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CHARTER FISHING PATRONS IN HAWAII: A STUDY OF THEIR DEMOGRAPHICS, MOTIVATIONS, EXPENDITURES AND FISHING VALUES

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CHARTER FISHING PATRONS IN HAWAII: A STUDY OF THEIR DEMOGRAPHICS, MOTIVATIONS, EXPENDITURES AND FISHING VALUES

FINAL REPORT

by

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May 1985

PREFACE

This report concludes a multiyear study of charter fishing conducted by Dr. Karl C. Samples of the University of Hawaii. 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, under NOAA contract (83-ABC-00144).

The objectives of this study were to examine the motivations of people going charter boat fishing in Hawaii, to relate these characteristics to features of the charter boat fleet, and to estimate the economic demand in market and nonmarket demand for charter boat fishing in Hawaii. The University of Hawaii fielded a survey of charter boat patrons using Kewalo Basin in Honolulu during 1984, and this report presents Dr. Samples' analysis of that survey.

An earlier study investigated the activities of charter boats throughout Hawaii from the charter boat operator's point of view, and results from the study were released as a Southwest Fisheries Center Administrative Report ("A description and economic appraisal of charter boat fishing in Hawaii," April 1984, H-84-6C).

This report was prepared under contract. Thus, the 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

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EXECUTIVE SUMMARY

The purpose of this study is to develop a complete and accurate description of charter patron demographics, motivations, fishing values and trip taking behavior. Dockside interviews were conducted with 732 charter patrons disembarking from boats at Kewalo Basin, located on the island of Oahu. Additional detailed expenditure, attitudinal and behavioral data was obtained from 457 patrons who returned questionnaires by mail. Efforts were made to collect data that could be compared directly with survey results reported for Kailua-Kona charter patrons, and for patrons in other areas of the United States. None of the patrons interviewed during the study were engaged in tournament fishing.

The survey showed that 83% of patrons were visitors. A clear majority of visitors were from Canada. Most patrons were high income males in the 25-44 year age group. Over half of the sampled group reported annual household incomes in excess of $40,000. Compared to charter patrons in other states, interviewed patrons go charter fishing relatively infrequently. The overall average number of charter trips taken in and outside of Hawaii averaged less than 1 per year. Residents took relatively more charter fishing trips in Hawaii while visitors took more charter trips elsewhere. Charter fishing was not a particularly important factor influencing the typical visitor's decision to come to Hawaii.

Patrons were motivated to go charter fishing by the desire to experience a fun recreational activity. The desire to catch fish was a less important motive. Residents placed relatively more importance on the socializing aspects of charter fishing. Patrons were generally satisfied with their fishing experience, even if no fish were caught.

Patrons, on average, caught less than one fish per trip. Boats, on average, landed 3 fish per trip. The most common fish caught were aku, ahi, and mahimahi. Shark and barracuda were most infrequently caught. Only 1 out of every 10 anglers caught a billfish, which was the most desired fish to catch. Patrons generally held aku and barracuda in low esteem.

Patrons spent $129 and $104, on average, for a full and half-day of charter fishing, respectively. Visitors spent 43% more on average than residents. It was estimated that in 1984 patrons spent $6 million in total for charter fees alone. This compares very closely with a separate estimate of total charter fees collected by Hawaii's charter fishing fleet (Samples et al., 1984). A total of $39.4 million was spent to cover costs that were indirectly related to charter fishing as a vacation or leisure activity.

Annual consumer surplus value of charter fishing was estimated to be $4.2 million, or $57 per trip. The total value of charter

fishing to patrons in 1984 (including charter fishing fee payments) was therefore approximately $10 million. Using hedonic price analysis, it was determined that prices charged for full-day share trips are sensitive to marlin catch rates and vessel service features. Prices were not found to be sensitive to mahimahi catch rates. Contingent ranking results showed that patrons were willing to pay an additional $65 in charter fees if the probability of landing a 250 pound blue marlin on a given trip increased by 65% above current Kewalo Basin average catch rates. Patrons were willing only to pay $4 more in charter fees for substantial increases in the probability of landing a mahimahi. Taken together the results suggest that changes in marlin catch rates will not significantly affect demand for charter boat services because: 1) historical catch rates do not seem to influence patrons' aggregate trip taking behavior; 2) information about catch rates is not generally available to prospective patrons, and 3) catching fish is not the sole purpose of taking a charter boat trip. Nevertheless, patron satisfaction is closely tied to the chance of being able to catch a marlin, sailfish or some other type of billfish.

