



**2002 National Recreational Boating Survey
Technical Report**

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United States
Coast Guard



US Coast Guard
Office of
Boating Safety

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II. Boating Attitudes

Percentages for Figure 2.1 Do you agree or disagree that the following things would improve you enjoyment of recreational boating? (A1)

	Statements Rated						
	People who operate boats should be required to have licenses	People who operate boats should be required to pass a test to demonstrate their knowledge of boating laws	All children under the age of 13 years should be required to wear a life jacket/PFD while on a boat	Persons of all ages should be required to wear a life jacket or PFD while on a boat	Boating while under the influence laws should be strongly enforced	There should be more enforcement to control reckless boaters	The amount and or type of boating traffic should be restricted in certain areas
Strongly Agree	23.2%	24.6%	46.9%	16.1%	49.4%	41.6%	16.2%
Agree	40.4%	49.2%	39.6%	27.3%	42.7%	48.3%	50.2%
Disagree	24.7%	18.6%	10.1%	38.2%	5.2%	6.4%	21.3%
Strongly Disagree	8.7%	5.1%	2.5%	16.7%	1.3%	1.2%	6.4%
No Opinion	3.1%	2.5%	.9%	1.7%	1.4%	2.6%	5.9%
Total	100.1%	100.0%	100.0%	100.0%	100.0%	100.1%	100.0%

III. Boating Experience

**Percentages for Figure 3.1 What types of boats did you personally use for recreational purposes?
(A10)**

	Type of Boat											
	Canoe	Kayak	Rowboat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (Sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Popula- tion %	30.6%	14.4%	16.8%	10.9%	14.6%	3.2%	4.6%	5.8%	48.1%	10.7%	23.9%	4.8%

Percentages for Figure 3.2 About how many other people usually went boating with you for each type of boat used? (B8)

Number of Boaters (Excluding Operator)	Type of Boat											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (Sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
0	6.2%	29.1%	11.5%	13.7%	2.2%	1.4%	5.7%	15.4%	3.3%	1.7%	20.0%	10.8%
1	49.1%	36.7%	42.0%	33.1%	7.8%	5.0%	20.0%	40.2%	26.0%	15.5%	40.7%	30.7%
2 to 4	36.2%	24.2%	41.5%	41.0%	47.6%	30.5%	55.7%	36.1%	57.8%	61.8%	28.6%	45.6%
5 or more	8.5%	9.9%	4.9%	12.2%	42.4%	63.0%	18.6%	8.2%	12.9%	20.9%	10.7%	12.9%
Total	100%	99.9%	99.9%	100%	100%	99.9%	100%	99.9%	100%	99.9%	100%	100%

Percentages for Figure 3.3 During which months did you boat for recreational purposes? (A11)

	Month Boating											
	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.
Percent Boating	10.9%	11.6%	18.8%	31.3%	49.5%	70.4%	79.3%	70.7%	49.6%	29.5%	15.6%	10.5%

Percentages for Figure 3.4 How many total days did you go boating?/How many days did someone else take this boat out without you aboard? (B5/B9a)

	Number of Days Boating	Type of Boat											
		Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (Sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Primary Operator	0	1.2%	.7%	1.7%	2.3%	.6%	1.2%	1.5%	3.5%	.7%	.9%	.8%	1.6%
	1	18.5%	22.0%	16.1%	19.5%	12.5%	6.7%	9.0%	16.4%	5.3%	5.4%	17.6%	14.7%
	2 to 4	31.8%	30.4%	31.3%	28.7%	21.4%	27.6%	19.2%	28.6%	12.4%	14.5%	24.3%	19.6%
	5 or more	48.5%	47.0%	50.9%	49.5%	65.5%	64.4%	70.3%	51.5%	81.6%	79.2%	57.4%	64.1%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	<hr/>												
Secondary Operator	0	78.6%	73.8%	72.9%	76.4%	71.4%	86.4%	86.4%	75.2%	76.0%	82.4%	68.3%	73.1%
	1	3.9%	3.8%	3.6%	3.9%	3.5%	2.8%	2.2%	3.7%	2.6%	2.0%	4.7%	1.8%
	2 to 4	7.7%	8.9%	9.3%	8.0%	9.8%	4.8%	4.4%	8.6%	7.6%	4.8%	9.5%	9.3%
	5 or more	9.8%	13.5%	14.3%	11.7%	15.3%	6.0%	7.0%	12.4%	13.9%	10.7%	17.5%	15.8%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Means for Figure 3.4 Mean number of days boating. (B5/B9a)

	Type of Boat											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (Sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Primary Operator	9.73	10.03	11.13	11.78	19.22	17.15	25.46	10.36	29.48	31.58	14.26	22.05
Secondary Operator	2.33	2.87	3.01	1.84	3.43	1.11	1.67	2.71	3.21	2.68	3.93	5.78

Means for Figure 3.5 Mean number of hours per day boating. (B7, B9b)

	Type of Boat											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (Sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Primary Operator	3.80	3.06	3.21	3.15	4.88	14.72	7.73	3.75	5.16	7.79	3.25	4.32
Secondary Operator	2.18	2.08	1.98	1.75	2.09	2.60	2.32	1.95	1.73	1.83	2.52	2.57

Percentages for Figure 3.6 and 3.7 On average, how many hours per day did you spend on the water aboard each type of boat?/ How many hours per day did someone in your household take this boat out when you were not with them? (B7, B9b)

