

Studies on Marine Economics

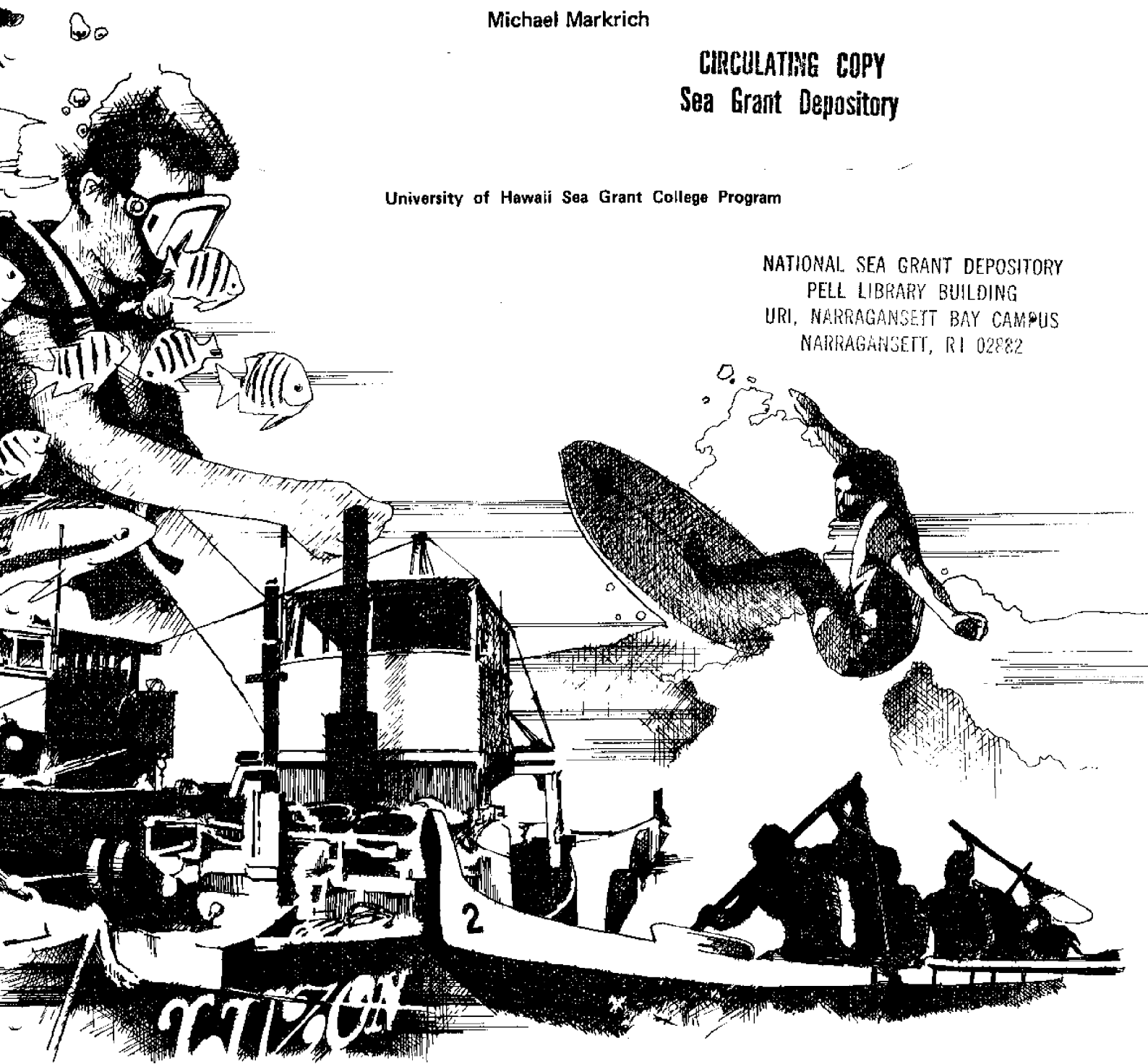
ECONOMIC PROFILE OF HAWAII'S TOUR BOAT INDUSTRY

Michael Markrich

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STUDIES ON MARINE ECONOMICS NO. 2

March 1984

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About the author

Michael Markrich is currently a researcher on contract with the University of Hawaii Sea Grant College Program.

The views expressed in this study on marine economics do not reflect those of the University of Hawaii or the University of Hawaii Sea Grant College Program. Any commercial product or tradename mentioned herein is not to be construed as an endorsement.

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Michael Markrich

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INTRODUCTION

Traditionally, visitors to Hawaii have placed high priority on marine-oriented adventures and experiences. The large visitor expenditures on a wide range of boat-oriented activities underline the value of these experiences to the visitor industry today. This report provides a description and analyses of commercial tour boat operations in Hawaii. Table 1 provides estimates of the visitor use, numbers of boats, people employed, and the economic contribution of tour boats in the state in 1982-83. This information was obtained by personal interview survey of boat operators and owners throughout the state and represents the first attempt to characterize this important segment of the state visitor industry.

The survey indicated that approximately 112 boats had a business volume of nearly \$50 million annually. The operators employed over 2,000 persons, mostly Hawaii residents of a number of years, with payments of over \$15 million. The numbers served exceeded 2.5 million or over one-half of the total annual visitors to the state. The industry paid over \$5 million in tax revenues, and if state input-output multiples are assumed applicable, had an indirect impact on the economy of over \$100 million. (Besides the direct effects on incomes of owners, employees, and suppliers, the tour boat business generated additional [indirect] rounds of economic activities in the total economy of the state. These overall economic effects are frequently estimated by the use of multipliers. Tour boats, for example, are users of a wide variety of products and services, from anti-fouling bottom paints, to fresh vegetables to entertainment services.)

Tour boat operations exist in each of the island counties of the state and take on differing characteristics depending on the local marine attractions, nature of the local visitor industry, and harbor resources and infrastructure to support these business ventures. Table 1 shows Oahu tour operations servicing a larger number of passengers (1.5 million) and producing more gross revenues than the rest of the state combined.

The Oahu statistics do not include the cruise ships or luxury liners operating out of Honolulu. The cruise ship operations offer marine experiences in a luxury resort (hotel) setting as opposed to the one-day-or-less trips featured by the other segments of the industry. The cruise ships represent an important component of the economic picture employing more people than the rest of the industry combined with gross revenues of over \$8.5 million.

TABLE 1. GROSS REVENUES AND TAX REVENUES GENERATED BY THE TOUR BOAT INDUSTRY (tour boat survey: 1982-83)

Category	Oahu	Maui	Hawaii	Kauai	Cruise Ships	Total
Number of ships	24	39	10	37	2	112
Gross revenues	\$20,000,000	\$ 9,400,000	\$3,200,000	\$3,770,000	\$ 8,600,000	\$ 44,970,000
Number of employees (full & part time)	400	200	110	157	1300	2167
Amount spent on employment	\$ 2,984,374	\$ 2,479,194	\$ 964,000	\$1,536,446	\$ 7,600,000	\$ 15,564,014
Number of passengers	1,500,000	425,215	120,805	559,116	40,000	2,645,136
Estimated total economic impact*	\$45,000,000	\$21,150,000	\$7,200,000	\$8,482,500	\$19,935,000	\$101,767,500
Total amount spent on promotion	\$ 840,300	\$ 383,400	\$ 78,900	\$ 136,000	\$ 5,000,000	\$ 7,662,300
Tax revenues	\$ 1,296,924	\$ 605,643	\$ 254,788	\$ 491,610	not available	\$ 4,551,532

*These multipliers are taken from the Hawaii input-output model adapted as follows. Since the tour boat industry is not characterized in the current state economic model, output is split in two parts 50-50 with one part treated as ocean transport and the other part as a eating-drinking-entertainment business. The respective multipliers are 2.55 + 1.95 respectively.

Kauai tour boats operations were second to Oahu in visitor use followed by Maui and Hawaii. However, the Maui operations produced over two-and-a-half times as much revenue as the Hawaii boats. Tour boat operations differ on each island as indicated above. The following examines these operations on a county by county basis.