INTRODUCTION

It is becoming increasingly apparent that sportfishing has considerable economic and biological importance in Hawaii. Commercial sportfishing, involving the temporary hire of vessels and crews for purposes of offshore fishing, is perhaps best understood in this regard. According to recent estimates 119 charter boats operated on a full and part-time basis during 1982 and generated sales of just over $8 million (Samples et al. 1984). In addition to this revenue impact, the charter fleet landed an estimated 2.2 million pounds of fish which represented 15% of reported commercial fish landings in Hawaii. Pacific blue marlin (Makaira nigricans) landings constituted roughly a third of total charter boat catch. Biological and economic impacts attributed to the commercial sportfishing industry are tied directly to a constant demand by Hawaii residents and visitors for the services of charter fishing boats. Samples et al. (1984) estimate that 73,780 charter trips were demanded in 1982, most by non-repeat customers. Fishermen from all over the world, motivated by the opportunity for fun and relaxation, and the possibility of fighting a large gamefish, pay $70 on average to experience a day of offshore sportfishing.

To date, little information has been assembled about Hawaii charter boat customers in terms of their preferences, expenditures and motivations. Although Samples et al. (1984) constructed a profile of the charter boat fleet, information collected on customers was second hand, based on the perceptions of boat owners and skippers. A 1977 study of fishermen in Kailua-Kona, Hawaii provided a preliminary statistical profile of the charter patron population (NMFS, 1983a). Using personal interviews of residents and visitors, information was collected on patron demographics, motivations and expenditures. Also potentially useful in understanding Hawaii's charter fishing market are other studies of charter patron characteristics in Wisconsin (Ditton et al., 1975), Texas (Ditton et al., 1978), South Carolina (Liao and Cupka, 1979) and North Carolina (Abbas, 1978) . However, no attempts have heretofore been made to compare and contrast the findings of these studies with the situation in Hawaii.

The goal of this study is to develop a complete and accurate description of charter patron demographics, motivations, fishing values and trip taking behavior. Specific research objectives are fourfold: (1) to develop socioeconomic profiles of charter boat customers; (2) to estimate the direct and indirect economic impacts associated with charter fishermen's expenditures; (3) to measure the value of charter fishing to patrons, and (4) to determine the sensitivity of this value to changes in catch rates, catch composition and vessel characteristics.

This report summarizes research procedures and major findings. It is organized in the following manner. Data collection procedures are discussed in the ensuing section. A statistical profile of charter patrons is provided in the third section including information on demographics, trip taking behavior and motivations. Patron expenditures and associated economic impacts are subsequently described. Various estimates of the social value of charter fishing are presented in the seventh section, followed by an analysis of the sensitivity of value to changes in prevailing catch rates, catch composition and vessel characteristics. Concluding remarks focus on three principal topics. First, data and analytical limitations of the study are spelled out. After this disclosure, the implications of research findings for fisheries management are addressed, with particular reference to billfish management. Finally, the implications of research findings for expanding consumer demand for charter boat services in Hawaii are evaluated. This discussion will probably be of greatest interest to industry members.

2

METHODS

During 1983, approximately 74,000 passenger trips were provided by Hawaii's charter fishing fleet(Samples et al., 1984). The large number of charter fishing customers necessitated drawing a sample in order to achieve the research objectives stated above. It was decided to select the sample entirely from patrons disembarking from charter fishing boats at Kewalo Basin, a boat harbor located in Honolulu on the island of Oahu. Samples et al. (1984) estimate that Oahu is the home base for 27% of Hawaii's charter fishing boats. The majority of Oahu boats operate out of Kewalo Basin. Concentration on Kewalo Basin as the target sample area permitted a larger total sample to be taken than would be otherwise possible by conducting surveys at various ports around the state. Recognition was given to the fact that limiting fielding effort to Kewalo Basin would call into question whether the sample represented the entire patron population, especially patrons taking charter fishing trips on one of the other Hawaiian Islands. Nevertheless, it was anticipated that possible population differences could be detected, at least for patrons on the island of Hawaii, by comparing Kewalo Basin sample characteristics results with patron characteristics reported in the 1976 study of charter patrons in Kailua-Kona, Hawaii (NMFS, 1983a).

The desired sample size was set at 730 person/trips or approximately 4% of the 16,700 trips taken on Oahu in 1983. This large sample size allowed two separate questionnaire versions to be fielded with an expected error of not more than 5% in parameter estimates.

2.1 Pilot Surveys

An initial pilot survey of charter fishing patrons was conducted at Kewalo Basin from July 22 to August 2, 1983. The principal objective of the survey was to examine the practicality of conducting on-site personal interviews. An additional objective was to identify factors that influence patrons' enjoyment of a typical charter fishing trip.

