17	13	0
	Unknown	9	8	1
51 - 60	Under 10 Hours	3	3	0
	10 to 100 Hours	5	3	0
	100-500 Hrs.	12	2	1
	Over 500 Hrs.	14	4	0
	Unknown	4	0	4
Over 60	Under 10 Hours	1	2	0
	10 to 100 Hours	4	0	1
	100-500 Hrs.	14	5	1
	Over 500 Hrs.	22	4	1
	Unknown	6	1	1
Unknown	10 to 100 Hours	1	0	0
	100-500 Hrs.	2	0	0
	Unknown	60	6	0

Injuries



Type of Injury, Type of Vessel

Vessel	Injury Type	Injuries
Auxillary Sail	Head Injury	1
	Puncture	1
Cabin Motorboat	Abrasion	1
	Back Injury	2
	Broken Bone(s)	3
	Burns	4
	Carbon Monoxide	2
	Contusion	1
	Head Injury	5
	Hypothermia	3
	Laceration	4
	Neck Injury	1
	Other	1
	Sprain/Strain	1
	Teeth or Jaw	1
Kayak	Hypothermia	2
	Laceration	1
	Other	2
Open Motorboat	Amputation	1
	Back Injury	2
	Broken Bone(s)	2
Open Motorboat (Continued)	Burns	5
	Contusion	5
	Dislocation	1
	Fracture	2
	Head Injury	2
	Laceration	16
	Spinal Injury	1
Other	Laceration	1
Personal Watercraft	Back Injury	1
	Broken Bone(s)	3
	Burns	1
	Contusion	2
	Fracture	2
	Head Injury	3
	Hypothermia	4
	Internal Injuries	1
	Laceration	3
Rowboat	Hypothermia	2
	Laceration	1
Unknown	Laceration	1

