

Understanding the Market for Charter and Headboat Fishing Services

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Introduction

This paper summarizes research findings published during 1974-86 regarding charter and headboat¹ anglers to assist operators in locating potential markets for their services. The goal of the literature review was to reach some generalizations regarding charter and headboat fishing anglers' sociodemographics, motivations, and attitudes. Information beyond the customer's name and address is vital if operators want to plan a successful marketing strategy for their services, provide a better experience for current

customers, and expand their clientele (Dittrich, 1974; DeYoung, 1986).

Much of the literature on the charter/headboat fishing industry has focused on the economic aspects of maintaining a charter business, catch records and statistics, or operator characteristics and demographics. Most studies used personal interviews with operators to investigate financial and business aspects and obtain catch/effort data to describe a state or regional charter/headboat industry. These studies provide pertinent information for operators considering initial or alternative business investment decisions. They also have been used to estimate the number of clients served, the economic impact on coastal communities, and the impact of recreational fishing on fish stocks. In many of the studies, the operators' perceptions of customers' motivations and expectations is provided. However, more specific information regarding angler expenditures and sociodemographics has been collected through direct mail questionnaires and through

on-site interviews of customers. Studies of anglers have usually been preceded by studies of operators which have provided access to customer lists. This paper compares and contrasts the results of charter and headboat angler studies.

Table 1 provides an overview of studies of charter and headboat anglers conducted in the last 15 years. This is an exhaustive listing of published papers and published theses and administrative reports regarding charter and headboat anglers completed between 1974 and 1986. Publications since 1986 were not considered. It is difficult to compare study results since surveys varied in sampling procedures, question format, and response categories. These inconsistencies often frustrated efforts to generalize across studies. Also, there are inconsistencies in the definition of a charter boat and headboat throughout the studies. For purposes of this review, results are presented according to the terminology used in each respective study.

Four categories of information on charter/headboat anglers are discussed in the literature review. Not all studies covered the variables of concern in this paper; therefore, tables only include the applicable studies which covered:

1) Social and demographic characteristics, including gender, age, income, level of fishing skill, group composition, and residence location;

¹Commercial passenger fishing vessels include both charter and headboats. Charter boats commonly carry six or less passengers in addition to crew whereas headboats usually carry more than six passengers. Also, there is an important distinction in the business transaction involved; for charter boats a single group of anglers purchase the services of boat and crew for the day, whereas with headboats, groups and individuals pay a per-person fee to go fishing. Base fees for charterboats tend to be much higher than the per-person fees for headboats. In response to regional preferences, the term "party-boat" is used as a synonym for headboat.

ABSTRACT—Published and unpublished research findings regarding charter and headboat fishing customers from 11 studies were reviewed to provide a marketing data base for operators and to guide further research efforts. Generally, charter/headboat fishing is a male-oriented activity. Customers were between 30 and 55 years of age. Although both groups of anglers considered themselves to be experienced, charterboat anglers had fished for more years. Charter anglers fished more often with their families and headboat anglers more often with their friends. Charterboat anglers reported higher incomes than headboat anglers. Relaxation, having fun, and escaping from daily pressures were gen-

erally more important to both groups of anglers than motives relative to catching fish. Most anglers indicated that the skills and performance of the captain and crew contributed heavily to the overall evaluation of their fishing experience. Anglers were more heavily influenced to choose a particular captain or boat by informal advertising methods (i.e., word-of-mouth recommendations, reputation, and visits to the marina) than formal methods (i.e., advertisements, brochures, radio, and television). Charter anglers relied more on word-of-mouth recommendations and headboat customers were more influenced by previous experiences. Implications for further research are discussed.

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Table 1.—Studies of charter and headboat customers by state, year, author(s), data gathering technique, number of observations, and response rate.