Patrons of twelve different charter fishing boats were interviewed on the dock after the boats returned from fishing. Nearly all of the boats returned each day within the same two hour period (1400-1600 hours). A total of 29 patrons were interviewed by a single interviewer over the course of seven sampling days. It was necessary to keep the survey instrument brief since patrons were busy photographing their catch, arranging transportation back to their hotels and, in some cases, recuperating from a somewhat arduous recreational experience. Initial survey experience suggested that a possible source of sampling bias in on-site interviews was that patrons who caught fish were relatively easy to intercept since they would remain on

the dock waiting for their catch to be offloaded. Patrons who did not catch fish tended to depart from the docking area almost immediately. It was concluded that this source of sampling bias could be eliminated by distributing a questionnaire that patrons could return by mail.

A second survey pretest was conducted during October 20 to November 22, 1983. The primary purpose of the second survey was to determine the response rates and quality of responses for various questionnaire instruments. At the same time, a survey technique that involved a combination of mail questionnaires and personal interviews was evaluated. Charter patrons were intercepted as they disembarked and asked a short series of questions pertaining to point of origin, fish catch, price per trip and importance of charter fishing. After completing short personal interviews (taking less than 5 minutes), patrons were given a more detailed questionnaire to complete and return by mail at a later date. A self-addressed stamped envelope was provided. Three mail questionnaire versions were experimented with: 1) an expenditure questionnaire directed at out-of-state visitors; 2) an expenditure questionnaire directed at Hawaii residents; and 3) a questionnaire aimed at measuring fishing values.

Response to the personal interview portion of the survey was very good, and no general refusals were observed. However, the return rates for the mail-in portion of the survey were less encouraging. Out of 29 questionnaires distributed to patrons, only 8 (27.5%) were returned. The response rate was highest for the visitor expenditure questionnaire (50%) and lowest for the resident expenditure questionnaire (0%).

A convenient feature of the two part survey method was that response rates for the mail-in portion could be analyzed for various types of individuals. The pilot survey revealed that a significantly higher response rate existed for those patrons who caught fish during the intercepted trip. Based on the low overall response rate, it was determined that patrons who did not catch fish were not sufficiently motivated to fill out a lengthy questionnaire. For this reason, 500 fishing hats and reef fish posters were purchased to distribute as free gifts to all patrons who responded to the survey. This tactic subsequently proved to be very successful.

2.2 Final Survey Fielding

Fielding efforts were exclusively concentrated on patrons disembarking from charter fishing boats at Kewalo Basin. A team of five trained interviewers from the University of Hawaii randomly intercepted English-speaking patrons. Interviewers were immediately abandoned upon learning that a selected patron was not conversant in English. A prearranged interview schedule was used that included every day of the week, including weekends. Nearly all the interviews(98%) were conducted between 1400 and

1600 hours. Attempts to intercept patrons of half-day charters were abandoned early in the fielding efforts due to the relative infrequency of half-day charters taken out of Kewalo Basin. With the exception of a single boat, all Kewalo Basin charter boat skippers and owners welcomed attempts to interview patrons from their boats.

The survey process incorporated the two part technique described above in the "Pilot Surveys" section. The first part was a 5-minute personal interview conducted at Kewalo Basin. The primary purpose of the dockside interview was to collect data on interviewees concerning their residency status, fish catch, the importance they placed on charter fishing and the price they paid for the charter trip. A secondary purpose was to inform interviewees about the objectives of the research and motivate them to cooperate in the mail-in part of the survey. The dockside interview form is reproduced in Appendix A. The second part consisted of a longer questionnaire, either the expenditure or valuation version, that was handed to interviewees upon completion of the dockside survey. Instructions were given to return the questionnaire by mail using a stamped, addressed envelope that interviewers provided. A free gift (hat or poster) was promised to interviewees if they returned the mail-in portion of the survey. All mail-in questionnaire versions are reproduced in Appendix A.

Survey fielding began on March 15, 1984 and continued until August 31, 1984. During this time period, 732 dockside interviews were successfully conducted. The distribution of interviews through time is given in Figure 2.1. Approximately 5% of all attempted interviews had to be curtailed prematurely either due to language barriers, or respondent refusal to cooperate. Patrons disembarking from 24 different charter boats were included in the study. No more that 12% of the total sample came from any single boat. Frequently, two or more patrons were intercepted as they disembarked from the same boat. Before being interviewed, however, it was first determined whether the patrons were in the same travel party (i.e., if they had shared charter fishing expenses). Cost sharing was generally limited to families or groups of business associates. At no time was more than one person from a travel party interviewed.

