

Section 18

TRANSPORTATION

This section presents statistics relating to public roads, motor vehicles, bicycles, traffic accidents, local public transit, civil aviation, harbors, and water traffic. Other information bearing on transportation appears in Sections 7, 12, 14, and 24.

Motor vehicle registration in Hawaii increased from 717,000 in 1984 to 875,000 in 1994. Vehicle miles rose during the decade ending in 1994 from 6.5 billion to 7.9 billion. In 1994 over 76,000 new passenger cars and 6,600 trucks were registered. By the end of that year, 745,000 licensed drivers had access to 4,100 miles of streets and highways throughout the State. Bus passengers carried by the City and County of Honolulu bus system increased from 76 million in 1984 to 79 million in 1994.

Almost all scheduled interisland travel is by air. In 1994, airlines and air taxis reported 9.9 million interisland passengers, some 30 percent more than in 1984, and carried 74,000 tons of cargo. The State has nine commercial airports, 13 general aviation, military or semi-private airports, 13 civilian heliports, 3,300 active pilots, and about 400 active civil aircraft in general aviation.

Rapid growth is similarly evident in transpacific air travel. In 1994, 7,310,000 overseas passengers arrived by air, a 10-year growth of 39 percent. Overseas air cargo received that year weighed 154,000 tons.

Undocumented State-registered vessels as of December 31, 1994 numbered 13,800, compared with 8,000 in 1970. Median length was 18 feet, and five-sixths were stored on land. There were 1,775 documented vessels in the State in 1991, triple the 1970 total. Overseas vessels brought 14,500 passengers into the State in 1994. Receipts of cargo in 1989 included 10.4 million tons in overseas cargo and 5.7 million tons in interisland cargo.

The chief source for transportation statistics is the Hawaii State Department of Transportation and its Highways, Harbors and Airports Divisions. Other sources include the U.S. Coast Guard, Federal Aviation Administration, Federal Highway Administration, Army Corps of Engineers, U.S. Census of Transportation, Communications, and Utilities, Honolulu Department of Transportation Services and Department of Data Systems, county finance departments, Hawaii Automobile Dealers Association, and individual transportation companies. Data for the entire period of record through 1976 appear in *Historical Statistics of Hawaii*, Section 17. Another source of long-term trend information is *What People Paid to Travel*, published by the Hawaiian Historical Society in 1991. Similar statistics for other areas are reported in the *Statistical Abstract of the United States: 1995*, Sections 21 and 22.

Table 18.01-- HIGHWAY DISTANCES: 1995

Route	Statute miles	Route	Statute miles
HAWAII		MOLOKAI	
Hilo-Lyman Field	2.0	Kaunakakai-Sheraton Hotel	19.5
Hilo-Kalapana.....	26.1	Kaunakakai-Maunaloa	16.5
Hilo-Mauna Kea summit	39.3	Kaunakakai-Airport	7.0
Hilo-Mauna Loa summit.....	52.4	Kaunakakai-Halawa	27.6
Hilo-Volcano House	30.7	Airport-Sheraton Hotel	11.5
Hilo-Kailua, via Naalehu	125.2		
Hilo-Kailua, via Saddle Rd.....	84.3	OAHU ^{1/}	
Hilo-Kailua, via Hamakua	91.2	Honolulu-Ala Moana Center.....	1.6
Hilo-Waimea, via Saddle Rd. ...	57.9	Honolulu-UH, via King Street	3.2
Hilo-Waimea, via Hamakua.....	55.3	Honolulu-Waikiki.....	3.2
Hilo-Upolu Pt., via Hamakua ...	83.7	Honolulu-Waimanalo, via Koko Head .	21.8
Hilo-Kawaihae, via Hamakua...	69.5	Honolulu-Waimanalo, via Nuuanu	13.3
Waimea-Hawi.....	21.4	Honolulu-Kailua, via Nuuanu	11.6
Waimea-Kawaihae	11.5	Honolulu-Kaneohe, via Kalihi.....	10.8
Kawaihae-Hawi.....	18.0	Honolulu-Kahuku, via Kahaluu.....	36.2
Kawaihae-Kailua	48.4	Honolulu-Kahuku, via Wahiawa	46.2
Kailua-Keahole Airport.....	6.8	Honolulu-Kaena Pt., via Wahiawa.....	42.4
Kailua-Keauhou	6.9	Honolulu-Kaena Pt., via Waianae	44.3
		Honolulu-Wahiawa.....	20.5
MAUI		Honolulu-Pearl Harbor Shipyard	6.5
Wailuku-Kahului	2.3	Honolulu-Honolulu Airport	4.8
Wailuku-Kahului Airport.....	4.2	Waikiki-UH, via Kapahulu	3.2
Wailuku-Hana, via Keanae	53.7	Waikiki-Honolulu Airport	8.0
Wailuku-Hana, via Kaupo.....	59.8	Waimanalo-Kahuku	33.0
Wailuku-Haleakala summit.....	38.2	Circle island, via Makapuu.....	99.1
Wailuku-Makena	17.6	Circle island, via Nuuanu Pali	81.1
Wailuku-Lahaina, via Kahakuloa	38.0		
Wailuku-Lahaina, via Olowalu .	20.9	KAUAI	
Kahului-Kihei	7.9	Lihue-Haena	38.0
Lahaina-Wailea	32.4	Lihue-Wailua	5.9
Lahaina-Napili	8.9	Lihue-Lihue Airport	2.0
Lahaina-Kaanapali.....	3.7	Lihue-Poipu	11.9
		Lihue-Mana.....	32.9
LANAI		Lihue-Kalalau Lookout	44.6
Lanai City-Lanai Airport.....	2.7	Poipu-Kalalau Lookout.....	36.8
Lanai City-Hulopoe	8.0	Poipu-Princeville.....	40.7