State/year author(s) ¹	Technique	No.	Response rate (%)
Wisconsin, 1974 Dittrich ²	Mail questionnaire	267	55
Texas, 1978 Ditton et al.	Mail questionnaire	191	46
New York, 1976 Carls	Questionnaire distributed dockside; mail return	413	50
Florida, 1977 Gentle	Questionnaire distributed dockside; mail return	139	— ³
Mississippi, 1977 Etzold et al.	Mail questionnaire	247	40
Florida, 1978 Browder et al.	Mail questionnaire to operators	560	31
California, 1980 Zangri et al.	On-board passenger questionnaire	4,238	46
Delaware, 1983 Falk et al.	Telephone interview	3,445	81
Hawaii, 1985 Samples and Schug	Mail questionnaire	583	76
Alaska, 1986 Coughenower	Mail questionnaires to anglers; interviewed dockside	457	62
Michigan, 1986 Mahoney et al.	Mail questionnaire	551	55
	Questionnaires distributed dockside; mail return	448	54

¹All studies focused on charter customers with the exceptions of Carls (1976), Browder et al., (1978) and Falk et al. (1983) which focused on both charter and headboat anglers. Study results by Carls (1976) are aggregated with no differentiation by group possible.

²Related papers include Ditton et al. (1975) and Ditton and Strang (1974).

³Information not available.

2) Motivations to participate in a charter or headboat fishing trip;

3) Anglers' satisfaction regarding key elements of their fishing experience; and

4) Formal and informal sources of promotional and marketing information influencing the angler's decision to participate.

Customer Sociodemographics

Social and demographic information provides a basic profile of charter and headboat anglers. This information is essential for understanding clientele, the potential market available to operators, and marketing strategies to maintain present clientele and locate and capture new customers. In addition, information on anglers' origins, lifestyles, and preferences can indicate the service expected by anglers and ensure that their needs are met. Considering clients' needs and expectations is an effective strategy for shaping clients' perceptions and building

Table 2.—Summary of the age of charter and headboat anglers by selected study.

Angler type, state, year, author(s)	Mean age	Selected age range	Frequency (% in age range)
Charter anglers			
Wisconsin, 1974 Dittrich	42	34-54	54.0
Mississippi, 1977 Etzold et al.	40	— ¹	— ¹
Texas, 1978 Ditton et al.	45	35-54	51.0
Florida, 1978 Browder et al.	42	— ¹	— ¹
Delaware, 1983 Falk et al.	42 ²	30-49	56.9
Hawaii, 1985 Samples and Schug	37	25-44	57.0
Headboat anglers			
New York, 1976 Carls	35 ²	20-39 ²	56.5 ²
Florida, 1978 Browder et al.	41	— ¹	— ¹
Delaware, 1983 Falk et al.	42 ²	30-49	43.9

¹Information not available in report.

²Includes charter and headboat anglers.

loyalty to the operator (De Young, 1986). This section focuses on the social and demographic characteristics of charter and headboat anglers (gender, age, income, skill, and group composition). Where possible, findings are presented for charter and headboat groups to facilitate comparisons; otherwise information is inclusive of both groups.

Gender

Studies that include gender as a study variable indicated overwhelmingly that the vast majority of charter/headboat anglers were male. Studies conducted in New York (Carls, 1976), California (Zangri et al., 1980), and Hawaii (Samples and Schug, 1985) found at least 85 percent of the respondents were male. These results were not specific to charter/headboat anglers. National survey results for 1985 indicated that 68 percent of all anglers 16 and older were male (USDI, 1988). Although fishing participation has been dominated by males, Snepenger and Ditton (1985) found a statistically significant trend toward greater female participation in sport fishing during the period 1955-1980.

Age

The literature indicated that the majority of customers ranged between 30 and

55 years of age. Charter anglers had a mean age between 40 and 45 years. Headboat anglers tended to be either younger or older than the selected age range of charter anglers (30-49).

Charter Boats

A consistent finding among studies from Wisconsin (Dittrich, 1974), Mississippi (Etzold et al., 1977), Texas (Ditton et al., 1978), and Florida (Browder et al., 1978) was a mean of 40-45 years of age for charter anglers (Table 2). Dittrich's survey of charter anglers originating from Wisconsin ports on Lake Michigan and the Ditton et al. (1978) study of Texas Gulf Coast charter anglers revealed just over 50 percent of the respondents were between 35 and 54 years of age. The survey of Hawaiian charter anglers (Samples and Schug, 1985) indicated 57 percent of respondents were between 25 and 44 years of age and 25 percent were 45 and over. Only 14 percent were under age 25. In Delaware, 57 percent of charter respondents were between 30 and 49 years of age (Falk et al., 1983).

