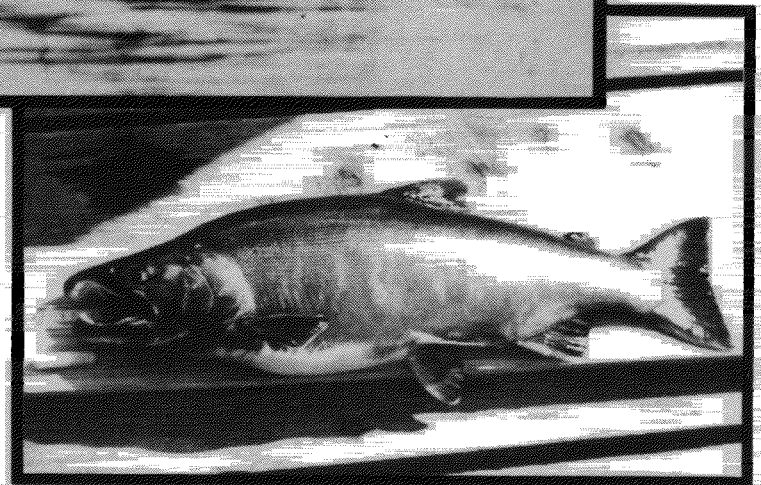
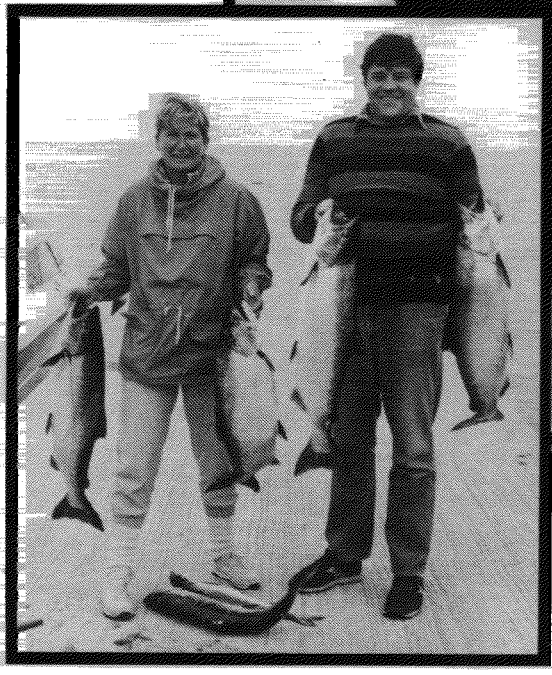
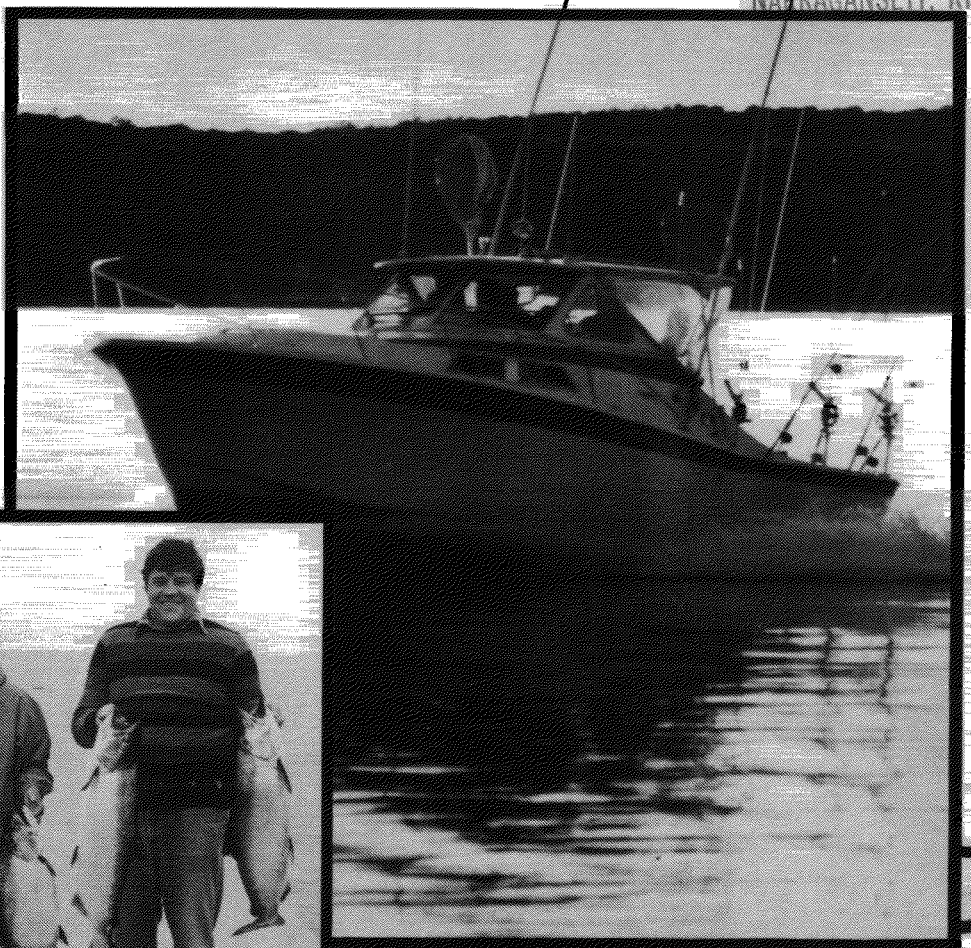


THE GREAT LAKES CHARTERBOAT FISHING INDUSTRY

Selected papers presented at the Great Lakes Sea Grant Network Charterboat Fishing Workshop, November 12-13, 1985, Spring Lake, Michigan.

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FOREWORD

The 1985 Great Lakes Charterboat Fishing Workshop, held November 12th to 13th in Spring Lake, Michigan, provided charterboat operators, Sea Grant researchers, and Sea Grant Extension agents with an opportunity to share information and insights about this growing industry.

The charterboat fishing industry has experienced tremendous growth over the last 10 years throughout the Great Lakes. The number of full and part-time charterboats operating were estimated in 1984 as follows:

<u>Great Lakes Area</u>	<u>1984</u>	<u>Comparison</u> <u>Baseline (Year)</u>	
<u>State</u>			
Minnesota	25	7	(1977)
Wisconsin	450	98	(1973)
Illinois/Indiana	315	187	(1982)
Michigan	650	175	(1977)
Ohio	650	35	(1975)
New York	300	33	(1975)
<u>Canada</u>	200	--	--
	<u>2,600</u>		

Several states have average increases of 60 or more new charterboat fishing operators per year. This trend continued into 1985 and is projected to remain strong through 1986.

It is no longer adequate to know how to be a good fisherman and boat captain; it is now necessary to also market effectively and have good business management skills. Therefore, the presentations at the workshop focused on the importance of the industry's economic impact, the necessity for effective marketing plans and actions, and the need for better business decision-making and management skills.

The papers printed here are essentially as the authors presented and submitted them.

CONTENTS

<u>Session</u>	<u>Page</u>
ECONOMIC IMPACTS AND IMPORTANCE OF THE CHARTERBOAT FISHING INDUSTRY	
Lake Ontario's Charterboat Industry: A Profile of Its Characteristics and Economics - Michael P. Voiland	1
The Economic Contribution of Ohio's Lake Erie Charterboat Industry - Leroy J. Hushak	9
Lake Ontario's Charterboat Industry Development: Some Examples of the Use of Sea Grant Generated Economic Analyses - Michael P. Voiland	17
Community Enhancement of a Great Lakes Fishery in Grand Haven, Michigan - Charles Pistis	21
CHARTERBOAT MARKETING RESEARCH AND APPLICATIONS	
1985 Michigan Charter Fishing Study - Edward M. Mahoney, Mary Brunke, and Charles Pistis	27
Marketing the Charterboat Fishing Industry in Michigan - Raymond Underwood	47
A Case Approach to Packaging and Marketing the Charter Fishing Experience in New York - Bruce Dunning	53
FINANCIAL AND BUSINESS MANAGEMENT CONSIDERATIONS FOR CHARTERBOAT OPERATIONS	
Financial Management Applications and Tax Considerations - Norman K. Bender	57
Break-Even Analysis and Profit Calculation: Easy to Use Tools for the Charter Fishing Business Owner - David O. Kelch	67
Pricing Strategies and Investment Decision-Making for Charter Captains - Stephen Stewart	75
Organizational Support and Communications in the Charter Industry: New York's Lake Ontario Experience - Michael P. Voiland	87
APPENDIX	
Author and Mailing Addresses	91

**Lake Ontario's Charterboat Industry: A Profile
of Its Characteristics and Economics**

Michael P. Voiland

Abstract.--The salmonid-based charterboat industry on Lake Ontario was characterized in 1982 via a mailed questionnaire survey conducted by Sea Grant. The survey documented for the first time the nature of this new industry on the lake, including insights into operator licensing, vessel attributes, pricing, investment, sales, income, costs, and operator occupations and perceptions. In 1982, it was estimated that the Lake Ontario charter fleet of 150 boats had an assessed value of over \$4.5 million and generated an annual economic impact of approximately \$2 million along the lakeshore region. A rough extrapolation of these estimates to 1985, assuming a fleet of 400, results in a 1985 assessed (capital investment) value exceeding \$10 million and an annual economic impact in the lakeshore region reaching \$5 million.

Due to the stocking of salmonid fish species (brown trout, rainbow trout, lake trout, chinook salmon and coho salmon) by fishery agencies in New York and the Province of Ontario, Lake Ontario has developed into a sportfishery resource of local, regional and national significance (Voiland, 1983; Schultz, 1981, 1983; Almy, 1983; Keesler, 1982; Hartwell, 1982). Recent studies have indicated that this new fishery is having substantive regional economic effects, principally due to expenditures made at the retail level by growing numbers of anglers (Sea Grant Extension, 1982; Wayne County, 1980, 1982).

Lakewide expansion of small business activity related to providing goods and services to the fisherman has included the development of a charter fishing boat industry, primarily based on salmonid angling (Voiland, 1982). In fall of 1982, a survey was conducted of 113 identifiable charter fishing operators conducting business along Lake Ontario's New York shore from Henderson to Wilson. In this paper, results of the survey are reported, giving a clearer picture of the nature and impact of this fledgling sportfishing-based industry.

The Survey

In November 1982, 113 charter fishing operators along Lake Ontario were identified through trade association membership lists and various forms of advertising. A questionnaire was mailed to these businessmen and a follow-up reminder postcard was sent 7 days later. Seventy-one captains responded, constituting a response rate of 63 percent. Seventy questionnaires were found to be usable and complete.

Licensing and the Typical Charter Vessel

The average operator on Lake Ontario is generally a newcomer to the charter fishing business. Eighty-four percent of those responding had been licensed (a U.S.C.G. motorboat operators license is required) for 3 years or less. Of these, 63 percent had been licensed for less than a year, suggesting that 1982 was a watershed year of entry into the fishery.¹ Only 15 responding captains had been licensed for more than two years.

Eighty-four percent of the operators owned and operated a single vessel, with the remainder operating two or more craft. The typical charter vessel was a six-year old, trailerable 23-foot inboard/outboard.

Pricing Structure

The average captain charged about \$60.00 per person for a whole-day salmonid fishing excursion, with a trip minimum fee that averaged approximately \$160.00. Per person charges ranged from \$38 to \$75, whereas the trip minimum varied from none to \$280. About half of the operators offered fishing trips for non-salmonid species at slightly reduced rates. Three-quarters of the surveyed captains also provided half-day services. Well over half of the respondents offered special rates or discounts for charters involving children, derbies, evenings, whole weekends or entire families.

Capital Investment

Those surveyed were asked for their own assessment of the dollar value of their primary equipment investments including vessel, equipment, trailer and tow vehicle. The assessed value of the fishing craft itself averaged \$15,347, with associated fishing and navigational equipment valued at \$5,517. Sixty-seven percent of the respondents owned a trailer and valued it at \$2,138. Sixty-four percent owned a tow vehicle, valued at \$6,811. The vehicle was used, on average, 31 percent of the time for charter business purposes.

1982 Charter Business Activity

In 1982, the average captain guided 30 fishing parties, with late summer and fall considered the busiest period, followed by spring and then summer. On a monthly basis, September was viewed as most active, followed by April, May, August and June.

¹It is believed that the first large returns in 1982 of mature chinook salmon since 1978 were a primary stimulant behind this recent rush to enter the charter fishery.

The average operator grossed \$5,248.38 in sales and incurred \$3,953.31 in business costs. Typically, these costs were broken down according to Table 1.

TABLE 1

1982 Average Business-Related Expenses

Fuel	\$ 753.08	Advertising/Promotion	\$430.28
Dockage/Access	307.00	Communications	121.10
Maintenance	277.00	Equipment Repair/	454.40
Repair	307.39	Replacement	
Insurance	314.08	Labor	580.38
Debt Service*	191.52	Miscellaneous	217.08

*For vessel only

It would appear that the typical operator netted only \$1,295.07 in 1982. This low figure obviously reflects the youth of the industry and the large number of freshman operators. To wit, those 15 more experienced operators in business for 2 years or longer averaged \$14,391 in gross sales and incurred costs of \$7,471, for a net profit of \$6,920.

Other Sources of Income

Only six operators out of 63 responding to the question, "Is the income from your charter business your major source of income?" answered affirmatively. This indicated that 91 percent of the respondents maintained some other occupation that produced more income than charter fishing. Even in the cases of the six respondents making the major portion of their 1982 income from chartering, it is believed that their income is augmented through other means, sources or occupations.

The occupations held by Lake Ontario charter operators either on a full or part-time basis represented a mix of blue collar (i.e. factory lines, skilled trades, machinery, maintenance, construction) and white-collar (i.e. sales, insurance, teaching, technology, business, law) positions.

Perceived Changes

Operators were queried as to major changes they foresaw in their businesses during the next 3 to 5 years. Table 2 categorizes these perceived changes:

TABLE 2

Major Changes in Operation Foreseen by

Charter Captains over

the Next 3 to 5 Years

<u>Change</u>	<u>Percentage of Respondent Indicating Change</u>
Buy/operate a bigger boat	57%
Buy/operate a new boat	42%
Buy/operate an additional boat	22%
Hire other captains	20%
Hire mate (deckhand)	19%
Increase number of charter trips	91%
Increase length of operating season	39%
Branch out into related business	29%
No planned changes	3%

In terms of branching out into business activity related to charter fishing, respondents specifically mentioned tackle sales/manufacture, outdoor media work, boat repair, outfitting, or sales, stream guiding, and lodging.

Feelings on the Future

Operators were asked the open-ended question, "In your own opinion, how do you feel about the future of charter sportfishing businesses on Lake Ontario?" In response, almost all captains responding predicted a positive future from the lake's fishery and charter operations. A number of captains agreed that, to affect the full development of their own business:

- A) the state's stocking program must continue and be expanded;
- B) political motivations and appointments must not interfere with fishery management decision-making;
- C) out-of-state promotions and advertising must increase, and,
- D) the growing number of operators must be "culled" by competition and other market forces.

Only one operator responded negatively to this question. A commonly expressed sentiment called for the state and other levels of government to recognize the fishery's economic potential and to work towards fuller development of the lake resource.

Summation

By virtue of a survey of Lake Ontario charter fishing operators conducted in 1982, it was apparent that the lake's charter fleet represented a "growth industry." With well over half of the surveyed operators only in business a year or less at the time of the survey, entry into the industry was apparently mushrooming.

Capital investment in an individual business typically averaged almost \$30,000, and gross sales averaged over \$5200 in 1982. Given these parameters and a conservative estimate of the existence of about 150 licensed operations on the lake at that time, it was estimated that the lake's charter fleet had an assessed value of over \$4.5 million and generated an annual economic impact of approximately \$2 million in the lakeshore region in 1982. A rough-cut "guesstimate" for 1985 would result in an assessed value in excess of \$10 million for a 400-odd boat fleet and an approximate annual economic impact of about \$5 million in the lakeshore region.²

The typical 23-foot, stern-driven charter boat made 30 charters in 1982, and the average customer was charged \$60/person for a day-long salmonid charter. Operation of the vessel cost \$3900 in 1982. Over 90 percent of the captains had another primary source of income from a wide variety of full-time skilled, unskilled and professional occupations. A large proportion of operators anticipated the need for larger, newer or additional vessels in their businesses. In all, the operators perceived a bright future for the fishery and the charter business, given more expeditious promotion and development by state government.

² Studies conducted by King and Storey (1974), Strang (1970), Schmeid (1975) Hart and Ward (1974) and Grigalunas and Ascari (1981) suggest a multiplier of 2.50 for charter fishing expenditures in a regional economy.

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The Economic Contribution of Ohio's Lake Erie Charterboat Industry

Leroy J. Hushak

Abstract.--The economic contribution of the charterboat industry to sport fishing on Lake Erie increased from under one percent in 1975 to 7-9 percent in 1984, while Lake Erie sport fishing increased by about 50 percent. Growth in charter fishing occurred in all years except 1983 when sport fishing declined by 27 percent. By 1984, the charterboat industry was a \$5 million industry which accounted for \$10 million in total output (sales) impact, \$11 million in gross economic value, and \$6 million net economic or surplus value to Ohio. While a decline in charter angler hours per licensed captain since 1982 suggests excess capacity, the low level of market penetration suggests significant room for further growth of the charterboat industry.

Sport fishing on Lake Erie has increased substantially since 1975. The creel census results reported by the Ohio Department of Natural Resources (1985, p. 21) show that hours by sport anglers increased from 7.4 million in 1975 to 13.4 million in 1982 before declining in 1983 and 1984. Since the average angler fishes about 7 hours per day (Hushak et al., 1984a, p.2), this translates into an increase from about 1.1 million days fished in 1975 to about 1.9 million in 1982 and 1.5 million in 1984. Walleye harvested increased from 112,000 in 1975 to 3.3 million in 1982, and 4.1 million in 1984. The 1984 harvest included a large number of relatively small two-year-old fish. The yellow perch harvest was 8.1 million fish in 1975, 15.7 million in 1979, the peak year, 12.4 in 1982, and 9.5 million in 1984.

