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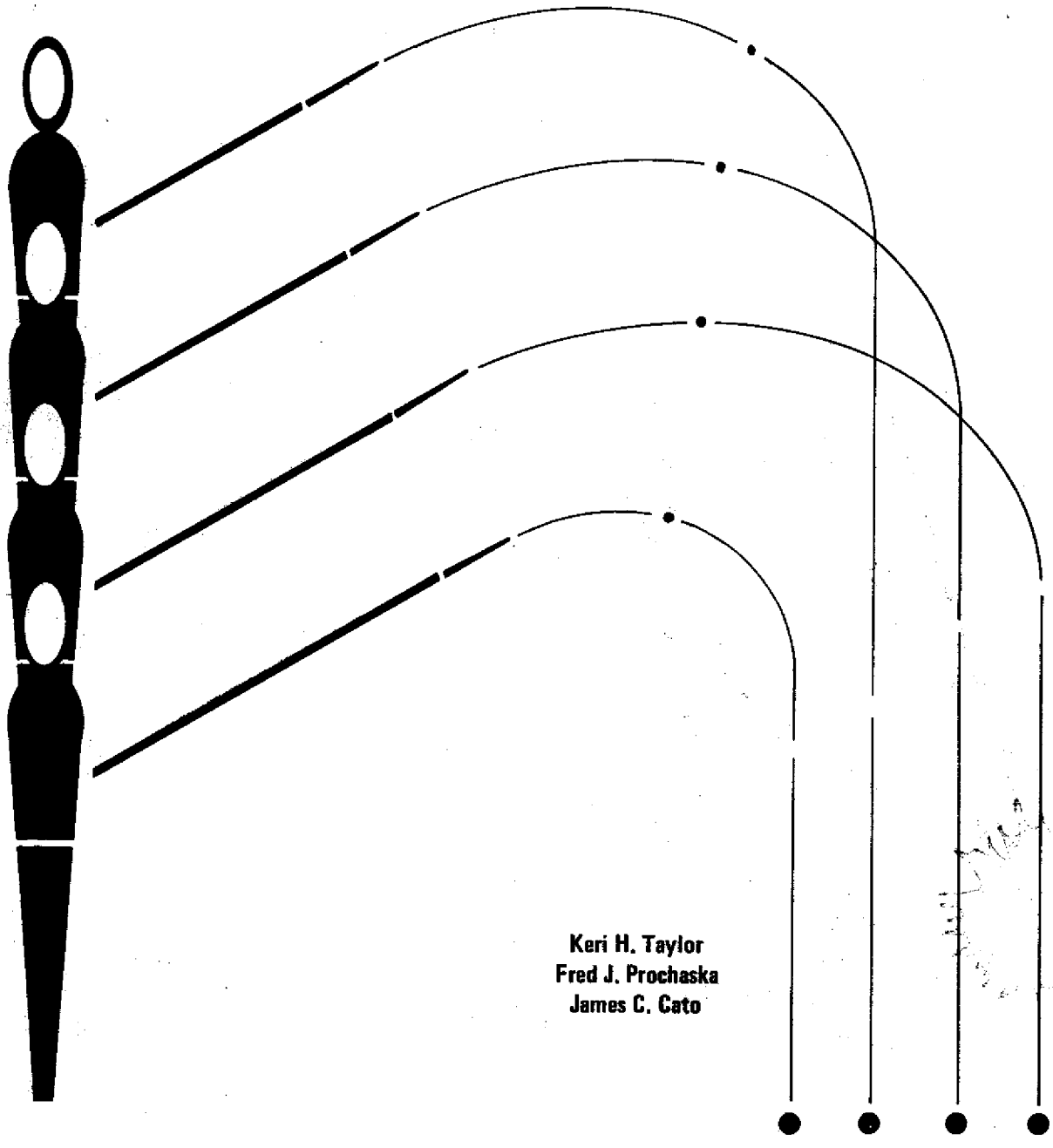
Economic Returns In Operating Atlantic Coast Charter And Party Boats, 1980-81



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INTRODUCTION

The charter and party boat industry in Florida is a major component of Florida's commercial fishing industry. Passengers on party and charter boats pay for the activity of fishing and enjoying a sporting activity. Although boat owners and captains are providing a sport fishing activity, the act of doing so constitutes a commercial economic activity or business enterprise designed to provide the boat owners, captain and crew with a livelihood.