^{1/} Honolulu distances measured from South King and Bishop Streets; Waikiki, from Kalakaua Avenue and Lewers Street.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 18.02-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED, BY ISLANDS: DECEMBER 31, 1993 AND 1994

[Excludes private thoroughfares and military roads not regularly open to public use]

Island	Total mileage	Paved		Unpaved
		Freeways	Other	
1993				
State total	4,105.94	96.82	3,811.12	198.00
Hawaii 1/	1,433.10	6.56	1,367.17	59.37
Maui 1/	621.90	3.21	561.99	56.70
Lanai	46.68	-	32.68	14.00
Molokai	129.33	-	117.33	12.00
Oahu	1,471.47	87.05	1,350.98	33.44
Kauai	403.46	-	380.97	22.49
Niihau	-	-	-	-
1994				
State total	4,100.07	77.33	3,824.74	198.00
Hawaii 1/	1,420.89	-	1,361.52	59.37
Maui 1/	609.24	-	552.54	56.70
Lanai	46.59	-	32.59	14.00
Molokai	129.26	-	117.26	12.00
Oahu	1,485.75	77.33	1,374.98	33.44
Kauai	408.34	-	385.85	22.49
Niihau	-	-	-	-

1/ Significant changes from previously published data are due to reinventories of roads to reflect extensive revisions in the functional classification of highway systems.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 18.03-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED: 1970 TO 1994

[Excludes private thoroughfares and military roads not regularly open to public use]

Category	1970	1975	1980	1985	1990	1994
Total mileage	3,529	3,743	3,912	4,070	4,101	4,100
Paved.....	3,047	3,355	3,591	3,808	3,887	3,902
Unpaved.....	482	389	321	262	214	198

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 18.04-- HIGHWAY BRIDGES, BY ISLANDS: DECEMBER 31, 1994

Island	Number of bridges ^{1/}	Longest bridge		Highest bridge	
		Location	Length (feet)	Location	Height (feet)
State	714	Airport Viaduct..	14,890	Nanue	208
Hawaii	129	Hakalau.....	775	Nanue	208
Maui	88	Honokahua.....	600	Uaoa	79
Lanai	-	None .....	...	None .....	...
Molokai	19	Manawainui	360	Manawainui	50
Oahu	427	Airport Viaduct..	14,890	Kipapa.....	156
Kauai.....	51	Hanamaulu.....	1,150	Wahiawa, Koloa	90

^{1/} Limited to bridges under State jurisdiction and 20 feet or longer.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 18.05-- HIGHWAY TUNNEL LENGTHS: DECEMBER 31, 1994

Island and name of tunnel	Length (feet)
Oahu:	
Pali No. 1: Inbound (to Honolulu)	1,000
Outbound (from Honolulu)	1,080
Pali No. 2: Inbound	500
Outbound	497
Wilson: Inbound	2,775
Outbound	2,813
H-3: Inbound <u>1/</u>	4,890
Outbound <u>1/</u>	5,165
Middle Street.....	393
Structure No. 8, Waiawa Interchange	300
Maui:	
Olowalu	318
Kauai:	
Kipu-Mahaulepu (private road)	2,200

1/ Not yet open to public.

Source: Hawaii State Department of Transportation, Highways Division, records; McBryde Sugar Plantation, records.

**Table 18.06-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE:
1984 TO 1994**

[Taxable and non-taxable. Includes vehicles registered but subsequently scrapped or shipped out of the State]

