Tennessee Wildlife Resources Agency

2012 Tennessee Boating Accident Statistical Report

Summary of Reportable Boating Accidents

TWRA Boating & Law Enforcement Division

12

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HISTORY:

The Tennessee Wildlife Resources Agency acquired the state's boating program in 1965 with the implementation of the 'Boating Safety Act'. Before this date the United States Coast Guard (USCG) administered the state's boating program.

INTRODUCTION:

The 2012 Boating Accident Statistical Report is compiled by the Tennessee Wildlife Resources Agency (TWRA), Boating & Law Enforcement Division. The data used in this report is retrieved from "reportable boating accident" reports submitted by TWRA officers who investigate boating accidents and report their findings on TWRA Boating Accident Report forms (BAR). This data is for accidents which occur during the 2012 calendar year.

To be considered a "reportable boating accident", an accident must involve death, missing person, an injury which requires or should have required treatment beyond first aid, or property damage of $2,000 or more. Tennessee requires operators involved in an accident to immediately notify TWRA and provide certain information to the investigating officer. TWRA officers are required by Agency policy to investigate accidents that meet the reporting criteria.

At the end of each calendar year, boating accident data is compiled and assembled into Tennessee's annual report. These statistics are analyzed in an effort to formulate pro-active

plans to reduce the number of boating accidents and their related fatalities, injuries, and property damage. The accident information is also reported to the USCG Office of Boating Safety in Washington, D.C. to be included in the National Boating Accident Database consisting of data from all U.S. states, commonwealths, and territories.

Any questions concerning this report should be directed to:

Tennessee Wildlife Resources Agency
Boating & Law Enforcement Division – Investigations
P.O. Box 40747
Nashville, TN 37204
Telephone: (615) 781-5271

2012 TENNESSEE BOATING ACCIDENT STATISTICAL REPORT
EXECUTIVE SUMMARY

2012 REPORTABLE BOATING ACCIDENTS

- The total number of *registered vessels* in 2012 was **259,632**. That was a **increase** of over 1,536 from 2011.
- The total number of *reportable accidents* in 2012 was **171.** That was an **increase** from 2011 which had **162.**
- The *accident rate* for 2012 was **65.8 per 100,000** registered vessels. This was an **increase** from 2011 which was **62.7 per 100,000**.
- The *body of water* that reported the most accidents was **Chickamauga Lake and Norris Lake** with **15 accidents each.**
- The *county* that reported the most accidents was **Polk County.** (whitewater activities)
- The *monetary amount* of damage resulting from boating accidents in 2012 was **$2,306,012.** This was an **increase** from 2011 which reported $553,910.
- The most common *type of boat* involved in an accident was an **open motorboat.**
- The leading *type of accident* was **collision with another vessel** and **fire (Non Fuel Related).**
- The most common *operation* during an accident was **cruising.**
- The leading *primary cause* of accidents was **operator inattention** and **no proper lookout**.
- *Alcohol and/or drug use* was a primary cause in **2.9%** of accidents. This was a **decrease** from 2011 which was **4.9%** of accidents.
- *Rented or borrowed vessels* were involved in **19.3%** of accidents in 2012. This was a **decrease** from 2011 which was **20.3%** of accidents.
- The most likely *time* to be involved in an accident was between the hours of **Noon to 4 pm.**
- The most likely *day of the week* to be involved in an accident was **Saturday.**
- The leading *age group* of operators to be involved in an accident was **41 through 45.**

2012 BOATING FATALITIES

- The *number* of boating fatalities for 2012 was **18.** This was a **decrease** from 2011 which reported **19**.
- The *type of accident* that resulted in the most fatalities was **falls overboard** with 4 occurrences.
- The *type of vessel* that was most common in fatal accidents was the **open motorboat** with 12 vessels**.**
- The *length of vessel* that was most common in fatal accidents was **16 to 26 feet** with 8 vessels.
- The top *primary cause* for fatal accidents was **alcohol use** and **weather/wind** with 2 occurrences each. Of the fatal accidents, 4 had an undetermined primary cause.

2012 INJURY ACCIDENTS

- The *number* of injury accidents in 2012 was **94** resulting in **106 injuries.**
- The leading *contributing cause* of injury accidents was **careless/reckless operation.**
- The *type of accidents* that resulted in the most injuries was **skier mishap.**
- The *body of water* that produced the most injury accidents was the **Ocoee River** with **13** accidents. These resulted from whitewater sports activities.

2012 PROPERTY DAMAGE ACCIDENTS

- The *number* of property damage accidents in 2012 was **72.** This was an **increase** from 2011 which reported **60**.
- The *type of accident* that most commonly resulted in property damage was **collision with another vessel** with **15** occurrences.
- The *body of water* that reported the most property damage accidents was **Norris Lake** with **8** accidents.
- The leading *primary cause* in property damage accidents was **improper lookout** and **operator inattention** with **8** occurrences each.

2012 PERSONAL WATERCRAFT (PWC) ACCIDENTS

- The *number* of PWC's involved in accidents in 2012 was **25,** an **increase** from 2011 which reported **16**.
- The *number* of PWC's involved in injury accidents was **18,** an **increase** from 2011 which reported **15**.
- The *number* of PWC's involved in fatal accidents was **0,** which is **equal** to 2011 which reported **0**.
- The leading *primary causes* for PWC accidents were **Careless/Reckless Operation** with **6** occurrences followed by **operator inexperience** with **5** occurrences.
- The *body of water* with the most PWC accidents was **Tims Ford Lake, Old Hickory Lake, Norris Lake, and Cherokee Lake** with **3** accidents each.
- The most common *operator age group* to be involved in a PWC accident was **31 through 35.**

2012 LAW ENFORCEMENT SUMMARY

• Total boating law enforcement hours	**81,187**	
• On-Water law enforcement hour(boat log hours)	**51,232**	
• Boating citations issued	**1,828**	
• BUI arrests	**131**	
• Warning citations issued	**1,723**	
• Vessels inspected by law enforcement	**76,848**	
• Search and rescue missions	**50**	
• Total number of boating enforcement officers	**185**	**full time**
	45	**part time**
	230	**total**

• Officers trained in BUI detection	**230**
• Officers trained in accident investigation	**15**

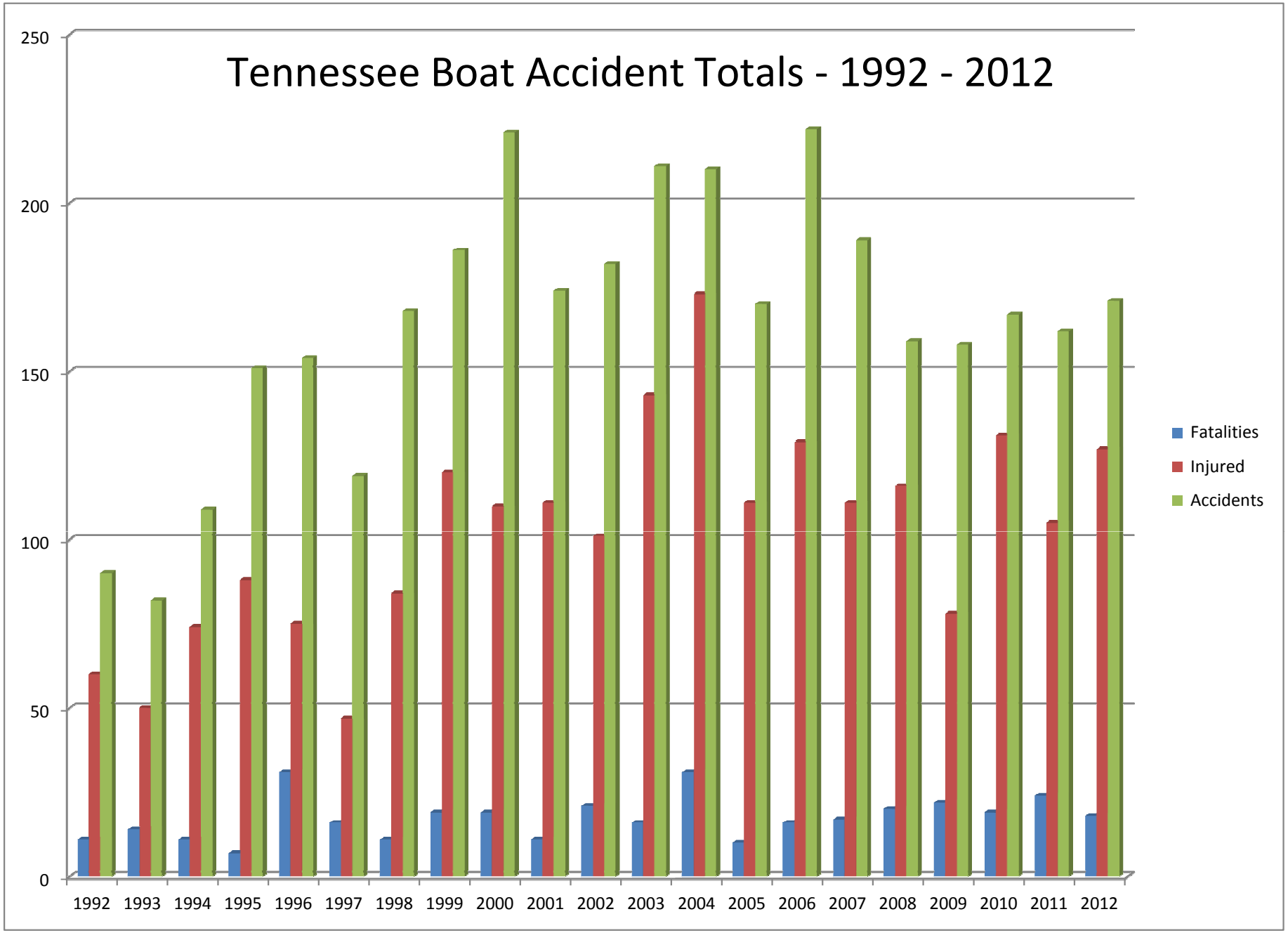
2012 BOATING EDUCATION SUMMARY

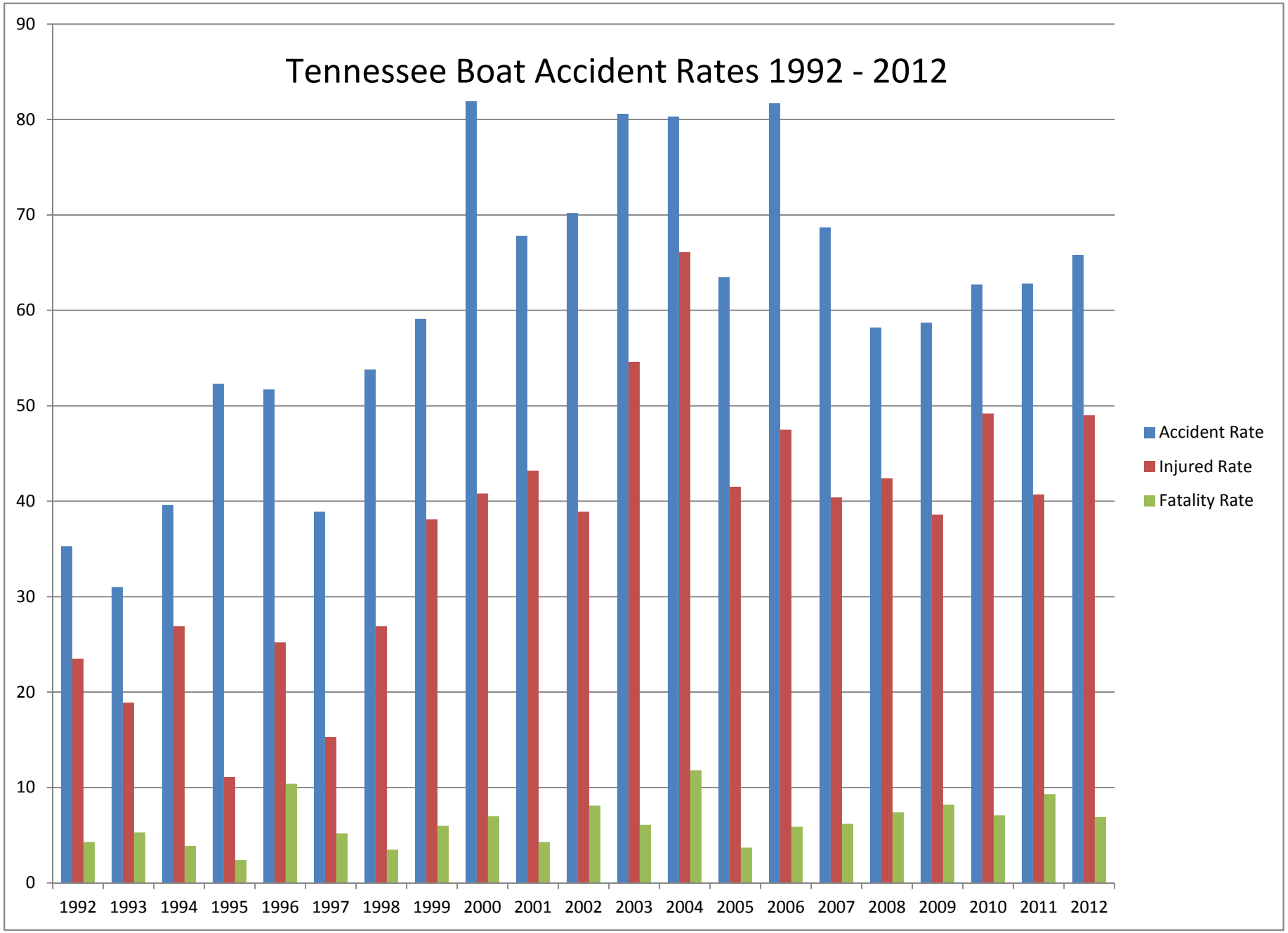
In 2005 a law went into effect that required vessel operators born after January 1, 1989 to have onboard the Tennessee Wildlife Resources Agency (TWRA)-issued Boating Safety Education Certificate. Students must pass a monitored exam administered by appointed volunteers or TWRA personnel. All exams are approved by the National Association of State Boating Law Administrators (NASBLA).

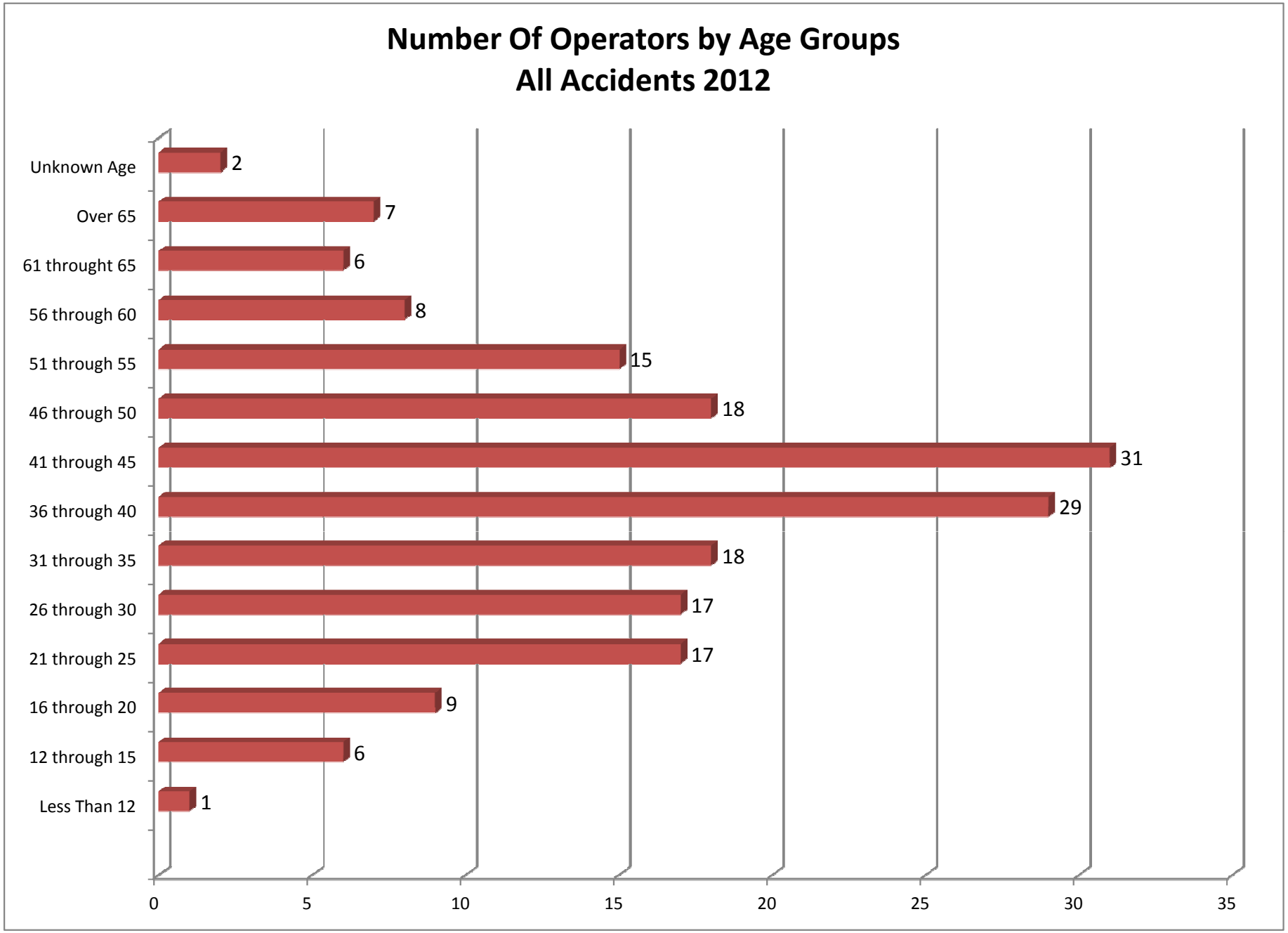
- Number of persons successfully completing exam in 2012 **5,908**

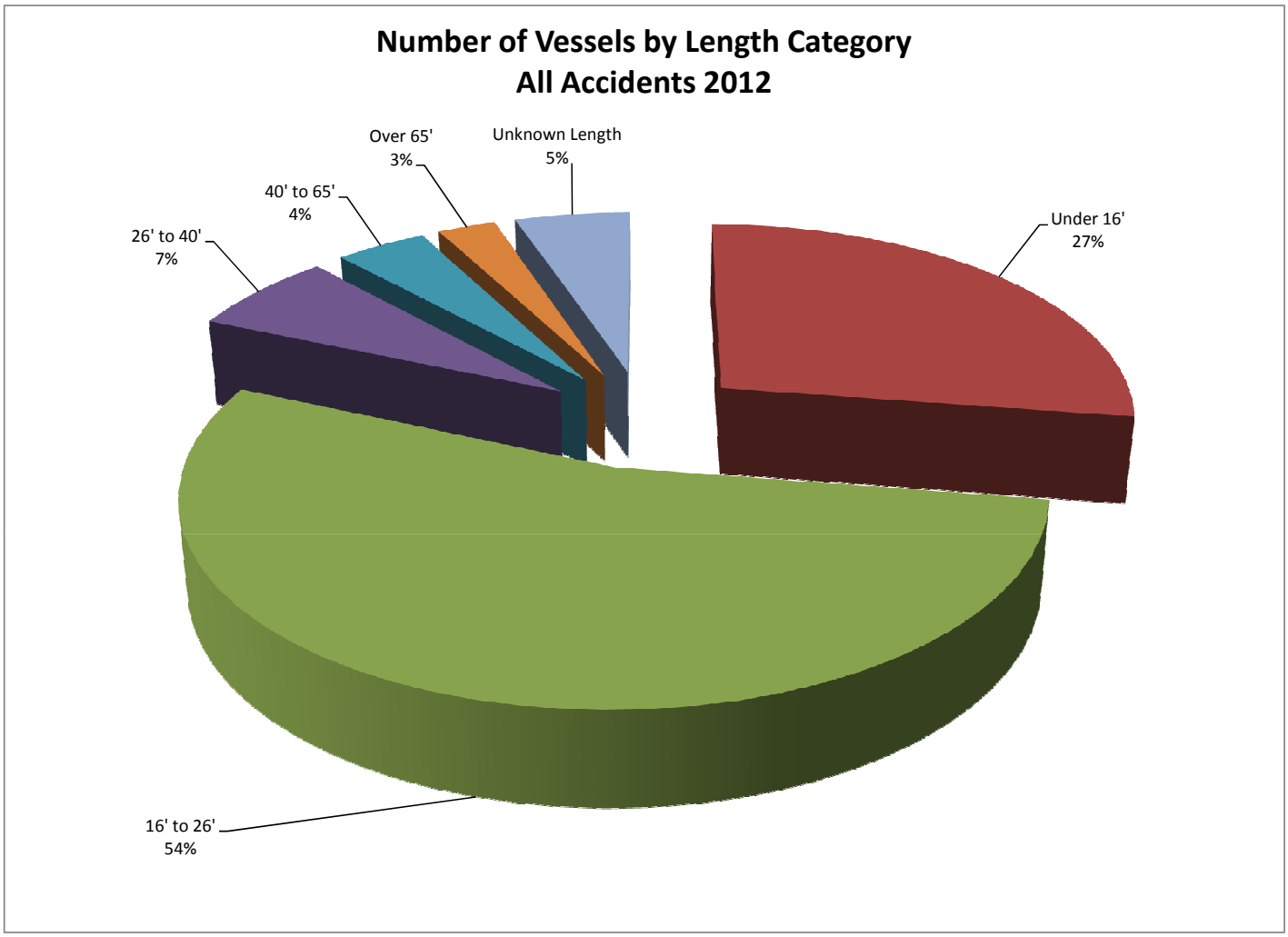
Boat Accident Report Statistics - Compiled From 1965 through 2011

	NUMBER				RATE PER 100,00 VESSELS		
YEAR	REGISTERED VESSELS	INJURED	FATALITIES	ACCIDENTS	INJURED	FATAL	ACCIDENTS
1965	70,899	6	2	13	8.5	2.8	18.3
1966	81,897	13	8	33	15.9	9.8	40.3
1967	90,844	11	29	51	12.1	31.9	56.2
1968	97,785	16	18	54	16.4	18.4	55.2
1969	122,958	16	27	40	13	21.9	32.5
1970	120,292	18	40	51	14.9	33.3	42.4
1971	140,370	1	22	18	0.7	15.7	12.8
1972	153,227	9	25	48	5.9	16.3	31.3
1973	174,729	13	47	72	7.4	26.9	41.2
1974	189,290	27	37	64	14.3	19.5	33.8
1975	204,499	49	30	95	23.9	14.7	46.5
1976	169,543	30	26	90	17.7	15.3	53.1
1977	182,752	64	35	102	35	19.2	55.8
1978	215,292	32	29	84	14.9	13.5	39
1979	183,224	46	37	84	25.1	20.2	45.8
1980	185,298	78	30	92	42.1	38.9	49.6
1981	186,221	41	38	78	22	20.4	41.9
1982	187,850	38	32	71	20.2	17	37.8
1983	192,018	46	32	93	23.9	16.7	48.4
1984	196,446	47	24	69	23.9	12.2	35.1
1985	200,582	36	22	74	17.9	10.9	36.9
1986	207,409	49	28	82	23.6	13.5	39.5
1987	214,646	50	26	90	23.3	12.1	41.9
1988	224,709	51	15	89	22.7	6.7	39.6
1989	233,403	39	24	73	16.7	10.3	31.3
1990	241,632	41	19	72	16.9	7.7	29.8
1991	247,661	48	16	91	19.4	6.5	36.7
1992	255,043	60	11	90	23.5	4.3	35.3
1993	264,194	50	14	82	18.9	5.3	31
1994	275,597	74	11	109	26.9	3.9	39.6
1995	288,834	88	7	151	11.1	2.4	52.3
1996	297,719	75	31	154	25.2	10.4	51.7
1997	306,215	47	16	119	15.3	5.2	38.9
1998	312,030	84	11	168	26.9	3.5	53.8
1999	314,620	120	19	186	38.1	6	59.1
2000	269,583	110	19	221	40.8	7	81.9
2001	256,670	111	11	174	43.2	4.3	67.8
2002	259,235	101	21	182	38.9	8.1	70.2
2003	261,636	142	17	213	54.6	6.1	80.6
2004	261,465	173	31	210	66.1	11.8	80.3
2005	267,567	108	10	169	41.5	3.7	63.5
2006	271,687	129	16	222	47.5	5.9	81.7
2007	274,914	111	17	189	40.4	6.2	68.7
2008	271,455	116	20	159	42.4	7.4	58.2
2009	269,361	104	22	158	38.6	8.2	58.7
2010	266,185	131	19	167	49.2	7.1	62.7
2011	258,096	105	24	162	40.7	9.3	62.8
2012	259,632	127	18	171	49	6.9	65.8
Averages	***218,275***	***64***	***23***	***111***	***27***	***12***	***49***

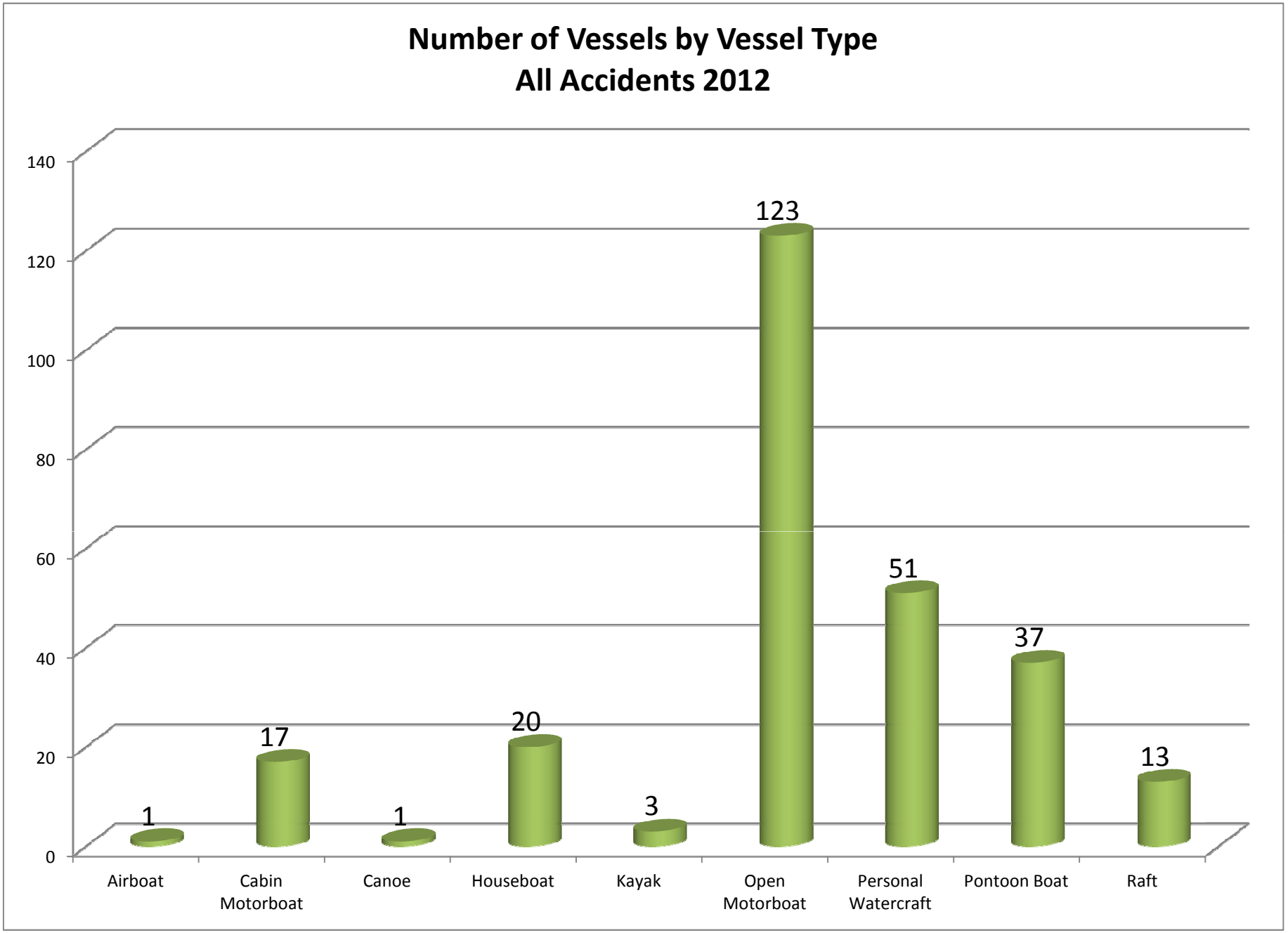

Tennessee Boat Accident Totals - 1992 - 2012
250
200
150
100
50
0
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Fatalities
Injured
Accidents