In this paper I assess the economic contribution of Ohio's Lake Erie charterboat industry to total sport angler activity originating from Ohio's portion of Lake Erie. Underlying this analysis are recreation demand studies of 1) western basin walleye fishing, 1981, 2) western basin yellow perch fishing, 1981, and 3) central basin fishing, 1982, summarized in Hushak et al. (1984a); an input-output study of the northern Ohio region for 1978 (Hushak et al., 1984b); and Ohio creel data for 1975-84 (Ohio Department of Natural Resources, 1985). The paper consists of four sections. First, I examine the change in charterboat industry characteristics over time. Second, the results of the input-output study are used to estimate the economic impacts of charter fishing in Ohio. In the third section, I use the recreation demand study results to estimate the contribution to the economic value of the fishery which is attributable to the charterboat industry. In the final section, conclusions and research needs are discussed.

THE OHIO CHARTERBOAT INDUSTRY

The charterboat industry in Ohio is a relatively young industry. From 46 licensed captains in 1975, the industry grew to 266 captains in 1981 and 626 in 1984 (Table 1). Charter angler hours also increased substantially from 53,000 in 1975 to 719,000 in 1984. In only one year did charter angler hours decline, 1982 to 1983; this small decline occurred while total sport angler hours declined by 27 percent due to lower catch rates. The proportion of charter hours in total hours has increased steadily throughout this ten year period. The charter hours per licensed captain has declined since 1982 (Table 1), however, which suggests possible saturation of the market at present. At the same time, with only 6.8 percent of total angler hours in 1984, 7.6 percent of boat angler hours, further market penetration by the charterboat industry appears feasible.

Charter activities are more heavily focused on walleye than yellow perch. The charter contribution to the walleye harvest has been about 8 percent since 1978, and somewhat higher in 1983 and 1984. The role of the charterboat industry in yellow perch harvest has been on the order of 1 to 2 percent. There are two potential reasons for this smaller contribution. First, a higher but unknown proportion of yellow perch than walleye are harvested by shore anglers. Second, since most of the yellow perch harvest occurs in September and October, many of the licensed captains have probably stopped chartering and returned to other jobs. School teachers, for example, can charter full time during the summer months, but must limit their activity to week-ends in September and October.

In 1981, the mean charter hours per licensed captain was about 1500. Conversion of hours to trips at 7 hours per day (Hushak et al., 1984a) and 6 persons per trip suggests that the typical firm conducted 36 trips per season. The typical charge per trip was about \$225, which implies gross revenue per firm of about \$8100. Our charter survey data (Hushak et al., 1984b) suggests each dollar of revenue generated about \$0.35 of personal income. This suggests the typical charter business earned about \$2800 of income in 1981. We know little about the distribution of activity among charter businesses. A firm operating full time, running 6 trips per week (a few captains run two trips per day) for 14 weeks would gross about \$19,000 and earn about \$6600 in personal income. A captain operating one trip per week to supplement the costs of owning a boat would gross about \$3000.

ECONOMIC IMPACT OF CHARTERBOAT INDUSTRY

In this section I present estimates of the economic impact of the Ohio charterboat industry on Ohio. Economic impact is changes in output (sales), personal income and employment which are attributed to charter fishing. The estimates are derived from the 1978 input-output model of northern Ohio presented in Hushak et al. (1984b). This input-output model was developed for a 17 county region of northern Ohio which essentially included two tiers of counties along Lake Erie. The use of the model to make Ohio as contrasted to northern Ohio estimates involves two offsetting errors. First, the multiplier impacts on Ohio are likely to be larger than those estimated for the region leading to underestimates of the total Ohio impacts. However the

Table 1.--Characteristics of the Charterboat Industry in Ohio

Year	Licensed Captains ^a No.	Charter Angler Hours			Charter Harvest			
		'000 Hrs.	% of Total	Hrs./ Capt.	Walleye		Yellow Perch	
				'000 Hrs.	'000 Fish	% of Total	'000 Fish	% of Total
1975	46	53	0.7	1.2	6	5.4	93	1.1
1976	37	53	0.8	1.4	31	4.6	61	1.0
1977	60	124	1.4	2.1	87	4.0	157	1.4
1978	83	163	1.7 ^b	2.0	132	8.0	n.a.	n.a.
1979	156	218	2.1 ^b	1.4	236	7.0	n.a.	n.a.
1980	217	250	2.3	1.2	175	7.9	n.a.	n.a.
1981	265	402	3.2	1.5	239	8.0	n.a.	n.a.
1982	342	564	4.2	1.6	272	8.2	221	1.8
1983	525	562	5.7	1.1	260	13.9	118	2.2
1984	626	719	6.8	1.1	391	9.6	340	3.6

^a Obtained by telephone from the Lake Erie office of the Division of Wildlife, Ohio Department of Natural Resources.

^b Based on extrapolation of total angler hours between 1977 and 1980. A partial creel was conducted in 1978 and 1979.

n.a. Not available.

Source: Ohio Department of Natural Resources, 1985

northern Ohio region contained about one-half of the output, income and employment of Ohio in 1978 so the model multipliers are not expected to differ significantly from Ohio multipliers.

Second, since up to 5 percent of sport fishing angler hours originate outside of Ohio, total expenditures overestimate Ohio expenditures by some small amount. Our sportfishing survey data show that 70 percent of expenditures are made within the northern Ohio region. Of the remaining 30 percent, less than five percentage points of expenditures are made outside of Ohio since part of the expenditures by nonresident anglers are made in Ohio. For the charterboat industry, the size of this error is even smaller because all boat expenditures, the largest expenditure component, are in the form of payments to the charterboat industry which is completely located within the northern Ohio region. Only expenditures to other industries are adjusted upward to account for total Ohio charter angler expenditures.

Although the input-output model was developed for 1978, the fishery data used in the model was collected for the year 1981, and then adjusted for price and angler hour changes to 1978. For the purposes of this paper,

I used the 1981 expenditure levels and the input-output multipliers for 1978 to develop the base year estimates for 1981 in Table 2. Since we do not have a separate survey of anglers who use charter services, charter angler expenditures are assumed to be the same as private-boat angler expenditures with the exception that they hire charter services rather than incurring boat expenses.

In 1981, anglers using the charterboat industry made total estimated expenditures of \$2.5 million of which \$2.04 million (82 percent) was payments to the charterboat industry. The remaining expenditures went to eating and drinking establishments (4 percent), retail (6 percent), hotel and lodging (2 percent), and marina and boat sales and miscellaneous services (each less than one percent). This was 3.7 percent of total estimated Ohio sport angler expenditures of \$67 million which was distributed among marina and boat sales (54 percent), boat/ship building and repair (5 percent), charterboat industry (3 percent), eating and drinking (13 percent), retail (19 percent), hotel and lodging (5 percent), and miscellaneous services (less than one percent).

The output (sales), income and employment impacts for 1981 were estimated by multiplying estimated total Ohio expenditures in each of the listed sectors by the output multipliers, the total income effects and the total employment effects for the sectors, respectively. In 1981, the \$2.5 million of expenditures by charterboat industry customers generated total output of \$5.08 million, total income of \$1.67 million, and total employment of 134 man-years.

Table 2.--Economic Impact of the Ohio Lake Erie Charterboat Industry
(\$Million and Man-Years)^a

Year	Expenditures			Output		Income		Employment Man Years
	1981 Dollars	Current Dollars	% of Total Sport	1981 Dollars	Current Dollars	1981 Dollars	Current Dollars	
1975	0.33	0.22	0.9	0.67	0.44	0.22	0.14	17.8
1976	0.33	0.22	0.9	0.67	0.46	0.22	0.15	17.8
1977	0.77	0.55	1.6	1.57	1.13	0.51	0.37	41.5
1978	1.02	0.78	2.0	2.06	1.59	0.68	0.52	54.6
1979	1.36	1.14	2.5	2.76	2.31	0.90	0.76	73.0
1980	1.55	1.42	2.7	3.16	2.88	1.04	0.94	83.8
1981	2.50	2.50	3.7	5.08	5.08	1.67	1.67	134.7
1982	3.50	3.71	4.9	7.13	7.56	2.34	2.48	189.0
1983	3.49	3.84	6.7	7.10	7.81	2.33	2.57	188.3
1984	4.47	5.09	8.0	9.09	10.36	2.98	3.40	240.9

^a Estimates of Ohio impacts derived from Huskac et al. estimates of northern Ohio regional impacts (70 percent) plus expenditures made outside of the northern Ohio region nearly all of which were made in Ohio (30 percent).

In order to trace the economic impacts of the charterboat industry over time, the 1981 estimates were adjusted in two ways. The constant 1981 dollars estimates were obtained by adjusting the 1981 estimates for changes in charter angler hours as shown in Table 1. For example, the \$1.02 million expenditures estimate for 1978 is equal to \$2.5 million times 163/402 from Table 1. The current dollars estimates adjust the 1981 dollars estimates by the consumer price index. The 1978 current dollars estimate of \$0.78 million is equal to \$1.02 million times 0.77, the 1978 value of the price index with 1981 equal to one. Employment is adjusted only by charter angler hours.

The charterboat industry contribution as measured by expenditures increased from less than one percent of total sport fishing activity in 1975 to 8 percent in 1984 (Table 2). By 1984, the charterboat industry generated \$5.09 million of estimated current dollar expenditures of which \$4.16 million were direct payments to charter firms. These expenditures generated sales of over \$10 million, income of \$3.4 million and employment of 241 man-years.

ECONOMIC VALUE OF CHARTERBOAT INDUSTRY

Economic impacts are measures of the flows of economic activity. As such, they are not measures of how a resource is valued. In this section, I present estimates of the value placed on Ohio's Lake Erie fishery and the charterboat industry contribution to this value. These estimates are biased upward slightly because of the angler hours generated by persons from other states. The gross economic value of Lake Erie sport fishing to Ohio is the

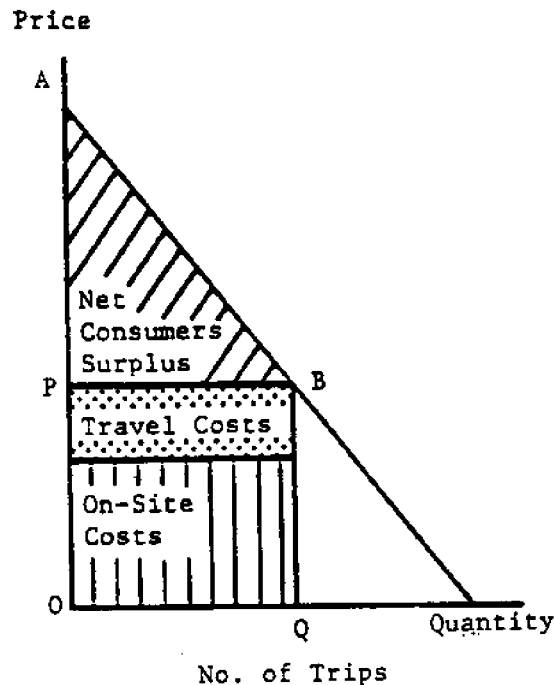


Figure 1: Gross consumer surplus equals on-site costs plus travel costs plus net consumer surplus.

gross willingness-to-pay for sport fishing rather than to go without the sport. One way to estimate it is as the gross consumers surplus from sport fishing, or as the total area under the demand curve to number of trips Q for Lake Erie Sport fishing as illustrated in Figure 1 by area OABQ. Gross consumers surplus consists of travel and on-site fishing costs (money expenditures plus the value of human time used for fishing trips), and net consumers surplus, which is the net willingness-to-pay for Lake Erie sport fishing over and above direct (travel and on-site) costs. When discussing the total value of a resource, we usually mean gross willingness-to-pay.

Since we do not have separate survey data for charter anglers, I use our estimates for western basin walleye and yellow perch fishing (Hushak et al., 1984a) to estimate gross and net consumer surplus values for charter anglers. I use the estimates where human time is valued at 25 percent of the wage rate which we considered "best". The gross consumer surplus estimates were \$96.80 per day for walleye and \$97.55 for yellow perch; I use \$97.00 per day for charter fishing. The net consumer surplus estimates were \$21.18 per day for walleye and \$26.98 for yellow perch; I use \$22.00 per day for charter fishing because of the dominance of walleye over yellow perch in the charterboat industry. Charter angler hours are converted to days at the rate of 7 hours per day; our walleye sample had a mean of 7.4 hours per day while the yellow perch mean was 6.6 hours. Using these values, the gross willingness-to-pay by charter anglers is \$5.5 million in 1981 while the net willingness-to-pay is \$1.3 million (Table 3). The constant 1981 dollars estimate for each year is the 1981 per day estimate times charter angler days, while the current dollars estimate further adjusts by the consumer price index. These calculations are similar to those performed in Table 2. The estimated contribution of the charterboat industry to total gross and net willingness to pay for Lake Erie sport fishing increases from less than one percent in 1975 to over 9 percent in 1984.

Knowledge of the gross economic value of a resource is a politically popular number because it is the largest number which can be generated about the resource. However, it has no meaning when we ask questions about public investments justified by values placed on the resource. If the gross value is equal to the input costs of using the resource, then the surplus of value over and above costs is zero and no further expenditures, public investment or otherwise, are justified.

When the demand curve for a resource is downward sloping, as is the case for Lake Erie sport fishing, then net consumer surplus is positive and represents one component of surplus value. In many cases, net consumer surplus is the only component of net economic value which is estimated. Surplus value may also be generated from travel and on-site expenditures. These expenditures are the same expenditures made by sport anglers used in the economic impact estimates. If these expenditures generate output or sales in excess of the input costs of producing the vehicles and fishing equipment which is purchased, then further surplus value or economic rent results. While the input-output model is not designed to estimate the economic surplus resulting from production, it does provide an estimate of one component of this surplus, which is the net personal income resulting

from the resource. It is assumed that the labor earning this income would otherwise be unemployed. With the recent high unemployment rates in Ohio, this assumption seems justified.

The income impacts in Table 2 are estimates of the charterboat industry contribution to the net personal income from sport fishing on Lake Erie. These estimates are added to the respective net willingness-to-pay estimates in Table 3 to obtain the contribution of the charterboat industry to the net economic value of sport fishing at Lake Erie. It ranges from 0.8 percent in 1975 to 8.7 percent in 1984. In 1984, the net economic value of Lake Erie sport fishing to Ohio in current dollars was about \$69 million, i.e., public investment of up to \$69 million would have been justified to maintain the Lake Erie fishery in order to preserve the net consumer surplus and the personal income to Ohio residents generated by sport fishing.

Table 3.--Economic Value of Ohio Lake Erie Charter Fishing (\$Million)

Year	Willingness-to-Pay					Net Economic Value		
	Gross ^a		Net ^b		% of Total	Value ^c		% of Total
	1981 Dollars	Current Dollars	1981 Dollars	Current Dollars		1981 Dollars	Current Dollars	
1975	0.7	0.5	0.2	0.1	.9	0.4	0.2	0.8
1976	0.7	0.5	0.2	0.1	.9	0.4	0.2	0.8
1977	1.7	1.2	0.4	0.3	1.9	0.9	0.7	1.8
1978	2.3	1.7	0.5	0.4	2.2	1.2	0.9	2.2
1979	3.0	2.5	0.7	0.6	2.9	1.6	1.4	2.8
1980	3.5	3.2	0.8	0.7	3.0	1.8	1.6	2.8
1981	5.5	5.5	1.3	1.3	4.4	3.0	3.0	4.1
1982	7.8	8.3	1.8	1.9	5.7	4.1	4.4	5.4
1983	7.8	8.6	1.8	1.9	7.6	4.1	4.5	7.3
1984	10.0	11.4	2.3	2.6	9.2	5.3	6.0	8.7

^a Estimated at \$97 per day in 1981 from Hushak et al. (1984a, Tables 2, 3), willingness to pay per day of \$96.80 for walleye and \$97.55 for yellow perch, adjusted for charter angler hours converted to days at 7 hours per day.

^b Estimated at \$22 per day in 1981 from Hushak et al. (1984, Tables 2, 3), net consumer surplus per day of \$21.18 for walleye and \$26.98 for yellow perch, adjusted as in note a above.

^c Net willingness to pay plus income effect from economic impact, Table 2.

CONCLUSIONS

The Ohio charterboat industry has been very responsive to growing demand for charter services at Lake Erie. It has increased its market penetration of and contribution to sport fishing activity from less than one percent in 1975 to between 7 and 9 percent in 1984, depending on the measure used. By 1984, it had become a \$5 million industry, accounting for \$10 million in total output or sales in Ohio. The charterboat industry contributed \$11 million to the gross value of the fishery and \$6 million to the net economic or surplus value of the fishery to Ohio. However, these estimates depend on the critical assumption that changes in contribution are proportional to changes in angler hours and changes in price levels.

Charter anglers hours increased in every year except 1983, irrespective of whether total angler hours increased or decreased. The rapid growth of licensed charter captains and the decline in charter angler hours per captain since 1982 suggests the charterboat industry may presently have excess capacity. At the same time, market penetration of seven percent seems low and to leave potential for significant further growth in the industry. With the present rapid changes in the industry, continued research on the industry is needed.

ACKNOWLEDGEMENT

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*Lake Ontario's Charterboat Industry Development:
Some Examples of the Use of Sea Grant-
Generated Economic Analyses*

Michael P. Voiland

Abstract.--Sea Grant-charter industry interaction on Lake Ontario has given rise to numerous examples of mutually beneficial and cooperative efforts. Since 1983, when faced with issues deemed critical to charter industry development or survival, the industry has utilized Sea Grant-generated economic and industry profile information to "make its case." Three examples, relating to fish harvest, boat access and user fees, are described.

In 1982, the New York Sea Grant Extension office at Brockport, N.Y. carried forth a comprehensive survey of the rapidly expanding salmonid-based charterboat industry in Lake Ontario (Voiland, 1982; or see earlier paper by author in this proceedings). The resulting report gave rise to the first characterization of this new industry, detailing information on the equipment, costs, incomes, occupations, season and perceptions of typical Lake Ontario operators.

Not surprisingly, once issued, the survey report was put to use by organized operators on Lake Ontario. Having, at last, a credible, systematically collected "picture" of their industry, charter leaders were able to add substance and facts to discussions on critical issues with government agencies and other outside entities. The balance of this paper will briefly describe three instances in which information stemming from the 1982 survey was referenced and applied to charterboat-related issues.