Year	All vehicles registered	Motor vehicles			
		All motor vehicles	Passenger vehicles <u>1/</u>	Ambulances, hearses, patrol wagons	Buses
1984.....	735,458	717,171	599,845	68	4,034
1985.....	767,892	749,034	625,823	66	4,189
1986.....	790,855	771,575	642,636	60	4,158
1987.....	818,430	798,317	661,674	54	4,198
1988.....	838,327	817,609	670,877	52	4,215
1989.....	876,848	855,057	695,397	54	4,203
1990.....	911,283	889,096	718,204	55	4,308
1991.....	920,124	897,193	717,907	54	4,309
1992.....	908,738	885,761	703,983	53	4,282
1993.....	903,550	880,152	693,283	48	4,032
1994.....	898,008	875,144	691,158	53	3,772
		Motor vehicles -- continued			
Year	Trucks <u>1/</u>	Truck tractors, tow trucks	Truck crane, misc.	Motor-cycles, motor scooters <u>2/</u>	Trailers and semi-trailers
1984.....	101,233	1,428	364	10,199	18,287
1985.....	106,673	1,334	342	10,607	18,858
1986.....	112,053	1,290	323	11,055	19,280
1987.....	119,338	1,220	318	11,515	20,113
1988.....	129,452	1,176	293	11,544	20,718
1989.....	141,845	1,107	292	12,159	21,791
1990.....	152,453	1,043	313	12,720	22,187
1991.....	159,831	972	323	13,797	22,931
1992.....	160,952	871	298	15,322	22,977
1993.....	165,209	757	283	16,540	23,398
1994.....	162,348	630	249	16,934	22,864

Footnotes and source on next page.

**Table 18.06-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE:
1984 TO 1994 -- Con.**

1/ Vans, pickups, and other trucks under 6,500 lb. in personal use, legally classified as passenger vehicles, are included in the totals for trucks.

2/ Excluding mopeds (1.5 HP or less), which are legally classified as bicycles.

Source: City and County of Honolulu, Department of Data Systems, records.

**Table 18.07-- MOTOR VEHICLES REGISTERED, BY COUNTIES:
1984 TO 1994**

[Taxable and non-taxable. Includes passenger cars, buses, trucks, and motorcycles but excludes trailers and semi-trailers. Also includes vehicles registered but subsequently scrapped or shipped out of the State]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1984.....	717,171	525,599	80,840	35,236	75,496
1985.....	749,034	544,976	85,806	37,659	80,593
1986.....	771,575	556,935	89,918	40,585	84,137
1987.....	798,317	571,738	93,095	43,925	89,559
1988.....	817,609	579,998	96,360	47,235	94,016
1989.....	855,057	599,379	103,724	51,455	100,499
1990.....	889,096	612,742	110,834	55,927	109,593
1991.....	897,193	613,119	113,265	57,751	113,058
1992.....	885,761	611,513	113,080	51,165	110,003
1993.....	880,152	604,602	111,138	54,068	110,344
1994.....	875,144	600,087	111,532	52,817	110,708

Source: City and County of Honolulu, Department of Data Systems, records.

**Table 18.08-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE, FOR
COUNTIES: 1993 AND 1994**

Type of vehicle	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1993					
All vehicles	903,550	617,847	116,024	56,606	113,073
Motor vehicles.....	880,152	604,602	111,138	54,068	110,344
Passenger vehicles <u>1</u> /.....	693,283	483,237	84,507	39,409	86,130
Ambulances.....	48	34	9	-	5
Buses	4,032	3,316	212	58	446
Trucks <u>1</u> /.....	165,209	105,477	24,072	13,747	21,913
Truck tractors.....	757	330	184	86	157
Truck cranes.....	283	120	31	22	110
Motorcycles <u>2</u> /	16,540	12,088	2,123	746	1,583
Trailers and semi-trailers	23,398	13,245	4,886	2,538	2,729
1994					
All vehicles	898,008	612,869	116,361	55,349	113,429
Motor vehicles.....	875,144	600,087	111,532	52,817	110,708
Passenger vehicles <u>1</u> /.....	691,158	482,628	84,807	37,866	85,857
Ambulances.....	53	31	9	-	13
Buses	3,772	3,100	203	47	422
Trucks <u>1</u> /.....	162,348	101,737	24,213	14,083	22,315
Truck tractors.....	630	284	124	78	144
Truck cranes.....	249	109	26	21	93
Motorcycles <u>2</u> /	16,934	12,198	2,150	722	1,864
Trailers and semi-trailers	22,864	12,782	4,829	2,532	2,721

1/ Vans and other trucks under 6,500 lb. in personal use, legally classified as passenger vehicles, are included in the totals for trucks.

2/ Including motorscooters but excluding mopeds (1.5 HP or less), legally classified as bicycles.

Source: City and County of Honolulu, Department of Data Systems, special tabulation.

Table 18.09-- VEHICLE REGISTRATION, BY TAXATION STATUS, FOR COUNTIES: APRIL 7, 1995

[Excludes motorcycles]

Taxation status	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
Total registered	864,352	590,951	110,605	52,422	110,374
Taxable vehicles	792,289	521,974	109,472	51,675	109,168
Exempt vehicles	72,063	68,977	1,133	747	1,206
Federal government	335	323	10	-	2
State government	4,673	4,673	-	-	-
County government	5,659	3,696	540	489	934
Fire department	181	63	92	-	26
Police department	1,438	1,109	325	-	4
Consulates	57	56	-	-	1
Disabled veterans	128	95	13	16	4
Military non resident	59,095	58,741	98	207	49
Farm	443	177	48	34	184
Horseless carriage	54	44	7	1	2

Source: City and County of Honolulu, Department of Data Systems, April 7, 1995.

