

Michigan's Great Lakes Charter Fishing Industry in 2002

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This publication summarizes the findings of the Great Lakes Sea Grant Network study on the charter industry in the Great Lakes. Individual fact sheets have been developed in conjunction with the Great Lakes Fisheries Leadership Institute for the following regions: Illinois-Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin. The goal of the Great Lakes Fisheries Leadership Institute is to provide the next generation of fisheries leaders for the Great Lakes region with the skills they need to effectively interact with fisheries management agencies. This document was produced by the Ohio Sea Grant College Program as a part of the Great Lakes Fishery Leadership Institute project of the Great Lakes Sea Grant Network.

The Great Lakes Sea Grant network is a cooperative program of the Illinois-Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin Sea Grant programs. Through its network of extension agents, researchers, and communicators, the Great Lakes Sea Grant Network supplies the region with usable solutions to pressing problems and provides basic information needed to better manage the Great Lakes and inland waters for both present and future generations (www.greatlakesseagrant.org).

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Introduction

In the fall of 2002 and winter of 2003 the Great Lakes Sea Grant Network conducted a comprehensive survey of the charter fishing industry of the Great Lakes. The survey is an effort to provide an update on the status, characteristics and economics of the charter fishing business in the Great Lakes and is modeled after a similar survey conducted in 1994. All data reported here are for the year 2002.

Methods

The Michigan and the Ohio Sea Grant programs surveyed Michigan's charter-fishing captains beginning in October - November of 2002 using a modified Dillman mail survey technique (Dillman 1978). Non-respondents were sent up to three reminder letters. In 2002, there were 468 licensed Michigan captains representing a decline of almost 14% from the 543 captains in 1994. A total of 242 captains returned surveys with usable data, a response rate of 52%. Of the responding captains, about 96% were based in Michigan, 2% in Wisconsin and over 2% from Indiana.

Business

The typical Michigan charter-fishing captain in 2002 has been licensed for 14 years. About 95% of the responding captains operated their own charter firm (**Table 1**). An estimated 306 captains had their homeport on Lake Michigan, while 91 were based on Lake Huron, 55 were based on Lake Erie/Lake St. Clair, and 16 on Lake Superior. Most businesses (89 %) operated one boat, 8% operated two boats and just over 3% of respondents operated three or more boats. Charterboats were typically 29.5 feet long, over 17 years old, and powered by an inboard (76%), inboard/outdrive (16%) or outboard (8%) motor.

The average replacement cost for a Michigan charter vessel is \$82,014, and replacement cost for onboard business-related equipment is, \$15,805. About 40% of the respondents use a vehicle for towing their boat and other charter-related business. The average replacement cost of the vehicle was \$25,307; for the trailer it is \$4,427. The vehicle is used for boat towing 19% of the time and for other charter business 34% of the time.

Captains

Over 99% of the responding captains were "six-pack" operators, licensed to carry no more than six passengers. Notably, about 19% of the captains rely on the charter business as their primary source of income (**Table 2**).

Over 85% of the 233 responding captains are members of a professional charter captains association. The top three cited benefits of membership in a professional charter captains association are drug testing, advertising, and industry representation to state, federal and local authorities (**Table 3**).

Trips

Responding captains average 18.3 full-day and 40.9 half-day paid charter trips per year. Most (63%) of these are for lake trout and salmon. Applying the response data to the total population of 468 active captains yields and estimated

Table 1
Ownership and Organization of Michigan's Charter Boat Fishing Businesses

Characteristics	Percent of Respondents	Number of Respondents
Business Ownership		
Sole proprietorship	73%	171
Partnership	4%	9
Corporation	16%	36
Other	5%	11
Business Organization		
Owned own boat	95%	224
Leased/rented boat	<1%	1
Salaried employee	<1%	1
Freelance hire per trip	2%	4
Other arrangement	2%	5

Table 2
Reasons for Entering/Remaining in the Michigan Charter Fishing Business

242 Respondents were asked to check all that apply.

Reason	Percent of Respondents
Help people enjoy fishing	72%
Like the work	62%
Secondary source of income	52%
Primary income source	19%
Other	7%