Response to the mail-in portions yielded 457 usable questionnaires (208 for the expenditure survey, 249 for the valuation survey). The overall response rate to the mail-in portion was 62.4% (457/732). Statistical contingency table tests were conducted to detect whether response to the mail-in portion of the survey was associated with fishing success on the intercepted fishing trip, residency status, or relative importance of charter fishing as a vacation or leisure activity. Statistical results reported in Table 2.1 support the belief that repondents and non-respondents to the mail-in portion of the survey share similar population characteristics. Assuming this is the case, non-response bias in the mail-in portion of the survey is not a significant concern.

Figure 2.1 1984 Sampling Time Frame By Month

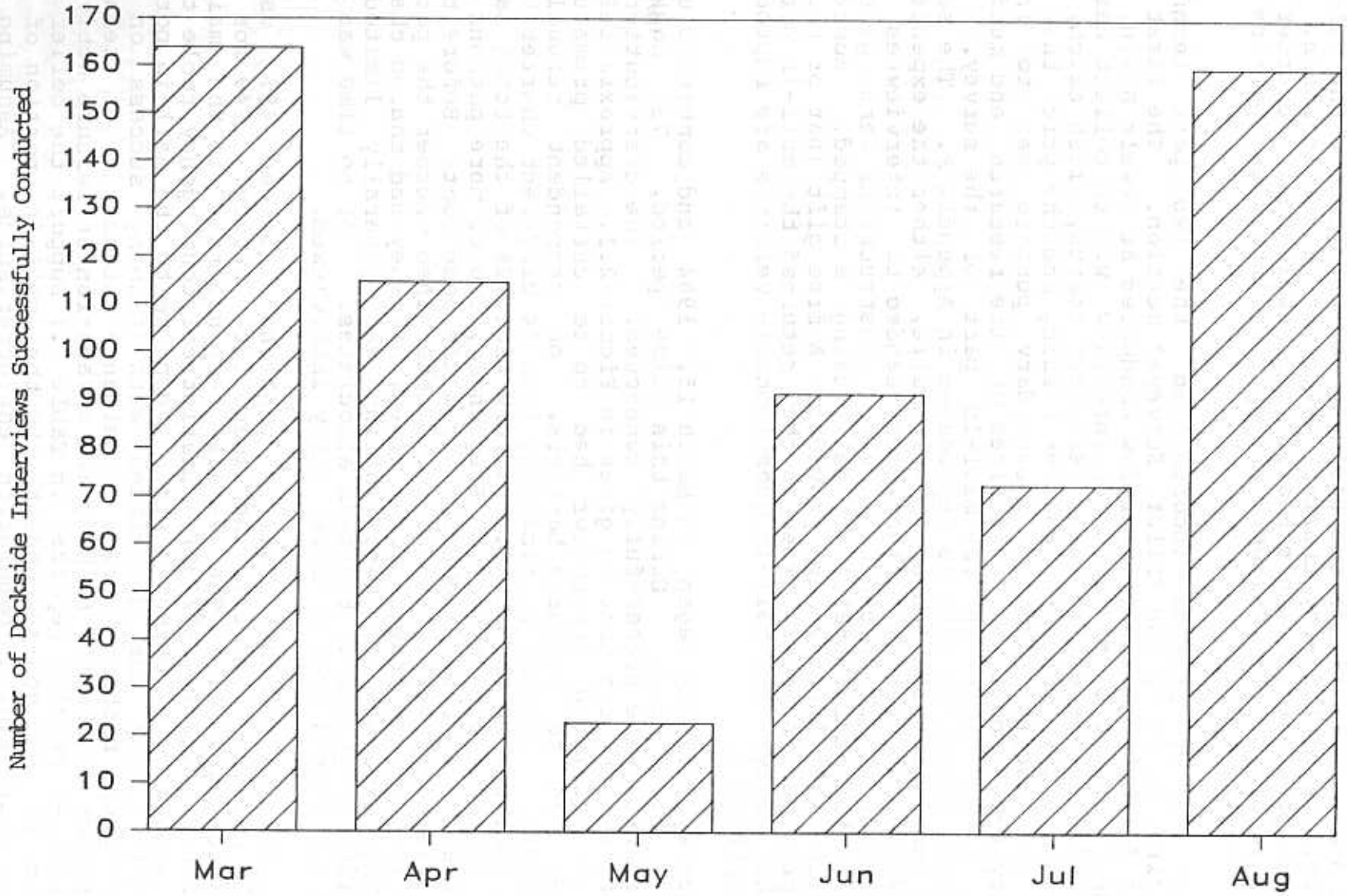

Table 2.1 Statistical Tests of Association Between Mail-In Survey Response and Patron Characteristics