Table 18.10-- VEHICLES AVAILABLE TO OCCUPIED HOUSING UNITS, BY COUNTIES: 1990

Vehicles available	State total	Hawaii	Honolulu	Kalawao	Kauai	Maui
Occupied units	356,267	41,461	265,304	62	16,295	33,145
None	35,159	3,100	29,406	26	777	1,850
1	128,513	14,676	98,542	6	4,573	10,716
2	127,011	16,154	91,032	24	6,699	13,102
3	43,580	5,316	30,415	6	2,874	4,969
4	15,187	1,606	10,996	-	907	1,678
5 or more	6,817	609	4,913	-	465	830

Source: U.S. Bureau of the Census, *1990 Census of Housing, Detailed Housing Characteristics, Hawaii*, 1990 CH-2-13 (August 1993), tables 14 and 67.

Table 18.11-- TRUCK CHARACTERISTICS: 1977 TO 1992

Vehicular and operational characteristics	1977	1982	1987	1992
Total trucks (1,000) .....	...	...	160.8	280.3
Percent	100.0	100.0	100.0	100.0
Major use: Personal transportation	50.0	54.3	60.5	61.7
Body type: Pickup, panel, or mini-van	85.1	89.1	91.2	93.8
Vehicle size: Light	89.0	92.9	94.6	95.6
Annual miles: Less than 10,000	54.1	59.7	57.0	50.0
Year model: Over 4 years old	68.1	75.8	62.1	66.8
Vehicle acquisition: Purchased new	54.6	47.3	49.6	54.3
Truck type: Single-unit, 2 axles	95.7	96.6	96.4	91.9
Range of operation: Local	87.3	78.2	80.2	79.3
Fuel type: Diesel and LPG	4.6	3.7	5.4	4.7

Source: U.S. Bureau of the Census, *1992 Census of Transportation, Truck Inventory and Use Survey, Hawaii*, TC92-T-12 (December 1994), tables 1 and 2.

Table 18.12-- NEW PASSENGER CARS AND MOTOR TRUCKS REGISTERED: 1988 TO 1993

Year	Total	Passenger cars	Motor trucks
1988	78,454	56,278	22,176
1989	84,485	59,893	24,592
1990	97,754	71,950	25,804
1991	97,267	71,924	25,343
1992	78,617	55,394	23,223
1993	76,216	53,943	22,273

Source: R.L. Polk and Co., cited in American Automobile Manufacturers Association, *AAMA Motor Vehicle Facts and Figures* (annual).

**Table 18.13-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS,
BY COUNTIES: 1990 TO 1995**

Year	State total	Honolulu	Maui	Hawaii	Kauai
1990.....	102,821	57,524	19,737	14,527	11,033
1991.....	98,698	52,002	21,054	14,389	11,253
1992.....	83,357	47,082	17,503	10,928	7,844
1993.....	79,168	45,833	16,918	10,111	6,306
1994.....	83,093	46,664	18,940	10,660	6,829
1995.....	72,526	41,880	15,786	9,359	5,501

Source: Hawaii Automobile Dealers Association, *HADA Yearbook* (annual), as corrected.

**Table 18.14-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY
NAMEPLATE: 1993 TO 1995**

Nameplate ^{1/}	1993		1994		1995	
	Rank	Units	Ranks	Units	Rank	Units
All nameplates ..	...	79,168	...	83,093	...	72,526
Ford	1	19,438	1	20,992	1	14,178
Chevrolet/Geo	2	7,409	2	9,057	2	9,348
Nissan	4	6,989	5	4,854	3	7,360
Toyota	3	7,136	3	7,595	4	6,572
Honda	5	5,289	4	5,169	5	5,103
All others .....	...	32,907	...	35,426	...	29,965

^{1/} Shown separately for first five in 1995.

Source: Hawaii Automobile Dealers Association, *HADA Yearbooks* for 1994, 1995, and 1996.

**Table 18.15-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS,
RETAIL AND RENTAL, BY PLACE OF MANUFACTURE: 1994 AND 1995**

Year and place of manufacture	Cars and trucks	Cars			Trucks (all retail)
		Total	Retail	Rental	
1994, total	83,093	76,848	37,930	38,918	6,245
Domestic	52,283	48,003	16,150	31,853	4,280
Imports	30,810	28,845	21,780	7,065	1,965
Percent imports	37.1	37.5	57.4	18.2	31.5
1995, total	72,526	65,994	34,551	31,443	6,532
Domestic	45,964	41,416	15,343	26,073	4,548
Imports	26,562	24,578	19,208	5,370	1,984
Percent imports	36.6	37.2	55.6	17.1	30.4

Source: Hawaii Automobile Dealers Association, *HADA 1996*, p. 6.

**Table 18.16-- HAWAII DRIVERS LICENSES IN FORCE, BY COUNTIES:
1989 TO 1994**

[As of December 31]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1989.....	657,156	478,078	78,448	34,963	65,667
1990.....	677,626	488,119	82,730	37,026	69,751
1991.....	699,664	501,260	86,181	38,894	73,329
1992.....	716,545	510,901	89,436	39,947	76,261
1993.....	734,381	522,016	92,264	41,910	78,191
1994.....	745,392	527,756	94,257	42,736	80,643

Source: Hawaii State Department of Transportation, Motor Vehicle Safety Office, records.