Lake Trout Harvest Restrictions

In late 1982, the New York State Department of Environmental Conservation (DEC) proposed a reduction in the daily per angler creel for lake trout on New York's Great Lakes. In its proposal, the DEC called for a decrease in the creel, from 3 lake trout/angler/day to 1 laker/angler/day -- in effect ending targeted fishing and permitting only incidental harvest. The department proposed such action due to their belief that the sport catch of lake trout was unnecessarily large and a major factor in high annual mortality. According to the DEC, such angler-caused mortality could preclude significant natural reproduction and eventual self-sustainability of the species.

At a meeting held in January 1983 at Mexico, New York, the charter fishing industry on Lake Ontario, represented to a large degree at that time by the Lake Ontario Charter Boat Association,

strongly opposed the DEC action. In doing so, an association spokesman presented a case based, in part, upon the prospect of dire economic consequences that might befall the industry if the proposed creel limit was implemented (LOCBA, 1983). In his argument, the spokesman made numerous references to the economic importance and magnitude of the industry, gleaned chiefly from the 1982 Sea Grant survey.

While impossible to determine the ultimate credence given LOCBA's economic argument, the point to be made here is that the information was used to influence an important management decision. The outcome of the meeting (which saw the DEC put off a creel change until harvest and mortality data was more refined [Sea Grant 1983]) was, as far as extension educators are concerned, irrelevant. Rather, the fact that the data was used by the charter audience, and was entered into the context of discussion was singularly important.

Harbor of Refuge Development

During the fall of 1985, both Congress and the U.S. Army Corps of Engineers had reached a critical point in time with regard to development of the Port Ontario Harbor of Refuge Project proposed at the mouth of the Salmon River on Lake Ontario. To wit, with Congress close to deciding upon the detail and funding formula for a major encompassing water resources project bill, the Corps needed to determine the level of "commercial use" (charter fishing) that the Port Ontario project could support or stimulate.

Contacted by the Corps and local planning agencies, the Lake Ontario Charter Boat Association submitted a paper calling the Corps attention to the Sea Grant survey (LOCBA, 1985). Thereafter, Corps analysts used many parameters from the survey to support their projection of commercial use of the proposed harbor. At stake was the difference between a 50:50 federal/local funding ratio and a ratio of 80:20 respectively. Again, the final decision (unknown at the time of this writing) is viewed by those of us in Sea Grant as less important as the fact that the information formed part of the basis for a major development decision by a federal agency and elected officials, and that charter operators made direct use of the information.

User Fees

Beginning in summer 1985, Congress began deliberations on how users of Coast Guard services might appropriately be charged for such services, and, hence, how more of the Coast Guard's operations budget might be supported in the future by such "user fees."

An early proposal emanating out of a U.S. House Subcommittee called for an annual federal assessment on fishing boats of \$780. As one might have expected, the response to this proposal by the lake charter operations was swift and unequivocal. In letters to select members of New York's congressional delegation, the New York State Charter Sportfishing Council, representing some 300 captains lakewide, was able to point out that the proposed assessment amounted to 65% of the annual net income realized by the typical charter captain. To do so, the Council again utilized data from the 1982 Sea Grant survey. While the user fee issue is far from settled at the federal level, the ability of the charter industry to point out the possible effects of fee imposition on their profit margins will likely remain as a useful and persuasive tool in the debate over what represents a fair and reasonable fee.

In summation, the record--at least in New York and on Lake Ontario--shows that the charter industry can find industry surveys and Sea Grant extension programs related to the economics of the charter business of value and use in the decision-making process. In the future, association leaders may wish to carry forth and support their own economic analyses of the industry in order to insure that decisions are made and directions are taken that adequately reflect the charter industry's economic activity, importance and position.

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Community Enhancement of a Great Lakes Charterboat Fishery in Grand Haven, Michigan

Charles Pistis

Abstract.--Charterboat fisheries provide economic impact to coastal communities. Quantifying the economic importance of recreational fisheries can result in community efforts to enhance and market the industry. Grand Haven, Michigan, developed centralized charterboat dockage to link the charterboat fleet with it's downtown business. The facility known as Chinook Pier has become a focal point of Grand Haven's waterfront revitalization program.

INTRODUCTION

The growth of the charterboat industry in Michigan has presented coastal communities with opportunities to enhance their local economies. Several conditions must be in place before a community is effective in promoting it's fishery, not the least of which, is recognition of the economic impact potential charterboats can provide.

This paper provides an overview of the process one community, Grand Haven, Michigan, utilized to enhance it's charterboat fishery by development of centralized charterboat dockages. It is based on informal surveys and interviews, observations and involvement of the author as part of Sea Grant Extension's efforts in the community. Other communities striving to realize the economic potential of their respective recreational fisheries will find the information of interest.

OVERVIEW OF THE INDUSTRY

Since the introduction of salmon to Lake Michigan in the late 1960's a rapid expansion of the Michigan charterboat fleet has resulted. Data compiled from Michigan DNR indicates that in 1985 more than 900 charterboats were licensed by the State of Michigan. (Table 1) This compares with only 3 charterboats licensed in 1966.

TABLE I
MICHIGAN CHARTERBOAT FLEET 1966-1986

<u>YEARS</u>	<u>NUMBER OF VESSELS</u>
1966	3
1967	17
1969	35
1971	60
1973	74
1975	146
1977	175
1978	270
1981	490
1985	920
1986 est.	1,000+

From 1966-1977 growth in the fleet was slow. By 1977 the fleet was comprised of 175 charterboats the vast majority located on Lake Michigan. Since 1978 tremendous growth of the Michigan charterboat fleet has taken place.

Numbers have roughly doubled every three years and nearly 35% of the fleet is now located on Great Lakes other than Lake Michigan.

The reasons for the rapid increase in the mid 1970's are purely speculation but revolve around two factors. First, a lag time was necessary for anglers to gain an experience level in consistently finding and catching Great Lakes sportfish, specifically chinook salmon. Chinook were first introduced in 1967, one year after the first coho plants of 1966. But, it was not until 1973 that Lake Michigan plants of chinook exceeded those of coho salmon. During the rest of the decade and continuing into the next, chinook were planted in ever increasing numbers. By 1978 chinook plants were twice those of coho. With chinook salmon reaching supremacy as the preferred Lake Michigan salmon, the charterboat industry had another species extremely attractive and marketable to potential customers.

The second factor relating to the development of the charterboat fleet is that it simply has become easier to obtain a charterboat operators license. Coast Guard licensing requirements are appreciably the same except now the establishment of numerous private commercial "coaching" services have facilitated the task of obtaining ones license. In past years license applicants may have taken the captains exam 2 or 3 times before passing the required written examination. Present applicants are successful at their first attempt.

The influx of new captains into the fleet has markedly shifted the composition to captains with less than 5 years professional fishing experience. A survey I conducted in 1978 indicated only 7% of the captains had 3 or less years of experience. A survey of 110 captains that attended Michigan Sea Grant educational events in 1984 indicated the fleet is composed of 45% of captains with less than 3 years professional fishing experience.

THE GRAND HAVEN CHARTERBOAT FISHERY

On a local level individual Great Lakes ports like Grand Haven, Michigan have experienced similar increases in their respective fleets. In 1977 it is estimated that less than 10 charterboats operated out of the Grand Haven area (Adair 1978). The most current estimate (1985) is that 62 charterboats now operate out of the port of Grand Haven.

The fishing season is relatively long in duration by Great Lakes measures extending from early May to late October. It is fairly typical of Lake Michigan ports on the central and southern coast. Increasingly May through early June has boasted quality fishing for chinook, coho and brown trout. Many of the established captains experienced their heaviest volume during this period. In summer months lake trout and chinook salmon become the most frequently caught species. Because August and September results in large concentrations of salmon hanging off their natal stream mouths this time of year is most generally associated with prime charterboat fishing experiences. After the major salmon runs, and if Lake Michigan weather permits, excellent fishing for the upcoming seasons run of chinook and maturing steelhead trout is available.

The City of Grand Haven and it's sister communities of Spring Lake and Ferrysburg are located on Lake Michigan, roughly across the lake from Milwaukee, Wisconsin, at the lower reaches of one of Michigan's largest river sys-

tems the Grand. The Grand Haven area has achieved an excellent reputation for its recreational boating and fishing opportunities, major tourist attractions and festivals. As an example, in 1985 it was estimated that the week long Coast Guard Festival attracted 500,000 participants. Grand Haven's proximity to major metropolitan areas of Chicago, Grand Rapids and Kalamazoo has enhanced its status as a tourist destination area. Population of the three communities and adjoining townships was 38,500 in 1985.

The area has more than 1200 slips for recreational boats and 9 full service marinas. The Grand River system is one of the most heavily stocked systems in Michigan since 1978 receiving an average annual plant of 1 million salmonids. Salmonid plants are expected to remain relatively stable. The Grand has been designated an urban fishery river system. Several fish ladders to pass fish upstream to cities like Grand Rapids and Lansing are operational. To insure adequate salmon runs to these inland communities huge plants of salmonids were necessary within the river system. Grand Haven's Lake Michigan charterboat fishery became the indirect beneficiary of these extensive stocking programs as planted chinook and coho moved out of the river to mature in Lake Michigan. It became apparent to certain business and community leaders that the area was in an excellent position to capitalize economically on sportfishing and specifically on charterboats.

COMMUNITY EFFORTS TO ENHANCE CHARTERFISHING

Community tourism leaders had long thought of the charterboat industry as a significant contributor to local coastal economies. Until recently little data was available to support these contentions. Because supportive information about the industry and sportfisheries in general was lacking those facilities and developments that could enhance the charterboat fishery lost out to more traditional uses.

At the request of local leadership and with the financial support of business, county government and grants from Coastal Management and Sea Grant, Michigan State University researchers Talhelm and Jordan conducted a research project for the 1981-82 fishing season to quantify the economic impact of the sportfishery in Ottawa County of which Grand Haven is part. The resulting report estimated that 3,479,000 angler days of fishing occurred in the Grand Haven area in 1981-82 season. Direct economic expenditures were estimated at \$3.5 million annually. Approximately 53% of the angler days and 60% of the direct economic expenditures were attributed to non-resident anglers fishing in the area.

Twelve charterboats in the Grand Haven area generated over 430 thousand dollars. In addition to charterboat fees, expenditures took place for lodging, food and beverage, auto fuel and shopping. On a trip basis it was estimated that the average charterboat client in 1981 spent \$112.97/trip. Average length of stay was 2.167 days. Almost 3,813 angler days were spent on Grand Haven charterboats. Ninety-four percent of charterboat clientele were non-resident anglers.

In recognition of this economic potential, the charterboat industry, tourism leadership and the City administration set out to develop a facility which would capitalize on this market segment. As part of a major rehabilitation of the entire Grand Haven waterfront centralized charterboat dockage would be provided. Before the proposed dockage charterboats were scattered

around the area berthed at the various marinas that would accommodate them. These locations were often difficult for clientele to find, and because the charterboats were not physically concentrated little tourist attraction value was evident. The project plan called for, in addition to slips for 16 area charterboats, a berth for a paddle wheeler used for sightseeing tours, commercial and retail business, public restrooms, a fish cleaning station with viewing area, parking, picnic tables and a manned ticket booth whose attendant provides tourism information as well as takes bookings for the paddle wheeler and the charterboats.

The site named "Chinook Pier" was located on vacant city owned waterfront, immediately adjacent to Grand Haven's downtown. The primary design objectives were as follows:

First, to develop a facility that not only was a functional marina providing access to the fleet to fishable waters, but also to create a facility that is a tourism attraction in itself. It should be a site the general public would like to visit regardless of their interest in charterfishing. Basic to this interpretation was the realization that sportfishing and the aesthetic attractiveness of the charterboats were of interest to the non-angler.

Chinook Pier was designed to allow for pedestrian access. The stainless steel fish cleaning station, which employed a commercial disposal unit to grind fish wastes, was sunk a few feet below ground level and encircled with a viewing area to accommodate the interested public that tended to congregate at the facility whenever the charterboats arrived with their catch. Additionally, an area was set aside for captains to "hang" the days catch for picture taking by customers. It not only facilitated a permanent record of one's fishing experience, but served to publicize Chinook Pier and the Grand Haven area since these photographs invariably found their way into newspapers and other printed media.

Second, to link this concentration of charterboats with downtown retail establishments and thus capture as much economic spinoff as possible. A ground lease of the city property on which the Chinook Pier project was built upon was made available to a developer to construct two buildings that would house retail space. The businesses that typically located at Chinook Pier directly benefited from the numbers of people that milled around the area. In the first two years of operation they have included a party store, an ice cream shop, gift shops and a bait and tackle outlet.

Third, to enhance the "working waterfront" theme of the Grand Haven waterfront. For years the port of Grand Haven has been the site of a significant Coast Guard vessel presence. City leaders were aware that a key ingredient of most successful waterfront developments is its working nature. That is, waterfronts need to have a functional quality that imbues a maritime based industry "flavor" to the waterfront. The charterboat fleet contributed to this theme.

Fourth, to solidify a partnership with area business and residents in Chinook Pier and the entire waterfront rehabilitation project. It was important that the community "buy into" the developments and view them as community improvements contributing to the quality of life rather than only tourism at-

tractions. Community activities and fund raisers involved residents. A "buy a plank" effort raised thousands of dollars for boardwalk construction. At Chinook Pier, an area specialty metal working firm provided materials and labor to build the stainless steel tables comprising the fish cleaning station.

Operationally, Chinook Pier charterboats leased their slips with five-year contracts that were on a graduated scale to move in tandem with private slips within the port. Because many of the charterboats moved out of existing private marinas, the City did not want to appear to be undercutting these businesses hence lease rates were very similar to standard slip rates in the area.

Total cost of Chinook Pier was approximately \$400,000. Partial funding was obtained through a Michigan Department of Natural Resources Waterways Division grant of \$83,500 specifically earmarked for the dockage, lighting and grounds improvement. These funds are derived from state gasoline excise tax paid by Michigan boaters. Because of an adjacent previously funded transient marina, the project was viewed as an expansion project. It is significant to note that this was the first time Waterways monies were used to provide dockage for commercial vessels in this case charterboats. In fact, in past years numbers of charterboats were severely restricted in Waterways marinas. The change has resulted from a policy to utilize scarce Waterways construction dollars for those projects that provide the greatest economic benefit to the host community and the region. The sportfishery economic impact research outlined earlier was used by the City and others to make this case.

The Waterways grants required that a 50% local match be available. To generate these dollars and the remaining cost of Chinook Pier, the City used a unique funding approach by enacting a TIFA or Tax Incremental Financing district which encompasses the entire waterfront area.

Because the waterfront had been experiencing decreases in assessed value as warehouses and older waterfront structures deteriorated, it was eligible for Tax Incremental Financing. TIFA allows a city to make public improvements in a specified redevelopment district that are necessary to stimulate additional private investment. Financing of these public improvements comes from tax revenues generated by the new private development. The amount of tax increment revenue available is determined by multiplying the total tax rate of the city by the projected increase in assessed valuation.

In this situation several new projects including a condominium development and a private marina expansion provided the additional tax receipts for the waterfront TIFA. It was estimated that within the district a 500,000 tax increment would be available and could be captured in the next ten years. A portion of the generated revenues was used as match for other grants for infrastructure improvement including water, sewer and street projects. The remaining portion was allocated for Chinook Pier's development. The TIFA financing was very palatable to area politicians and residents, because it did not involve new taxing. Rather TIFA was perceived to be temporary earmarking of future tax revenues for specific projects.

The Chinook Pier project was completed in time for the summer fishing season in 1984. From personal observation, it has been a resounding success. Because the project is linked to a series of linear parks, and boardwalk as

well as downtown businesses and major attractions, large numbers of people are found in the immediate area. Each day, after the morning and afternoon charters, people congregate around the fish cleaning station to observe the day's catch. During special events the author has observed literally hundreds of people at the cleaning station. Needless to say as planned, immediately adjacent businesses have experienced direct benefits from their proximity to Chinook Pier.

More importantly additional investment has been stimulated by the project. In 1985 Harbourfront Place opened. This project involved the rehabilitation of a turn of the century factory into retail shops, restaurants and other businesses. In itself, it represented millions of dollars of additional investment.

The charterboat captains are also pleased. They have reported significant booking increases because of their downtown location. Walk on charters, that is charters booked on site rather than by phone reservation, dramatically increased by the first summer of operation. It was reported that over 50 walk on charters resulted in August of 1984 alone. The Chinook Pier project has had other positive implications for the Grand Haven charterboat industry by educating the public and others in the community to the economic contribution they can make to an area. Their graduation to a full fledged partner in the development of a coastal community insures their interests will be considered in any future decision making.

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1985 Michigan Charter Fishing Study

Edward M. Mahoney, Mary Brunke and Charles Pistis

Introduction

The number of charter fishing boats operating in Michigan has increased dramatically in the last ten years. There are now 920 state licensed charter boats operating in Lakes Michigan, Huron, Erie, Superior and St Clair. Although the size of the charter fishing fleet and the number of persons who charter fish has grown steadily, little was known about the size and characteristics of the market, the economic impacts of charter fishing, or the investment in charter boats. The void of information made it difficult for charter captains to develop more cost effective marketing strategies and negotiate business loans. It also made it more difficult for the Travel Bureau to develop and target its charter fishing promotion. In addition, the lack of information on the "economic impact" of charter fishing complicated industry efforts to convince state agencies and local units of government to develop and improve charter boat facilities and promotion.

This study, which was funded jointly by Michigan State University's Cooperative Extension Service and Agriculture Experiment Station, was designed to: 1) provide a description of Michigan's charter fishing market, 2) estimate direct expenditures associated with charter fishing trips, and 3) determine the amount captains have invested in their charter boats.

The study was only possible because of the combined efforts of the captains who participated in the study, the Michigan Charter Boat Association, Michigan Sea Grant Agents, and Michigan State University. It serves as an excellent example of the positive benefits that can be realized through cooperative industry-university research.

Study Methods

One hundred boats/captains were contacted to determine their willingness to participate in the study of which 83 agreed. The boats were selected to insure a proportional representation of boats operating in different regions/ports throughout the state. The 20 charter boats operating in Michigan's Upper Peninsula were not included in the study.

