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Survey Of Opinions Of Owners Of Recreational Boats On Question Of Licensing

B-123775

U.S. Coast Guard
Department of Transportation

*BY THE COMPTROLLER GENERAL
OF THE UNITED STATES*

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D I G E S T

WHY THE SURVEY WAS MADE

The General Accounting Office (GAO) is reviewing the relationship between the U.S. Coast Guard's search and rescue activities and the recreational boating public. As a part of the review, GAO is examining into the desirability of licensing boat operators as a possible means for reducing boating accidents and related search and rescue incidents. Because the individual boater's attitude toward licensing is an important consideration for possible future comprehensive boating safety programs, GAO conducted a nationwide survey to ascertain the opinions of boatowners as to licensing of operators of small boats. Questionnaires were mailed to a representative sample of boatowners using statistical procedures providing high reliability.

GAO emphasizes that the opinion of individual boaters is but one of many factors to be considered in determining the desirability of establishing a licensing program.

FINDINGS AND CONCLUSIONS

On the basis of an 85.6-percent response to questionnaires mailed, GAO found:

- That 56 percent of the recreational boatowners opposed operator licensing, 41 percent favored licensing, and 3 percent gave no definite answer to indicate their preference. (See p. 8.)
- That, with respect to licensing procedures, 53 percent of those boatowners favoring licensing also favored both a written examination and a boat-handling proficiency test. (See p. 9.)
- That 85 percent of the owners favoring licensing believed that it would reduce boat accidents, 89 percent of the owners opposing licensing believed that it would not reduce accidents. (See p. 9.)

--That 57 percent of all owners favored administration of any licensing program by the Coast Guard rather than by the States. Comments related to this question cited the need for uniform national standards as a basic reason for preferring the Coast Guard. (See p. 10.)

A majority offering comments or recommendations for improving boating safety included remarks relating to the need for increased law enforcement. A substantial number of those indicating opposition to a licensing program offered comments on the need for the establishment and/or enforcement of laws and regulations for improved boating safety. (See p. 11.)

GAO believes that it is significant that the measures necessary to implement many of the owners' suggestions--establishing minimum age requirements, for example--appear to require controls most effectively administered through a licensing program. (See p. 12.)

Considering the percentage of boatowners in favor of licensing and of those against licensing but expressing a need for improved boating safety, it appears that the boating public might not oppose a licensing program supporting increased emphasis on enforcement of boating laws and regulations. (See p. 12.)

GAO is reporting on the results of its survey at this time because of widespread interest in the subject.

CHAPTER 1

INTRODUCTION

The General Accounting Office is presently reviewing the relationship between the U.S. Coast Guard's search and rescue activities and the recreational boating public. As part of this review, we are examining into the desirability of licensing boat operators as a possible means for reducing boating accidents and related search and rescue incidents.

The boater's attitude toward licensing is important because his reaction toward such a program would have a significant effect upon its acceptance as a part of any comprehensive boating safety program. Therefore, in an attempt to fully measure the merits of licensing, GAO initiated a nationwide survey, on a sample basis, of boatowners to elicit their opinions on the subject of licensing.

It should be emphasized that the opinion of individual boaters is but one of many factors to be considered in evaluating the desirability of establishing a safety-oriented boat operator licensing program.

CHAPTER 2

METHODOLOGY

Coast Guard and boating industry experts estimate that there are about 8 million boats in the United States and that as many as 40 million Americans participate in the sport of recreational boating. The Federal Boating Act of 1958 (46 U.S.C. 527) provided for the registration of recreational boats under State numbering systems approved by the Coast Guard. As of December 31, 1968, about 4.7 million of the estimated 8 million boats were registered in the State boat-numbering systems.

As a means of selecting a sample of the Nation's recreational boaters, we used the boat-numbering data for calendar year 1968, the most current available at the time of the survey. Nineteen States and the District of Columbia were not included in our universe because they registered a statistically insignificant number of boats in 1968. Therefore, our universe included owners and operators of boats in 31 States which accounted for 4,421,655, or 93.2 percent, of the total boats numbered by all States in calendar year 1968.

From this universe, we selected a sample size of 1,478 which was more than sufficient to ensure 95-percent confidence that the sampling error rate would be less than 5 percent. This sample size was designed to measure boatowners' opinions on a nationwide basis. Therefore, any survey results considered on an individual State basis would be susceptible to a sampling error rate greater than 5 percent.

The sample number was allocated to the States on the basis of the relationship of boats numbered in each State to the total boats numbered in the 31 States. The following table summarizes this data for each State.