	Hours per Day Boating	Type of Boat											
		Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (Sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Primary Operator	0	.5%	.3%	1.0%	1.2%	.2%	.1%	.3%	1.2%	.3%	.3%	.3%	.9%
	1	15.1%	21.5%	26.2%	27.5%	7.8%	4.1%	4.0%	15.9%	4.7%	3.2%	24.3%	20.5%
	2 to 3	38.9%	47.1%	37.7%	38.6%	29.4%	8.9%	19.7%	45.3%	23.9%	14.8%	39.8%	28.6%
	4 to 5	25.3%	20.5%	21.2%	18.7%	28.6%	9.5%	27.7%	21.5%	29.8%	24.0%	21.3%	22.1%
	6 to 10	18.4%	9.5%	12.1%	12.6%	29.8%	19.1%	30.5%	12.2%	38.3%	40.7%	13.1%	23.4%
	More than 10	1.8%	1.2%	1.7%	1.4%	4.2%	58.4%	17.8%	3.9%	3.1%	17.0%	1.2%	4.4%
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Secondary Operator	0	31.5%	25.1%	36.7%	41.1%	45.4%	70.7%	65.4%	36.4%	59.1%	69.5%	29.0%
1		19.0%	25.4%	19.6%	20.1%	9.3%	3.3%	3.6%	15.8%	4.4%	1.9%	16.3%	20.5%
2 to 3		27.7%	30.8%	25.5%	22.5%	22.1%	7.4%	10.9%	31.4%	15.6%	8.3%	27.9%	20.9%
4 to 5		12.7%	12.2%	10.2%	9.8%	12.2%	3.7%	7.9%	10.1%	10.8%	8.0%	15.2%	10.9%
6 to 10		7.9%	4.5%	6.5%	5.4%	9.2%	7.1%	6.8%	4.9%	8.8%	9.2%	9.8%	9.7%
More than 10		1.3%	2.0%	1.5%	1.1%	1.8%	7.7%	5.4%	1.3%	1.2%	3.2%	1.9%	4.4%
Total		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 3.8 and Figure 3.9 Did you or someone in your household go boating on a boat that you owned/shared, rented, borrowed, or was owned by someone else? (B2)

	Type of Boat											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Owned / Shared	39.1%	37.9%	47.6%	58.7%	44.5%	27.1%	47.5%	48.7%	70.6%	64.6%	35.1%	57.1%
Rented	29.5%	29.1%	19.3%	14.0%	16.9%	39.8%	10.9%	13.7%	5.0%	3.5%	17.7%	13.7%
You Borrowed	18.2%	19.7%	17.8%	11.9%	12.1%	9.1%	7.2%	14.7%	7.9%	6.3%	17.3%	12.8%
Owned by someone else	13.2%	13.3%	15.3%	15.4%	26.4%	23.9%	34.4%	22.9%	16.5%	25.6%	29.9%	16.4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Figure 3.10 How often was alcohol consumed on board when you went boating? (A12)

	How often was alcohol being consumed on board when boating					
	Always	Most of the time	Sometimes	Rarely	Never	Total
Percent Responding	2.7%	5.8%	17.7%	16.2%	57.6%	100%

IV. Boating Experience

Percentages for Figure 4.1 When was the last time you took a boating safety course? (A2)

	When was the Last Time You Took a Boating Safety Course?							Total
	During the past year	1 to 2 years ago	3 to 5 years ago	6 to 9 years ago	10 or more years ago	Have taken a safety course at some point	Never taken a boating safety course	
Population Estimates	898,426	1,528,974	2,271,848	1,341,105	4,732,782	41,892	20,224,550	31,039,578
Percent	2.9%	4.9%	7.3%	4.3%	15.2%	0.1%	65.2%	100%

Percentages for Figure 4.2 What type of boating safety course did you take the last time?/Which of the following courses did you take? (A3, A4)

	Type of Safety Course Taken						
	Course Setting			Course Provider			
	A classroom course	A home study course including a correspondence course	Other	USCG Auxiliary	U.S. Power Squadrons	State	Other
Percent	70.2%	13.9%	15.9%	29.5%	18.5%	26.9%	16.6%

Percentages for Figure 4.3 Percent of operators who have never taken a boating safety course by type of boat. (A2, A10)

	Type of Boat												Total
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft	
During the past year	1.9%	2.4%	1.0%	1.6%	2.7%	.9%	8.7%	6.9%	2.2%	6.3%	3.5%	1.7%	2.9%
1 to 2 years ago	2.7%	2.8%	2.6%	4.1%	3.7%	3.4%	6.0%	7.7%	4.6%	9.0%	6.3%	4.2%	4.9%
3 to 5 years ago	4.0%	5.0%	4.4%	5.0%	4.8%	12.1%	11.7%	11.5%	7.3%	13.9%	8.2%	6.4%	7.3%
6 to 9 years ago	2.7%	3.6%	3.0%	2.4%	3.6%	1.7%	9.2%	4.3%	4.2%	7.5%	4.8%	4.3%	4.3%
10 or more years ago	13.0%	13.2%	13.3%	12.1%	11.6%	6.9%	26.0%	24.1%	15.6%	25.8%	13.3%	14.3%	15.3%
Never	75.7%	72.9%	75.8%	74.8%	73.7%	75.0%	38.5%	45.5%	66.0%	37.6%	64.0%	69.0%	65.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 4.4 Percent of operators who have never taken a boating safety course by highest level of education completed. (A2, G6)