**Table 18.17-- HAWAII DRIVERS LICENSES IN FORCE, BY AGE
AND SEX: DECEMBER 31, 1994**

Age	Both sexes	Male	Female
Total	745,392	399,423	345,969
15 to 19 years.....	38,665	20,959	17,706
20 to 24 years.....	65,951	35,348	30,603
25 to 34 years.....	170,095	89,172	80,923
35 to 44 years.....	179,987	93,640	86,347
45 to 54 years.....	131,177	70,344	60,833
55 to 64 years.....	75,328	40,480	34,848
65 to 74 years.....	60,010	33,799	26,211
75 to 84 years.....	21,942	14,039	7,903
85 years and over.....	2,237	1,642	595
Median age (years).....	40.4	40.8	40.1

Source: Hawaii State Department of Transportation, Motor Vehicle Safety Office, records.

Table 18.18-- VEHICLE DENSITIES: 1970 TO 1994

Measure	1970	1975	1980	1985	1990	1994
Motor vehicles per --						
1,000 persons ^{1/}	506	532	585	657	707	680
Mile of street or highway	115	134	158	184	217	213
Persons per ^{1/} --						
Motor vehicle	2.0	1.9	1.7	1.5	1.4	1.5
Mile of street or highway	226	252	270	280	307	314

^{1/} Based on DBEDT estimates of de facto population.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 18.19-- MOTOR VEHICLE-MILES OF TRAVEL PER MILE OF HIGHWAY, 1970 TO 1994, AND BY COUNTIES, 1994

[1,000]

Year	Vehicle-miles per highway mile	County	Vehicle-miles per highway mile
1970.....	966	State, 1994	1,933
1975.....	1,108		
1980.....	1,424	Hawaii	772
1985.....	1,661	Maui	1,266
1990.....	1,967	Honolulu.....	3,550
1994.....	1,933	Kauai	1,371

Source: Calculated from data supplied by Hawaii State Department of Transportation, Highways Division.

Table 18.20-- DRIVING COST, FOR HONOLULU AND SELECTED MAINLAND CITIES: 1995

[Total annual vehicle costs shown are based on a 1995 Ford Taurus GL, 6-cylinder, 4-door sedan driven 15,000 miles per year with a 4-year, 60,000-mile retention cycle. Costs include both ownership expenses of insurance, depreciation, license and registration fees and miscellaneous taxes; and operating expenses of fuel, oil, tires and maintenance]

City	Rank ^{1/}	Annual cost (dollars)	Cost per mile (cents)
Los Angeles.....	1	8,375	55.8
San Francisco	7	7,152	47.7
Honolulu.....	8	6,832	45.5
Phoenix.....	9	6,772	45.1
Detroit	10	6,731	44.9
Sioux Falls	80	5,368	35.8

^{1/} Among 80 cities surveyed.

Source: Runzheimer International, cited in *Honolulu Advertiser*, April 4, 1995, p. A1.

**Table 18.21-- MOTOR VEHICLE FUEL CONSUMPTION AND VEHICLE MILES,
1984 TO 1994, AND BY COUNTIES, 1993 AND 1994**

Year and county	Highway fuel consumption <u>1/</u>		Vehicle miles of travel	
	Total (1,000 gallons)	Gallons per vehicle <u>2/</u>	Total (millions)	Per vehicle <u>2/</u>
1984.....	339,491	473	6,486.3	9,044
1985.....	345,672	461	6,761.5	9,027
1986.....	357,716	464	6,970.7	9,034
1987.....	367,984	461	7,217.2	9,041
1988.....	378,988	464	7,400.8	9,052
1989.....	395,945	463	7,748.1	9,062
1990.....	395,185	444	8,065.4	9,071
1991.....	406,819	453	8,142.2	9,075
1992.....	405,963	457	8,065.5	9,070
1993.....	409,940	468	7,945.3	9,063
1994.....	428,558	490	7,925.2	9,056
COUNTIES: 1993				
Honolulu.....	273,496	456	5,296.9	8,837
Hawaii.....	62,088	554	1,092.0	9,742
Kauai.....	23,641	429	567.9	10,315
Maui.....	50,715	460	988.5	8,971
COUNTIES: 1994				
Honolulu.....	284,305	476	5,274.1	8,828
Hawaii.....	65,234	579	1,097.3	9,736
Kauai.....	25,086	462	559.9	10,315
Maui.....	53,933	487	993.9	8,973

1/ Includes gasoline, diesel oil, and butane gas.