Headboats

The mean age of Long Island charter/headboat anglers was 35 years (Carls, 1976). Thirty-four percent were between 20 and 29 years of age and 23 percent were between 30 and 39. A survey of Florida's headboat anglers revealed a mean age of 41 years (Browder et al., 1978). Forty-four percent of headboat anglers in Delaware were between 30 and 49 (Falk et al., 1983). Typically, most charter anglers in Delaware ranged between 30 and 49 years, whereas most headboat anglers were usually younger than 30 or older than 49.

Income

Charter anglers tended to have higher annual incomes than headboat anglers. The difference in income levels could be related to the fact that headboat fees are generally less than charter fees and therefore more affordable for lower income anglers.

It was difficult to make generalizations regarding annual income when dollars were not standardized. Reports of annual income were standardized to 1985 dollars

Table 3.—Distribution of anglers by household income category (unstandardized dollars) for selected studies.

Angler type, state, year, author(s)	Income level ¹				
	Under \$20,000 (%)	\$20,000- 29,999 (%)	\$30,000- 39,999 (%)	\$40,000- 49,999 (%)	\$50,000 or over (%)
Charter anglers					
Wisconsin, 1974 Dittrich	60.3	33.7 (\$20,000 or more)			
Texas, 1977 Ditton et al.	22.0	26.0	18.0	13.0	21.0
Mississippi, 1977 Etzold et al.	44.0	56.0 (\$20,000 or more)			
Delaware, 1983 Falk et al.	23.3	34.0	17.5	14.6	10.7
Hawaii, 1985 Samples and Schug	11.0	11.0 (\$20,000- \$27,999)	22.0	13.0 (\$40,000- \$47,999)	36.0 (\$48,000 or more)
Michigan, 1986 Mahoney et al.	7.0	14.7	19.8	14.2	44.3
Headboat anglers					
New York, 1976 ² Carls	81.3	14.1	0.0	1.8	2.7
California, 1980 Zangri et al.	25.8 (under \$18,000)	23.3 (\$18,000- \$27,999)	10.0 (\$28,000- \$34,999)	7.5 (\$35,000- \$49,999)	5.4
Delaware, 1983 Falk et al.	37.7	31.3	17.8	8.2	5.0

¹Note: Where percents do not add across to 100 percent, income is unknown for remaining percent.

²Percentage includes charter and headboat anglers.

using the annual average purchasing power of the dollar (USDOC, 1987:454). In the text, standardized income is presented in parentheses.

Charter Boats

Approximately 34 percent of Wisconsin's Lake Michigan charter anglers reported annual incomes of \$20,000 (\$43,500) or more (Dittrich, 1974) (Table 3). In contrast, a 1985 study of Michigan's Lake Michigan charter anglers found 58 percent with annual incomes of \$40,000 or more and 7 percent with incomes less than \$20,000 (Mahoney et al., 1986). A study of Texas charter customers (Ditton et al., 1978) found a mean annual income of \$30,000 (\$58,700). Seventy-eight percent of the Texas respondents reported incomes above \$20,000 (\$35,600) with 21 percent having incomes in excess of \$50,000 (\$88,900). A survey of Mississippi charter boat anglers revealed that 56 percent had annual incomes of \$20,000

(\$35,600) or more (Etzold et al., 1977). In Delaware (Falk et al., 1983), 43 percent of the charter respondents had an annual income of \$30,000 or more (\$32,600) and 23 percent had less than \$20,000 (\$21,600). Almost half (49 percent) of the charter anglers in Hawaii reported annual incomes in excess of \$40,000 and 11 percent made less than \$20,000 (Samples and Schug, 1985).

Headboats

Surveys of headboat anglers in California (Zangri et al., 1980) and Delaware (Falk et al., 1983) revealed that the income for headboat anglers was slightly less than that of charter anglers. The median income of California headboat anglers was between \$18,000 (\$23,500) and \$23,000 (\$30,000). Twenty-six percent of California respondents earned less than \$18,000 (\$23,500) and 5 percent made over \$50,000 (\$65,200) annually. In Delaware, 38 percent earned less than \$20,000 (\$21,600) and 31 percent earned

\$30,000 or more (\$32,400).