	Highest Grade or Level of Schooling Completed							Total
	8th grade or less	Some high school	High school graduate/GED	Some college or technical school	Technical school graduate	College graduate	Post graduate	
During the past year	5.8%	4.4%	1.6%	3.6%	1.5%	3.0%	3.3%	2.9%
1 to 2 years ago	6.1%	5.2%	3.7%	4.9%	4.1%	4.9%	6.8%	4.9%
3 to 5 years ago	4.6%	5.6%	6.1%	7.2%	8.8%	8.0%	8.1%	7.3%
6 to 9 years ago	1.8%	1.9%	2.7%	5.2%	5.7%	4.7%	5.0%	4.3%
10 or more years ago	4.9%	4.1%	10.7%	15.6%	16.3%	16.8%	23.5%	15.3%
Never	76.8%	78.9%	75.2%	63.5%	63.7%	62.6%	53.4%	65.3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 4.5 How many total hours of boat operating experience have you had in your lifetime? (A5)

	Total Hours of Lifetime Boat Operating Experience						
	Less than 1 hour	1 to 9 hours	10 to 19 hours	20 to 100 hours	101 to 500 hours	Over 500 hours	Total
Percent	2.3%	9.7%	7.4%	19.2%	23.0%	38.4%	100%

Percentages for Figure 4.6 Are you a member of any of the following organizations? (A6)

	Are You a Member of any Boating Clubs or Organizations?										
	Coast Guard Auxiliary	US Power Squadrons	Sea Scouts	US Sailing Assn	Boat US	American Canoe Assn	US Rowing	Yacht club or marina	Boat club	Water Safety Council	Other Organization
Percent	0.9%	1.7%	0.3%	1.5%	11.2%	0.5%	0.2%	8.4%	3.7%	0.2%	6.1%

**Percentages for Figure 4.7 From where did you see, read, or hear information about boating safety?
(A8)**

Source of Information About Boating Safety	Percent
Television	41.9%
Radio	17.2%
Newspapers	35.0%
Magazines	42.0%
Internet	11.5%
Posters or billboards	21.1%
Newsletters	15.4%
Equipment catalogs or brochures	26.5%
Local notice to mariners	16.7%
Marine enforcement officer	9.9%
Personal communication with someone	30.6%
Boat launch or ramp	25.1%
Marina or yacht club	18.0%
Marine dealer or retailer	12.8%
Boat show	17.7%
Boating event	7.1%
Boating course	7.0%
Other source	6.1%

Percentages for Figure 4.8 What were the topics of the boating safety information you saw, read, or heard? (A9)

	Topic of the Boating Safety Information									
	PFD or life jacket use	Alcohol use and boating	Dangers of carbon monoxide poisoning	Boat or engine or equipment	Use of personal watercraft	Navigation or rules of the road or signage and markers	Boat handling skills	Emergency response and water rescue	Cold water survival and or hypothermia	Other topic
Percent	66.6%	62.1%	16.2%	34.9%	33.8%	40.1%	32.4%	25.3%	21.4%	6.1%

Percentages for Figure 4.9 Do you know how to swim? (G7)

	Type of Boat												Total
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal watercraft	Other craft	
Can Swim	96.7%	98.7%	94.4%	95.6%	95.7%	95.9%	99.5%	98.4%	95.9%	97.5%	97.2%	92.8%	96.4%
Can Not Swim	3.3%	1.3%	5.6%	4.4%	4.3%	4.1%	.5%	1.6%	4.1%	2.5%	2.8%	7.2%	3.6%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

V. BOAT OPERATED MOST OFTEN

Percentages for Figure 5.1 When you went boating, what kind of boat did you operate most often? (C1)

	Type of Boat												Total
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft	
Percent	16.2%	6.2%	5.4%	3.1%	7.1%	0.8%	2.4%	2.0%	36.6%	6.2%	10.6%	3.3%	100%

Percentages for Figure 5.2 How long is the boat you operate most often? (C2)

	Length of Boat						Total
	Under 16 feet	16 to less than 20 feet	21 to less than 25 feet	26 to 39 feet	40 to 65 feet	Over 65 feet	
Percent	43.2%	35.3%	12.1%	6.8%	2.2%	.4%	100%

Percentages for Figure 5.3 Length in feet of boat operated most often by type of vessel. (C1, C2)

	Boat Operated Most Often												
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft	Total
Under 16 feet	68.0%	82.9%	84.2%	89.7%	14.1%	7.8%	2.7%	38.4%	22.7%	2.2%	89.6%	53.4%	43.3%
16 to 20 feet	30.0%	16.1%	12.4%	7.2%	37.7%	6.1%	6.5%	28.9%	59.2%	14.4%	5.7%	28.3%	35.2%
21 to 25 feet	1.0%	.7%	1.8%	1.8%	37.7%	10.6%	18.5%	8.9%	14.4%	32.9%	2.2%	8.2%	12.1%
26 to 39 feet	.4%	.1%	.7%	.7%	10.2%	21.1%	55.7%	17.4%	3.1%	36.2%	1.7%	5.0%	6.7%
40 to 65 feet	.3%	.2%	.5%	.4%	.3%	34.4%	15.8%	5.5%	.6%	13.1%	.6%	3.2%	2.2%
Over 65 feet	.2%	.0%	.4%	.1%	.1%	20.0%	.8%	.8%	.1%	1.2%	.2%	1.9%	.5%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Means for Figure 5.3 Mean length in feet of boat operated most often by type of vessel. (C1, C2)

