

*More than a million
privately owned recreational
boats ply U.S. seas.*

Selected Information on Recreational Boats in the United States

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INTRODUCTION

Information on the number of recreational boats in the United States is available through various sources such as individual State numbering systems and the U.S. Coast Guard inspection system. However, the number of recreational boats that are privately owned for amusement or relaxation purposes, as opposed to such commercially owned vessels as party, head, and charter boats, has not been known. Also not known was how many recreational boats are used by saltwater anglers.

In 1973, the National Marine Fisheries Service contracted with a private company, Information Concepts, Inc.¹, to collect certain information on recreational boats in the United States. The results of this work included: (1) the number of private recreational boats and commercial recreational boats in the United States by State and size class, (2) the number of private recreational boats and commercial recreational boats that fish in saltwater areas over a 12-mo period by State and size class, (3) the number of fishing trips over a 12-mo period by State and size class, (4) the species of fish sought on each trip by area fished, and (5) an estimate of the annual gross revenues of commercial fishing boats by size class.

The private recreational boat survey results are based on telephone interviews with 10,068 households throughout the United States. These inter-

views reported 941 households with one or more privately owned recreational boats.

The commercial recreational boat survey results are based on 163 telephone interviews. This sample was obtained from charter boat membership lists, individual State fishing advertising brochures, and the classified section of telephone directories in areas of heavy commercial recreational fishing boat concentrations.

The household telephone survey indicated that there were some 8,008,000 privately owned recreational fishing boats in the United States as of October 1973. Some 1,010,000 of those boats were used in saltwater recreational fishing activities. The separate survey of U.S. Coast Guard records, combined with a telephone survey of known commercial recreational fishing boat owners conducted concurrently, indicated there were 2,496 commercial recreational fishing boats in the United States. A more detailed discussion of the survey methodology is presented after the results.

SURVEY RESULTS

Table 1 shows the estimated number of private recreational boats in the United States by region and size class as of October 1973. These numbers include all boats except kayaks, rafts, rubber dinghies, and similar floating craft. New England includes the States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; the Middle Atlantic includes New Jersey, New York, and Pennsylvania; the South Atlantic includes Delaware, District of Columbia,

Table 1.—Number (in thousands) of private recreational boats by size class and region, October 1973.

Region	Size class (ft)			Total (all classes)
	< 16	16-26	≥ 26	
New England	223	157	29	409
Middle Atlantic	586	366	46	998
South Atlantic	519	208	24	751
Gulf	988	389	31	1,408
Pacific	602	348	57	1,007
Inland	2,432	951	52	3,435
Total	5,350	2,419	239	8,008

Table 2.—Number (in thousands) of private recreational boats that fished in salt water from November 1972 through October 1973 by size class and region.

Region	Size class (ft)			Total (all classes)
	< 16	16-26	≥ 26	
New England	36	38	12	86
Middle Atlantic	86	93	30	209
South Atlantic	65	70	22	157
Gulf	190	141	18	349
Pacific	67	114	15	196
Inland	6	6	1	13
Total	450	1,461	199	1,010

¹Numbers do not add to total because of rounding.

Table 3.—Number of trips and the corresponding number of days (in thousands) spent in different kinds of salt water by private recreational boats from November 1972 through October 1973 by size class.

Fishing effort	Size class (ft)		
	< 16	16-26	≥ 26
Open ocean			
Boats	258	271	51
Fishing trips	3,016	4,771	582
Fishing days	3,030	5,524	783
Rivers, sounds, and bays			
Boats	309	307	67
Fishing trips	5,252	4,804	799
Fishing days	5,557	5,641	860

Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; the Gulf includes Alabama, Florida, Louisiana, Mississippi, and Texas; the Pacific area includes Alaska, California, Hawaii, Oregon, and Washington; and the inland area includes the rest of the States (Fig. 1).

Table 2 summarizes by size class and region the number of boats that were used in saltwater recreational fishing from November 1972 through October 1973.

Table 3 summarizes by size class the number of fishing trips and the number of days fished by the saltwater recreational boat owners. Since no significant difference in the number and length of trips taken by a given

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¹Mention of trade names does not imply commercial endorsement by the National Marine Fisheries Service, NOAA.