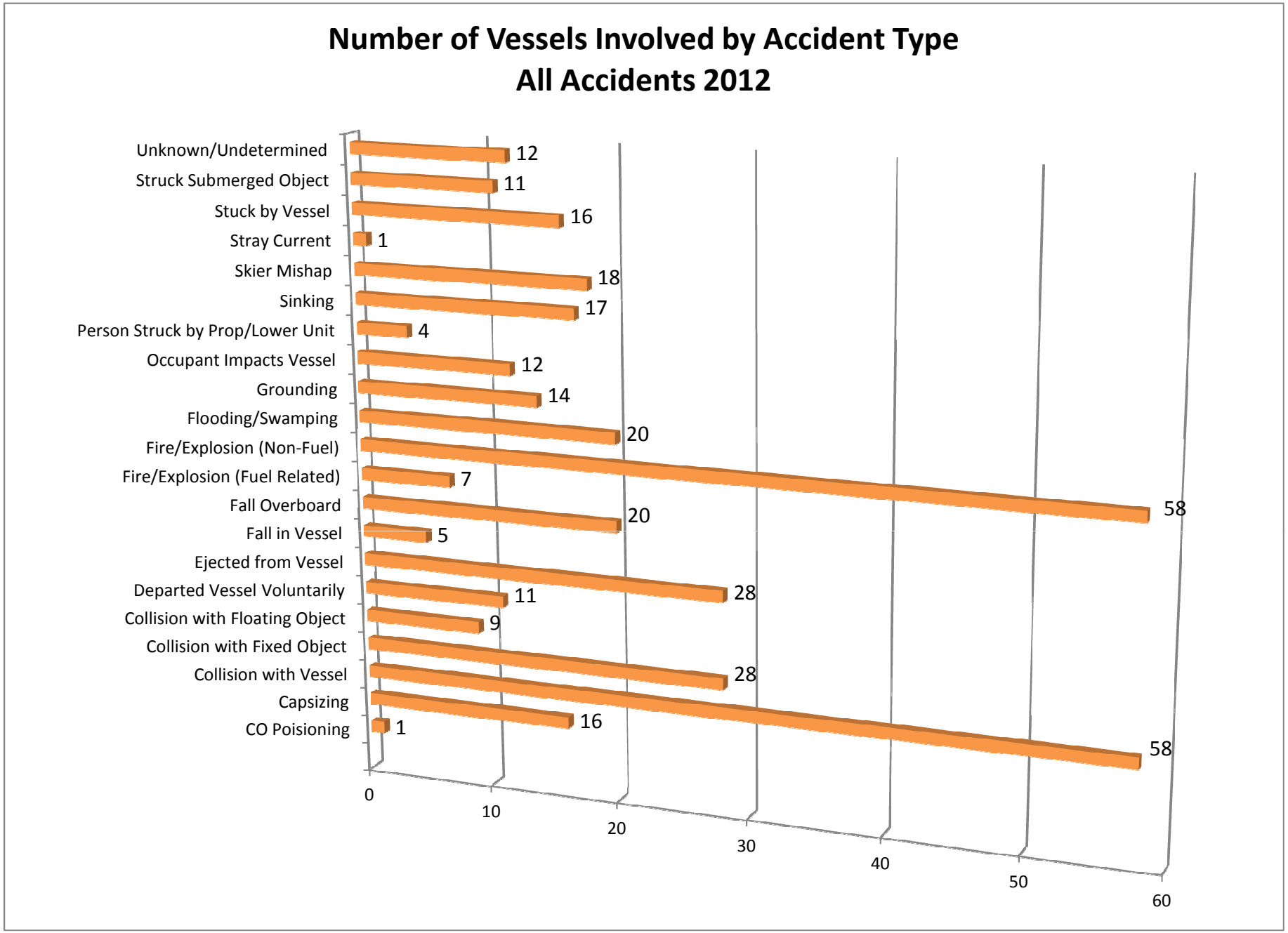

Tennessee Boat Accident Rates 1992 - 2012
90
80
70
60
50
40
30
20
10
0
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Accident Rate
Injured Rate
Fatality Rate

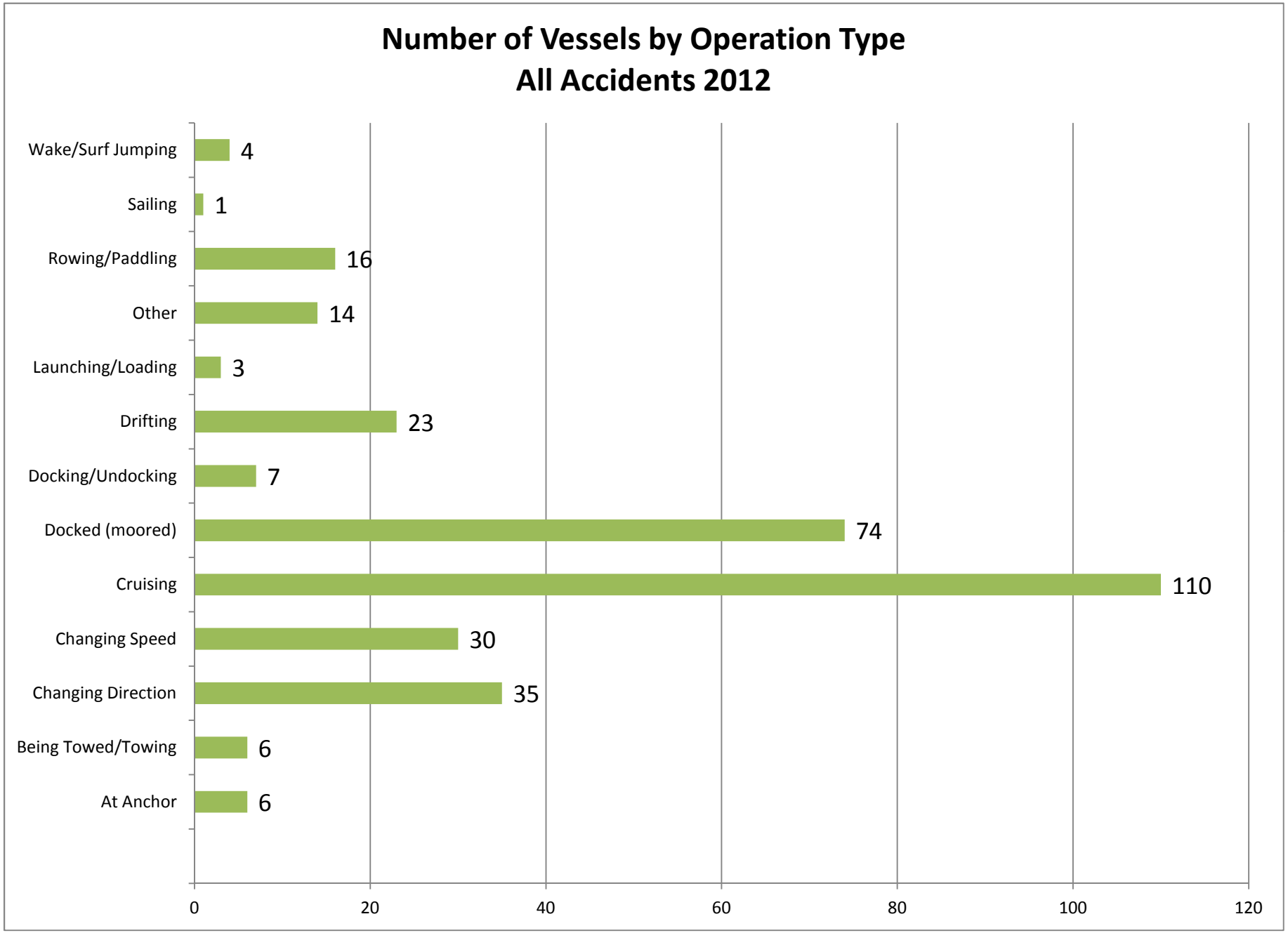

Number Of Operators by Age Groups
All Accidents 2012
Unknown Age
Over 65
61 throught 65
56 through 60
51 through 55
46 through 50
41 through 45
36 through 40
31 through 35
26 through 30
21 through 25
16 through 20
12 through 15
Less Than 12
2
7
6
8
15
18
31
29
18
17
17
9
6
1
0
5
10
15
20
25
30
35

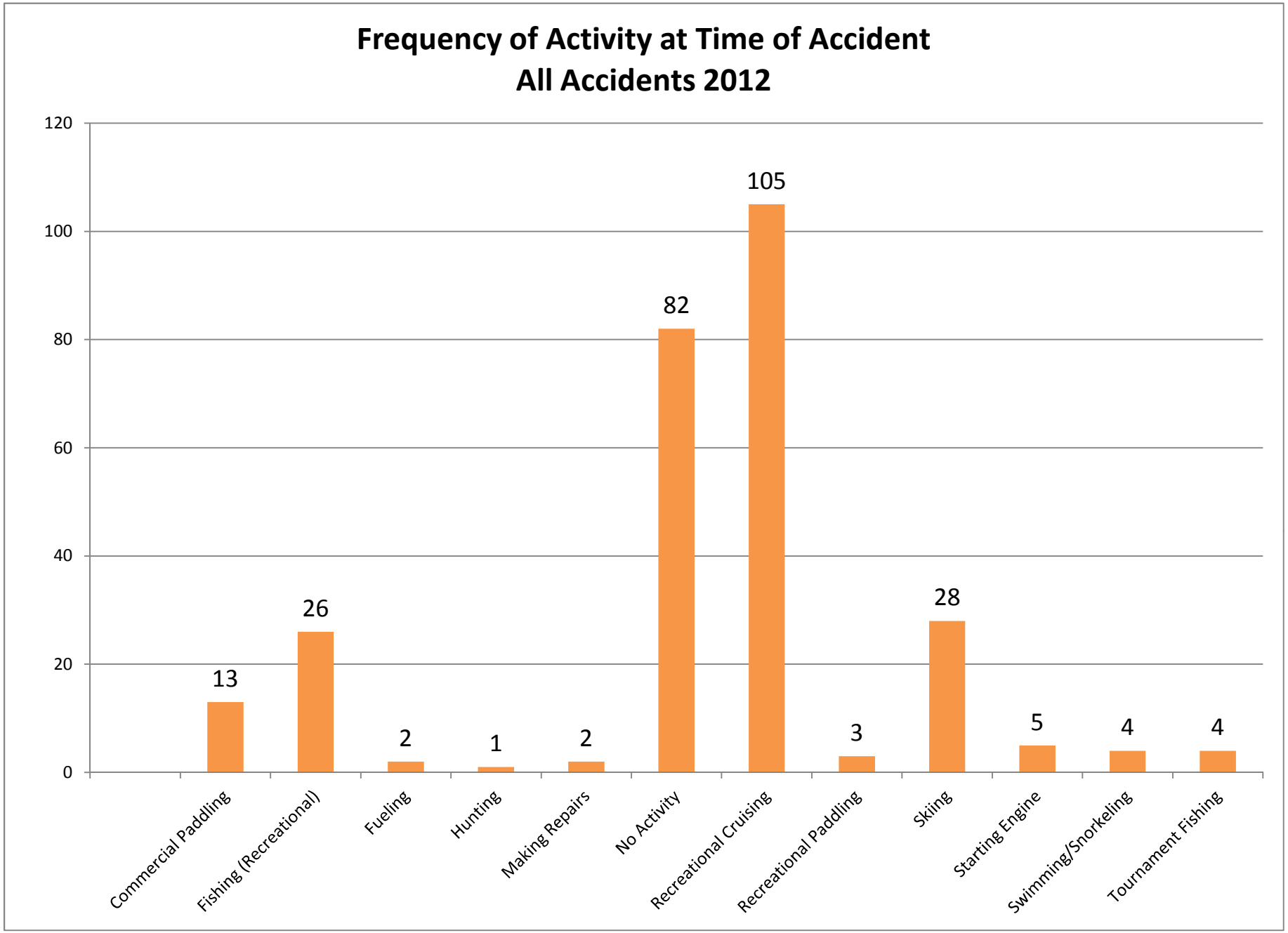


Vessel Length Category	Number of Vessels
Under 16'	74
16' to 26'	146
26' to 40'	18
40' to 65'	11
Over 65'	7
Unknown Length	14

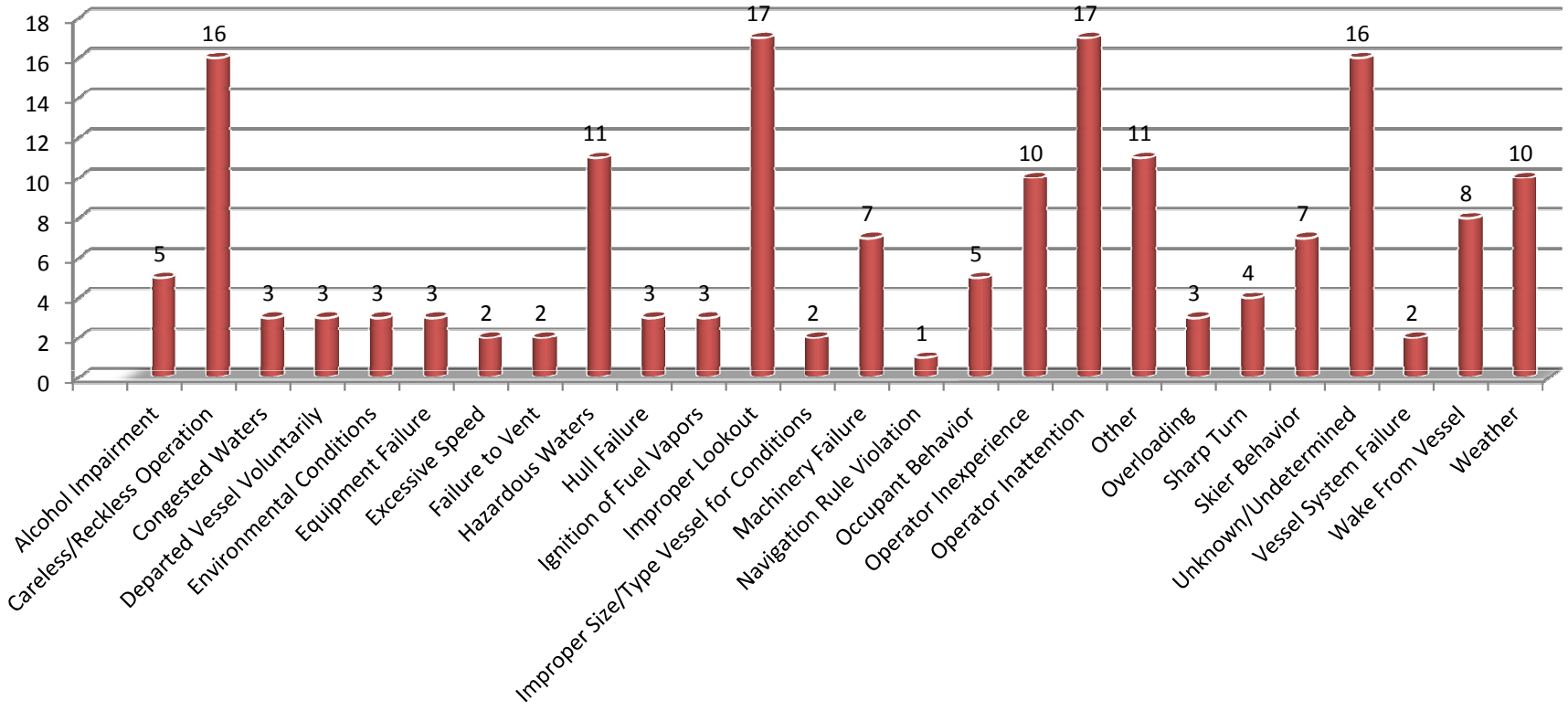

Number of Vessels by Vessel Type
All Accidents 2012
140
120
100
80
60
40
20
0
1
17
1
20
3
123
51
37
13
Airboat
Cabin Motorboat
Canoe
Houseboat
Kayak
Open Motorboat
Personal Watercraft
Pontoon Boat
Raft

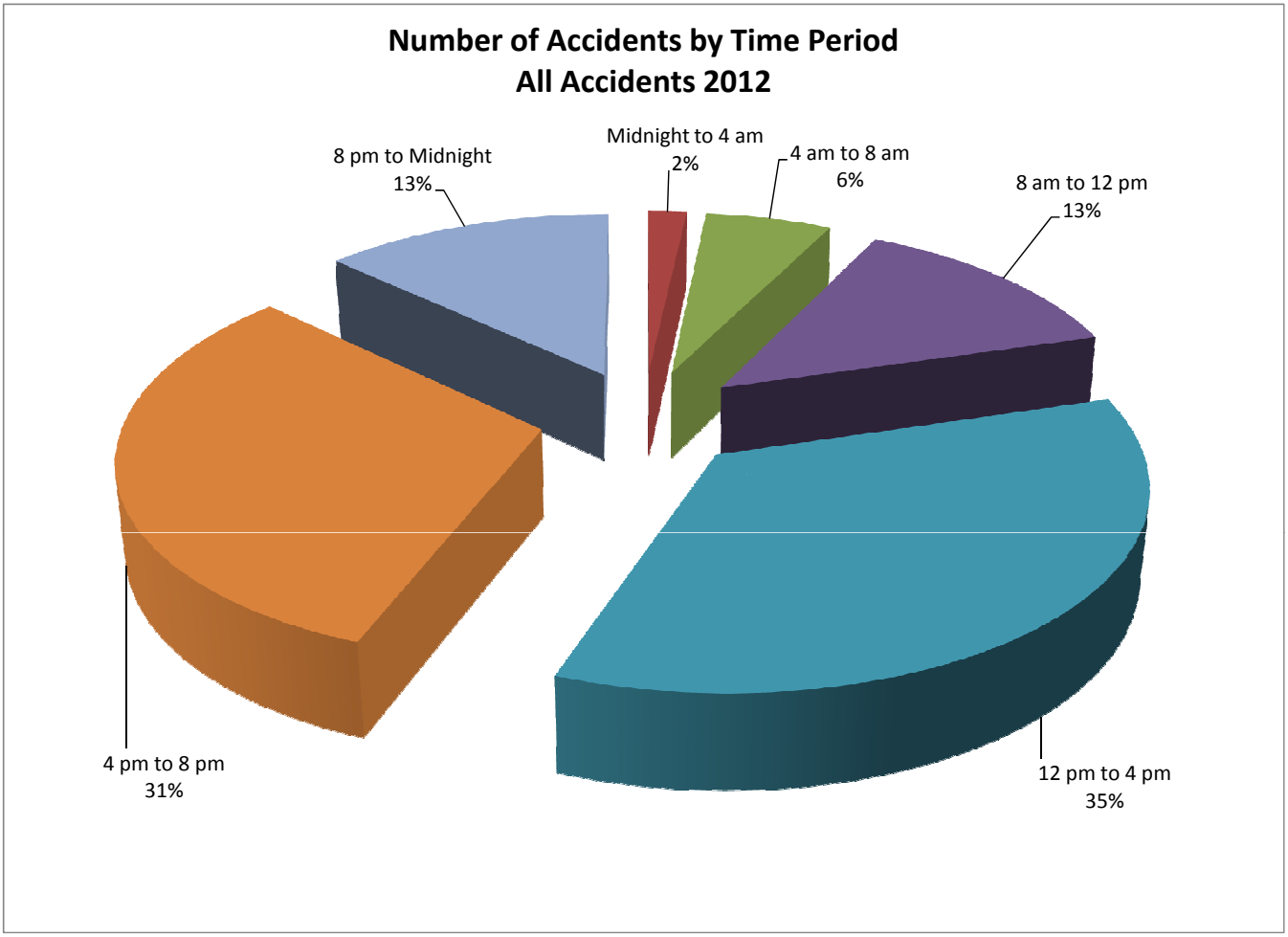

Number of Vessels Involved by Accident Type
All Accidents 2012
Unknown/Undetermined
Struck Submerged Object
Stuck by Vessel
Stray Current
Skier Mishap
Sinking
Person Struck by Prop/Lower Unit
Occupant Impacts Vessel
Grounding
Flooding/Swamping
Fire/Explosion (Non-Fuel)
Fire/Explosion (Fuel Related)
Fall Overboard
Fall in Vessel
Ejected from Vessel
Departed Vessel Voluntarily
Collision with Floating Object
Collision with Fixed Object
Collision with Vessel
Capsizing
CO Poisioning
12
11
16
1
18
17
4
12
14
20
58
7
20
5
28
11
9
28
58
16
1
0
10
20
30
40
50
60


Number of Vessels by Operation Type
All Accidents 2012
Wake/Surf Jumping
4
Sailing
1
Rowing/Paddling
16
Other
14
Launching/Loading
3
Drifting
23
Docking/Undocking
7
Docked (moored)
74
Cruising
110
Changing Speed
30
Changing Direction
35
Being Towed/Towing
6
At Anchor
6
0
20
40
60
80
100
120

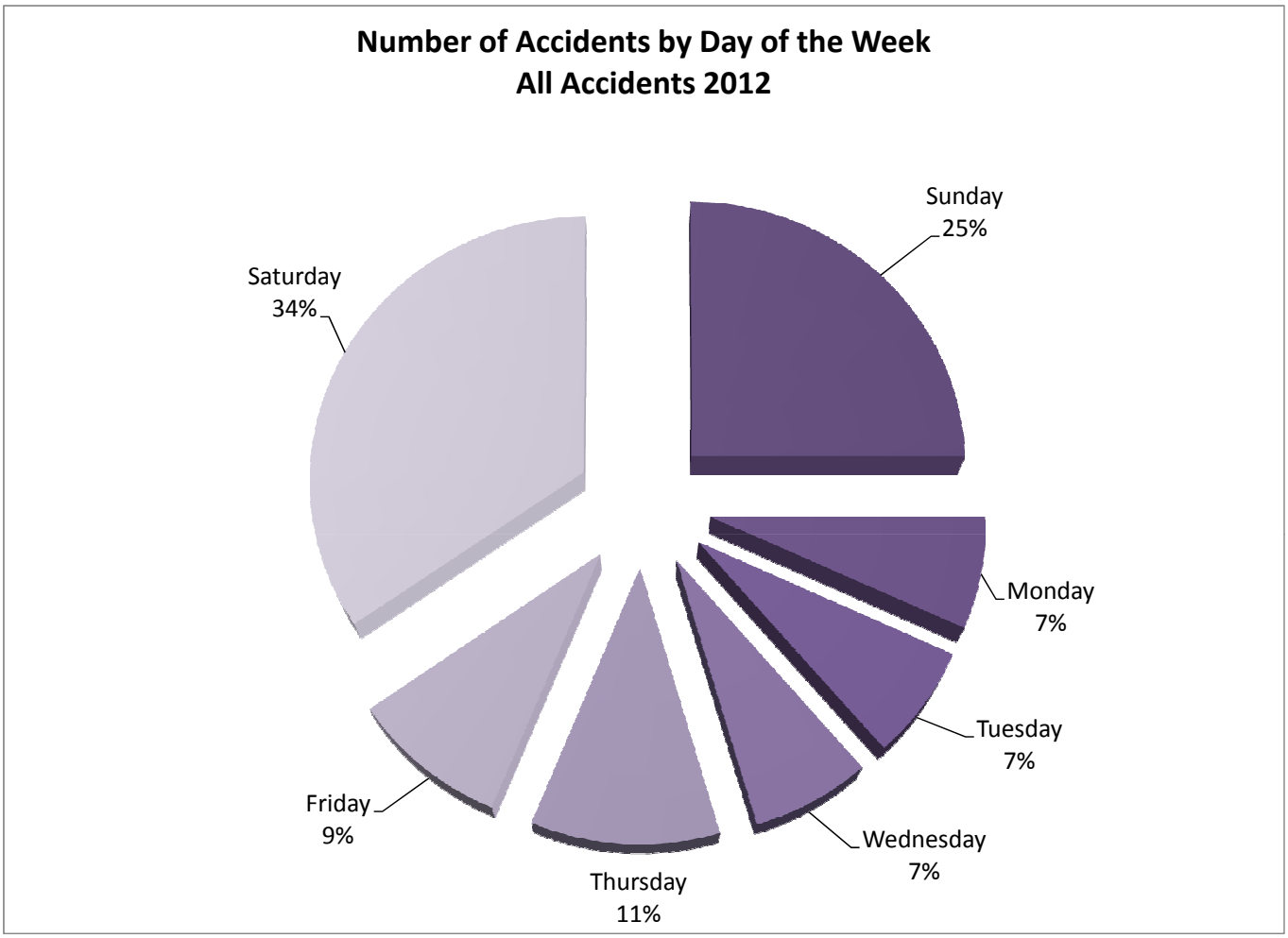

Frequency of Activity at Time of Accident
All Accidents 2012
120
100
80
60
40
20
0
13
26
2
1
2
82
105
3
28
5
4
4
Commercial Paddling
Fishing (Recreational)
Fueling
Hunting
Making Repairs
No Activity
Recreational Cruising
Recreational Paddling
Skiing
Starting Engine
Swimming/Snorkeling
Tournament Fishing