	Type of Boat												
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft	Total
Mean Length in feet	13.82	11.62	12.94	10.33	20.72	43.44	31.25	20.5	18.15	28.7	9.5	20.72	17.34

Percentages for Figures 5.4-5.5 What is your age? (The person who usually operated the boat used most often)/ What age is the person who usually was the alternate operator of the boat used most often? (D4, D4a)

	Age of Operator									
	Under 6	6-12	13-19	20-29	30-39	40-49	50-59	60-69	Over 70	Total
Primary Operator			6.0%	13.3%	19.5%	24.9%	19.0%	12.0%	5.4%	100%
Secondary Operator	0.1%	1.5%	7.7%	15.7%	23.1%	24.9%	16.6%	7.7%	2.6%	100%

Percentages for Figure 5.6 Age of occupants on boat operated most often. (D5)

	Age of Occupants								
	Under 6	6-12	13-19	20-29	30-39	40-49	50-59	60-69	Over 70
Percent	23.3%	36.8%	42.1%	45.1%	49.7%	46.6%	33.8%	19.9%	9.4%

Percentages for Figure 5.7 When you operated this boat, how many people in each of the age groups below usually went boating with you? (D5)

	Age of Occupants								
	Under 6	6 to 12	13 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 and Older
0	76.7%	63.2%	57.9%	54.9%	50.3%	53.4%	66.2%	80.1%	90.6%
1	13.8%	19.5%	20.7%	19.5%	25.1%	26.9%	20.6%	12.8%	6.2%
2 or 3	8.6%	15.2%	17.1%	18.5%	19.1%	15.6%	11.1%	6.1%	2.7%
4 or More	1.0%	2.1%	4.4%	7.1%	5.6%	4.2%	2.1%	1.0%	.5%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Table 5.2 Length of boat operated most often by the age of occupants. (C2, D5)

		Number of Additional Boaters Under 6 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	84.2%	9.9%	5.6%	.3%	100 %
	16 to 20 feet	69.4%	18.6%	10.9%	1.0%	100 %
	21 to 25 feet	56.3%	23.1%	18.3%	2.3%	100 %
	26 to 39 feet	69.9%	16.1%	12.0%	2.0%	100%
	40 to 65 feet	76.2%	13.8%	8.1%	1.9%	100%
	Over 65 feet	72.7%	13.6%	12.1%	1.5%	100%
		Number of Additional Boaters 6 to 12 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	70.8%	17.3%	10.6%	1.3%	100 %
	16 to 20 feet	54.5%	23.1%	20.0%	2.4%	100 %
	21 to 25 feet	45.1%	26.7%	24.6%	3.6%	100 %
	26 to 39 feet	59.2%	16.9%	20.8%	3.1%	100%
	40 to 65 feet	63.0%	17.3%	16.5%	3.2%	100%
	Over 65 feet	67.7%	16.1%	16.1%	.0%	100%

(Cont'd)

		Number of Additional Boaters 13 to 19 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	64.2%	19.3%	12.6%	4.0%	100 %
	16 to 20 feet	51.3%	24.7%	19.8%	4.2%	100 %
	21 to 25 feet	43.7%	21.5%	29.7%	5.1%	100 %
	26 to 39 feet	51.3%	17.5%	25.6%	5.7%	100%
	40 to 65 feet	49.7%	22.4%	20.4%	7.5%	100%
	Over 65 feet	63.8%	5.8%	17.4%	13.0%	100%
		Number of Additional Boaters 20 to 29 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	60.3%	20.1%	13.7%	6.0%	100 %
	16 to 20 feet	49.9%	21.5%	21.5%	7.1%	100 %
	21 to 25 feet	40.1%	16.8%	32.9%	10.2%	100 %
	26 to 39 feet	50.7%	18.6%	23.4%	7.4%	100%
	40 to 65 feet	45.9%	11.7%	27.6%	14.8%	100%
	Over 65 feet	35.6%	13.6%	27.1%	23.7%	100%

(Cont'd)

		Number of Additional Boaters 30 to 39 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	60.6%	24.2%	11.3%	4.0%	100 %
	16 to 20 feet	40.3%	30.3%	24.0%	5.4%	100 %
	21 to 25 feet	29.2%	24.8%	37.8%	8.3%	100 %
	26 to 39 feet	32.7%	23.5%	32.4%	11.4%	100%
	40 to 65 feet	40.9%	18.6%	24.6%	15.9%	100%
	Over 65 feet	22.1%	8.8%	32.4%	36.8%	100%
		Number of Additional Boaters 40 to 49 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	65.8%	22.3%	9.5%	2.3%	100 %
	16 to 20 feet	43.0%	34.5%	18.5%	4.0%	100 %
	21 to 25 feet	33.9%	29.2%	27.9%	9.0%	100 %
	26 to 39 feet	31.6%	30.9%	28.6%	8.9%	100%
	40 to 65 feet	32.0%	24.9%	26.4%	16.6%	100%
	Over 65 feet	44.8%	20.9%	23.9%	10.4%	100%

(Cont'd)