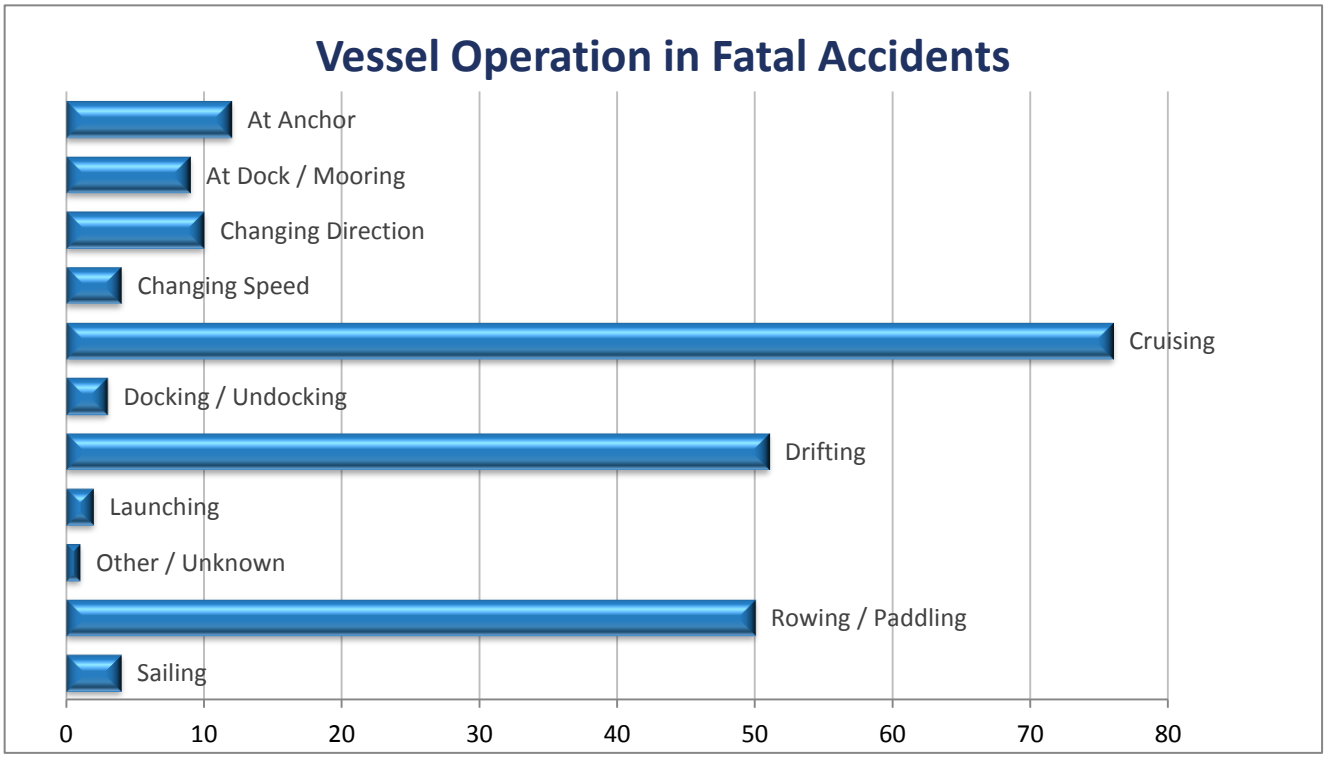
2015 Summary of Fatal Accidents

Date	County	Waterway	Cause	Vessel	Accident Type	Fatalities
5/13/2015	CHAUTAUQUA	CHAUTAUQUA LAKE	Unknown	Open Motorboat	Falls Overboard	1
Operator launched his small open motorboat at approximately 7:00 PM intending to go fishing on Chautauqua Lake. The operator was reported missing the next morning when he failed to return. His boat was found a short time later unoccupied with a broken stern light post, the throttle in gear, a dead battery, and low on fuel with the engine cover missing. The operator's body was recovered on May 21st. Operator was not wearing a PFD. There is no indication of alcohol or drugs being a factor.						
5/30/2015	ULSTER	ONTEORA LAKE	Drug Use	Rowboat	Capsizing	1
Victim was found floating face down with his rowboat approximately 500 feet away. When he was recovered he had a BAC of 0.02 and was positive for amphetamine, methamphetamine, and a prescription drug used to treat depression and anxiety disorders. Victim was not wearing a PFD.						
6/11/2015	ERIE	ELLICOT CREEK	Alcohol Use	Open Motorboat	Other	1
The operator was navigating a narrow creek at a high rate of speed with thee people onboard. The vessel passed under a pedestrian bridge fatally striking a passenger in the head. The bridge had approximately five feet of vertical clearance above the water. The operator had consumed alcohol prior to the accident and a beer can was found floating near the accident. The victim had a 0.015 BAC and Marijuana in her system at the time of the accident. No one onboard was wearing a PFD.						
6/13/2015	ONONDAGA	SENECA RIVER	Hazardous Waters	Kayak	Capsizing	2
Two kayakers each in their own kayak were paddling on the low side of a dam. The current was abnormally strong and the water turbulent due to recent rains and high water levels. One kayaker capsized. The other kayaker attempted to rescue him and ended up capsizing as well. Both individuals disappeared under the water. Both bodies were recovered three days later 6 miles downstream. Neither individual wore a PFD. Alcohol and drugs are not believed to have been a factor in the accident.						
6/14/2015	WARREN	HUDSON RIVER	Hazardous Waters	Kayak	Capsizing	1
Kayaker was paddling in an area of the Hudson River containing rapids when he capsized and subsequently drowned. Victim had experienced a cardiac event. It is not known if the event preceded the capsizing or was a result of the capsizing. The victim was not wearing a PFD. Alcohol and drugs were not a factor in the accident.						
6/21/2015	CHAUTAUQUA	CHAUTAUQUA LAKE	Drug Use	Cabin Motorboat	Person Leaves/Ejected from Vessel	1
The operator launched his vessel with one female passenger onboard in midafternoon. Later that afternoon the passenger intentionally left the vessel entering the water. After a short period she became distressed due to the wind and waves. Operator attempted to throw her a throwable flotation device but was unable to reach her. Operator attempted to anchor the vessel using a small mushroom anchor with a short line from the stern and entered the water. Operator successfully delivered the flotation device to the female passenger but was unable to return to the vessel disappearing under the water. The vessel had drifted away from the operator due to the anchor not being properly secured to the bottom. The passenger was picked up by a boater several hours later still clutching the flotation aid. The operator was under the influence of drugs at the time of the accident. Neither individual was wearing a PFD.						
6/30/2015	ONONDAGA	SENECA RIVER	Other	Cabin Motorboat	Carbon Monoxide Poisoning	1
The operator stated he was going to charge up the boat batteries by running the boat and having a beer. The canvas on the boat was fully up except for a small entrance aft. Approximately twenty hours later the operator was found deceased from carbon monoxide poisoning onboard with the engines still running. Operator had alcohol in his system but it did not contribute to the accident.						

Date	County	Waterway	Cause	Vessel	Accident Type	Fatalities
7/12/2015	WESTCHESTER	NEW CROTON RESERVOIR	Machinery Failure	Rowboat	Falls Overboard	1
A female and male coworker decided to go fishing early in the morning on New Croton Reservoir. They arrived at about 5:30 AM. The male attached to seats to the boat to fish and row from. The seats were not designed to be attached to the boat. While fishing the seats came loose causing the boat to rock and both individuals to fall overboard. The male individual did not know how to swim. The female individual was able to drag him to shore while he panicked and bobbed up and down under the water. Once they reached shore he was able to stand up but immediately his eyes rolled back into his head and he collapsed. He was unable to be revived. Neither individual was wearing a PFD. The male had marijuana in his system.						
7/18/2015	FULTON	DONALD G HILL WATER WORKS	Other	Kayak	Capsizing	1
Victim and a friend were traveling to the victim's camp with his two kayaks in the back of the truck. The friend suggested that they stop at the Donald G Hill Water Works on the way a place she used to spend time at as a kid. They trespassed onto the reservoir and launched the two kayaks without PFDs or paddles which were still stored at the camp. They instead attempted to use makeshift paddles made out of tree branches. Shortly after launching the victim struggled to operate his kayak and ended up capsizing. The friend was unable to get him safely to shore. The victim was recovered with line from a fishing pole that was in the kayak wrapped around his legs preventing movement. Alcohol or drugs were not a factor.						
7/28/2015	FULTON	SACANDAGA RESERVOIR	Unknown	Unknown	Falls Overboard	1
Operator was seen heading out on to the lake to go fishing at 6:30 PM on the 27th. He was reported missing the next morning. His vessel was found hung up on a buoy. It had a history of engine problems. The victim's body was located between the buoy and shore. It is not known what caused him to enter the water. He was not wearing a PFD. Alcohol and drugs were not a factor.						
8/8/2015	DUTCHESS	HUDSON RIVER	Alcohol Use	Kayak	Unknown	1
A kayak with two persons onboard departed from the eastern shore of the river heading in a westerly direction. Both individuals ended up entering the water. One individual was picked up by a passing vessel. The other individual drifted for a short time before disappearing below the surface. His body was recovered in a nearby cove. He had alcohol and ecstasy in his system with a 0.199 BAC. Neither person was wearing a PFD.						
9/6/2015	WESTCHESTER	HUDSON RIVER	Alcohol Use	Auxiliary Sail	Person Leaves/Ejected from Vessel	1
Operator jumped from the moving vessel into the Hudson River and submerged sustaining a laceration on the right leg consistent with a propeller strike. A passenger onboard was able to pull the victim to the side of the sailboat but he was unresponsive. The victim had alcohol, morphine, and methadone in his system with a 0.36 BAC. He was not wearing a PFD.						
10/2/2015	KINGS	JAMAICA BAY	Weather	Cabin Motorboat	Flooding/Swamping	2
Operator states he was underway in heavy winds and seas when his vessel began to take on water over the bow. The passengers onboard started to bail out water with buckets to no avail. The engine stalled and the boat turned beam side to the waves. More water came over the starboard side and the vessel capsized. Only three out of the five individuals on board survived. Two were able to swim ashore. A third was rescued clinging to the overturned boat. Alcohol and drugs were not a factor. There were only three PFD onboard the vessel, none of which were worn.						
12/6/2015	ERIE	LAKE ERIE	Weather	Kayak	Capsizing	1
A kayaker entered Lake Erie from Sturgeon Point Marina to go fishing several miles off shore. Other kayakers in the area reported rolling waves making it difficult to kayak in. At some point the kayak capsized sending the him overboard. He was recovered sometime later wearing a PFD but unresponsive due to extended cold water exposure. Victim had a small amount of Hydrocodone in his system.						