This bulletin attempts to (1) provide individual charter boat and party boat owners/captains with basic economic information with which they can compare their own operations and (2) compare the economic characteristics of the charter boat industry on the north and south Florida Atlantic coasts. This has been accomplished by providing (1) a description of the general characteristics of charter boats and party boats in the fleet; (2) an analysis of fishing activity, costs and returns; and (3) a comparison of the differences in charter boat operations between north and south Florida.

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CHARTER BOATS

The geographic distinction between northern and southern charter boats was made by county of operation. Boats operating in Nassau and Duval counties (the two most northern counties on the Atlantic coast) were considered northern boats. Boats operating in Palm Beach, Broward and Dade counties (the three most southern counties on the Florida Atlantic coast) were considered southern boats.[1] Data were collected from August 1980 through July 1981 through personal interviews using a structured questionnaire. Five boat owners in the north and 14 boat owners in the south provided survey information. The boats were selected from the population of owners who captain their own boats and receive a majority of their income from chartering.[2] Charter boats were defined as those who take one to six passengers out to fish for a fixed per trip fare. Party boats normally charge on a per person basis and usually bottom fish.

North Florida charter boats differ from those in south Florida in both the characteristics of the boat and fishing activities and in the level of economic costs and returns. These differences can be related to the geology of the coast, the type of paying customers allocated to the boat and weather which influence fishing seasons and patterns.

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[1] The overall study area for the NMFS/Texas A & M Univ. project during which the data for this project were recorded excluded Monroe County (Florida Keys) which could be considered the southernmost Atlantic Coast county.

[2] A survey population was determined from the boat registration list of the Florida Department of Natural Resources. However, their list includes all captains who "choose" to register their boat commercially as a charter boat. Included in these are primary sports fishermen who may charter on weekends and other part-time boat operators, boats owned by companies that are used for purposes in addition to chartering, and etc. Consequently it was not possible to draw a strictly random sample for the survey.

Boat and Operating Characteristics

Hull and Engine

Three factors influence the type of hulls, engines, electronics and equipment found in north and south Florida. These are (1) the distance from port to the fishing grounds (blue water or the Gulf Stream), (2) the dependence on tourism (one-timers) or repeat business as customers, and (3) the competition from company boats[1] in the area.

The Gulf Stream and deep water lie farther out from shore along the north Florida coast than in south Florida. Northern boats were newer, constructed of fiberglass and were equipped with auxillary electronics (See Table 1). Average hull age in the north was 7.2 years. Northern boats had two Loran C's, two fathometers and a VHF radio. Primary fishing gear consisted of two outriggers, assorted rods and reels and a fishbox. Southern boats average 14.5 years of age and were 71 percent wood. Primary electronics and equipment on southern boats were a fathometer, VHF radio, two outriggers, assorted rods and reels, and two coolers.

Dependence of charter boats on tourism (one-timers) or repeat business for customers and the competition from company boats in the area may be a factor in choosing the length of the hull, engine horsepower, and the style and manufacturer of the boat. Southern boats appear to depend more on tourists booked in the hotels and along the docks. Southern boats also have more

[1] A company boat is a charter boat that is owned by a business other than the charter fishing business. The company usually operates the boat for entertaining employees and clients and it is not intended to be used as a profit-making charter fishing enterprise.

competition from larger, more attractive company boats. This competition necessitates that charter captains in the south provide boats with hulls that are larger and more comfortable to successfully compete for the one-time tourist customer who may make the booking choice based on the sight of the boat.

Table 1.--Characteristics of charter boats from the north and south Florida Atlantic Coast during August 1980 to July 1981.