		Number of Additional Boaters 50 to 59 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	77.9%	15.2%	5.9%	1.1%	100 %
	16 to 20 feet	55.4%	28.1%	14.5%	1.9%	100 %
	21 to 25 feet	42.7%	28.7%	23.6%	5.0%	100 %
	26 to 39 feet	41.8%	28.9%	23.6%	5.7%	100%
	40 to 65 feet	42.0%	28.1%	19.7%	10.1%	100%
	Over 65 feet	45.2%	27.4%	13.7%	13.7%	100%
		Number of Additional Boaters 60 to 69 Years Old				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	88.2%	8.7%	2.7%	.4%	100 %
	16 to 20 feet	71.4%	18.9%	8.3%	1.3%	100 %
	21 to 25 feet	62.1%	19.4%	15.4%	3.2%	100 %
	26 to 39 feet	62.7%	20.8%	13.9%	2.6%	100%
	40 to 65 feet	60.9%	21.0%	15.3%	2.8%	100%
	Over 65 feet	64.9%	10.5%	22.8%	1.8%	100%

(Cont'd)

		Number of Additional Boaters 70 Years and Older				
		0	1 person	2 or 3 people	4 or more people	Total
Length of Boat	Under 16 feet	94.2%	4.0%	1.6%	.1%	100 %
	16 to 20 feet	85.9%	10.2%	3.2%	.7%	100 %
	21 to 25 feet	81.8%	10.5%	7.0%	.6%	100 %
	26 to 39 feet	83.2%	8.5%	6.0%	2.3%	100%
	40 to 65 feet	83.9%	9.1%	5.8%	1.2%	100%
	Over 65 feet	90.3%	3.2%		6.5%	100%

Percentages for Figure 5.8 What is the boat's primary means of propulsion? (C3)

	Primary Means of Propulsion						Total
	Propeller	Water jet	Sail	Air thrust	Manual/ oars/ paddles	Other	
Percent	55.7%	9.0%	4.2%	0.4%	29.7%	0.9%	100%

Percentages for Figure 5.9 How many primary motor(s) or engines does this boat have? (C4)

	Number of Primary Motors or Engines			Total
	1	2	3 or more	
Percent	88.2%	11.3%	0.5%	100%

Percentages for Figure 5.10 What kind(s) of engine(s)/motor(s) does this boat have? (C5)

	Type of Engine				Total
	Inboard	Outboard	Sterndrive	Other	
Percent	26.7%	59.3%	11.0%	3.0%	100%

Percentages for Figure 5.11 What is the total horsepower of the boat's engine(s)/motor(s)? (C6)

	Total Horsepower								
	Less than 10	10-24	25-49	50-99	100-149	150-199	200-299	300 or more	Total
Percent	8.9%	7.6%	15.7%	21.4%	14.0%	10.9%	11.6%	9.9%	100%

Percentages for Figure 5.12 How is(are) the primary motor(s) or engine(s) on this boat fueled? (C7)

	Source of Fuel for Engine				
	Gas	Diesel	Electric	Other	Total
Percent	91.0%	4.9%	3.4%	0.6%	100%

Percentages for Figure 5.13 Have you ever taken a boating safety course by primary means of propulsion? (C3, A2)

Primary Means of Propulsion	Taken a Safety Course		
	Yes	No	Total
Propeller	37.8%	62.2%	100%
Water jet	30.7%	69.3%	100%
Sail	62.4%	37.6%	100%
Air thrust	36.6%	63.4%	100%
Manual/oars/paddles	27.7%	72.3%	100%
Other	30.5%	69.5%	100%
Total	35.1%	64.9%	100%

VI. ACTIVITIES ON THE BOAT OPERATED MOST OFTEN

Percentages for Figure 6.1 Which of the following activities did you usually do while on the water?
(D1)

	Boating Activity										
	Cruising using engine	Sailing	Paddling	Swimming or diving off boat	Recreational Fishing	Fishing Tournament	Hunting	Racing	Waterskiing or Tubing	Whitewater Sports	Other
Percent	44.9%	7.2%	28.0%	29.2%	51.6%	5.9%	3.1%	4.3%	23.2%	3.8%	2.7%

Percentages for Table 6.1 Boating activities for boat operated most often—Percent of all respondents engaging in each activity. (C1, D1)

	Boat Operated Most Often											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Cruising using engine	6.7%	3.1%	14.7%	14.1%	79.4%	73.4%	40.5%	12.0%	55.1%	78.6%	81.6%	35.6%
Sailing	5.1%	2.9%	8.3%	6.4%	2.5%	8.6%	95.4%	93.5%	1.5%	1.6%	2.9%	6.0%
Paddling	85.7%	92.4%	53.9%	75.6%	4.5%	1.7%	2.2%	9.0%	3.0%	1.1%	5.3%	31.8%
Swimming or diving off boat	23.9%	16.9%	14.7%	43.5%	48.7%	59.3%	26.7%	25.5%	28.8%	40.6%	29.1%	26.4%
Recreational Fishing	42.5%	13.9%	68.3%	32.2%	61.2%	42.5%	14.3%	19.4%	72.8%	58.9%	14.4%	56.0%
Fishing Tournament	4.0%	.8%	4.2%	1.7%	3.6%	5.6%	.7%	2.0%	10.1%	7.4%	1.2%	6.6%
Hunting	3.1%	1.0%	3.7%	1.3%	1.6%	7.1%	.2%	.5%	4.8%	.7%	1.0%	5.5%
Racing	4.2%	5.0%	1.7%	4.1%	.5%	4.2%	13.9%	16.2%	1.1%	.6%	16.6%	4.4%
Waterskiing or Tubing	3.4%	3.2%	2.5%	9.5%	23.9%	18.2%	2.9%	3.4%	36.1%	20.9%	44.5%	20.4%
Whitewater Sports	5.4%	12.5%	1.3%	20.4%	.9%	1.1%	.4%	1.7%	1.7%	1.0%	5.8%	2.6%
Other	2.4%	6.3%	1.6%	3.9%	2.6%	8.8%	2.6%	.3%	2.1%	4.6%	2.2%	3.9%

