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A DESCRIPTION AND ECONOMIC APPRAISAL
OF CHARTER BOAT FISHING IN HAWAII

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ADMINISTRATIVE REPORT H-84-6C

Table 4.6 Frequency of Charter Fishing Trips Taken by Owner-Operators and Absentee Owners

Number of Trips Taken in 1982	Owner-Operators		Absentee Owners	
	Number	Percent	Number	Percent
1- 40	0	0%	3	10%
41- 80	6	46	4	14
81-120	3	23	5	17
121-160	0	0	7	24
161-200	0	0	1	3
201-240	1	8	4	14
240+	3	23	5	17
TOTAL	13	100%	29	99%(a)

(a) Deviation from 100% due to rounding error.

A DESCRIPTION AND ECONOMIC APPRAISAL
OF CHARTER BOAT FISHING IN HAWAII

FINAL REPORT

by

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April, 1984

PREFACE

This report was prepared under contract (82-ABC-00216) by Dr. Karl Samples of the University of Hawaii, College of Tropical Agriculture. The study was a joint undertaking of the Hawaii Institute of Tropical Agriculture and Human Resources (University of Hawaii) and the Southwest Fisheries Center Honolulu Laboratory, National Marine Fisheries Service, NOAA. The objectives of the contract was to present the results and analyze a survey of charter boat operators in the State of Hawaii. The survey was designed to describe the charter boat fishery, identify factors important to its success, and provide information to estimate the impact of the industry on Hawaii's economy. The survey took place in 1983 and reports charter boat characteristics for the previous year.

Since this report was prepared under contract, its statements, findings, conclusions, and recommendations are those of Dr. Samples and his associates, and do not necessarily reflect the views of the National Marine Fisheries Service.

Samuel G. Pooley
Industry Economist

ACKNOWLEDGEMENTS

This research was supported by the Hawaii Institute of Tropical Agriculture and Human Resources, University of Hawaii; and by the National Marine Fisheries Service, Southwest Fisheries Center, Honolulu Laboratory through NOAA Contract #82-ABC-00216, U.S. Department of Commerce. The authors wish to express their sincere appreciation to those charter boat owners who took time to answer our many questions about the operating characteristics of their business. Without this information, our study would have been impossible to complete. Hopefully, the information we have assembled in this report will assist charter fishing boat owners, individually and collectively, to more readily achieve their business objectives. A special note of thanks is extended to Mr. Samuel G. Pooley, Southwest Fisheries Center Honolulu Laboratory, National Marine Fisheries Service, for his constant input of novel ideas and his overall support for this research endeavor. Research assistance by Mr. Donald Schug was also valuable in completing the study. The excellent secretarial services provided by the Department of Agricultural and Resource Economics staff is also hereby acknowledged. Of course, responsibility for all errors and omissions remains our own.

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EXECUTIVE SUMMARY

The purpose of this study is to describe Hawaii's charter boat fishing fleet in terms of its composition, and its biological and economic impacts. A mail questionnaire survey of charter boat owners was conducted in 1983, to collect data on 1982 operating characteristics of their vessels. The survey yielded 73 usable returns. A follow-up telephone survey of non-respondents confirmed that mail survey respondents were representative of the entire population.

Using results of mail and telephone surveys, the size of the charter fleet operating in 1982 was estimated to be 119 boats. The fleet operated out of ports located on all of the populated Hawaiian Islands (except Lanai and Nihoa), with a majority based on the islands of Oahu and Hawaii. The most prominent charter fishing home ports were determined to be Kewalo Basin (Oahu) and Honokohau (Hawaii).

During 1982, the fleet produced an estimated 73,780 passenger trips. The majority of trips were full-day private charters priced at \$355 on average. Hawaii nonresidents were responsible for the bulk of charters.

The fleet generated an estimated \$8.1 million in total revenue in 1982, mainly from sales of charter fishing trips and fish caught while charter fishing. Indirect and induced sales amounted to an additional \$8 million. Estimated charter fishing direct sales compare closely with sales volumes estimated for the Hawaii surfshop industry of \$9.1 million, and are about 20% higher than the \$6.7 million in retail sales generated by Hawaii's diving industry. Compared to total 1982 sales made in the State of Hawaii (\$20,722 million), direct charter sales represent about .03%.

The industry directly employed 203 people (full-time equivalent basis) in 1982, and indirectly created an additional 269 full-time positions as a result of purchases from other economic sectors. In terms of direct employment, charter fishing activities in the State created 240% more positions than the scuba industry that employed 84 people on a full-time basis. Out of a total 1982 statewide employment level of 442,350, the charter fishing industry was directly responsible for about .04%.