OAHU TOUR BOAT INDUSTRY

Early Developments

The tour boat industry is one of Oahu's oldest visitor service industries. Tour boats and cruises have been a significant factor in the Hawaii tourist business since the days of the Matson liners the Lurline and the Mariposa. Many of the smaller boats and dinner cruises trace their beginnings to the mid-1950s when beach boats would take visitors for rides off Waikiki. Later, meals were added and the dinner cruises soon became as popular as did the glass bottom boat rides and the cruises through Pearl Harbor. The decision by the Navy to provide free access to the Arizona Memorial in Pearl Harbor took its toll of the smaller tour boats and a number of the boats providing cruises shifted to dinner and charter cruises to stay in business.

The publicity surrounding the Hokule'a, during the 1970s, popularized sailing as an experience and made it possible for tour boat owners to carry more passengers at significantly lower fuel costs due to sail power. In addition, special legislation that favored American-owned cruise ships, the so-called "Love Boat Bill," encouraged investors to bring luxury liners back to Honolulu after a 5-year absence.

Industry Today

Today, the Oahu tour boat industry represents one of Oahu's most important tourist service industries. It is estimated that one out of every three visitors takes a ride on one of these crafts (based on more than 1 million tour boat passengers per year). The tour boats offer a wide variety of activities and services ranging from recreational sailing to moonlight dinners and luxury inter-island cruises. There are services catering to a wide range of consumer interests, from a ride across Waikiki Beach to a 7-day cruise in an expensive stateroom.

Although the largest number of tour boats are moored at Kewalo Basin, others are in Kaneohe Bay, Honolulu Harbor, or on the beach at Waikiki. The size and nature of services are often an indication of where boats do business. The largest percentage of small sailing vessels can be found operating on the Waikiki beachfront. The dinner cruises work out of Kewalo Basin, while the larger dinner vessels and the luxury liners are moored in

Honolulu Harbor. See Table 2 for the type, sizes, and location of the Oahu tour boats.

Economic Impact of Oahu Tour Boat Industry (excluding luxury liners)

The personal interview survey of Oahu tour boat operators and owners was conducted during December 1981 to January 1982 to provide data for description of this industry and its characteristics. This survey provided the basis for the following analysis of the economic significance of the industry and for determining the costs and returns of tour boat operations as well as for particular services offered.

In 1982 the Oahu tour boat industry's gross revenues were approximately \$20 million. (Survey results showed Oahu boats to generate revenue between \$17 and \$25 million.) In terms of fiscal effects the tour boat industry paid almost \$1 million in general excise taxes in 1982. Approximately \$125,000 in individual income tax and \$267,000 in moorage fees were also paid (Table 3).

Revenues, employment costs, and earnings

The 1982 survey indicated that for 14 Oahu-based boats (luxury liners excluded) nearly 74 percent of the total revenue came from dinner cruises (Table 4). The next highest tour boat activity was the Pearl Harbor cruise. This was followed by recreational sailing, the glass bottom boat trips, and charters.

More than 50 percent of the approximately 1.4 million tour boat passengers took dinner cruises, approximately 26 percent took Pearl Harbor cruises, with the remainder divided closely among the other activities (Table 4).

Fuel use. The global energy situation has made fuel costs an important consideration for tour boat operators. Operators economize wherever possible by drifting or by sailing. The large screw-propeller vessels that make many trips per day use the greatest amount of fuel (Table 5).

Table 5 (Part II) also shows that fuel consumption was disproportionately lower for the dinner sail activities while being higher for those activities such as Pearl Harbor and glass bottom boat cruises which require screw propulsion ships.

Employment. The tour boats on Oahu employ approximately 400 people, 60 percent of whom work full-time. Approximately 90 percent of all the employees are Hawaii residents of more than 5 years, 5 percent are recent arrivals from the mainland and 5 percent from foreign countries. The above figures do not include the entertainers and restaurant subcontractors which increase the number of workers by approximately 30 percent.

TABLE 2. TYPE, SIZE, AND LOCATION OF TOUR BOATS AND CRUISE SHIPS IN HONOLULU (1983 survey)

No. of Vessels	Type of Vessel	Size of Vessel (ft)	Guest Capacity	Type of Activity	Location
7	"Beach" Catamaran	30 to 40	20 to 48	Sightseeing, cocktail cruise	Waikiki Kaneohe
6	"Hokulea"-type Catamaran	65 to 105	150	Dinner cruises, charters, sightseeing	Kewalo Basin Honolulu Harbor
2	Screw propeller Glass bottom	44 to 75	49 to 150	Glass bottom boat rides	Kewalo Basin Kaneohe Bay
6	Screw propeller	96 to 282	30 to 1,000	Dinner cruises, Pearl Harbor tours, sightsee- ing charters	Kewalo Basin Honolulu Harbor
2	Liners	682	750 to 800	7-day cruise	Honolulu Harbor

TABLE 3. ESTIMATED STATE TAX REVENUE GENERATED BY 14 TOUR BOATS ON OAHU (SGC* 50 to 500)

Type of Tax	Revenue
General excise tax and use	\$ 800,000 †
Corporate income	19,398 §
Individual income/net income	141,459 #
Unemployment compensation	30,739 **
Moorage fees	70,000 †§§
Fuel	31,328 ##
TOTAL	\$1,296,924

*SGC = stated guest capacity

†Based on 4 percent of gross revenue

§Based on .65 percent of ratio of corporate taxes to income

#Based on 4.74 percent of ratio of individual income to taxes

**Based on 1.03 percent of ratio of unemployment compensation to income

††Based on survey tabulations of gasoline consumption and the State rate of \$.15 tax per gallon of gasoline and \$.01 per gallon for diesel

§§Based on Harbors Division figures that disagree with survey respondents by as much as 100 percent

##Based on Harbors Division accounts

TABLE 4. VOLUME OF PASSENGERS AND FUEL CONSUMPTION BY TYPE OF ACTIVITY (1982 survey)

Type of Activity	Total Revenue (%)	Passengers (%)
Glass bottom boat	3	8
Dinner cruises	74	54
Pearl Harbor cruises	16	26
Adventure/recreation	4	5
Charters	3	7

Note: Because of the significant differences in size, revenue generation, costs, and capacity between tour boats and luxury liners, the data in this report, unless otherwise specified, refers to the 1982 tour boat survey.

TABLE 5. FUEL USE BY OAHU TOUR BOATS (1982 survey)

Part I. Fuel Use by Type of Activity

Type of Activity	Amount of Fuel Used (%)
Glass bottom boat	18
Dinner cruises	41
Pearl Harbor cruises	26
Adventure/recreation	8
Charters	7

Part II. Fuel Use by Type of Vessel

Type of Vessel	Amount of Fuel Used (%)
Catamarans	17
Motor/Sailor	5
Screw propulsion	78

Each crew on the larger vessels is made up of a Coast Guard licensed captain, an engineer, a chief mate, and a number of crew members. On the dinner cruises the crew is augmented by restaurant personnel and entertainers. In addition, there are administrative support staff, sales people, and bus drivers who work to ensure the flow of passengers to each vessel. On the majority of the boats, the crews are expected to work with passengers and in some cases augment the restaurant personnel as waiters and entertainers.

Nearly 90 percent of the tour companies had training programs and had been in business long enough to have trained licensed captains. Two of the companies had trained engineers and sent them to school. The remainder had training programs that consisted of "on the job training." The total amount paid in wages was approximately \$2,984,374, not including tips (1982 survey).

Fares and revenues. Fares and revenues vary according to the type of service offered and the location. Boat rides off Waikiki are the least expensive while the dinner cruises are the most expensive and range from \$16 to \$32 with an average of \$24 (Table 6).