Item	North[a]			South[b]		
		Range			Range	
	Average	Low	High	Average	Low	High
Hull:						
Length (feet)	32.0	30	35	44.8	35	53
Fabrication:						
Fiberglass (percent)	100.0			29.0		
Wood (percent)	0.0			71.0		
Age (years)	7.2	2	18	14.5	8	21
Engine:						
Horsepower	237.0	150	350	259.0	120	370
Number of engines	2.0			2.0		
Fuel type:						
Diesel (percent)	60.0			86.0		
Gasoline (percent)	40.0			14.0		
Age (years)	3.3	2	6	8.9	1	25
Fishing Activity:						
Number of:						
Half-day trips	72.0	38	123	186.0	0	450
Full-day trips	62.0	14	126	44.0	0	195
Average hours per trip:						
Half-day trip	4.6	4	6	4.1	3	5
Full-day trip	9.5	7	12	8.1	7	9
Average fare per trip (dollars)						
Half-day trip	242.2	225	250	188.7	170	200
Full-day trip	365.3	325	425	371.0	300	400

[a]Based on a sample of five boats.

[b]Based on a sample of 14 boats.

South Florida hulls averaged 44.8 feet in length. Horsepower rating of twin diesels averaged 259 each.

Customers of northern charter boats tended to be regulars and there was much less competition from company boats. Passengers would return year after year to the same captain and charter boat. Hull length and horsepower were smaller and the boats were less expensive models than in the south. Average hull length in north Florida was 32.0 feet. Average horsepower rating was 237 and engines were 60 percent twin diesels and 40 twin gas powered.

Fishing Activity

Charter boats in both areas provided half and full day trips. South Florida boats fished much more intensely than north Florida boats, averaging 186 half-day trips and 44 full-day trips per boat (Table 1). North Florida charter boats averaged 72 half-day trips and 62 full-day trips. The average number of trips varied because of the fishing season and the traveling distance to fishing grounds. Charter boats in south Florida took charters year round with peak activity occurring during fall and spring. Peak fishing activity in north Florida occurs in the summer since weather in the winter months and migratory patterns of the primary species restrict winter fishing. North Florida boats made more full-day trips than southern boats because the traveling time to the fishing grounds was longer in the north. Half-day trips averaged 4.6 hours in length in the north and 4.1 hours in the south. Full-day trips averaged 9.5 hours for northern boats and 8.1 hours for southern boats.

Economic Characteristics

Fares

The fare for a half-day trip in north Florida was $242.20. This was considerably higher than the $138.70 fare in south Florida (Table 1). However, full-day trip fares of $365.30 in the north and $371.00 in the south were almost equal. The difference in the half-day fares was due to the greater amount of traveling time involved in the half-day trip in the north.

Revenue

North Florida average annual revenue per boat was $40,090. This resulted from $17,400 from half-day fares and $22,650 from full-day fares (Table 2). South Florida average annual revenue was $51,419 with $35,093 coming from half-day fares and $16,326 from full-day fares. The higher average annual revenue of southern boats is primarily due to making 114 more half-day trips, even though north Florida fare is $53.50 more than in south Florida.

Costs

Cost differences between north and south Florida charter boats were related to one or more of the following factors: (1) age and fabrication of the hull, (2) distance to fishing area, (3) number of trips per year, (4) electronics and equipment on the boat, and (5) differences in basic input prices.

Variable. Haul-out cost in the south was more than twice that in the north. Average annual haul-out cost for northern boats was $880 and for southern boats, $2,443. The boats were hauled out twice a year. Cost difference is most likely due to the age difference and fabrication of the hulls. Newer fiberglass hulls should cost less to maintain during haul-outs than older wooden hulls.

Table 2.--Average annual costs and revenues for charter boats on the north and south Florida Atlantic Coast, 1980-81.