Percentages for Figures 6.2a-l Boating activities for boat operated most often—Percent of all activities for each type of boat. (C1, D1)

	Boat Operated Most Often											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Cruising using engine	3.6%	2.0%	8.4%	6.6%	34.6%	31.8%	20.3%	6.5%	25.4%	36.4%	39.9%	17.9%
Sailing	2.7%	1.8%	4.7%	3.0%	1.1%	3.7%	47.7%	51.0%	0.7%	0.7%	1.4%	3.0%
Paddling	46.0%	58.5%	30.8%	35.5%	2.0%	0.7%	1.1%	4.9%	1.4%	0.5%	2.6%	16.0%
Swimming or diving off boat	12.8%	10.7%	8.4%	20.5%	21.2%	25.7%	13.4%	13.9%	13.3%	18.8%	14.2%	13.3%
Recreational Fishing	22.8%	8.8%	39.1%	15.1%	26.7%	18.4%	7.2%	10.6%	33.5%	27.3%	7.0%	28.1%
Fishing Tournament	2.1%	0.5%	2.4%	0.8%	1.6%	2.4%	0.4%	1.1%	4.7%	3.4%	0.6%	3.3%
Hunting	1.7%	0.6%	2.1%	0.6%	0.7%	3.1%	0.1%	0.3%	2.2%	0.3%	0.5%	2.8%
Racing	2.3%	3.2%	1.0%	1.9%	0.2%	1.8%	7.0%	8.8%	0.5%	0.3%	8.1%	2.2%
Waterskiing or Tubing	1.8%	2.0%	1.4%	4.5%	10.4%	7.9%	1.5%	1.9%	16.6%	9.7%	21.7%	10.2%
Whitewater Sports	2.9%	7.9%	1.0%	9.6%	0.4%	0.5%	0.2%	0.9%	0.8%	0.5%	2.8%	1.3%
Other	1.3%	4.0%	0.9%	1.8%	1.1%	3.8%	1.3%	0.2%	1.0%	2.1%	1.1%	2.0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 6.3 When you went boating, what type of water did you usually boat on most of the time? (D2)

	Type of Water Where Boat was Operated Most Often					
	Off shore in the ocean or gulf	Bays, inlets, sounds, harbors, intracoastal waterway	Great Lakes (not tributaries)	Rivers, streams, creeks	Lakes, ponds, reservoirs, gravel pits	Other
Percent	8.6%	11.8%	5.5%	21.2%	52.4%	.5%

Percentages for Figure 6.4a-f Type of water by the type of boat operated most often. (C1, D2)

	Boat Operated Most Often											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Off shore in the ocean or gulf	2.9%	16.1%	2.4%	6.2%	2.2%	3.7%	29.6%	18.0%	6.1%	23.1%	14.6%	8.9%
Bays, inlets, sounds, harbors, intracoastal waterway	2.8%	17.2%	5.7%	5.9%	4.1%	4.5%	39.4%	24.5%	13.6%	31.7%	8.8%	5.6%
Great Lakes (not tributaries)	3.6%	3.9%	4.6%	3.8%	4.7%	5.9%	10.3%	10.2%	4.4%	15.1%	6.8%	3.8%
Rivers, streams, creeks	44.9%	31.2%	16.8%	40.8%	12.9%	21.2%	3.4%	7.9%	16.1%	10.8%	12.1%	19.8%
Lakes, ponds, reservoirs, gravel pits	45.4%	30.5%	69.9%	42.0%	75.7%	62.7%	16.9%	39.0%	59.5%	19.0%	57.4%	60.3%
Other	.4%	1.2%	.6%	1.3%	.4%	2.0%	.3%	.4%	.3%	.3%	.3%	1.6%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

VII. BOATING SAFETY KNOWLEDGE AND EXPERIENCE

Percentages for Figure 7.1 Percent of operators who have never taken a boating safety course by the boat operated most often. (A2, C1)

		Type of Boat Operated Most Often											
		Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
When was the last time you took a boating safety course?	During the past year	2.3%	3.7%	.6%	1.6%	3.6%	1.5%	8.3%	5.0%	2.5%	5.9%	2.9%	1.2%
	1 to 2 years ago	3.4%	3.6%	2.6%	2.9%	3.5%	7.1%	8.5%	8.7%	5.0%	10.9%	5.3%	3.7%
	3 to 5 years ago	5.3%	6.2%	3.6%	4.8%	6.3%	10.2%	12.9%	11.0%	8.0%	14.6%	6.1%	6.1%
	6 to 9 years ago	3.2%	3.7%	2.9%	2.5%	3.6%	4.1%	10.0%	4.8%	4.5%	8.3%	3.9%	3.3%
	10 or more years ago	14.9%	15.4%	13.6%	10.8%	15.3%	12.2%	29.4%	24.4%	15.5%	24.7%	8.0%	10.4%
	A some point				.0%	.2%		.0%	.2%	.2%	.1%	.3%	
	Never	70.9%	67.4%	76.7%	77.4%	67.5%	64.8%	31.0%	46.1%	64.2%	35.4%	73.4%	75.2%
	Total	100%	100%	100 %	100%	100%	100%	100%	100%	100%	100%	100%	100%