The annual income for 81 percent of charter/headboat anglers in New York (Carls, 1976) was less than \$20,000 (\$37,900). Only 4 percent of respondents had an annual income of \$40,000 (\$75,800) or more.

Skill

Four studies included anglers' self-perceived level of skill or number of years of fishing experience. These studies indicated that charter/headboat anglers were experienced, with most charter anglers having fished for more years than headboat anglers.

Charter Boats

In Michigan (Mahoney et al., 1986), 56 percent of respondents considered themselves experienced or expert anglers, compared with 13 percent who rated themselves as beginners. Slightly over half (51 percent) had fished for over 26 years and 14 percent had fished less than 5 years.

Headboats

Zangri et al. (1980) found that most California headboat anglers had fished between 6 and 10 years with 17 percent having less than 2 years of experience. However, these figures did not distinguish between anglers who fished once a year on a headboat and those who may have fished more frequently.

Charter and headboat anglers in Delaware had fished in saltwater for an average of 24 years (Falk et al., 1983). In New York, Carls (1976) reported that over half (58 percent) of the charter/headboat anglers had been fishing in saltwater less than 5-6 years. An additional 24 percent of the respondents indicated they had been fishing in saltwater 6-10 years.

Group Composition

Fishing groups on charter/headboat trips usually consist of family, friends, or a combination of the two. A small percentage of charter respondents went fishing alone or with business associates.

Charter Boats

Over 30 percent of these anglers in Alaska (Coughenower, 1986) and Flo-

rida (Browder et al., 1978), 27 percent in Texas (Ditton et al., 1978) and almost 60 percent in Michigan (Mahoney et al., 1986) fished with family members and about one-fourth from these same areas fished with friends. In Wisconsin (Dittrich, 1974) and on the Texas Gulf coast (Ditton et al., 1978), more trips were taken with friends or a combination of family and friends than with family only. Browder et al. (1978) reported that 32 percent of Florida charter anglers fished with business associates, the second most common group composition in Florida.

Headboats

In Delaware (Falk et al., 1983), 38 percent of the charter/headboat anglers reported they fished with friends, while only 25 percent reported they fished with family members. Six percent said they fished with business associates. Fifty percent of Long Island, N. Y. charter/headboat anglers "always" or "usually" fished with friends and 28 percent with family. Twenty-six percent reported they "always" or "usually" fished alone (Carls, 1976). In Florida, however, headboat anglers were more likely to fish with family members (41 percent) than with business associates (22 percent), or friends (19 percent) (Browder et al., 1978).

Residence Location

Most of charter and headboat anglers resided within their respective states. Those states reporting a greater percentage of out-of-state anglers than resident anglers were Hawaii, Florida, and Delaware.

Motivations for Customer Participation

For operators to better understand a client's expectations of their fishing trip experience, they need to know their motivations for traveling to the coast and for taking a charter or headboat trip. Operators may better identify target markets if they can determine why their customers are in the area—i.e., for a vacation, for business or to fish—and why they seek a charter or headboat fishing experience. The qualities sought in a fishing experience can be measured in terms of a

variety of motivations, also defined as anglers' expectations or reasons for participation (Ditton et al. 1978). Knowledge of the charter and headboat angler's motivations provides operators with an additional source of information for determining whether the type of service being provided is satisfactory (Ditton et al., 1978). This section looks at the reasons anglers were traveling on the coast and their motivations for taking a charter or headboat trip.