<u>State</u>	<u>Boats registered in 1968</u>	<u>Sample size</u>
Alabama	110,288	37
California	414,366	138
Connecticut	75,347	25
Florida	195,705	66
Georgia	89,824	30
Idaho	41,462	14
Illinois	188,046	63
Indiana	115,268	39
Iowa	87,395	29
Kansas	30,481	10
Kentucky	62,930	21
Louisiana	91,416	31
Maine	42,690	14
Maryland	66,655	22
Massachusetts	99,630	33
Michigan	437,361	146
Minnesota	259,983	87
Missouri	76,807	26
New Jersey	133,837	45
New York	415,720	139
North Carolina	87,523	29
Ohio	188,075	63
Oklahoma	104,779	35
Oregon	76,677	26
Pennsylvania	94,800	32
South Carolina	65,570	22
Tennessee	97,785	33
Texas	218,739	73
Virginia	66,941	22
Washington	82,598	28
Wisconsin	302,957	100
Total	<u>4,421,655</u>	<u>1,478</u>

At our request, the Boating Law Administrator in each State selected the actual sample allocated to his State, using a systematic selection procedure with a random start. From a statistical standpoint, this method was satisfactory since the files of boat registrations in each

State were randomly arranged; either alphabetically by name or numerically by registration number. Each state was instructed to begin with the fifth name or number in its files and to select every 2,800th name or number until the allocated sample number was reached. The States furnished us with a listing of the registrants selected, including their addresses and the length of their registered boats.

We made several checks on the representativeness of the data furnished by the States. According to the Coast Guard Boating Statistics for 1968, 66.8 percent of the boats registered in all the States were less than 16 feet in length. In our sample 65 percent of the boats selected were less than 16 feet in length. As an additional test of representativeness, we reviewed the geographical dispersion of the registrants included in the sample to ensure that it was not geographically biased.

We then determined that the only feasible method of obtaining responses from the individuals included in the sample was through the use of a mail questionnaire. (See app. I.) We recognized that certain disadvantages were associated with this method, especially that its reliability was dependent upon the percentage of response. To ensure a high response rate, we utilized procedures which included an initial mailing of the questionnaire, a postcard reminder subsequent to the initial mailing, and two additional mailings. As shown below, we achieved an 85.6-percent response rate.¹

Number of questionnaires <u>mailed</u>	Number of questionnaires <u>returned</u>	No <u>response</u>
1,470 ^a (100%)	1,258 (85.6%)	212 (14.4%)

^aSubsequent disclosure of eight deceased registrants reduced the original sample size.

¹See app. II for State-by-State response rate.

The number of nonrespondents includes 37 questionnaires which were not deliverable, because of an insufficient or a wrong address or because the person had moved without leaving a forwarding address. Thus only 175 persons of 1,433 who received the questionnaire failed to complete and return it for inclusion in our survey.

After two mailings, replies had not been received from 319 of the registrants. In an attempt to ascertain whether these nonrespondents would materially affect our survey results, we initiated a third mailing and recorded the responses separately from those previously received. The results of the third mailing are shown below:

Questionnaires received from the <u>third mailing</u>	Respondents favoring <u>licensing</u>	Respondents opposed to <u>licensing</u>	Respondents not indicating <u>definite answer</u>
107 (100%)	36 (33.6%)	69 (64.5%)	2 (1.9%)

Assuming that the proportions of responses favoring and opposing licensing elicited by the third mailing are typical of the probable responses of the remaining 212 nonrespondents, the effect of the nonresponses on the overall results would be statistically insignificant, as shown below.

	<u>Respondents</u>	<u>Number</u>	<u>Percent</u>
Actual results:			
Favor licensing		521	41.4
Opposed to licensing		708	56.3
No definite answer		<u>29</u>	<u>2.3</u>
Total		<u>1,258</u>	<u>100.0</u>
Estimated results (note a):			
Favor licensing		71	33.6
Opposed to licensing		137	64.5
No definite answer		<u>4</u>	<u>1.9</u>
Total		<u>212</u>	<u>100.0</u>
Combined results:			
Favor licensing		592	40.3
Opposed to licensing		845	57.5
No definite answer		<u>33</u>	<u>2.2</u>
Total		<u>1,470</u>	<u>100.0</u>

^aEstimates based on results of third mailing.

CHAPTER 3

SURVEY RESULTS

HOW BOATOWNERS FEEL ABOUT LICENSING

In question 1 of our questionnaire, we asked the boatowners whether they were for or against a boating safety program which would license boat operators by requiring them to pass an examination demonstrating an understanding of safe boating practices, existing boating laws, rules of the road, and aids to navigation.