TABLE 6. RELATIVE FARE CHART

Type of Activity	Fares
Beach catamaran ride	\$ 3.00
Glass bottom boat	5.50
Dinner cruises	24.00
Pearl Harbor cruises	10.50
Adventure/recreation (snorkeling, swimming, picnic, cruises, etc.)	15.00
Charter cruises (2.5/hr minimum)	\$350.00/hr

The location of boats and type of services offered determine the level of revenues developed from various mooring sites. Kewalo Basin produced over two-thirds of the tour boat revenues followed by Honolulu Harbor (Table 7).

TABLE 7. PERCENT OF TOUR BOAT REVENUE BY LOCATION

Location	Percent of Revenue
Waikiki Beach	1
Kewalo Basin	68
Honolulu Harbor	30
Kaneohe Bay	1

The volume of tour boat passengers and revenues fluctuates with the tourist market. The heaviest periods are those from March to December and around Christmas time. The lightest period seems to be between the end of September and the first 2 weeks of December.

Marketing and promotion. The Oahu tour boat companies spent approximately \$840,300 on promotion both in the United States and Japan in 1982. All of the companies offered special rates to travel agencies who could provide them with large groups. Other incentives were discount coupons and a special kamaaina rate that was 30 to 100 percent less than the regular fare.

The special rates were negotiated on the basis of agreements between the travel agencies and tour boat companies. Such agreements were based on seasonal and passenger volume considerations. Although some of the companies said that they offered one net price to tour companies which was 30 percent of the regular fare, some said that the price was set according to group size with the

amount of discount being directly proportional to group size. Most of the companies indicated that the agreements made both nationally and internationally were subject to change without notice due to fluctuations in fuel costs and other externalities.

Nearly all of the companies surveyed said that they have repeat business ranging from 1 to 5 percent of their total. A few gave special discounts to repeat customers.

Customer Characteristics

The companies dealing with tour boats on Oahu having a guest capacity of 50 to 200 people deal with a public ranging in age from children to senior citizens. The average customer was between 40 and 45 years of age. Sixty percent of the customers were from the United States, 30 percent from Japan, 5 percent from Canada, and the remaining 5 percent from other countries including Australia, New Zealand, and Europe.

Costs, earnings, and breakdown analysis for tour boat operations on Oahu

Table 8 shows typical expenses for Oahu tour boats. Repairs, stores and equipment, maintenance and repair, hull insurance, and owner expenses are based on prorated annual costs. The largest direct cost associated with any given day's operation was fixed.

The 14 Oahu-based tour boats surveyed differed widely in terms of capacity and type of services offered to customers. In general there were too few boats to group by similar characteristic and present average costs and returns and still preserve anonymity. On the other hand, average figures for the whole group would not be typical of any particular type of operation. One method of demonstrating typical cost and earning that might be encountered for particular sizes and configurations of services is through representative or composite operations (Table 8).

The following sections present composite costs and revenues for two sizes of tour boats which provide dinner cruises on a regular basis. An analysis to determine the number of customers and/or charges to break-even or cover costs is also presented (Table 9).

Representative breakdown analysis for a multi-functional catamaran with a stated guest capacity of 149 passengers on Oahu

The following analysis is based upon the supposition that the total earnings of a 149-passenger catamaran would be based upon dinner cruises and charters (Table 9).

TABLE 8. TYPICAL DAILY PER TRIP EXPENSES -- OAHU-BASED 50- TO 200-PASSENGER SHIP TOUR BOATS (1982 survey)

Type of Expense (by trip)	Screw Propeller	Catamaran
<u>Vessel Expenses</u>		
Wages	\$210	\$210
Stores, supplies and equipment		\$20
Maintenance and repair	\$70	\$40
Insurance, hull (principal & interest)	\$37	\$30
<u>Voyage Expenses</u>		
Fuel	\$ 70	\$ 30
Entertainment	\$220	\$110 to \$150
Port costs (.20/head + moorage fee)	.20/head	.20/head
Passenger subsistence	\$3 to \$5/head	\$3 to \$5/head
<u>Owner's Expenses</u>		
Administration	15% to 20% of revenue	10% of revenue
Advertising and promotion	5% to 7%	4%
Interest	5% of revenue	5% of revenue
Depreciation over 15 to 25 years	4% of investment	2.5%

Tour boat analysis is complicated by several factors. Most of the boats do not have a standard fare. They have different net fares for different tour companies based on the number of tourists involved. While a listed fare may be \$28 the actual fare may be as low as \$12. Several of the tour companies said that they were trying to eliminate the expense of paying salespeople on commission preferring instead to offer companies net prices that they can in turn sell at a price of their own choosing. For the purposes of this analysis the level of commission was based on 20 percent of the gross. This is an estimate based on the difference between the passengers who arrive and pay the full fare, rather than that paid by people traveling on tours who pay a lower rate. The fares are said to be extremely competitive among operators who offer different fares at different times depending on demand. They are facilitated in this by the numerous tourist publications that offer discounts and compete for the tourists. The Japanese tourists who do not read English do not have this advantage and usually pay full fare. Breakeven capacity for boats in the representative study are said to be 38 percent of capacity. Most

TABLE 9. REPRESENTATIVE BREAKDOWN ANALYSIS FOR A MULTI-FUNCTIONAL
149-SGC CATAMARAN ON OAHU

Trips/Year	Stated Guest Capacity	Percent of Capacity Carried	Number of Passengers	Average Fare	Total Revenue																																																
400	149	55	32,780	\$28	\$917,840																																																
<table border="1"> <thead> <tr> <th>Fixed Cost</th> <th>Annual Total (\$)</th> <th>Average Variable Cost</th> <th>Annual Total (\$)</th> </tr> </thead> <tbody> <tr> <td>Mortgage and interest</td> <td>22,000</td> <td>Variable maintenance</td> <td>10,000</td> </tr> <tr> <td>Rent</td> <td>17,400</td> <td>Advertising and promotion</td> <td>22,500</td> </tr> <tr> <td>Prof. Services (acct., etc)</td> <td>12,000</td> <td>Transportation</td> <td>10,800</td> </tr> <tr> <td>Haul outs, fixed maintenance</td> <td>15,000</td> <td>Taxes</td> <td>36,713</td> </tr> <tr> <td>Utilities and phone</td> <td>15,000</td> <td>Moorage fee</td> <td>6,556</td> </tr> <tr> <td>Insurance</td> <td>20,000</td> <td>Fuel</td> <td>4,800</td> </tr> <tr> <td></td> <td></td> <td>Payroll tax workmans compensation, TDI etc.</td> <td>30,000</td> </tr> <tr> <td></td> <td></td> <td>Salaries and wages</td> <td>200,000</td> </tr> <tr> <td></td> <td></td> <td>Commission (.20)</td> <td>183,559</td> </tr> <tr> <td></td> <td></td> <td>Food and Beverage</td> <td>163,900</td> </tr> <tr> <td>TOTAL</td> <td>101,400*</td> <td>TOTAL</td> <td>668,837*</td> </tr> </tbody> </table>						Fixed Cost	Annual Total (\$)	Average Variable Cost	Annual Total (\$)	Mortgage and interest	22,000	Variable maintenance	10,000	Rent	17,400	Advertising and promotion	22,500	Prof. Services (acct., etc)	12,000	Transportation	10,800	Haul outs, fixed maintenance	15,000	Taxes	36,713	Utilities and phone	15,000	Moorage fee	6,556	Insurance	20,000	Fuel	4,800			Payroll tax workmans compensation, TDI etc.	30,000			Salaries and wages	200,000			Commission (.20)	183,559			Food and Beverage	163,900	TOTAL	101,400*	TOTAL	668,837*
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Note: The wholesale price is computed by dividing the total cost by the total number of passengers. This equals \$23.50. The breakeven capacity is found by computing the breakeven number of passengers. This is done by dividing the fixed cost by the difference between the average cost (\$28) and the average price computed by dividing the average variable cost by the number of passengers or 668,837/32,780.

The result is the equation: $\frac{\$101,400}{\$28.00 - \$20.40} = 12,336$

This represents 38 percent of the actual number carried and the breakeven capacity.