VIII. EQUIPMENT ON THE BOAT OPERATED MOST OFTEN

Percentages for Figure 8.1 When you went boating, did you carry the following pieces of equipment?
(E1)

		Percent
Equipment	Anchor and line	70.9%
	Navigation charts	30.5%
	General maps	37.3%
	Compass	43.8%
	PDFs or life jackets	96.1%
	VHF Marine radio	24.8%
	CB radio	12.3%
	Cellular phone	60.0%
	Depth finder	44.2%
	Loran	8.0%
	GPS	18.9%
	DGPS	5.9%
	GPS and WAAS	3.6%
	Radar	6.3%
	Navigation lights	55.3%
	Flashlights	63.9%
	Bilge pump or bail bucket	59.0%
	Paddlers or oars	79.0%
	Tool kit	60.7%
	Porta potty or fixed toilet	17.8%
Anything else	15.7%	

Figure 8.2 When you went boating, did you usually carry and/or have the occasion to use the following pieces of emergency equipment? (E2)

		Carried on Board	If Carried, Used
Safety Equipment	First aid kit	60.2%	21.1%
	Ring or other throwable flotation device	54.9%	9.3%
	Safety rope	65.7%	16.8%
	Equipment for reaching someone in the water such as a boat hook	34.4%	12.2%
	Fire extinguisher	54.7%	1.9%
	Visual distress signals such as flares or flags	38.9%	7.4%
	Sound signals such as horns, whistles	54.7%	17.8%
	EPIRB	3.7%	5.0%

IX. PERSONAL FLOTATION DEVICES ON THE BOAT OPERATED MOST OFTEN

Percentages for Figure 9.1 How many wearable Personal Flotation Devices (PDFs), or life jackets, did you usually carry on board? (E3)

		Percent
PFD Use	Enough for every passenger, including yourself	95.9%
	Enough for some passengers, but not everyone	2.0%
	I did not carry any Personal Flotation Devices on board	2.1%
	Total	100%

Percentages for Figure 9.2 When you operated this boat, how often did you usually wear a life jacket/PFD? (E4)

		Percent
Frequency of PFD use	Always	34.8%
	Most of the time	12.5%
	Sometimes	16.1%
	Rarely	15.8%
	Never	20.8%
	Total	100%

Percentages for Figure 9.3 How often a life jacket or PFD is worn by boat operator type of vessel. (C1, E4)

	Boat Operated Most Often											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Always	49.5%	65.8%	40.4%	44.7%	15.3%	14.1%	14.8%	42.6%	18.4%	6.8%	79.7%	36.7%
Most of the time	14.8%	10.7%	15.1%	12.2%	10.0%	6.1%	12.1%	14.6%	14.4%	5.9%	8.4%	13.0%
Sometimes	10.3%	6.7%	14.1%	8.8%	19.3%	15.7%	30.3%	16.8%	22.8%	17.2%	5.3%	12.6%
Rarely	8.4%	5.1%	9.7%	6.2%	19.9%	22.7%	23.2%	9.9%	22.7%	31.9%	2.7%	12.8%
Never	17.0%	11.7%	20.8%	28.0%	35.5%	41.4%	19.6%	16.0%	21.7%	38.2%	3.9%	24.9%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Figure 9.4 When you wore a life jacket/PFD while operating this boat, what type of PFD did you usually wear? / Was it inflatable or non-inflatable? (E5, E5a)

		Percent
Type of PFD	Type I PFD	20.8%
	Type II PFD	33.5%
	Type III PFD	37.4%
	Type V PFD	2.3%
	Other	5.9%
	Total	100%
Inflatable or Non-inflatable		
Inflatable or Non-inflatable	Inflatable	8.4%
	Non-inflatable (Inherently Buoyant)	91.6%
	Total	100%

Percentages for Figure 9.5 Inflatable and non-inflatable PFDs worn by type of boat. (C1, E5a)

	Boat Operated Most Often											
	Canoe	Kayak	Row-boat	Inflatable	Pontoon boat	House-boat	Sailboat (motor)	Sailboat (sail only)	Open motor-boat	Cabin motor-boat	Personal water-craft	Other craft
Inflatable	8.4%	5.6%	11.2%	15.3%	6.0%	12.8%	31.8%	9.8%	6.0%	13.1%	8.7%	8.2%
Non-inflatable (Inherently Buoyant)	91.6%	94.4%	88.8%	84.7%	94.0%	87.2%	68.2%	90.2%	94.0%	86.9%	91.3%	91.8%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 9.6 Percent of operators using life jackets or PFD by age. (D4, E4)

	Age of Operator						
	13 to 19 years	20 to 29 years	30 to 39 years	40 to 49 years	50 to 59 years	60 to 69 years	70 years or older
Always	55.8%	44.2%	38.7%	32.5%	29.2%	24.4%	25.5%
Most of the time	17.8%	12.5%	11.5%	11.7%	12.1%	12.0%	16.5%
Sometimes	9.7%	13.8%	14.3%	16.4%	17.0%	20.6%	20.1%
Rarely	6.2%	10.2%	14.3%	16.8%	20.7%	19.5%	17.0%
Never	10.4%	19.3%	21.0%	22.5%	21.0%	23.4%	20.8%
Total	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 9.7 Percent of occupants using life jackets or PFD by age. (E6)