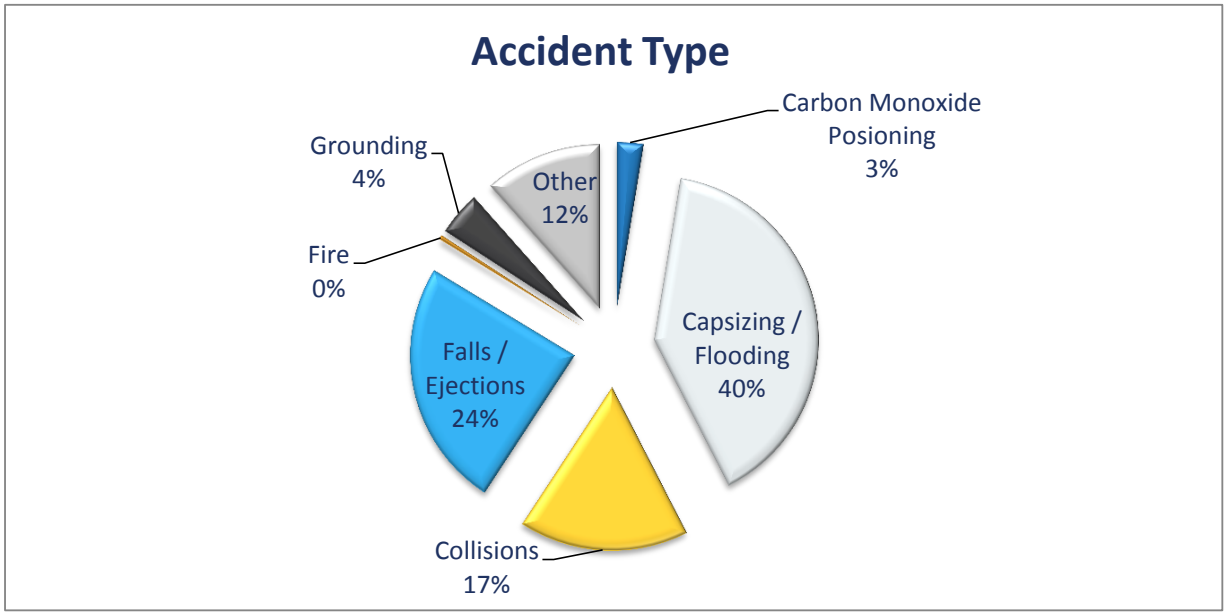
Vessel Operation in Fatal Boating Accidents 2005-2015

Operation	Fatalities
At Anchor	12
Changing Direction	4
Changing Speed	3
Changing Speed, Changing Direction	1
Cruising	71
Cruising, Changing Direction	5
Docking/Undocking	3
Drifting	50
Drifting, Launching	1
Launching	2
Other	1
Rowing or Paddling	50
Sailing	4
Tied to Dock/Mooring	9
Unknown	17



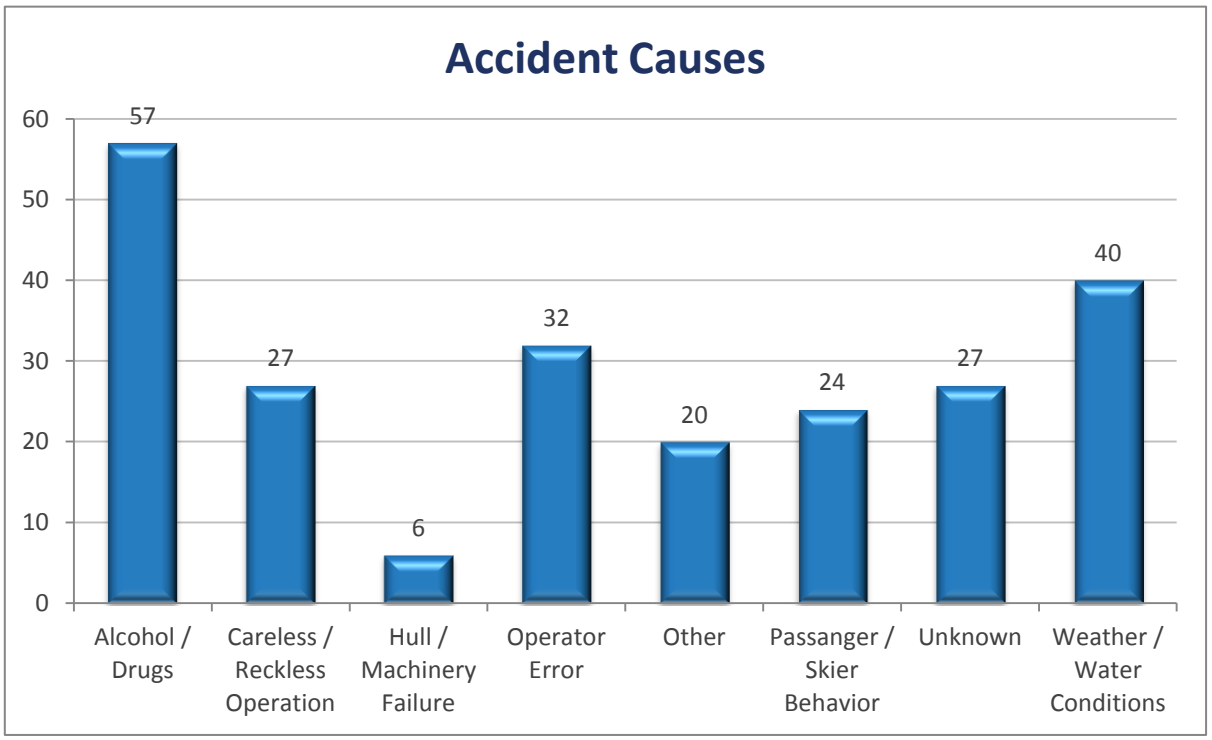
Fatal Accident Type
2005-2015

Accident Type	Fatalities
Capsizing	77
Carbon Monoxide Poisoning	6
Collision With Fixed Object	23
Collision With Floating Object	3
Collision With Vessel	10
Collision With Recreational Boat	3
Falls Onboard Boat	2
Falls Overboard	35
Fire/Explosion (Fuel)	1
Flooding/Swamping	11
Grounding	10
Other	3
Person Ejected From Vessel	20
Sinking	5
Skier Mishap	5
Struck by Boat	3
Struck by Propeller	3
Struck Submerged Object	2
Sudden Medical Condition	2
Unknown	9