*Total costs = \$770,237; Total revenue - total cost = net profit (\$917,840 - \$770,237 = \$147,603)

of the boats must run between 38 and 45 percent to break even. The dinner boat catamarans run at an average of 55 percent capacity some do better than this running at over 66 and some do less. In a good year a boat that is doing well will carry almost 50,000 passengers and gross almost \$1 million. (The amount of passengers is disproportionate to the gross revenue because of the difference in fares.)

Cruise Ships or Luxury Liners

Special legislation that favored American-owned cruise ships the so-called "Love Boat Bill" encouraged investors to bring luxury liners back to Honolulu after a 5-year absence.

These large cruise ships hire more people and consume more fuel than the entire tour boat industry (Table 10). In addition, the large cruise ship company spent more than \$1 million in advertising in 1982 using all types of media, from magazine advertising to television.

TABLE 10. EXPENDITURES BY CRUISE SHIPS IN HAWAII
(SGC 750 or more)

Expenditure	Amount
Food costs	\$ 650,000
Fuel costs	2,145,000
Labor	7,600,000 1,300 new employees
Gross revenue in 1982 + .20 =	\$8,600,000

The luxury liner customers were older. The average age is approximately 55 years; 75 percent come from the United States, 15 percent from Canada, and 10 percent from Australia and New Zealand. More than 50 percent are unaccompanied women.

The cruise boat customers spend an average of \$1,500 each to come to Hawaii, and have a significant impact on the economies of the neighbor islands. With both cruise ships operating this means that each week approximately 1,400 people take advantage of visitor service on the Big Island of Hawaii, Maui, Kauai, and Oahu. Many of the passengers are able to spend more money in the ports than other types of tourists and are considered to have higher levels of disposable income than the average tourist. Their spending is said to have particular impact in places such

as Hilo, Kona, and Kauai which do not get the same level of tourist as Maui and Oahu.

Concerns Of Tour Boat Operators

There was widespread feeling among the Oahu tour boat operators that the state agencies with which they deal were sympathetic to their problems but sometimes unresponsive to their needs. Many felt that despite the taxes they paid fuel tax, head tax, general excise tax, etc. the state did little to maintain pier and harbor facilities, and had no specific policy towards the tour boat industry.

A number cited as evidence of this the lack of restrooms and tourist facilities at Kewalo Basin where 70 percent of the tour boat business is conducted. In spite of state policy to encourage visitor services, the operators felt that the state provides little incentive to them.

Some operators are worried about the state plan to move the tour boats away from Kewalo Basin to a concentrated location in Honolulu Harbor. They feel that Kewalo Basin, with its proximity to the hotels in Waikiki and to the tourist center of Ward Warehouse, is a convenient location. They are concerned that to move the tour boats to Honolulu Harbor means increased fuel and transportation costs and possibly a drop in the number of independent passengers. Several operators said that they would not oppose the move provided the state installed adequate sewage, restroom, administration, parking, and docking facilities. A complaint cited by one tour boat operator was that the State Harbors Division was constantly changing his moorage in Honolulu Harbor so that he never knew from 1 day to the next where his passengers should be dropped off and where they should be picked up. Another complaint centered around the smell of the fish cannery nearby.

MAUI TOUR BOAT INDUSTRY

The Industry Today

The present tour boat industry on Maui is a relatively new development, occurring over the last 5 years. Previously, a small number of boats provided day sails and cruises but a dramatic increase in the number of Maui visitors took place with the construction of new hotels and condominiums in the 1970s. This rapid increase in tourists took place during a period of intense national and international interest in whales and the whale watch season soon became the newest and most profitable part of a growing industry.

As the demand increased and more boats entered the industry the state moved to restrict the number of commercial operators

permitted to work out of Maui's already crowded harbors. The limited number of commercial permits and the growing demand for port space soon created a wild cat sub-industry as quasi legal boats began to work off the docks and beaches. Many of these boats are the "six-pack charters" so called because the Coast Guard does not require special equipment or permits for boats handling six passengers or less.

There are tour boats working off the main Maui tourist centers of Lahaina, Kihei, and Ka'anapali. The majority of the boats are multi-hull, although mono-hull sail boats, screw-propeller vessels, and glass bottom boats are also represented (Table 11).

Lahaina offers the widest range of tourist activities and has the largest number of boats. It is estimated that the number of wild-cat boats operating off Lahaina's docks and beaches is approximately equal to the number of boats that have legal permits for the harbor during certain times of the year. In addition, glass bottom boats work exclusively out of Lahaina and 90 percent of the whale-watch activity takes place out of Lahaina Harbor.

Ma'alaea harbor has the second largest number of tour boats because of its close proximity to the Kihei area. Several of the larger operators maintain permits in Lahaina and Ma'alaea harbors and in other harbors as well. Table 11 shows the type and home port of the larger tour boats on Maui.

Economic Impact of Maui Tour Boat Industry

The following analysis is based on a personal interview survey conducted in April 1983 with 21 commercial tour boat operators. This represents approximately half of the 40 boats involved in the trade and 80 percent of the total revenue.

In 1982 the 21 companies surveyed reported a gross income of approximately \$9.4 million. (The survey covered almost all of the large operators and a sampling of the small operators who work only seasonally. The gross revenue of the seasonal boats not included in the survey, is estimated at \$2.28 million or an additional 20 percent.) In terms of fiscal effects the tour boat industry paid excise and use taxes in excess of \$376,000 and paid approximately \$117,513 in individual income tax (Table 12). These firms paid \$25,130 in unemployment compensation, \$12,481 in fuel tax, and the moorage fee collections were reported at approximately \$57,454. This represents the direct assessment for use of harbor facilities.

TABLE 11. TYPE, SIZE, AND LOCATION OF TOUR BOATS ON MAUI (1983 survey)

No. of Vessels	Type of Vessel	Size of Vessel (ft)	Guest Capacity	Services	Location
15	Wildcat	20 to 42	6	Sightseeing Whale-watching Cruises	Beach mooring Lahaina Kihei Kaanapali
10	Catamaran	35 to 70	18 to 125	Dinner Cruises Charters Whale-watching Sightseeing Cocktail	Lahaina Kihei Kaanapali
3	Hotel catamaran	50 to 55	40 to 50	Whale-watching Cocktail Charter Island cruises	Kaanapali
2	Glass bottom	65	149	Glass bottom Whale-watching	Lahaina
2	Screw/propellor	48 to 53	49	Cruises Whale-watching	Lahaina Maalaea
7	Mono-hull sailboat	18 to 30	6	Cruises Cocktail	Kihei Maalaea Lahaina

TABLE 12. ESTIMATED STATE TAX REVENUE GENERATED BY TWO TOUR BOATS ON MAUI (SGC 6 to 25)

Type of Tax	Revenue
General excise tax and use	\$ 376,000*
Corporate income tax	16,114†
Individual income/net income	117,513§
Unemployment compensation	25,535#
Fuel tax	12,481**
Moorage fees	58,000††§§
TOTAL	\$ 607,093

*Based upon 4 percent of gross revenue

†Corporate income tax figured on the basis of corporate income tax divided by wage and salary income tax paid in 1980 (as reported in the state data book) times salaries. The ratio used was .65 percent of individual income to taxes.

§Individual income tax computed on the ratio of taxes divided by wages. The ratio used was 4.74 percent of individual income to taxes.

#Unemployment compensation based on the ratio of unemployment compensation to income times the amount spent on wages and salaries. The ratio used was 1.03 percent of unemployment compensation to income.

**Based on survey tabulations of gasoline consumption and the State rate of \$.15 tax per gallon of gasoline and \$.01 per gallon for diesel

††Based on Harbors Division accounts

§§Based on Harbors Division reports that differ with survey respondents by as much as 100 percent

Types of activities, passenger participation, and revenues

The 1983 survey indicated that for 21 Maui-based boats 33 percent of the total revenue came from "sail and snorkel" adventure cruises, approximately 30 percent came from the cocktail and charter business, and the remainder came from the glass bottom and the whale watch cruises (Table 13).