Table 3
Benefits of Membership in a Michigan Professional Charter Boat Association

242 Respondents were asked to select the top three reasons.

Benefit	Percent of Respondents
Drug testing	74%
Advertising	59%
Industry representation to state, federal, and local authorities	44%
Education on current issues and regulations	34%
Increased business	23%
Group insurance	15%
Can share charters	12%
Get tips about fishing	12%
Obtain business operation ideas and advice	11%
Can obtain pricing information	7%
Other benefits	4%

* 85% are members of a professional charter captains' association

Table 4
Estimated Trips and Revenues* for the Michigan Industry
 196 Respondents

Fish Species	Number of trips	Average No. Trips/business	Average Charge/Trip	Revenues Earned
Walleye				
Full day	1,685	3.6	\$420	\$1,512
Half day	2,859	6.1	337	2,059
Steelhead				
Full day	1,619	3.5	466	1,612
Half day	2,780	5.9	344	2,043
Smallmouth bass				
Full day	211	0.5	366	165
Half day	267	0.6	287	164
Lake trout and salmon				
Full day	4,961	10.6	475	5,035
Half day	12,453	26.6	338	8,994
Yellow perch				
Full day	98	0.2	386	98
Half day	782	1.7	\$320	534
Subtotals				
Full day	8,574	18.3		8,405
Half day	19,141	40.9		13,795
Totals	27,715	59.2		\$22,200

* The numbers of trips are an extrapolation of respondent trip rates applied to the total population of Michigan Great Lakes charter captains (Lake Erie, Lake St. Clair, Lake Huron, Lake Michigan and Lake Superior). Revenues are calculated from the average number of trips/business multiplied by the average charge/trip.

Table 5
Services Offered by Michigan Charter Boat Operators

Service or Provision	-----Percent of Respondents-----		
	Included in Base Charter Fee	Included for Additional Fee	Number of Respondents
Tackle	99%	1%	230
Fish cleaning	91%	7%	207
Bait	90%	2%	194
Ice	91%	3%	193
Photos/Video	36%	14%	161
Lodging/Food	2%	30%	131

Table 6
Average Annual Operating Costs for Michigan Boat-Owning Captains
 183 Respondents

Item	Expense
Fuel/Oil	\$2,361
Labor (hired)	1,965
Dockage	1,668
Equipment repair	1,159
Boat maintenance & repair	885
Miscellaneous	829
Advertising	763
Boat storage fees	760
Insurance	759
Office & communications	588
Boat repair not covered by insurance	335
Drug testing/Professional dues	143
License fees	185
Boat launch fees	94
Total Operating Costs	\$12,495

27,715 charter trips of which 31% were full day and 69% were half-day trips (Table 4). It is estimated that over 61% of Michigan charter trips occur on Lake Michigan, 18% on Lake Erie/Lake St. Clair, 17% on Lake Huron and about 3% on Lake Superior.

On average, 8% of Michigan charter captains fished on a Great Lake other than the one on which their homeport was located. Of those that fished on another waterbody, about 39% of these charters were conducted on the other lakes.

On Lake Superior almost 86% of the charter trips take place in June, July, and August, with about 8% in September and 5% in May. On Lake Michigan 36% of the trips were taken in August, 25% in July, 15% in June, 11% in September, 10% in May, 2% in April and about 1% in October. Sixty-five percent of the reported trips on Lake Huron were taken in August and July, with 17% in June, 10% in May and about 7% in September. On Lakes Erie and St. Clair one-third of the reported trips were taken in June, 25% in July, 13% in August, 11% in September, just under 11% in May, 4% in October and 2% in April.

Charter fees vary according to target species, length of the charter, and services offered. The most popular trip was the half-day lake trout and salmon charter; its cost averaged \$338 per boat (range \$70 to \$560). Half-day trips were defined as trips lasting less than seven hours.