Each captain was asked to distribute 10 questionnaires on 10 randomly selected dates between June 1 and October 10, 1985. The dates were assigned to insure a representative sample of dates, and weekdays and weekend days, throughout the season across different regions of the state. Each captain was sent a calendar showing the dates to distrib-

ute questionnaires. They were also mailed reminder post cards several days prior to the distribution dates. Captains distributed a questionnaire to one person per party along with a stamped self-addressed return envelope, and cover letter which explained the purpose of the study and procedures for completing and returning the questionnaire. The letter also informed customers that if they completed the questionnaire and a separate post card (with their name and address), they would be eligible for a drawing for a free charter on the boat on which they received the questionnaire. The free charter was paid for by the Michigan Charter Boat Association.

The questionnaire collected information on: (1) the dates and length of charter trips, (2) the number of charters -half day and full day- they went on during the trip, (3) purpose(s) of the trip, (4) type of lodging used, (5) the number of years they have charter fished in Michigan and number of Michigan captains they have fished with, (6) the number and type of fish caught, (7) trip spending, (8) attributes important in selecting a charter boat, (9) reasons for chartering a fishing boat, (10) reservation behavior, (11) information sources used to select a charter boat, and (12) income, education levels and skill levels of customers.

Fifty four percent (54%) of the 830 questionnaires which were scheduled to be distributed were returned. The names and addresses of a random sample of non-respondents were obtained from the captains and they were mailed follow-up letters stressing the importance of their cooperation along with another copy of the questionnaire. A comparison showed no significant differences, e.g., length of trips, spending, demographics, between respondents and non-respondents.

Each questionnaire was carefully examined before coding, with emphasis on spending data. A series of computer analyses (frequencies and cross tabulations) were performed to identify and correct coding and key punching errors. Again, special emphasis was placed on expenditure data. This included cross-checking spending in each category, e.g., lodging, meals, against the length of trips, party size, travel distance and spending in other categories.

At the end of the season captains were mailed a questionnaire which collected information on: the number of years they have been in business; the number of full day and half day charters they went out on in 1985, and; the purchase price and present disposal of their boats, fishing rods, reels, and baits, down-riggers, fish finding equipment, and radar. Seventy five (90%) of the 83 captains returned the questionnaire. Similar questionnaires were completed by 15 captains who did not distribute questionnaires in order to determine representativeness of the captains which participated in the study. A comparison showed little difference between study participants and other captains.

Findings

Investment in Charter Boats and Number of 1985 Charters

The average Michigan charter captain has been in business for eight years. On average, captains went out on 45 half day charters and 20 full day charters in 1985. Fees averaged \$200 for a half day charter and \$300 for a full day. Therefore, "the average captain" collected \$15,000 in fees not including tips. About 239,000 people went charter fishing in Michigan in 1985 (59,800 charters X 4 persons/trip).

The average disposal value of charter boats state wide is \$28,000 (Table 1). The captains have an additional \$5860 invested in: rods, reels, and baits (\$2480); downriggers (\$1431); fish finding equipment (\$1590), and; radar (\$359). The total amount invested in charter boats state wide is estimated to be approximately \$31.2 million.

Table 1. Present Value of Charter Boats and Equipment.

Boats and Equipment	Average Present (Disposal) Value
Boats	\$ 28,000
Rods, reels, and baits	\$ 2,480
Downriggers	\$ 1,431
Fish finding equipment	\$ 1,590
Radar	\$ 359
Total/boat	\$ 33,860 a
Total Fleet	\$ 31.2 million

a 920 state licensed boats x \$33,860/boat

Charter Fishing Involvement

Charter customers included: ~~38.5% who had not charter fished in Michigan~~ before, 18.5% who had chartered before but not with the captain on whose boat they received the questionnaire, and 43% repeat customers (Table 2). Persons who charter fish are very "brand loyal." Almost half (44%) of the customers, not counting first timers, have only fished with one Michigan charter captain, 27% have fished with two captains, and 13% with three captains (Table 3). Only 16% had fished with four or more captains. Over a third (35%) charter fished in Michigan for the first time in 1983 or 84. Two thirds (67.2%) had not charter fished before 1980. Only 17.6% of the customers had charter fished in Michigan in 1975 or before.

Table 2. Percent of First Time Charter Customers.

Charter Fishing History	Percent
First time charter fishing in Michigan	38.5
First time fishing with the captain	18.5
Fished before with the captain	43.0

Table 3. Number of Different Captains Customers Have Chartered With.

NUMBER	PERCENT
1	44
2	27
3	13
4	9
5 +	7

a Does not included persons who had not charter fished in Michigan previous to the charter on which they received a questionnaire.

Table 4. First Year Customers Charter Fished in Michigan and With the Captain.

First Year They Charter Fished	In Michigan	With The Captain
1975 OR BEFORE	17.6	5.9
1976	.4	1.0
1977	1.6	1.0
1978	2.8	2.1
1979	4.0	2.7
1980	10.4	8.5
1981	10.4	7.4
1982	11.2	12.8
1983	17.6	17.6
1984	17.6	26.0
1985	6.4	15.0

- a Does not include persons who had not charter fished previous to the trip on which they received a questionnaire.
- b 6.4% charter fished for the first time in Michigan in 1985 on a trip previous to the one on which they received a questionnaire.
- c 15% of the customers charter fished for the first time in 1985 with the captain on whose boat they received a questionnaire on a trip previous to the one on which they received the questionnaire.

Charter Fishing Trips/Parties

Charter fishing was the primary and only purpose for the trips of almost two thirds of the charter customers (Table 5). They would not have visited the area if charter fishing opportunities were not available. Charter fishing was the primary, but not only, trip purpose of 18% of the parties. This means that 83% of the parties made the trip primarily to charter fish. Only two percent of the customers did not plan to charter fish prior to leaving home.

The average travel party consisted of 4.6 persons (Table 6). Over half (59.4%) of the travel parties were comprised of immediate family members, 6.8% extended family, 27.3% friends, and 6.5% business associates (Table 7). Ninety two percent of the members of the travel parties charter fished on the trip (Table 8).

Over two thirds (68%) of the people went on half day (5 hour) charters, the remaining 32% full day trips (Table 9). Three quarters went on one charter during their trips, 20% on two charters, and only four percent on three charters (Table 10).

Table 5. Purpose of the Trip on Which Persons Charter Fished.

Trip Purpose	Percent
Charter fishing was the primary and only purpose for their trip	65.2
Charter fishing was the primary but not only trip purpose	18.2
Charter fishing was not the primary purpose for the trip but they planned to charter before leaving home	14.2
Did not plan to charter before leaving home on the trip	2.4

Table 6. Number of Persons on The Trip to the Area.

Number of Persons	Percent
1	2.3
2	16.9
3	17.2
4	33.3
5	14.4
6	9.0
7	1.5
8+	5.4

----- a

mean=4.6 persons

a 228,000 people are attracted to coastal communities for the primary purpose of charter fishing.

Table 7. Relationship of Persons on the Charter Trip.

Relationship	Percent of Parties
Immediate Family	59.4
Extended Family	6.8
Friends	27.3
Business Associates	6.5

Table 8. Percent of Travel Party Members that Charter Fished and Charter Fishing was Their Primary Trip Activity.

	Percent of Travel Party That Charter Fished on the Trip	Charter Fishing was the Primary Activity
Yes	92.4	82.7
No	7.6	17.3

Table 9. Percent of Customers Who Went on Full Day and Half Day Charter Trips.

Length of Trip	Percent
Full Day	32
Half Day	68

Table 10. Number of Charters Customers Went on During Their Trips.

Number of Charters	Percent
One Charter	76
Two Charters	20
Three or More Charters	4

Length of Trips on Which People Charter Fished

Charter fishing generates a large number of overnight stays in the state and communities where the charter boats are located. Eighty three percent of the trips on which people charter fished involved at least one overnight stay (Table 10). The average trip was two (2.2) nights. Over half of the customers (56.5%) stayed in hotels and motels, 13% in campgrounds, and 8% with family or friends (Table 11). The 83% of the parties whose primary trip purpose was charter fishing generate approximately 142,000 hotel/motel room nights and 16,000 campsite nights in Michigan a year.

Table 11. Length (number of nights) of Trips on Which People Charter Fish.

Number of Nights	Percent	Cumulative Percent
0	27.2	27.2
1	26.4	53.6
2	18.5	72.1
3	10.6	82.7
4	4.0	86.7
5	1.5	88.1
6	2.0	90.1
7	3.7	93.8
8	1.2	95.1
9	1.2	96.3
10 or more	3.7	100

Mean = 2.2 nights Median = 1.4 nights^a

Table 12. Type of Lodging Used by Charter Boat Customers.

Lodging Type	Percent
Motel	56.5
Campgrounds	13.0
Relatives /Friends	8.3
Second Home/Cottage	6.4
Other (Lodge, B&Bs, Condos)	15.8

Charter Boat Parties and Experience on the Boat

The average charter fishing party consisted of four persons. Almost a third (32.4%) of the parties consisted of three or less customers (Table 13). Thirty percent of the parties were more than 4 persons. Ninety two percent of the parties caught at least one fish on their charter trips (Table 14). Almost three quarters of the persons who caught fish were allowed to set the hook themselves instead of the captain setting it for them (Table 15). The majority of these indicated that being allowed to set the hook improved the quality of the experience. Over half (53.8%) of the persons who did not set the hook themselves would have liked the opportunity to do so.

Table 13. Number of Persons in The Charter Boat Party.

NUMBER	PERCENT
1	2.0
2	15.0
3	15.4
4	37.5
5	15.4
6 +	14.7

Mean= 4.1 persons	

Table 14. Percent of Charter Parties that Caught Fish.

Someone in Party Caught Fish	Percent
YES	92.3
NO	7.7

Table 15. Percent of Customers Who Set the Hook on the Fish they Caught, Percent Who Said it Improved their Experience, and Percent Who Would Have Liked to Set Hook

	Percent
Set Hook	73.9 ^a
	26.1
Setting The Hook Improved the Experience	94.9 ^b
Would Have Preferred To Set the Hook Themselves	53.8 ^c

- a Only included persons who caught fish
- b Percent of those who set hooks themselves
- c Percent of those who caught fish but did not set the hook.

Reservation Behavior and Information Sources

The majority (86.2%) of the customers made reservations for the charter before leaving home (Table 16). Over two thirds (69.3%) made the reservation more than thirty days prior to the trip. Most (86%) made the reservation directly with the captain, 14% through an intermediary such as a reservation service, motel/hotel, or bait and tackle shop. Nine percent of the customers made a reservation after they arrived in the area where the boat was located. Two thirds of these people were able to reserve the boat of their choice; the other third had no preferred boat. About 5% of the customers were walk-ons without a reservation.

Charter customers were asked what information sources they utilized to select the charter captain/boat. Most customers utilized more than one source of information. Almost half (46%) relied on recommendations and information provided by family or friends, most (75%) of whom had fished with the captain previously. Approximately 19% used information provided in the captain's brochure, 11% saw the boat and made inquiries to the captain, and 5% relied to some extent on signs near the boat. Another 5% received information from bait and tackle stores.

Table 16. Percent of Customers Who Made a Reservation on the Charter Boat.

Reservation Behavior	Percent
Made A Reservation before leaving home	86.2
7 or less days before the trip	15.9
8 to 14 days before the trip	7.1
15 to 30 days before the trip	7.7
31 to 60 days before the trip	40.5
61 to 90 days before the trip	10.7
More than 3 months before the trip	18.1
How was reservation made	
Thru the Captain	86.0
Reservation Service	5.0
Bait and Tackle Store	3.0
Motel/Hotel	2.0
Other	4.0
Made a Reservation once they arrived in the area where boat was located	9.0
Were able to charter their preferred boat	64.0
Had no Preferred boat	36.0
Did not make a Reservation	4.8

Table 17. Information Sources Used to Select Charter Boats.

Source	Percent ^a
Friend/Relative Who Accompanied	23.9
Friend/Relative Who Did Not	22.0
Bait and Tackle Stores	5.0
Businesses near the Boat	3.8
Saw the Boat and Inquired	11.2
Signs Located Near the Boat	5.3
Brochure	19.3
Michigan Charter Boat Guide	3.6
Local Chamber of Commerce	2.1
Outdoor/Fishing/Boat Shows	5.3
Magazine Article or Ad	4.3
Newspaper Article or Ad	4.5
Television Show or Commercial	1.0
Radio Show or Commercial	.7
Reservation Service	1.9

^a Does not add to 100% because people used more than one information source to select charter boats

Spending on Charter Fishing Trips

Tables 17 and 18 show spending for/on charter trips. Total trip spending by charter parties was \$59.5 million. This includes spending at home in preparation for the trip, during travel to and from the location where they charter fished, and near where the charter boat was docked. Charter fees accounted for 23% (\$13,800,000) of total trip related expenditures. The average charter (4.6 persons) party spent approximately \$997 on trips lasting an average of 2.2 nights. Approximately 43% (\$427) of this was spent within ten miles of the charter boat. The average person who goes charter fishing spends about \$224 per trip including \$58 in charter fees. They spent about \$93 per day in communities within ten miles from the boat. Charter customers spend an average \$18 at home in preparation for their trips.

The 83% of the parties whose primary trip purpose was charter fishing spent \$49.5 million including \$9,773,000 for lodging, 11,622,000 for meals (restaurants), and 8,175,000 for groceries. They spent approximately 21 million (not including charter fees) dollars in communities near where the boats were docked. Approximately 34% of this local spending was for lodging, 33% in restaurants, 15% for groceries (including alcoholic beverages), 1% for automobile gas, 6% for entertainment and 11% on shopping and other trip related expenditures.

The average charter boat annually generates approximately \$23,000 in local spending (not including charter fees) by persons whose primary purpose for the trip was charter fishing. That means that they generate about 1.5 times more in local spending than they collect in revenues/fees. If the 1.78 multiplier that the Michigan Travel Bureau utilizes is applied to this amount, local direct and indirect spending generated by a charter boat is approximately \$41,000. This does not include the direct and indirect impacts of local spending, e.g., gas, slilage, storage, repairs, supplies and labor, by the captains.

Attributes Important in Selecting a Charter Boat

Customers were asked to rank the importance of sixteen attributes in their selection of a charter boat. The three most important attributes are: 1) the captain's ability to locate fish, 2) hospitality, and 3) safety (Table 20). Thirty percent indicated that ability to locate fish was of crucial importance. Safety features of the boat and hospitality were considered crucial by more than 20% of the customers. Over a third (34.3%) ranked price as either unimportant or only somewhat important in their decision regarding which boat to charter. In large part this is due to the lack of significant price differentials between boats. Less important factors included nearness of the boat to where they vacationed or their second (vacation) home, and motels/hotels in the area.

Reasons for Charter Fishing

Customers were also asked about the reasons why they chartered a fishing boat (Table 21). Important reasons for charter fishing include: (1) challenge and excitement, (2) relaxation, (3) to enjoy nature and the lakes, and (4) the chance to get away. Less important reasons are catching fish to eat, catching many fish, and the chance to catch a trophy fish.

Table 18. Spending by Charter Fishing Parties.

Category of Spending	c		d		Total Spending by Charter Parties		Local Spending by Charter Parties	
	b Party	Person	Party	Person	All parties	Primarily for Charter Fishing	All Parties	Primarily for Charter Fishing
Charter Fees	\$231.00	57.70 ^a	13,800,000	11,454,000
Lodging	\$196.90	42.80 ^f	145.80	31.70	11,775,000	9,773,000 ^l	8,719,000	7,237,000
Meals	\$234.15	50.90 ^g	139.85	30.40	14,002,000	11,622,000	8,363,000	6,941,000
Groceries ^h	\$164.70	35.80 ⁱ	63.00	13.70	9,849,000	8,175,000	3,767,000	3,127,000
Gas	\$ 25.50	5.55	5.60	1.20	1,525,000	1,266,000	335,000	278,000
Entertainment	\$ 50.30	10.95	27.60	6.00	3,008,000	2,497,000	1,650,000	1,370,000
Shopping and other spending	\$ 94.80	20.60 ^j	45.10	9.80	5,669,000	4,705,000	2,697,000	2,238,000
Total					59,628,000	49,492,000	25,531,000 ^k	21,191,000 ^k

a Based on charter boat parties of 4 persons

b All spending other than charter fees are based on travel parties which averaged 4.6 persons

c Total trip includes : at home in preparation, travel to and from the area, and in the local area

d Local spending was defined on the questionnaire as within 10 miles from the boat

Some people did not stay overnight within 10 miles from the where the boat

was docked. They stayed overnight in other areas more than 10 miles away.

e 83% of the parties made their trips for the primary or only purpose of charter fishing

f \$ 19.45 per person per night. 27% did not stay overnight, almost 15% stayed with relatives or in a
in a second home, and 13% in campgrounds

g \$ 15.90 per person per day (3.2 day average trips).

h includes snacks and alcoholic beverages

i \$ 11.20 per person per day for the trip

j \$ 6.45 per person per day for the trip.

k Many of the captains do not reside in the communities where their boats are docked and it not possible
to determine the percent of charter fees that remain or are spent in local economies

l 605,000 person nights. Approximately 171,000 hotel/motel room nights, 19,500 campsite nights

Table 19. Distribution of Spending by Charter Parties.

Category of Spending	At Home in preparation/ before the trip		Travel or Outside Area the area where a boat was located		Local Near Boat Spending	
	party	person	party	person	party	persons
Lodging	-----	-----	51.10	11.10	145.80	31.70
Groceries	56.15 ^c	12.20	45.55	9.90	63.00	13.70
Meals	3.00	.65	91.30	19.85	139.85	30.40
Gas	9.00	1.95	11.00	2.40	5.50	1.20
Entertainment	-----	-----	22.70	4.95	27.60	6.00
Shopping and other expenses	14.25	3.10	35.40	7.70	45.15	9.80
Total	82.40	17.90	257.10	55.90	426.90	92.80

a Some persons stayed overnight but outside the area where the charter boat was docked

b Within 10 miles of the charter boat.

c Includes snacks and alcoholic beverages

Table 20. Attributes Important in Selecting a Charter Boat.