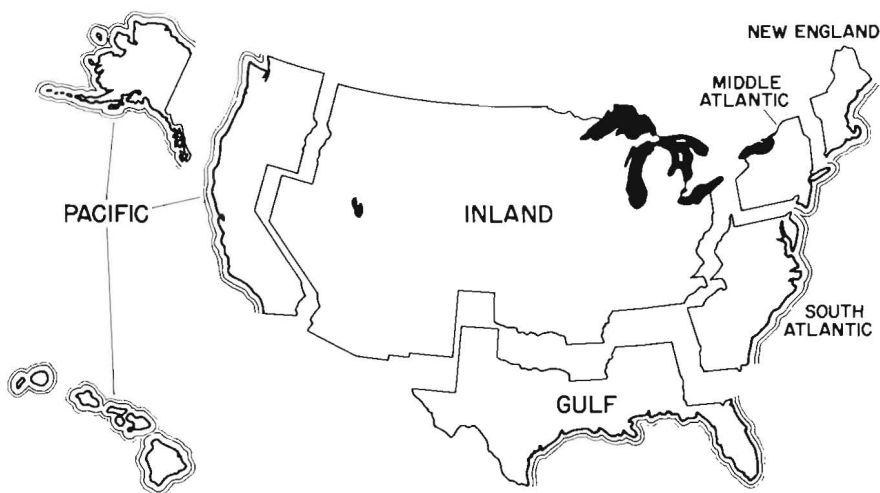


Figure 1.—Regional breakdown of states used in this survey.

size of boat between regions was found, the data are combined for all regions in this table.

The respondents were asked to name the species of fish sought on their fishing trips. Table 4 summarizes the most often mentioned species. Table 5 shows the estimated number of commercial recreational fishing boats in the United States as of October 1973. These numbers include those boats carrying at least one paying fisherman. Table 6 summarizes the number of fishing trips and the number of days fished by the saltwater commercial recreational fishing boats. Most commercial recreational fishing boats can and do fish in both open ocean and rivers, sounds, and bays; therefore, no distinction in numbers fishing in each area was attempted. Since no significant difference in the number and length of trips taken by a given size of boat between regions was found, the data are combined for all regions in this table.

The commercial recreational fishing boat captains were also asked to name the species of fish sought on their fishing trips. Table 7 summarizes the most often mentioned species. Table 8 summarizes the answers to the survey question "What was your gross revenue from commercial saltwater fishing over the past 12 months?"

SURVEY METHODOLOGY

Determining the number of recreational boats in the United States, and securing information on their use is arduous. It could be a relatively simple task with a uniform boat-licensing

and usage system. However, a researcher seeking information on this subject is obliged to rely on State boat-licensing and boat-numbering records or on the U.S. Coast Guard records developed from its inspection system. These records do not supply adequate information to the researcher because (1) most States do not include boat usage in their boat-licensing systems, (2) there is no uniform commercial boat-licensing system for all States, and (3) the Coast Guard inspection system does not record any boat that carries less than seven passengers.

Table 4.—Major¹ species of fish sought by private recreational boaters on saltwater fishing trips from November 1972 through October 1973.

Region	Species sought	
	Open ocean	Rivers, sounds, and bays
New England	Bluefish Summer flounders Atlantic mackerels	Bluefish Striped bass Atlantic mackerels Summer flounders
Middle Atlantic	Bluefish Weakfish Summer flounders Lobster Mackerels Billfishes	Winter flounders Summer flounders Weakfish Bluefish Kingfishes
South Atlantic	Bluefish Summer flounders Croakers Spanish mackerels	Bluefish Basses Spotted seatrout
Gulf	Trouts Snook Groupers Red snapper	Spotted seatrout Red drum Snappers
Pacific	Chinook salmon Coho salmon Pink salmon Rockfishes Pacific halibut	Chinook salmon Coho salmon Crabs Pink salmon

¹Most frequently mentioned species by order of frequency mentioned.

Table 5.—Estimated number of commercial saltwater recreational fishing vessels by region and size class, October 1973.

Region	Size class (ft)			Total (all classes)
	< 40	40-65	≥ 65	
New England	135	220	20	375
Middle Atlantic	96	393	74	563
South Atlantic	50	234	14	298
Gulf	85	310	42	437
Pacific	183	590	50	823
Total	549	1,747	200	2,496

Table 6.—Estimated number of trips and the corresponding number of days spent in different kinds of salt water by commercial saltwater recreational fishing vessels from November 1972 through October 1973.