Association Between Survey Response And:	Calculated Chi-Square Statistic (a)
Residency (b)	2.98
Importance of Charter Fishing as a Vacation or Leisure Activity (c)	0.23
Respondent Caught a Fish on Intercepted Trip (d)	0.05
Others on Boat Caught Fish on Intercepted Trip (e)	3.61

Notes:

(a) Respondents (N = 457); non-respondents (N = 275)

(b) Class levels: mainland U.S., Hawaii, foreign

(c) Class Levels: not important, moderately important, very important

(d) Class levels: yes, no

(e) Class levels: yes, no

3

PATRON CHARACTERISTICS

3.1 Demographics

The vast majority (83%) of charter patrons interviewed during the survey period were visitors (Table 3.1). This proportion is consistent with Samples et al. (1984) who reported that non-residents take 75% or more of charter fishing trips provided by Oahu-based boats. The large proportion of out-of-state patrons in Hawaii contrasts with charter patron populations in other states. In South Carolina, about half of the charter customers are from other states (Liao and Cupka, 1979); in Wisconsin about a third are out-of-state visitors (Ditton et al., 1975); and in Texas only 2 percent of the patrons are non-residents (Ditton et al., 1978). Nearly three quarters of the charter customers in Hawaii were from the U.S. mainland where about a half reside in coastal states. Patrons from foreign countries comprised roughly a fifth of the sample. This percentage, however, is probably not indicative of the proportionality of non-U.S. citizens in the total charter patron population because the sample was drawn only from English-speaking patrons. Japanese speaking patrons, for example, were routinely encountered departing from Kewalo Basin charter boats but were not interviewed. Records were not kept on the proportion of non-English speaking individuals encountered by dockside interviewers. Of those interviewed with foreign residencies, 91% were Canadian citizens. In fact, Canadians comprised a fifth of the total dockside sample. Given that the sample was randomly selected, this finding suggests that Canadians are represented in the charter population far in excess of their proportionality in the total Hawaii visitor population (reported to be 7% in 1982 (DPED, 1983a)).

Information on charter patrons' ages came from two sources. Interviewees (N=457) reported their own age on the mail-in portion of the survey. Information on the ages of family members who accompanied interviewees on intercepted charter trips was obtained during dockside interviews. Interviewees ranged in age from 14 to 76 years (Table 3.2). Average and median ages were 37 and 26, respectively. The median age class for interviewees and family members combined was 25 to 44 years. Predominance of this age group has also been observed for charter clientele in Wisconsin (Ditton et al., 1975) and Texas (Ditton et al., 1978).

A clear majority (86%) of interviewees were male. This was expected given the tendency for interviewees to be heads of households. Family members were found to be more nearly equally divided between the sexes with 59% male and 41% female. Overall, the proportion of males was 77%.

Charter patrons were found to have more education on average than the typical U.S. citizen. Just under three-quarters of the survey group had completed high school and 40% reportedly had

Table 3.1 Residency of Patrons

Residency		Percent (N=763)
Hawaii		17%
U.S. Mainland		61
Pacific Coast	11%	
Gulf Coast	7	
Atlantic Coast	10	
Other	33	
Foreign		22
Canada	20	
Other	2	
TOTAL		100%

Table 3.2 Ages of Patrons

Age (Years)	Respondents (N=457)	Other Members in Travel Party (N=306)	Respondents Plus Other Travel Party Members (N=763)
Less than 15	1%	14%	7%
15 - 24	13	24	17
25 - 44	57	40	50
45 - 64	23	19	21
65 or more	2	2	2
No Response	4	1	3
TOTAL	100%	100%	100%

earned college degrees. This finding is consistent with the observation that many patrons hold professional or managerial positions (Table 3.3). Doctors, technicians, sales representatives and businessmen were routinely intercepted.

Survey results suggest that the typical charter patron has a household income higher than the average U.S. citizen. Over half (52%) of the sample group reported annual family incomes in excess of $40,000. This is closely comparable with income levels for mainland visitors to Hawaii in general (DPED, 1983b). By comparison in 1982, only 16% of U.S. residents had household incomes greater than $35,000 (USBC, 1983). Only 11% of intercepted patrons reported annual family incomes less than $20,000 (Table 3.4). Military personnel and dependents comprised the bulk of this lower income group. Relatively high incomes for Oahu charter patrons parallels survey findings by NMFS (1983a) indicating that 62% of charter patrons in Kailua-Kona, Hawaii had incomes exceeding $60,000 (expressed in 1983 dollars). These results also coincide with patron surveys in Texas (Ditton et al., 1978), Wisconsin (Ditton et al., 1975) and South Carolina (Liao and Cupka, 1979) which uniformly characterize charter customers as white-collar workers with high incomes.