Attributes	NI	SI	I	VI	C	Mean
	0	1	2	3	4	
	----- Percent -----					
Captain's Ability to locate fish	1.7	3.5	18.0	47.2	29.6	3.0
Safety Features	4.7	3.8	24.3	44.6	22.6	2.8
Hospitality shown guests	2.6	4.3	20.4	51.7	21.0	2.8
Catch Rate of fish in the area	5.3	9.1	32.3	39.3	14.1	2.5
Species found in the area	8.6	11.5	28.6	37.5	13.9	2.4
Comfort Features on the boat	8.7	13.4	38.5	31.8	7.6	2.2
Appearance of the boat	12.2	13.7	37.6	32.9	3.5	2.0
Contamination levels of fish in the area	22.7	18.2	21.5	23.3	14.3	1.9
Size of the Boat	14.1	17.6	38.2	25.6	4.4	1.9
Price	14.4	19.9	37.2	23.5	5.0	1.9
Nearness to Their vacation location	58.5	10.4	13.4	14.0	3.6	.9
Motels in Area	49.5	17.7	22.8	8.4	1.5	.9
Nearness to their second home	76.4	5.6	8.4	7.1	2.5	.5

	NI - not important		I - important		C - crucial	
	SI - somewhat important		VI - very important			

Table 21. Reasons Why Customers Went Charter Fishing.

Reasons	NI	SI	I	VI	CR	Mean
	0	1	2	3	4	
	----- Percent -----					
Challenge / Excitement	4.4	5.8	29.4	43.1	17.5	2.64
For Relaxation	3.9	6.9	29.4	44.4	15.4	2.61
To Enjoy Nature/Lakes	4.5	8.7	37.5	36.7	12.7	2.44
To Get Away	13.7	10.7	26.6	32.3	16.7	2.30
Family Togetherness	23.6	11.5	24.1	27.5	13.4	1.96
For Companionship	16.7	19.0	28.9	27.7	7.7	1.92
Catch Fish to Eat	18.1	29.9	28.5	17.5	5.6	1.62
To Catch Many Fish	27.8	29.8	22.8	14.5	5.7	1.41
To Catch A Trophy Fish	43.7	21.5	17.7	11.4	5.6	1.15
Improve Fishing Skill	44.9	22.8	18.8	10.0	3.5	1.00
To do Business	79.5	5.7	7.3	5.7	1.8	.50

Customer Characteristics

Seventy percent of charter boat customers are Michigan residents. Over a third live in southeast Michigan (Table 22). Approximately 19% of the customers reside in Ohio (11%), Illinois (4.5%) and Indiana (3.7%). Four percent of the customers are from Southeast and South Central states.

Charter customers have relatively high household incomes (Table 23). Three quarters have household incomes of \$30,000 or more, 44% \$50,000 or more. Over a quarter (26.7%) have college degrees (BS/BA), and 15% have advanced degrees (Table 24).

Approximately 57% of charter boat customers consider themselves to be either experienced or expert anglers. About 13% rate themselves as beginners. Over half have been fishing for 25 years or more. Approximately 14% have fished five or less years.

Table 22. Resident Zip Code Zones of Charter Customers.

Zip Code Zone	Percent
Michigan	70.0
Royal Oak (480)	21.7
Detroit (481,482)	14.3
Flint (484,485)	7.9
Saginaw (486,487)	4.2
Lansing (488,489)	6.9
Kalamazoo (490,491)	4.6
Jackson (492)	1.5
Gd.Rapids (493-495)	5.4
Traverse Cty (496)	2.2
Gaylord (497)	1.3
U.P. (498,499)	0.0
Ohio	11.0
Columbus (430-433)	2.4
Toledo (434-436)	4.2
Cleveland (440-441)	.8
Cincinnati (450-452)	1.4
Other	2.2
Illinois	4.5
N. Suburban (600-603)	1.5
S Suburban (604,605)	.7
Chicago (606)	1.0
Other	1.3
Indiana	3.7
Kentucky	1.5
Southeast(Tennessee, Mississippi, Alabama, Florida)	2.0
South Central(Texas, Louisiana, Arkansas, Missouri)	2.2
Other States and Canada	5.1

Table 23. Gross Family Income of Charter Boat Customers.

Gross Family Income	Percent of Charter Customers
Less than 10,000	1.9
10,000-14,999	1.7
15,000-19,999	3.4
20,000-24,999	6.7
25,000-29,999	8.0
30,000-34,999	11.1
35,000-39,999	8.7
40,000-44,999	7.2
45,000-49,999	7.0
50,000 or more	44.3

Table 24. Education Levels of Charter Boat Customers.

Level	Percent	Cumulative Percent
Grade School	1.0	1.0
Some High School	3.1	4.1
High School	25.6	29.6
Some College	28.4	58.1
College Degree	24.3	82.4
Some Graduate School	2.4	84.8
Advanced Degree	15.2	100.0

Table 25. Customer Skill Levels and Years of Fishing.

Skill Level/Years of Fishing	Percent
Skill Level	
Beginner	12.8
Somewhat Experienced	31.0
Experienced	50.4
Expert	5.8
Years of Fishing	
5 or less years	13.6
6 to 10 years	8.2
11 to 15 years	5.7
16 to 20 years	13.7
21 to 25 years	8.2
26 + years	50.6

Conclusions and Recommendations

Charter fishing is an important element of Michigan's tourism industry. Approximately 228,000 persons a year are attracted to coastal communities primarily for the purpose of charter fishing; approximately 67,000 are out-of-state residents. These people spend about \$ 21 million, not including charter fees, in communities located near the charter boats. Out-of-state residents whose primary reason for their trip to Michigan was charter fishing spent at least \$ 7 million in the state in 1985. State agencies and local units of government should take this into consideration when making decisions which effect the charter boat industry. The Travel Bureau, regional and local tourism organizations, and chambers of commerce should cooperate with the industry to promote charter fishing.

The increasing number of charter boats in Michigan and surrounding states makes it more important that charter captains constantly improve the effectiveness and efficiency of their marketing efforts. They should identify the types (market segments) of customers they want to attract and develop service offerings and promotion which will appeal to them. Some customers are concerned only with catching fish, others place more importance on other aspects that create a charter fishing experience, e.g., hospitality, relaxation. Based on the results of the survey it appears that some charter captains may be over emphasizing the importance of catching many fish at the expense of other elements of the experience. If setting the hook themselves is more important to a customer than a fish "in the box" the captain should offer them the opportunity to do so.

Charter captains should recognize that they are providing and marketing a service. Given the importance of word-of-mouth promotion they should focus on providing a quality recreational experiences to every customer who fishes with them. Their promotional material, e.g., brochures should stress their unique strengths that are important to their target markets. Promotional material should also include non-fishing opportunities and facilities located near where their boats are docked. Greater emphasis should be placed on cooperative promotions with other charter boats, motels, and campgrounds. Captains should work with local communities to develop charter boat facilities/docks which are accessible and aesthetically pleasing to both existing and potential customers.

Michigan's charter boat industry/association should develop promotional materials which stress the safety, affordability, and value of charter fishing as compared to other types of fishing and recreational activities. At present charter fishing attracts primarily high income people. The industry should also, in cooperation with the Travel Bureau, more aggressively market Michigan charter fishing to out-of-state markets. There appears to be special potential in Southeast and

South Central states. The promotion could stress quality fishing in a cooler less humid climate. Special attention should also be directed at promoting spring and early summer charter fishing in an effort to distribute demand throughout the season.

Marketing is a key to the continued success of Michigan's charter boat industry. It will require greater cooperation between captains, and between the industry and state agencies including the Fisheries Division, Waterways Division, and the Travel Bureau.

Marketing the Charterboat Fishing Industry in Michigan

Ray L. Underwood

Ray L. Underwood
Executive Director
Michigan Boating Industries Association
Legislative Agent Michigan Charterboat Association

The Michigan Boating Industries Association was founded in 1958 and its sole purpose at that time was to promote the Detroit Boat and Fishing Show and to sell boats. Over the years, the Detroit Show has developed into the second largest dealer-owned, winter, public show in the United States and the association has broadened the scope of its activity to include a whole spectrum of services that will also eventually apply to the Michigan Charterboat Association.

Our membership is now at 290, 10 years ago it was at 140 members. We offer to MBIA members a Visa/Master Card program where members are chained together through a central bank which has 750 - 800 outlets in the state, though paying a 2.5% instead of a 5.6% fee when going it alone. We promote the Detroit Boat and Fishing Show, fishing tournaments; we have advertising campaigns and we also help to develop and place ads with our members. The MBIA also boasts an extensive legislative department.

A comparison can be drawn between the MBIA and the Michigan Charterboat Association. As a fisherman, in my capacity as executive director of the association, I do a lot of public relations fishing with legislators, outdoor writers and other key opinion leaders. To compare these two associations, you would almost have to go back to 1958 because that is about where the charterboat association is at. Where are they going to go? In my opinion, I believe with the proper guidance the association will go to the top of leadership. You are a small and struggling organization that pays very little dues but if I pulled out the minutes from the 1958 Board of Directors Meeting for the Michigan Boating Industries Association they would closely resemble the recent MCBA meetings.

If we compared the automobile dealers association to the MBIA we would find that we are where they were in 1919 or 1931. I'm not saying one is better than the other but I am saying that the recreational boating and charterboat industry are young and have great growth potential.

What are the needs of the Michigan Charterboat Association? Above all else the industry needs fish to be productive. Water is plentiful and we currently have enough fish so at the present time our needs are satisfied.

The charterboat industry also needs a professional attitude in order to succeed. At the seminar I recently spoke at, I saw in attendance some of the most professional fishermen that we have in our state. We need the professionalism to reach people and to make them understand that to be part of the charterboat industry you need to be a professional. In order to reach this professional objective, one has to join and support the association and watch the legislation.

It takes a lot of financial support to be a true professional. The industry needs professional executives and presently the association is depending on elected officials who don't receive any pay except mileage travel. Mileage and pocket expenses aren't enough and they certainly don't make up for having someone out there planning programs, planning advertising and telling the public and legislators about your association.

The individuals who took time out of their busy schedules to attend this seminar should be commended. You were making an effort to professionalize yourselves and now it's up to you to go back and professionalize the person who didn't attend the seminar. The largest percentage of people in this industry aren't professionals. They don't belong to professional organizations although they may support a local organization. But you also have to play a big part in the industry that you are associated with and you can't manage that on \$25 or \$35 a year.

The public must be made aware that this is an industry of the state and this can be done in several ways. Public awareness can take place every day via word of mouth on the streets, in your home town or in a neighboring town by getting in touch with your local legislator. One must get involved in their local community!

If you are a professional, offer your time and visit your local high school to speak to their outdoor and travel clubs. School officials enjoy residents coming in and teaching their students about extracurricular activities. Remember, these students are the customers of the future and that's marketing. If you have a boat on a trailer offer to bring it to school for a show and tell session. Make sure you invite the parents to this activity and you will be igniting public awareness.

Lately, the charterboat industry has had to deal with various crisis situations such as the Gil problems, water diversion and registration fee increases but if you market your industry to the public in a good light, you won't have as many problems to deal with. If a majority of a legislator's constituents are aware of a charterboat operator in an industry you will have fewer problems.

During the recent hearings that were held, the public wasn't present and it looked as though they didn't care. But if the industry had good public awareness, association members could have rounded up 10 or 15 more people into the hearings and that would have made an enormous difference.

Members must market the industry to the legislators. Very few legislators know that the charterboat industry is big. Combined with the boating industry, the two industries combined have about a \$2.5 billion economic impact on the state of Michigan. Legislators aren't aware of this. An example of this would be a current piece of legislation that affects the charterboat industry and which was offered in the House of Representatives. It went through the Board of Directors of the MCBA, it went all the way to the floor of the house and was then brought to its knees by one legislator and the group of charterboat people in his area. If the legislators had gotten up and said, "Yes, we recognize the industry, we know the industry" it would have made a difference. But because of the lack of marketing to the legislators on behalf of the charterboat industry, the bill was withdrawn from the floor. It was sent back so that the little problems could be ironed out.

How would I market the charterboat industry? The Department of Natural Resources in Michigan (we have an inspection program for those who are from another state), couldn't keep up under the current budgets with the growth of the charterboat industry. They've had some problems and we're having to change the inspection procedures so that it doesn't have to be subsidized from the general fund. There are a variety of ways to market the industry. After the industry has developed its professionalism,

the association can begin to do marketing for you. You will see changes coming out and will see things coming out from within the group. An example is "Take Your Boat To Launch". This means come on aboard, get involved and go to a boat show.

There are many things that you can market which aren't that expensive. One of the things the charterboat industry can do is promote themselves more at trade shows like the Detroit Boat and Fishing Show. The criteria for selecting a show is the geographic draw of the show in relation to your target market. The charterboat industry could get involved by getting a booth at these trade shows. You can have captains explaining to intrigued spectators how they caught such a big fish.

Pick a show where you are going to draw a market place. You don't have to put yourself in direct competition with a thousand others in your state. You may consider traveling out of state to another market.

Emil Dean, an avid speaker and fisherman, is going to Hartford, Connecticut to promote fishing in Michigan. Directors of trade shows are often willing to trade booths, accommodations and perhaps, air fare to come in so they can use recognizable faces in your industry as public relations speakers.

The selling environment of the show is equally important. If you go to a Christmas craft show and the selling environment isn't boats and/or fishing and it's not drawing in the outdoor type of people you want, then you are obviously in the wrong show. Make sure that where ever you go to promote your business, the selling environment is right.

Whether you go to a show as an industry or as an individual, you must consider the cost of the show. The cost of the the show divided by the number of potential customers. If you go to a show that cost you \$400 and their annual draw of attendance (ask for the audited attendance not the published attendance), is 20,000 versus \$400 in Detroit where they draw 130,000 people, obviously your chances are better in Detroit for the same amount of money.

The mix of exhibitors at the trade shows is very important. You can mix with boat dealers, outdoor people and other fishing people and that is very important. Don't shy away from a major show or any other show because there are several charterboat companies there. Don't be afraid of promoting your business in the same area. If you're a good professional and you've got a good product then the customer will be on your boat this year.

Personalities that frequent a show often make an enormous difference. You might promote your product and your industry in a multi-food show if Ted Williams was going to be there showing people how to catch fish and how to cook them.

There is a lot of marketing you can look at. You can advertise in magazines. As an industry, we can look at the industry in this state. The travel bureau puts out a pamphlet that lists all the charterboat captains and the lakes that they fish in. If you were promoting your industry through these trade shows, you would be giving these things out to nearly a million people in the state of Michigan that fish and frequent these trade shows. Write the editors of magazines as a representative of the industry and offer your services in any way that you can. The bottom line is to get involved!

Regarding advertising, some ads are so busy that you can't read them. The best ads are simple. But what is the most effective magazine and what is the most effective market that you should advertise in? Who's reading the magazine? A lot of the magazines can tell you that and a lot can't. Don't just spend \$900 advertising dollars because somebody said we've got a great fishing magazine. Maybe you should be advertising in Michigan Women telling them what a great experience they can have bringing their family to Leland so they can shop, see fish smoked and cleaned and walk down a quaint village while her husband fishes. Those are things you should always consider.

The most important thing someone can do for the industry is to be spoken of highly by customers. When you've got that guy on your boat, he's a captive audience. When that guy leaves, he is going to be happy. He doesn't need a whole tub of fish. I have not seen one customer unhappy even if he didn't catch any fish. The charterboat captains that operate in this state offer a high quality, recreational experience which doesn't depend on how many fish were caught.

What do I see as the future of the charterboat industry? I see less charterboats because we are going to raise the fees and without a doubt, there will be more professionalism. There will be more Ft. Lauderdale type operations. You are seeing that more in Grand Haven and if my plans come true, you are going to see more professionalism around the city. There will be more problems with legislators because of the budgetary constraints concerning the fisheries division. We all must get involved with that.

What and who controls our future? You do and the legislators control the future of this industry. In this state, God doesn't raise the primary sport fish, the state does. In Florida, you can say that God controls the fishing but not here. The Department of Natural Resources is responsible for the fish in Wisconsin, Illinois and for the majority of the states. The industry must get involved in this process. And it must market itself to the D & R person as a group, to the fishery division and to the legislative division just as though it would be marketing the industry to the public. If you area is important, you've got to get more fish than the next person.

The most important thing that you can do to control your future is not worry too much about the fish but become a professional. Professionalize the individual that is parked right beside you, the person that didn't attend the seminar. You can do this by professionalizing yourself to a little higher grade. With all this in mind, try to market your industry in the ways I have mentioned and always act as a professional.

A Case Approach to Packaging and Marketing the Charter Fishing Experience in New York

Bruce Dunning

ABSTRACT

This corporate business venture contracts with Lake Ontario charter operators and river guides to market salmonid fishing. Various packages were developed and priced to appeal to specific market segments and distribution channels. A charter brokerage business was developed to cater to the sportsman market. Additional outdoor recreational activities, such as white water rafting, serve to diversify the company's business portfolio and add to its revenue base.

Outdoor Pursuits Inc. was incorporated in the fall of 1984 by its current president, Bruce Dunning. Mr. Dunning spent 20 years with a "Fortune 100" company and held numerous positions in the marketing and business planning disciplines. He has further conducted a charter fishing business on Lake Ontario since 1983. Combining backgrounds of both experiences, he saw a strategic window--a set of needs that existed in the marketplace for which no commercial enterprise existed to provide fulfillment. He left his corporate post in the summer of 1984 to create and manage Outdoor Pursuits Inc. The core business activity of this company is to package and market Lake Ontario charter fishing.

PRODUCT DEVELOPMENT

A contractual arrangement was initiated with interested charter operators, lake wide, who met the minimum requirements established by Outdoor Pursuits. The contract was accompanied by a fee schedule by which charter operators would be compensated for a package of services provided. The base fee is related to vessel size, charter length and the number of people in the fishing party. Captains are additionally paid for required services such as filleting, instant color photos, ice for customers' coolers, etc. Captains are not permitted to directly rebook charters with Outdoor Pursuits customers. Outdoor Pursuits affiliated captains must meet minimum requirements in the areas of USCG licensing, safety equipment, fishing electronics and gear. The arrangement commits Outdoor Pursuits to use its best efforts in securing charters, pay the captains within 5 days and share deposits with captains when charters are cancelled. Gratuities and the fee for extra hours sold to parties already aboard belong to the captains.