Our survey showed that 56 percent (plus or minus 2.7 percent)¹ of the Nation's boatowners were opposed to licensing and 41 percent (plus or minus 2.7 percent) were in favor of licensing boat operators. The results are summarized in the following table.²

Questionnaires <u>returned</u>	Respondents favoring <u>licensing</u>	Respondents opposed to <u>licensing</u>	Respondents not indicat- ing definite <u>answer</u>
1,258 -100%	521 -41.4%	708 -56.3%	29 -2.3%

ALTERNATIVE LICENSING TECHNIQUES

In the second question, we asked those boatowners who favored licensing to indicate whether they preferred the licensing program to include a written test only, a boat-handling test only, or both. The responses to question 2 are summarized in the following table.³

¹Based on calculated sampling error. We are 95-percent confident that our sample rate does not differ more than 2.7 percent from the true rate. See app. VII for calculation of sampling error.

²See app. II for detailed tabulation of responses to question 1.

³See app. III for detailed tabulation.

<u>Respondents</u>	<u>Number</u>	<u>Percent</u>
Favoring licensing:		
Favors written examination	132	25.3
" boat-handling test	103	19.8
" both	274	52.6
No answer	<u>12</u>	<u>2.3</u>
Total	<u>521</u>	<u>100.0</u>

Of the boatowners favoring licensing, 53 percent preferred a licensing program which would include both a written examination and a test of boat-handling capability. A substantial majority (72.4%) of the respondents favoring licensing indicated a preference for a boat-handling test; 19.8 percent favored a boat-handling test only and 52.6 percent favored both.

IMPACT OF LICENSING ON BOATING SAFETY

In question 3, we asked boatowners their opinion on whether boat operator licensing would help reduce boating accidents. The results are shown below.¹

	<u>Number</u>	<u>Percent</u>
Respondents favoring licensing:		
Believe licensing would reduce boat accidents	444	85.2
Do not believe licensing would reduce boat accidents	65	12.5
No answer	<u>12</u>	<u>2.3</u>
Total	<u>521</u>	<u>100.0</u>
Respondents opposed to licensing:		
Believe licensing would reduce boat accidents	16	2.2
Do not believe licensing would reduce boat accidents	630	89.0
No answer	<u>62</u>	<u>8.8</u>
Total	<u>708</u>	<u>100.0</u>
Respondents not indicating definite answer to question 1:		
Believe licensing would reduce boat accidents	8	27.6
Do not believe licensing would reduce boat accidents	14	48.3
No answer	<u>7</u>	<u>24.1</u>
Total	<u>29</u>	<u>100.0</u>

¹See app. IV for detailed tabulation.

The responses to question 3 tend to reinforce the pattern of responses to question 1. As would be expected, most respondents who favor licensing believe that it would reduce boating accidents and most respondents who oppose licensing do not believe that it would reduce boating accidents.

ADMINISTRATION OF LICENSING PROGRAM

In the fourth question, we asked boatowners whether the licensing program, assuming it is established, should be administered by the States or the Coast Guard. The results are shown as follows:¹

	<u>Number</u>	<u>Percent</u>
Respondents favoring licensing:		
Favor administration by States	150 ^a	28.6
" " " Coast Guard	364 ^a	69.3
No answer	<u>11</u>	<u>2.1</u>
Total	<u>525</u>	<u>100.0</u>
Respondents opposed to licensing:		
Favor administration by States	152 ^b	21.4
" " " Coast Guard	344 ^b	48.5
No answer	<u>213</u>	<u>30.1</u>
Total	<u>709</u>	<u>100.0</u>
Respondents not indicating definite answer to question 1:		
Favor administration by States	8	27.6
" " " Coast Guard	10	34.5
No answer	<u>11</u>	<u>37.9</u>
Total	<u>29</u>	<u>100.0</u>
<u>Combined results</u>		
Total respondents:		
Favor administration by States	310 ^c	24.5
" " " Coast Guard	718 ^c	56.9
No answer	<u>235</u>	<u>18.6</u>
Total	<u>1,263</u>	<u>100.0</u>

^aIncludes four respondents who circled both alternatives.

^bIncludes one respondent who circled both alternatives.

^cIncludes five respondents who circled both alternatives.

¹See app. V for detailed tabulation.

Most boatowners thus indicated a preference for the Coast Guard to administer a licensing program. Comments related to this question repeatedly cited the need for uniform national standards as a basic reason for indicating a preference for the Coast Guard to administer any licensing program that is established.