	Age of Occupant								
	Under 6	6 to 12 years	13 to 19 years	20 to 29 years	30 to 39 years	40 to 49 years	50 to 59 years	60 to 69 years	70 years or older
Always	93.2%	79.8%	40.4%	28.0%	26.1%	25.9%	22.7%	20.7%	23.0%
Most of the time	3.0%	10.1%	14.9%	11.2%	10.6%	10.2%	10.3%	9.7%	10.0%
Sometimes	1.1%	5.2%	20.9%	19.7%	19.4%	19.9%	18.9%	20.1%	15.7%
Rarely	.7%	1.9%	10.1%	17.4%	18.3%	18.6%	20.2%	19.6%	17.9%
Never	1.9%	3.0%	13.7%	23.6%	25.7%	25.5%	27.9%	29.9%	33.5%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Percentages for Figure 9.8 How often operators wore life jackets or PFD by boating activity. (F1)

	How often do you wear a PFD?					Total
	Always	Most of the time	Sometimes	Rarely	Never	
Cruising	35.8%	9.1%	12.9%	13.6%	28.5%	100%
Anchored/moored	18.8%	5.6%	10.2%	13.3%	52.0%	100%
Fishing	22.9%	7.4%	14.3%	13.8%	41.5%	100%
Waterskiing or tubing	78.1%	3.9%	3.0%	1.7%	13.2%	100%
In rough water	55.6%	10.3%	12.0%	5.4%	16.6%	100%
In cold water	48.2%	8.7%	12.6%	7.6%	22.9%	100%
In strong currents	54.6%	8.3%	10.3%	6.5%	20.3%	100%
Under strong winds	52.3%	10.5%	12.4%	5.8%	18.9%	100%
At night	41.8%	8.3%	13.3%	8.6%	28.0%	100%
In poor visibility	46.4%	9.6%	12.0%	7.1%	24.9%	100%
When seasick	42.3%	5.7%	6.5%	7.2%	38.3%	100%
Boating alone	46.9%	9.8%	12.2%	7.8%	23.4%	100%

X. BOATING INCIDENTS

Percentages for Figure 10.1 Have you personally been involved in a boating incident when any of the following happened? (F2.1-8)

		Percent	Mean Number of Incidents
Incident	Felt a sense of urgency while boating about not being able to return to shore	6.7%	1.62
	Thought that you were lost while boating	3.3%	1.97
	Thought that a dangerous situation might develop while boating, but it did not	15.1%	2.99
	Your boat needed help to get out of a difficult situation or needed help from others to reach shore	9.1%	1.65
	There was an accident, but no injuries, loss of life or damage occurred as a result	2.9%	1.74
	One or more people were in danger in the water because of falling overboard, because of trouble getting back into the boat, or because a boat overturned	3.7%	2.21
	One or more boats or property were damaged	1.8%	1.35
	One or more people were injured and required medical treatment beyond first aid	.9%	1.08

Percentages for Figures 10.2a-b Age of operator by type of incident. (F5, F6)

		Incident that Occurred Most Recently		Total
		Boats or property damaged	People injured and required treatment	
Age of Operator	13-19 years old	11.9%	14.7%	12.9%
	20-29 years old	22.1%	13.5%	19.2%
	30-39 years old	27.2%	24.4%	26.2%
	40-49 years old	17.2%	22.4%	19.0%
	50-59 years old	13.2%	10.9%	12.4%
	60-69 years old	5.9%	9.6%	7.2%
	Over 70 years old	2.5%	4.6%	3.2%
	Total	100 %	100%	100%

Percentages for Figures 10.3a-b Cause of incident. (F5, F8)

		Incident that Occurred Most Recently	
		Boats or property damaged	People injured and required treatment
Cause of incident	Something that went wrong with the boat	20.5%	6.5%
	Weather conditions	16.0%	4.2%
	A problem with something that the boat operator or passengers did	34.3%	26.9%
	A problem with something that other boaters in the area did	23.6%	18.8%
	Hazards or people in the water or something else outside the boat	30.9%	16.3%
	Operator drug or alcohol use	2.9%	16.9%
	Something else	20.1%	33.1%

Percentages for Figures 10.4a-c What went wrong with the boat when incident occurred. (F5, F9)

		For All Incidents	Incident that Occurred Most Recently	
			Boats or property damaged	People injured and required treatment
Problem with boat	Engine failure	24.1%	18.8%	44.4%
	Electrical failure	3.9%	1.3%	12.1%
	Fire	1.4%	3.3%	4.9%
	Steering failure	4.1%	8.7%	19.6%
	Equipment failure	12.5%	6.0%	
	Fuel Problem (ran out, leak, etc.)	8.6%	2.9%	
	Hull failure	5.4%	8.8%	16.2%
	Navigation equipment	9.1%	8.9%	
	Propeller Problem	6.1%	16.5%	
	Other	19.3%	24.9%	2.7%
	Total	100.0%	100.0%	100.0%

Figure 10.5 If anyone fell overboard, how many of them were wearing life jackets/PFDs? (F11)

	Percent Wearing PFDs					
	None	Less than half	About half	More than half	All	Total
Percent	34.7%	5.2%	5.4%	4.3%	50.4%	100%