2/ Based on motor vehicle total by county of inspection; includes both taxable and nontaxable vehicles, and all military nonresident exempt vehicles. Data include passenger cars, buses, trucks, and motorcycles but exclude trailers and semi-trailers.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 18.22-- TOTAL 24-HOUR TRAFFIC VOLUMES AT SELECTED OAHU SURVEY SITES: 1992 TO 1994

Site	1992	1993	1994
Pali Highway at tunnels	58,384	52,720	52,626
Likelike Highway at tunnels	59,678	56,497	54,170
H-1 Freeway at Manoa-Palolo Drainage Canal <u>1/</u>	129,811	110,852	110,356
H-1 Freeway at Kapalama Drainage Canal Bridge	209,922	226,747	222,139
Nimitz Highway at Kapalama Drainage Canal Bridge	76,555	80,909	77,558
Kalaniana'ole Highway east of Ainakoa Ave.	73,944	77,292	77,875

1/ Includes Kapiolani on- and off-ramps prior to 1993.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 18.23-- HIGHWAY SPEEDS, BY TYPE OF HIGHWAY: 1988 TO 1993

[Average speeds, in miles per hour. Years ended September 30]

Year	Statewide	Urban interstate	Rural	
			Arterials <u>1/</u>	Major collectors
1988	56.2	59.5	52.0	52.3
1989	55.7	58.2	52.4	53.1
1990	56.7	58.9	53.5	54.9
1991	55.0	57.0	52.0	52.1
1992	56.2	57.8	53.4	55.5
1993	<u>2/</u> 56.3	58.4	53.6	52.7

1/ Other than freeways and expressways.

2/ The corresponding U.S. average was 56.9. Hawaii ranked 39th among the 50 states.

Source: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics* (annual).

Table 18.24-- MAJOR TRAFFIC ACCIDENTS, TRAFFIC INJURIES, AND TRAFFIC DEATHS, 1984 TO 1994, AND BY COUNTIES, 1992 TO 1994

Year	Major traffic accidents <u>1/</u>		Persons injured or killed	
	Total	Fatal	Injured only	Killed
1984.....	17,657	127	12,390	136
1985.....	19,577	118	12,613	126
1986.....	20,854	108	10,941	117
1987.....	23,625	126	11,996	138
1988.....	26,071	129	12,818	149
1989.....	26,891	127	12,835	147
1990.....	26,639	154	14,048	176
1991.....	21,824	119	12,792	135
1992.....	21,834	121	13,403	128
1993.....	21,464	121	13,879	133
1994.....	(NA)	110	(NA)	122
COUNTIES: 1992				
Honolulu.....	16,617	64	9,308	66
Hawaii.....	2,932	26	2,055	27
Kauai.....	784	10	671	10
Maui.....	1,501	21	1,369	25
COUNTIES: 1993				
Honolulu.....	16,456	71	9,803	76
Hawaii.....	2,857	29	2,165	31
Kauai.....	680	6	553	9
Maui.....	1,471	15	1,358	17
COUNTIES: 1994				
Honolulu.....	(NA)	61	(NA)	65
Hawaii.....	(NA)	28	(NA)	33
Kauai.....	(NA)	9	(NA)	12
Maui.....	(NA)	12	(NA)	12

NA Not available.

1/ Through 1990, includes traffic accidents with damage of \$300 or more or causing injury or death. Effective 1991, includes only accidents with damage of \$1,000 or more or causing injury or death.

Source: Hawaii State Department of Transportation, Highways Division, Motor Vehicle Safety Office, records.

**Table 18.25-- REGISTERED TAXICABS AND BICYCLES, BY ISLANDS:
1993 AND 1994**

[As of December 31]

Island	Taxicabs <u>1/</u>		Bicycles and mopeds <u>2/</u>	
	1993	1994	1993	1994
Hawaii	97	109	6,039	5,623
Maui	178	178	3,424	4,554
Lanai	-	-	67	53
Molokai	4	4	106	92
Oahu	1,683	1,808	100,572	106,491
Kauai.....	-	-	<u>3/</u> 1,834	2,403

1/ Licensed during the calendar year. Taxicabs are licensed annually, except in Kauai County, where registration is not required.

2/ Bicycles with wheels having a diameter of 20 inches or more and all mopeds, both of which were formerly licensed on an annual basis, have, since November 1, 1988, been registered biennially; see SLH 1988, Act 264, sec. 1.

3/ 1992 total.

Source: Compiled by the Hawaii State Department of Business, Economic Development & Tourism from the County departments of finance.

**Table 18.26-- U-DRIVE WEEKDAY AVERAGE DAILY RATES, BY SIZE OF
PASSENGER CAR, FOR OAHU: 1989 TO 1995**

[Average rates for nonresidents, including collision damage waiver insurance, reported by Avis, Hertz, National, and Alamo]

Date	Sub-compact	Compact	Mid-size	Full-size
October 18, 1989.....	37.93	38.92	43.68	48.94
August 13, 1990	39.97	46.46	49.71	57.21
August 28, 1991	30.62	34.19	37.44	43.19
September 3, 1992.....	46.49	45.96	50.71	57.96
September 8, 1993.....	44.73	45.99	49.49	56.99
January 20, 1995.....	54.23	54.98	61.23	67.23

Source: Information provided by listed companies.