Reasons for Traveling to the Coast

In the four reports that investigated the customer's primary reason for visiting the coast (Ditton et al., 1975; Etzold et al., 1977; Mahoney et al., 1986; and Coughenower, 1986), over 60 percent went to the coast to fish and relax. In Florida (Gentle, 1977), 44 percent of the customers were on vacation, 34 percent said they were on business and 7 percent said they went to fish and relax. In Delaware (Falk et al., 1983), 67 percent of the anglers reported charter/headboat fishing was the main reason for the visit to the area while the remainder said they would have come to the area even if no boats were available. However, in Hawaii (Samples and Schug, 1985), nearly all respondents (99 percent) said they would have come to Hawaii even if charter fishing was not available. Almost one-third (32 percent) indicated that charter fishing had no influence on their decision to visit Hawaii. Other reasons for traveling to coastal areas included family vacations, to visit friends and relatives, and honeymooning.

Reasons for Taking a Charter or Headboat Trip

The traditional thinking that every angler takes a charter trip just to catch fish has not been supported by previous research (Ditton et al., 1978). Nevertheless, the expectation of catching fish was an important element of the fishing experience for anglers. The importance of the catch motive needs to be understood relative to other noncatch motives such as the desire for excitement, adventure, relaxation, companionship, escape from tension, and appreciation of the outdoors

if operators are to meet angler needs.

In several charter surveys, anglers were asked to do one or more of the following: 1) Rank motivations in order of importance, 2) rate the importance of individual motivational items, and/or 3) choose which motivations were important to their decision to participate. To relax or have fun was ranked or rated as one of the most important motives in Wisconsin (Dittrich, 1974), Mississippi (Etzold et al., 1977), Texas (Ditton et al., 1978), Delaware (Falk et al., 1983), Hawaii (Samples and Schug, 1985), and Michigan (Mahoney et al., 1986). The challenge and excitement of the catch and getting away from the normal daily routine were also considered by anglers to be important motives for charter fishing. Less important motives included learning more fishing skills, catching fish to eat, or catching lots of fish.

Although previous studies were not consistent with regard to which recreational motives were included, the idea of relaxing, having fun, and escaping from tension and pressures generally were found to be more important than catching fish. In Delaware (Falk et al., 1983), Michigan (Mahoney et al., 1986), and Hawaii (Samples and Schug, 1985), however, the excitement of experiencing a challenge while fishing was very important to half or more of the respondents. All of the studies reviewed reported that being with friends and/or family was very important, except for customers in Wisconsin (Dittrich, 1974) where fishing with business associates was more important.

Customer Satisfaction

The success of a charter/headboat enterprise depends greatly upon the customers' satisfaction with their fishing experiences and willingness to recommend the boat and/or captain to others. Insight into the factors influencing customers' perceptions of satisfaction and dissatisfaction is key in providing a better experience for the passenger and generating a return customer. Graefe and Fedler (1986) contended that overall satisfaction with a fishing experience is directly related to subjective evaluations of the experience such as perceived attitudes of the

Table 4.—Sources of informal advertising that influenced anglers' choice of captain or boat¹.

Angler type, state, year, author(s)	Informal advertising sources			
	Word of mouth (%)	Previous experience (%)	Marina visit (%)	Hotel referrals (%)
Charter anglers				
Wisconsin, 1974 Dittrich	51.0	— ²	— ²	— ²
Mississippi, 1977 ³ Etzold et al.	56.0	— ²	— ²	— ²
Florida, 1978 Browder et al.	20.4	34.0	28.7	10.5
Delaware, 1983 ³ Falk et al.	35.0	67.0	7.3	— ²
Hawaii, 1985 ⁴ Samples and Schug	38.0	17.0	32.0	11.0
Michigan, 1986 ³ Mahoney et al.	45.9	— ²	11.2	— ²
Alaska, 1986 ³ Coughenower	38.0	14.0	— ²	— ²
Headboat anglers				
New York, 1976 ³ Carls	66.6	— ²	— ²	— ²
Florida, 1978 Browder et al.	15.0	30.4	20.0	12.0
Delaware, 1983 ³ Falk et al.	35.0	49.9	3.6	— ²

¹Note: This table should be used in conjunction with Table 5. Percentages may not add to 100 percent across the two tables because of miscellaneous sources or varying question and response formats.

²Information not available in report.

³Respondents could select more than one source.

⁴Percentage of respondents choosing source as "very important."

crew, the desire to catch more fish (targeted species) or a different type of fish, and the perceived fun and relaxation. Situational variables, those characteristics directly observed by the participant, influence overall satisfaction indirectly through their effects on subjective evaluations.