3.2 Charter Fishing Activity

In the mail-in portion of the survey, charter patrons were queried about the number of charter fishing trips they had taken in Hawaii and outside of Hawaii during the last five years (including the intercepted trip). Observations for reported number of trips were lognormally distributed, with the bulk of the distribution at the lower end of the trip range. This was true for total trips, trips in Hawaii and trips taken outside of Hawaii (Table 3.5).

Total trips taken in and outside of Hawaii during the previous five years ranged from 1 to 51. The overall mean was 4.3 trips, or an average of 0.8 trips per year. Included in this figure was an average of 1.6 trips taken in Hawaii (range 1 to 25) and 2.7 trips taken outside of Hawaii (range 0 to 50 trips). Out of a sample of 248 patrons, 39% indicated that the intercepted trip was the only charter fishing excursion trip they had taken during the past five years. Half of the sample group took 5 trips or less in total. Only 10% of the group took 10 or more trips in total, or more than 2 trips on average per annum. Overall the frequency of trips taken by respondents was considerably lower than the number of trips taken by Texas Gulf charter boat anglers who averaged 3.2 trips per year (Ditton et al., 1978).

Statistical tests were conducted to test hypotheses that residents and visitors take the same number of charter fishing trips in total, in Hawaii and outside of Hawaii (results in Table 3.6). The mean number of total trips for residents and visitors was not significantly different at the 0.05 level. However, residents took significantly more trips in Hawaii compared to

Table 3.3 Occupations of Patrons

Occupation	Percent (N=457)
Self-employed Businessperson	26%
Professional	24
Skilled Worker	15
Salesperson	8
Military	7
Others	9
Retired	9
No Response	2
TOTAL	100%

Table 3.4 Reported Income Levels of Patrons

Family Income Before Taxes	Percent (N=457)
$ 4,000 - $ 7,999	1%
8,000 - 11,999	2
12,000 - 15,999	2
16,000 - 19,999	6
20,000 - 23,999	5
24,000 - 27,999	6
28,000 - 31,999	9
32,000 - 35,999	7
36,000 - 39,999	6
40,000 - 43,999	7
44,000 - 47,999	6
Over $48,000	36
No Response	6
TOTAL	99%(a)

Note:

(a) Deviation from 100% due to rounding error

Table 3.5 Frequency of Charter Fishing Trips Taken by Patrons Over Past Five Years

Number of Trips Taken	In Hawaii (N=249)	Outside of Hawaii (N=249)	Total (N=249)
0	0%	49%	0%
1	82	15	39
2	10	9	17
3	2	4	9
4	2	4	5
5	1	6	6
6	1	4	6
7	1	1	4
8	(a)	2	2
9	0	0	2
10	0	2	(a)
11-20	1	2	6
Over 20	(a)	2	4
TOTAL	100%	100%	100%

Note:

(a) Less than 1%

Table 3.6 Statistical Comparison Between Average Number of Charter Fishing Trips Taken Over Previous Five Years by Resident and Visitor Patrons

Location of Trips	Average Number Taken By(a): Residents (N=40)	Visitors (N=208)	Calculated t-statistic
Total Trips	4.62 (7.08)	4.16 (5.64)	1.07
In Hawaii	3.52 (5.01)	1.21 (0.75)	6.34 *
Outside of Hawaii	1.10 (4.93)	2.95 (5.54)	1.97 *

Notes:

(a) Standard errors in parentheses

(*) Significant at the 0.05 level

visitors. Visitors, on the other hand, took significantly more trips outside of Hawaii.

For residents, charter trips taken in Hawaii represented on average 74% of the total charter trips taken during the past 5 years. The number of Hawaii charter trips reportedly taken by residents ranged from 1 to 25. Most (85%) residents took 5 or less trips in Hawaii during the past 5 years. The number of trips taken outside of Hawaii by residents ranged from 0 to 30. Out of the subsample of 40 residents, 80% reported that they had taken no charter fishing trips outside of Hawaii during the past 5 years.

In contrast with residents, visitors took the majority (71%) of their charter trips outside of Hawaii. The number of charter trips taken by visitors outside of Hawaii ranged between 1 to 50. Most (80%) visitors took 5 trips or less outside of Hawaii. The number of charter trips taken in Hawaii by visitors during the last five years ranged between 1 and 7. For 87% of visitors, the intercepted trip was the only charter trip, only 1 trip had been taken in Hawaii.