Number of Vessels by Primary Cause
All Accidents 2012

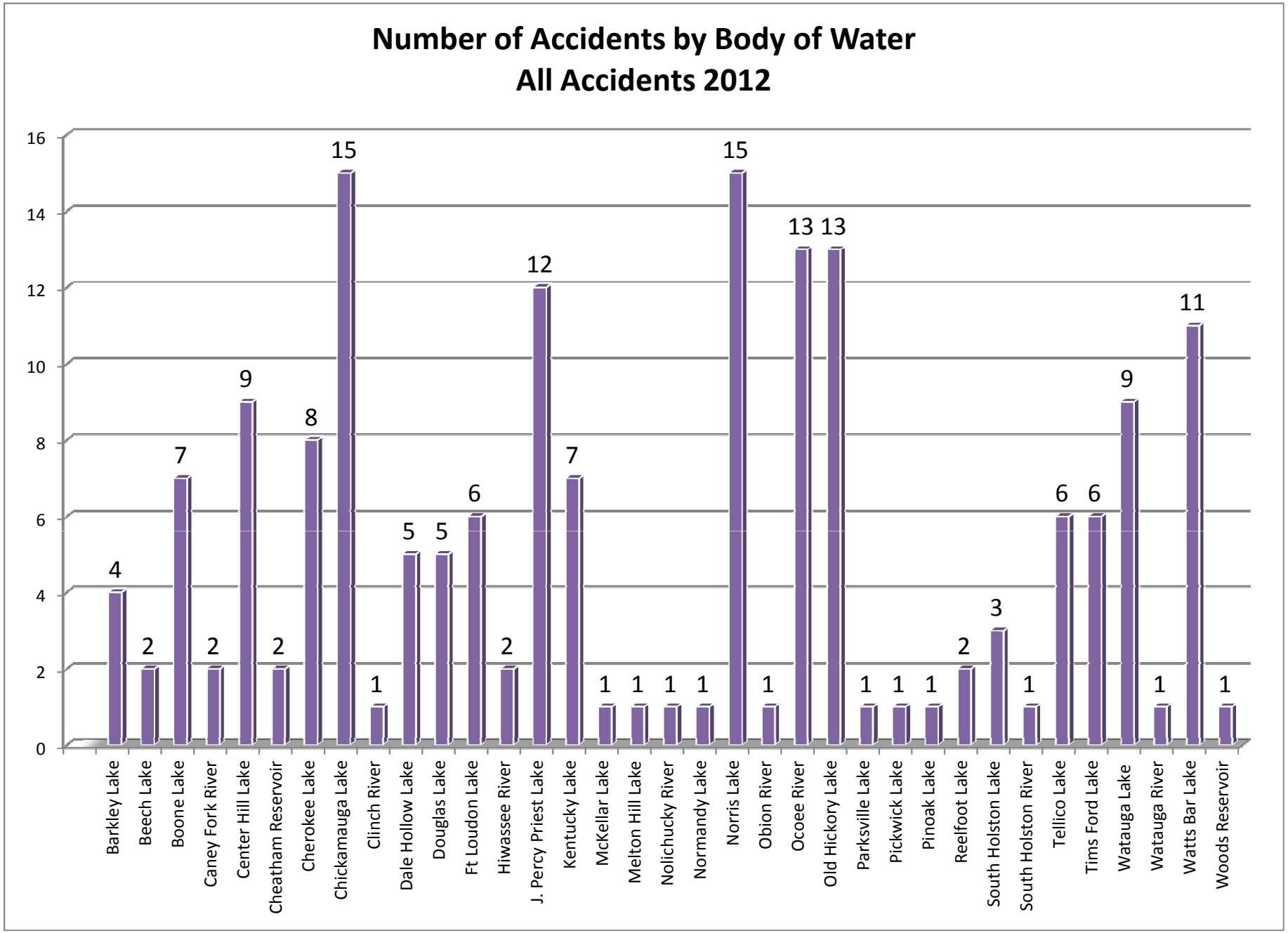


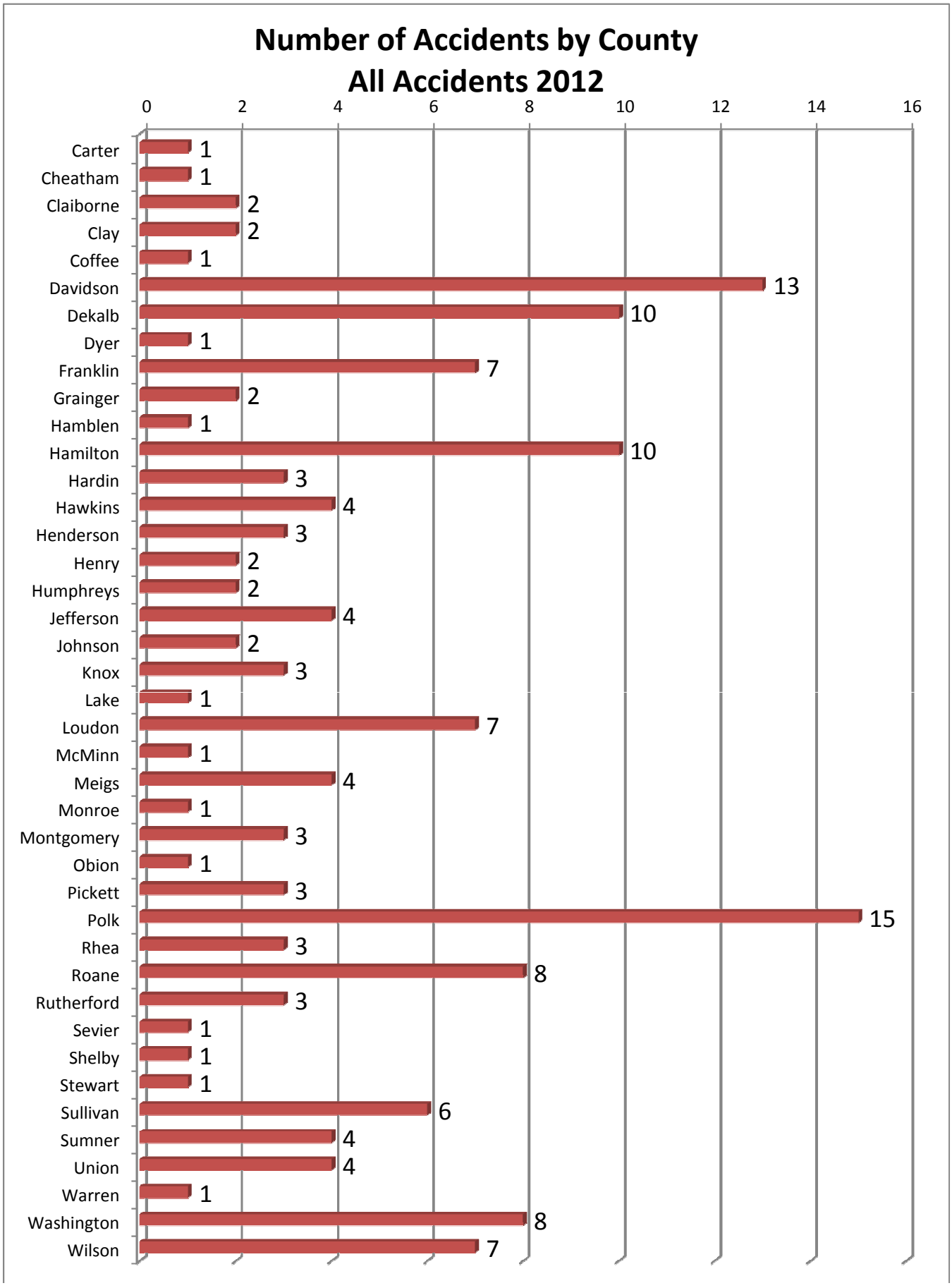


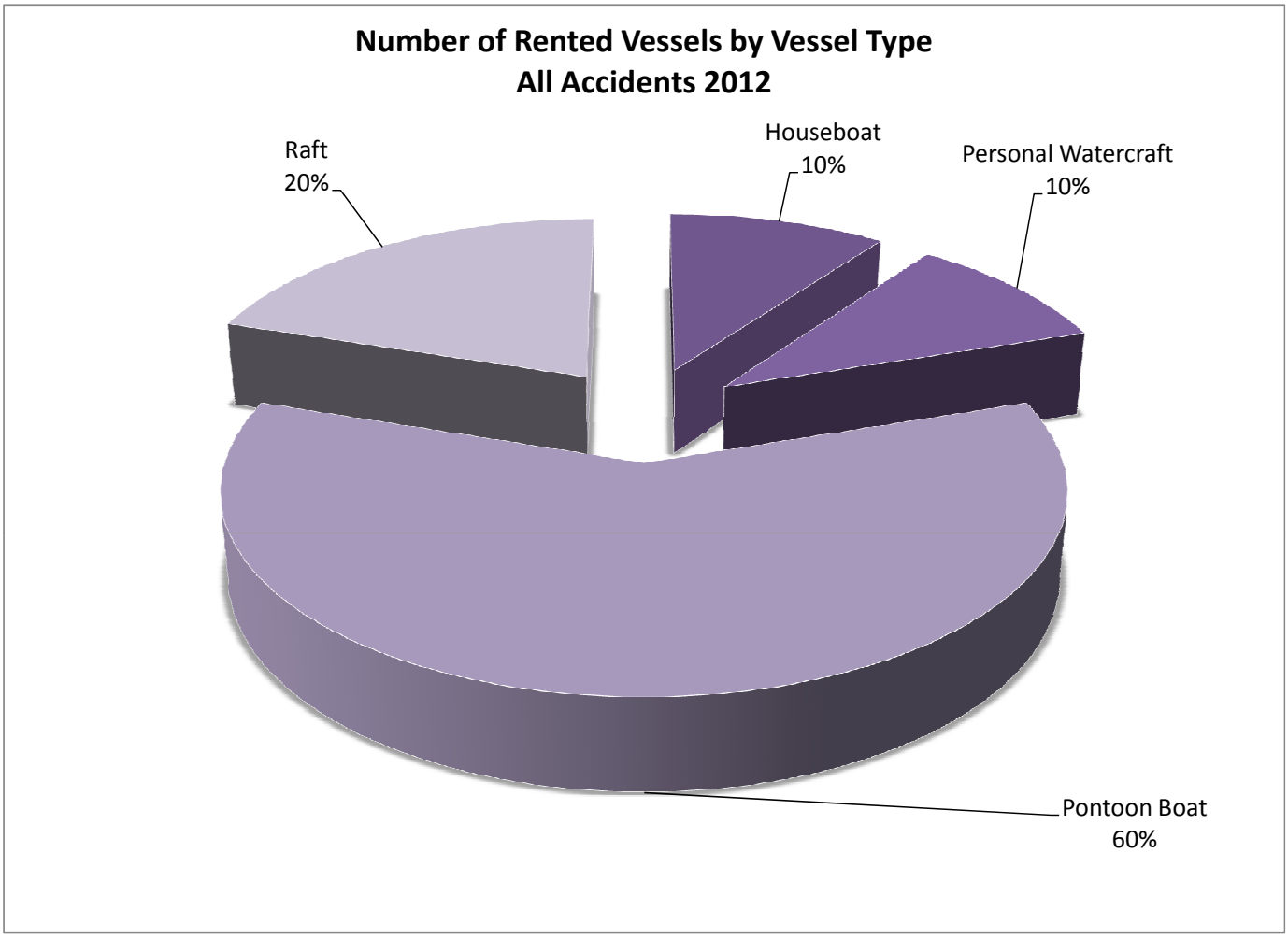
Time Period	Number of Accidents
Midnight to 4 am	3
4 am to 8 am	10
8 am to 12 pm	23
12 pm to 4 pm	62
4 pm to 8 pm	55
8 pm to Midnight	23



Day of Week	Number of Accidents
Sunday	44
Monday	12
Tuesday	12
Wednesday	12
Thursday	19
Friday	16
Saturday	61

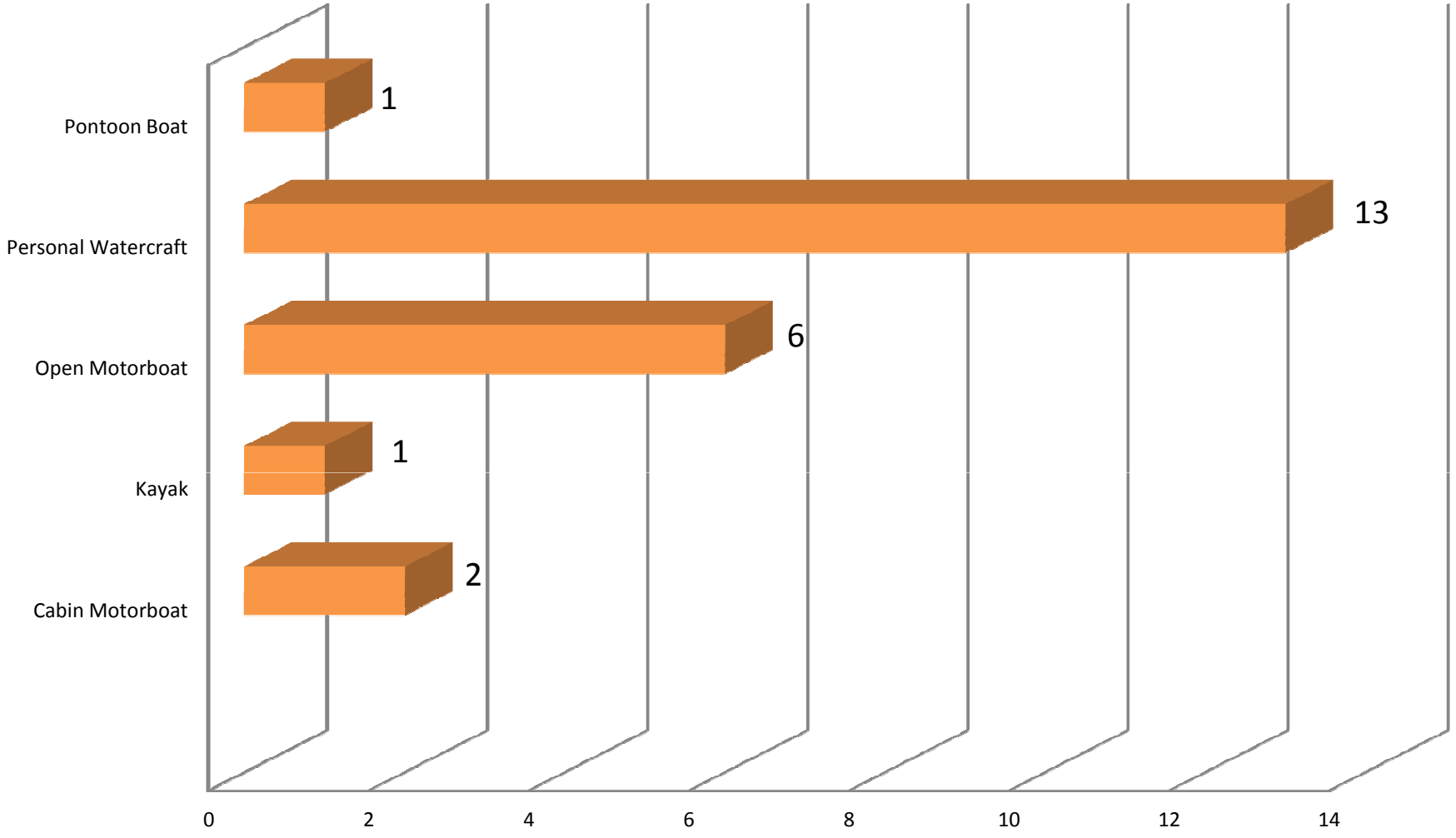

Number of Accidents by Body of Water
All Accidents 2012
16
14
12
10
8
6
4
2
0
4
2
7
2
9
2
8
15
1
5
5
6
2
12
7
1
1
1
1
15
1
13
13
1
1
1
2
3
1
6
6
9
1
11
1
Barkley Lake
Beech Lake
Boone Lake
Caney Fork River
Center Hill Lake
Cheatham Reservoir
Cherokee Lake
Chickamauga Lake
Clinch River
Dale Hollow Lake
Douglas Lake
Ft Loudon Lake
Hiwassee River
J. Percy Priest Lake
Kentucky Lake
McKellar Lake
Melton Hill Lake
Nolichucky River
Normandy Lake
Norris Lake
Obion River
Ocoee River
Old Hickory Lake
Parksville Lake
Pickwick Lake
Pinoak Lake
Reelfoot Lake
South Holston Lake
South Holston River
Tellico Lake
Tims Ford Lake
Watauga Lake
Watauga River
Watts Bar Lake
Woods Reservoir


Number of Accidents by County
All Accidents 2012
0
2
4
6
8
10
12
14
16
Carter 1
Cheatham 1
Claiborne 2
Clay 2
Coffee 1
Davidson 13
Dekalb 10
Dyer 1
Franklin 7
Grainger 2
Hamblen 1
Hamilton 10
Hardin 3
Hawkins 4
Henderson 3
Henry 2
Humphreys 2
Jefferson 4
Johnson 2
Knox 3
Lake 1
Loudon 7
McMinn 1
Meigs 4
Monroe 1
Montgomery 3
Obion 1
Pickett 3
Polk 15
Rhea 3
Roane 8
Rutherford 3
Sevier 1
Shelby 1
Stewart 1
Sullivan 6
Sumner 4
Union 4
Warren 1
Washington 8
Wilson 7



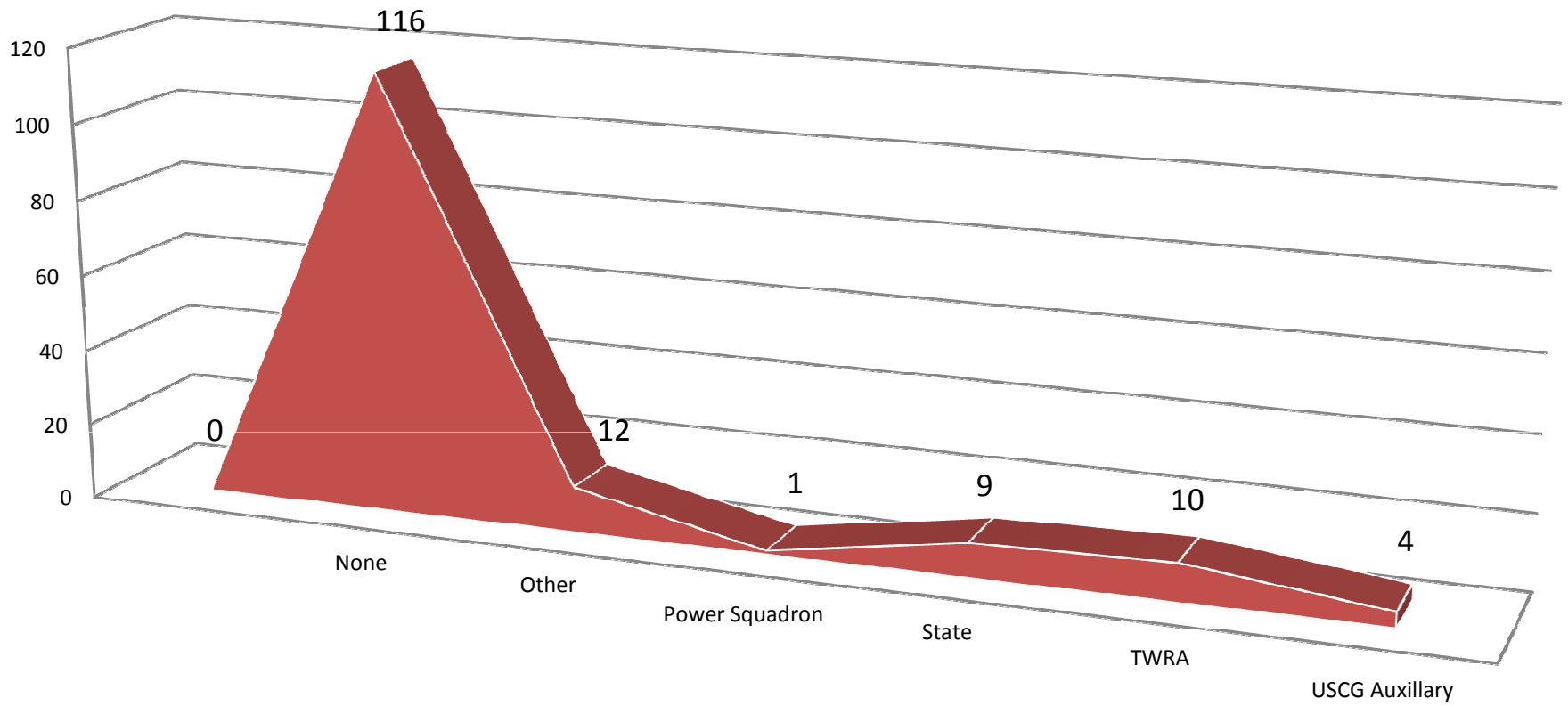
Type of Boat	Number of Vessels
Houseboat	1
Personal Watercraft	1
Pontoon Boat	6
Raft	2

Number of Borrowed Vessels by Vessel Type
All Accidents 2012

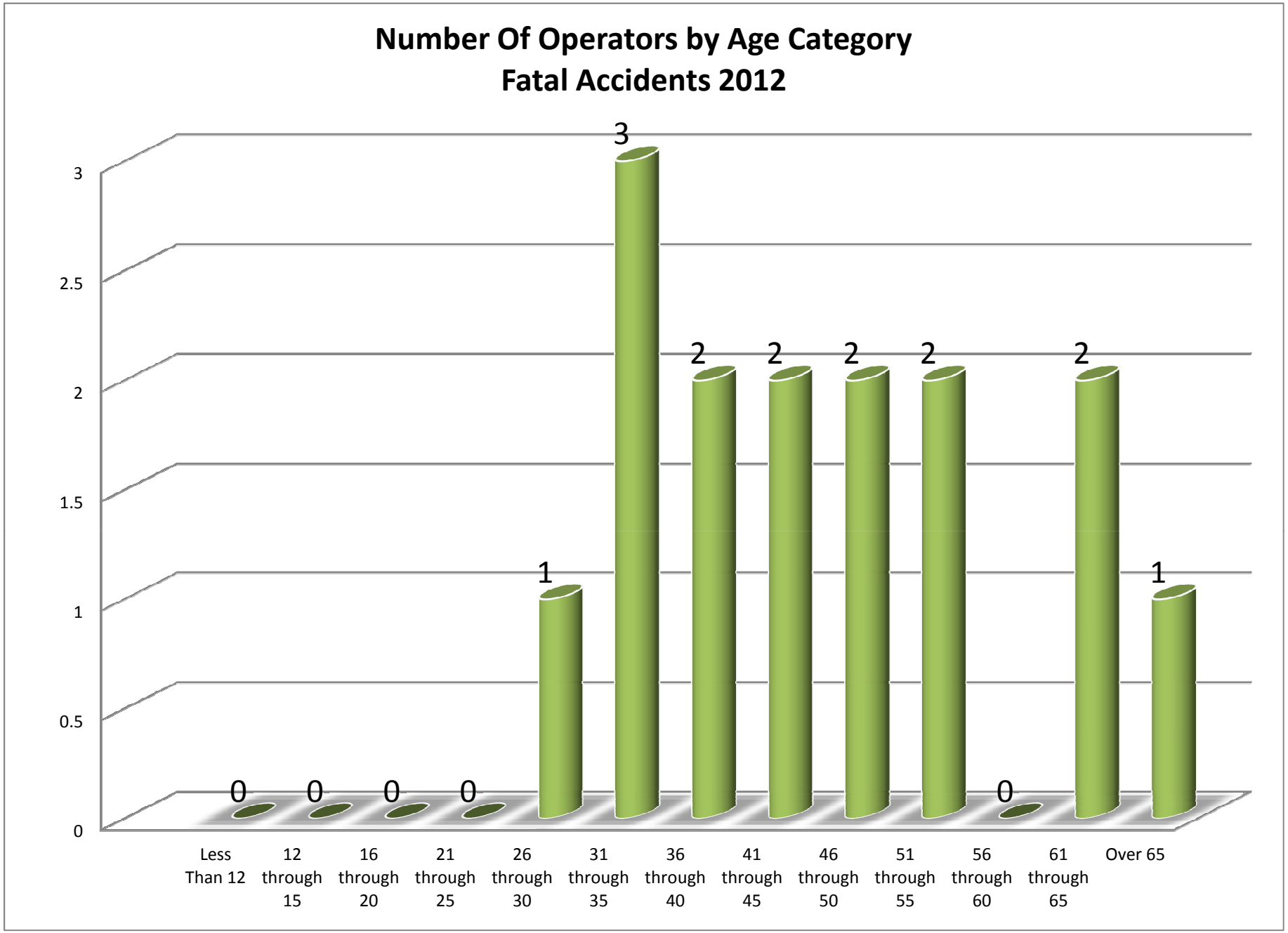


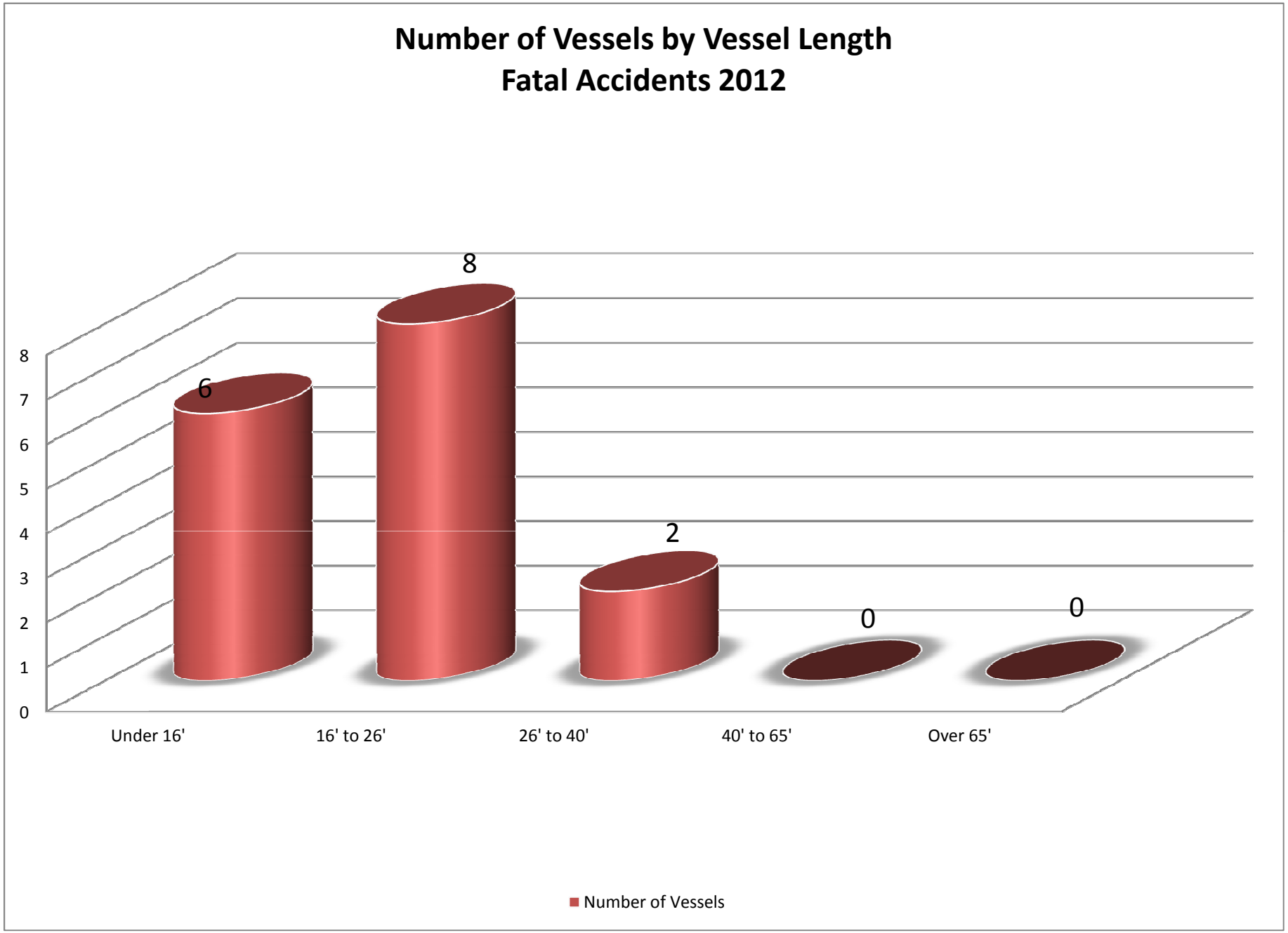
	Cabin Motorboat	Kayak	Open Motorboat	Personal Watercraft	Pontoon Boat
Number of Vessels	2	1	6	13	1

Number of Operators by Boat Education Type
All Accidents 2012

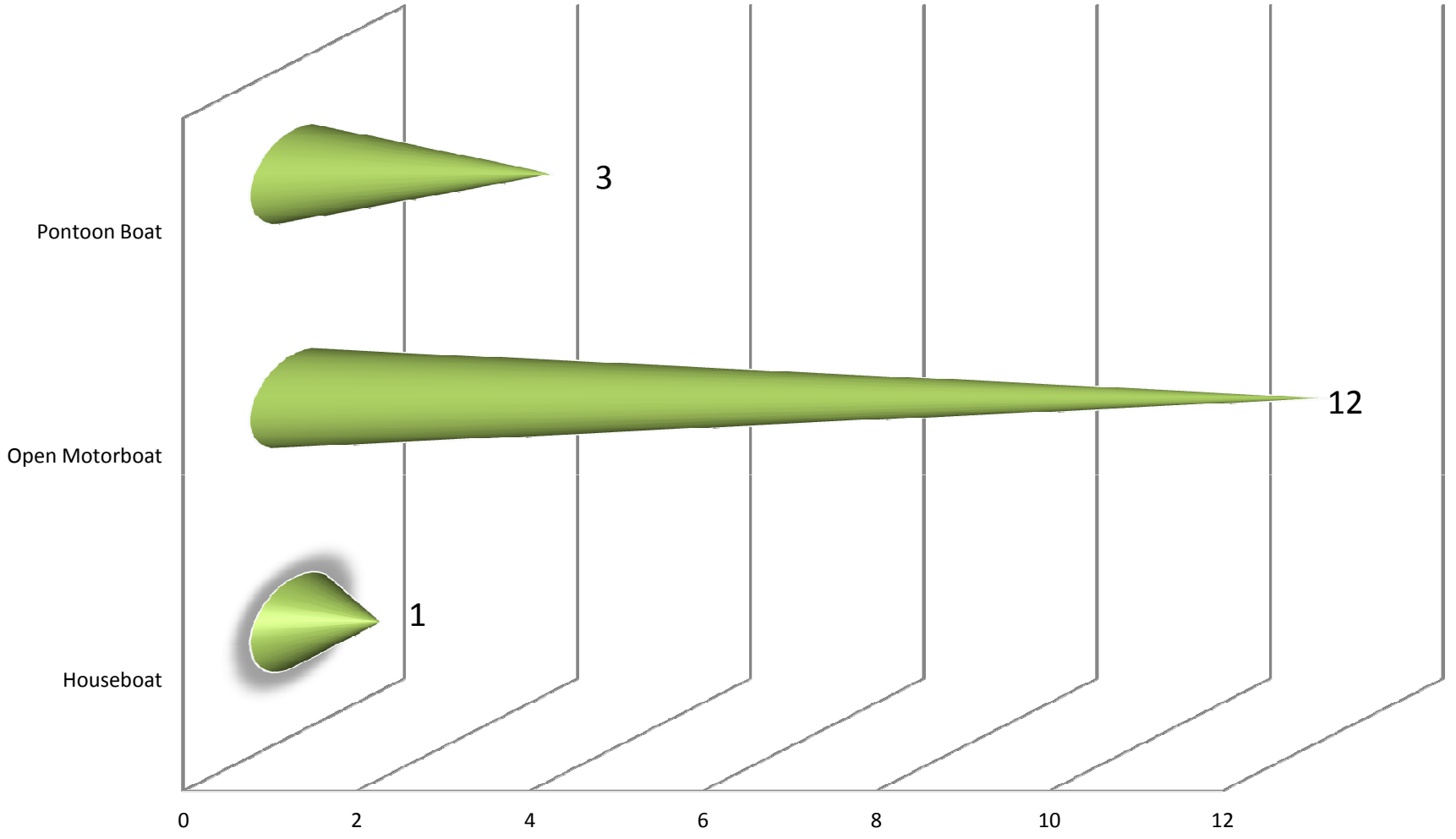


		None	Other	Power Squadron	State	TWRA	USCG Auxillary
Number of Operators		116	12	1	9	10	4

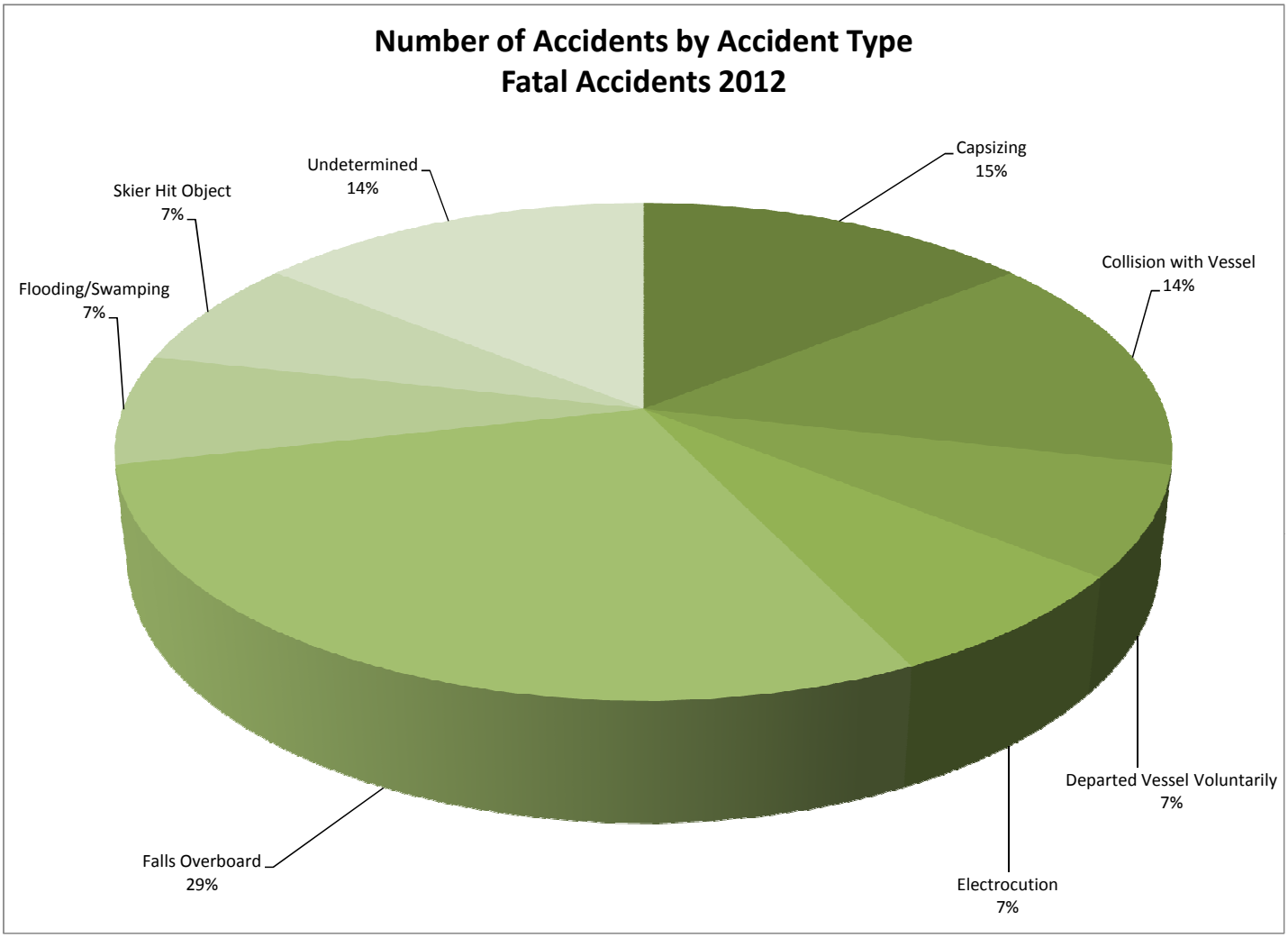

Number Of Operators by Age Category
Fatal Accidents 2012
3
2.5
2
1.5
1
0.5
0
0
0
0
0
1
3
2
2
2
2
0
2
1
Less Than 12
12 through 15
16 through 20
21 through 25
26 through 30
31 through 35
36 through 40
41 through 45
46 through 50
51 through 55
56 through 60
61 through 65
Over 65