Item	North			South		
		Range			Range	
	Average	Low	High	Average	Low	High
	dollars					
REVENUE:						
Half-day trips	$17,440	$8,550	$30,750	$35,093	$0	$90,000
Full-day trips	22,650	4,900	40,950	16,326	0	78,000
Total	$40,090			$51,419		
COSTS:						
Variable costs:						
Haul-outs (2)	880	500	1,400	2,443	1,000	8,000
Fuel	10,856	4,950	16,240	7,261	3.297	15,069
Oil	1,076	515	1,802	515	122	1,362
Bait	1,845	1,248	2,724	2,518	450	8,295
Ice	752	212	1,362	347	0	711
Terminal tackle	780	250	1,362	1,285	300	3,495
Telephone	550	100	900	707	168	1,920
Referrals-Booking fees	1,500	1,500	1,500	1,143	0	6,100
Repairs:						
Hull	1,367	300	3,500	1,886	0	5,000
Engine	1,250	600	1,200	1,354	200	5,000
Electronics	560	100	1,000	209	35	350
Equipment	339	55	500	332	100	1,000
Captain wages	2,775	0	6,755	0		
Crew wages	4,853	2,360	7,550	7,582	2,970	13,560
Total variable costs	$29,383			$27,582		
Fixed costs:						
Depreciation[a]						
Hull, Engine	7,446			8,231		
Electronics	1,338			264		
Equipment	1,117			964		
Boat Registration	32	32	32	49	32	52
Insurance	1,290	750	2,000	1,696	850	2,500
Advertising	563	50	1,200	735	0	4,500
Dockage fee	2,024	540	4,360	4,003	1,200	7,200
	117	50	250	0		
Total fixed costs	$13,927			$15,942		
Total costs	$43,310			$43,524		
Net returns	($3,220)			$7,895		

[a] Purchase price used for depreciation purposes were:

	North	South
	dollars	
hull	52,125	57,617
electronics	6,690	1,320
equipment	5,585	4,820
Total	64,380	63,757

The major cost in both regions was fuel. Fuel costs averaged $10,856 in the north and $7,261 in the south. Oil costs (including oil and lubrication) averaged $1,076 in north Florida and $515 in south Florida. Fuel and oil costs were greater in north Florida because the engines were running at higher speeds for longer periods of time. In north Florida, 8,224 gallons of fuel were consumed at a price of $1.32/gallon in contrast to south Florida where 5,629 gallons of fuel were used at $1.29/gallon.

The three items associated with actual fishing--ice, bait and terminal tackle--totaled $3,377 per year in the north as compared to $4,150 in the south. Of these items, bait was the most costly in both regions, averaging $1,845 in the north and $2,518 in the south. The cost of bait and terminal tackle was greater in the south because more trips were taken. Annual ice cost was greater in the north since fish had to be transported greater distances and kept for longer fishing days.

Telephone and referral-booking fees are important items in obtaining customers for a charter boat operation. These fees were fairly similar, averaging $2,050 in north Florida and $1,850 in south Florida.

Total annual repair costs on the hull (not included in haul-out costs), engine, electronics and equipment were almost identical in both regions at $3,516 in the north and $3,781 in the south. Major repair costs were due to the hull in both regions. Southern hull repair costs were probably higher due to maintaining wooden hulls and using the vessel for a greater number of trips.

Engine repair costs were almost equal in both regions. The extra wear from more run time in the north was probably offset by the greater number of trips in the south. In north Florida, fishing greater distances from shore, potential weather conditions and type of fishing necessitates the use of

Loran C's and an additional fathometer. This additional electronic equipment caused higher repair costs on electronics in north Florida. Other equipment repair costs were virtually the same.

The last variable cost is captain and crew wages. Some north Florida boats had a captain, other than the owner, on a part-time basis. Therefore, the northern boats had an additional variable cost of $2,775 for a captain. Both groups of boats had one mate. The mate's wages in north Florida were $4,853 a year while in south Florida they were $7,582 a year. The difference in wages may be related to the market for labor in the areas of the state the boats were located. Furthermore, the reason the average mate's wages seem low is because an individual mate may work on several boats throughout the year and one boat may hire different mates on different trips.

Fixed. Depreciation on the hull and engine were combined because in this particular type vessel, both were purchased as one unit. Depreciation was calculated using the straight-line method with a seven-year life for the hull and engine and a five-year depreciable life for electronics and equipment. Salvage value was set at zero for maximum depreciation. Depreciation costs totaled $9,901 for northern boats and $9,459 for southern boats.

Remaining fixed costs included boat registration, insurance, advertising, dockage fee and miscellaneous costs. The largest of these was dockage at $2,024 (50 percent of the five costs) in north Florida and $4,003 (63 percent of the five costs) in south Florida.