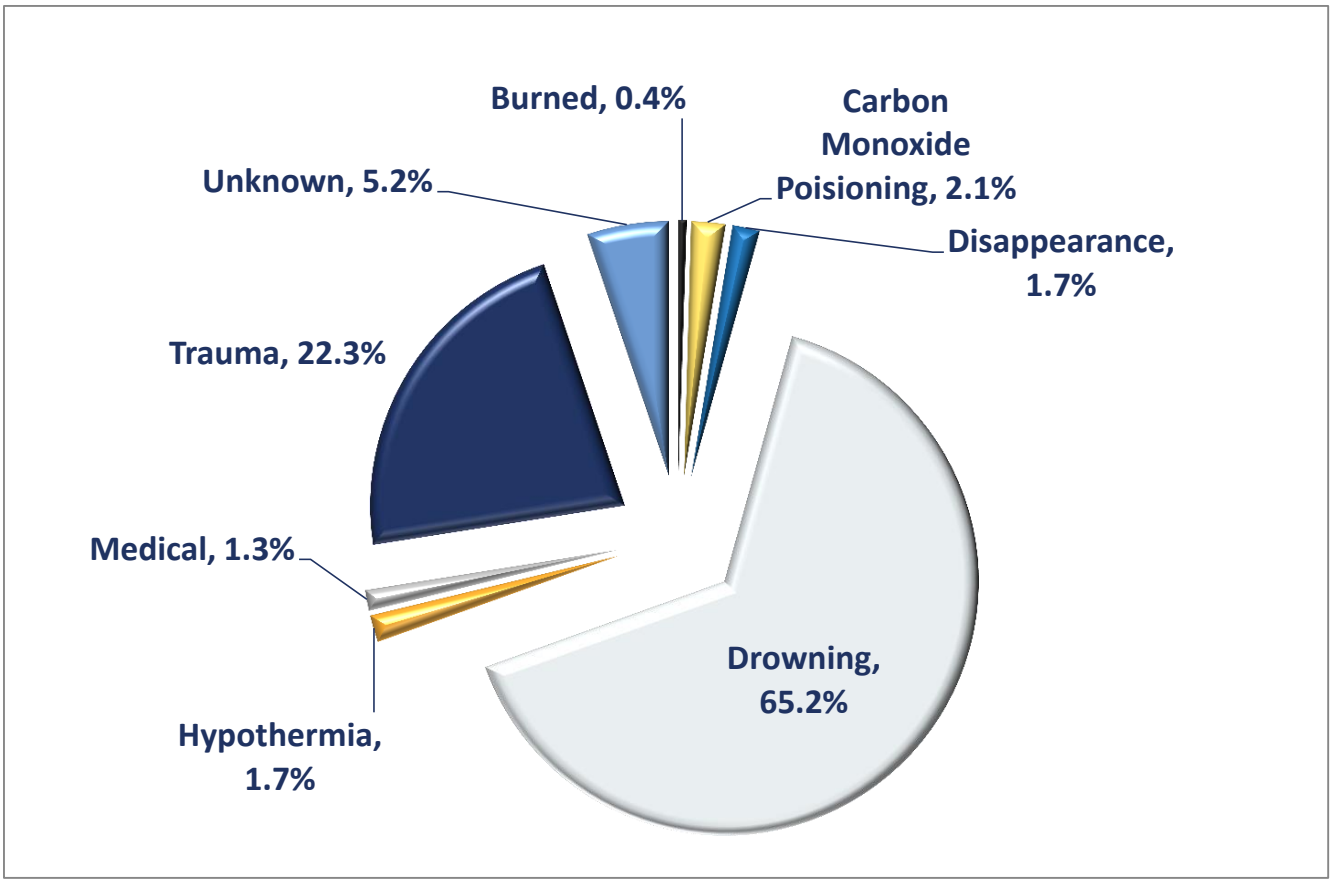


Fatal Accidents Causes
2005-2015

Accident Causes	Fatalities	Accident Causes	Fatalities
Alcohol Use	51	Operator Inattention	8
Careless/Reckless Operation	4	Operator Inexperience	7
Dam/Lock	2	Other	11
Drug Use	6	Overloading	9
Excessive Speed	11	Passenger or Skier Behavior	20
Hazardous Waters	26	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	27
Lack of / Improper Boat Lights	1	Vessel Hull Failure	1
Machinery Failure	5	Wake	3
No Proper Lookout	13	Weather	13

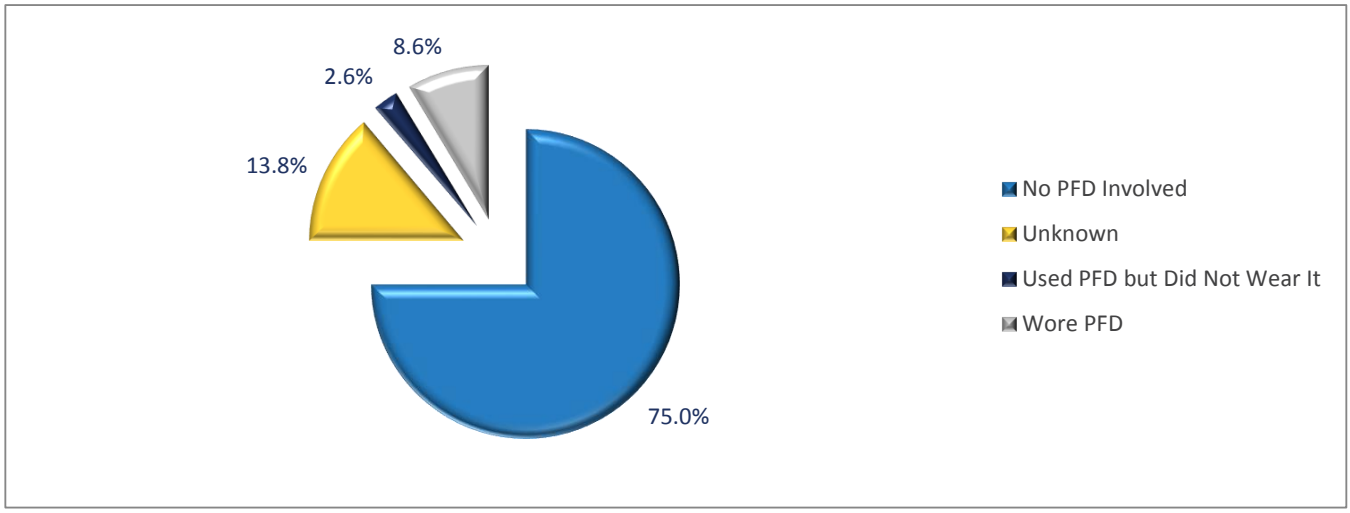


Cause of Fatality 2005-2015



Cause of Fatality	Fatalities
Burned	1
Carbon Monoxide Poisioning	5
Disappearance	4
Drowning	152
Hypothermia	4
Medical	3
Trauma	52
Unknown	12