RECOMMENDATIONS OF BOATOWNERS ON WAYS TO IMPROVE BOATING SAFETY

In question 5 we asked boatowners to list any recommendations they might have, which they believed would improve boating safety and reduce boating accidents. Responses by 590 owners related directly to boating safety. Of these respondents 348, or 59 percent, commented specifically on the need to increase law enforcement in the boating safety area, as shown in the following table.¹

	<u>Number</u>	<u>Percent</u>
Respondents making comments:		
Comments related to boating safety in general	242	41
Comments related to increased law enforcement	<u>348</u>	<u>59</u>
Total	<u>590</u>	<u>100</u>

Of the 348 boatowners commenting on the need to increase law enforcement, 93, or 26.7 percent, made specific remarks on the need to establish minimum age requirements for the operation of boats and 68, or 19.4 percent, made specific remarks on the need to reduce or eliminate the incidence of boat-operator intoxication on the Nation's waterways.

Of the 708 boatowners who were opposed to operator licensing, 184, or 26 percent, commented on the need to increase law enforcement efforts.

¹See app. VI for detailed tabulation and examples of comments received.

CHAPTER 4

CONCLUSION

On the basis of our survey, we conclude that, of the Nation's recreational boatowners, 56 percent are opposed to a boating safety program under which boat operators would be licensed, 41 percent favor such a program, and 3 percent apparently have no preference. Of those boatowners who favored licensing, 53 percent favor both a written examination and a boat-handling proficiency test. If an operator-licensing program were to be established, 69 percent of those in favor and 48 percent of those opposed to licensing --or about 57 percent of the owners--indicated that the program should be administered by the Coast Guard.

Of the boatowners who offered comments or recommendations for improvements in boating safety, 59 percent included remarks related to increased law enforcement. Twenty-six percent of the boatowners indicating opposition to a licensing program commented on the need for the establishment and/or enforcement of laws and regulations for improved boating safety. It is significant that the measures necessary to implement many of the suggestions made by these respondents--for example, establishing minimum age requirements--appear to require controls most readily administered through a licensing program.

Considering the percentage of boatowners in favor of licensing and of those against licensing but expressing a need for improved boating safety, it appears that the boating public might not oppose a licensing program supporting increased emphasis on enforcement of boating laws and regulations.

APPENDIXES

UNITED STATES GENERAL ACCOUNTING OFFICE

BOATING SAFETY QUESTIONNAIRE

The issue of whether licensing recreational boat operators would improve boating safety is long-standing and controversial. However, a reliable body of knowledge representing the opinions of boat operators, themselves, has not been developed. The purpose of this questionnaire, therefore, is to find out how you--a boat operator--feel about licensing boat operators.

Proponents of operator licensing claim that an examination requiring a boater to demonstrate his understanding of safe boating practices, boating laws, rules of the road, and aids to navigation would reduce boating accidents. Boating safety education would reach every boater instead of the small percentage that are presently reached by voluntary safety education programs. Licensing is also considered a deterrent to unsafe boating practices, since violation of the boating laws could result in revocation or suspension of the license. Opponents of operator licensing point out the inconvenience to the boater and the cost, which could run from \$3 to \$10 per year, or for 3 years, depending upon the particular program. Pleasure boating is said to be one of the last frontiers of individual freedom and should not be regulated. The opponents of licensing doubt its value in preventing or reducing boating accidents.

-
1. Are you [FOR] [AGAINST] (circle one) a boating safety program which would license boat operators by requiring them to pass an examination demonstrating understanding of safe boating practices, the boating laws, rules of the road and aids to navigation.
 2. If you are for such a program, would you prefer: (circle one)
 1. A written examination.
 2. A test of boat handling proficiency.
 3. Both.
 3. In your opinion, would boat operator licensing help reduce boating accidents? [YES] [NO] (circle one)
 4. If an operator licensing program is established, it should be administered by the [STATE GOVERNMENT] [U.S. COAST GUARD] (circle one)
 5. Please use the space below to list any recommendations you have which you believe would improve boating safety and reduce boating accidents.