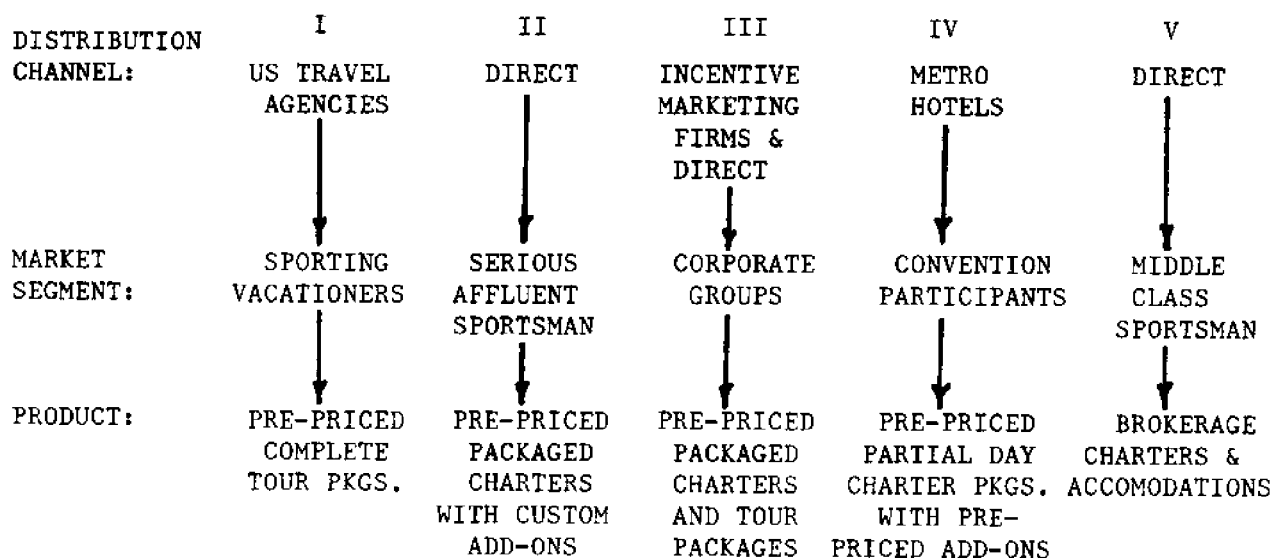
The relationship is attractive to qualified charter operators in that Outdoor Pursuits fills open days in their schedules. Compensation to the captains averages somewhat less than what they normally charge but is attractive because Outdoor Pursuits absorbs all of the marketing and administrative costs while providing revenues on days that would most likely be open and without compensation at all. A scheduling system has been developed whereby captains update Outdoor Pursuits of their available dates in a timely fashion.

During the spring of 1985, Outdoor Pursuits developed an additional contractual

relationship with these same captains when it established the Lake Ontario Charter Brokerage directed at gaining a greater share of the sportsman market who preferred to buy an unbundled product rather than a package. Through this arrangement, the customer pays the Charter Brokerage an up-front deposit which represents the commission on the charters. The customer pays the balance directly to the captain at the conclusion of the charter. Captains are permitted to rebook brokerage charters directly with the customer. Accomodations arranged by the Charter Brokerage are also done on a commission basis.

PRODUCT/MARKET STRATEGY

The company recognizes and directs its efforts primarily at 5 distinct marketing channels which are summerized in the following diagram:



Brochures were developed that describe the packages and pricing for each product and market segment. The components of each package are geared to meet the anticipated needs of each segment. Pricing, within quite a broad range, did not seem to be too sensitive. When it appeared to be an issue up-front, customers were quite readily persuaded to higher priced vessels and packages when they fully understood the benefits.

MARKETING COMMUNICATIONS

During the first year of operations, advertising dollars were committed to all market segments in an effort to judge realtive returns. With merely one year in the marketplace, it is difficult to assess which segments hold the most potential sales, profitability and returns per dollar of promotional expenditure. During the first year, the middle class sportsman and the serious affluent sportsman segments provided the greatest number of charters and total revenues. The former afforded more profit per excursion than did the latter. The traveling sportsman segment, sought through the travel agency system, performed the poorest in relation to the company's expenditure of time and effort. It is felt that much of the success with the two sportsman segments is directly attributed to the media coverage of the company and its services rendered by outdoor writers throughout the northeast. The combination of press releases

timed carefully with the advertising schedule increased response many fold. All respondents are sent brochures, custom letters generated on the computer and timely information to help plan their trip. The incorporation of a reply card for the customer to use in providing us the specific information needed to put the details of the trip together substantially increased the number of charters booked from the inquiry response packages sent out. Every inquirer's name and address is put on the computer for future direct mail use.

RESULTS

The first year of operations is viewed by management as successful in every way. The projected operating loss was contained within expectations. Product development and refinement is now well down the road, but will be a continuing process. Recognition in the marketplace is evident. All the big start-up costs are now behind us. A client list and a prospect list are now the company's most important assets. Plans and budgets for the 85/86 fiscal year are complete and we have confidence in our ability to attain them. Charter operators, accommodations and related services now recognize our integrity in conducting the business and value our association with them. Charters for the 1986 season are already on the books. We must however recognize that the only year that is more difficult than the first year for a new company is the second one. We have confidence in our future and plan to be profitable in our second year of operation.

Financial Management Applications and Tax Considerations

Norman K. Bender

Abstract.—Financial management is a major part of achieving broader goals in a charter fishing operation. Key factors include maintaining adequate records of income and expenses and using financial analysis methods as part of an organized decision-making process. Managing taxes is one major application of financial management that can reduce tax bills while maintaining legal compliance with appropriate tax codes. Educational programs can be developed that train charter captains in utilizing financial management techniques.

REASONS FOR FINANCIAL MANAGEMENT

There are numerous reasons for managing the financial aspects of a charter boat business. Among the more important ones are:

- 1) To assist the owner's efforts to maximize net income;
- 2) To assist decision-making activities that occur during the following common situations (Bender, et al, 1984):
 - * when considering whether to start a charter fishing business
 - * managing the business on a daily basis
 - * modifying a boat
 - * replacing an existing charter boat
 - * managing the effects of a good season
 - * dealing with a poor season or a disaster
 - * leaving charter boat fishing; and
- 3) To provide financial data to be used when:
 - * managing taxes and filing tax forms (local, state and federal levels), and
 - * evaluating credit needs and supplying data for loan applications.

A common aspect of most owner-operated charter fishing businesses is the captain does not have a formal background in business management, yet is called upon, by circumstances, to perform management functions on a daily, short-term and long-term basis. The ability to manage the fishing operation is a key difference between a good and a poor skipper (Chaston, 1984).

Certain aspects of financial management (record keeping, filing tax forms, etc.) are often looked upon as additional burdens placed upon the captain's shoulders. There is another more positive approach that views financial management as a means toward achieving specific goals established by the captain. A captain taking this positive view uses financial management

methods to reduce financial risks while making decisions that need to be made regardless of the information on hand. These decisions are going to be made whether or not the captain understands their potential impacts upon the fishing business. It makes sense to reduce the risk to the business by utilizing up-to-date financial data and modern decision-making methods in a new or continuing charter fishing operation.

FINANCIAL DECISION-MAKING METHODS

A captain does not need a formal business education to apply financial management methods to a fishing operation. There are methods that can be learned and applied by any captain. Financial management combines financial as well as non-financial information which can affect the economic well-being of the charter boat operation.

The basic foundation of any financial management system is the recording of incomes and expenses. These two categories of financial data provide the raw material used when making nearly all financial-related decisions. It is important that the captain keep track of charter fishing incomes and expenses by utilizing a record keeping system. It can be maintained in a manual record book or a computer spreadsheet.

The captain needs to keep informed of all pertinent information (financial and non-financial) that could affect the charter business such as:

- * fishery stock conditions for targeted species and related resource management regulations;
- * current market prices for similar charter trips as well as the number and quality of competing boats; and
- * economic trends that could affect both business expenses (like fuel prices and interest rates on loans) and the demand for charter fishing services (like unemployment rates in metropolitan areas).

The above types of information can be obtained through subscriptions to trade magazines, being put on natural resource department mailing lists, joining professional associations and participating in dockside discussions with other captains.

Financial data is most useful when it is analyzed with the following decision-making tools:

- * profit and loss statements
- * cash flow statements
- * net worth statements, and
- * partial and total budgets

Sample forms in Bender, et al (1984), can be used by charter captains to conduct financial analyses. This publication, the Advisory Handbook on Fishing Financial Management, reviews the use of financial forms when making financially related decisions. Managing a charter fishing business thus involves combining financial and non-financial information to assist the captain or owner in making "informed" decisions that reduce risk and allow movement

toward short- and long-term goals. Two common situations involving financial management are the areas of tax management and obtaining credit. Smith (1975) covers the broad decision-making process which integrates financial and non-financial considerations.

MANAGING FISHING TAXES

Tax management is the process of handling tax affairs in a manner that minimizes one's tax burden while operating in accordance with state and federal tax laws. It involves keeping informed of appropriate tax codes that affect a fishing operation. This section was obtained from Bender (revised 1981) which covers tax management for commercial fishermen.

After obtaining current tax law information, the captain then should develop tax management strategies designed to achieve the following goals: paying only the minimum tax required under existing tax laws or planning purchases of a new boat, truck, or electronics equipment so that these big ticket purchases occur during high income years.

It is virtually impossible for one person to be constantly up-to-date on all tax regulations affecting a charter fishing operation. Captains can obtain the latest fisheries-related tax information from local Sea Grant Marine Advisory Program offices. Advisory agents there are familiar with tax regulations, or they have access to other Advisory staff who know what these regulations are. Additional information is available from state tax offices, the Internal Revenue Service and professional tax preparers.

Utilizing Tax Preparers

Charter captains can manage taxes themselves or they can seek the services of a qualified tax preparer. Accountants, bookkeepers and tax preparation firms often handle the tax management needs of charter fishing captains. The effectiveness of tax preparers depends upon their knowledge of tax regulations and rulings and their understanding of a specific fishing operation. The key success factor (for captains) is the tax preparers' ability to apply tax management principles to their specific fishing business.

Local captains may prove helpful in locating highly qualified tax preparers. Since most tax preparers will work with financial records (income and expenses) only at the end of a tax year, a record system should be worked out that is geared to the information needs of both the captain and the tax preparer. It may be worth the extra expense to have an accountant recommend a record system. This will be helpful if the captain utilizes a tax preparer at year's end or if an accountant is working on the records throughout the year.

Basics of Tax Record Keeping

When managing fishing operations to minimize income tax, it is important to work at it throughout the year--not just when filing income tax returns. A record keeping system should be maintained that meets business needs as well as documents income and expenses as required by the tax codes. There are two approaches to keeping good records:

1. Records can be maintained just to meet Internal Revenue Service and State Tax Department requirements for information which substantiate income and expense data listed on tax forms, or
2. A record system can be set up to meet IRS and state tax requirements while also providing information needed for loan applications, short-term decision-making such as cash flow projections, and long-run financial planning purposes.

A set of records should be kept that assists in making those day-to-day decisions that constantly occur. It is difficult to establish the best depreciation schedule for fishing assets without a good record system. Records can help accomplish more than just managing taxes. A cash flow projection for each month will help maintain enough money on hand to meet expected seasonal expenses (winter overhaul, spring refitting, etc.) as well as unexpected expenses.

When applying for credit, a captain must demonstrate reasonable proof that a loan can be repaid over a specified time period. A cash flow projection together with income and net worth statements are used by credit specialists when evaluating loan applications.

There are many kinds of record books available from Marine Advisory Service offices, business supply companies, and accounting firms. Select a record system that:

1. meets income and expense information needs
2. is not too complex for a particular situation, and
3. provides information easily when needed.

A good record book lists business expenses in an easily understood accounting form. A record system, in its simplest form, keeps track of income received and expenses incurred in a fishing business. How that income and expense information is recorded, analyzed, and used results in the variety of systems used today.

Whether an accountant is hired to keep books and prepare tax forms, a spouse maintains them, or the captain maintains the records, it should properly document all fishing expenses and income. Remember, the tax preparer has only the records provided to work with.

There are several methods of substantiating expenses:

1. Maintaining a separate checking account for fishing-related expenses is the simplest method. Monthly bank statements provide an automatic record of deposits and the canceled checks will help substantiate fishing expenses.

2. Recording information from store receipts and keeping them in envelopes is probably the most common method of keeping track of fishing expenses. However, it is easy to misplace a receipt or even forget to obtain one when a captain is in a hurry and has other things on his/her mind.
3. To replace a missing receipt, a handwritten note can fill the need for expense documentation. Handwritten notes should have the following information:
 - a. item purchased
 - b. price
 - c. where the item was purchased, and
 - d. date of purchase.

The Internal Revenue Service usually will allow handwritten receipts for occasional purchases of relatively small cost items such as tools. The I.R.S. might, however, be dubious about a handwritten receipt for a \$10,000 diesel engine.

It is a good idea to record expense and income data on a regular basis to avoid overlooking small purchases easily forgotten in a few days.

Those few fishing firms with full-time bookkeepers usually maintain records on a daily basis. For most captains, it is sufficient to record incomes and expenses at the end of each week.

A choice must be made between the "cash" method and the "accrual" method when setting up an accounting system. The accrual method records each transaction (purchase of an item or income received) on the date the transaction occurs. The cash method records each transaction when actual payments are made.

Several publications provide additional information designed specifically for fishing captains operating in near-shore fisheries. The Tax Guide for Commercial Fishermen, IRS Publication No. 595, describes records that meet I.R.S. tax reporting requirements for fishermen operating as sole proprietors--that is, they are not operating as partnerships or corporations. This tax guide is available at local Marine Advisory offices.

Several Marine Advisory programs have published record-keeping books for setting up a new system, as well as providing tips for updating existing records. These record books are: Louisiana (Fisherman's Record Book), Maine (Commercial Fishermen's Account Book), and Maryland (Watermen's Record Keeping Book and Manual). These books can provide useful information for charter captains.

Sample Income and Expense sheets which include basic information needed for fishing records are illustrated on the following page:

INCOME: Month _____ Income Break-down

Date	Total Income	Remarks	Type of Trip (1/2 day, all day, etc.)

Monthly
Total

EXPENSES: Month _____

Date	Description	Expense	Ck.#	Operating Expenses	Gear & Equip.	Repair and Maint.

Monthly
Total

ANNUAL INCOME AND EXPENSE SHEET

Year 19 _____

Month	Income	Expenses	Net Income
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

Total

Net Income = Income minus Expenses

Current Tax Information

Managing taxes requires up-to-date information on federal, state and local tax regulations affecting a charter fishing business. This can be accomplished jointly by a captain, tax preparer and even a state-wide trade association.

Key items include:

- * listing of taxes and specific reporting forms
- * filing dates
- * filing requirements
- * status of crewmembers (employed, self-employed, etc.) and the filing responsibilities of the boat owner and crewmembers (for social security and unemployment taxes)
- * deductible business expenses which commonly include: property taxes, state and local income taxes, employee expenses, dock rental, operating expenses, interest on mortgages and loans, etc.
- * depreciation expenses
- * investment credit
- * income averaging
- * fuel tax exemptions and credits for off-road vehicles.

Wilkins (1975) surveyed participants at fishing tax workshops and found that they identified deductions and depreciation as the most valuable topics covered. Since tax laws and rulings will change over time, it is important that the captain and tax preparer maintain their knowledge of current tax codes and their implications for the charter business.

Summary of Tax Planning Strategies

Basic Objective: * Manage tax affairs in a manner that minimizes tax bills while following state and federal tax laws.

Methods:

- * Maintain business records needed for tax purposes as well as for making financial decisions.
- * Keep a folder containing previous years' tax forms and supporting materials.
- * Keep informed of State and Federal tax codes that affect fishing operations through contacts with:
 - Sea Grant Marine Advisory Program
 - State tax agency
 - Internal Revenue Service
 - Tax preparer
 - Other fishing captains and trade associations
- * Evaluate your tax situation throughout the year, not just at tax reporting time.

FINANCIAL MANAGEMENT EDUCATIONAL PROGRAMS FOR THE CHARTER FISHING FLEET

Financial management educational programs assist captains in learning how to manage their charter fishing businesses while utilizing basic financial management techniques like record keeping, decision-making methods and financial analysis statements.

There are several steps that will assist both Extension agents and industry association officers when organizing financial educational programs.

1. Identifying Specific Target Audience(s)

Financial programs may be directed toward fishing captains, spouses, financial managers or tax preparers. It is important that the program organizers have a clear idea of the intended audience as well as their level of expertise of the subjects to be covered.

2. Identifying Appropriate Financial Management Topics

Identifying the audience and appropriate topics should be developed together. There are numerous approaches to packaging a financial management educational program. One approach which I have used considers the following topics:

- * Financial record keeping
- * Decision-making tools (financial statements, cash flow analysis, budgeting, ratios, etc.)
- * Utilizing decision-making techniques
- * Understanding costs and returns data
- * Applying financial management to taxes
- * Analyzing the need for credit, ability to repay a loan and evaluating alternative sources of credit.

3. Utilizing Financial Management Specialists

Instructors for educational programs may be available from numerous sources. All United States coastal states have Sea Grant Marine Advisory Programs which either have economics specialists or have access to specialists in other states. Many Sea Grant Marine Advisory Programs are part of their state university's Cooperative Extension Service which has economics and financial management specialists available to conduct programs similar to those discussed above.

Additional expertise may be available from the U.S. Small Business Administration and its Small Business Development Centers, private financial management specialists (accountants, tax preparers, etc.) and people within the fishing industry who would like to share their knowledge and experiences with others.

4. Utilizing Appropriate Educational Methods

There are many educational methods that help to improve people's knowledge of financial management. The following approaches have been used successfully by Marine Advisory Programs:

- * individual advising
- * workshops on specific topics
- * presentations at association meetings
- * presentations and sessions at conferences
- * publications like technical reports, fact sheets and newsletters
- * mass media such as television, radio and newspapers
- * dockside distribution of publications

5. Evaluation and Follow-up

One educational method is to incorporate an evaluation of a program into follow-up activities that help to reinforce key issues as well as to continue the learning process initiated by the original program.