Number of Vessels by Vessel Length
Fatal Accidents 2012
8
6
2
0
0
0
1
2
3
4
5
6
7
8
Under 16'
16' to 26'
26' to 40'
40' to 65'
Over 65'
Number of Vessels

Number of Vessels by Vessel Type
Fatal Accidents 2012

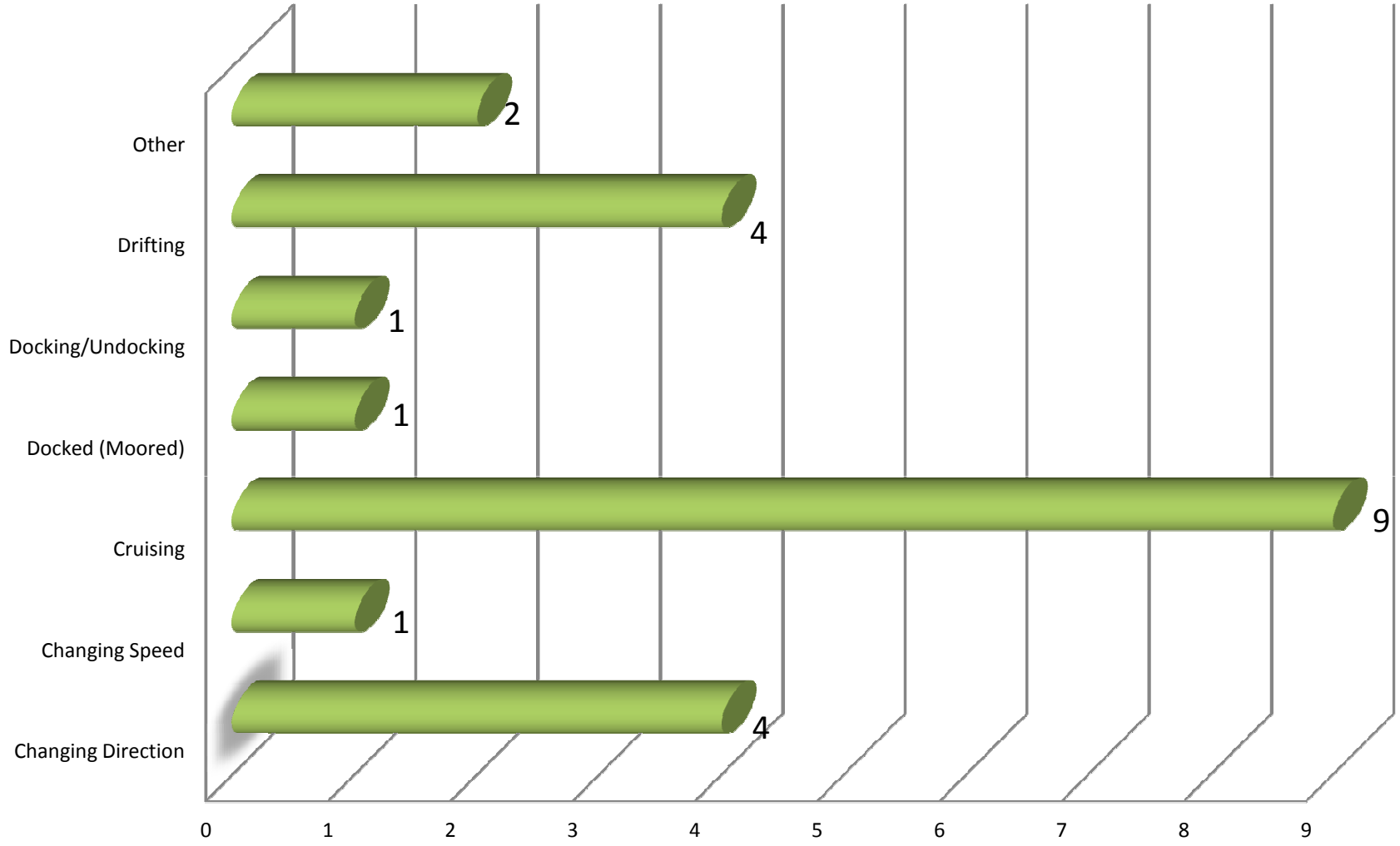


	Houseboat	Open Motorboat	Pontoon Boat
Number of Vessels	1	12	3

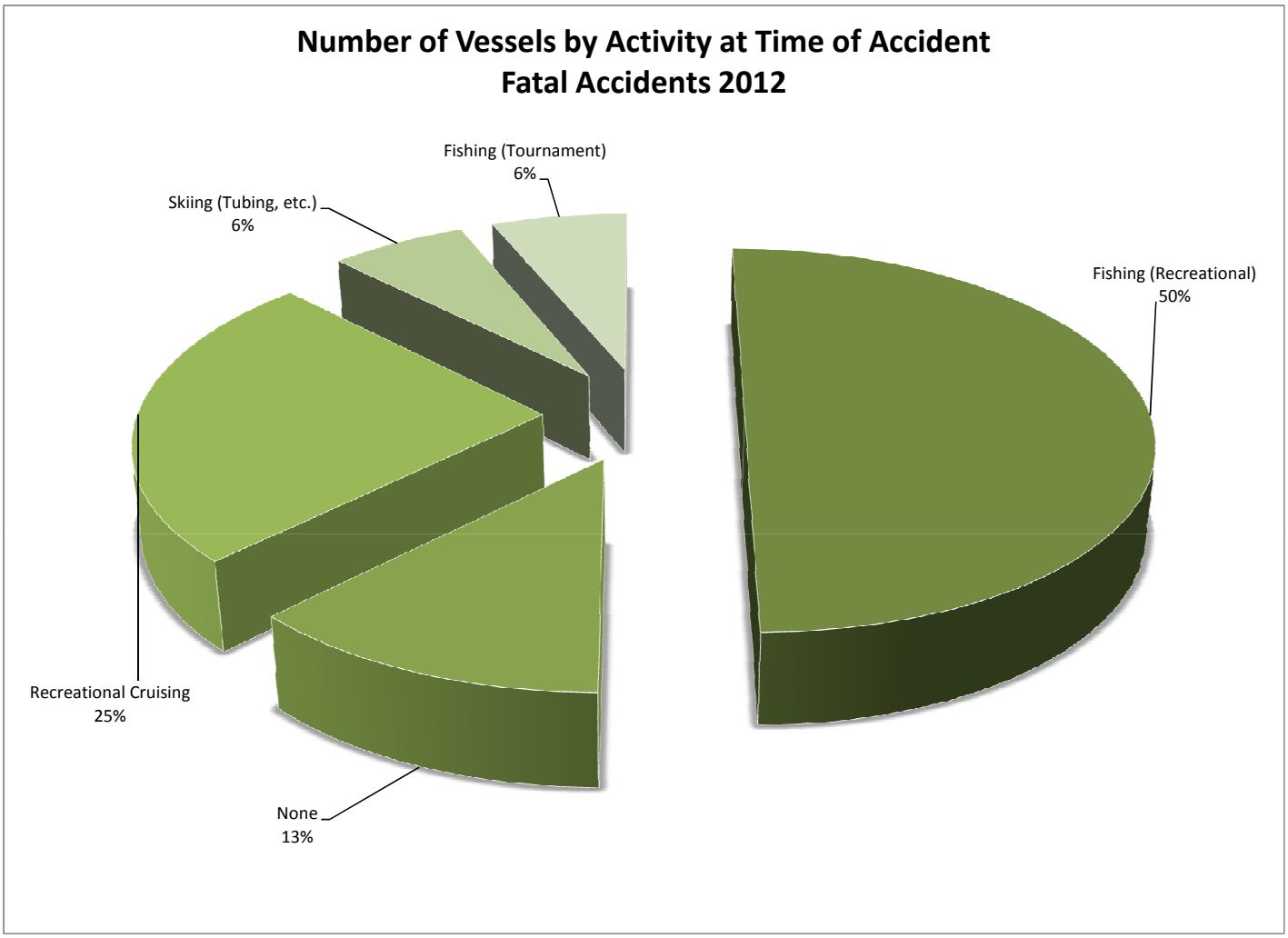


Accident Type	Number of Accidents
Capsizing	2
Collision with Vessel	2
Departed Vessel Voluntarily	1
Electrocution	1
Falls Overboard	4
Flooding/Swamping	1
Skier Hit Object	1
Undetermined	2

Operation at Time of Accident
Fatal Accidents 2012

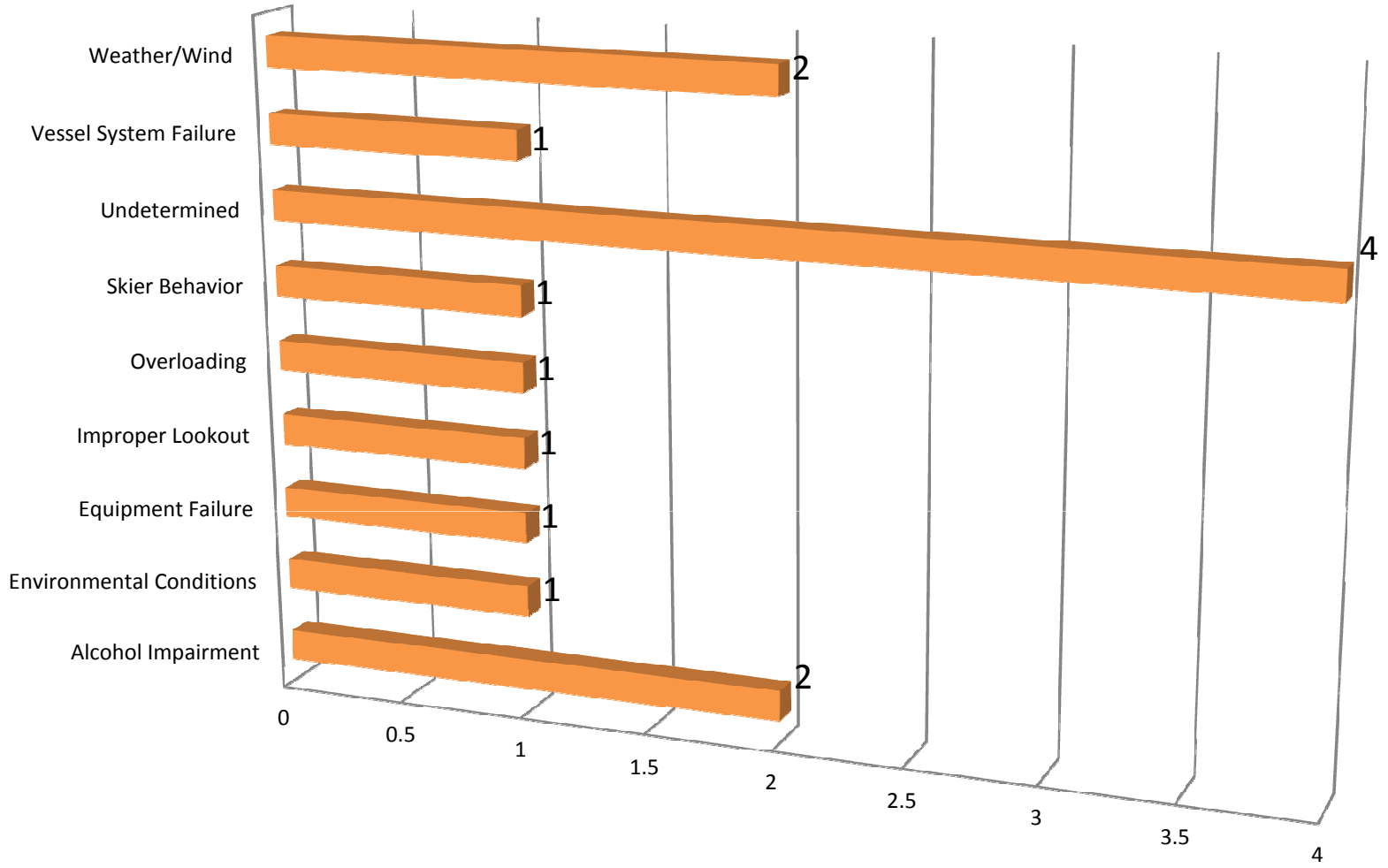


	Changing Direction	Changing Speed	Cruising	Docked (Moored)	Docking/Undocking	Drifting	Other
Number of Vessels	4	1	9	1	1	4	2



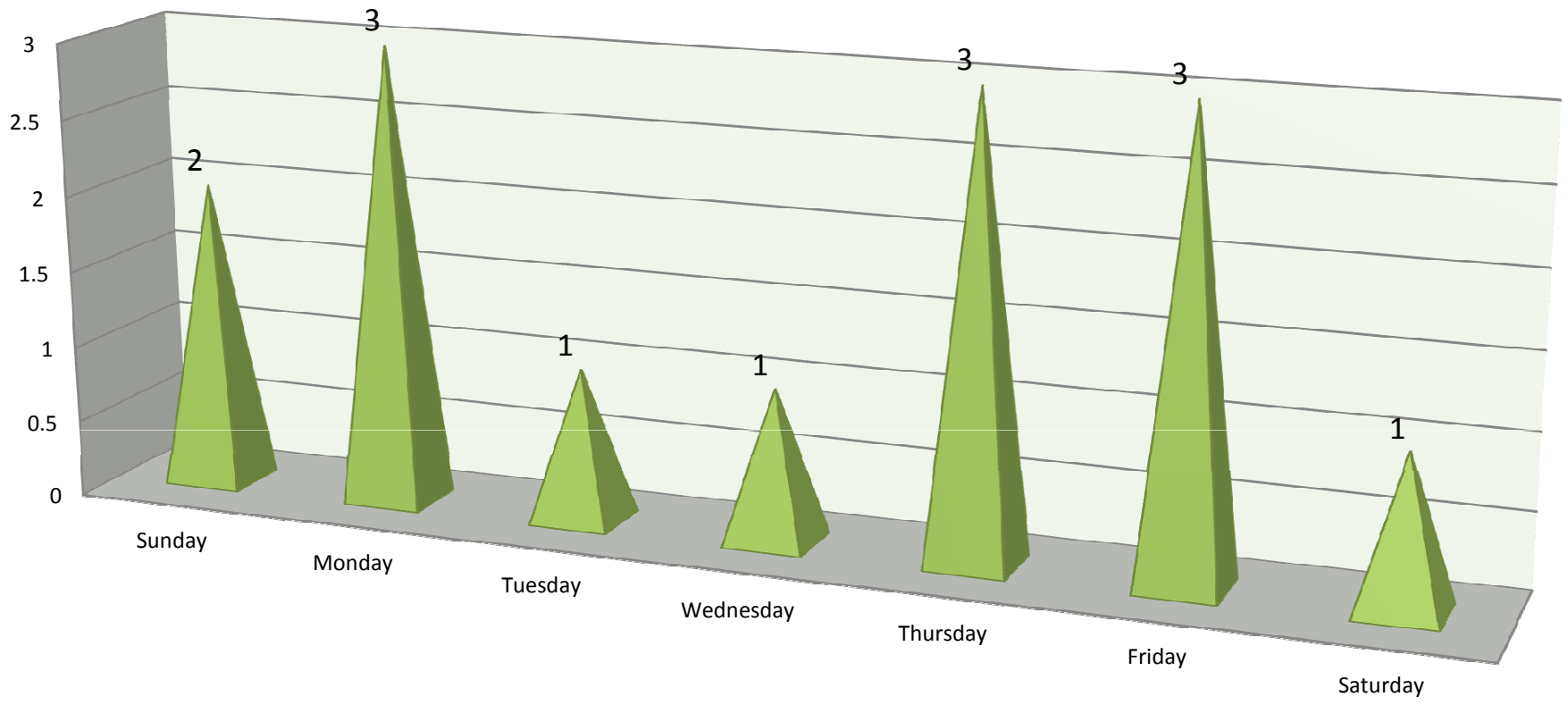
Activity	Number of Vessels
Fishing (Recreational)	8
None	2
Recreational Cruising	4
Skiing (Tubing, etc.)	1
Fishing (Tournament)	1

Number of Accidents by Primary Cause
Fatal Accidents 2012

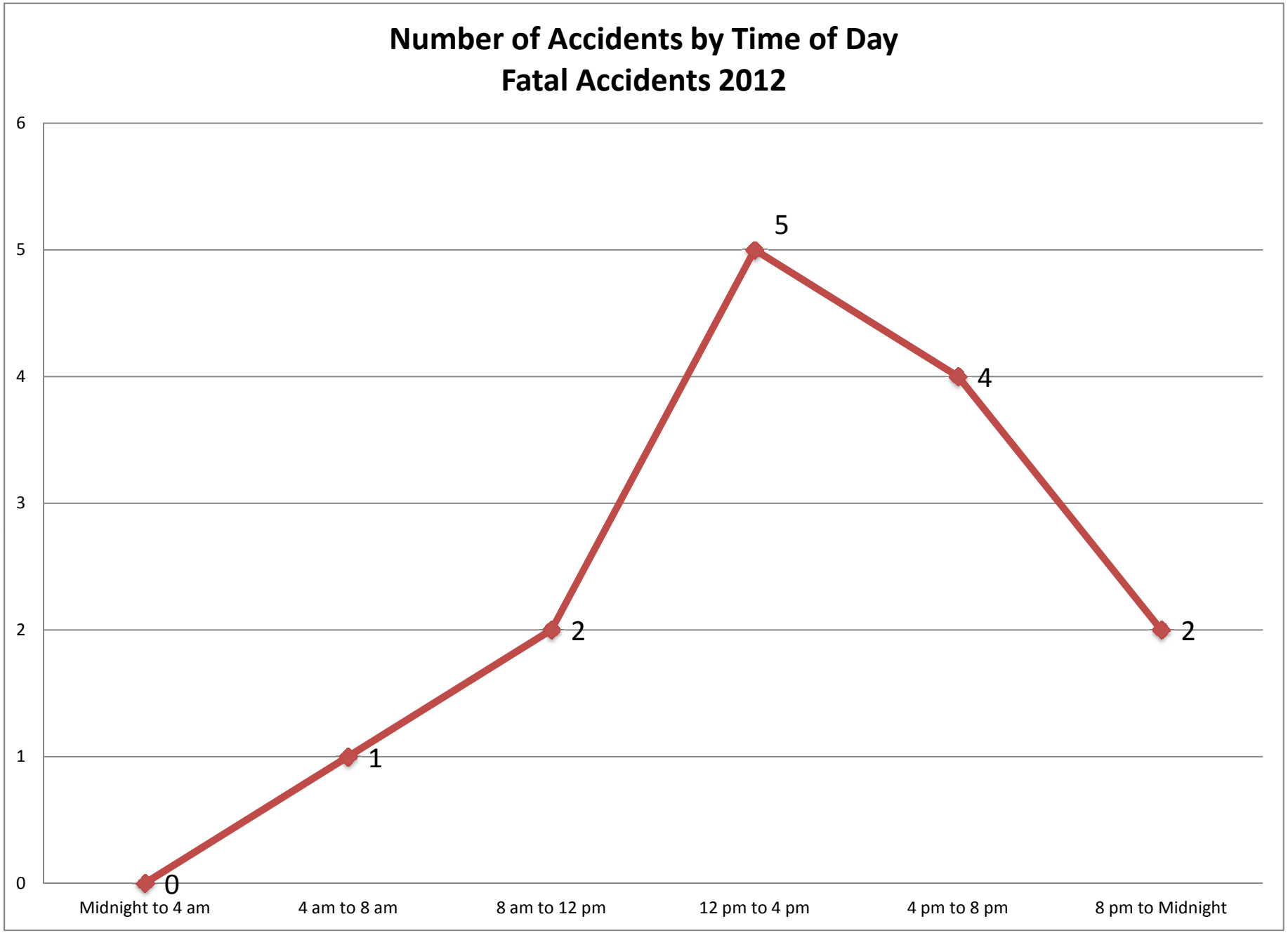


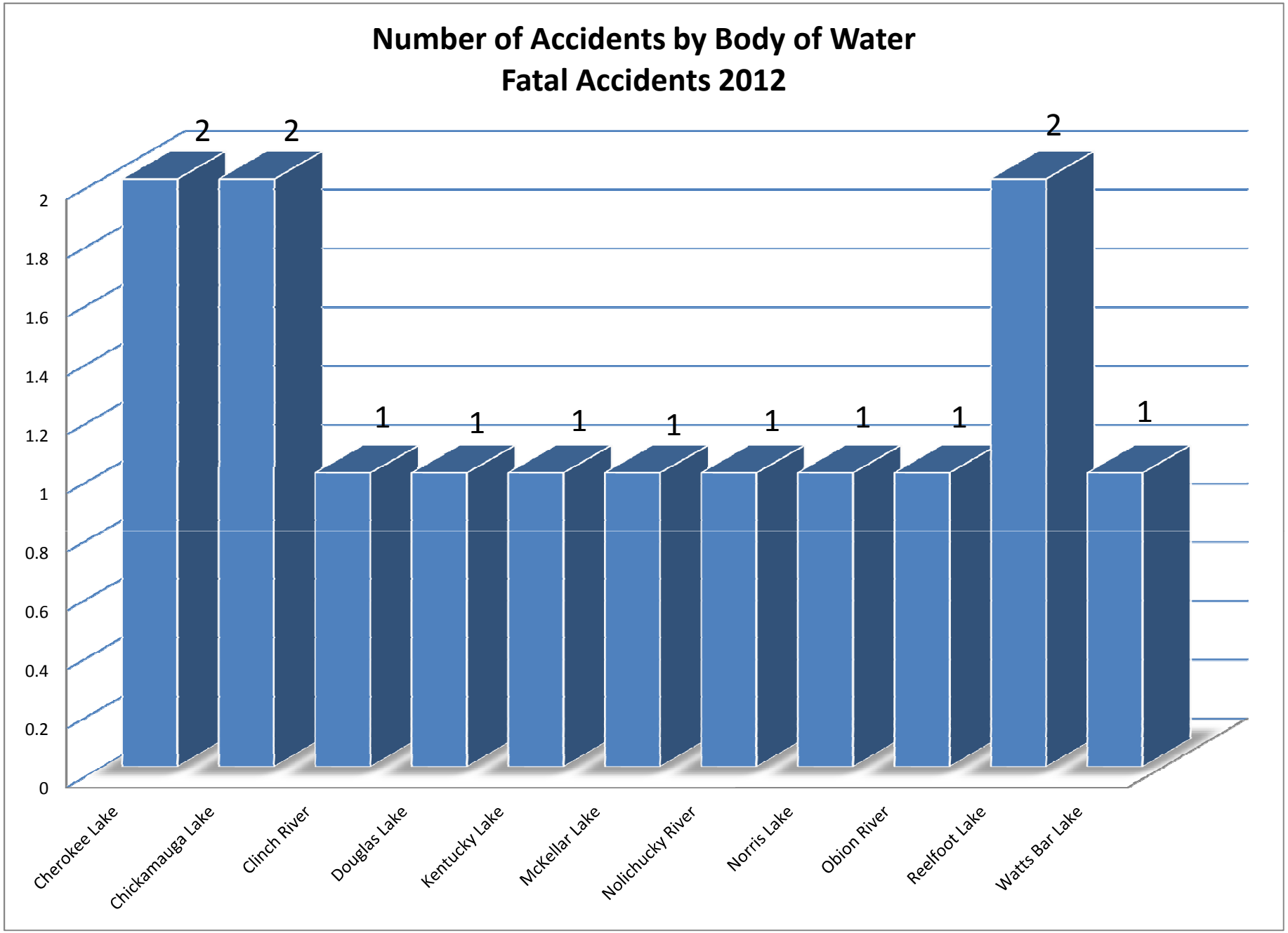
	Alcohol Impairment	Environmental Conditions	Equipment Failure	Improper Lookout	Overloading	Skier Behavior	Undetermined	Vessel System Failure	Weather/Wind
Number of Vessels	2	1	1	1	1	1	4	1	2

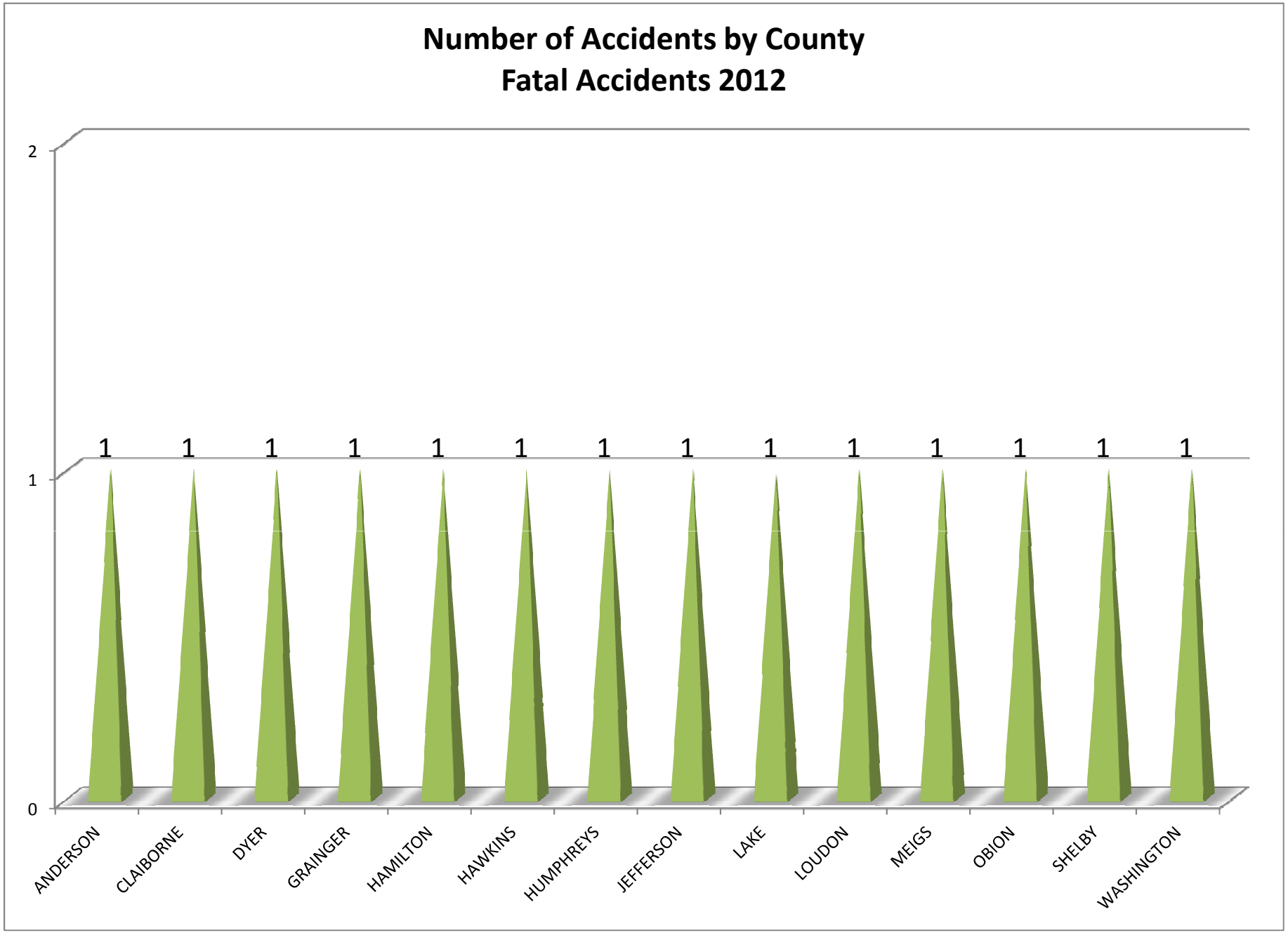
Number of Accidents by Day of Week
Fatal Accidents 2012