APPENDIX II

SURVEY RESULTS--QUESTION 1

State	Questionnaires mailed out	Questionnaires returned	Respondents favoring licensing	Respondents opposed to licensing	Respondents not indicating definite answer	Non-Respondents
Alabama	37	35	18	14	3	2
California	136	115	64	50	1	21
Connecticut	25	21	7	14	-	4
Florida	66	59	25	34	-	7
Georgia	29	23	17	6	-	6
Idaho	14	14	1	11	2	-
Illinois	63	56	18	38	-	7
Indiana	37	24	10	13	1	13
Iowa	29	21	5	14	2	8
Kansas	10	9	2	6	1	1
Kentucky	21	17	4	13	-	4
Louisiana	31	28	12	16	-	3
Maine	14	13	4	9	-	1
Maryland	22	20	11	9	-	2
Massachusetts	33	31	12	19	-	2
Michigan	145	121	57	62	2	24
Minnesota	87	78	23	53	2	9
Missouri	26	21	10	11	-	5
New Jersey	45	33	18	13	2	12
New York	138	123	65	55	3	15
North Carolina	29	25	6	19	-	4
Ohio	63	54	16	38	-	9
Oklahoma	34	27	8	18	1	7
Oregon	26	21	7	13	1	5
Pennsylvania	32	26	8	18	-	6
South Carolina	22	18	7	11	-	4
Tennessee	33	31	13	17	1	2
Texas	73	60	25	35	-	13
Virginia	22	20	9	9	2	2
Washington	28	21	9	11	1	7
Wisconsin	100	91	29	58	4	9
Unknown (note a)	-	2	1	1	-	-2
Total	<u>1,470</u> ^b	<u>1,258</u>	<u>521</u>	<u>708</u>	<u>29</u>	<u>212</u> ^c
		(100.0%)	(41.4%)	(56.3%)	(2.3%)	

^a Responses received, but State of origin is unknown.

^b Total questionnaires mailed 1,478
 Less deceased persons eliminated from sample 8
 Adjusted sample size 1,470

^c Nonresponses include 37 questionnaires returned as nondeliverable (insufficient or wrong address).

SURVEY RESULTS--QUESTION 2

<u>State</u>	<u>Question- naires returned</u>	<u>Respondents who answered "in favor" to question 1</u>			
		<u>Wanted writ- ten test</u>	<u>Wanted han- dling test</u>	<u>Wanted both</u>	<u>No answer to ques- tion 2</u>
Alabama	35	5	4	9	-
California	115	19	15	30	-
Connecticut	21	3	1	3	-
Florida	59	5	2	17	1
Georgia	23	1	6	9	1
Idaho	14	1	-	-	-
Illinois	56	7	2	8	1
Indiana	24	2	4	3	1
Iowa	21	1	-	3	1
Kansas	9	1	-	1	-
Kentucky	17	1	1	2	-
Louisiana	28	3	5	4	-
Maine	13	1	1	2	-
Maryland	20	1	2	8	-
Massachusetts	31	3	2	6	1
Michigan	121	15	14	25	3
Minnesota	78	6	4	12	1
Missouri	21	1	3	6	-
New Jersey	33	6	4	8	-
New York	123	13	15	37	-
North Carolina	25	1	-	5	-
Ohio	54	3	2	10	1
Oklahoma	27	1	1	6	-
Oregon	21	1	-	6	-
Pennsylvania	26	3	-	5	-
South Carolina	18	3	-	4	-
Tennessee	31	3	5	5	-
Texas	60	9	4	11	1
Virginia	20	4	1	4	-
Washington	21	2	-	7	-
Wisconsin	91	7	4	18	-
Unknown	2	-	1	-	-
Total	<u>1,258</u>	<u>132</u>	<u>103</u>	<u>274</u>	<u>12</u>

SURVEY RESULTS--QUESTION 3

State	Questionnaires returned	Respondents who answered "in favor" to question 1		
		Believe licensing would reduce accidents	Believe licensing would not reduce accidents	No answer to question 3
Alabama	35	17	1	-
California	115	55	7	2
Connecticut	21	6	1	-
Florida	59	24	1	-
Georgia	23	13	2	2
Idaho	14	1	-	-
Illinois	56	13	2	3
Indiana	24	7	3	-
Iowa	21	3	1	1
Kansas	9	1	1	-
Kentucky	17	2	2	-
Louisiana	28	10	2	-
Maine	13	4	-	-
Maryland	20	9	2	-
Massachusetts	31	11	1	-
Michigan	121	45	11	1
Minnesota	78	20	2	1
Missouri	21	9	1	-
New Jersey	33	15	3	-
New York	123	56	8	1
North Carolina	25	6	-	-
Ohio	54	15	1	-
Oklahoma	27	8	-	-
Oregon	21	6	1	-
Pennsylvania	26	7	1	-
South Carolina	18	7	-	-
Tennessee	31	11	2	-
Texas	60	22	2	1
Virginia	20	8	1	-
Washington	21	8	1	-
Wisconsin	91	25	4	-
Unknown	2	-	1	-
Total	<u>1,258</u>	<u>444</u>	<u>65</u>	<u>12</u>