Four statistical contingency table tests were conducted to determine if any association existed between total number of trips taken and respondent income, occupation, retirement status and importance attached to charter fishing as a vacation or leisure activity. In all cases, the hypothesis that no association existed could not be rejected at the 0.05 significance level.

3.3 Importance of Charter Fishing and Fishing Motives

During dockside interviews, all respondents were asked to rate the importance of charter fishing in Hawaii as a vacation or leisure activity. Respondents were provided fixed response choices of "not important", "moderately important", and "very important." Out of 727 patrons interviewed, 8% claimed that charter fishing was not important, nearly half (48%) indicated it was moderately important, and the remainder (43%) claimed it was very important. Residents and visitors rated the relative importance of charter fishing about equally.

Visitors were asked whether opportunities for charter fishing had influenced their decision to visit Hawaii. Virtually all of the visitor patrons (99%) reported that they still would have come to Hawaii if charter fishing was not available. In a related question, visitors were asked to assign a percentage of importance to charter fishing as a motivating factor for coming to Hawaii. Out of 173 respondents, 32% indicated that charter fishing had no influence on their decision to visit Hawaii (Table 3.7). Just over half of the group assigned a 10% or less percentage importance. Less than 10% of the responding group assigned a percentage importance of 50% or higher. The overall mean percentage importance was 20%. In comparison, fishing was

Table 3.7 Relative Importance of Charter Fishing to Patrons in Their Decision to Visit Hawaii

Percent Importance	Percent (N=173)
0%	32%
1-10	22
11-20	11
21-30	8
31-40	8
41-50	9
51-60	2
61-70	1
71-80	3
81-90	1
91-100	1
No Response	2
TOTAL	100%

$\overline{X}$ = 20%

stated as the major reason for their vacation trip by 73% of the patrons in Wisconsin (Ditton et al., 1975), 60% of the patrons in South Carolina (Liao and Cupka, 1979) and 70% of the patrons in North Carolina (Abbas, 1978).

Patrons' motives for taking a charter fishing trip were investigated by providing respondents with a list of 15 possible motivating factors. Respondents were asked to rank each in terms of importance on a three point scale: "very important", "moderately important", and "not at all important". The motives, reproduced verbatim in Table 3.8, were more or less randomly organized in the questionnaire. However, each motive could be classified into one of three general groups; those related to the act of catching fish, those that related to the relaxation aspects of fishing, and those related to socializing with friends, relatives or business associates.

Respondents assigned the most importance to the motive "to have fun" (Table 3.8). The second most important factor was "to experience a fishing challenge". The only factor rated very important by a majority of respondents was "to fight a fish". The least important motivating factors were status-related catch motives such as "to demonstrate fishing skills to others", and "to catch a fish to be mounted". In general, relaxation motives were relatively more important than catch motives, which in turn were more important than social motives. Seventy-six of the patrons surveyed probably or definitely agree that even if they don't catch any fish, they still enjoy the charter fishing experience. Parallel results reported by Ditton et al. (1978) suggest that the majority of Texas Gulf charter patrons are motivated more by the opportunity to relax than by the prospect of catching fish. Only twenty-nine percent of patrons in the Texas survey would not fish if the probability of landing a fish was very low. Similarly, Abbas (1978) noted that many of the charter fishing parties in North Carolina are family groups who enjoy the boat ride as much or more than the fishing.

Statistical analyses were conducted to test for associations between residency status and the importance of certain motives for taking a charter fishing trip. For half of the motives, statistically significant difference in importance ratings were detected between residents and visitors (Table 3.9). Residents generally assigned less importance to catch related motives compared to visitors. Perhaps this is because residents have more opportunities to catch fish in Hawaii. A notable exception to this pattern was the motive "to be able to eat fish", which was rated as being important by a majority of residents. According to Hudgins (1980), Hawaii residents eat more fish on average than do U.S. mainland residents. In addition, it is more convenient for residents to keep any fish caught. Residents also attached relatively higher importance to the social related motives compared to visitors. Residents are probably more likely to have family, friends and business associates close at hand to be able to share charter fishing experiences. In this regard,

Table 3.8 Patron Motivations for Taking a Charter Fishing Trip in Hawaii

Motivating Factor	Importance Rating (N=248) Very Important	Moderately Important	Not at all Important	Total
CATCH RELATED MOTIVES				
To fight a fish	53%	35%	12%	100%
To experience a fishing challenge	62	30	8	100
To be able to eat fish	8	23	69	100
To develop fishing skills	19	37	43	99 (a)
To demonstrate fishing skills to others	1	13	86	100
To catch a fish to be mounted	13	25	61	99 (a)
RELAXATION RELATED MOTIVES				
To have fun	74	22	4	100
To escape the daily routine and relieve tension	24	41	35	100
To seek adventure	44	41	14	99 (a)
To learn about nature	14	42	44	100
To be on the ocean	29	47	24	100
SOCIAL RELATED MOTIVES				
To be with other people with similar interests	15	40	45	100
To establish/maintain business contacts	2	6	92	100
To share a recreational experience with friends and family	48	35	16	99 (a)