Total fish catch in 1982 by the charter fishing fleet, exclusive of fish landed while commercial fishing, was estimated to be about 2.2 million pounds. This quantity represents 15% of the total reported commercial fish landings for Hawaii in 1982. The importance of charter catches for certain specific fish species was more pronounced. For example, the estimated blue marlin catch by the fleet (803,250 lbs) was 180% higher than the total commercial blue marlin catch reported in 1981.

Taken together, these findings suggest that charter fishing is an economically and biologically significant commercial marine activity. Compared to total economic activity occurring in the State of Hawaii, however, the charter fishing industry is somewhat insignificant.

Individual vessels comprising the fleet appear to be heterogeneous in terms of vessel activity levels, construction characteristics and owner demographic characteristics. Both full-time and part-time operations were observed, of which about a half were owner-operator. Significant under-utilization of capacity was seen to exist, with many vessels operating less frequently than necessary to breakeven financially. As a result, the fleet, on average, realized a before-tax loss in 1982. However, it was also observed that low profitability is characteristic of charter fishing fleets operating in other areas of the United States.

1.0

INTRODUCTION

Although charter sport fishing is a prominent commercial marine activity in Hawaii, little attention has heretofore been devoted to examining the industry in detail. Only one earlier study, conducted for National Marine Fisheries Service, attempted to identify the characteristics of Hawaii's charter fleet and its economic and biological impacts (National Marine Fisheries Service, 1983). This 1976 study was limited in scope to examining charter boat operations in the Kailua-Kona area on the island of Hawaii, and no attempt was made to expand the results to a statewide basis. The goal of this particular research endeavor was to fill an informational void by illuminating the operating characteristics, social and biological impacts, and activities of the entire charter boat fleet operating in Hawaii. Specifically, the objectives of the study were:

- 1) To develop socioeconomic profiles of charter boat operators;
- 2) To estimate the expected costs and returns associated with charter fishing operations in Hawaii;
- 3) To measure the statewide economic and employment impacts of charter vessel operations.

This report of research findings is organized in the following manner. Data acquisition procedures are described in the next section with emphasis on sample design and survey procedures. In the third section, a statistical profile of Hawaii's charter fleet is presented. Readers will find this section to contain detailed descriptive information about the fishing boats, vessel owners and catch characteristics, as well as information on fishing activity levels. Costs and returns associated with charter fishing in Hawaii are addressed in the fourth section, and factors influencing vessel profitability are analyzed. For purposes of comparison with other charter fleets in the United States, the fifth section contains a discussion of vessel owner characteristics, charter fishing activity levels, fare structures and operating cost/returns for nine different areas in the United States, including Hawaii. A discussion of the direct and indirect employment, sales, and income impacts associated with Hawaii charter fishing in 1982 is presented in the sixth section. This section provides a perspective on the overall contribution which the charter fishing industry makes to the State's economy. Attitudes of charter boat owners about State management of their industry are described in the seventh section. Finally, the report concludes with remarks about the future prospects for charter boat fishing in Hawaii.

2.0

METHODS

2.1 Identification of Charter Boat Population

It is not a simple matter to distinguish the population of bona-fide charter boats from the remainder of approximately 14,500 boats registered in Hawaii. A preliminary list of names and addresses of charter fishing vessel owners was obtained from the "Hawaii Fishing Vessel Inventory," maintained by the National Marine Fisheries Service (NMFS), Southwest Fisheries Center Honolulu Laboratory, Honolulu, Hawaii. The "Hawaii Fishing Vessel Inventory" is the result of the efforts by NMFS, the State, and the Western Pacific Fishery Management Council to assemble registration information from the Hawaii Department of Transportation (Harbors Division) and the U.S. Coast Guard relating to all types of fishing vessels operating in Hawaii. Commercial vessels (fishing and non-fishing) under 5 tons displacement are registered with the Hawaii Harbors Division as "Registered Undocumented" (referred to hereafter simply as registered vessels). Commercial vessels greater than 5 tons displacement are licensed with the Coast Guard as "Documented" and will be referred to as such in this report. Two vessel sub-classifications: "charter-fishing" and "passenger-fishing," are used by the State of Hawaii Harbors Division and U.S. Coast Guard, respectively. It is the combination of these two sub-classifications which constitutes the NMFS vessel inventory of charter fishing vessels. From this inventory of 214 documented and registered "charter fishing" boats, information was obtained about the owner's name, address, boat description and vessel identification number.