A 1982 survey of Marine Advisory Programs around the United States coasts (Bender) found that the Tax Guide for Commercial Fishermen was used in the following educational activities (% of 23 responding MAS programs using that specific activity):

- * dockside distribution (91%)
- * workshops and meetings (81%)
- * notices mailed to fishermen and tax preparers (52%)

That survey and a follow-up report to MAS programs identified the following tax topics (depreciation, reporting dates, fuel tax exemption and specific deductions and credits) as having the greatest value to the fishing industry if covered in the tax guide and educational programs.

Wilkins (1975) evaluated tax workshops conducted in Oregon by Marine Advisory specialists. The report was used by program organizers and was also mailed to workshop participants by Oregon's Marine Extension agents.

A program evaluation with follow-up activities can be an important part of a financial management program.

SUMMARY

Financial management plays an important role in assisting charter fishing captains to achieve goals they have identified. It is possible for captains to learn how to use basic financial management techniques. Educational activities organized by Marine Advisory programs and charter fishing associations can provide captains and others associated with the fleet with the knowledge and skills needed to utilize financial management techniques.

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**Break-Even Analysis and Profit Calculation: Easy-to-Use
Tools for the Charter Fishing Business Owner**

David O. Kelch

Abstract.--Charterboat fishing has become an increasingly popular activity in the Great Lakes area. Lake Erie's charter industry in Ohio alone has grown from 34 vessels in 1975 to over 650 in 1985. Many of these charter fishing businesses are operated by individuals with little or no business knowledge. Break-Even Analysis and Profit Calculation are two easily adopted business analysis tools for those individuals involved in small owner/operator charter fishing operations. Both calculations can be either hand done or programmed for mini-computer use. Both require accurate record keeping practices in order to obtain accurate results.

INTRODUCTION

One point that needs to be emphasized is that a charter-fishing service is a business, not just the glamorous idea of fishing every day on Lake Erie. The captain has a responsibility to his clientele of giving them a safe, exciting, and successful fishing trip, which requires not only a thorough knowledge of safe boat handling, but also the expertise to find fish and instruct clientele on successful angling techniques. The captain also has a responsibility to himself of running a successful business, which requires bookwork, taxes, advertising, business strategy, and analysis. Let's face the facts: if charter captains were taking clientele fishing for fun, the only costs would be for fuel, bait, ice, and fixed costs such as dockage. But this is not the case. Charter captains value their time and service, and this is where profits are generated. So, we can safely state that the objective is fishing for fun and profit.

How does one know if he is making a profit, and if so, when during the season does that profit begin, and how many charter fishing trips are necessary before a profit is realized? Maybe you are purchasing a new boat with all new electronics and gear. How can you convince your loan officer that your business venture can be profitable? The unfortunate part of fishing as a business is that the average charter fishing owner has had little training in business management skills; especially when it comes to analysis of a profitable venture or pleading a case to a lending institution. This is where the simple business analysis tools "Break-Even Analysis" and "Profit Calculation" can be of value.

Break-Even Analysis

Break-even analysis (BEA) is a simple tool used in many small businesses to identify the point at which business becomes profitable, referred to as the Break-Even point (BEP). The business owner can also use BEA when trying to predetermine the profit desired for the coming year, and the amount of business needed

to generate that profit. It is important to point out that BEA is only a means of analysis and has its limitations. BEA assumes that variable costs (costs that change daily, such as fuel) are constant (remain the same each trip), therefore requiring variable costs to be averaged. BEA also does not allow for a perfect classification system of fixed and variable costs.

In order to understand BEA, we must first construct a simple calculation and define the tools used in BEA. The break-even point (BEP) refers to the amount or volume of business conducted where total costs equal total revenues. At this point, all costs (fixed and variable) are covered. Any business after the BEP is obtained results in profit; anything less than BEP is loss.

To find the number of charter trips needed to reach the BEP, the following formula is used:

$$\text{BEP (\# of trips)} = \frac{(\text{FC})}{(\text{R}) - (\text{VC})} = \frac{\text{Fixed Costs}}{\text{Revenue} - \text{Variable Costs}}$$

Revenue (R) refers to the price received per charter trip. Depending upon how you conduct business (R) can be constant or can vary, as you may charge a set price per trip, or you may charge a rate depending upon the number of passengers or number of hours spent on the water. Simply divide last years gross revenue by the number of trips you chartered to find the (R) value. One important point is trips cancelled due to weather, break-downs or no-shows. Whether you gave a deposit refund or not, you still incurred fixed and variable costs, and these trips must be included in the average. Remember that (R) includes all income from your charter service. If you run scenic trips or moonlight cruises to the islands, you must include this revenue in the average. Also necessary to average is revenue received from extra services you provide, such as rod and reel rental, beverage or food sales revenue, and revenue from the sale of lures and bait.

There are two costs which are included in your formula. Fixed costs (FC) are costs which remained the same during the year, regardless of the number of trips chartered. Fixed costs are sometimes referred to as overhead. They include costs such as dockage and winter storage, insurance, interest expense on loans, electronic equipment, rods and reels, downriggers, advertising, administration (accountants, lawyers, etc.), depreciation of boat and equipment, license fees, and a portion of maintenance and repair. It is important to avoid double-counting costs. If you decide to include monthly boat payments, you will have to adjust interest and depreciation, as including all three of these fixed costs will result in double-counting and will result in some inaccuracy in the BEA. Maintenance and repair can also be associated with depreciation, so be careful here also.

Variable costs (VC) will increase with the number of trips chartered. The biggest (VC) for a charter operation is fuel. Other variable costs can include a portion of maintenance and repair, lures, fishing line, bait and ice (if you supply these items as part of the trip), first mate salaries, boat cleanup costs and head pump-out. It is important to include your costs of travel, food and lodging. There are (VC) expenses associated with the operation of your business, and are frequently overlooked and not recorded on a daily basis. In the BEA equation, (VC) refer to variable costs on a trip basis. From past records, cal-

culate your total variable costs per season and divide that by the number of trips chartered to obtain (VC) for the equation.

Some costs are difficult to classify as (FC) or (VC). Maintenance and repair costs are good examples. You may paint and winterize each year regardless of amount of use. However, such costs as engine and electronic maintenance and repair are directly related to use. Therefore, you can allocate a portion of these costs to (VC) or (FC) depending upon use.

Working Through a BEA Problem

Let's work through an example to illustrate the usefulness of BEA. Captain Jim owns a 27 foot charterboat and is licensed for 6 passengers. He wants to know how many trips he needs to book this year to break even. Last year he chartered May, June, July, August, September and October for smallmouth bass, walleye and perch. He chartered 75 trips (some of which were cancelled) with a total revenue of \$16,800 with the following expenses:

Fuel	\$2,400.	Maintenance & Repairs	\$ 700.
Insurance	500.	Travel, Food & Lodging	350.
Depreciation	1,700.	Brochures & Advertising	800.
Dockage & Winter Storage	1,100.	Miscellaneous	310.
New Equipment	650.	First Mate (Part Time)	1,000.

Determining fixed and variable costs is the next step:

FIXED COSTS = Insurance + Depreciation + Dockage & Winter Storage + Interest Expense + New Equipment + Advertising + 2/3 Maintenance & Repair + 2/3 Miscellaneous

VARIABLE COSTS = Fuel + Travel, Food, Lodging + First Mate + 1/3 Maintenance & Repair + 1/3 Miscellaneous

Total Fixed Costs = \$7,073.32 Total Variable Costs = \$4,086.68

To find variable cost (VC) per trip, we divide total variable costs by the number of trips chartered:

$$\frac{\$4,086.68}{75} = \$54.48 \text{ (VC) per trip}$$

To find revenue per trip, we divide total annual revenue by the number of trips chartered:

$$\frac{\$16,800.00}{75} = \$224.00 \text{ (R) per trip}$$

Now we fill in the blanks in the BEA formula to find the BEP:

$$\text{BEP} = \frac{(\text{F C})}{(\text{R}) - (\text{VC})} = \frac{\$7,032.32 \text{ (total fixed costs)}}{\$224 - \$54.48 \text{ (per trip figures)}} = 41.48 \text{ fixed trips}$$

We see that Captain Jim needs to make about 41 trips this year to break even.

Using BEA to Calculate a Given Profit Goal

Captain Jim isn't happy with last years profit and wants to increase that profit this year. He has decided to "tighten up his ship" by cutting unnecessary costs where possible, and spending more on advertising. He has set a goal this year to make \$8,000 profit.

There are two things Captain Jim can do: he can estimate where he plans to reduce costs this year (such as eliminating the first mate, not providing bait and ice as part of the trip costs, or fishing closer to port to cut down fuel expenses) and re-calculate his (FC) and (VC) figures, or he can simply use the figures from last years BEA calculation as they presently are. Re-calculation may give a more exact figure, but using the same figures for his BEA without adjustment will compensate for any unforeseen costs. In our example, we will use the BEA figures as is, without re-calculation.

Captain Jim's profit target is \$8,000. Given last years data on (FC) and (VC), he wants to know how many trips he needs to charter to reach his profit goal of \$8,000.

We can obtain this information by inserting the profit goal into the BEA equation, with the output being (V) instead of (BEP), where (V) is the number of trips needed to generate the given profit goal:

$$(V) = \frac{\text{Profit goal (\$)} + \text{Total fixed costs (\$)}}{\text{Revenue per trip (\$)} - \text{Variable cost per trip (\$)}}$$

and plugging in the figures from the BEA equation for (R) (FC) (TC), we obtain:

$$V = \frac{\$8,000 + \$7,032.32}{\$224 - \$54.48} = \frac{\$15,032.32}{\$169.52} = 88.6 \text{ trips}$$

We can see that Captain Jim needs to charter approximately 88 trips this year to reach his profit goal of \$8,000.

Once the season begins and you find that some costs are higher or lower than expected, recalculate the BEA and determine a more current break-even point. As the season progresses, compare projected income and costs per trip with actual trip records to chart the progress towards your desired profit goal. If the projected and actual numbers are significantly different, you may want to change your fishing strategy, your lifestyle, or another income source for your business, such as scenic cruises, private party cruises, night fishing, equipment rental, or lure sales.

Profit Calculation

The accurate calculation of profit is one of the best ways to determine the financial success of a fishery business. By calculating profit on a quarterly or bi-annual basis, the Lake Erie commercial fisherman or charter boat captain can determine whether changes need to be made in the operation. Profit calculation done on a more than an annual basis can point out needed changes in order to make that year's business successful. If calculated annually, many costly practices may be overlooked and discovered too late to correct. Frequent profit analysis will not only tell you that changes need to occur, but it will also pinpoint the areas that need change.

The financial term "profit" means different things to different people, and different modes of fisheries secure financial profits in various methods. For ease of calculation in all fisheries-oriented businesses, the following terms can be applied: return to labor, return to investment and return to management.

RETURN TO LABOR is the dollar amount left over after deducting from gross returns all expenses (all income from fish sold, trips chartered or services rendered). Included in expenses is a fair return to the business investment and the owner or captain's labor in operating the business.

RETURN TO INVESTMENT is the amount left over after deducting from gross returns all expenses and the value of any unpaid labor and management.

RETURN TO MANAGEMENT is the amount left over after deducting all expenses, fair return to investment in the business, and contributed time/labor.

In order to calculate these returns, the owner or captain must have accurate records of expenses and receipts. These records include the following:

1. Gross returns (all receipts from sales and services rendered).
2. Net crewshare (after deductions for food, board, etc., if provided for crew/mate).
3. Costs for repair, maintenance, fuel, gears, food, ice, bait, lodging, etc.
4. Costs for insurance, dockage, winter storage, bookkeeping, license fees, royalties, etc.
5. Annual depreciation based on market values (all depreciable items).
6. The dollar value of your time and labor in operating the business. An easy way to determine this is by the salary you would need to pay an individual of your competency to perform your duties, or what you might be paid to work in the same capacity for another similar operation.
7. The dollar value of your management, knowledge, and expertise in your fishery business. For example, what would you earn by telling someone else when, where and how to fish, who to hire, what to buy, where and how much to borrow, etc.?
8. A fair return to total investment in your fishing business. For example, what would be the minimum interest you would accept on your total investment if you were to sell your business to another fisherman, with you holding the mortgage?
9. The value of any unpaid labor you perform, that could be done by another? Examples include gear repair, net mending, vessel repair, bookkeeping, etc.

Items 6 through 9 are called opportunity costs. Opportunity costs are the rate of return that can be earned on funds if they are invested in the next best alternative investment. If the opportunity cost is greater than the return produced in the present use, then that resource is not being used efficiently. In this case, we are considering the factors of time, labor, management skills, fishing skills and return to your business investment.

NOT INCLUDED in the above costs for annual operation are mortgage payments and interest charges on a loan for a fishing vessel. These costs will be described briefly after the following example for calculating profit.

The following example in calculating returns to investment, labor and management follows the costs involved in operating a 27-foot charter fishing boat on Lake Erie. The captain charters 80 trips per year, from May through October, for smallmouth bass, perch, and walleye, with an average cost of \$270.00. The captain provides bait only, spends an average of \$25.00 per trip for fuel, does not hire a mate, and cleans the boat himself after each trip.

Gross Return		\$21,600.00
Less: Gear and Vessel Repair	1,500.00	
Fuel and Bait	2,400.00	
Mate's Expenses	-0-	
Insurance	450.00	
Depreciation (Based on 7 yr. loan)	2,700.00	
Licenses, Dockage, Winter Storage	1,125.00	
Miscellaneous Expenses	500.00	
Value of unpaid labor (#9 above)	<u>1,000.00</u>	
RETURN TO LABOR, MANAGEMENT AND INVESTMENT	\$ 9,675.00	<u>\$11,925.00</u>

To find the actual return to investment, subtract the estimated value of your labor and management (Items 6 and 7) from return to labor, management and investments:

Return to Labor, management, and investment		\$11,925.00
LESS: Estimated value of your labor (Item #6) (80 trips @ \$60 per trip)	4,800.00	
Estimated value of your management (Item 7) (12% of \$21,600, gross return business)	<u>2,600.00</u>	
ACTUAL RETURN TO INVESTMENT	\$ 7,400.00	<u>\$ 4,525.00</u>

Now, calculate the actual return to labor and management by subtracting the estimated fair return to investment (Item 8) from return to labor, management and investment:

Return to labor, management and investment	\$11,925.00
LESS: Estimated fair return to investment (Item 8) (12% interest per year on \$27,000 business)	<u>3,240.00</u>
ACTUAL RETURN TO LABOR AND MANAGEMENT	<u>\$ 8,685.00</u>

In analysis, we find the actual return to investment (\$4,525) is greater than the estimated fair return to investment (\$3,240). The actual return to labor and management (\$8,685) also exceeds the estimated value of labor and management (\$7,400). This is an example of a profitable charter fishery business.

Now, let's consider annual mortgage payments, including interest, on your vessel. The actual return to investment figure \$4,525, was obtained by subtracting the labor or wage (80 trips x \$60 per trip) and the management wage (12% of \$21,600 gross return) from the return to labor, management and investment (\$11,925). All fixed and variable costs have been met, the captain has paid himself a wage, and has \$4,525 left as profit. If monthly vessel payments are \$300 (based on a 10 year loan), the annual cost would be \$3,600. Subtracted from the \$4,525 profit figure, a net profit is realized of \$925. In this case, no cash flow problem would occur. However, if the loan term were shorter (5 years), and monthly payments exceeded \$377, the captain may realize a cash flow problem.

Keep in mind that opportunity costs #6 and #9 can be closely related, and may be combined. In addition, the opportunity costs are also available to partially help cover mortgage costs.

It is important to remember that before any calculations the owner or captain should determine estimated opportunity costs (Items 6-9). By doing this first, the after calculation comparison of actual and estimated returns will provide an unbiased comparison.

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Pricing Strategies and Investment Decision-Making for Charter Captains

Stephen R. Stewart

Abstract.--A chartercaptain's competition, target market, target fishery, marketing approach, operational preferences, financial goals, and investment all influence what may constitute the optimal pricing strategy for a given business. The Michigan Sea Grant College Program has used the capitalization rate analysis technique of investment analysis to develop two computer models which help determine the maximum justified investment for a proposed charter operation/expansion, and generate breakeven charter fee schedules based on the proposed investment. This provides an investment-based framework for setting charter fees according to individual circumstances. The two software models will be available as software publications by late 1986.

DISCUSSION

Pricing strategies can play an important role in the success or failure of charter businesses. If we look at the charter industries of the various states in the Great Lakes region, or even within our own states, we can see a variety of approaches which are used to set what might be considered optimal prices.

One important consideration usually centers on what the competition is doing. There is a strong inclination to determine what comparable, and sometimes non-comparable, charter operations charge for their services, and to use those figures as a baseline in determining an appropriate fee structure. The important consideration here is to base such comparisons on truly comparable operations. Fees that might be appropriate in Minnesota might not be in New York, or those charged in Michigan waters of Lake Superior might differ significantly, and appropriately so, from those of Michigan's Lake Erie waters.

The target fishery also can play an important role. While many people are used to thinking primarily in terms of the salmonid fishery in the Great Lakes and the charter operations which revolve around it, it must be remembered that the charter businesses which target perch, muskellunge, or smallmouth bass may have a very different orientation relative to fees. And linked to the target fishery is the nature of the angler relative to that fishery. This might best be illustrated by categorizing charter customers as "meat" anglers versus "trophy" anglers. Again, different customer goals may dictate varying charter fees, along with the other elements of the product mix that the chartercaptain is providing for customers.

The marketing approach which a chartercaptain selects can also influence the fee structure most appropriate for the business. A simple illustration of how this might work would be to consider two charter businesses, one of which adopts a high volume/low margin orientation, while the other seeks to develop a low volume/high margin business. This will obviously involve targeting very different client groups, with differing needs. In order to meet these differing

needs, these two businesses adopt different orientations regarding public relations and advertising, vessel selection and appointment, the target fishery, charter and dockage location, trip duration, and a host of other operational factors. Both may make a handsome profit, but along with their differing operational orientations, they must have a pricing structure which corresponds to their market niche.

A set of factors which may relate to the selection of a marketing approach as described above relates to preferences regarding the charter operations themselves. One chartercaptain may wish to limit the number of annual trips because of time constraints imposed by a full-time job or family commitments. Or the chartercaptain may wish to limit the business' outgoing cash flow stemming from operational expenses in order to accommodate family budgeting. Any factors of this type which influence the nature of the charter business will, in turn, influence the most appropriate fee structure.