Total. Average annual total variable costs were $1,801 greater in north Florida ($29,383) than in south Florida ($27,582). Total fixed costs,

conversely, were greater in south Florida at $15,942 as compared to $13,927. Total costs were $43,310 for northern boats and $43,524 for southern boats.

Net Returns

Net returns for northern boats showed a cost of $3,220. Southern boats showed a profit of $7,895. The reason for the $11,115 difference in net returns is due to the $11,329 spread between north and south revenues. Annual total costs only differed by $214. North Florida charter boats did not generate sufficient revenues to cover total costs while variable cost were more than covered.

Net returns in this type budget indicate the return to the owner captain's labor, management and capital. It is quite obvious that the loss shown for the north Florida charter boats and small return of $7,895 for the south Florida charter boats do not represent an adequate return to labor, capital, and management. Net returns before taxes excluding depreciation costs were $6,681 for northern boats and $17,354 for southern boats. This represents an actual cash return to the owner captain since depreciation is not an actual cash cost.

Even this short term cash profit represents a marginal return when considering the labor and management required in this industry and the amount of capital invested in the boat on equipment. And it does not allow for accumulation of replacement capital.

PARTY BOATS

Party boats charge on a per person basis and generally bottom fish. In contrast to charter boats which generally have six or less passengers,

party boats usually average over 20 persons per trip. Relatively few registered party boats and a poor survey response rate restricted the following analysis to the south Florida area only.

Boat and Operating Characteristics

Hull and Engine

Average length of the party boat hulls was 62.0 feet, with a range in length from 53 to 65 feet. All party boats surveyed had wood hulls with an average age of 15.8 years. The age of the hulls ranged from 2 to 28 years. All boats had twin diesels with an average horsepower of 306 each. Engine average age and age range was the same as that for the hulls. The party boats were equipped with a CB radio, two fathometers, a VHF radio, assorted rods and reels, and a fishbox.

Fishing Activity

The types of trips taken by the party boats were half-day, full-day and night trips. Night trips seemed to be the most popular among the boats surveyed. The boats averaged 32 half-day trips, 184 full-day trips and 198 night trips. The average length of a trip was 3.5 hours for a half-day trip, 6.7 hours for a full-day trip and 4.7 hours for a night trip.

Economic Characteristics

Fares and Revenue

The party boats earn revenue from fares on a per-passenger, per-trip basis. The average fare per passenger for a half-day trip was $11.0; for a full-day trip, $18.0; and for a night trip, $13.2 (Table 3). During the year, party boats averaged 768 passengers on half-day trips, 4,842 passengers

Table 3.--Characteristics of the surveyed party boats from the south Florida Atlantic Coast during August 1980 to July 1981.

Item	Average[a]	Range	
		Low	High
Hull:			
Length (feet)	62.0	53	65
Fabrication:			
Fiberglass (percent)	0.0		
Wood (percent)	100.0		
Age (years)	15.8	2	28
Engine:			
Horsepower	306.3	170	425
Number of engines	2.0	2	2
Fuel type:			
Diesel (percent)	100.0		
Gasoline (percent)	0.0		
Age (years)	15.8	2	28
Fishing Characteristics:			
Number of:[b]			
Half-day trips	32.0	0	96
Full-day trips	184.0	0	360
Night trips	198.0	120	312
Average hours per trip:			
Half-day trip	3.5	3	4
Full-day trip	6.7	5	9
Night trip	4.7	3	7
Number of passengers (year):			
Half-day trip	768.0	0	2,304
Full-day trip	4,842.0	768	9,813
Night trip	3,863.0	2,455	5,523
Average fare per passenger (dollars):			
Half-day trip	11.0	11	11
Full-day trip	18.0	16	22
Night trip	13.2	11	15

[a]Based on a sample of 4 boats.

[b]Per year, 1980-81.

on full-day trips and 3,863 passenger on night trips. The average annual revenue was $146,588 with $8,448 coming from half-day fares, $87,152 from full-day fares and $50,988 from night fares (Table 4).