Dependence on the NMFS vessel inventory as a preliminary means of identifying charter vessels operating in Hawaii was based on the apparent inclusiveness of the inventory listing. Owners of registered and documented vessels are required by the Harbors Division and Coast Guard to annually license their vessels according to principal boat use or service. While it cannot be assured that all boats which are even remotely involved in commercial charter fishing are categorized as such, incentives to be classified as a charter fishing vessel are quite high. Bona-fide charter fishermen, for example, enjoy a tax advantage of being able to deduct costs of fishing. This of course is also true for vessels that are used for commercial fishing purposes. However, there is a difference in the fact that vessels which are categorized as "commercial fishing" cannot legally be used for any other marine commercial service. Furthermore, documented vessels listed under any category other than "passenger fishing" cannot legally engage in charter fishing. In contrast, a "passenger fishing" categorization affords a vessel owner the option to engage in commercial fishing, charter fishing, charter

tours, or simply pleasure boating. Thus the incentive for charter fishermen to identify their boats as passenger-fishing for registration purposes is great because this listing offers the greatest degree of flexibility in commercial vessel uses.

The disincentives in licensing a vessel as commercial-fishing or charter fishing are about equal. A tax is imposed by the Hawaii State Harbors Division on all boats holding a commercial permit (including charter fishing vessels). All such vessels are required, on a monthly basis, to pay the State a user fee equal to either twice the monthly slippage fee, or 2% (1.5% in 1982) of their gross monthly income, whichever is greater.

A physical search through vessel documentation records revealed six additional boats not included in the NMFS inventory due to their recent transfer of ownership. Using a combined list of boats, it was determined that there were nine owners with two boats listed under their names and one owner with three boats. One of the boats on the combined list had been repossessed by a finance company, thus bringing the maximum potential size of charter fishing boat owners in Hawaii to 208 (220-9-2-1). These 208 boat owners comprised the target population for a mail questionnaire survey.

2.2 Mail Questionnaire Development and Fielding

The principal source of data used in this study was charter fishing vessel owners' responses to a mail questionnaire survey. A questionnaire instrument was drafted, reviewed internally, and then circulated for comment to sixteen pre-selected reviewers representing the charter fish industry, government agencies, and other interested groups. The instrument was subsequently revised to accommodate reviewers' comments. The final version included six sections containing questions for boat owners about 1) their attitudes about public policy issues confronting the industry; 2) their 1982 fish catch and the perceived importance of catching certain fish to charter customers; 3) the costs and returns associated with their charter fishing operations in 1982; 4) types of fishing and other commercial boating activities engaged in during 1982; 5) fishing activity at fish aggregating devices, and 6) their socioeconomic background. A copy of the final questionnaire is reproduced in Appendix A. For aesthetic reasons, the questionnaire was printed on blue colored paper and assembled in a 5.5" x 8.5" booklet format.

The survey process began with an advance letter on January 13, 1983. The letter explained the goals of the study, informed respondents to expect the forthcoming questionnaire, and encouraged participation in the study. Owners of more than one boat received a similar letter with the added request that they aggregate the data on their boats and report the aggregate amount in their questionnaire booklets. Within a week after the advance

letter mailing, a packet containing the questionnaire, an accompanying letter, and a self-addressed stamped return envelope was sent to each of the 208 fishing vessel owners. Owners were promised that the information they supplied would be held in strict confidence and would be reported in aggregate form only. Boat owners were assigned an identification number and questionnaires were numbered to correspond with the owner's assigned number. Identification of questionnaires allowed the return response rate to be fully monitored and served to identify owners who were unresponsive.

After the first mailing, an updated version of the NMFS vessel inventory listing was obtained. The new list indicated that four boats on the original NMFS vessel inventory had been sold. Since two of the boats sold belonged to multiple owners, it increased the number of boat owners by two. Concurrently, a listing of charter boats became available from the Hawaii International Billfish Association (HIBA). Names of 15 owners not on the original NMFS inventory were found. Cross-referencing the HIBA and NMFS listings by vessel registration numbers disclosed that 2 of the 15 new names were associated with boats already on the NMFS inventory, but under different owners. A packet containing material identical to that which was mailed to the original 208 boat owners was mailed to 19 additional people. Although a total of 227 (208+4+15) people received the questionnaire, the maximum number of possible boat owners was only 223 (208+2+13). The difference stemmed from the fact that 4 of the boats included in the 227 are associated with 2 different owners and hence 4 owners had to be subtracted from the total to reflect 1 rather than 2 owners per boat.

Based on respondents' comments, returned questionnaires were classified as either charter fishing or non-charter fishing operations (i.e. sailboats, commercial fishing boats, pleasure boats, dive boats, etc.). Respondents who indicated they owned charter fishing boats but did not engage in charter fishing in 1982 were classified as non-charter for purposes of survey management. A number of questionnaires were returned either partially completed or blank and were not used for purposes of further study. Some owners removed the identification number from their questionnaire and were classified as unidentifiable. Several of the questionnaires also proved to be undeliverable by mail.

After one week, all boat owners were sent a postcard to remind them to return the questionnaires promptly. A second wave of questionnaire packets was put into the field eight weeks after the first. The second wave comprised 154 packets; with each packet containing the original questionnaire, a different accompanying letter, and a self-addressed stamped envelope.