Fishing effort	Size class (ft)		
	< 40	40-65	≥ 65
Boats	549	1,747	200
Open ocean			
Commercial fishing trips	58,702	211,282	51,267
Commercial fishing days	58,432	229,452	41,828
Rivers, sounds, and bays			
Commercial fishing trips	51,040	153,562	11,852
Commercial fishing days	50,054	151,063	12,852

Table 7.—Major¹ species of fish sought by commercial recreational boaters on saltwater fishing trips from November 1972 through October 1973.

Region	Species sought	
	Open ocean	Rivers, sounds, and bays
New England	Cods Bluefish Haddock Pollock Striped bass	Bluefish Striped bass Black sea basses Tunas
Middle Atlantic	Cods Bluefish Black sea basses	Black sea basses Bluefish Sharks Dolphins Tunas
South Atlantic	Bluefish Spanish mackerels Black sea basses King mackerels Dolphin	Bluefish Summer flounders Striped bass Black sea basses Spot
Gulf	Red snapper Snappers Groupers King mackerel Kingfishes	Red snapper Spotted seatrout Sand seatrout
Pacific	Bonitos Pacific basses Rockfishes Chinook salmon California yellowtail	Striped bass Sturgeon Salmons

¹Most frequently mentioned by order of frequency mentioned.

Table 8.—Average annual gross revenue of commercial saltwater recreational fishing vessels by size class, from November 1972 through October 1973.

Size class (ft)	No. commercial recreational fishing vessels	Average annual gross revenue (in dollars)
< 40	549	6,610
40-65	1,747	17,211
≥ 65	200	260,891

Since no licensing, registration, or other systematic identification program for recreational boat operators exists, special survey techniques had to be used to collect this information and assure that all recreational boat operators had a chance of being included in the sample. Three survey techniques were available: (1) personal interview, (2) mail questionnaire, and (3) telephone survey. The personal interview approach was rejected because the location of recreational boat operators in the general population is not known and most of the personal interviewer's time would have been spent traveling from house to house screening to find recreational boat operators rather than interviewing them. The cost per boat owner interview for such a project would have been so high that few owners could have been contacted.

The mail survey approach was rejected because the surveyor would lack control over the respondents to the questionnaire, with the possibility of a resulting nonresponse bias and inability to adjust for it.

The telephone survey was selected as the one that could produce the highest degree of coverage consistent with statistical validity for the funds available. The first phase located the scattered private recreational boat operators. The second phase interviewed the operators. Both jobs were done in a way that permitted expansion of survey results to population estimates. A random sample of households was contacted by telephone and

asked whether or not any member of the household owned any type of boat. The assumption was made that the universe of telephone households includes the universe of boat owners or simply that the vast majority of boat owners have a telephone. Interviews were conducted with people who stated that they were recreational boat owners. The interviewer screened out obviously unqualified respondents: small children, those who were unduly imprecise in their answers, pranksters, etc. A specific advantage of this type of interview technique was that its low cost per interview allowed a statistically reliable sample of households to be contacted. Other advantages offered by the telephone survey approach were: (1) that information pertaining to commercial and noncommercial recreational boating was obtained within the allotted time constraints, (2) a reasonably complicated "branching" questionnaire tailored to the operator's boating experience was used, and (3) the interviewers were able to probe for more detailed information as necessary to resolve any major inconsistencies in responses.

A specified number of survey contacts were allocated to each sampling unit. The households were selected by random telephone numbers generated through the use of a computer. In this way, unlisted numbers had an equal chance of selection as a listed number. This procedure leads to a large number of nonhouseholds and nonworking numbers being contacted. In order to interview 10,068 house-

holds, 24,393 telephone numbers were dialed. Nonhousehold numbers accounted for 1,222 calls, there were 1,382 refusals, nonworking numbers accounted for 5,185 calls, and there was no answer or a busy signal for 6,536 calls.

The telephone was also used to conduct interviews with the commercial recreational boat owners. As is the case with the private sector, there are few States with any licensing requirements for commercial recreational boats or their crews. Therefore, a sample of commercial recreational boats was obtained from charter boat membership lists, individual State sport-fishing advertising brochures, and the classified section of telephone directories in areas of known heavy commercial recreational fishing boat operations. This data was then interfaced with records kept by the U.S. Coast Guard to estimate the number of similar boats in the United States.

The complete report which includes more detailed survey results, a complete discussion of the survey methods, and the survey questionnaire is available upon request from the National Technical Information Service. It may be ordered by sending \$4.50 to: National Technical Information Service, U.S. Department of Commerce, Sills Building, Springfield, VA 22151. Request NTIS Accession Number COM-74-11186/AS. Checks or money orders can be made payable to the National Technical Information Service.

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