PFD Use Amongst Drowning Fatalities 2005-2015



PFD Use	Fatalities	Percentage
No PFD Involved	114	75.0%
Unknown	21	13.8%
Used PFD but Did Not Wear It	4	2.6%
Wore PFD	13	8.6%

Law	FatalitiesRequired to Wear PFD	Percentage of Total Fatalities Not Wearing PFD
Cold Water Law	8	6.8%
Personal Watercraft	4	3.4%
Child Under 12 Years of Age	2	1.7%
Towing of Persons	0	0.0%
Total	14	11.9%

Of the accidents where individuals drowned and PFD use was known, 87% did not wear a PFD. 11.9% 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 1st 2009. Had the law been in effect in 2005 an additional eight fatalities may have been prevented.

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

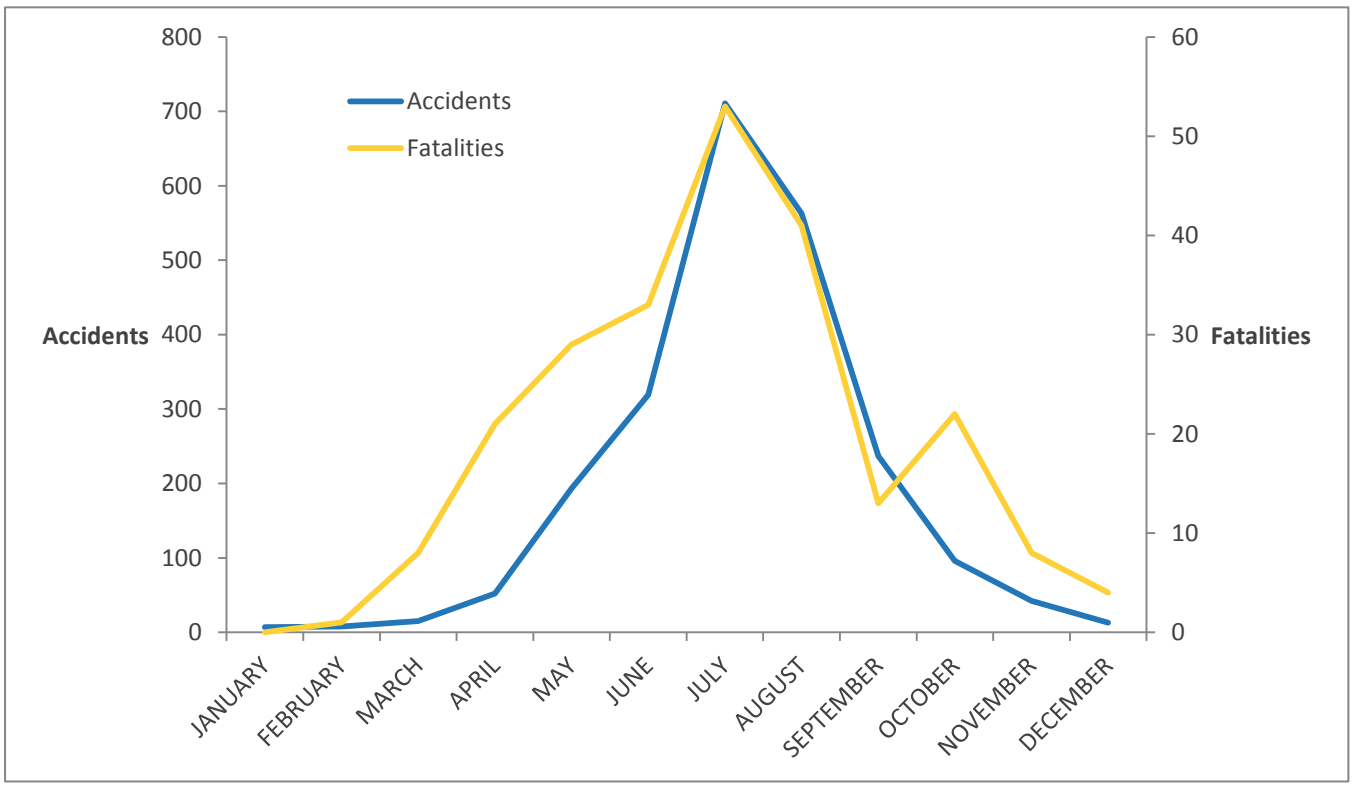
Personal Watercraft – Everyone onboard a personal watercraft is required to wear a PFD