The third and final wave of questionnaires was sent out by certified mail in order to convey the importance of the study to

those boat owners who had not yet returned their questionnaires. The third wave consisted of 132 certified mail packets; with each packet containing the questionnaire, a different accompanying letter, and a self-addressed stamped envelope. The third wave was put into the field five weeks after the second wave. In Figure 2.1, a cumulative frequency histogram of returned questionnaires (i.e., charter, non-charter, partials, and blanks) illustrates returns over an 18-week fielding period. In Table 2.1, the response for various questionnaire mailings is summarized, and Table 2.2 shows questionnaire response by island. The overall response to the three waves of questionnaires yielded: 72 confirmed charter boat owners, 44 non-charter owners, 6 partial or blank questionnaires, 25 undeliverable (due either to owners leaving the State or changes of addresses), and 77 non-responding boat owners. The overall response rate for the questionnaire was therefore 55% $[(72 + 44 + 6)/223]$.

2.3 Follow-up Telephone Survey

Given that a significant percentage of the survey population did not respond to repeated questionnaire mailings, a method was sought to determine: 1) the actual proportion of non-respondents who were bona-fide charter fishing boat owners, and 2) whether or not the data collected by the mail survey reflected a representative sample of the actual population of charter boat owners in the State.

A separate follow-up telephone survey was conducted involving a sample of those individuals who did not respond to the mail questionnaire survey. The number of questions asked in the telephone survey was reduced, but question overlap with mail survey was substantial. Statistical comparisons could therefore then be drawn between the responses observed for the two survey groups. Such a comparison would provide the necessary information to confirm or refute the hypothesis that mail respondents comprised a representative sample of Hawaii charter fishing boat owners. A copy of the telephone survey instrument is provided in Appendix B.

The phone survey procedure consisted of calling telephone numbers of a selected sample of individuals who did not respond to mail questionnaire survey. The sample was stratified according to island of the non-respondents' residences (see Table 2.3). The survey was conducted over the time period between May 18 to May 26, 1983. A total of 26 boat owners were contacted. This represents approximately 12% of the original population (223) and 34% of all those individuals (from that same population) who did not respond to the mail survey.

The majority of boat owners reached by this survey required several calls before finally being contacted. This held especially true for those who were found to be charter boat