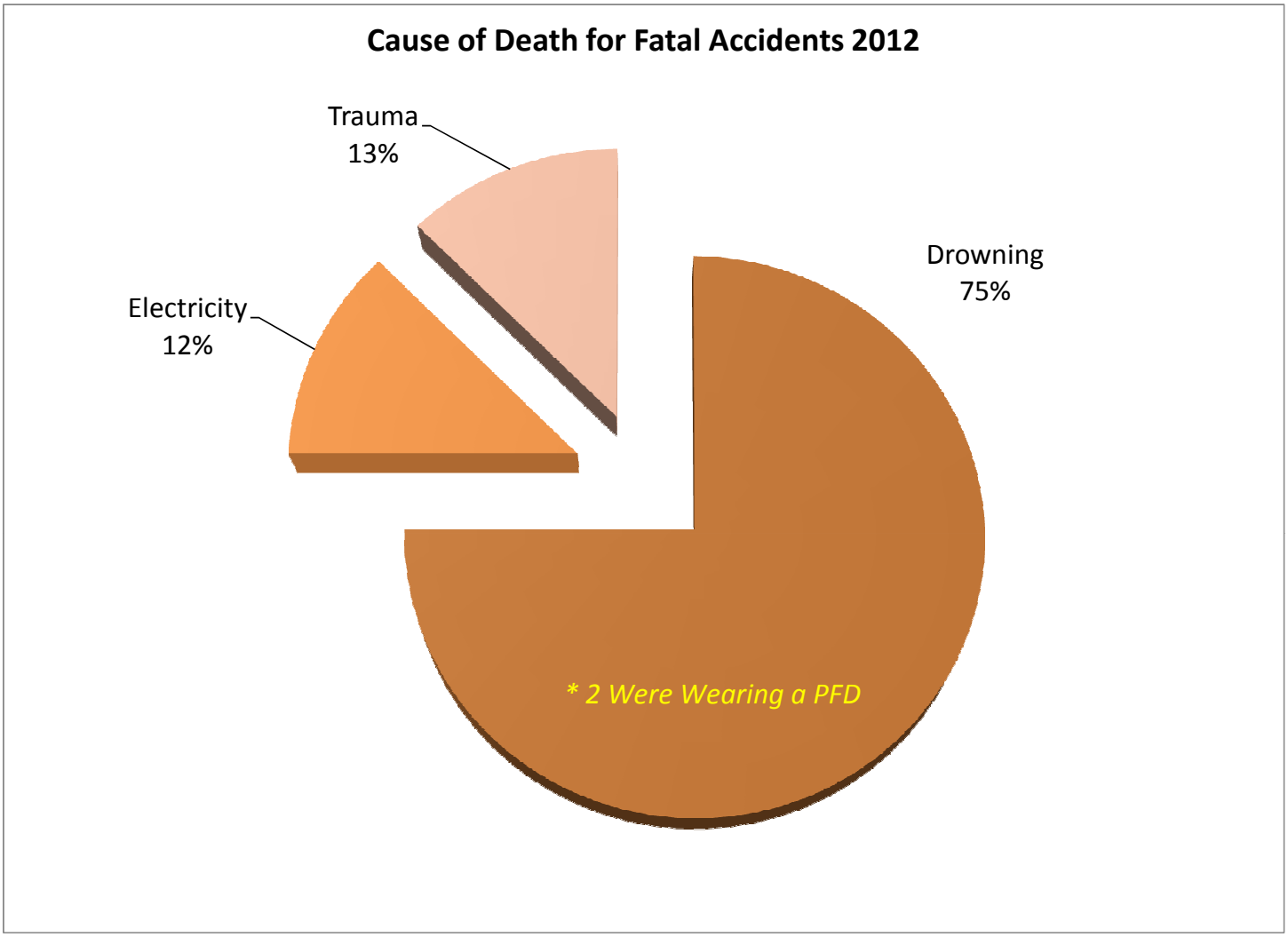


	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Number of Accidents	2	3	1	1	3	3	1

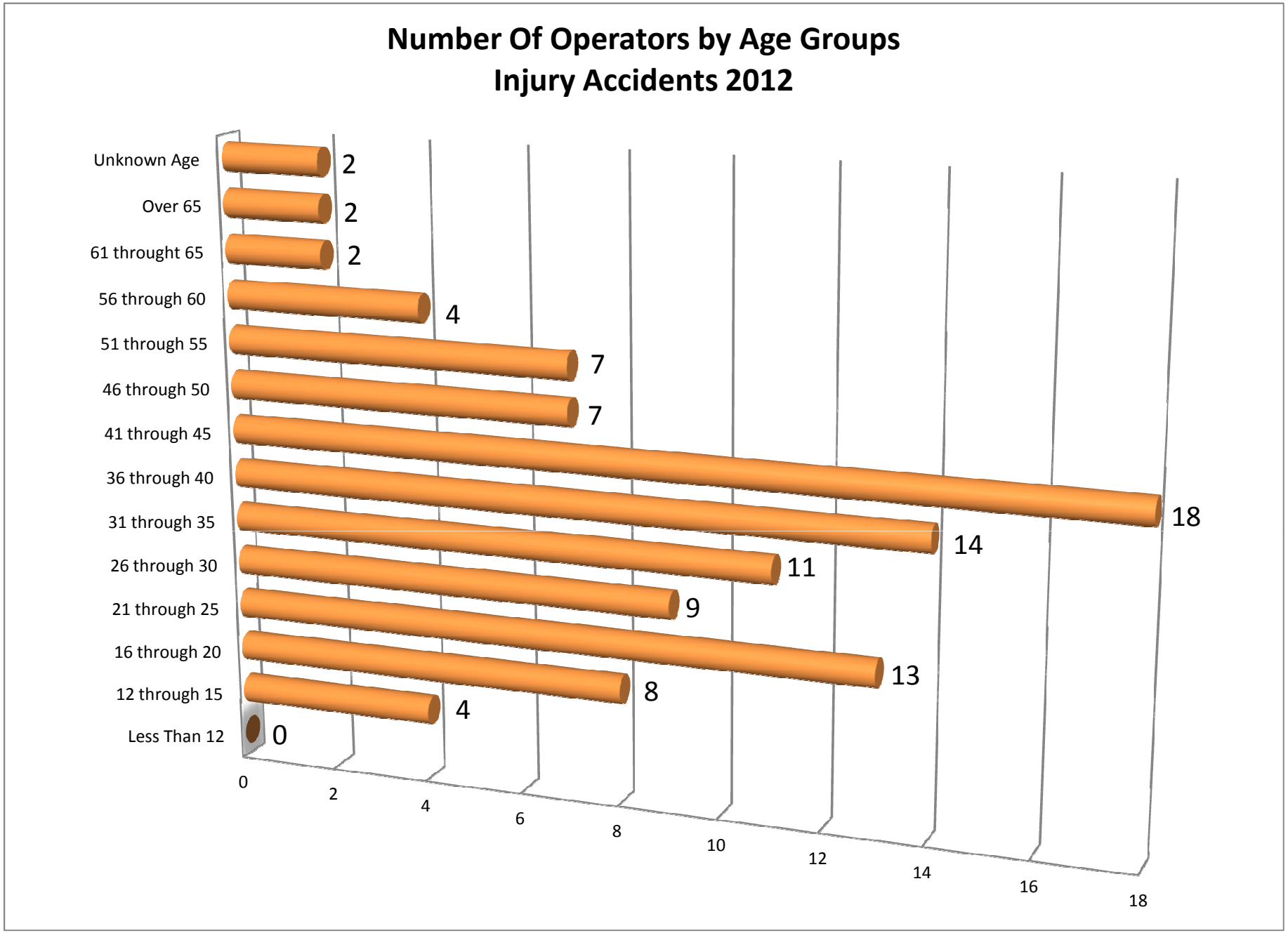

Number of Accidents by Time of Day
Fatal Accidents 2012
6
5
4
3
2
1
0
0
1
2
5
4
2
Midnight to 4 am
4 am to 8 am
8 am to 12 pm
12 pm to 4 pm
4 pm to 8 pm
8 pm to Midnight

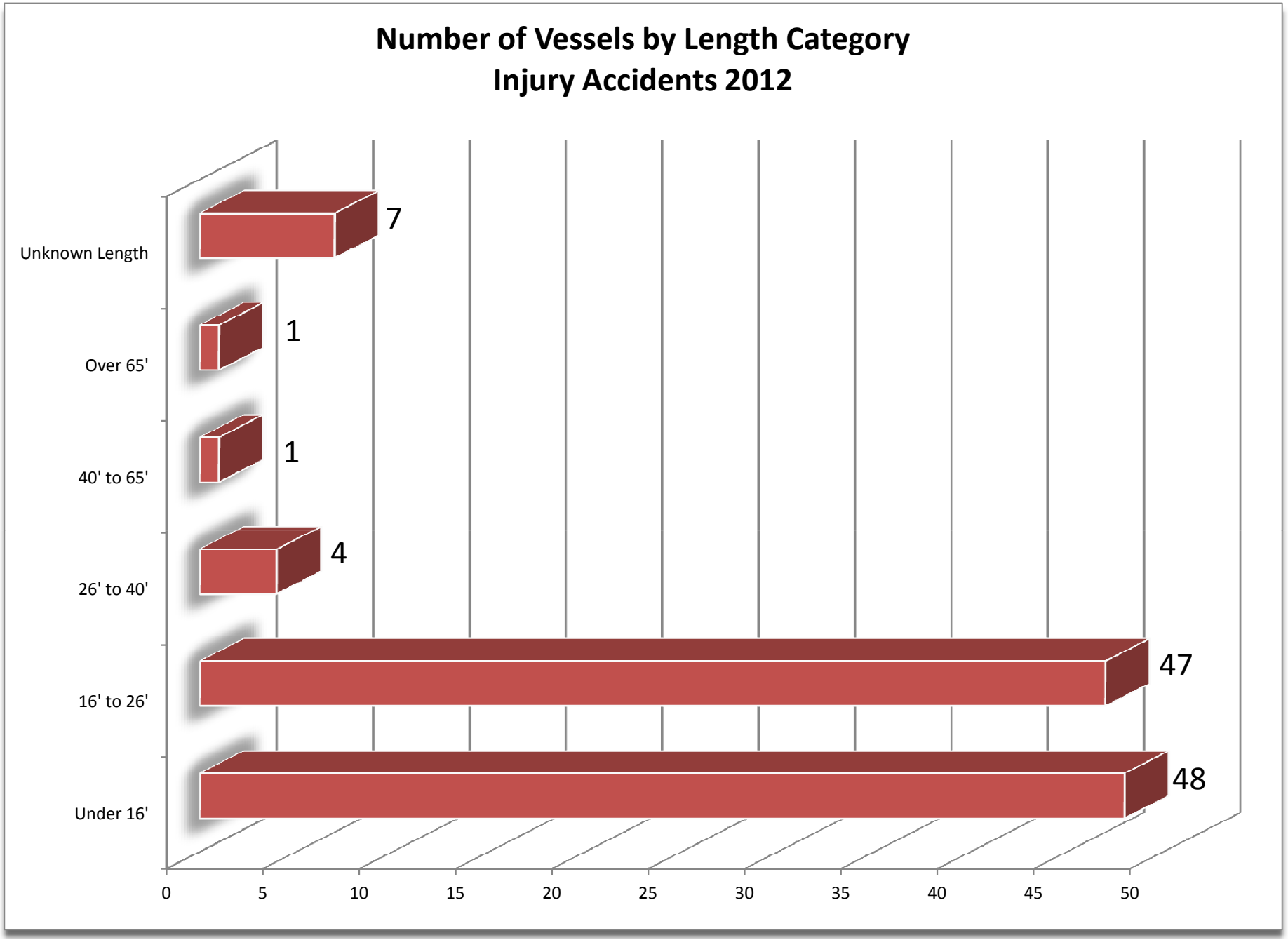

Number of Accidents by Body of Water
Fatal Accidents 2012
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2
2
1
1
1
1
1
1
1
2
1
Cherokee Lake
Chickamauga Lake
Clinch River
Douglas Lake
Kentucky Lake
McKellar Lake
Nolichucky River
Norris Lake
Obion River
Reelfoot Lake
Watts Bar Lake

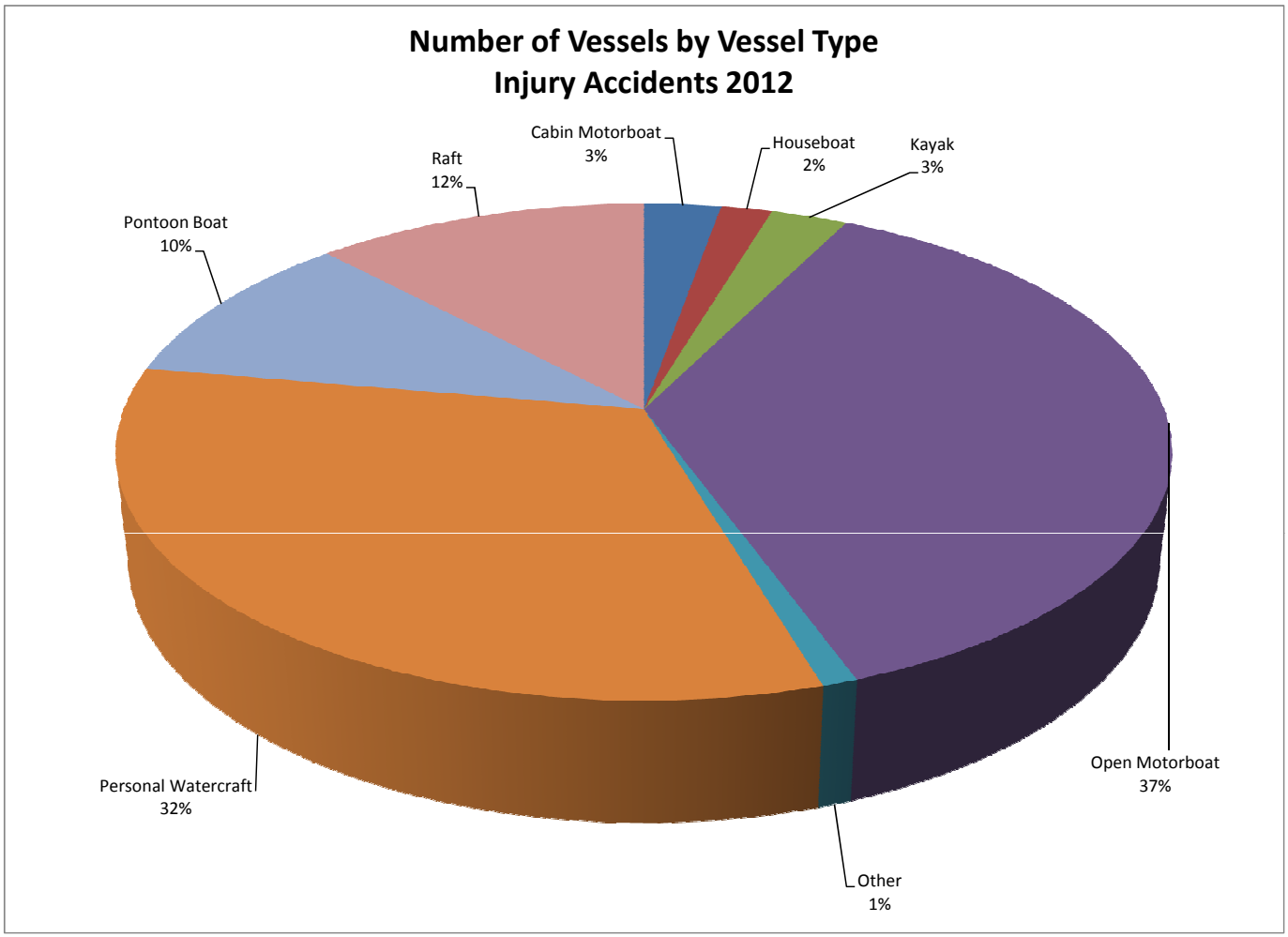

Number of Accidents by County
Fatal Accidents 2012
2
1
0
1 1 1 1 1 1 1 1 1 1 1 1 1 1
ANDERSON
CLAIBORNE
DYER
GRAINGER
HAMILTON
HAWKINS
HUMPHREYS
JEFFERSON
LAKE
LOUDON
MEIGS
OBION
SHELBY
WASHINGTON



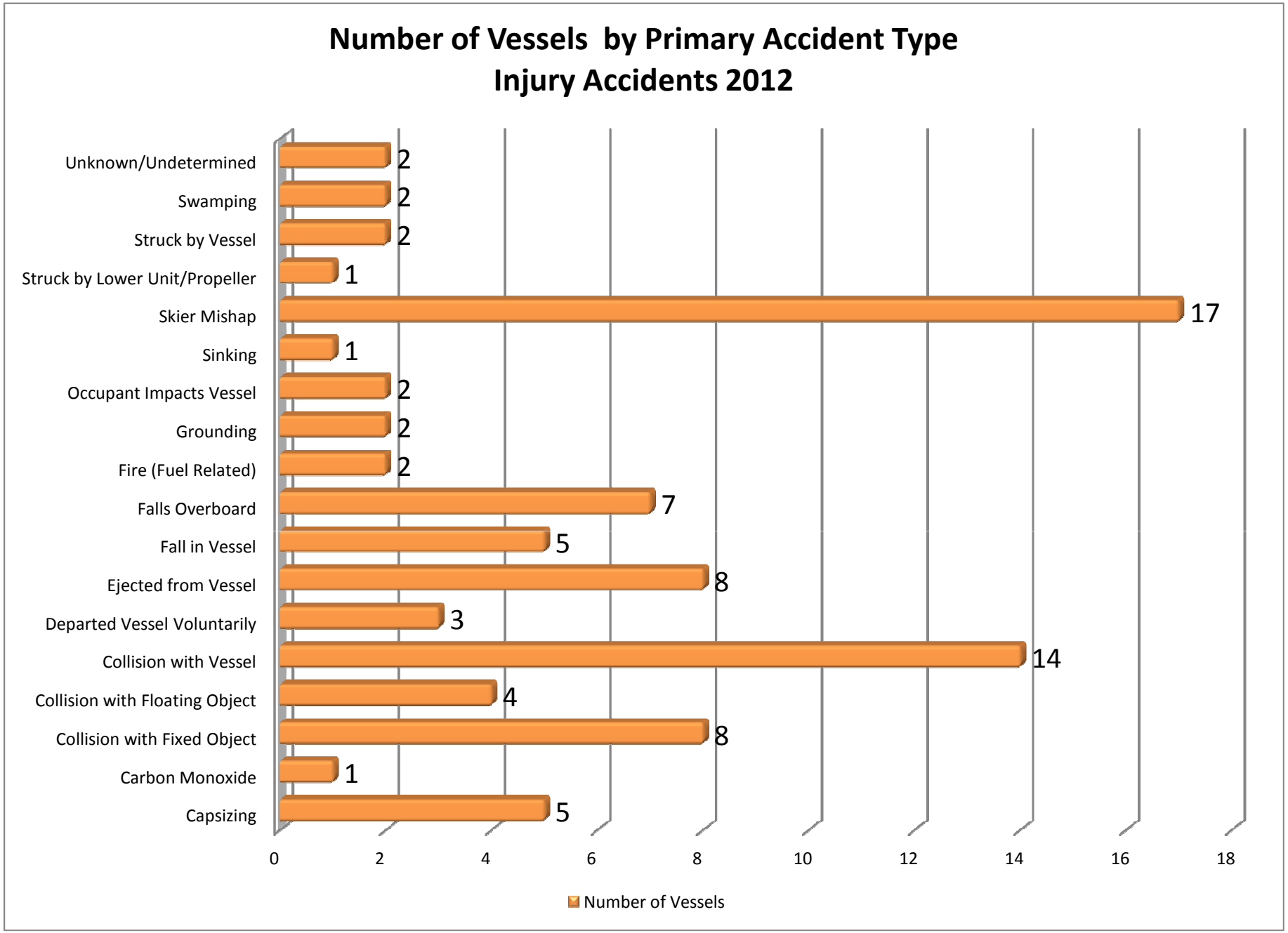
Cause of Death	Number of Victims
Drowning	12
Electricity	2
Trauma	2

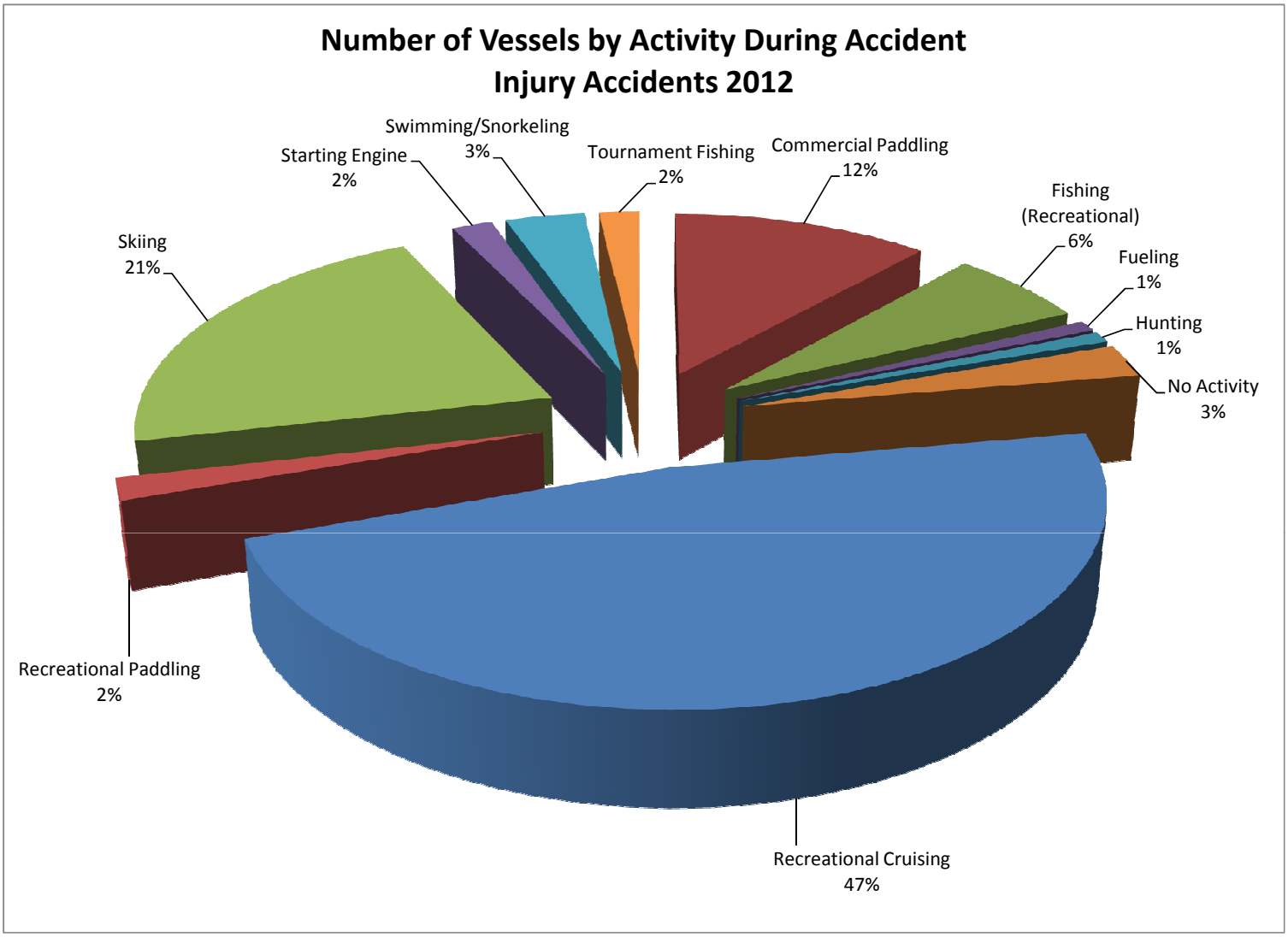

Number Of Operators by Age Groups
Injury Accidents 2012
Unknown Age
Over 65
61 throught 65
56 through 60
51 through 55
46 through 50
41 through 45
36 through 40
31 through 35
26 through 30
21 through 25
16 through 20
12 through 15
Less Than 12
2
2
2
4
7
7
18
14
11
9
13
8
4
0
0
2
4
6
8
10
12
14
16
18


Number of Vessels by Length Category
Injury Accidents 2012
Unknown Length
7
Over 65'
1
40' to 65'
1
26' to 40'
4
16' to 26'
47
Under 16'
48
0
5
10
15
20
25
30
35
40
45
50

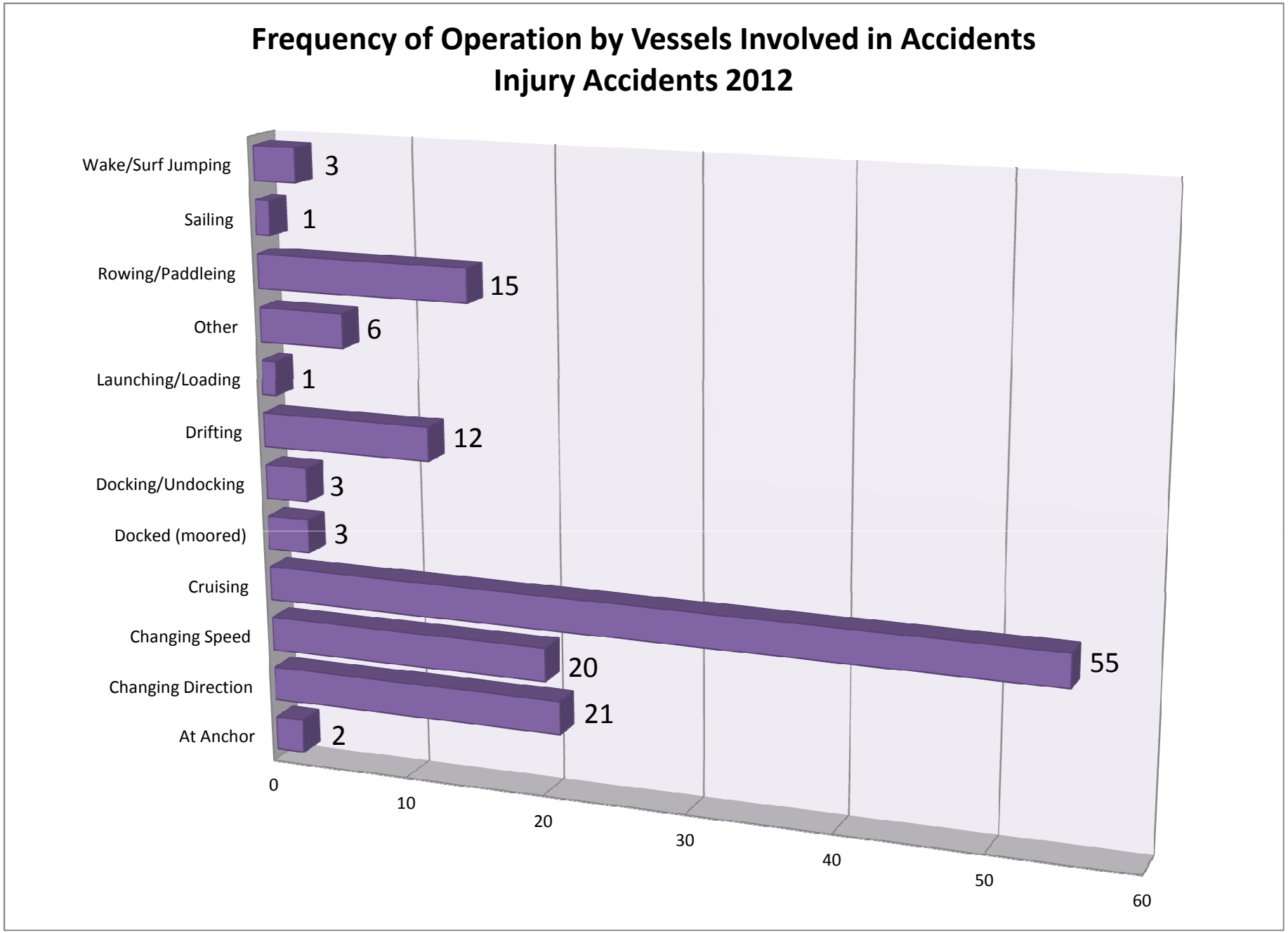


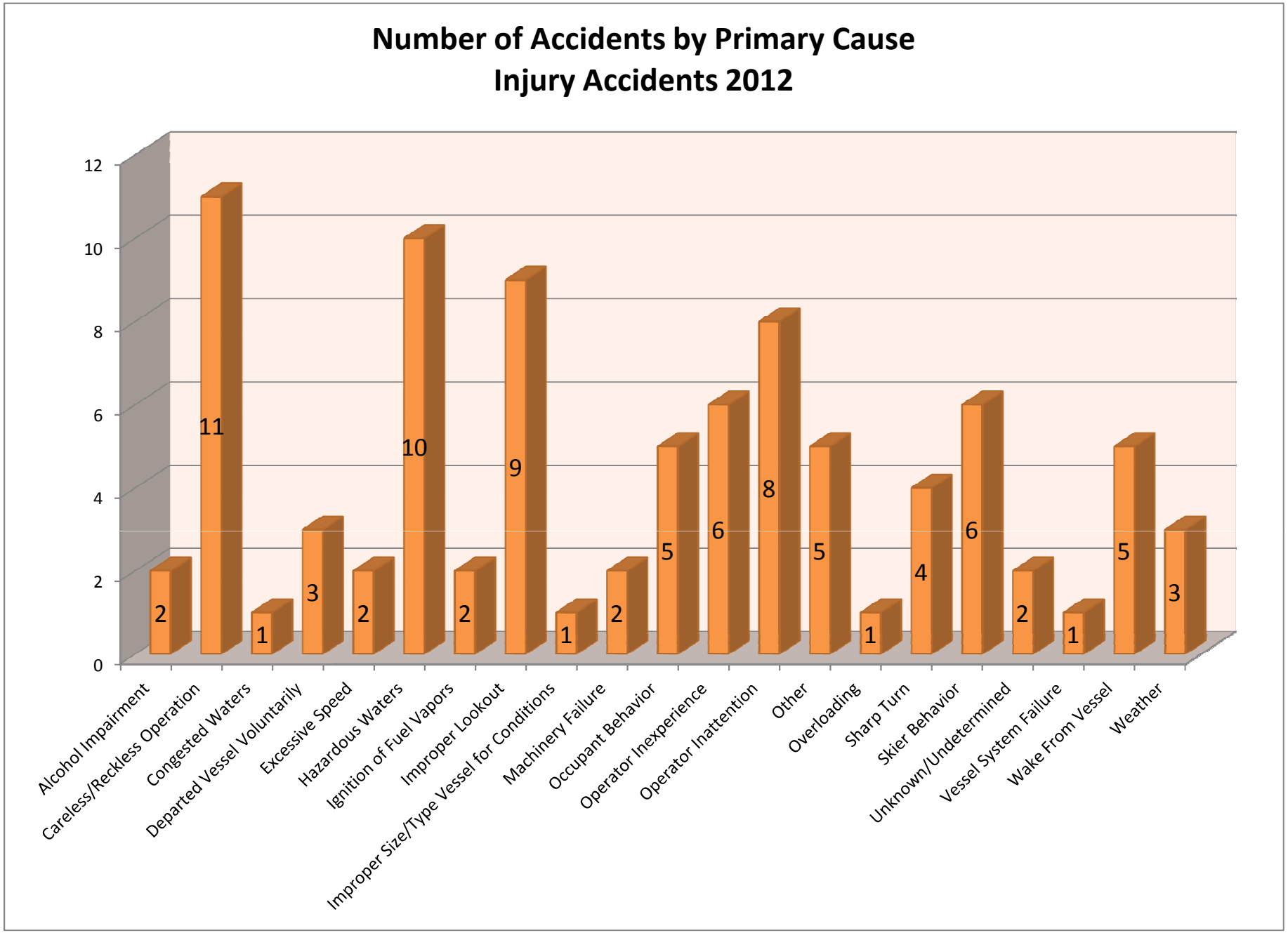
Vessel Type	Number of Vessels
Cabin Motorboat	3
Houseboat	2
Kayak	3
Open Motorboat	40
Other	1
Personal Watercraft	35
Pontoon Boat	11
Raft	13