Note:

(a) Deviation from 100% due to rounding error

Table 3.9 Statistical Tests of Relationship Between Residency Status and Pa
Motivations for Taking a Charter Fishing Trip in Hawaii

Motivating Factor	Importance Rating (a) Residents (N=40) VI	MI	NI	Visitors (N=207) VI	MI	NI	Ch Sta
CATCH RELATED MOTIVES							
To fight a fish	28%	55%	17%	59%	30%	11%	13.
To experience a fishing challenge	38	55	8	66	26	8	14.1
To be able to eat fish	20	20	60	5	24	71	10.18
To develop fishing skills	10	50	40	21	35	44	4.28
To demonstrate fishing skills to others	0	15	85	1	13	86	0.74
To catch a fish to be mounted	0	8	92	15	29	56	19.70 *
RELAXATION RELATED MOTIVES							
To have fun	83	15	2	73	23	3	1.48
To escape the daily routine and relieve tension	35	48	17	22	40	38	7.02 *
To seek adventure	35	50	15	46	40	14	1.71
To learn about nature	20	40	40	13	43	44	1.35
To be on the ocean	33	43	25	29	47	24	0.33
SOCIAL RELATED MOTIVES							
To be with other people with similar interests	28	52	20	13	38	49	12.84 *
To establish/maintain business contacts	0	13	87	2	4	94	4.84
To share a recreational experience with friends and family	63	33	4	46	35	19	5.85 *

Notes:

(a) VI=Very Important; MI=Moderately Important; NI=Not at all Important

(*) Significant at the 0.05 level

survey data showed that respondents were more often accompanied by family members compared to visitors.

3.4 Patron Decision Information

3.4.1 Charter Fishing Information

Patrons were asked to indicate what source(s) of information prompted them to go charter fishing in Hawaii (Table 3.10). Contingency table analyses were performed to examine the relationship between the sources of information which induced patrons to take a charter trip and patrons' residency status (Table 3.11). The source of information most frequently cited by visitors to Hawaii was a personal visit to the boat harbor. These results were unexpected in view of the fact that the expenditure survey indicated that 73% of out-of-state patrons planned to go charter fishing before their arrival in Hawaii. Local residents were most often encouraged to take a charter trip by a previous fishing experience in Hawaii. The suggestion of friends provided a major impetus to go charter fishing to both residents and visitors. The influence of advertisements in magazines or newspapers was relatively small, particularly for residents. These results are in general agreement with data collected from charter patrons in South Carolina by Liao and Cupka (1979). Fifty percent of the patrons were motivated to go charter fishing in South Carolina by past fishing trips; 23% by friends and relatives; and only 3% by advertisements.

Survey participants were also asked to rate the importance of various sources of information in their selection of a particular charter boat (Table 3.12). The results of contingency table analyses designed to test the association between sources of information used and patrons' residency status are presented in Table 3.13. The most popular method of obtaining information about individual boats is through a personal visit to the boat docking area at Kewalo Basin. Sixty-four percent of the respondents rated this method as moderately or very important. This source is of particular importance to visitors even though Kewalo Basin is located about two miles from the hotel district of Waikiki. A visit to the boat harbor prior to booking a charter trip allows customers to inspect boats and converse with boat crews. When the boats return to the harbor after a day's fishing, customers can observe the catch of each vessel as it is offloaded and displayed on the dock. The day's catch can also be determined by noting the "fish flags" flown by each vessel.

The second most popular source of information is by word-of-mouth whereby customers collect information by asking friends and relatives for recommendations of suitable boats. Fifty-one percent of the patrons rated this source as moderately or very important. Recommendations were rated moderately or very important more often by residents (89%) than by visitors (55%). In Wisconsin, Ditton et al. (1975) found word-of-mouth to be the most commonly used method of choosing a particular captain, with

Table 3.10 Sources of Information Prompting Patrons to Go Charter Fishing

Source	Percent (N=249)
Magazine or Newspaper Ads	22%
Hotel Tour Desk	11
Television Program or Movie	14
Tour Package Plan	2
Personal Visit to Boat Docking Area	32
Suggestion of Friends	38
Previous Experience Fishing in Hawaii	17
Other	22
No Response	3