Figure 2.1 Cumulative Survey Response by Week

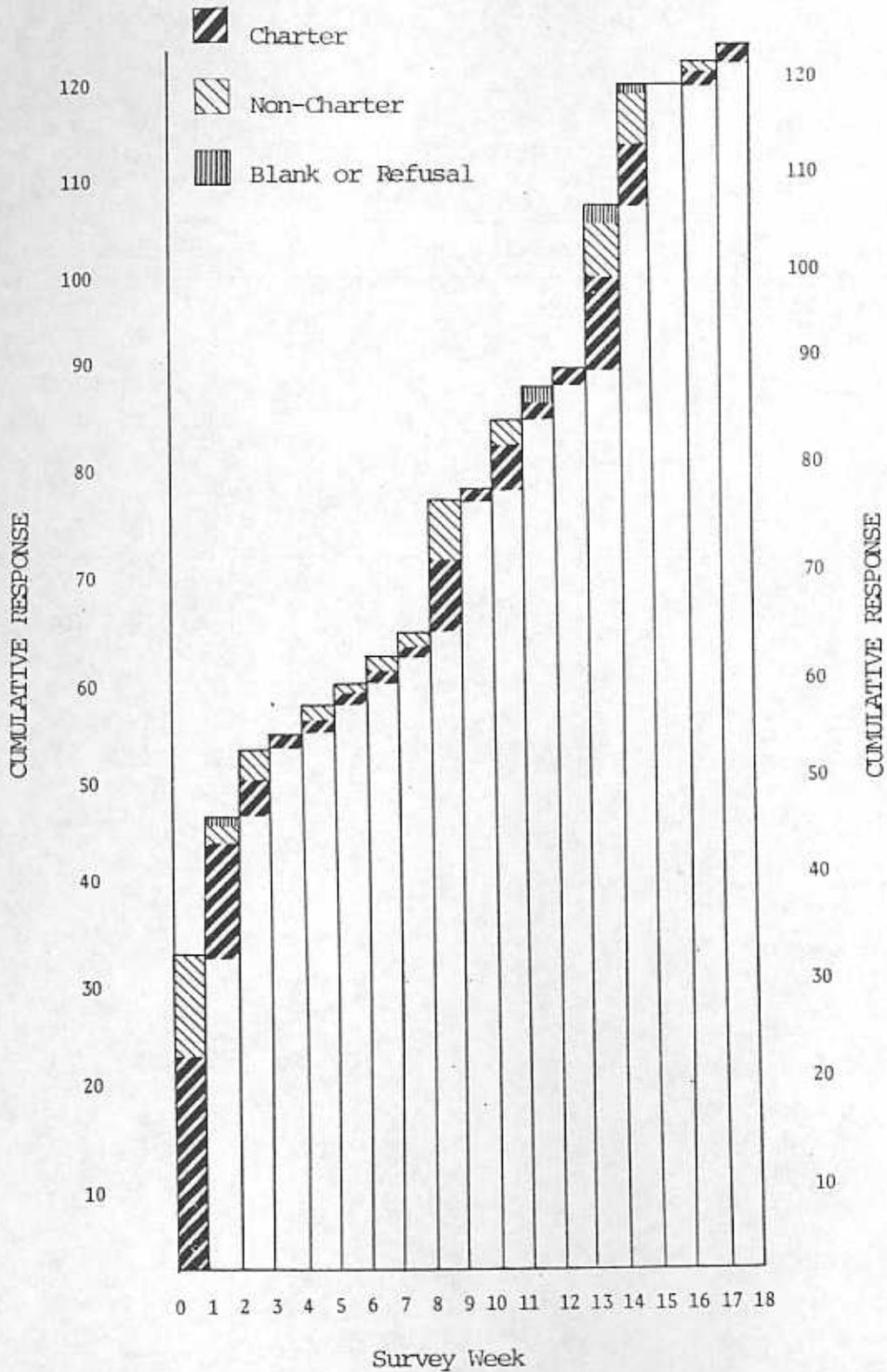


Table 2.1 Response of Survey Participants for Different Mailings

Mailing	Charter	Non-Charter	Blank	Undeliverable	Total
First Wave	40	23	1	12	76
Second Wave	14	9	2	0	25
Third Wave	18	12	3	13	46
TOTAL	72	44	6	25	147

Table 2.2 Response of Survey Participants: By Island of Owner's Residence

Island	Charter	Non-Charter	Blank	Undeliverable	Total
Oahu	24 (a)	21	3	6	54
Hawaii	30	15	1	10	56
Maui	12	7	1	5	25
Molokai	2	0	0	0	2
Kauai	3	0	0	2	5
Lanai	0	1	0	1	2
Mainland	0	0	0	1	1
Unidentified	1	0	1	0	2
TOTAL	72	44	6	25	147

(a) Includes one owner with two boats. Hence 25 boats were accounted for.

Table 2.3 Geographic Distribution of Survey Participants: By Island of Owner's Residence

Island	Mail Survey Population		Mail Survey Non-Respondents		Telephone Survey Sample	
	Number	Percent	Number	Percent	Number	Percent
Oahu	89	40	36	46	12	46
Hawaii	86	39	30	38	9	35
Maui	35	16	10	13	4	15
Molokai	2	1	0	0	0	0
Kauai	8	4	3	4	1	4
Lanai	2	1	0	0	0	0
Mainland	1	(b)	0	0	0	0
TOTAL	223	101(a)	79(c)	101(a)	26	100

(a) Deviation from 100 due to rounding error.

(b) Less than 1%.

(c) Includes two respondents who could not be identified. Actual number of non-respondents is 77.

fishermen. If after repeated attempts, a boat owner could not be reached, the owner was dropped from the sample and replaced with another randomly selected individual. This sampling method may have tended to introduce a bias against contacting charter boat owners. There was no a priori reason to suspect, however, that non-charter boat owners were on average more susceptible to being intercepted by telephone compared to charter boat owners, especially when calls were placed throughout the day and evening hours.

As might be expected, a large percentage (69%) of those finally contacted by telephone were non-charter boat owners. This finding suggests that the majority of the population of charter boat owners did respond to the mail survey. The remaining 31% of the telephone survey sample consisted of charter boat owners (see Table 2.4).

Table 2.4 Charter/Non-Charter Composition of Survey Respondents

	Mail Survey		Telephone Survey	
	Number	Percent	Number	Percent
Charter	72	62	8	31
Non-Charter	44	38	18	69
TOTAL	116(a)	100	26	100

(a) Includes only those respondents who were positively identified as charter or non-charter.

3.0

STATISTICAL PROFILE OF CHARTER FISHING BOAT INDUSTRY

Results of the mail and telephone surveys were used to develop a statistical profile of Hawaii's charter fishing industry as it existed in 1982. First, an estimate of the number of vessels comprising the fleet was obtained as follows. First, a count was made of the number of boats owned by individuals responding to the mail survey. Two respondents owned two boats in 1982, so a total of 74 (72 + 2) charter fishing boats were initially accounted for. Close inspection and cross-referencing of partially completed and non-deliverable questionnaires revealed an additional 21 boats which operated in 1982. As a final measure, the proportion of charter boat owners identified in the telephone survey (31%) was used as a multiplicative factor for the group of non-responding boat owners in the mail survey (N = 77) to arrive at an estimated 24 additional bona-fide charter boat owners. Since it was already known from vessel records that all non-respondents owned only a single boat (whether charter or not), this added 24 boats to the total for an estimated fleet size of 119 (74 + 21 + 24). Of this total, detailed information was collected on 73 (61%) separate charter fishing vessels through the mail questionnaire survey.