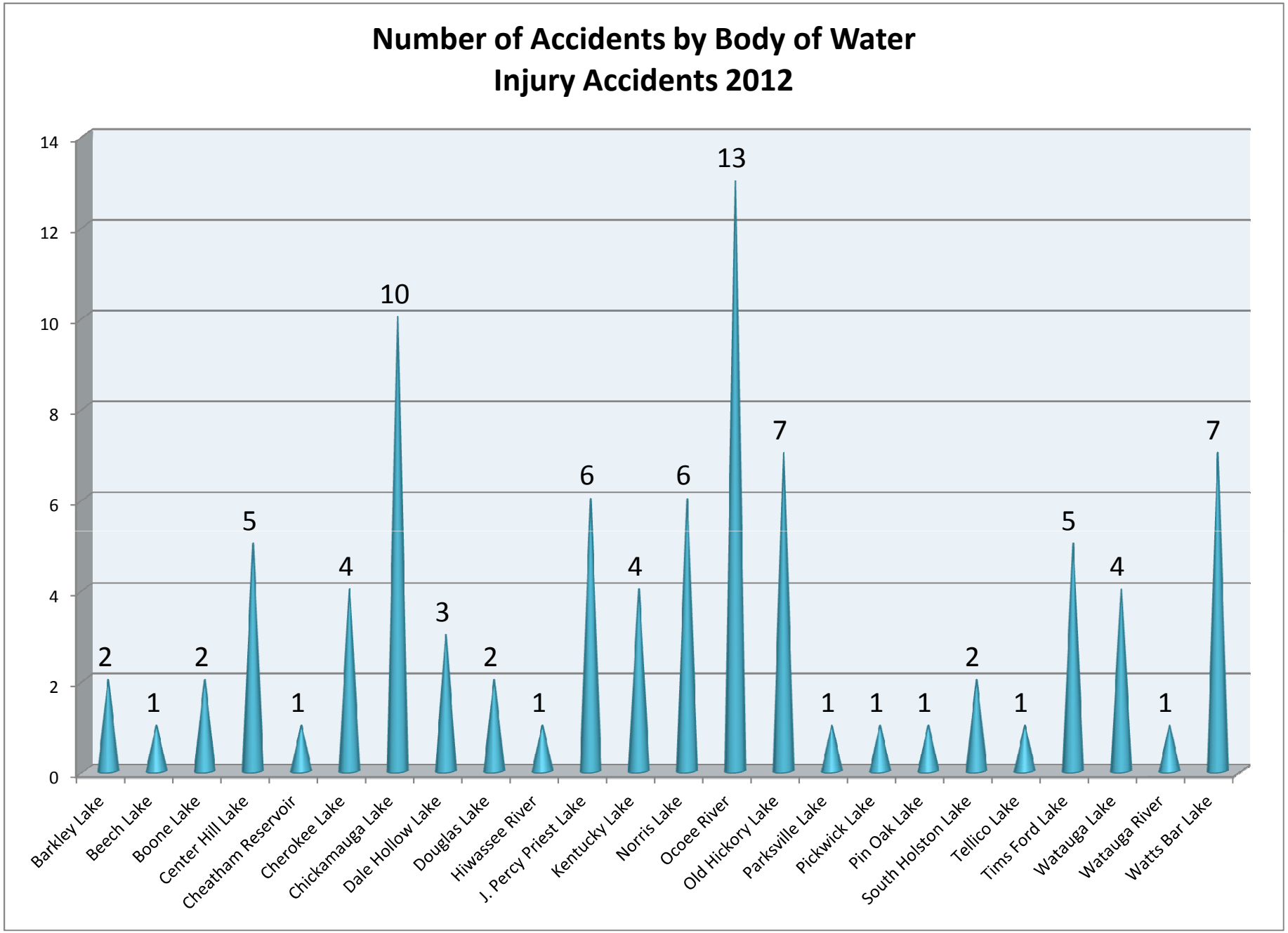

Number of Vessels by Primary Accident Type
Injury Accidents 2012
Unknown/Undetermined
Swamping
Struck by Vessel
Struck by Lower Unit/Propeller
Skier Mishap
Sinking
Occupant Impacts Vessel
Grounding
Fire (Fuel Related)
Falls Overboard
Fall in Vessel
Ejected from Vessel
Departed Vessel Voluntarily
Collision with Vessel
Collision with Floating Object
Collision with Fixed Object
Carbon Monoxide
Capsizing
2
2
2
1
17
1
2
2
2
7
5
8
3
14
4
8
1
5
0
2
4
6
8
10
12
14
16
18
Number of Vessels

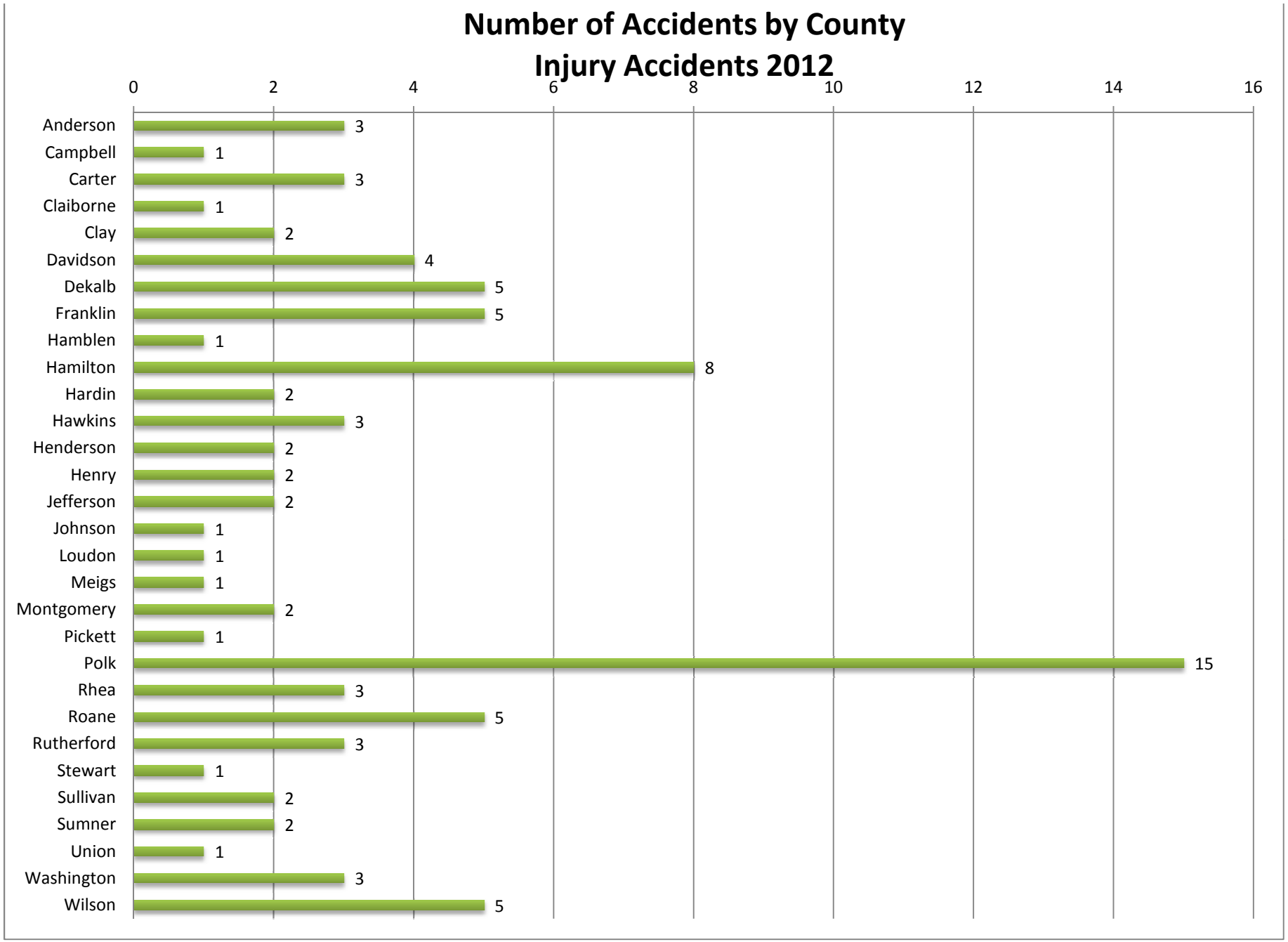


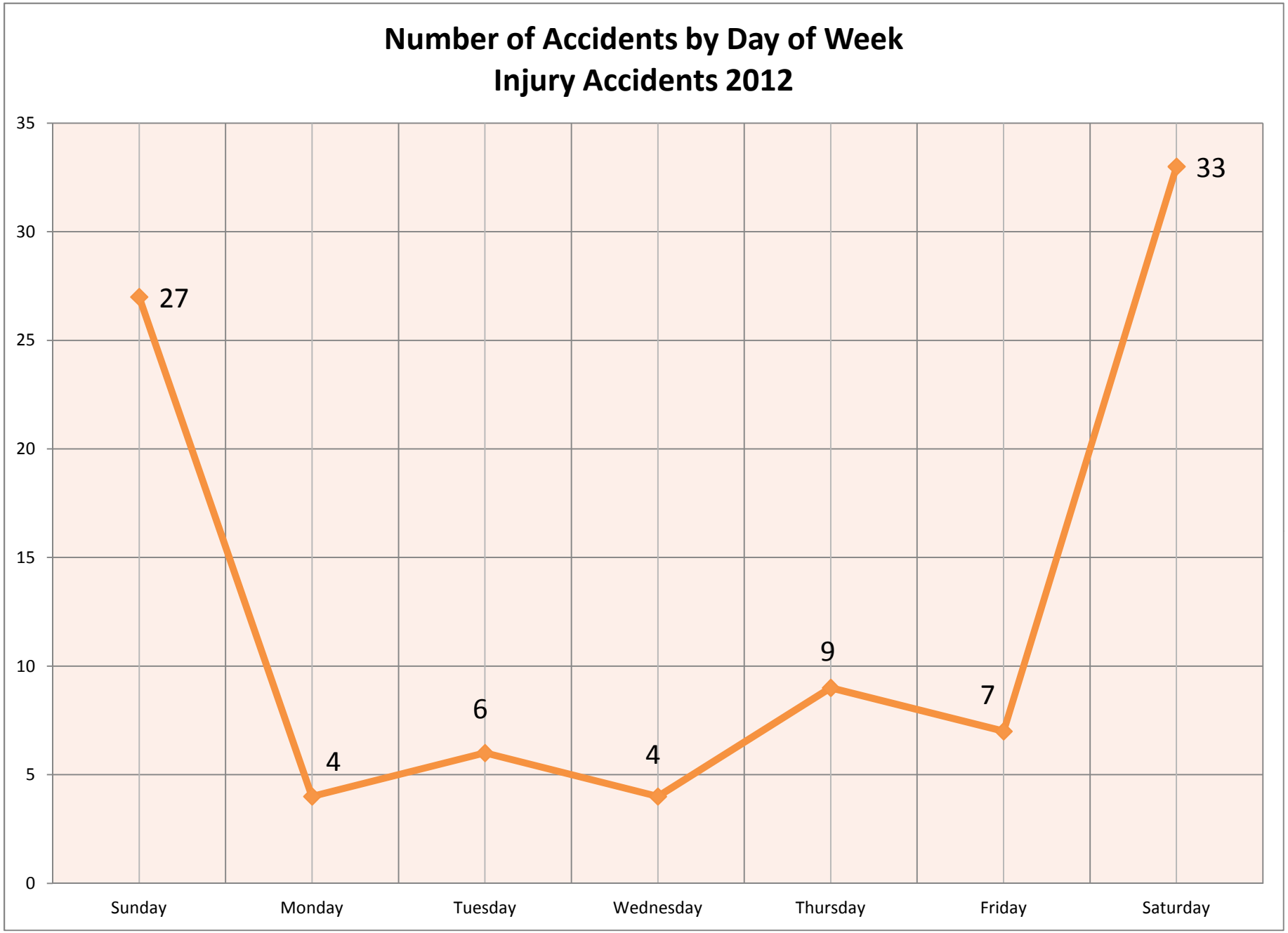
Activity	Number of Vessels
Commercial Paddling	13
Fishing (Recreational)	7
Fueling	1
Hunting	1
No Activity	3
Recreational Cruising	53
Recreational Paddling	2
Skiing	24
Starting Engine	2
Swimming/Snorkeling	4
Tournament Fishing	2

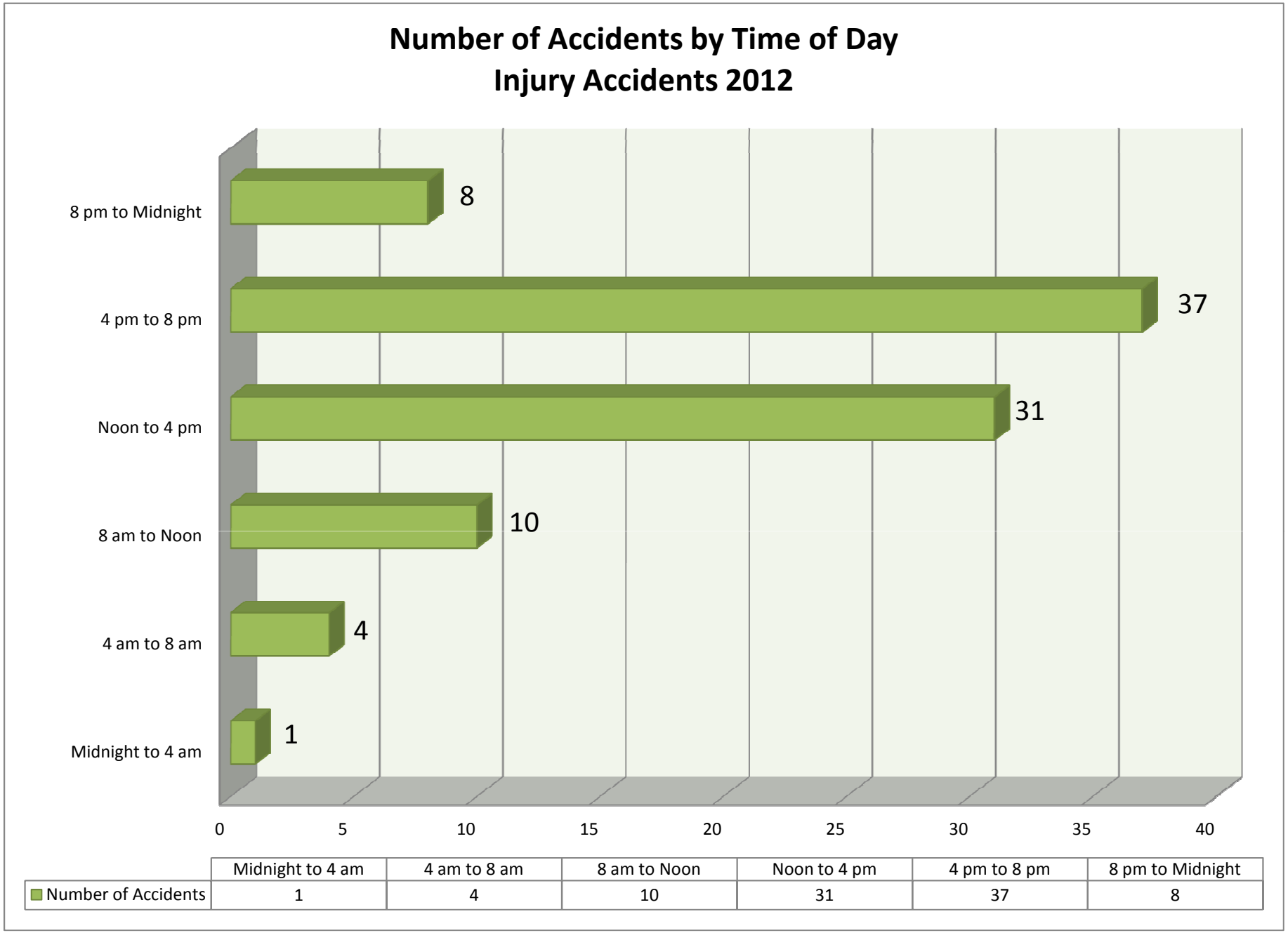

Frequency of Operation by Vessels Involved in Accidents
Injury Accidents 2012
Wake/Surf Jumping
3
Sailing
1
Rowing/Paddleing
15
Other
6
Launching/Loading
1
Drifting
12
Docking/Undocking
3
Docked (moored)
3
Cruising
55
Changing Speed
20
Changing Direction
21
At Anchor
2
0
10
20
30
40
50
60


Number of Accidents by Primary Cause
Injury Accidents 2012
12
10
8
6
4
2
0
2
11
1
3
2
10
2
9
1
2
5
6
8
5
1
4
6
2
1
5
3
Alcohol Impairment
Careless/Reckless Operation
Congested Waters
Departed Vessel Voluntarily
Excessive Speed
Hazardous Waters
Ignition of Fuel Vapors
Improper Lookout
Improper Size/Type Vessel for Conditions
Machinery Failure
Occupant Behavior
Operator Inexperience
Operator Inattention
Other
Overloading
Sharp Turn
Skier Behavior
Unknown/Undetermined
Vessel System Failure
Wake From Vessel
Weather

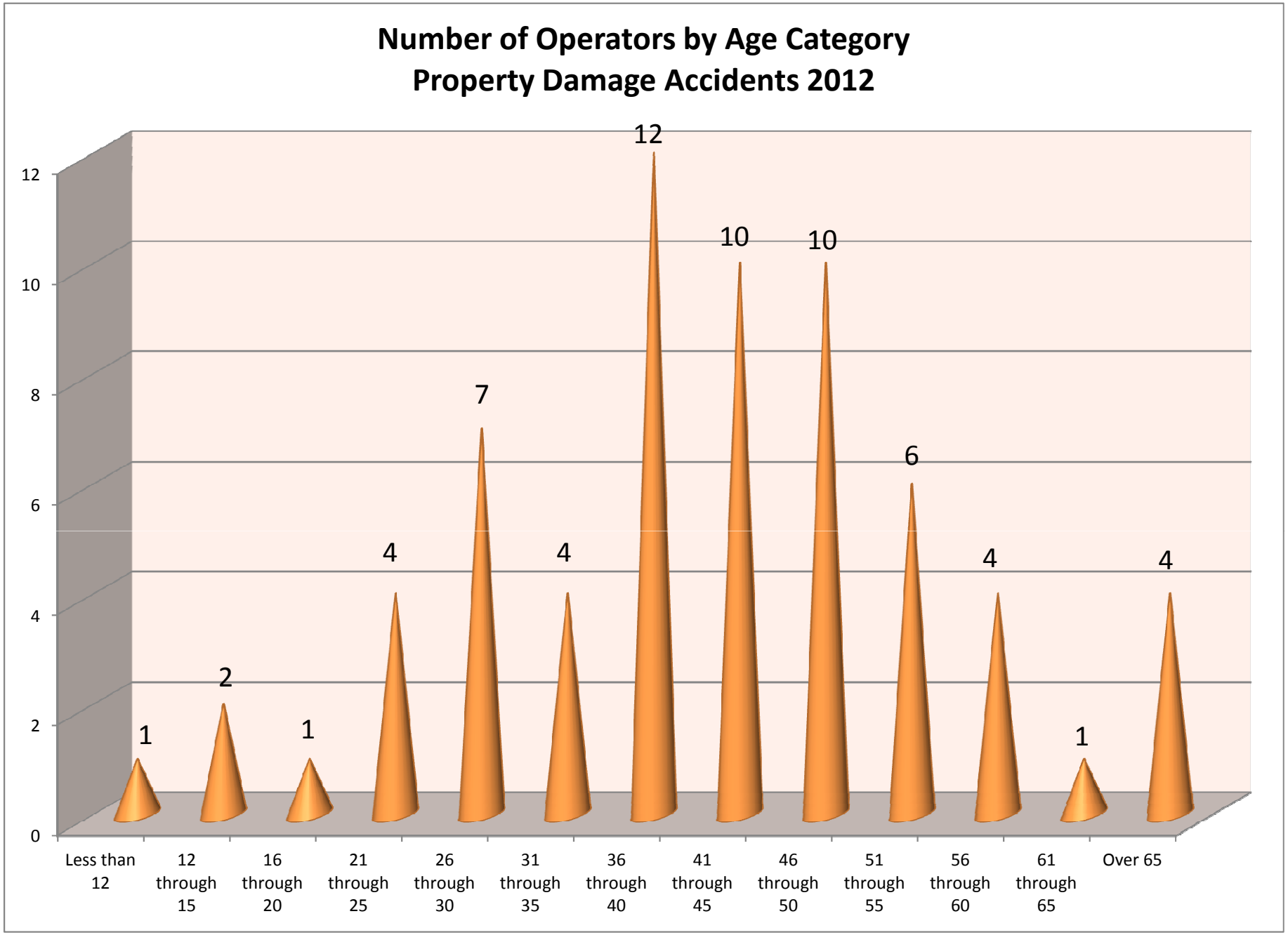

Number of Accidents by Body of Water
Injury Accidents 2012
14
12
10
8
6
4
2
0
2
1
2
5
1
4
10
3
2
1
6
4
6
13
7
1
1
1
2
1
5
4
1
7
Barkley Lake
Beech Lake
Boone Lake
Center Hill Lake
Cheatham Reservoir
Cherokee Lake
Chickamauga Lake
Dale Hollow Lake
Douglas Lake
Hiwassee River
J. Percy Priest Lake
Kentucky Lake
Norris Lake
Ocoee River
Old Hickory Lake
Parksville Lake
Pickwick Lake
Pin Oak Lake
South Holston Lake
Tellico Lake
Tims Ford Lake
Watauga Lake
Watauga River
Watts Bar Lake

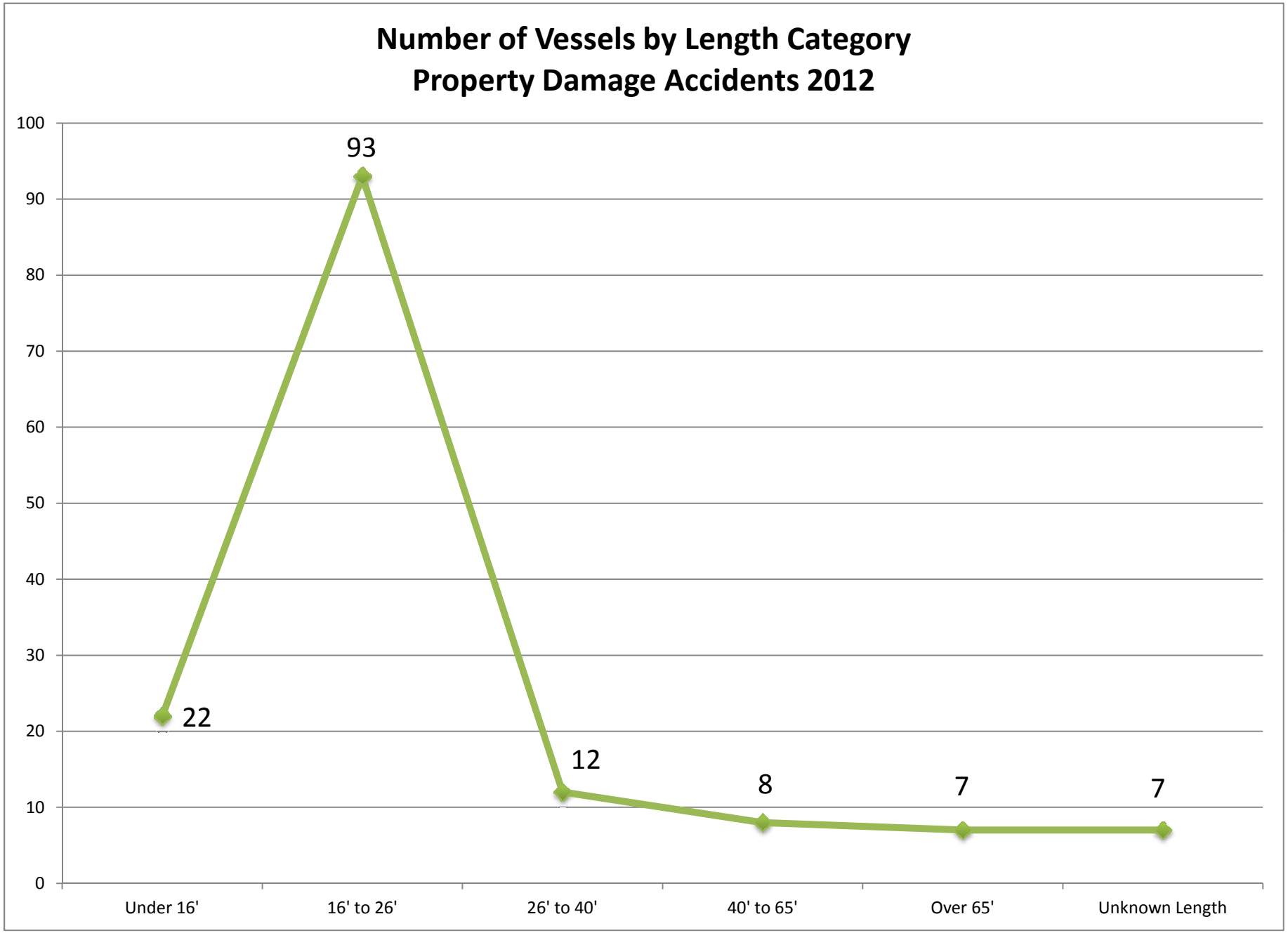

Number of Accidents by County
Injury Accidents 2012
0
2
4
6
8
10
12
14
16
Anderson 3
Campbell 1
Carter 3
Claiborne 1
Clay 2
Davidson 4
Dekalb 5
Franklin 5
Hamblen 1
Hamilton 8
Hardin 2
Hawkins 3
Henderson 2
Henry 2
Jefferson 2
Johnson 1
Loudon 1
Meigs 1
Montgomery 2
Pickett 1
Polk 15
Rhea 3
Roane 5
Rutherford 3
Stewart 1
Sullivan 2
Sumner 2
Union 1
Washington 3
Wilson 5


Number of Accidents by Day of Week
Injury Accidents 2012
35
30
25
20
15
10
5
0
27
4
6
4
9
7
33
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