Respondents who answered "opposed" to question 1			Respondents not indicating definite answer to question 1		
<u>Believe licensing would reduce accidents</u>	<u>Believe licensing would not reduce accidents</u>	<u>No answer to question 3</u>	<u>Believe licensing would reduce accidents</u>	<u>Believe licensing would not reduce accidents</u>	<u>No answer to question 3</u>
1	11	2	1	2	-
1	45	4	1	-	-
-	12	2	-	-	-
-	31	3	-	-	-
-	5	1	-	-	-
-	10	1	-	1	1
-	36	2	-	-	-
-	11	2	-	1	-
-	12	2	1	1	-
-	6	-	-	-	1
-	11	2	-	-	-
-	15	1	-	-	-
1	7	1	-	-	-
-	8	1	-	-	-
1	17	1	-	-	-
2	52	8	-	1	1
4	44	5	-	2	-
-	10	1	-	-	-
-	12	1	1	-	1
2	50	3	1	1	1
2	14	3	-	-	-
-	37	1	-	-	-
-	18	-	-	1	-
-	12	1	-	1	-
1	17	-	-	-	-
-	10	1	-	-	-
-	16	1	1	-	-
1	29	5	-	-	-
-	9	-	-	-	2
-	10	1	-	1	-
-	52	6	2	2	-
-	1	-	-	-	-
<u>16</u>	<u>630</u>	<u>62</u>	<u>8</u>	<u>14</u>	<u>7</u>

SURVEY RESULTS--QUESTION 4

State	Questionnaires returned	Respondents who answered "in favor" to question 1		
		Licensing program administered by the States	Licensing program administered by the Coast Guard	No answer to question 4
Alabama	35	6	12	-
California	115	14	50	-
Connecticut	21	2	5	-
Florida	59	4	20	1
Georgia	23	4	12	1
Idaho	14	1	-	-
Illinois	56	5	11	2
Indiana	24	5	5	-
Iowa	21	2	3	-
Kansas	9	1	-	1
Kentucky	17	-	4	-
Louisiana	28	5	7	-
Maine	13	-	4	-
Maryland	20	2	8	1
Massachusetts	31	2 ^b	11 ^b	1
Michigan	121	23	34	-
Minnesota	78	12	10	1
Missouri	21	1	9	-
New Jersey	33	3	14	1
New York	123	14 ^a	51 ^a	1
North Carolina	25	3	3	-
Ohio	54	4 ^a	13 ^a	-
Oklahoma	27	2	6	-
Oregon	21	2	5	-
Pennsylvania	26	1	7	-
South Carolina	18	1	6	-
Tennessee	31	4	9	-
Texas	60	12	13	-
Virginia	20	1	7	1
Washington	21	1	8	-
Wisconsin	91	13	16	-
Unknown	<u>2</u>	-	<u>1</u>	-
	<u>1,258</u>	<u>150</u>	<u>364</u>	<u>11</u>

^aIncludes one respondent who circled both alternatives.

^bIncludes two respondents who circled both alternatives.

Respondents who answered "opposed" to question 1			Respondents not indicating definite answer to question 1		
Licensing program administered by the States	Licensing program administered by the Coast Guard	No answer to question 4	Licensing program administered by the States	Licensing program administered by the Coast Guard	No answer to question 4
6	6	2	3	-	-
11	22	17	1	-	-
-	9	5	-	-	-
7	17	10	-	-	-
1	2	3	-	-	-
6	-	5	1	-	1
5	20	13	-	-	-
4	6	3	-	1	-
3	7	4	-	2	-
2	2	2	-	-	1
3	6	4	-	-	-
5	7	4	-	-	-
4 ^a	5 ^a	1	-	-	-
1	6	2	-	-	-
3	13	3	-	-	-
7	31	24	1	-	1
16	16	21	-	1	1
2	4	5	-	-	-
2	8	3	-	2	-
10	29	16	-	1	2
2	11	6	-	-	-
8	20	10	-	-	-
6	7	5	-	-	1
1	9	3	1	-	-
1	13	4	-	-	-
4	4	3	-	-	-
3	11	3	-	1	-
7	17	11	-	-	-
2	5	2	-	-	2
-	9	2	-	-	1
20	22	16	1	2	1
-	-	1	-	-	-
<u>152</u>	<u>344</u>	<u>213</u>	<u>8</u>	<u>10</u>	<u>11</u>