The survey generated responses by charter boat owners residing on the islands of Hawaii, Oahu, Maui, Molokai and Kauai. Response from Molokai and Kauai was low, amounting to only five returned surveys altogether. Due to the need to preserve the confidentiality of responses supplied by these five boat owners, data for Kauai and Molokai are not reported below on an individual island basis. These data are, however, reflected in statewide figures.

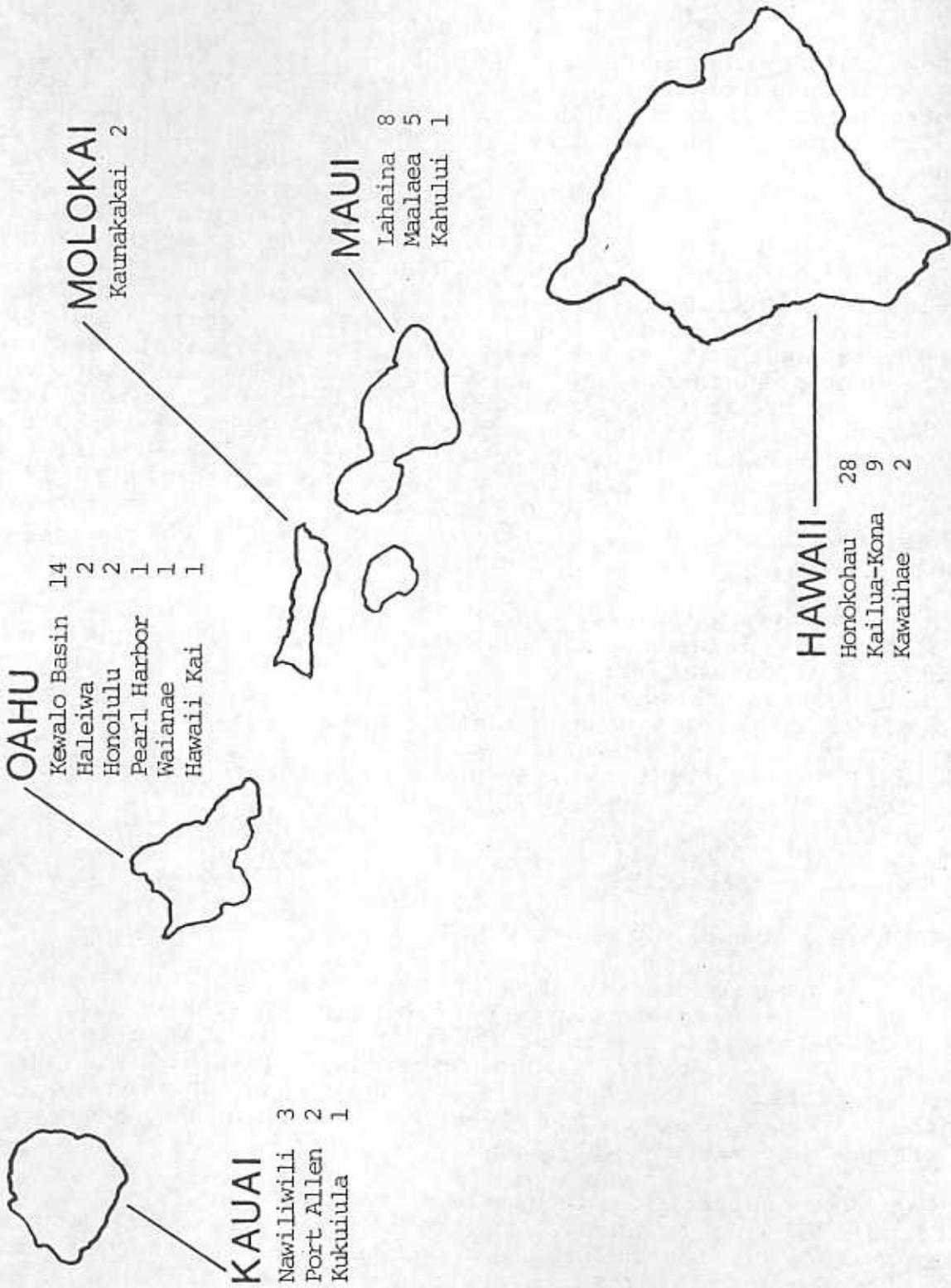
3.1 Vessel Characteristics

3.1.1 Location and Ports Used

The geographic distribution of ports used by the 73 vessels for which data were obtained is depicted in Figure 3.1. The island of Hawaii appears to be the most popular island to base a charter fishing operation. Just under half (48%) of the survey group indicated that the ports of Honokohau, Kailua-Kona or Kawaihae, all located on the island of Hawaii, were home ports for the charter vessels they owned.