TABLE 13. PASSENGER REVENUE AND FUEL CONSUMPTION
BY TYPE OF ACTIVITY (1983 survey)

Type of Activity	Total Revenue (\$)	Passengers (#)
Glass bottom boat	11	32
Dinner cruise	13	11
Sail and snorkel	33	20
Whale-watching	14	17
Cocktail sail	15	10
Charter	14	10

Sail-snorkel adventure cruises are able to charge higher fares than the extended trips to Molokai and Lanai because of the specialized nature of the activities. The whale-watch cruises which only run from December through May exhibit earnings that equal or exceed other activities such as dinners and cocktail cruises that run all year. However, the most popular tour in terms of numbers are the glass bottom boat rides. These are also the least expensive, and at 1-hour duration, are the shortest of the tours. There is a strong market for cocktail cruises and charters. Several of the operators negotiate in Japan and on the mainland for convention groups.

The volume of tour boat trade fluctuates on Maui with the heaviest seasons are from December 15 through Easter and during summer vacation, (June through September). The slowest periods are those immediately after Easter and from September through December.

The greatest percentage of revenue comes from boats working out of Lahaina followed by those from Maalaea and Kihei. The next greatest percentage is from the subcontractors working off the Kaanapali Hotel, with the remainder from the wild cat or transient boats that often moor on beaches if they are catamarans, or offshore if they are motor sailers (Table 14).

Employment. Maui tour boat operations employ approximately 200 people, with 50 percent of them working full-time. Others either work part time or are contract labor.

The greatest demand comes during the spring whaling season and the summer vacation period. The survey showed that most of the captains had lived in Hawaii for more than 5 years, however, less than 10 percent of all crew members had lived in Hawaii that length of time. Due to the seasonal nature of the work and the highly transient nature of many of the workers, the average amount of time crew members spend on the vessels is approximately 2 to 4 months, although some crews have remained together for as

TABLE 14. REVENUE BY LOCATION (1983 survey)

Location	Revenue (%)
Lahaina	55
Maalaea	17
Kaanapali	15
Wildcat	13

long as 6 years. Tour boat operators cited difficulty in hiring local workers. Some preferred local people for the dinner cruises as they are said to add a special "ambience" to the cruise that tourists seek.

The above figures do not include the workers on part-time and wild-cat boats that work without permits during the height of the tourist season. Entertainment subcontractors, restaurant subcontractors, and free lance sales personnel are not included and would add approximately 10 percent to the total personnel providing services to tours.

The crew on many of the six pack charters on Maui consist of a captain and a single crew member. The larger vessels have similar complements to those of Oahu.

Fuel use. Fuel use on Maui followed a similar pattern to that of Oahu with oil screw vessels using the larger percentage of fuel (Table 15). However, catamarans use 35 percent of the total which is a far greater amount than that used on Oahu. This is largely because of the great distances the Maui boats travel and the number of times they motor to meet their schedules during their peak seasons.

TABLE 15. FUEL USE BY TYPE OF VESSEL AND ACTIVITY FOR TOUR BOATS ON MAUI

Type of Vessel	(%)	Type of Activity	(%)
Catamaran	35	Glass bottom boat	23
Screw propulsion	55	Dinner cruises	10
Motor sailer	10	Sail and snorkel	31
		Whale watching	12
		Cocktail sail	15
		Charter	9

In addition, the largest single users of fuel are the glass bottom boat rides which take tourists to the fish watching areas for hour long trips five times a day.

Marketing and promotion. Most of the larger companies offered special rates to travel agencies who could provide them with large groups and charters. However, other operators, especially those offering exclusive charters and distance cruises, offered no incentives. A few of the companies offered kamaaina rates but most were exclusively interested in the tourist market. For those companies dealing with tour companies the average rate of commission was between 15 and 30 percent.

The survey showed tour boats on Maui spent approximately \$383,400 on advertising and promotion. The advertising usually is in the form of tourist brochures, television ads, magazine ads, tourist newspaper advertisements, and trips to trade shows on the mainland, Canada, and Japan. An increasing number of the larger operations are bypassing Hawaii travel companies and dealing directly with overseas travel companies.

Customer characteristics. Maui tour boats have customers of all ages but the average age (1983 survey) tends to be between 30 and 50 with a bias towards customers in their mid 30s and early 40s. Approximately 85 percent of the customers were from the mainland with 10 percent from Canada and the remainder from Europe, Australia, and New Zealand. Japanese tourists make up less than 1 percent of the total number of tour boat customers.

Fares. Fares and revenues vary according to the type of services offered and the location. Glass bottom boat rides from Lahaina Harbor were the least expensive while prices went as high as \$1,500 for an exclusive charter for two hours off Kaanapali (Table 16).

TABLE 16. FARES CHARGED BY TYPE OF ACTIVITY

Type of Activity	Fares Charged
Whale-watching (December 15 through May)	\$15
Sail and snorkel (May through December)	\$19 to \$49
Glass bottom boat	\$7 to \$9.50
Scenic cruise/half-day sail	\$28 to \$30
Cruises to:	
Lanai	\$68 to \$85
Molokai	\$56
Mookini	\$40
Cocktail cruises (sunset)	\$22 to \$40
Dinner cruises	\$30 to \$50
Charters	\$250 to \$750 for 2 hours

Whale-watching. The whale watch season extends 16 weeks from approximately December 15 to April 15. It is one of Maui's most popular profitable tourist attractions. The average tour lasts 2 hours and costs approximately \$15. Approximately 600 people go out on more than 15 boat rides a day during the height of the season. The boats vary in guest capacity from small six passenger charters to boats with a stated guest capacity of 149.

The whale-watch tours are both commercial and non-commercial with some tours conducted by non-profit organizations such as Green Peace and the Pacific Whaling Foundation. It is one of Maui's most popular attractions and boats frequently are unable to handle the demand during the peak of the season.

Representative cost and returns for tour boat operations

Table 17 shows a representation of dinner cruise costs for a typical catamaran cruise.

The five vessels that regularly offer dinner cruises reported passenger levels to be on a seasonal basis, between 35 and 70 percent, with the average around 54 percent.

This would mean that for an average dinner operation earnings could range from \$15,508 to \$57,952. A vessel with a 61 percent capacity such as the representative model would report earnings of \$34,357 just for the dinner operations (Table 18).

TABLE 17. COSTS AND EARNINGS FOR MAUI TOUR BOAT OPERATORS

Vessel expense by trip	Catamaran
Stores, miscellaneous	\$250
Maintenance	\$20
Insurance, hull	\$30
Voyage expenses	\$30
Voyage expenses	Cost
Fuel	\$30 to \$35
Entertainment	\$150 to \$200
Port costs	.20/head
Passenger subsistence	\$8
Owner's expenses	% of Revenue
Administration	10
Advertising	4
Interest	5
Depreciation over 25 years	2.5

Note: The above information is based on typical daily trip expenses for Maui based on a 50 to 125 stated guest capacity catamaran providing dinner cruises. Because there is only one company that regularly serves dinners on a cruise propeller vessel which is far smaller than its Oahu counterparts, no representation was made for screw propeller dinner costs.

TABLE 18. BREAKEVEN ANALYSES 50-PASSENGER SAIL/SNORKEL OPERATION
-- MAUI

Trips/ Year	Stated Guest Capacity	Percent of Passengers	Number of Passengers	Fare	Total Received
480	50	62	14,880	\$40	\$595,200
480	50	45	10,800	\$40	\$432,000
Fixed Annual Costs					Totals
Moorage fees					\$ 8,000
Insurance					14,000
Charge card commissions					3,500
Mortgage and interest					20,000
Rent					20,000
Professional fees (accountant, legal fees, etc.)					14,000
Haul outs, miscellaneous					20,000
Subtotal					\$ 99,500
Average variable costs					\$ 12,000
Maintenance					30,000
Advertising and promotion					12,000
Transportation					36,000
Taxes					14,000
Payroll tax					30,000
Salaries and wages					153,600
Utilities					15,480
Outside services					9,600
Commissions/refunds etc.					100,000
Subtotal					\$412,680
TOTAL					\$512,180

Net to Ownership and Capital = \$595,200
 - 512,000
 \$ 83,200

Breakeven analysis

Breakeven price. The breakeven price may be obtained by dividing the total cost by the number of passengers (\$512,180 divided by 14,880 = \$34.42).