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

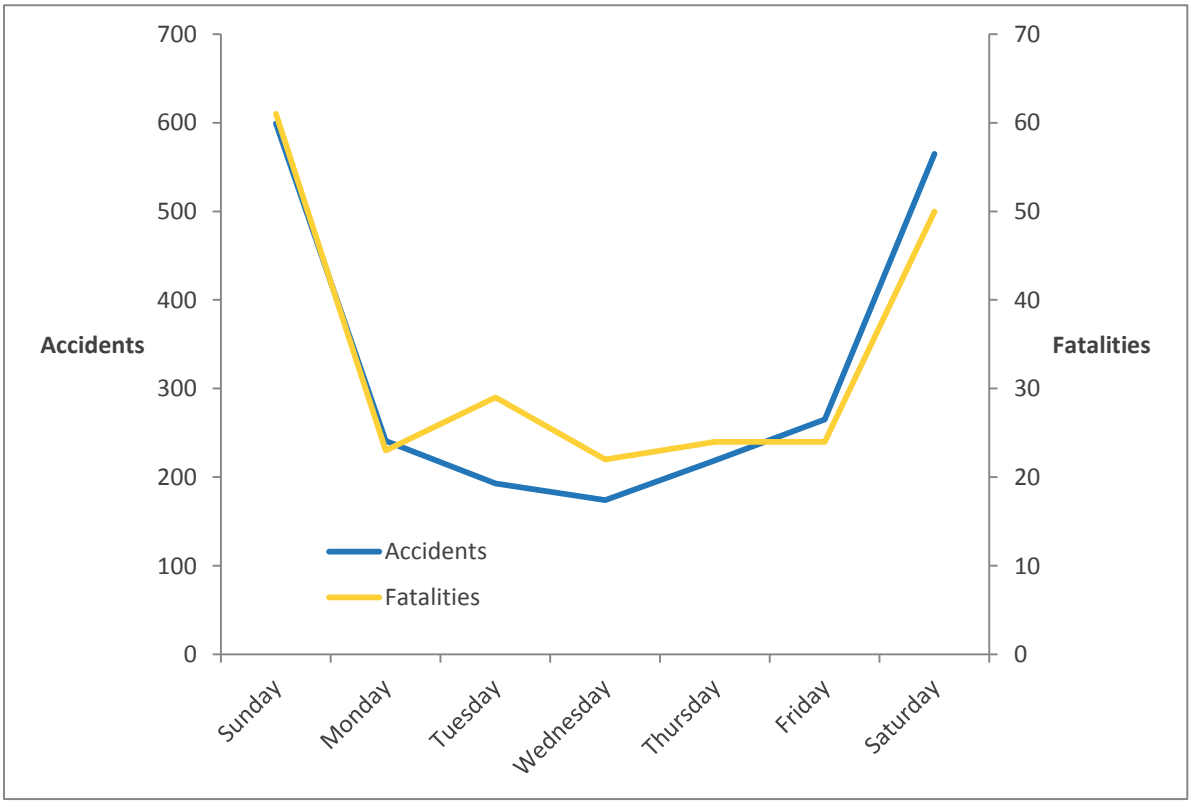
Accident Occurrence by Month
2005-2015

Month	Accidents	Fatalities
JANUARY	7	0
FEBRUARY	8	1
MARCH	15	8
APRIL	52	21
MAY	193	29
JUNE	319	33
JULY	711	53
AUGUST	563	41
SEPTEMBER	237	13
OCTOBER	96	22
NOVEMBER	42	8
DECEMBER	13	4



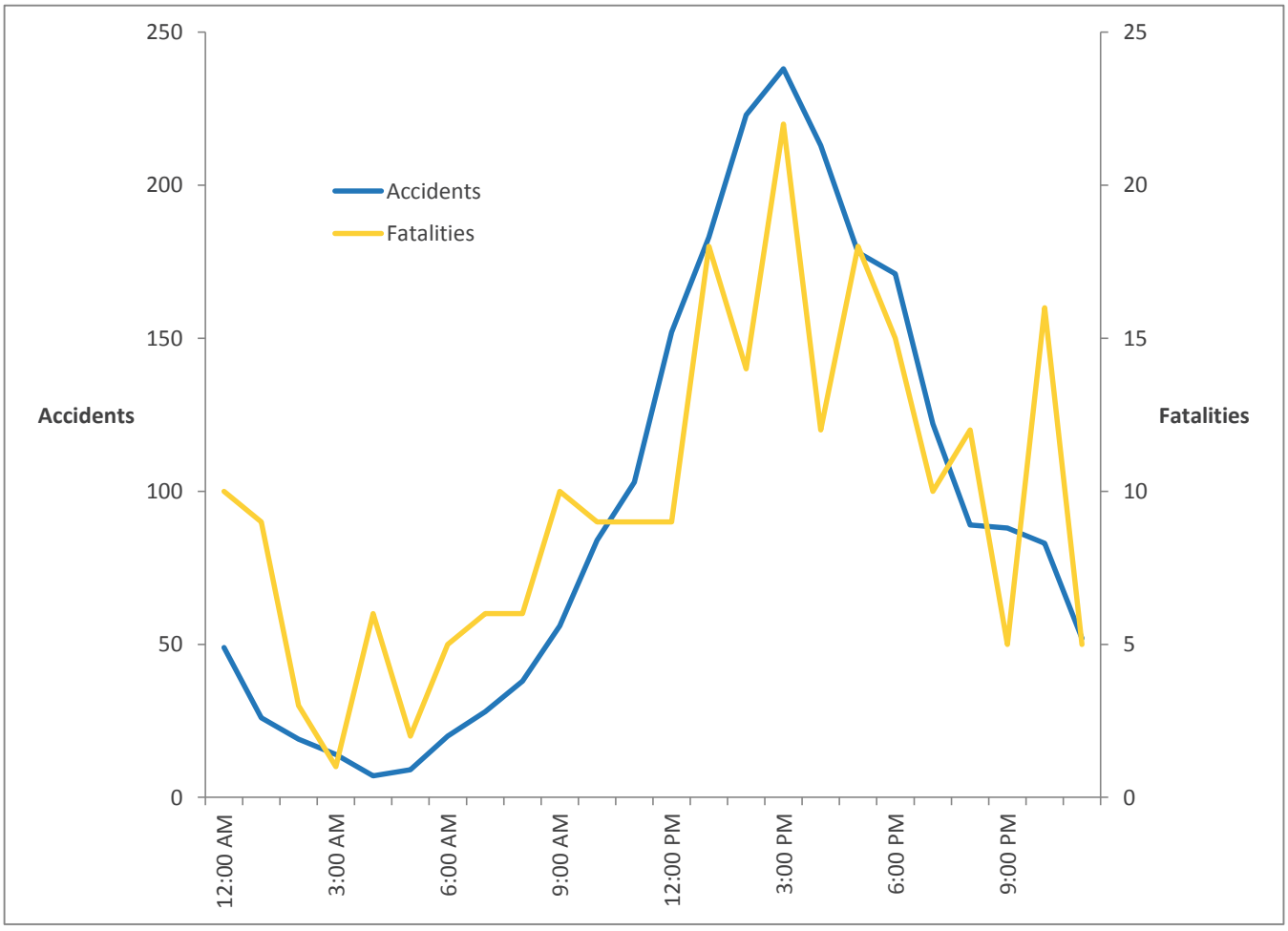
Accident Occurrence by Day
2005-2015

DAY	Accidents	Fatalities
Sunday	599	61
Monday	241	23
Tuesday	193	29
Wednesday	174	22
Thursday	219	24
Friday	265	24
Saturday	565	50