Studies of charter and headboat anglers revealed eleven variables (subjective and situational) thought to contribute to customer satisfaction. They were: 1) Safety, 2) expected catch, 3) captain's skills, 4) job performance, 5) presence of family and friends, 6) safe navigation, 7) boat condition, 8) price, 9) weather, 10) services provided, and 11) location or scenery. Two subjective variables were most frequently evaluated as important to angler satisfaction: Skills and performance of the captain and crew and the safety precautions provided for anglers.

Ninety percent of the anglers interviewed in Hawaii considered safety and the captain's skills very important to the positive evaluation of their experience (Samples and Schug, 1985). More than

one-fifth of charter and headboat anglers surveyed in Delaware indicated the captain and crew were key factors in their enjoyment of the charter experience (Falk et al., 1983). Over half (56 percent) of New York anglers (Carls, 1976) also considered a courteous and helpful crew to be very important to the overall enjoyment of the fishing trip. In their study of Lake Michigan charter operators, Ditton and Strang (1974) indicated that 21 percent of the anglers rated safety factors as very important.

The presence of family and/or friends was more important to an angler's enjoyment of the trip than meeting with business associates. A successful fish catch was mentioned as a high point by anglers in Alaska (Coughenower, 1986), Delaware (Falk et al., 1983), and New York (Carls, 1976). Charter cost was considered by anglers in their overall evaluation of trip satisfaction. In evaluating their charter/headboat fishing experience, the studies reviewed indicate that anglers put more weight on their perceptions and evaluations of subjective indicators than

on situational factors. This is consistent with previous study findings reported by Graefe and Fedler (1986).

Influential Information Sources

In addition to basic information on angler characteristics and expectations, the operator needs an understanding of the factors influencing the angler's decision to go charter fishing. For example, an understanding of the extent to which marketing and advertising promotions influence anglers can help operators to initiate or modify their marketing strategies to meet business goals (Dittrich, 1974).

Sources Influencing Anglers' Choice of Boat or Captain

Word-of-mouth recommendation was the most frequently used source of information and most effective method of attracting new customers to a particular boat or captain. A successful previous experience with a captain or visiting the dock also influenced boat choice. These findings indicated that a vast majority of charter and headboat anglers surveyed nationwide chose to fish with a particular charter or headboat business for reasons other than exposure to formal advertising.

Charter Boats

About half of the charter anglers in Wisconsin (Dittrich, 1974), Mississippi (Etzold et al., 1977), and Michigan (Mahoney et al., 1986) responded that their choice of boat was most influenced by word-of-mouth recommendations (Table 4). In Hawaii (Samples and Schug, 1985) and Alaska (Coughenower, 1986), 38 percent of the anglers relied on verbal recommendations. A plurality of anglers in Florida (Browder et al., 1978) and Delaware (Falk et al., 1983) indicated that a successful previous fishing experience with the captain was most important in influencing their decision. However, 50 percent of the charter anglers in Hawaii said previous experience with the captain was not important, which suggested most were tourists with few return customers. Fifty-seven percent of Delaware charter anglers also indicated that the boat's reputation was important to their decision. Visits to the

Table 5.—Sources of formal advertising that influenced customers' choice of captain or boat¹.

Angler type, state, year, author(s)	Formal advertising sources					
	Magazine/newspaper (%)	TV/radio (%)	Brochures (%)	Yellow pages (%)	Sport shows (%)	Miscell. ² (%)
Charter anglers						
Wisconsin, 1974						
Dittrich	4.5	9.7	10.9	7.1	1.8	10.9
Mississippi, 1977 ³						
Etzold et al.	— ⁴	— ⁴	7.0	5.0	— ⁴	8.0
Florida, 1978						
Browder et al.	— ⁴	— ⁴	— ⁴	— ⁴	— ⁴	4.3
Delaware, 1983 ³						
Falk et al.	2.8	— ⁴	— ⁴	— ⁴	1.0	— ⁴
Hawaii, 1985 ⁵						
Samples and Schug	22.0	14.0	— ⁴	— ⁴	— ⁴	24.0
Michigan, 1986 ³						
Mahoney et al.	8.8	1.7	19.3	— ⁴	5.3	14.3
Alaska, 1986 ³						
Coughenower	2.0	— ⁴	— ⁴	— ⁴	1.0	— ⁴
Headboat anglers						
New York, 1976 ³						
Carls	18.3	— ⁴	10.5	— ⁴	— ⁴	— ⁴
Florida, 1978						
Browder et al.	— ⁴	— ⁴	— ⁴	— ⁴	— ⁴	20.0
Delaware, 1983 ³						
Falk et al.	5.2	— ⁴	— ⁴	— ⁴	— ⁴	— ⁴