**Table 18.27-- AUTOMOTIVE RENTAL AND LEASING WITHOUT DRIVERS
(SIC 751) ESTABLISHMENTS WITH PAYROLL, BY COUNTIES: 1992**

Subject	State total <u>1/</u>		Counties (SIC 751)			
	SIC 751	SIC 7514	Hono-lulu	Hawaii	Kauai	Maui
No. of establishments	82	64	36	18	6	22
Receipts (mil. dol.)	332.1	320.0	195.0	38.6	23.6	74.8

1/ Most of the receipts for SIC 751 were reported in SIC 7514, passenger car rental. Other subgroups under SIC 751 were SIC 7513, truck rental and leasing, without drivers; SIC 7515, passenger car leasing; and SIC 7519, utility trailer and recreational vehicle rental.

Source: U.S. Bureau of the Census, *1992 Census of Service Industries, Hawaii, SC92-A-12* (August 1994), tables 1a, 6, and 7a.

**Table 18.28-- MOTOR CARRIER CHARACTERISTICS, BY COUNTIES:
SEPTEMBER 1995**

County	Passenger carriers <u>1/</u>			Property carriers <u>2/</u>	
	Number of carriers	Number of vehicles	Seating capacity	Number of carriers	Number of vehicles
State total	1,345	8,228	223,693	5,518	31,481
Hawaii	119	1,167	36,840	1,391	4,462
Maui	219	1,786	45,926	849	3,979
Honolulu	908	4,517	120,924	2,862	19,990
Kauai	99	758	20,003	416	2,181

1/ Includes mostly tour bus operators; excludes public transit, school buses, taxicabs, and rental car companies.

2/ Includes truckers, moving companies, etc.

Source: Compiled by Hawaii State Department of Transportation, Motor Vehicle Safety Office, from Hawaii State Department of Commerce and Consumer Affairs, Public Utilities Commission.

Table 18.29-- PUBLIC TRANSIT, FOR OAHU: 1984 TO 1994

[Service provided by City and County of Honolulu bus system]

Year	Number of buses, Dec. 31	Bus mileage <u>1/</u>	Total passengers <u>2/</u>	Revenues (dollars)
1984.....	440	16,774,564	76,260,187	18,819,782
1985.....	440	16,938,692	74,816,485	18,952,566
1986.....	459	17,065,875	74,410,104	18,802,330
1987.....	460	16,733,510	74,066,369	18,659,459
1988.....	470	17,124,317	74,467,760	18,824,046
1989.....	475	17,525,608	74,964,453	18,843,083
1990.....	475	18,080,500	75,648,930	18,914,500
1991.....	475	18,308,282	76,540,997	19,283,803
1992.....	475	18,437,228	78,416,523	19,534,923
1993.....	495	18,507,642	79,343,403	20,751,058
1994.....	495	19,323,877	79,309,437	24,849,857

1/ Estimated number of vehicle miles.

2/ Estimated number of passengers, including senior citizens and handicapped.

Source: City and County of Honolulu, Honolulu Public Transit Authority, records.

Table 18.30-- PUBLIC TRANSIT PASSENGERS, BY FARE CATEGORY, AND AVERAGE BUS SPEED, FOR OAHU: 1992 TO 1994

[Calendar year data for City and County of Honolulu bus system]

Fare category	1992	1993	1994
All passengers.....	78,416,523	79,343,403	79,309,437
Adults, full fare.....	46,773,053	47,953,391	48,012,829
Students.....	11,174,889	11,074,425	11,251,311
School subsidy.....	201,451	235,487	263,596
Stadium express.....	8,365	8,608	7,428
Senior citizens and handicapped.....	15,002,787	15,356,463	15,990,937
Free transfers.....	5,255,978	4,715,029	3,783,336
Average bus speed (m.p.h.).....	14.8	14.8	15.0

Source: City and County of Honolulu, Honolulu Public Transit Authority, records.

Table 18.31-- BUS FARE CHRONOLOGY, FOR OAHU: 1971 TO 1995

[In dollars]

Effective date	Cash fares <u>1/</u>		Monthly passes	
	Adult	School	Adult	School
March 1, 1971 .....	.25	.15	...	...
March 2, 1971 .....	.25	.10	...	...
June 9, 1972 <u>2/</u>.....	.25, .50	.10, .25	...	...
March 15, 1974 .....	.25	.10	...	...
November 1, 1979.....	.50	.25	15.00	7.50
June 18, 1984.....	.60	.25	15.00	7.50
October 1, 1993.....	.85	.25	20.00	7.50
July 1, 1995 <u>3/</u>	1.00	.50	25.00	12.50

1/ In addition, there have been special fares for children, handicapped persons, senior citizens, service to and from Pearl Harbor, and the Stadium Express during many of these years.

2/ Zone fares initiated.

3/ Current fares as of July 14, 1995.

Source: City and County of Honolulu, Public Transit Authority, records.