Accident Occurrence by Time
2005-2015

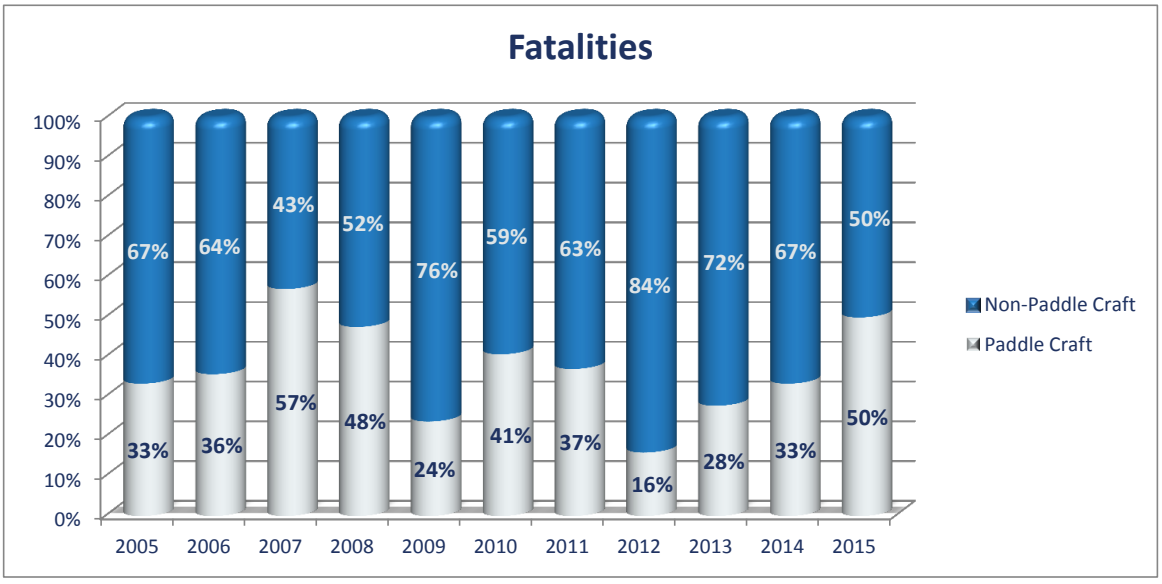
AM			PM		
Time	Accidents	Fatalities	Time	Accidents	Fatalities
12 to 1	49	10	12 to 1	152	9
1 to 2	26	9	1 to 2	183	18
2 to 3	19	3	2 to 3	223	14
3 to 4	14	1	3 to 4	238	22
4 to 5	7	6	4 to 5	213	12
5 to 6	9	2	5 to 6	178	18
6 to 7	20	5	6 to 7	171	15
7 to 8	28	6	7 to 8	122	10
8 to 9	38	6	8 to 9	89	12
9 to 10	56	10	9 to 10	88	5
10 to 11	84	9	10 to 11	83	16
11 to 12	103	9	11 to 12	52	5



Paddle Craft Accidents
2005-2015

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

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



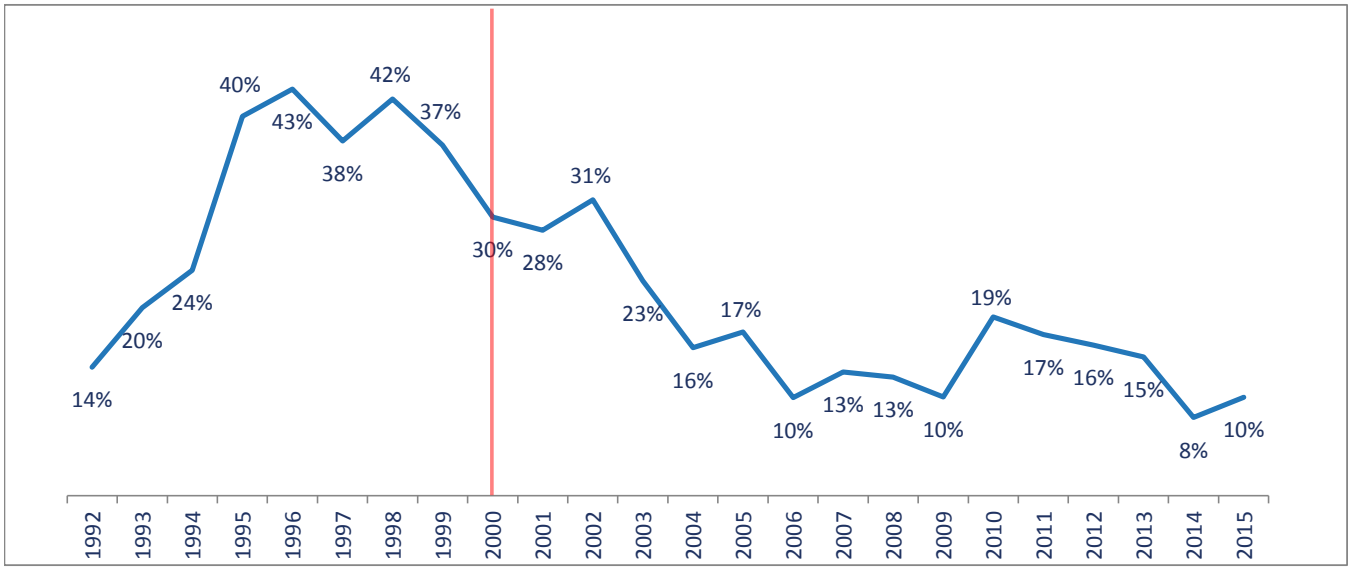
Paddle Craft represent **4.7%** of the total vessels involved in accidents. They however contribute to **36.2%** of all fatalities.