¹Note: This table should be used in conjunction with Table 4. Percentages may not add to 100 percent across the two tables because of miscellaneous sources or varying question and response formats.

²Miscellaneous advertising includes signs, chambers of commerce, reservation services, local stores, and other businesses.

³Respondents could select more than one source.

⁴Information not available in report.

⁵Percentage of respondents choosing source as "very important."

marina and hotel referrals were an important influence to anglers' decisions in Florida and Hawaii, states with the largest out-of-state fishing clientele.

Formal advertising methods were not as important in prompting a customer's boat selection as the informal promotional methods listed in Table 5. Miscellaneous advertising sources, including chambers of commerce, reservation services, signs, local stores, and other businesses prompted 11 percent of Wisconsin anglers (Dittrich, 1974), 8 percent of Mississippi anglers (Etzold et al., 1977), 4 percent of Florida anglers (Browder et al., 1978), 24 percent of Hawaii anglers (Samples and Schug, 1985), and 14 percent of anglers in Michigan (Mahoney et al., 1986) to select a particular charter boat. Brochures were relied upon by 19 percent of Michigan charter anglers (Mahoney et al., 1986) and by less than 7 percent of the anglers in Florida (Browder et al., 1978) and Mississippi (Etzold et al., 1977). Magazine or newspaper articles influenced less than 9 percent of anglers in Wisconsin

(Dittrich, 1974), Michigan (Mahoney et al., 1986), Delaware (Falk et al., 1983), and Alaska (Coughenower, 1986) and 22 percent in Hawaii (Samples and Schug, 1985).

Headboats

Responses of headboat anglers in Florida (Browder et al., 1978) and Delaware (Falk et al., 1983) were consistent with those of charter boat anglers from their respective states in that they relied more heavily on a previous experience. Respondents in these two states considered a previous experience to be the most influential factor when selecting a particular boat or captain. In New York (Carls, 1976), most charter/headboat anglers were influenced by word-of-mouth and by newspapers or other media advertisements.

Although few anglers indicated they were influenced by formal marketing tools, this does not necessarily discount their importance. Formal advertising may have instilled a desire in people to go fishing which was not immediately rec-

ognized by the customer. It appeared, however, to have had little impact on the decision as to which captain or boat was selected.

Discussion

The purpose of the literature review was to synthesize published research findings regarding charter and headboat anglers in order to make generalizations regarding their social and demographic characteristics, motivations, and attitudes. This information can be used by operators as an initial data base for customer-related information. Understanding customers' background can provide essential information to establishing the service expected. Although a generalized profile of charter and headboat anglers is provided in the review, it must be understood that there is no "average" charter or headboat angler. Operators need to understand the needs and expectations of each customer or segment of customers they serve. With greater understanding of clientele and how they make decisions, operators can make more effective use of materials on services marketing techniques developed previously for the industry by PNR and Associates (1985). DeYoung (1986), and Falk and Savini (1987).

Charter and headboat operators need to recognize that they are marketing a unique service. It is important that they provide a quality experience to their customers since the vast majority of anglers report they are influenced by word-of-mouth recommendations. Considering each individual angler's needs and ensuring that those needs are met is a strategy for encouraging positive customer satisfaction and loyalty (DeYoung, 1986).