Services and Provisions

Most charter businesses provide bait, tackle, ice, and fish cleaning as part of their standard charter trip service. Some captains also offer trip photos, videos, lodging and food for an additional fee (Table 5).

Costs and Returns

For boat owning captains, the largest annual operating expenses were for fuel and oil, hired labor, dockage, and equipment repair (Table 6). Boat loan payments are a high cash outlay but are not part of operating costs.

The average cash requirement to operate the charter firm includes the operating expenses plus the boat loan payments. Average annual boat loan payments including principal and interest are \$4,615. The average annual cost to operate a Michigan charter firm is \$17,110 for those making boat loan payments and \$12,495 for those who do not (Table 7). This means that the typical charter firm that owns and operates a single vessel must generate sales of either \$17,110 or \$12,495 just to meet the cash needs of the firm.

Estimated average annual revenues are \$22,200. The result is a net positive cash flow of \$5,090 for firms making boat loan payments and a positive cash flow of \$9,705 for firms not making boat loan payments. Depending on the situation, those firms with a positive cash flow could pay the day-to-day bills to operate the charter business from the revenues earned from chartering.

Economic costs are all the costs of operating the charter firm. Boat loan costs are a cash requirement if a loan exists, but are not part of the economic costs. The economic costs include operating costs (\$12,495) plus capital costs. Capital costs include depreciation of the boat, and the opportunity cost of owning a boat instead of investing in stocks, bonds, or some other enterprise. In addition, owner labor and management receive revenue in excess of operating and capital costs.

The average annual depreciation reported by responding captains was \$4,931. Estimated replacement cost of the boat (\$82,014) and equipment (\$15,805) totals \$97,819. Interest costs based on 5% of this value are \$4,891. Thus the capital cost (depreciation + interest) is \$9,822. The economic cost to operate a typical Michigan charter firm is

estimated to be \$22,317 for a firm depreciating a vessel and \$17,386 for a firm with a fully depreciated vessel.

To provide a positive return to the operating captain for time and labor, an average Michigan charter business would have had to generate sales exceeding \$22,317 or \$17,386 to cover the average operating and capital costs. Depending on the depreciation situation, the average Michigan charter firm operated at a net return of either negative (-\$117) or positive \$4,814 for the owner's time and labor. At an average price of \$338 for a half day salmon/lake trout charter a captain would have to run 66 or 52 half day salmon/lake trout trips to cover average operating and capital costs.

In the Michigan Great Lakes Region, Lake Michigan charter fishing firms brought in the largest estimated total sales (\$5.1 million), followed by Lakes Erie & St. Clair at \$1.6 million, Lake Huron at \$1.5 million and Lake Superior at \$300,000 (Table 8). Captains on Lakes Erie & St. Clair had the highest average income (\$22,800) and highest average economic cost (\$29,689). About 61% of the estimated charter trips and 61% (274) of the charter businesses were located on Lake Michigan. Over 18% of the trips and 15% (68) of the captains were located on Lakes Erie & St. Clair. Lake Huron accounted for over 17% of the trips and 19% (85) of the captains. Lake Superior had about 3% of the total estimated trips and 5% (21) of the total captains.

Table 8 is useful in that it shows the differences between Michigan charter captains on the different lakes. However, because of missing data and the differences in estimation methods one can not simply add up the numbers from the separate lakes to get the totals for the Michigan charter captains.

Promotion

Approximately 80% of Michigan charter customers come from over 50 miles or further away from the charter firm's homeport bringing nature based tourism dollars into the local community.

Captains used various methods of marketing and advertising and rated them for effectiveness on a scale of 1 (not effective) to 3 (very effective) (Table 9). Two advertising methods that we included in the 2002 survey that were not in the 1994 survey were a "world wide web site" and "tourism promotion agency publications/web site." Captains consider word of mouth, brochures, direct mailings and their website to be the most effective means of advertising. About 91% of the respondents use word of mouth, 81% use brochures, 58% use a website, and 49% use direct mail for advertising.