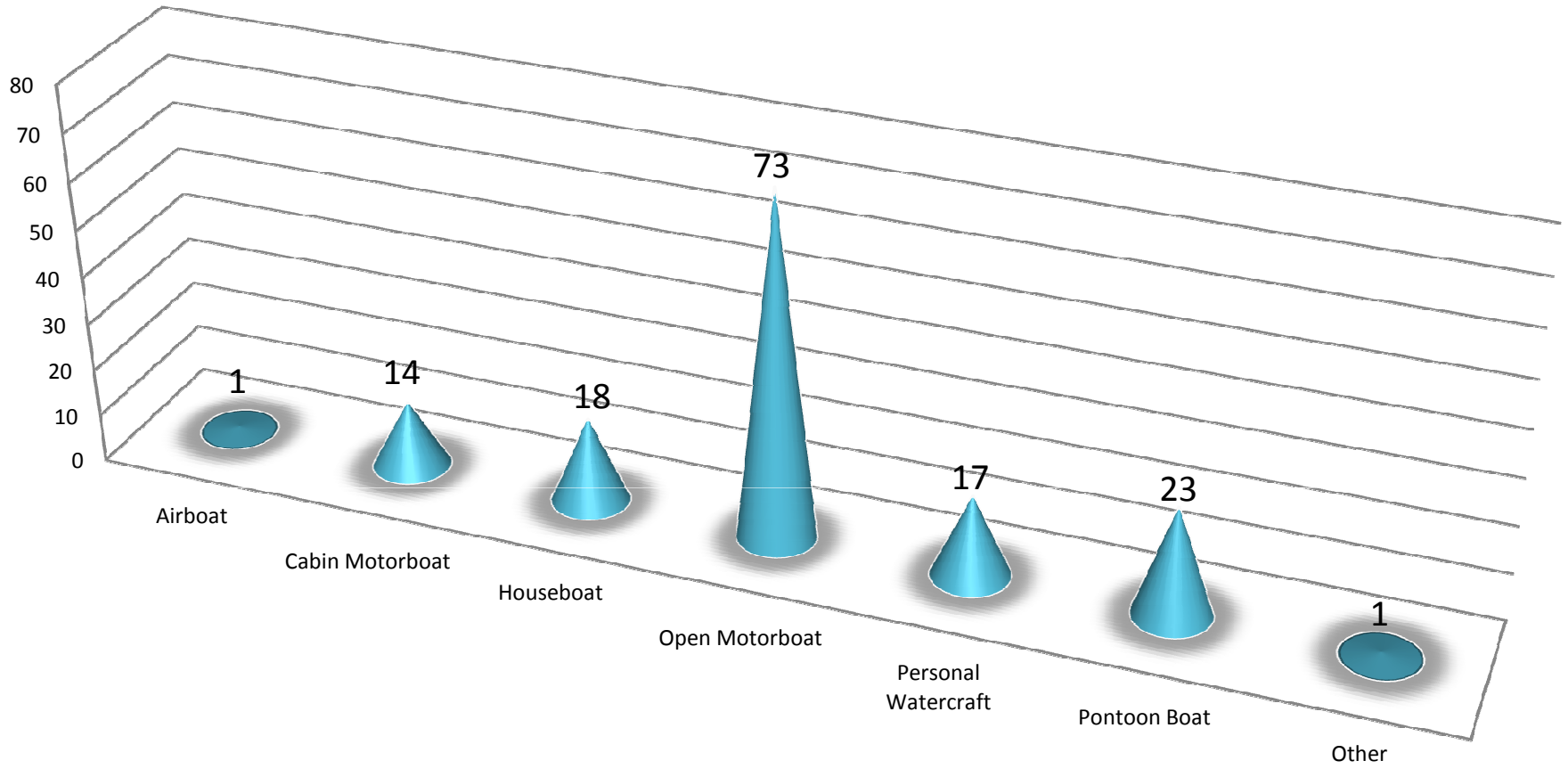


	Midnight to 4 am	4 am to 8 am	8 am to Noon	Noon to 4 pm	4 pm to 8 pm	8 pm to Midnight
Number of Accidents	1	4	10	31	37	8

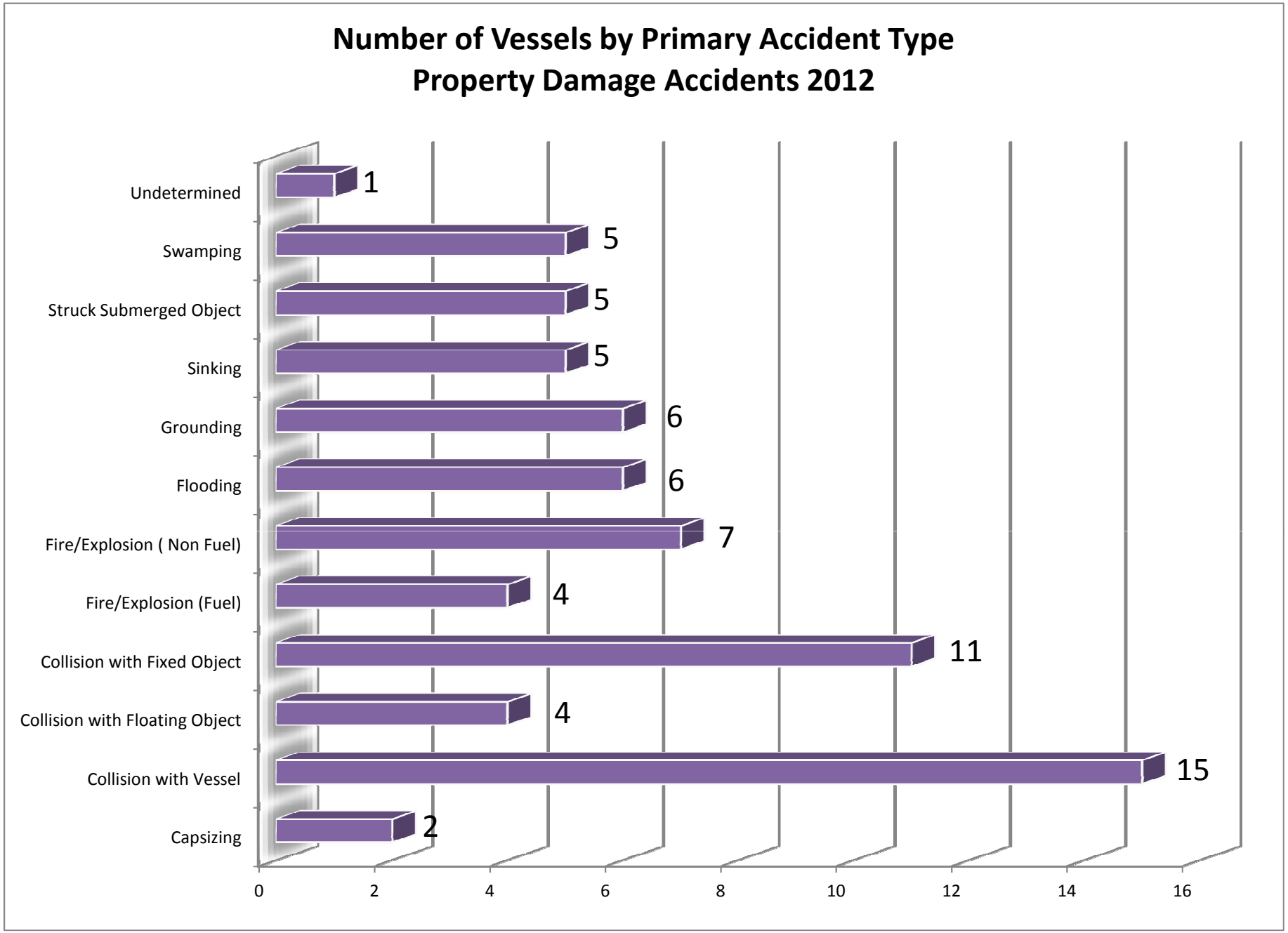

Number of Operators by Age Category
Property Damage Accidents 2012
12
10
8
6
4
2
0
1
2
1
4
7
4
12
10
10
6
4
1
4
Less than 12
12 through 15
16 through 20
21 through 25
26 through 30
31 through 35
36 through 40
41 through 45
46 through 50
51 through 55
56 through 60
61 through 65
Over 65

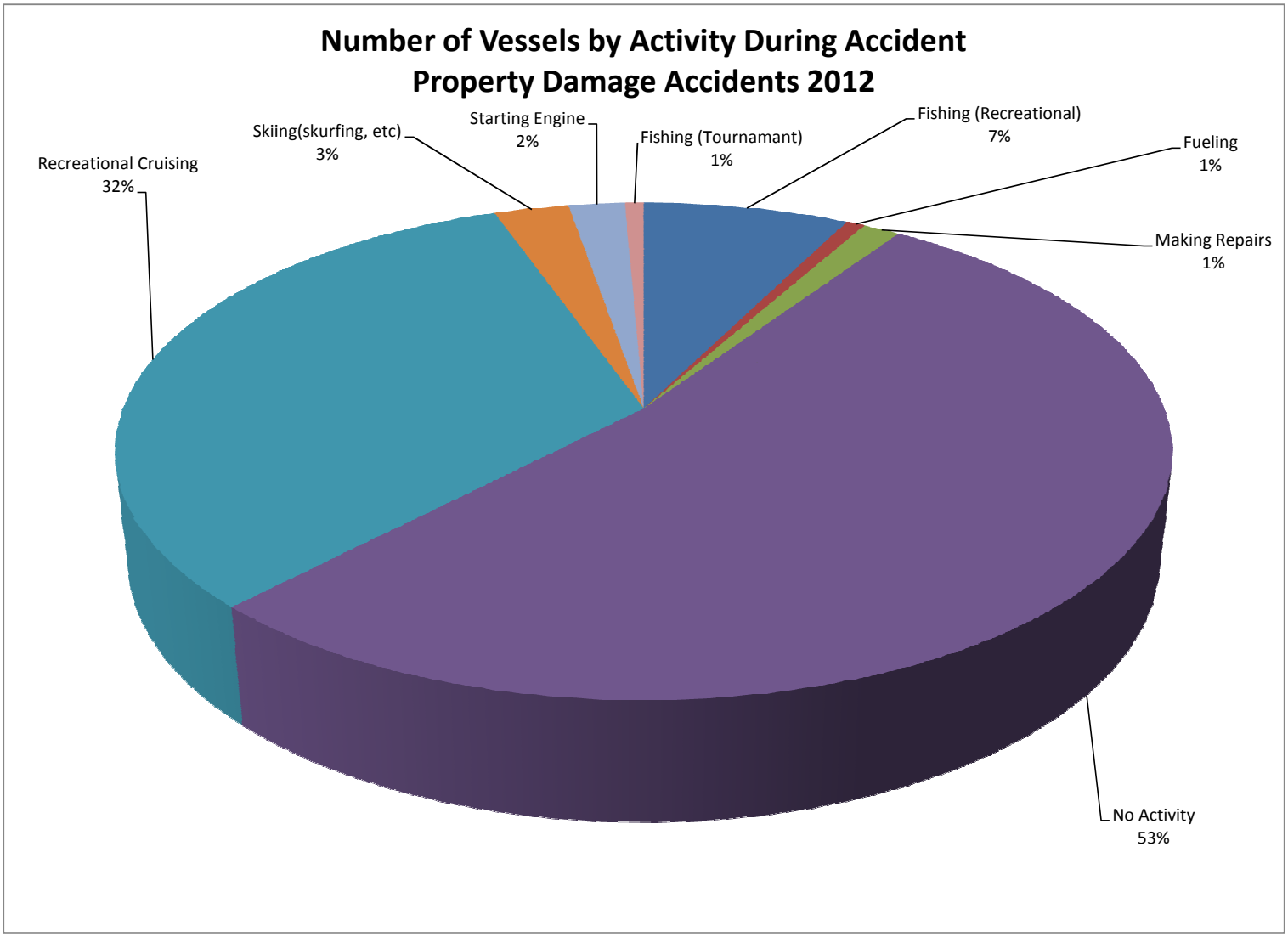

Number of Vessels by Length Category
Property Damage Accidents 2012
100
90
80
70
60
50
40
30
20
10
0
93
22
12
8
7
7
Under 16'
16' to 26'
26' to 40'
40' to 65'
Over 65'
Unknown Length

Number of Vessels by Vessel Type
Property Damage Accidents 2012

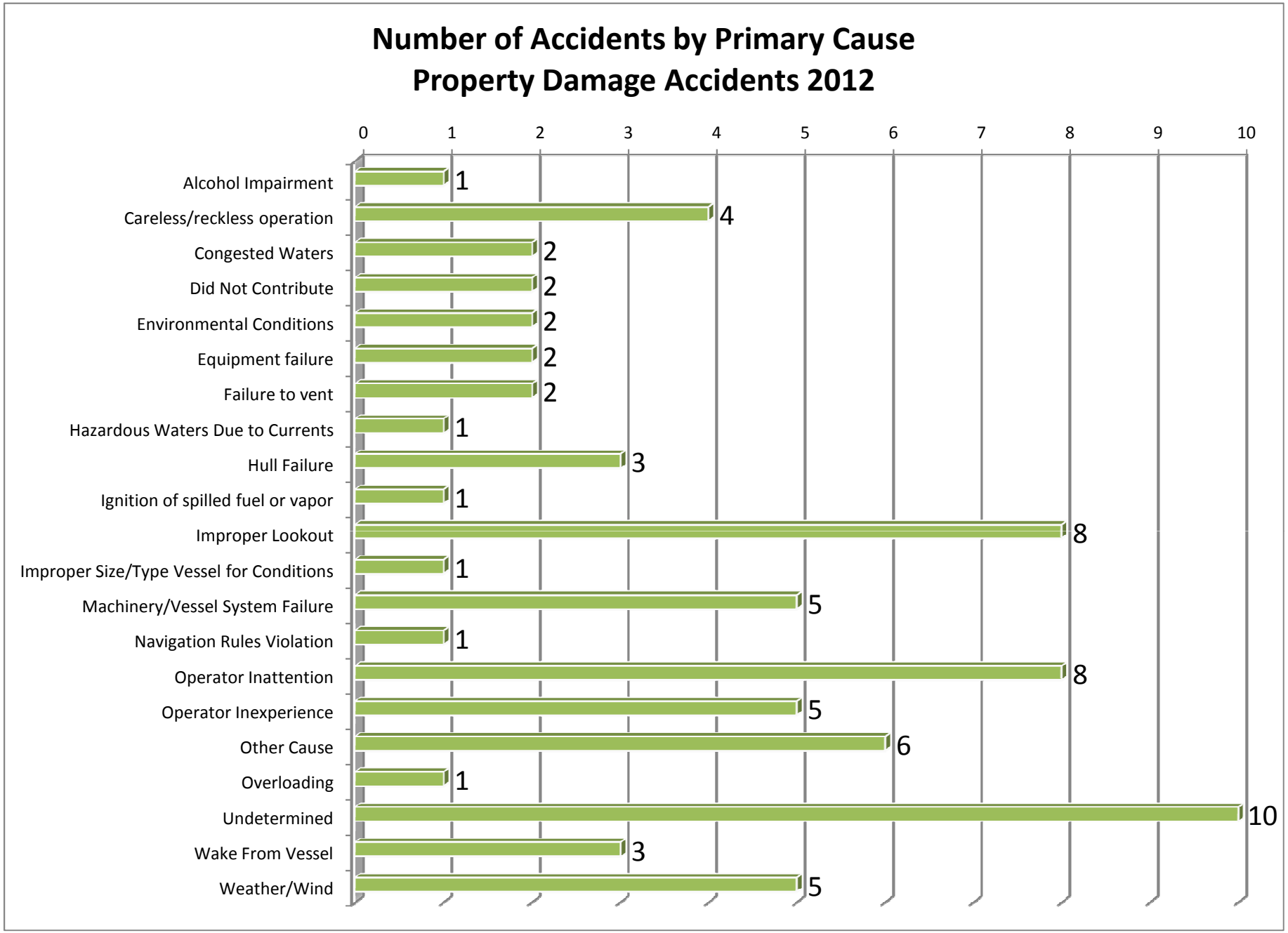


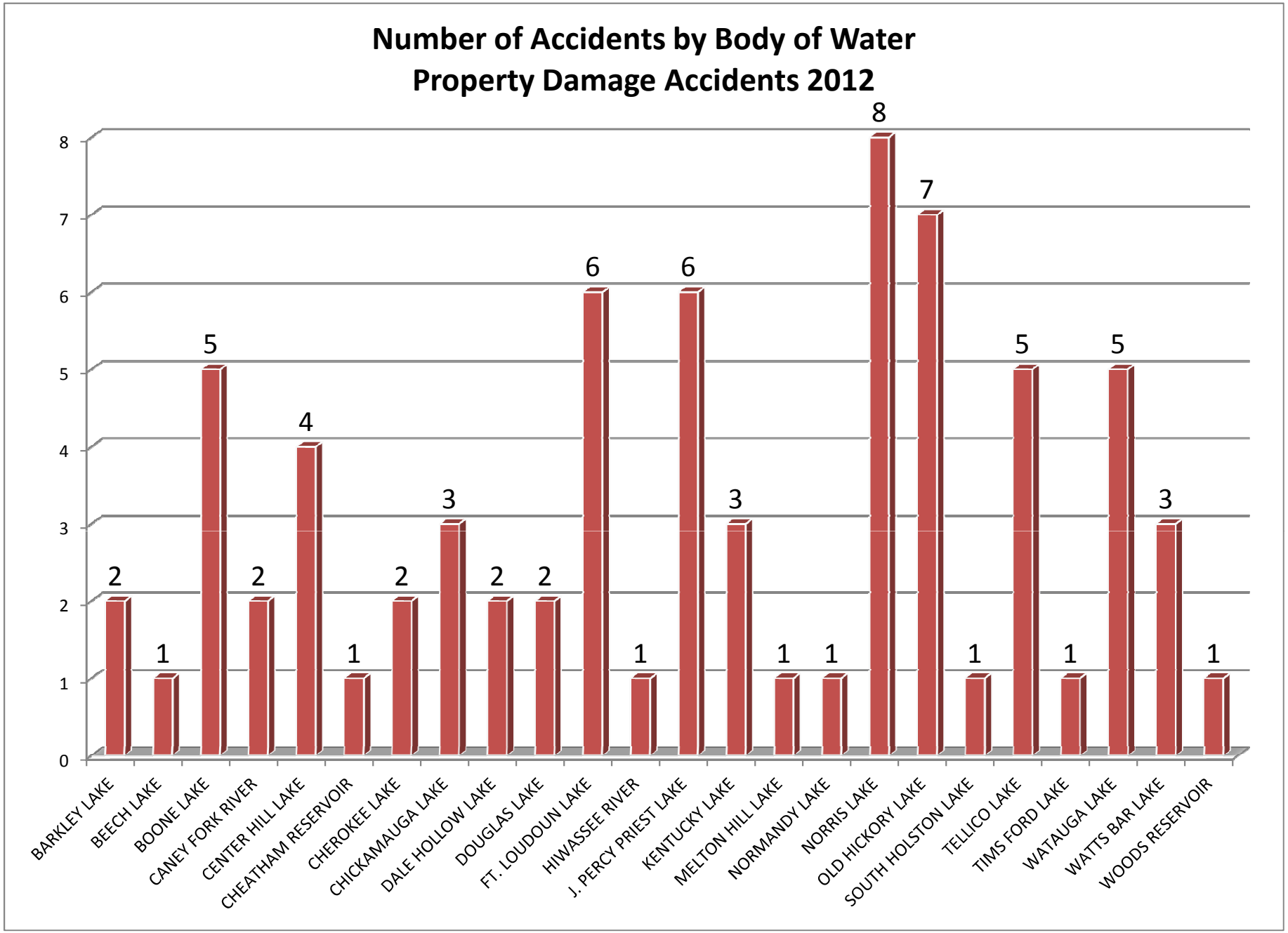
	Airboat	Cabin Motorboat	Houseboat	Open Motorboat	Personal Watercraft	Pontoon Boat	Other
Number of Vessels	1	14	18	73	17	23	1

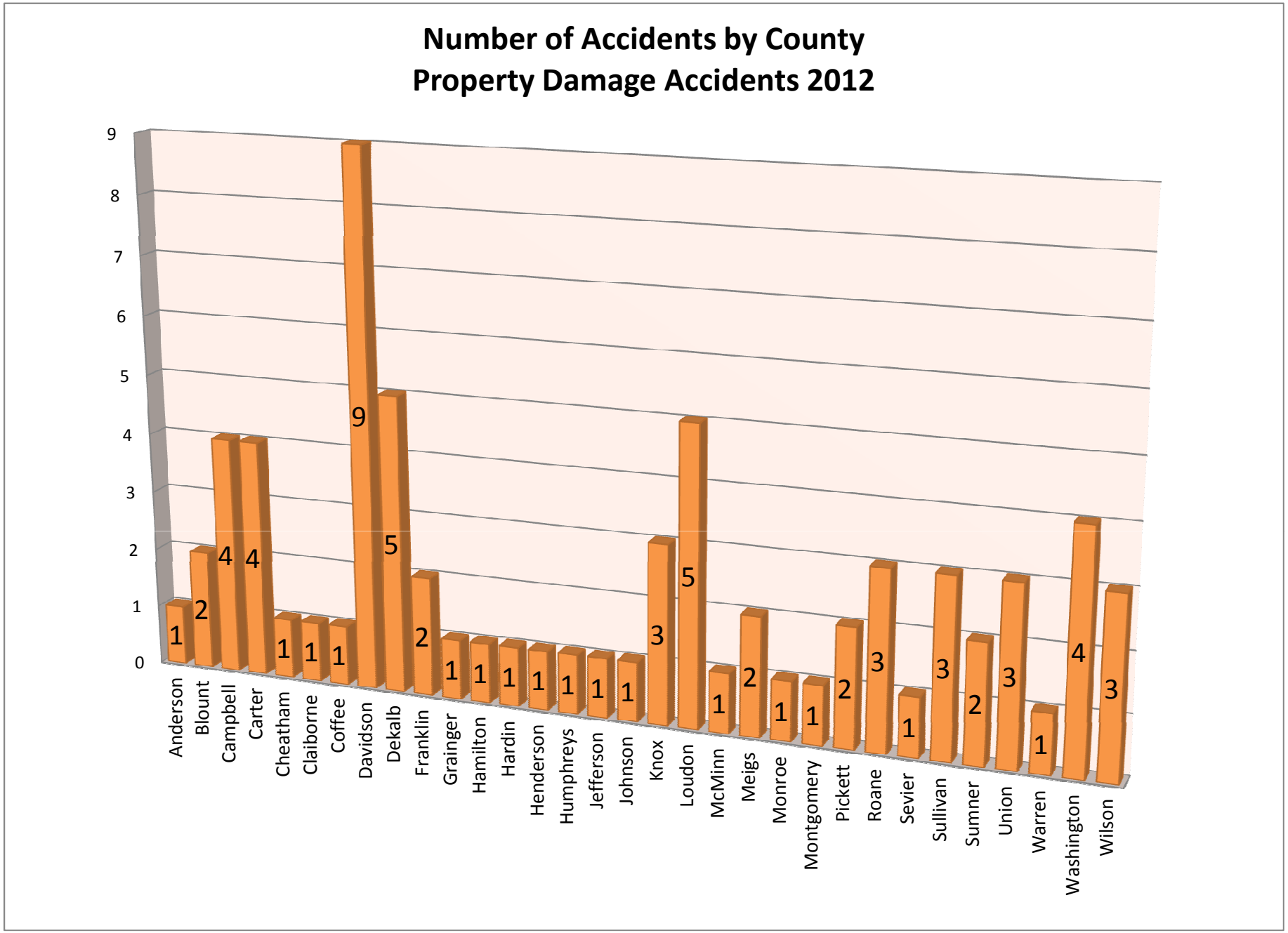

Number of Vessels by Primary Accident Type
Property Damage Accidents 2012
Undetermined
Swamping
Struck Submerged Object
Sinking
Grounding
Flooding
Fire/Explosion (Non Fuel)
Fire/Explosion (Fuel)
Collision with Fixed Object
Collision with Floating Object
Collision with Vessel
Capsizing
1
5
5
5
6
6
7
4
11
4
15
2
0
2
4
6
8
10
12
14
16



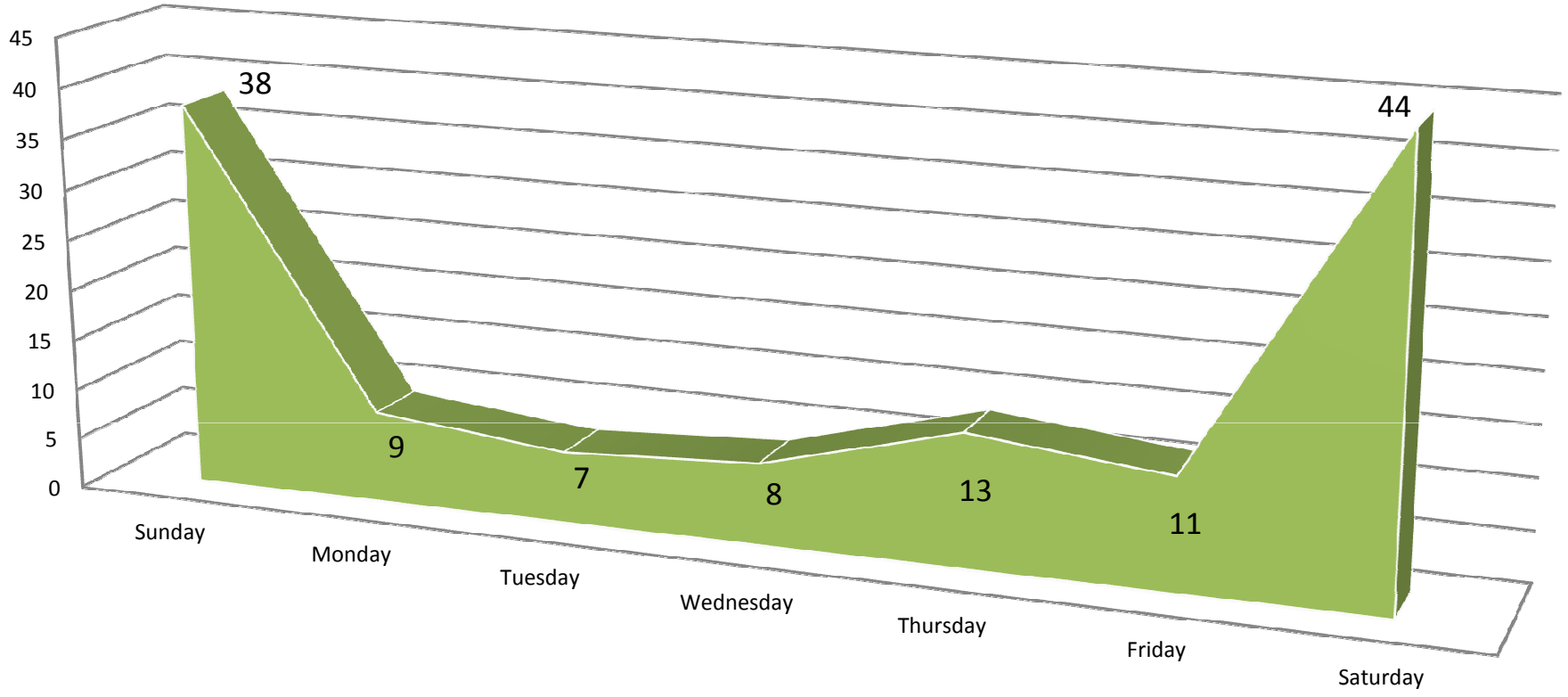
Activity	Number of Vessels
Fishing (Recreational)	11
Fueling	1
Making Repairs	2
No Activity	78
Recreational Cruising	48
Skiing(skurfing, etc)	4
Starting Engine	3
Fishing (Tournamant)	1


Number of Accidents by Primary Cause
Property Damage Accidents 2012
0
1
2
3
4
5
6
7
8
9
10
Alcohol Impairment
1
Careless/reckless operation
4
Congested Waters
2
Did Not Contribute
2
Environmental Conditions
2
Equipment failure
2
Failure to vent
2
Hazardous Waters Due to Currents
1
Hull Failure
3
Ignition of spilled fuel or vapor
1
Improper Lookout
8
Improper Size/Type Vessel for Conditions
1
Machinery/Vessel System Failure
5
Navigation Rules Violation
1
Operator Inattention
8
Operator Inexperience
5
Other Cause
6
Overloading
1
Undetermined
10
Wake From Vessel
3
Weather/Wind
5

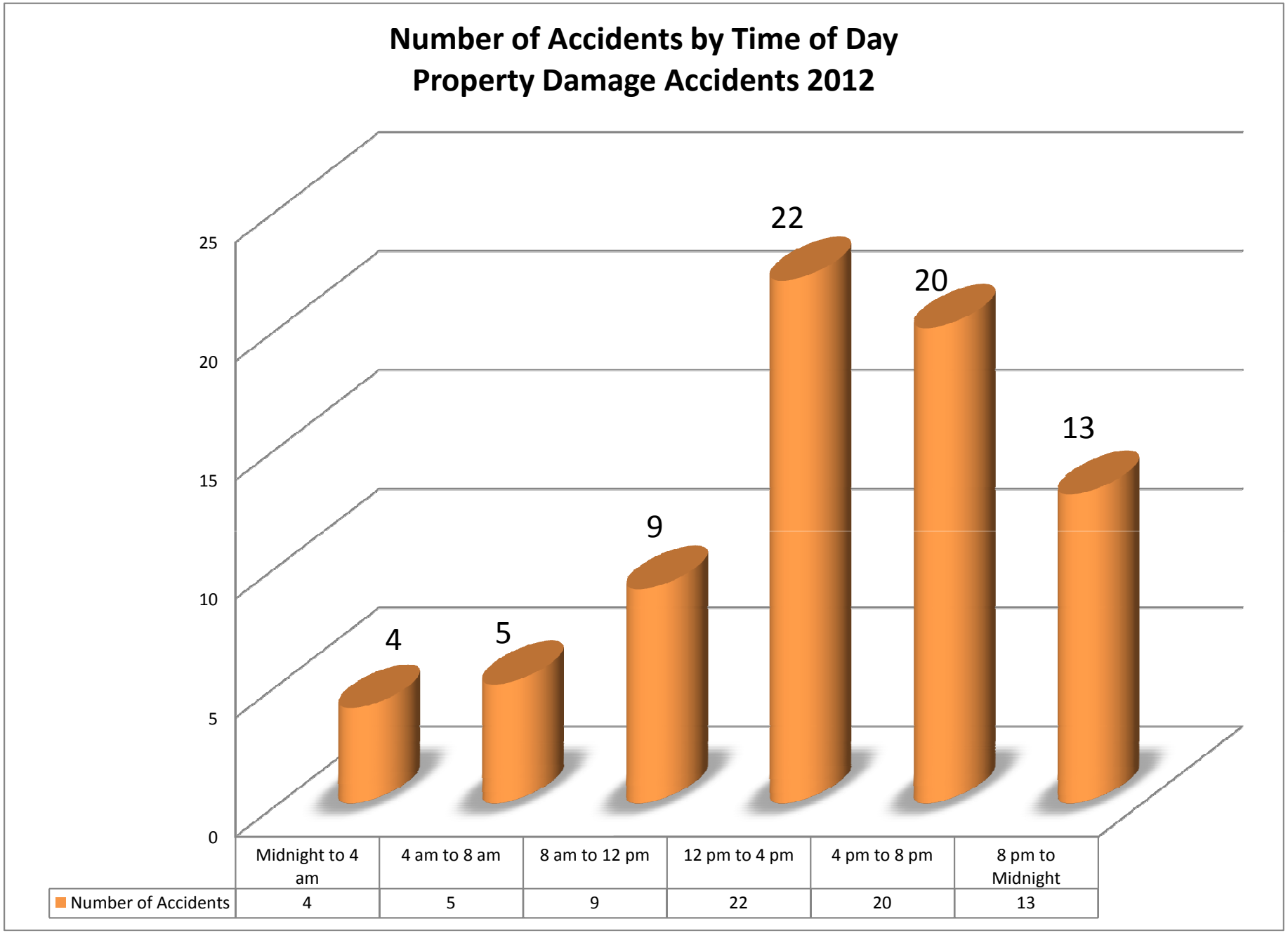

Number of Accidents by Body of Water
Property Damage Accidents 2012
0
1
2
3
4
5
6
7
8
BARKLEY LAKE 2
BEECH LAKE 1
BOONE LAKE 5
CANEY FORK RIVER 2
CENTER HILL LAKE 4
CHEATHAM RESERVOIR 1
CHEROKEE LAKE 2
CHICKAMAUGA LAKE 3
DALE HOLLOW LAKE 2
DOUGLAS LAKE 2
FT. LOUDOUN LAKE 6
HIWASSEE RIVER 1
J. PERCY PRIEST LAKE 6
KENTUCKY LAKE 3
MELTON HILL LAKE 1
NORMANDY LAKE 1
NORRIS LAKE 8
OLD HICKORY LAKE 7
SOUTH HOLSTON LAKE 1
TELLICO LAKE 5
TIMS FORD LAKE 1
WATAUGA LAKE 5
WATTS BAR LAKE 3
WOODS RESERVOIR 1