Another very important consideration is the desired financial outcome of the charter business. But this does not always mean profit maximization, as many people might assume. Profit maximization might indeed be the goal of the charter business owner, but other levels of profit, or even loss, might be the goal just as well. A chartercaptain might instead look at the financial results of the business in terms of return on investment, and compare it with alternative investments in stocks, bonds, or real estate, for example. Or the total revenue generated might be the most important consideration to one charter business, while total revenue and the cash flow pattern taken together might be the important thing to another. Again, the specific goal can influence the appropriate pricing structure.

Finally, one consideration which often gets overlooked, but which can be of vital importance, especially for new or expanding charter operations, is the consideration of the capital investment involved. There exists a direct relationship between the capital investment and the prices that must be charged in order to achieve a breakeven situation. Further, this basic relationship can be used whether you wish to simply break even, or achieve a target profit, loss, return on investment, or revenue goal. Thus, from a financial standpoint, this relationship can be easily used as the starting point for determining appropriate charter fees.

The Michigan Sea Grant College Program has examined this capital investment through the technique of capitalization rate analysis. One reason for this is that it gives an easily understood result, a "maximum justified investment", and can serve as a financial feasibility analysis. In other words, it answers the question "how much can you afford to spend?" for the chartercaptain who is thinking of starting or expanding a charter business.

But would this type of analysis be of interest only to chartercaptains interested in new or expanding businesses? Not at all. Consider the active captains who wish to examine past financial performance in light of their existing investments. Or investors or lending institutions who want to learn something about the financial nature of the business before committing capital to its development or expansion. Or even educators, such as Sea Grant Advisory staff, who work to help improve the industry.

Given that the use of capitalization rate analysis may be an appropriate method of determining investment feasibility on the one hand, and a relevant pricing structure on the other, how can we, as educators, best utilize this technique among our charter clientele and make the results directly applicable to their unique situations? The method we have used in Michigan has been to link the analysis to the emerging interest in computer applications for charter and other small businesses.

A pair of computer spreadsheet models, using Perfect Calc software, was developed for use with IBM and IBM-compatible microcomputers. The first of these models was designed to evaluate an individual chartercaptain's capital investment situation, utilizing the capitalization rate analysis technique. The bottom line result, as mentioned above, is an answer to the question "what is the maximum investment justified by the stated assumptions?". The assumptions provided by the chartercaptain include information regarding projected operations (number of annual charters by type, etc.) and financial conditions (operating expenses, proposed capital expenditures, etc.). The second model analyzes the information in the first, and using the same assumptions, generates a breakeven charter fee schedule.

For each set of assumptions, the chartercaptain receives two printouts. The first (Appendix 1) shows all the operational and financial assumptions (basically a description of the charter operation), as well as the results of the capitalization rate analysis. The data and resulting outputs shown in Appendix 1 represent the average responses of some thirty chartercaptains, mostly from eastern Michigan, who had analyses done on their existing and/or proposed charter operations during 1985.

The second printout (Appendix 2) shows what the breakeven revenues would be under the circumstances illustrated in Appendix 1, and gives two breakeven charter schedules. One illustrates the breakeven fees based on a given charter mix, and the other illustrates the breakeven charter mix based on projected fees.

What these models do, in tandem, is provide the chartercaptain with a method for easily determining a realistic capital investment figure and, in turn, an investment-related fee structure which can be further adapted to fit additional considerations. And because of their spreadsheet format, these models allow for extensive "what if" possibilities, leading to a better understanding of the relationship between the various elements of the proposed investment. In order to enable Sea Grant Advisory staff around the Great Lakes, and in other regions, to use this same approach if they so desire, the computer models developed through the Michigan Sea Grant College Program will be available as software publications by late 1986 through the Michigan State University publications office.

CONCLUSIONS

In summary, we have seen that pricing and investment decision-making for those interested in developing charter businesses must incorporate a variety of competitive, geographic, market-related, operational, and financial considerations. Central among these is the consideration of financial feasibility, as determined by a technique such as capitalization rate analysis. This feasibility can, in turn, be reflected in a basic investment-related charter pricing structure which can serve as a framework for modification according to the other, more individualized, considerations.

If we, as educators working with new and existing chartercaptains, can utilize such techniques to foster a greater understanding of the likely outcomes of a given investment proposal, we can help to provide a better understanding of the relationship between proposed investments and their accompanying revenue requirements. And in the long run, this may help in some small way to strengthen the investment decisions of the charter industry as a whole.

APPENDIX 1
CAPITALIZATION RATE ANALYSIS

CAPITALIZATION RATE ANALYSIS FOR
CHARTER BOAT PURCHASE/CONSTRUCTION/REFITTING

MARINE ADVISORY SERVICE

MICHIGAN SEA GRANT COLLEGE PROGRAM
COOPERATIVE EXTENSION SERVICE

* Chartercaptain's Name: Joe Charter

Capitalization rate analysis will be used to determine the maximum investment justified with respect to the purchase, construction or refitting of charter vessels. Please provide the most current and complete information possible in answer to the questions below.

- 1) The proposed vessel(s) will be run for the purpose(s) indicated, operate according to the given fee schedule(s), be bound by the cited season length(s), and be booked according to the estimated usage percentage(s).

Boat/Fleet Use	Fee/Trip	Trips Per Day	Hours Per Trip	Annual Charters	
* Fishing (1)	324.05	1.00	8.33	21.65	>>>>
* Fishing (2)	203.10	1.48	4.86	41.10	>>>>
* Sport Diving	157.50	1.00	7.00	0.65	>>>>
* Tours	216.25	1.25	3.75	2.00	>>>>
* Other	150.00	2.00	6.00	0.00	>>>>
Totals --->	N.A.	N.A.	N.A.	65.40	>>>>

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Boat/Fleet Use		Annual Revenue/Use	Revenue %	Annual Hours	Annual Use %
* Fishing (1)	>>>>	7,015.58	44.13	180.34	45.99
* Fishing (2)	>>>>	8,347.41	52.51	199.75	50.94
* Sport Diving	>>>>	102.37	0.64	4.55	1.16
* Tours	>>>>	432.50	2.72	7.50	1.91
* Other	>>>>	0.00	0.00	0.00	0.00
Totals --->		15,897.97	100.00	392.14	100.00

- 2) The total of other revenues from charter operations: 316.52

>>>>>>>> ANNUAL GROSS REVENUE = 16,214.49

3) Projected operating expenses are:

	Annual \$	%	\$/Hour
	-----	-	-----
* Wages/employee benefits	1,229.13	19.39	3.13
* Maintenance/repairs	619.74	9.78	1.58
* Licenses/inspections	96.96	1.53	0.25
* Fuel	1,856.25	29.29	4.73
* Marketing	673.09	10.62	1.72
* Dockage/storage	695.04	10.97	1.77
* Operating supplies	597.01	9.42	1.52
* Administration	97.83	1.54	0.25
* Other	472.68	7.46	1.21
* Total Operating Expenses	6,337.73	100.00	16.16

>>>>>>>> PROJECTED ANNUAL OPERATING PROFIT = 9,876.76 .

4) Projected indirect costs are:

	Annual \$	%	\$/Hour
	-----	-	-----
* Principal payments	2,906.91	56.67	7.41
* Interest	1,393.71	27.17	3.55
* Taxes	210.12	4.10	0.54
* Insurance	618.43	12.06	1.58
* Total Indirect Costs	5,129.16	100.00	13.08

>>>>>>>> PROJECTED ANNUAL GROSS PROFIT = 4,747.59

5) The projected cost components of your capital budget are:

* Vessel costs	28,647.83
* Equipment/fixtures	4,929.57
* Other	456.52
* Total Capital Budget	34,033.92

6) Amount of total capital budget YOU will invest: 14,655.65

>>>>>>>> Amount of total capital budget BORROWED = 19,378.27

7) Annual percentage rate (APR) charged on the borrowed capital (%): 11.34 %

8) Amortization period of capital loan: 6.86 years

9) Projected life of vessel for purposes of depreciation (years): 7.09 years

10) Projected life of equipment/fixtures for purposes of depreciation (years): 4.65 years

11) Projected annual insurance premium on vessel and equipment/fixtures (\$): 618.43

- 12) Projected before-tax return on funds
invested in capital budget if left in
other investment (% APR): 8.22 %
- 13) Estimated additional risk factor from
investing in vessel as opposed to other
investment (% APR): 1.28 %

Capitalization Rate

***** of Vessel Purchase/Construction/Refitting *****

- Capital Expense Items -

% Interest	6.46 %
% Vessel Depreciation	11.87 %
% Equipment/Fixture Depreciation	3.11 %
% Insurance Premiums	1.82 %
% Return on Owner's Investment	4.09 %

% Overall Capitalization Rate	27.35 %
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***** Feasibility of Vessel Purchase/Construction/Refitting *****

*** MAXIMUM JUSTIFIED INVESTMENT = 36,109.92

APPENDIX 2
BREAKEVEN CHARTER FEES

INVESTMENT-BASED PRICING OF CHARTER FEES

MARINE ADVISORY SERVICE

MICHIGAN SEA GRANT COLLEGE PROGRAM
COOPERATIVE EXTENSION SERVICE

* Chartercaptain's Name: Joe Charter

This program ("boatfee2.pc") is designed to determine your required hourly charter rate, plus hypothetical charter rates based on your specific charter mix. This is based on information provided by you relating to charter activity, income, and expenses. This program is associated with "boatcap2.pc" and reads information from that program.

You MUST enter all of the required information into the "boatcap2.pc" program BEFORE you can run this ("boatfee2.pc") program!
To automatically enter data from "boatcap2.pc" into this program, enter a "!". This program will then proceed with its analysis.

Vessel Purchase/Construction/Refitting Investment:

* Vessel costs	28,647.83
* Equipment/fixtures	4,929.57
* Other	456.52
 * Total Investment	 34,033.92

Financing of Investment:

* External financing	19,378.27
* Owner's equity	14,655.65
 * Total Investment	 34,033.92

Desired Before-Tax Return on Owner's Equity:	1,392.29
Estimated Depreciation, Insurance, and Interest	7,916.65
>>>>>> REQUIRED OPERATING PROFIT:	9,308.93
Total Operating Expenses:	6,337.73
>>>>>> REQUIRED GROSS REVENUE:	15,646.66
Other Revenue:	316.52
>>>>>> BREAKEVEN TOTAL ANNUAL CHARTER FEE REVENUE:	15,330.14
>>>>>> BREAKEVEN HOURLY CHARTER RATE:	39.09

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*** HYPOTHETICAL BREAKEVEN CHARTER FEES BASED ON THE
 ABOVE HOURLY RATE AND YOUR GIVEN CHARTER MIX:

----->>>	22	Whole-day Fishing Charters at	325.65	each
----->>>	41	Half-day Fishing Charters at	189.99	each
----->>>	1	Sport Diving Charters at	273.65	each
----->>>	2	Tour Charters at	146.60	each
----->>>	0	Other Charters at	234.56	each
----->>>	65	Total Charters >>>> Average Fee =	234.41	
			(weighted)	

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*** HYPOTHETICAL BREAKEVEN CHARTER MIX BASED ON THE
 ABOVE REQUIRED REVENUES AND YOUR GIVEN FEES:

----->>>	22	Whole-day Fishing Charters at	324.05	each
----->>>	38	Half-day Fishing Charters as at ...	203.10	each
----->>>	1	Sport Diving Charters at	157.50	each
----->>>	1	Tour Charters at	216.25	each
----->>>	0	Other Charters at	150.00	each
----->>>	63	Total Charters >>>> Average Fee =	244.54	
			(weighted)	

**Organization Support and Communications in the
Charter Industry: New York's
Lake Ontario Experience**

Michael P. Voiland

Abstract.--On Lake Ontario, as on other Great Lakes, Sea Grant Extension agents have carried forth educational efforts designed to strengthen charter industry organization and communication linkages. The New York experience, however, has demonstrated some different approaches in supporting charter industry development, due to distinct differences in the evolution of charter associations and to the desire on the part of both Sea Grant and the industry to cooperatively support educational and communication activities.

One could say that we do things backwards on New York's Lake Ontario. When compared to salmonid fishery management, charter industry development and Sea Grant educational programming on the Upper Lakes, New York's record shows that all these things can be approached or implemented quite differently. To wit:

- *the development of a trout fishery well before a salmon fishery is available;
- *the establishment of a lakewide charter organization well before smaller, localized groups existed;
- *the sponsoring of the major annual educational forum for charter operators by a charter association, NOT Sea Grant, and;
- *the production and dissemination of an educational industry newsletter by Sea Grant, but with funding by the industry.

Experiences in the Empire State can offer a different perspective to agents and charter industry leaders elsewhere. The "model" approaches to Sea Grant-industry interaction carried forth, for example, in Michigan or Wisconsin, did not fit the New York situation; therefore, ways and means quite diverse from the Upper Lakes were forwarded. To be sure, this is not to say that the "New York way" is the right way, or the only way. But, certainly, it has been a different way.

The balance of this paper will outline in greater detail four examples of the decidedly different development of New York's Lake Ontario charter organization and the distinct nature of Sea Grant-industry interrelations pertaining to educational

and communicative activities. These are offered with the suggestion that agents and industry leaders from outside New York compare their own history, situations, and activities to New York's case, thereby using this paper as a "mind-opening," idea-laden comparative exercise that may benefit all agents, captains, associations and programs along the Great Lakes.

Organizing for Action

The chronology of charter industry organization on Lake Ontario begins in late 1979, when a spokesperson for the then-35 existing Lake Ontario licensed operators asked a Sea Grant specialist for assistance in organizing an association. The specialist responded by calling and moderating the first gathering of this group, by sitting on the formative steering committee, and offering sample by-laws from associations in Michigan, the St. Lawrence River and Long Island. Later, as an educational "demonstration" designed to assist the group in "getting off the ground," Sea Grant served as interim staff (secretary) for a period of one year. That group, called the Lake Ontario Charter Boat Association, has since developed into the largest charter association on the lake, with lakewide membership and the largest spectrum of programs, services, activities and influence.

Beginning in 1982, more localized charter associations, encompassing 2 or 3 close-by port areas, have arisen on the scene. Formation of these revolved around their expressed need to have a local group that can react to local problems, although the possibility that personality conflicts, opinion and goal differences, and competitiveness have played some role in their formation cannot be ruled out. Sea Grant has assisted these smaller groups in assorted ways. Today, Lake Ontario has 6 charter associations, one lakewide in purview, five more localized in vision.

Of Pow-Wows and Umbrellas

The diverse situation described above obviously does not lend itself to lakewide, coordinated effort by the industry, particularly when such an effort is needed to address lakewide management issues, or governmental actions that affect the industry as a whole. The varying backgrounds, sizes, motivations and goals of the 6 groups make it difficult at best to forge industry-wide, lake-wide collaborative actions and reactions.

In September 1984, Sea Grant called the groups together to discuss a state sales tax issue. Stemming from this, a November meeting was held, resulting in unanimous agreement that a loose federation, or council, of associations be formed as an umbrella group. Again, Sea Grant served as the interim secretary for a

one-year period. Today, the New York State Charter Sportfishing Council is an informal consortium of 6 associations representing about 300 operators and meeting about 4 times a year. Informal is the key word here. The council, while active and vocal on major issues, is not incorporated, has no by-laws, and acts only with unanimity.

The very existence of the Council is best described as shaky. The divisive forces that have created and sustained the multitude of different associations on the lake are a constant threat to the council's existence and to the evolution of a more formal federation in the future. Again, the larger group's lakewide perspective and the smaller groups' localized view may not permit smooth, collaborative, united action. Lastly, it remains to be seen if Sea Grant's developmental support can be effectively replaced.

Charter Lines

In 1983, the Lake Ontario Charter Boat Association, due to limitations in the time of volunteer members, retired their association newsletter. This coincided with Sea Grant's desire to initiate a periodical educational service letter for charter operators.

A proposal by the Sea Grant specialist was tendered to all existing charter associations on the lake, offering to produce and disseminate a newsletter if the groups would support its cost. All groups agreed and Charterlines was born.

Issued quarterly, Charterlines is sent to all members of supporting charter associations at a cost of 35 cents per member per issue. The fee is paid in one master billing by each association. Currently, the newsletter is supported by the Black River Guides Association, Genesee Charter Association, Henderson Harbor Guides Association, Lake Ontario Charter Boat Association, Niagara County Charter Fishing Association, and the Western Lake Ontario Charter Association. It is considered THE communications linkage of the lake industry, and, apart from articles compiled/writt-en/edited by Sea Grant, Charterlines includes a section called "ASSOCIATIONNEWS," in which the associations supply their own communications items.

Charterlines, as produced in New York, has met the needs of Sea Grant and the industry, and spreads the cost among the audience itself. It is not the ultimate arrangement, however. The desirable goal is for the industry to produce its own communication publication, on a lakewide basis or, as we've seen recently initiated, via a basin-wide or national trade magazine.

Rarin' to Get Smart

Since the first entry of captains into the charter fishery on Lake Ontario proper in the mid-1970's, Sea Grant had contemplated the notion of sponsoring a major 1-2 day annual educational conference for skippers. Such programs had been carried out by Sea Grant in several other places, including Long Island and Michigan. But while Sea Grant "fiddled," one organization "burned" to have such a program occur.

In February 1983, the Lake Ontario Charter Boat Association (LOCBA) held its first annual educational seminar in Rochester, New York. When followed by a second successful seminar a year later, it became obvious that LOCBA had succeeded in establishing a high quality annual educational forum for the benefit of its members. The program typically addresses major topics of concern and interest to the industry, including fishery management issues, research efforts, fishing techniques, equipment use and marketing/business aspects.

The important thing to note here is the fact that the seminar was and is initiated, planned, presented and evaluated with very little, if any, support or oversight from Sea Grant. I daresay that it is doubtful that Sea Grant could surpass the quality, comprehensiveness, thoroughness and forethought of this seminar with one wholly of its own. As it is, the seminar is attended by Sea Grant folk, who often present or participate in sessions, but do not and have never "called the shots." The LOCBA seminar stands out, in my mind, as a prime example of how an active and interested organization of captains can help themselves, and, consequently, how sometimes Sea Grant need not have to take the lead on educational activities dealing with the charter audience.

APPENDIX

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