SURVEY RESULTS--QUESTION 5

State	Respon- dents making comments	Comments relating to other than law enforce- ment	Comments relating to law enforce- ment	Respondents who answered "in favor" to question 1		
				Comments referring to		
				Law enforce- ment	In- toxi- cation	Minimum age require- ment
Alabama	22	4	18	5	-	-
California	61	28	33	21	4	5
Connecticut	12	4	8	4	-	1
Florida	22	12	10	4	1	1
Georgia	10	3	7	6	2	1
Idaho	5	1	4	-	-	-
Illinois	28	11	17	6	1	-
Indiana	15	3	12	8	2	3
Iowa	9	3	6	3	-	1
Kansas	4	2	2	1	1	-
Kentucky	11	5	6	1	-	-
Louisiana	11	3	8	5	1	-
Maine	5	1	4	2	-	-
Maryland	10	3	7	4	1	1
Massachusetts	20	9	11	4	-	3
Michigan	58	26	32	20	4	11
Minnesota	36	14	22	9	-	4
Missouri	10	4	6	3	-	2
New Jersey	19	8	11	4	1	2
New York	58	29	29	17	3	13
North Carolina	10	6	4	1	1	-
Ohio	21	8	13	3	-	1
Oklahoma	7	5	2	-	-	-
Oregon	4	1	3	2	1	-
Pennsylvania	13	5	8	2	-	1
South Carolina	4	3	1	-	-	-
Tennessee	16	4	12	4	-	-
Texas	16	8	8	5	1	-
Virginia	10	5	5	2	-	2
Washington	12	7	5	2	-	2
Wisconsin	49	17	32	7	1	5
Unknown	2	-	2	1	-	1
Total	590	242	348	156	25	60

Respondents who answered "opposed" to question 1			Respondents indicating no definite answer to question 1		
Comments referring to			Comments referring to		
Law enforcement	In-toxi-cation	Minimum age require-ment	Law enforce-ment	In-toxi-cation	Minimum age require-ment
11	2	2	2	-	1
12	2	-	-	-	-
4	-	1	-	-	-
6	-	-	-	-	-
1	-	-	-	-	-
4	2	-	-	-	-
11	3	-	-	-	-
4	1	1	-	-	-
3	1	3	-	-	-
1	1	-	-	-	-
5	1	-	-	-	-
3	1	1	-	-	-
2	1	-	-	-	-
3	2	-	-	-	-
7	-	-	-	-	-
10	3	1	2	-	-
13	5	2	-	-	-
3	1	1	-	-	-
7	-	2	-	-	-
12	1	2	-	-	-
3	1	-	-	-	-
10	3	1	-	-	-
2	-	-	-	-	-
1	-	-	-	-	-
6	1	-	-	-	-
1	-	-	-	-	-
8	4	-	-	-	-
3	3	-	-	-	-
2	1	1	1	-	1
3	-	1	-	-	-
22	3	9	3	-	3
1	-	-	-	-	-
<u>184</u>	<u>43</u>	<u>28</u>	<u>8</u>	<u>-</u>	<u>5</u>

SURVEY RESULTS--QUESTION 5 (continued)

SELECTED COMMENTS MADE BY RESPONDENTS

Intoxication

"Drunken boat drivers should be imprisoned and fined just like drunk auto drivers."

"Liquor should not be allowed on a boat any more than in a car."

"Enforce rules of drinking and driving a watercraft. It must be stopped. There's far too many drunk drivers operating a boat."

"License revenue should be used for more policing. I quit water skiing this year because of drunks driving fast boats. I now have a jet boat and run the roughest river I can find and still safer."

"But out of all boating accidents I have seen, probably in ninety percent, the major cause was when the operator had been drinking, and was therefore not competent to operate under the influence. This I think is the major hazard as in automobile operation."

"If you could keep the alcohol out of the boatman, it would stop 90% of the accidents."

"Most major accidents in this area have been caused by downright foolishness or operating a craft while drunk - A license will not stop this."

"We feel that the main cause of small boat accidents is the use of intoxicating beverages, causing the boat drivers to lose their sense of responsibility."

"Spot checks to see that boat driver's are sober."

"Stop consuming alcohol in lake area. We sold our boat because we couldn't use it with safety for the drunk operating boats."

Age Limitation

"Fathers not to have a 10 year old child operating a boat is a must."

"I think persons under 16 should not be allowed to operate a boat powered with an outboard engine above 10 HP unless accompanied by an adult."

"Setup rules and regulation for boat operation similar to auto drivers regulation. Minimum age of 16."