Lake Information

About 37% of 199 responding captains utilize the Great Lakes Forecasting System web site (superior.eng.ohio-state.edu) and over 62% of 222 responding captains use the Sea Grant Coastwatch web site (coastwatch.msu.edu) for information on lake waves, water currents, surface temperatures and lake status. Those accessing these web sites use them to help make decisions, find fish, improve fish catch, improve charter safety, and plan charter trips.

Industry Trends and the Future

In 2002, the Michigan charter firms made an estimated 27,715 charter trips. The 468 charter captains generated an estimated \$10.1 million in gross sales in 2002 (448 firms x \$22,200 per firm plus 20 freelance captains x \$7,483 per captain). This is compared to the inflation adjusted estimated \$6.7 million in gross sales generated by 543 active captains in 1994 (543 firms x \$12,323) (Pistis et al. 1996).

Table 7

Annual Cash Flow of Average Charter Firm in Michigan

Income/Expenses	Businesses	Businesses	No. of Respondents
	WITH Boat Loan Payments	WITHOUT Boat Loan Payments	
Average Revenue	\$22,200 ¹	\$22,200 ¹	196
Cash Flow Needs			
Average operating costs	12,495 ²	12,495 ²	183
Boat loan payments	4,615 ³	0	86
Cash Needed	17,110	12,495	
Net Cash Flow	\$5,090	\$9,705	
Economic Cost			
Average operating cost	12,495	12,495	
Capital costs			
Interest Costs	4,891	4,891	
Depreciation	4,931 ⁴	0	36
Total Economic Cost	\$22,317	\$17,386	
Net Return to Operator	(-\$117)	(\$4,814)	

¹ Average revenues are based on 196 respondents.

² Average operating costs are based on 183 respondents.

³ Eighty-six respondents reported annual boat loan payments.

⁴ Thirty-six respondents reported depreciation costs.

Table 8

Average Income, Average Economic Cost, Estimated Net Profit or Loss for Michigan Charter Businesses by Body of Water on Which Their Homeport is Located

Region/ Body of Water	Estimated Number of Businesses	Average Income per Business	Average Economic Cost per Business	Net Return (profit or loss)	Estimated Total Sales (in millions)
MI's Great Lakes Region ¹	448	\$22,200	\$22,317 ² or \$17,386	(\$117 ²) or \$4,814	\$10.1
196 Respondents					
Lake Michigan 117 Respondents	274	18,924	22,889 ³ or 17,851	-3,965 ³ or 1,073	5.1
Lake Huron 34 Respondents	85	17,426	20,225 ⁴ or 15,435	-2,799 ⁴ or 1,991	1.5
Lake Erie & Lake St. Clair 21 Respondents	68	22,800	29,689 ⁵ or 22,199	-6,889 ⁵ or 1,603	1.6
Lake Superior 6 Respondents	21	13,692	\$14,426 ⁶ or \$13,926	-\$734 ⁶ or - \$234	0.3

¹ The combined estimates for the individual lakes do not equal the estimates for Michigan's Great Lakes region because of missing data concerning home port location and differences in estimation methodologies.

² Average depreciation reported by 36 respondents was \$4,931

³ Average depreciation reported by 20 respondents was \$5,038.

⁴ Average depreciation reported by 8 respondents was \$4,790.

⁵ Average depreciation reported by 5 respondents was \$7,490.

⁶ Average depreciation reported by 2 respondents was \$500.

Table 9

Methods of Advertising Charter Fishing Businesses in Michigan

242 Respondents

Advertising Method	Percent of Respondents	Number of Respondents	Effectiveness*
Word of mouth	91%	219	2.7
Brochures	81%	195	2.3
Charter association publications	62%	149	2.0
Website	58%	141	2.2
Direct mailings	49%	118	2.3
Chamber of commerce publications	48%	117	1.9
Signs	44%	106	1.9
Tourism promotion agency	33%	79	1.7
Telephone directory	30%	73	1.9
Sport & travel shows	24%	57	1.8
Newspaper ads	22%	54	1.6
Magazine ads	14%	34	1.8
Other	3%	8	2.8

*Scale = 1 (not effective) to 3 (very effective)

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Captains were asked to select the three most important problems facing the charter industry (**Table 10**). The top concern is the economy, followed by the impacts of exotic species (ie. zebra mussels), boating equipment and operating costs, and the lack of fish/reduced fish abundance. It is interesting to note that except for possibly boating equipment and operating costs these concerns are outside the control of individual charter captains.