Oahu was indicated to be the next most popular island to base a charter fishing business. Overall, the island of Oahu was chosen by 27% of the survey respondents as the island on which their home port was located. For the island of Oahu, Kewalo Basin, located in Honolulu, was used most often as a base port

Figure 3.1 Number of Charter Boat Owners Reporting Various Ports as Bases of Operation: By Island



(18% of the time).

The islands of Maui and Kauai were found to be the third and fourth most commonly chosen islands as bases for a charter fishing business in Hawaii. Maui and Kauai were chosen by 17% and 8% of the survey respondents, respectively, as the island on which their base port was located. The most popular ports for Maui were Lahaina and Maalaea Harbor which were used by 10% and 6% of respondents, respectively. In Kauai, Nawiliwili and Port Allen harbors which were used as home ports for 4% and 3% of the total survey group, respectively. Finally, the island of Molokai served as a base of operation for two charter boat owners. No respondents indicated that the island of Lanai was a base port location.

3.1.2 Vessel Size, Age and Propulsion

The length of vessels comprising Hawaii's charter fleet in 1982 ranged from 20 to 59 feet. The median length was 40 feet, and the overall statewide average for the 62 vessels for which length data were available was 36 feet. As shown in Table 3.1, average vessel lengths were greatest on the island of Oahu (43 feet) and smallest on Maui (32 feet).

In terms of vessel age, charter boats comprising Hawaii's fleet ranged from 2 to 35 years of age assuming 1982 as the base year for age calculation purposes. The median vessel age was determined to be 4 years, and the overall statewide average age was 11 years. In Table 3.1, average vessel age is shown to be highest for Oahu (13 years) and lowest on Maui (9 years).

It is evident from Table 3.1 that the dominant form of propulsion used by Hawaii charter fishing boats is diesel or gas motors. The proportion of diesel to gas driven boats ranges from 33% on Kauai to 100% on Oahu. On a statewide basis, 88% of charter boats are diesel motor driven while 12% use gas engines.

3.1.3 Vessel Cost, Market Value and Remaining Useful Life

The reported purchase price of charter fishing boats ranged from \$750 to \$275,000. The median value was \$35,000 and the overall statewide average vessel cost was determined to be just under \$82,000 (see Table 3.2). As shown in Table 3.3, a majority of boat owners had purchased their boats from sellers in Hawaii, but this proportion varied considerably from island to island.

Owners generally reported that the market value of their boats had appreciated since purchase. This could be caused by a variety of conditions such as significant vessel improvements, increased market demand combined with a limited supply of suitable boats, or general price inflation. Maui-based fishing

Table 3.1 Characteristics of a Typical 1982 Charter Fishing Boat:
By Island and Statewide

Characteristic	Statewide	Hawaii	Oahu	Maui
Avg. Length (feet)	36	34	43	32
Median Year Built	1971	1972	1969	1974
Propulsion				
Diesel	88%	96%	100%	67%
Gas	12%	4%	0%	33%

Table 3.2 Average Purchase Price, 1982 Market Value, and Remaining Operating Life of Hawaii Charter Fishing Boats: By Island and Statewide

	Statewide	Hawaii	Oahu	Maui
Purchase Price (\$)	80,878	81,617	86,702	67,818
1982 Market Value (\$)	94,681	93,633	106,722	74,091
Remaining Operation Life (years)	12	14	13	9

Table 3.3 Percent of Respondents Indicating They Purchased Their Charter Boat Within the State of Hawaii: By Island and Statewide

Vessel Purchased in Hawaii?	Statewide	Hawaii	Oahu	Maui
Yes	60%	37%	80%	75%
No	36	63	20	17
No Response	4	0	0	8
TOTAL	100%	100%	100%	100%
N	73	30	25	12

boats were viewed by their owners to have experienced the lowest rate of appreciation (approximately 9% of initial cost), from a purchase price of \$67,818 to a 1982 market value of \$74,091. There was a consistent trend for the higher priced boats to experience more rapid rates of appreciation. For example, Oahu boat owners reported the highest purchase price, \$86,702, and reported the highest average rate of appreciation as well, 23% of the initial price of the vessel from \$86,702 to a 1982 market value of \$106,722.

Vessel remaining operating life, as viewed by the boat owner, ranged from 1 to 50 years. Boats operating out of the island of Maui were considered to have the shortest remaining operating life of 9 years. Big Island (Hawaii) boats were viewed by their owners to have the longest remaining operating life of 14 years. On a statewide basis, the average charter fishing vessel had a remaining operating life of 12 years in 1982.