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

*** Mandatory education for PWC operators begins**

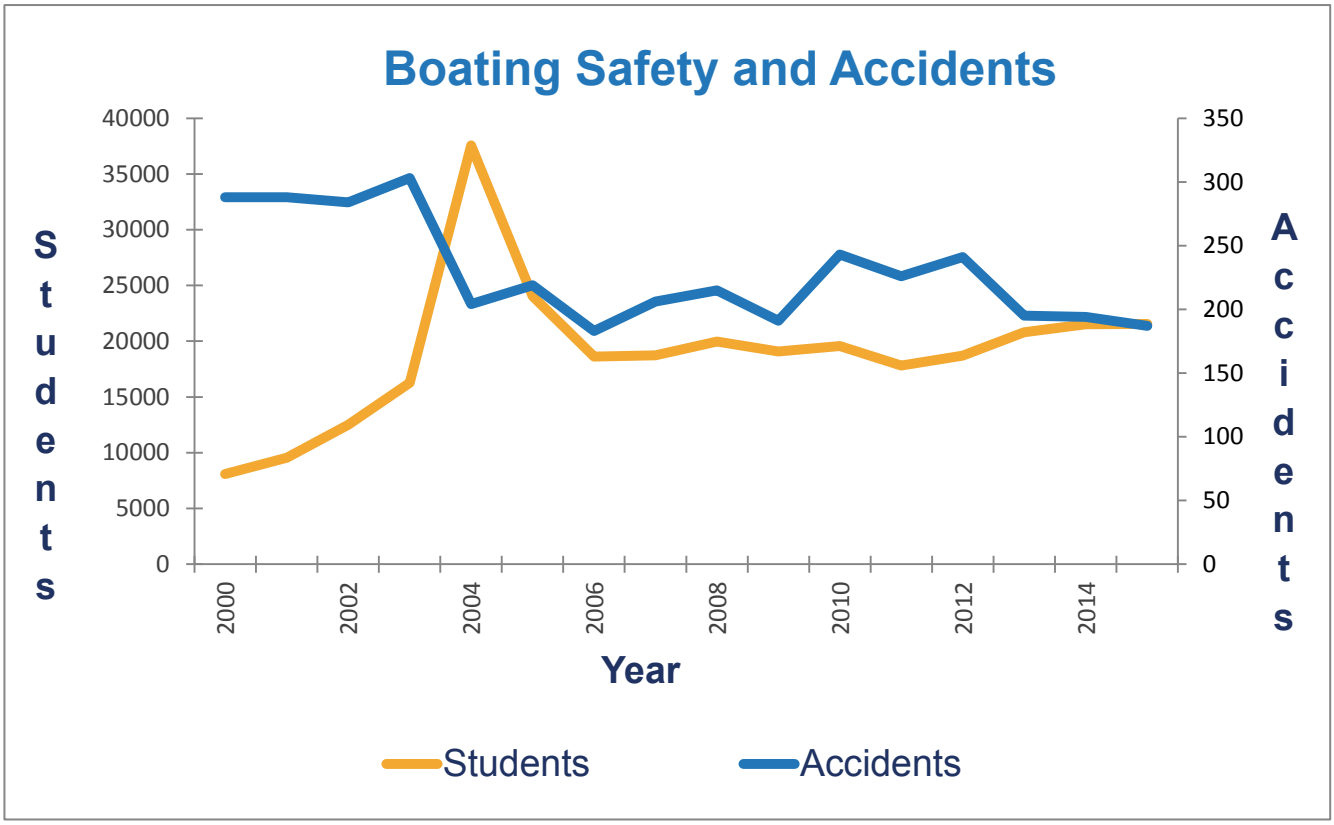
Percentage of PWC Vessels Involved in Accidents



PWC accidents have declined significantly since implementation of mandatory education

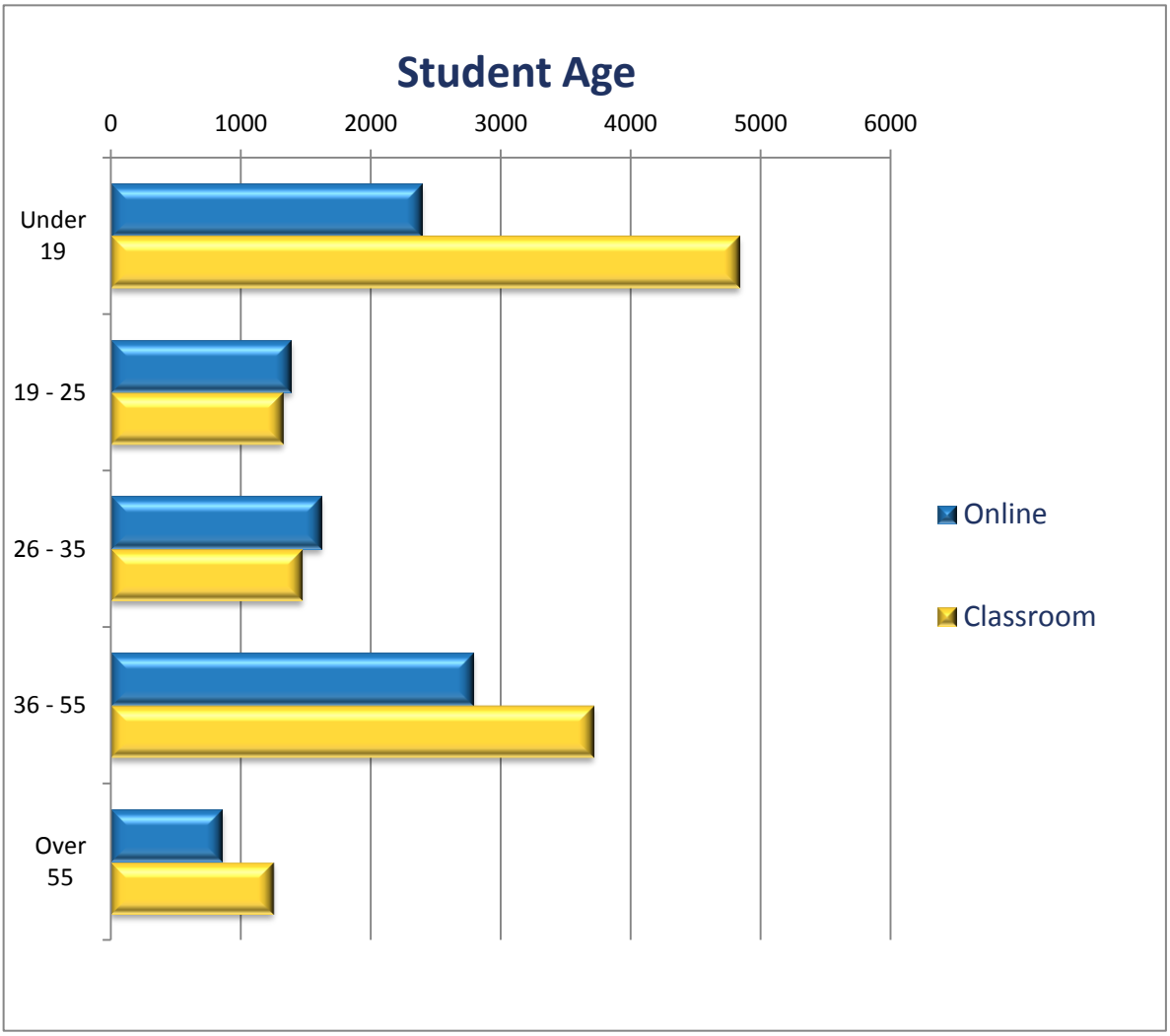
Boating Safety Education History

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



Student Age

Age Group	Online	Classroom
Under 19	2390	4830
19 - 25	1385	1326
26 - 35	1616	1473
36 - 55	2785	3709
Over 55	854	1250



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