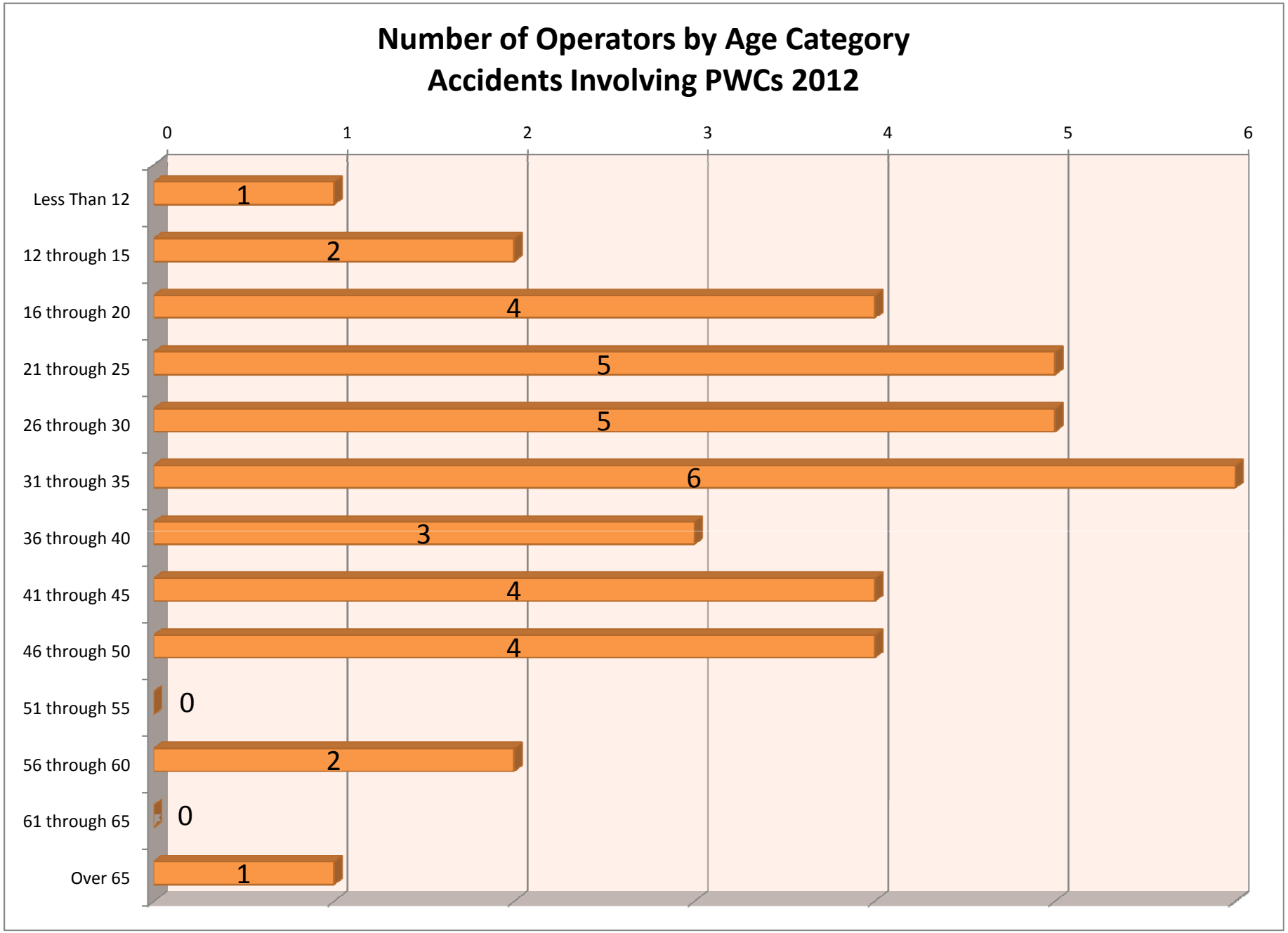

Number of Accidents by County
Property Damage Accidents 2012
9
8
7
6
5
4
3
2
1
0
Anderson 1
Blount 2
Campbell 4
Carter 4
Cheatham 1
Claiborne 1
Coffee 1
Davidson 9
Dekalb 5
Franklin 2
Grainger 1
Hamilton 1
Hardin 1
Henderson 1
Humphreys 1
Jefferson 1
Johnson 1
Knox 3
Loudon 5
McMinn 1
Meigs 2
Monroe 1
Montgomery 1
Pickett 2
Roane 3
Sevier 1
Sullivan 3
Sumner 2
Union 3
Warren 1
Washington 4
Wilson 3

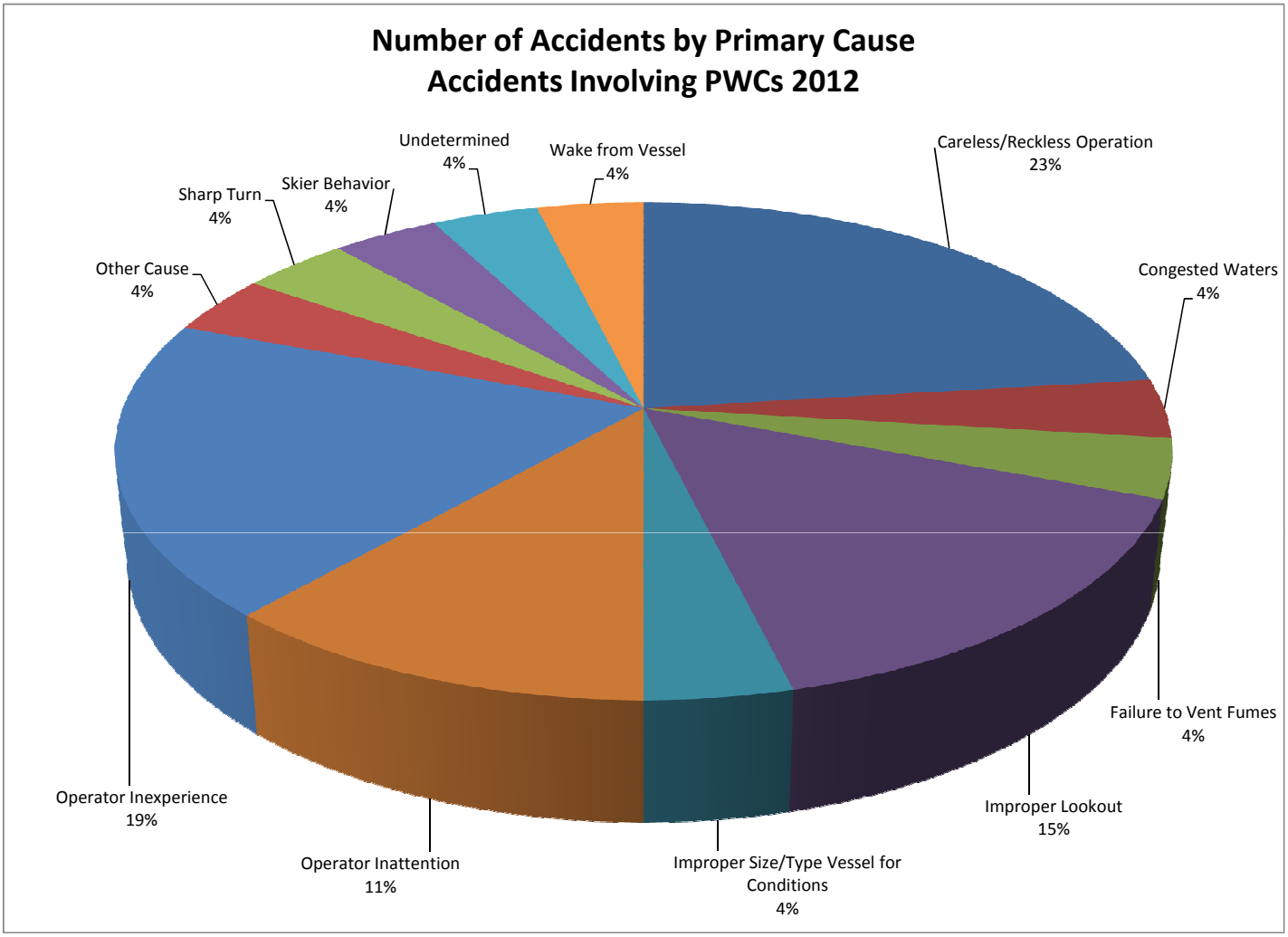
Number of Accidents by Day of Week
Property Damage Accidents 2012



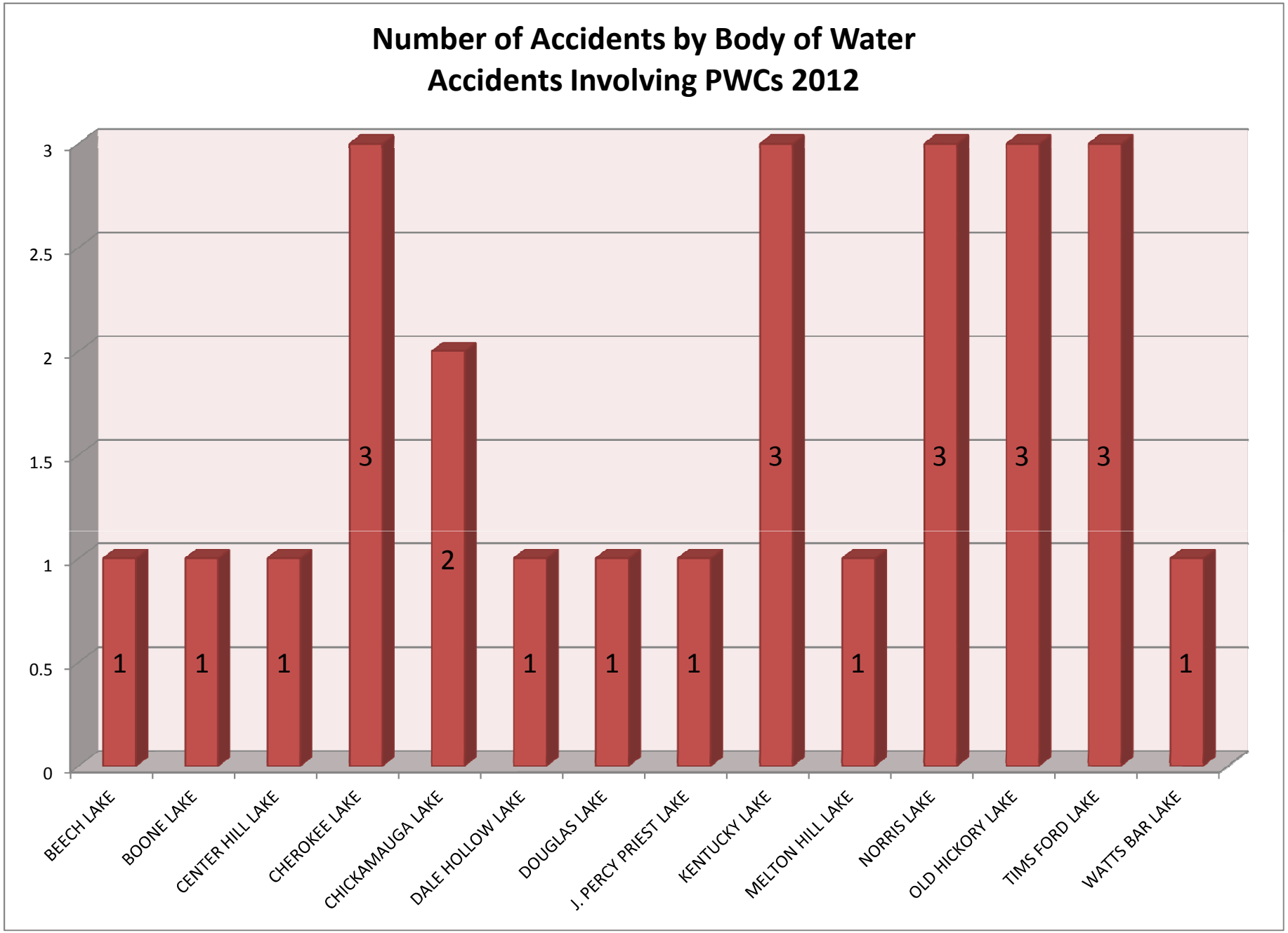
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Number of Accidents	38	9	7	8	13	11	44

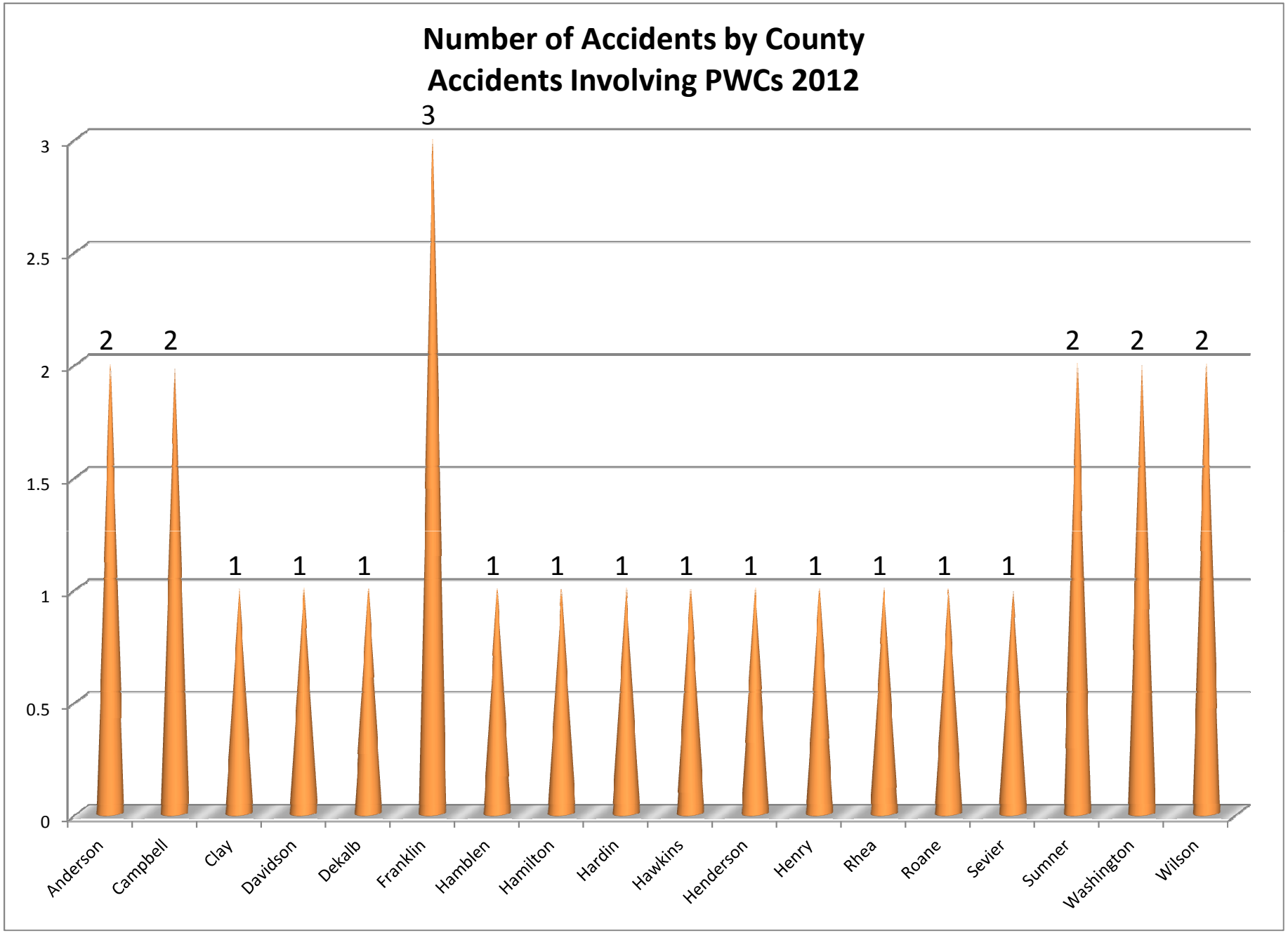

Number of Accidents by Time of Day
Property Damage Accidents 2012
25
20
15
10
5
0
4
5
9
22
20
13
Midnight to 4 am
4 am to 8 am
8 am to 12 pm
12 pm to 4 pm
4 pm to 8 pm
8 pm to Midnight
Number of Accidents
4
5
9
22
20
13


Number of Operators by Age Category
Accidents Involving PWCs 2012
0
1
2
3
4
5
6
Less Than 12
12 through 15
16 through 20
21 through 25
26 through 30
31 through 35
36 through 40
41 through 45
46 through 50
51 through 55
56 through 60
61 through 65
Over 65
1
2
4
5
5
6
3
4
4
0
2
0
1



Primary Cause	Number of Accidents
Careless/Reckless Operation	6
Congested Waters	1
Failure to Vent Fumes	1
Improper Lookout	4
Improper Size/Type Vessel for Conditions	1
Operator Inattention	3
Operator Inexperience	5
Other Cause	1
Sharp Turn	1
Skier Behavior	1
Undetermined	1
Wake from Vessel	1


Number of Accidents by Body of Water
Accidents Involving PWCs 2012
3
2.5
2
1.5
1
0.5
0
1
1
1
3
2
1
1
1
3
1
3
3
3
1
BEECH LAKE
BOONE LAKE
CENTER HILL LAKE
CHEROKEE LAKE
CHICKAMAUGA LAKE
DALE HOLLOW LAKE
DOUGLAS LAKE
J. PERCY PRIEST LAKE
KENTUCKY LAKE
MELTON HILL LAKE
NORRIS LAKE
OLD HICKORY LAKE
TIMS FORD LAKE
WATTS BAR LAKE


Number of Accidents by County
Accidents Involving PWCs 2012
3
2
2
1
1
1
1
1
1
1
1
1
1
1
2
2
2
0
0.5
1
1.5
2
2.5
3
Anderson
Campbell
Clay
Davidson
Dekalb
Franklin
Hamblen
Hamilton
Hardin
Hawkins
Henderson
Henry
Rhea
Roane
Sevier
Sumner
Washington
Wilson

2012 GLOSSARY

Alcohol Impairment: When alcoholic beverages are consumed and the investigating official has determined that the operator was impaired or affected while operating the vessel -- or -- the vessel's passengers were impaired and such impairment contributes to the resultant accident. This includes alcohol consumption that may have occurred outside of the vessel and the occupants are now under the influence.

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

Cabin Motorboat- Motorboats with a cabin which can be completely closed by means of doors or hatches. Large motorboats with cabins, even though referred to as yachts, are considered to be cabin motorboats.

Capsizing: Overturning of a vessel. The bottom must become uppermost, except in the case of a sailboat, which lies on its side.

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

Collision with Vessel: Any striking together of two or more vessels, regardless of operation at time of accident, is a collision. Also includes colliding with the tow of another vessel, regardless of the nature of the tow (e.g., surfboard, ski ropes, skier, tow line). A vessel does not have to be underway to be involved in a collision, but a collision with a vessel moored to a dock or pier is not considered be a collision with a vessel (considered Collision with Fixed Object).

Collision with fixed object- The striking of any fixed object, above or below the surface of the water.

Collision with floating object- Collision with any waterborne object above or below the surface that is free to move with the tide, current, or wind, except with another vessel.

Commercial Activity: The vessel is being used for commercial activity. This type of activity includes carrying passengers for hire; fishing, crabbing, or shrimping in support of one's business; or charging a fee to tow a vessel.

Cruising- Proceeding normally, unrestricted, with an absence of drastic rudder or engine changes.

Departed Vessel Voluntarily: Acting of their own free will, and as a first event, occupant departs from the vessel, and the departure results in occupant's injury or death. The vessel from which the occupant departed is not moored, beached or anchored,

Documented yacht- A vessel of five or more net tons owned by a citizen of the United States and used exclusively for pleasure with a valid marine document issued by the Coast Guard. Documented vessels are not numbered.

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

Environmental Conditions Affecting Visibility: Operator's ability to discern other vessels or hazards is affected by an external condition in the surrounding environment (e.g., sun glare, fog, background lighting (lights on docks and shorelines, etc.), rain, snow, minimal night visibility due to overcast skies or moon phase, etc.)

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

Falls Overboard: Falls from the vessel with resulting injury or death. Any unintentional spilling out of person(s) into the water without completely overturning the vessel. Using the vessel as a swimming platform and/or voluntarily departing the vessel as a first event whether the vessel was underway or not, should not be considered a reportable boating accident.

Fallen Skier- A person who has fallen off their water skies.

Fiberglass (plastic) hull- Hulls of fiber reinforced plastic. The laminate consists of two basic components, the reinforcing material (glass filaments) and the plastic or resin in which it is embedded.

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

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

Flooding: Filling with water, by means of entry of the water through a fitting, a drain plug, a hole or crack in the hull, or other means that allows ingress of water through the hull, not over the top of the gunwale, transom, or decking of the vessel. Vessel retains sufficient buoyancy to remain on the surface of the water.

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

Grounding- Bringing vessel's keel into contact with the bottom so that she ceases to be completely waterborne.

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

Ignition of Spilled Fuel or Vapor: Accidental combustion of vessel fuel, liquids, and/or their vapors, regardless of the cause of the spill.

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

Improper lookout- No proper watch; the failure of the operator to perceive danger because no one was serving as lookout, or the person so serving failed in that regard.

Inboard-outboard- Propulsion system consisting of an inboard engine connected through the transom to an outboard drive unit. Also known as Inboard/Outdrive.

Maneuvering- Changing of course, speed, or similar boat handling action during which a high degree of alertness is required or the boat is imperiled because of the operation, i.e. docking, mooring, undocking, etc.

Motorboat- Any vessel equipped with propulsion machinery, not more than sixty-five feet in length.

Motor vessel- Any vessel equipped with propulsion machinery (other than steam) more than 65 feet long.

Navigation Rules Violation: Violation of the statutory and regulatory rules governing the navigation of vessels other than those listed.

Numbered vessel- An undocumented vessel numbered by a state with an approved numbering system or by the Coast Guard under Chapter 123 of title 46, U.S.C.

Off Throttle Steering- A term used to describe the lack of steering ability on a jet drive vessel that has no rudder. Steering is accomplished by directing the flow of water from the drive. When no water is flowing from the drive (off throttle) steering ability is lost. Common to Personal Watercraft.

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

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

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

Personal Watercraft(PWC)- Craft less than 13 feet in length designed to be operated by a person or persons sitting, standing or kneeling on the craft rather than within the confines of a hull.

Rules of the Road- Statutory and regulatory rules governing navigation of vessels.

Sailboat or auxiliary sailboat- Craft intended to be propelled primarily by sail, regardless of size or type.

Sharp Turn: An immediate or abrupt change in the vessel's course or direction

Skier Mishap: A person who suffers injury or death by
(1) falling off their water-skis,
(2) striking a fixed or submerged object, or by
(3) becoming entangled or struck by the tow line.
NOTE: Also includes mishaps involving inner-tubes and other devices on which a person can be towed behind a vessel, or surfing on the wake created by the vessel, even if not being towed behind the vessel.

Sinking- Losing enough buoyancy to settle below the surface of the water.

Speeding- Operating at a speed, possibly below the posted limit, above that which a reasonable and prudent person would operate under the circumstances.

Steel hull- Hulls of sheet steel alloy, not those with steel ribs and wood, canvas, or plastic hull coverings.

Struck by boat or propeller- Striking of a victim who is outside of the boat, but not necessarily a swimmer.

Swamping- Ingress of water over the top of the gunwale, transom, or decking of the vessel. Vessel retains sufficient buoyancy to remain on the surface of the water.

Towing- Engaged in towing any vessel or object, other than a person.

Undetermined- After thorough investigation, the officer was unable to reach a conclusion as to a contributing cause, due to lack of witnesses or insufficient evidence

White water Sports- This vessel was traveling in white water "rapids" where the water conditions were rough and the current very strong (Class 3+).

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

I. Title 33 Code of Federal Regulations, Subchapter S – Boating Safety, Part 173 – Vessel Numbering and Casualty and Accident Reporting, Subpart C – Casualty and Accident Reporting, applies to vessels that are used by their operators for recreational purposes, or that are required to be numbered, except for those vessels required by law to have a Certificate of Inspection.

II. Recreational vessel means any vessel manufactured or operated for pleasure; or leased, rented, or chartered to another for the latter's pleasure that is propelled or controlled by machinery, sails, oars, paddles, poles, or another vessel.

III. A recreational boating accident means a recreational vessel, a numbered vessel, or a documented vessel is being used by its operator for recreational purposes **AND** one or more of the following events occur involving the vessel or its equipment:

- Grounding;
- Capsizing;
- Flooding / Swamping;
- Falls within or overboard a vessel;
- Person(s) ejected from a vessel;
- Person leaves a vessel that is underway to swim for pleasure;
- Person leaves a vessel in an attempt to retrieve a lost item, another person, or another vessel;
- Sinking;
- Fire or Explosion;
- Skier Mishap;
- Collision with another vessel or object;
- Striking a submerged object;
- The vessel, propeller, propulsion unit, or steering machinery strikes a person;
- Carbon Monoxide asphyxiation.

As a general guideline, if any of the above events occur and there is a reasonable likelihood that as a result of the event(s) – an injury, death, or property damage occurs – the incident is a recreational boating accident. More than likely, the boating trip would have been successfully completed without incident had any of the above event(s) not occurred.

IV. The operator of a vessel involved in a recreational boating accident as defined in Section III must submit a casualty or accident report to the reporting authority in the State where the accident occurred when:

a. A person dies;
b. A person is injured and requires medical treatment beyond first aid;
c. Damage to vessels and other property totals $2000 or more or there is a complete loss of any vessel; or
d. A person disappears from the vessel under circumstances that indicate death or injury.

The following guidelines list occurrences directly or indirectly involving a vessel where vessel activities or operation DID NOT contribute to a boating accident as defined in Section III. The occurrences alone are considered to be outside the scope of a boating safety program. While these occurrences may be reported in a State and subsequently captured by the Boating Accident Report Database (BARD) system, they will be classified as "**non-reportable recreational boating accidents**" in the National BARD system at Coast Guard Headquarters.

a. A person dies or is injured from self-inflicted wounds, alcohol poisoning, ingestion of drugs, controlled substances or poison; or from gunshot wounds.

b. A person dies or is injured from assault by another person or persons while aboard a vessel.

c. A person dies or is injured from natural causes while aboard a vessel.

d. A person dies or is injured while swimming for pleasure from a vessel that IS NOT underway (the vessel is anchored, moored, or docked).

   CAUTION needs to be exercised to confirm that the vessel was used as a swimming platform only. The following are **REPORTABLE** boating accidents involving a swimmer, a recreational vessel and its operation:

   - *A person dies or is injured while swimming because of Carbon Monoxide asphyxiation;*
   - *A person dies or is injured while swimming because a vessel is improperly connected to shore power and resultant stray electrical current enters the water causing electrocution;*
   - *A person dies or is injured after leaving a vessel that is underway to swim for pleasure because the vessel IS NOT anchored, moored or docked and the vessel drifts away from the swimmer and the swimmer is unable to get back to the vessel.*

e. A person dies or is injured in swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from the shore or pier.

f. A person dies, or is injured after falling or jumping from a swim raft that is moored or anchored for use as a swimming platform or other purpose.

g. A person dies, is injured, or property damage occurs while preparing a vessel for launching or retrieving a vessel **AND** the vessel is not in or upon the water.

h. Damage, injury or death results from a fire on shore or a pier that spreads to a vessel or vessels.

i. A person dies, is injured, or property damage results from an “ice boat” accident. [An “ice boat” is a device that is designed to travel primarily over the ice on lakes and rivers on runners/blades, carrying at least one person and using a sail for propulsion. It is not designed for use nor has the ability to navigate on open water.]

j. Damage, injury or death on a docked or moored vessel resulting from storms, unusual tidal, sea or swell conditions; or when a vessel gets underway in those conditions in an attempt to rescue persons put in peril.

k. Damage to a docked or moored vessel due to theft or any vandalism.

l. Deaths, injury or damage on a docked or moored or anchored non-propelled houseboat or other vessel used primarily as a permanent residence.

m. A person dies or is injured while using underwater breathing apparatus (i.e., snorkeling or scuba diving) and the vessel did not contribute to the casualty.