Break-even capacity. Fixed cost divided by the price of the fare -- actual cost \$99,500 divided by \$40 to \$27.70 to find total number of passengers or 8,089. Divide 8,089 by 14,880 to get break even capacity which is 54 percent. (It should be noted that during most of the year most of the boats exceed this with some running regularly at 60 percent capacity or over.)

Comments of Maui Tour Boat Operators

The Maui tour boat operators cited a number of problems. Many of the operators who had permits to work out of Lahaina Harbor reported that conditions were not conducive to improving their business practices. They cited as reasons: (1) the lack of sanitary facilities; (2) the fact that the harbor did not have a natural drain to flush out the organic and chemical wastes that accumulate on the harbor bottom; (3) the over-crowded situation in the harbor with large boats coming and going without any kind of regulation; (4) the use of the harbor by illegal wild-catters who do not pay harbor fees but take advantage of harbor facilities; (5) the dangerous condition along the dock which has a new wooden bumper on its outer face and large protruding nails on its inner face; (6) lack of security for their vessels; and (7) an apparent lack of interest by harbor officials in their welfare. Operators in Ma'alaea and Menele also believed that the harbors could be better maintained although their complaints were less specific than those of the Lahaina operators.

A major source of complaint among all of the operators was the state policy that restricts commercial permits to those who are currently operating in the harbors. Some operators acknowledged that this situation effectively limits competition and makes it possible for them to maximize their revenues. However, others said that it is a policy that encourages people "to break the law." Because only operators currently working their vessels can have permits, it is difficult for new enterprises to enter the trade. The permit-holding operators find it difficult to build equities in the business even though they have worked at it for a number of years. The inability to sell the permit makes it difficult legally to sell their business or to pass them on to members of their families. The result is that they engage in quasi legal arrangements with new operators wishing to enter the market in order to get some return on their investment.

These special arrangements include selling the company while keeping the permit and working out an understanding with the buyer. The permit is renewed every year and the business keeps operating under the original operator's name. A number of operators expressed regret at this situation but said that they knew of no way that the problem could be solved under present circumstances. One man expressed particular regret that under current regulations he felt it was impossible to leave his business to his son because the son would be unable to obtain an operator's permit.

Harbor personnel, on the other hand, feel that the state is doing everything possible to maintain the harbors but that the harbors get heavy use and funds are limited. They do not feel convinced that harbor regulations encourage people to act illegally. They also feel that since there is a long list of people waiting to use the harbor and acquire slips, it is unfair to have permits held indefinitely. They feel that harbor security is adequate, that the harbor recently had a new bumper built at the request of boaters, and that they are doing everything possible to maintain conditions.

Tour Boat Impact On Molokai And Lanai

The total gross revenue for the Lanai and Molokai excursions represents approximately 33 percent of the total gross revenue for tour boat operations on Maui. In terms of direct effects on Molokai and Lanai, the companies employ approximately 15 people on both islands (10 on Lanai and 5 on Molokai). Tour boat companies own van services on both islands and make use of local goods and services. The companies pay Dole Corporation on Lanai approximately \$150,000 for beach landing rights. (One operator said that he was told that this amount is then used by Dole to employ several workers to clean and maintain the beach.) In addition, the companies make use of service stations and van services on Lanai and employ guides, service workers, and woodcutters for picnic campfires. The visitors spend money at the small store on Lanai and occasionally for food at the Lanai Lodge. One company said that they pay approximately \$60,000 per year for use of vans and visitor facilities on Lanai.

The Lanai operation is the most popular at the present time, but Molokai is said to be gaining in popularity with new tour boat services expected to go into operation over the next 2 years. One operator said that problems associated with Molokai as a tourist destination include: (1) a perceived hostility towards tourism on the part of local residents, and (2) the distance from the harbor to the nearest large hotel.

The four Maui-based tour boat companies that regularly send boatloads of tourists to Molokai and Lanai have a significant impact on those islands' small visitor industries. Each year six vessels make approximately 1,745 trips to the two islands (assuming 45 navigable weeks per year). The majority of the trips are to Lanai (1,180) but 465 trips are to Molokai and approximately 100 to both islands (Table 19).

In terms of passengers the figures are: Lanai 39,648, Molokai 11,748, and Molokai, and Lanai 4,950. The passenger fares vary from \$44.50 for a weekend picnic on Lanai to a 10-hour trip to both islands for \$80. Typical passenger fares are: Lanai \$56, Molokai \$60, and Molokai and Lanai \$80. In terms of gross revenues spent on the tours the estimates are: Lanai \$2,521,548, Molokai \$681,888, and Molokai and Lanai \$396,000.

TABLE 19. ESTIMATED NUMBER OF TRIPS, PASSENGERS, AND GROSS REVENUES FOR EXCURSIONS FROM MAUI TO MOLOKAI AND LANAI

Island	Number of Trips	Number of Passengers	Approximate Gross Revenue
Molokai	465	11,748	\$ 681,888
Lanai	1,180	39,698	2,521,584
Molokai and Lanai	100	4,950	396,000
TOTAL	1,745	56,396	\$3,599,472

KAUAI TOUR BOAT INDUSTRY

The Kauai tour boat industry is among the oldest and most varied in the state. People come from all over the world to take the Wailua River tours up to the Fern Grotto, some to get married there. Other visitors come to take the relatively new, but internationally known Na Pali Coast zodiac tours. There are also two catamarans (multi-hull) and a number of sail boats that take passengers out for half day and full-day charters. Although the industry was hard hit by Hurricane Iwa (November 1982) both in terms of damage to facilities and to boats, tour boat operators say that conditions are returning to normal with increasing numbers of visitor arrivals (Table 20). The zodiac tours and the sail boat charters fluctuate in the number of days per year that they are able to take charters. The zodiac season up the Na Pali Coast runs approximately 175 days per year. The yacht charter business sometimes runs less than 3 months. The river boats run every day of the year.

Economic Impact of the Kauai Tour Boat Industry

A personal interview survey conducted in July 1983 provided the following information. In 1982 the Kauai tour boat industry gross revenues were approximately \$3,777,000 and the industry paid almost \$151,080 in general excise taxes (Table 21).

TABLE 20. TYPE, SIZE, AND LOCATION OF TOUR BOATS ON KAUAI

Number of Vessels	Type of Vessel	Vessel Size (ft)	Guest Capacity	Service	Location
3	Mono-hull yacht (no permit)	30 to 42	6	1-day charters 1/2-day	Hanalei
3	Mono-hull yacht	30 to 42	6	1/2-day charters Dinner cruises Charters	Hanalei
2	Catamarans		6	Boat rides Cocktail cruises Charters	Nawiliwili Hanalei
21	Barges		150	Wailua River tours	Wailua Marina
8	Zodiacs		6 to 20	Na Pali charters Na Pali coast drop off and pick-up	Hanalei

Revenues, employment costs and earnings

The 1983 survey indicated that for nine Kauai-based operations nearly 75 percent of gross revenues came from the Wailua River cruises, 10 percent from weddings and special charters on the river, 10 percent from zodiac cruises and 5 percent from sail boat rides and charters (Table 22).

Approximately 97 percent of all the tour boat passengers on Kauai take the river boat rides, 2 percent take the zodiacs, and the remaining 1 percent take the sail boat rides (Table 23).