Implications for Future Research

Research on charter and headboat anglers developed over the previous 15 years has implications for future work. The literature provides wide coverage of charter and headboat anglers (i.e., the Atlantic, Pacific, and Gulf coasts plus the Great Lakes, Hawaii, and Alaska). Further, there is sufficient agreement among studies to produce generalizations that

can be verified elsewhere. Thus, it can be argued that there is little need for additional in-depth descriptive studies of charter and headboat anglers. The next generation of studies will need to solve methodological problems and focus on questions of concern to resource managers and boat operators.

Methodologically, there are problems with response rates, incomplete sampling frames, extension of findings, and data collection techniques in previous studies of charter and headboat anglers. First, response rates with this group of anglers have generally lagged behind those of other angler surveys. Although there may be several reasons for this, mail survey instrumentation and procedures may be ill conceived. None of the studies reviewed included any citations for the survey methodology used such as Dillman (1978) and Sheskin (1985). Dillman (1978:21) reported a 74 percent response rate across 48 mail surveys. Of the studies reviewed, only one (Falk et al., 1983) that used a mail survey achieved a response rate of >70 percent. This was probably due to the development of a mailing list of customers over the fishing season and three staggered mailings to ensure a short recall period.

Second, there is often no reliable sampling frame or listing of charter and headboat anglers. We have found that operators generally keep poor clientele records, often mixing customers from various years with individuals making inquiries. When these records are used for sampling purposes, the researcher may be contacting individuals who went fishing many years ago (or not at all) and are unable to respond to questions. Worse yet, these respondents may bias results with recalled information. Often, operators will not make customer lists available for research purposes. Consequently, further consideration needs to be given to nonprobability techniques like purposive and quota sampling (Babbie, 1989).

Third, a telephone follow-up check on nonrespondents would be useful for investigating differences between respondents and nonrespondents on selected items, i.e., overall fishing frequency in previous 12 months, charter or headboat

fishing frequency in the previous 12 months, species preference, expenditures, etc. This check may indicate that respondents are significantly different from nonrespondents, making extension of findings to the entire sample erroneous (Brown et al., 1981; Becker et al., 1987). Also, this would identify the extent to which individuals should not have been included in the sampling frame. Only two of the studies reviewed in this paper included a check on nonrespondents, and they found no differences (Samples and Schug, 1985; Mahoney et al., 1986).

Finally, alternative data collection techniques need to be considered. Although telephone interviews produced the highest response rate (81 percent) of the studies reviewed, the technique was effective because it followed an on-board questionnaire. There was little difference in response rates when questionnaires were mailed to anglers or when questionnaires were distributed at dockside and anglers were asked to return them. The studies by Samples and Schug (1985) and Falk et al. (1983) were exceptions to this pattern. Any technique that provides broad temporal and spatial coverage of charter and headboat anglers (without reliance on operators' clientele lists) should receive further consideration. Although these techniques will be more costly and labor intensive, they will likely yield more reliable and valid results.

Researchers need to build upon current understandings of charter/headboat clientele to focus on the pressing issues that have resulted from greater regulation of fisheries. As the industry is impacted by new regulations, for example, there is a need to know if there has been a "succession" in clientele. Are more experienced anglers being replaced by less experienced anglers (turnover), and what are the implications for the boat operator? These questions cannot be answered using cross-sectional surveys; this can only be accomplished with longitudinal research designs.

Second, more research attention should be focused on identifiable market segments of charter and headboat anglers. The diversity within the overall angler group needs to be explored more fully to respond to specific questions be-

ing asked by fishery managers regarding regulatory impacts and to more effectively focus promotional efforts by operators. Examples of these market segments include anglers by species preference, local anglers, winter visitors, sales and other business associates, etc. The number of observations in future studies will probably need to be increased to have sufficient sample size for subgroups of managerial or business interest.

Finally, although previous studies have provided insight into charter and headboat angler preferences, we have little understanding of how anglers make tradeoffs between items like price, quality of fishing, quality of service, and ability to catch a preferred species (i.e., Schug, 1985). More studies using conjoint measurement techniques (Cattin and Wittink, 1982, Green and Srinivasan, 1978) are needed to identify the combination of factors most valued by anglers so operators can implement appropriate marketing strategies. Future studies of charter and headboat anglers will need to be issue oriented, theoretically driven, and well grounded on previous descriptive work.

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