With almost 18% of the respondents planning to quit the business in the next five years a continuing decline in the number of Michigan charter firms may be expected. However, the charter firms in 2002 did make more trips per firm (average of 59.2) than in 1994 (range of 36 on Lake Huron to 46 on Lake Michigan) (Pistis et.al. 1996). Most captains (59%) plan to increase the number of trips they make over the next five years and over 52% plan to increase their charter fees (**Table 11**).

Strategies for Charter Businesses

It is a good idea to occasionally examine your charter business management with an eye to improvement. Results of the 2002 Great Lakes charter captain surveys suggest that to increase future profitability, charter captains should reduce expenses, increase revenues and aggressively market their industry.

Refinancing your boat at a lower interest rate, holding onto an older paid off boat in good condition or buying a newer boat at a favorable price to avoid large repair bills may be ways to reduce your expenses.

The most direct ways to increase revenues is to increase the number of charter trips that are made and by offering additional services such as executive charters, or dive charter trips. Increasing your prices may or may not be possible depending on the demand and the specific market where you operate. Some captains increased the number of trips they make by following the seasonal nature of the fishery and fishing out of the "hot" ports at different times of the angling season. Half-day trips are popular as a way to lower costs to clients and increase the total number of trips made.

Captains should carefully market their product (a nature based tourism experience on a world class resource) and try to expand the client base to include the growing number of middle aged, nature-experience tourists with above average disposable incomes. Captains should seek ways to expand the client base by using industry-wide marketing efforts or by cooperating with local, state, and regional tourism bureaus.

Marketing toward non-traditional customers (i.e. women and minorities) may present opportunities for increased business as does marketing executive, fly-fishing, or other special charters. Captains may also want to consider differential pricing of charters to even out charter activity. Differential pricing may help to increase charter trip activity in the spring and fall "shoulder" seasons.

Captains can continue to build on a positive professional image of the charter industry by stressing safety, effective efficient angling opportunities, a higher than average catch rate and a "world class Great Lake angling experience" in their marketing efforts.

Captains should consider membership in a professional charter captain's organization. Belonging to a professional organization allows members to work with decision makers, fishery managers, and regulators from an organized power base.

Table 10
Concerns of the Michigan Charter Industry
242 Respondents

Concerns	Percent of Respondents
The economy	46%
Impacts of exotic species (zebra mussels)	31%
Boating equipment and operating costs	27%
Lack of fish/reduced abundance	24%
Fish consumption advisories	23%
Other problems	22%
Illegal fishing practices	21%
Poor weather/climate	21%
Fisheries management	18%
Drawing clients	18%
Government regulations	14%
Changes in forage fish populations	13%
Over harvest of fish stocks	9%
Poor weather forecasting	9%
Lack of one-day nonresident fishing license	9%
Lack of information on the fishery	5%
Toxic contaminants	5%
Un-sportsmanlike behavior of captains	5%
Overcrowding of the fishery	4%
Changes in water currents	3%
Un-sportsmanlike behavior of anglers	2%
Avian Botulism	<1%

Table 11
Five-Year Plans of Great Lakes Charter Captains
242 Repondents

Activity	Percent of Respondents
Increase of number of annual trips	59%
Increase prices of charter services	52%
No major changes	24%
Buy/operate newer boat	19%
Quit the charter business	18%
Buy/operate bigger boat	17%
Hire additional first mate(s)	11%
Branch out into other fishing related businesses	10%
Hire additional charter captain(s)	10%
Buy/operate an additional boat(s)	8%
Expand into multi-activity and/or non-fishing charters	8%
Decrease number of annual trips	7%
Other	6%
Buy/Own charter boat	<1%
Decrease prices	0%

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