TABLE 21. ESTIMATED STATE TAX REVENUE GENERATED BY NINE TOUR BOAT COMPANIES ON KAUAI (SGC 6 to 150)

Type of Tax	Revenue
General excise and use	\$151,080*
Corporate income	9,986†
Individual income net income	72,827§
Unemployment compensation	15,825#
Fuel	240,892**††
Moorage fees	1,000§§
TOTAL	\$491,610

- *Based on 4 percent of gross revenue
- †Based on .65 percent ratio of corporate taxes to income
- §Based on 4.74 percent ratio of individual income to taxes
- #Based on 1.03 percent ratio of unemployment compensation to income
- **Based on survey respondents figures of their rental charges for launchings site on the Wailua River and the Na Pali Coast
- ††Based on survey tabulations of gasoline consumption and the State rate of .15 tax per gallon of gasoline and .01 tax per gallon of diesel
- §§Based on Harbors Division accounts and rentals of launching sites on the Wailua River and along the Na Pali Coast

TABLE 22. VOLUME OF PASSENGERS AND REVENUE BY TYPE OF ACTIVITY

Type of Activity	Total Revenue (%)	No. of Passengers (%)
River boat rides	75	97
Weddings/charter on the river	10	not available
Zodiac rides	10	2
Sail boat rides/charters	5	1

TABLE 23. FUEL USE ON KAUAI (cost and % used by activities)

Type of Activity	Cost	Percentage Used
River boat rides	\$58,788	69
Zodiac rides	25,000	30
Sail boat charters	500	1
TOTAL	\$84,288	

Tour Boat Employment on Kauai

The tour boats on Kauai employ 157 people, 58 percent of whom work full-time. Tour boat employers stated that more than 90 percent of the employees were either from Hawaii or had lived here for more than 5 years. They indicated that the turnover rate was very low and that it was not uncommon, especially for the people who work on the river boats, to work for the same company for many years. One of the reasons given for the low turnover was that the work was steady and that a significant number of the companies are family operations that hire friends and relatives.

Fares and Surveys

The fares vary according to location and type of activity. The river boat ride at \$7 per person is the least expensive while some of the sailing charters that run up to \$90 per person are the most expensive. The least expensive activities such as the motor boat ride and catamaran rides are located in the main tourist areas of Kapaa and Nawiliwili while the most expensive rides are located in Hanalei Bay and on the Na Pali Coast (Table 24).

TABLE 24. FARE CHART FOR KAUAI TOUR BOATS (1983 survey)

Type of Tour	Fare
Day sail up the Na Pali Coast	\$75 to \$90
Sunset sail	\$40 to \$50
Wailua River boat ride	\$ 7
Catamaran ride	\$10
Cocktail cruise	\$20
Zodiac tour activities on the Na Pali Coast	\$35 to \$75

Promotion. The tour boat operators spent approximately \$136,000 on marketing and promotion in 1982. This included brochures, magazines, video, radio advertisements and trips to trade shows both on the mainland and abroad. It is noteworthy that individual operators pay their own expenses as well as for musicians and dancers when they go overseas to promote both their business and Hawaii.

Volume of Trade

The volume of trade fluctuates with both the season and weather conditions. The most important months for most of the operations are the summer months from May through August. This is the main season for the zodiac boat rides and the yachts. The zodiac operators are limited by weather conditions along the coast and they average between 50 and 175 working days a year. Sailboat operators working out of Hanalei Bay point out that they sometimes do worse than this and that their profits are in direct relation to the number of days that they are able to sail during the year. The catamaran crew working off Nawiliwili harbor on the other side of the island said that they work as much as 250 days a year and that they are more dependent upon the convention season in the hotels than upon seasonal weather conditions. The river boats reported that they work every day of the year and that their businesses reflected seasonal changes with their best times being the summer months and November through March and the worst times being immediately after summer vacation.

All of the boat companies reported an increase in independent travellers over tour company bookings and some indicate that many of their customers were repeat visitors to Kauai who returned to take the boat tour on their own. The river boat cruise operators reported that the most significant change in their business was the large conventions that book their services during certain times of the year, also convention bookings show an increase over tour company ones.

Customer Characteristics

The ages of the customers varied greatly. The broadest, ranging from infants to senior citizens, could be found upon the river boats. Most river boat passengers tend to fall between 40 and 60. Zodiac riders are younger, between 25 and 40. Catamaran and sail boat customers tend to be between 30 and 50. Nearly 30 percent of all the river boat riders are from Japan, 10 percent are from Canada, 10 percent from Europe with the remainder coming from the mainland. The zodiac riders are over 95 percent from the mainland; one operator estimated that nearly 60 percent were from California.

Special Problems on Kauai

The Kauai tour boat operators have problems that are different from other tour boat operations in the state. Because the largest tour boat operations on Kauai are land based rather than harbor based, most are under the jurisdiction of the Department of Land and Natural Resources (DLNR) rather than the Harbors Division.

DLNR regulations and policies regarding tour boats differ from those of the Harbors Division and there appears to be no close correlation between the two. Those operators who seek permits from both state agencies must apply for them separately.

The Wailua River boat operators complained that the DLNR policies toward them were inconsistent, confused, and sometimes punitive. They objected particularly to the insistence by the DLNR that they insure the entire river area including areas they do not travel. This means that they must pay for insurance that not only must cover their paying passengers in the grotto but any hikers, fishermen, or water skiers who are in the area. Also, the problem is compounded by the fact while the state insists that they pay for these usages of the river, the operators have no jurisdiction over it. They feel that it is unfair to be required to pay these fees while other commercial operators in the area such as the commercial water ski operations work without permits, weave in and out of their boats, and do as they please and state takes no action to prevent their activities.

Other problems include the dangerous slick paths leading up to the Grotto for which they are legally responsible, but that the state agencies do little or nothing to maintain. Algae grow on the pathway which could, they say, be removed with regular scrubblings of alkali. The operators worry because a large percentage of the passengers are older people. In addition, the operators complained that neither the restrooms nor the foliage is maintained and that the Fern Grotto area has shown significant deterioration in the last 5 years. One operator suggested that they be permitted to maintain the area, since both the Fern Grotto area and the marina are not maintained, in exchange for a reduction in usage and permit fees. Another operator said that part of the problem was the "adversary relationship between DLNR officials and tour boat operators citing a reassessment of user fees" that was made retroactive for 20 years.

The zodiac operators off the Na Pali Coast differed as to the way the state regulates the coastal tour boat business. One operator complained that the DLNR rulings were arbitrary and favored some operators over other. He said that the zodiac ride is one of Kauai's most important attractions and that with controlled access, more people could land on the Na Pali coast, greatly increasing their revenues. Currently, only one operator has a lease close to the park, enabling him to take passengers directly into the park while the other companies that operate

without leases must take their passengers on a journey that is several miles longer because the only place they can load passengers is at the river mouth on Hanalei Bay. One of the operators complained that the state allows a monopoly by granting only one company privileges to pick up and drop off hikers in Kalalau Valley. The company concerned replied through a spokesman that it is not uncommon for national parks such as Yellowstone to favor one single operator over others for reasons of controlled usage and safety. He said that the coast is already becoming too crowded with increasing use by zodiacs, sailboats, and charter fishing boats that offer "scenic fishing tours," and with increased usage, safety is a problem. Last year a zodiac belonging to another operator flipped over and the tourists had to be rescued by his company. Other problems that have concerned boats in the area included running out of gas with a boatload of tourists, and operating overloaded boats. While one operator said that the areas had great potential for growth another complained that with seven helicopter companies touring the areas and three zodiac companies, the "place was becoming like Coney Island."

The charter yacht and catamaran operators who are under the jurisdiction of the Harbors Division said they would like to see harbor facilities better maintained and repairs done on areas damaged by Hurricane Iwa. They also indicate that they would like the DLNR moorage permit policy towards yachts working out of Hanalei Bay to be clarified because during the peak season of June to August established boats that pay for permits must compete with transient boats that do not.

Business interests at Poipu expressed an interest in a glass bottom boat operation there because there are few activities for tourists on that beach. However the hurricane damage to the breakwater at Kukuiula must be repaired first.