"Please note that the majority of neglect in the operation of a boat, remains entirely in the younger element handling boats of all sizes. My personal opinion, that individuals under 18 to 16 years of age should be licensed definitely. They are the largest violators - in boating."

"to many children who aren't really old enough to operate a boat are operating them. There would have to be age limit on operators."

"I believe that an automobile operators license is all that is necessary for operating a boat; for this would stop children from operating a boat."

"I think there should be no minimum age limit because competency does not necessarily go along with age."

"I do not think children 12 years old should operate any boat with a motor on at any time or on any waters."

"We feel there should be a minimum age limit to the age of a child operating a motor on a small boat when that child is in the boat alone."

"I would like to see an age limit similar to an automobile operator."

Law Enforcement

"Have more patrols on our waterways and be more strict on the way a boat should be used."

"Infraction of rules should be fined or licenses be revoked for a period of time."

"I suggest good laws, a heavy fine and or jail to be enforced by state and local agencies."

"If the boating laws are enforced that should help decrease accidents."

"The marine police should pay more attention" to hot rod boat operators and leave the pleasure boaters alone.

"Arrest and fine any smart aleck abusing the rights of other people. Make it plenty rough on the defender."

"More water patrol officers and enforce water traffic regulation."

"Licensing without enforcement is worthless as a safety measure, in my opinion. I would welcome enforced safety practices BUT am against additional taxes and restraints on freedom that do not produce safety. My experience has been that most boat drivers have had no supervised training and have not read 'Rules of the Road' issued with boat registrations."

"More patrols on the lakes and rivers also stiff enough fines to learn the ones who aren't using proper knowledge so they won't be as likely to do the same again."

"The Coast Guard should have authority to arrest violators of boating laws and rules."

"I feel that the existing rules are adequate if they were properly enforced in our state and society."

"I think licensing recreation boat operators would improve boating safety but only if rigidly enforced by adequate personal."

"There should be more police patrol boats in this area watching for safety violators an owners should suffer for broken safety rules."

"Increase patrols, with more severe penalties for reckless operators."

"Form a boat patrol with arresting power to enforce safe boating practice."

General Comments

"Ask yourselves a question!!! Has licensing car drivers made the highways any safer?? I think this is just another way to take away the freedom of the American sportsman, and to take another cut of his fast dwindling pay check."

"This, of course, would be quite costly but I think some sort of educational program would be helpful."

"I talked to 10 boat owners today. None are for it."

"Keep it out of politics."

"License for boat operators might be restricted to those with certain horsepower motors."

"A license would only give 97% of the boaters a superiority complex anyhow. It would be better to let the idiots kill each other off."

"Anyone that operates, or drives a boat should have a license and liability insurance-same as an automobile-"

"This is just a waste of time."

"Let's leave it as is."

"Early training for young boaters similar to the Michigan program, plus a test of boat handling proficiency."

"Enforcement of present rules. Enactment of new rules collections only create more bureaucrats."

"I am against the Federal government licensing boats in any form. If such laws are passed I will sell or sink my boat rather than participate in the program."

APPENDIX VII

GAO CALCULATION OF SAMPLING ERROR

The results of our survey indicate that, of the total number of questionnaires we received, 41.4 percent were from boatowners in favor of licensing and 56.3 percent were from boatowners opposed to licensing. To calculate the sampling error we used the following formula.

$$S_{(p)} = t \sqrt{\frac{pq}{n}} \quad \text{where:}$$

- t = 1.96 (the factor for 95% confidence level)
- p = the proportion of either positive or negative answers found in the sample
- q = 1 - p
- n = sample size

Favor licensing

$$\begin{aligned} S_{(p)} &= 1.96 \sqrt{\frac{(.414)(.586)}{1258}} \\ &= 1.96 \sqrt{\frac{.242604}{1258}} \\ &= 1.96 \sqrt{.00019284} \\ &= 1.96 (.013886) \\ &\quad + \\ &= - 2.72\% \end{aligned}$$

Opposed to licensing

$$\begin{aligned} S_{(p)} &= 1.96 \sqrt{\frac{(.563)(.437)}{1258}} \\ &= 1.96 \sqrt{\frac{.246031}{1258}} \\ &= 1.96 \sqrt{.00019557} \\ &= 1.96 (.013984) \\ &\quad + \\ &= - 2.74\% \end{aligned}$$

Therefore, at a 95-percent confidence level, the survey results would be 41.4 ± 2.7 percent in favor and 56.3 ± 2.7 percent opposed.