3.2 Owner Characteristics

A total of 72 charter boat owners responded to the mail survey. The number of owners (72) is less than the number of boats (73) due to the fact that one owner provided information on 2 separate boats.

3.2.1 Demographic Characteristics

Demographic profiles of the 72 charter boat owners responding to the mail survey showed that the largest share of boat owners (41%) were found to live on the island of Hawaii. The island of Oahu was the second most prominent island on which charter boat owners resided (33% of respondents). Kauai and Molokai were the islands of residence for the fewest boat owners (4% and 3%, respectively). There were no respondents who lived on the islands of Lanai or Nihoa.

Socioeconomic characteristics of charter boat owners such as age, sex, education level and years of charter fishing experience were obtained by the survey to produce a more vivid picture of the "typical" Hawaii charter boat owner (Table 3.4). Age of owners ranged from 27 to 77 years. The median age was 40 and the overall statewide average age was determined to be 49 years. On an island basis, average age of owners was observed to vary between 40 years on Maui to 50 years on Hawaii and Oahu. For all islands, at least 91% of the owners responding to the mail survey indicated they were male. All survey respondents were high school graduates and approximately 13% of the survey group reported they had earned advanced graduate degrees.

Owners reported a wide range in the number of years they had been engaged in the charter fishing business. The average length

Table 3.4 Characteristics of an Average Charter Boat Owner in 1982:
By Island and Statewide

Characteristic	Statewide	Hawaii	Oahu	Maui
Age (Years)	49	50	50	44
Charter Experience (Years)	10	9	12	10
Sex (% Male)	97%	97%	100%	91%
Education (Years)	13	13	13	13

of experience was 10 years, and this average did not vary much across individual islands (Table 3.4). A more detailed breakdown of reported years of experience is given in Table 3.5.

Taken together, these findings suggest the following portrait of a charter boat owner in Hawaii. Typically, he is male, about 49 years old, has some college education and has been engaged in the charter fishing business for about 10 years. Furthermore, only slight differences exist in this profile between island groups. Hawaii and Oahu boat owners are slightly older, and those of Oahu are, in addition, slightly more experienced and all are male. There are slightly more women charter boat owners on Maui and in general Maui boat owners are younger than average too.

3.2.2 Motivations

The survey inquired about the motivations underlying Hawaii charter boat owners' participation in the charter fishing business. Respondents were asked to identify which of the following factors were primary motivators: "enjoy the life-style," "profitable," "enjoy meeting people," "only work I know," "tax shelter," "friends in business," and "other." The percentage of times a particular motivating factor was selected by respondents is summarized in Table 3.6. Looking first at the statewide results, it is clear that the typical Hawaii charter boat owner is most often motivated by the life-style associated with charter fishing as a primary reason for their participation in the industry. The second and third most often selected motives were "enjoyment of meeting people," and the "tax shelter" characteristics of a charter fishing business. Only 16% of the charter boat owners indicated that "profitability" was a primary reason for their participation in charter boat fishing. Lack of a strong profit motive in charter fishing is consistent with the finding that only 21% of the survey group claimed they were charter fishing for "tax shelter" advantages. The remaining motivational factors: "only work I know" and "friends in business," were deemed influential only by only a small fraction (3%) of the survey respondents.

Charter boat owners on different islands appear to be motivated by somewhat different factors. Of the survey respondents, owners residing on Maui least frequently indicated that enjoyment of the life-style associated with charter fishing was a reason for their participation in the business. For Oahu and Hawaii, enjoyment of life-style was mentioned 88% and 90% of the time by the charter boat owners residing on these islands, respectively.

The "enjoyment of meeting people" was the next most popular reason for being involved with the charter fishing industry. Again, Maui had the lowest percentage of respondents (25%)

Table 3.5 Years of Experience in the Charter Fishing Business as of 1982

Years of Experience	Number	Percent
1 to 3	14	19%
4 to 7	22	31
8 to 10	8	11
11 to 15	14	19
16 to 20	6	8
21 to 30	4	6
31 to 40	1	1
No Response	3	4
TOTAL	72	99(a)

(a) Deviation from 100% due to rounding error.

Table 3.6 Primary Motivating Factors for Participating in a Charter Fishing Business: By Island and Statewide

Motivating Factor	Statewide	Hawaii	Oahu	Maui
"Enjoy Life-Style"	85%	90%	88%	58%
"It's Profitable"	16	13	20	17
"Enjoy Meeting People"	55	73	44	25
"Only Work I Know"	3	3	0	8
"It's a Tax Shelter"	21	27	16	17
"Friends Are in Same Business"	3	3	4	0
"Other"	21%	10%	24%	25%
N	72	30	24	12