KONA TOUR BOAT INDUSTRY

The Kona tour boat industry has grown just as Kona has, from a time when one tour boat was sufficient to satisfy the demands of the few tourists who came to Kona when it was known as a relatively small fishing village to the present fleet of nine vessels that serve both Kona and the large hotel complexes that have been built nearby (Table 25). The tour boat industry has fluctuated with Kona tourist levels and now offers several different activities ranging from day sails and sight seeing trips to glass bottom boat rides. In addition, the tour boats offer "boogie cruises" directed towards Kona residents and performs shuttle services for the cruise ships when they make their weekly trips to Kona. The tragic death of Captain Beans Beans, the owner of the largest dinner cruises, and the subsequent denial of a docking permit to the Beans corporation's new vessel, the Tamure, raised some questions in the minds of operators about the future.

TABLE 25. TYPE, SIZE, AND LOCATION OF TOUR BOATS IN KONA AREA

Number of Vessels	Type of Vessel	Vessel Size (ft)	Guest Capacity	Services	Location
3	Screw/propeller	28 to 96	6 to 150	Cruising Cocktails Diving Shuttle Glass bottom	Hotels Keauhou Kona
1	Traditional Hawaiian-type catamaran	150	300	Glass bottom Dinner sail Charters	Kona
4	Catamarans	38 to 58	42 to 49	Snorkel/sail Cocktails Charters	Hotels
1	Trimaran	26	16	Snorkel/sail Cocktails	

A personal interview survey of five Kona tour boat operators was conducted in May 1983. The survey yielded the following information. In 1982 the Kona tour boat industry gross revenues were approximately \$3,200,000. In terms of fiscal effects the tour boat industry paid approximately \$128,000 in general excise taxes in 1982 and approximately \$964,000 in wages (Table 26).

Economic Impact of Kona Tour Boat Industry

The 1983 survey indicated that for five Kona-based tour boat operations that approximately 53 percent of the total revenue was earned by the dinner cruise operation. The dinner cruises also carried the largest percentage (48 percent) of passengers (Table 27).

The largest consumers of fuel on Kona like those on the other islands are screw-propeller boats with the largest percentage being used by those in glass bottom operations. The second largest fuel consumer is the shuttle-boat service which amounts to approximately 29 percent of the total (Table 28).

TABLE 26. ESTIMATED STATE TAX REVENUE GENERATED BY NINE
TOUR BOATS IN KONA

Type of Tax	Revenue
General excise and use	\$128,000*
Corporate income	6,266†
Individual income	45,693§
Unemployment compensation	9,929#
Fuel tax	900**
Moorage fees	191,738††

*Based on 4 percent of gross revenue

†Based on .65 percent ratio of corporate taxes to income

§Based on 4.74 percent ratio of individual income taxes

#Based on 1.03 percent ratio of unemployment compensation to income

**Based on survey tabulations of gasoline consumption and the state rate of \$.15 tax per gallon of gasoline and \$.01 per gallon for diesel

††Based on Harbors Division reports that differ with survey respondents by as much as 100 percent

TABLE 27. PERCENTAGE OF REVENUE AND PASSENGERS BY TYPE OF ACTIVITY

Type of Activity	Total Revenue (%)	Passengers (%)
Glass bottom/snorkel	16	29
Sail/snorkel/cruise	13	21
Cocktail/dance	7	2
Dinner	53	48
Shuttle	8	Not available
Charter	3	2

TABLE 28. PERCENTAGE OF FUEL USE BY TYPE OF ACTIVITY

Type of Activity	Fuel Use (%)
Glass bottom	31
Sail and snorkel	15
Cocktail/dance	8
Dinner	11
Shuttle	29
Charters	6

It is significant to note here that the passenger numbers taken by the shuttle craft are not included because they would distort the true picture of the number of passengers taking tour boats on Kona.

Employment

The tour boats on Kona employ approximately 110 workers, 65 of whom work full-time. Approximately 90 percent of all the workers are residents of Hawaii who have lived here for more than 5 years. They are paid approximately \$964,000 in wages.

Fares and revenues

The fares vary from inexpensive glass bottom boat rides to \$4,000 charters of catamarans associated with luxury hotels (Table 29).

TABLE 29. FARES AND REVENUES

Type of Activity	Fare
Glass bottom boat rides	\$6 to \$8
Sail and snorkel	\$15 to \$30
Dinner cruises	\$27.50
Cocktail	\$25 to \$28
Charters	\$150 per hour to \$4,125 minimum

Marketing and promotion

Kona tour boats spent approximately \$78,900 on promotion last year. This does not include expenditures made by hotels to include the boats in their ads or brochures.

Customer Characteristics

The average age of Kona tour boat passengers is somewhere between 30 and 45 years of age with some boats taking people as old as 65. The largest group of passengers was from the mainland. This was considered to represent 80 to 90 percent of all passengers. However, some of the vessels reported that increasing numbers of their passengers were foreign with some running at levels as high as 10 percent of their totals coming from Japan and 20 percent coming from Canada. The vessels are popular among Kona residents and some of the companies said that local passengers represented 10 percent of their total. This is the highest level reported on any of the islands.

The particular complaints they had included: (1) the range lights in Kona Harbor are set too low; (2) there is a general lack of enforcement of harbor regulations particularly in the area of permits; (3) the Harbors Division does not mediate disputes between boats; (4) there is a need for waste dump facilities on the piers; (5) a pumping station should be put on the pier; and (6) harbor facilities are unreliable.

A number of the operators were also concerned about a drop in the level of tourism and tourists had shifted from groups staying at hotels to individuals staying in condominiums. Some of the operators were concerned about the state imposing a room tax that might deter potential tourists. Several expressed hope that the Hawaii Visitors Bureau would do everything possible to increase the number of tourists for Kona.

SUMMARY OF PROBLEMS AND RECOMMENDATIONS

Hawaii's tour boat industry is important to the state both as a source of business activity and employment, and in terms of the entertainment and adventures it provides for Hawaii's visitors. This industry is characterized by vigorous entrepreneurship, and unlike agriculture or fishing, has had little attention or support from the public sector. Although the sea is available to any boat as a highway or for exploration, tour boat companies must have suitable and safe facilities for holding, onloading and offloading passengers, and for safe berthing of the boats which represent their primary investment. It is here that they must interact with state agencies and other users of harbor facilities, and it is here that most problems arise. A summary of those problems follows:

Oahu

The tour operators are concerned about the large numbers of people who use their facilities at Kewalo Basin without adequate restrooms. A number of operators said that they would like to stay at Kewalo rather than be moved to Honolulu Harbor because at the present time they are close to tourist centers such as Waikiki and Ward Warehouse. They say that moving would have a detrimental effect on their businesses causing them to pay more for fuel and transportation costs.

Maui

Operators complain that they, too, have a difficult time dealing with Harbors Division officials. They would like to see improved restroom and garbage facilities in Lahaina. They question a policy that requires them to apply for a new permit each year, and makes it impossible for them to legally pass on or sell their business to somebody else.

Kona

Operators complained that DLNR and Harbors Division policies towards tour boat mooring and harbor permits are sometimes contradictory and inconsistent. They complained that: the range lights in the harbor are set too low, there is a lack of harbor security, lack of regulation of harbor usage, and a need for improved waste dump facilities.

Kauai

Operators complained that the DLNR policies are inconsistent and sometimes applied arbitrarily. The operators of river boat cruises felt that there should be better maintenance of the Fern Grotto and that it was unfair of the state to make them pay for insurance for the entire Wailua River including the areas they do not travel.

It is recommended that greater recognition be given to the contribution made by the tour boat industry to the state's economy through the development of a consistent and supportive state policy toward the industry. It is further recommended that there be a statewide review of permits, fees, moorages, leases and business practices. Particular attention should be given to situations in which the company must seek permits and approvals from more than one state agency. State policy towards tour boats in a harbor should be reviewed and made consistent with that of tour boats moored off hotels. The tour boat operators recognize the multiple-use aspects of harbors and do not object to necessary regulation, but they ask that the regulation be fair, comprehensive, and uniform throughout the state.