Costs

Variable. The major variable costs were fuel, bait, referrals and booking fees, and captain and crew salaries. Fuel was the largest cost, averaging $23,690 and ranging from $4,518 to $39,192. Bait, ice and terminal tackle averaged $10,215, $3,208 and $3,196, respectively. Referral and booking fees were $13,500 and telephone charges ran $1,764. Referrals and booking fees ranged from zero to $27,000. The boats were hauled out twice a year with an average annual cost for haul-outs of $6,166.

The total annual repair costs on the hull (not included in haul-out costs), engine, electronics and equipment averaged $2,788. The major repair cost was for engine repairs, averaging $2,100. There was a captain and one mate on each boat. The salary of the captain averaged $14,333. The mate's salary averaged $10,624.

Fixed costs. Depreciation on the hull and engine were combined. A seven-year depreciable life for the hull and engine and five-year depreciable life for electronics and equipment were assumed in calculating depreciation costs. Salvage value was set at zero for maximum depreciation for tax purposes. Depreciation was $12,607 for the hull and engine, $762 for electronics and $430 for equipment. The remaining fixed costs were boat registration, insurance, advertising and dockage fee. The largest of these was advertising, averaging $5,000. One of the party boats spent $12,200 on advertising. Insurance and dockage averaged $3,850 and $3,168, respectively.

Table 4.--Average annual costs and net returns for the surveyed party boats from the south Florida Atlantic Coast, 1980-81.

Item	Average	Range	
		Low	High
	---------dollars---------		
REVENUE:			
Half-day trips	$8,448	$0	$25,344
Full-day trips	87,152	13,824	176,640
Night trips	50,988	32,400	72,900
Total	$146,588		
COSTS:			
Variable costs:			
Haul-outs (2)	6,166	1,000	10,000
Fuel	23,690	4,518	39,192
Oil	1,427	484	3,115
Bait	10,215	3,602	21,770
Ice	3,208	0	8,520
Terminal tackle	3,196	1,742	4,649
Telephone	1,764	480	3,360
Referrals-Booking fees	13,500	0	27,000
Repairs:			
Hull	450	0	900
Engine	2,100	1,200	3,000
Electronics	100	0	200
Equipment	138	100	175
Captain salary	14,333	0	26,880
Crew salary	10,624	6,240	15,552
Total variable costs	$90,911		
Fixed Costs:			
Depreciation[a]			
Hull and engine	12,607		
Electronics	752		
Equipment	430		
Boat registration	52	52	52
Insurance	3,850	3,500	4,100
Advertising	5,000	0	12,200
Dockage fee	3,618	0	7,500
Total fixed costs	$25,859		
Total costs	$116,770		
Net returns before taxes	$29,818		

[a]Average hull purchase price (including engine) was $88,250. Average electronics purchase price was $3,760. Average equipment purchase price was $2,150.

Net Returns

The average annual variable costs for the party boats totaled $90,911. Total fixed costs averaged $25,859. With total revenues of $146,588 and total costs of $116,770, the net returns before taxes were $29,818.

SUMMARY

The charter boat and party boat industry is a major component of Florida's commercial fishing industry. Boat owners and captains by providing a sport fishing activity produce a livelihood for themselves and crew and an economic impact on the Florida economy.

Major differences in charter boat activities occurred between north and south Florida. North Florida boats tended to rely on repeat customers while the south Florida industry relied heavily on tourism. South Florida boats tended to be larger and more pleasure oriented to attract one-time customers. South Florida charter boats averaged more trips per year due mainly to a longer fishing season while north Florida boats tended to make more full day trips due to the greater distance from the fishing grounds.

Total annual average cost per charter boat was almost identical between north and south Florida boats with $43,310 and $43,524, respectively. Total revenue per boat was, however, approximately 25 percent higher in south Florida, resulting in a net profit of $7,895 per boat while north Florida boats incurred an average loss of $3,220.

Only south Florida party boats were analyzed. The average party boat was 62 feet in length. Gross revenues were $146,588 with most trips being full day trips. Night trips accounted for over one-third of gross revenues. Total costs were $116,770 annually, leaving a net return before taxes equal to $29,818.

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