**Table 18.32-- STEAM RAILROAD MILEAGE AND PASSENGERS:
1984 TO 1994**

[Data are for the Lahaina, Kaanapali and Pacific Rail Road, the only passenger railroad in the State]

Calendar year	Miles of track	Passengers	Calendar year	Miles of track	Passengers
1984.....	6	197,876	1990.....	6	308,910
1985.....	6	199,759	1991.....	6	316,079
1986.....	6	215,735	1992.....	6	385,261
1987.....	6	244,555	1993.....	6	388,484
1988.....	6	285,139	1994.....	6	390,862
1989.....	6	296,391			

Source: Lahaina, Kaanapali and Pacific Rail Road, records.

**Table 18.33-- AIRPORTS AND HELIPORTS, BY CONTROL, BY ISLANDS:
DECEMBER 31, 1994**

Island	Airports <u>1/</u>				Heliports <u>2/</u>	
	State <u>3/</u>		Military	Semi-private	State: commercial	Semi-private
	Com-mercial	General aviation				
State total.....	9	7	6	-	-	13
Hawaii	2	2	1	-	-	8
Maui	2	1	-	-	-	-
Kahoolawe	-	-	-	-	-	-
Lanai	1	-	-	-	-	-
Molokai	1	1	-	-	-	-
Oahu	1	2	3	-	-	1
Kauai.....	2	1	1	-	-	2
Niihau.....	-	-	-	-	-	2
Kure Atoll	-	-	1	-	-	-

1/ Excludes private airports (not available).

2/ Excludes military and private heliports (not available).

3/ Three airports classified as general aviation fields (Waimea-Kohala, Hana, and Kalaupapa) provided regular air service.

Source: Hawaii State Department of Transportation, Airports Division, records.

**Table 18.34-- RANK OF HONOLULU INTERNATIONAL AIRPORT IN
OPERATIONS AND ENPLANED PASSENGERS: 1991 TO 1993**

Subject	Rank <u>1/</u>			Number		
	1991	1992	1993	1991	1992	1993
Total aircraft operations.....	16	22	24	403,570	403,708	358,543
Air carrier operations.....	21	21	23	196,047	202,559	185,959
Total enplaned passengers <u>2/</u> ..	15	15	19	8,772,316	8,740,091	8,484,364

1/ Among all FAA-operated airport traffic control towers in the United States.

2/ For large scheduled certificated air carriers, both scheduled and nonscheduled operations.

Source: U.S. Department of Transportation, Federal Aviation Administration, *FAA Statistical Handbook of Aviation* (annual).

**Table 18.35-- AIRCRAFT OPERATIONS FOR SPECIFIED AIRPORTS:
1984 TO 1994**

[An aircraft operation is an aircraft arrival or departure]

Year	Honolulu International Airport	Hilo International Airport <u>1/</u>	Kona International Airport <u>2/</u>	Kahului Airport	Lihue Airport	Molokai Airport
1984	343,818	62,543	83,320	142,311	100,992	53,513
1985	357,511	61,225	93,879	157,231	131,755	56,048
1986	368,049	61,514	81,467	174,560	143,905	52,268
1987	385,275	80,123	67,497	165,920	134,495	50,829
1988	377,919	85,267	56,584	173,053	122,268	50,456
1989	403,635	93,202	55,674	177,803	116,742	47,208
1990	407,048	98,755	60,086	182,686	113,860	43,509
1991	403,566	88,206	56,140	180,857	112,679	47,898
1992	403,628	91,055	63,939	178,752	103,686	35,662
1993	358,505	92,297	59,904	172,265	70,910	39,057
1994	359,569	86,292	66,438	179,227	91,582	38,369

1/ Formerly General Lyman Field; new name became effective July 1, 1989.

2/ Formerly Keahole Airport; new name became effective April 26, 1993.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 18.36-- AIRCRAFT OPERATIONS, BY TYPE OF AIRCRAFT, AT MAJOR STATE-OWNED AIRPORTS: 1994

[An FAA directive dated December 8, 1987, requires all aircraft with 60 seats or less to be designated as air taxis, even if such aircraft are operated by a designated air carrier. This reclassification especially affects the data for Molokai Airport]

Airport	All movements	Air carrier	Air taxi	General aviation	Military
Honolulu International...	359,569	193,615	56,067	87,986	21,901
Hilo International	86,292	21,194	36,564	20,519	8,015
Kahului	179,227	56,393	85,373	33,292	4,169
Lihue	91,582	24,133	54,199	7,674	5,576
Kona International	66,438	24,923	14,460	21,003	6,052
Molokai	38,369	1,445	25,637	8,452	2,835

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 18.37-- TRANSPACIFIC AND INTERISLAND AIR CARRIERS SERVING HAWAII: 1992 TO 1995

[As of June 30. Includes both scheduled and nonscheduled service, and also commuter lines and other air taxi service]

Service	1992	1993	1994	1995
All carriers	45	41	46	44
Transpacific only	25	24	28	26
Domestic	9	10	11	12
Foreign	16	14	17	14
Transpacific and interisland...	5	5	5	4
Interisland only	15	12	13	14
Passenger carriers	9	8	9	11
Cargo and mail only.....	6	4	4	3

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 18.38-- ESTIMATED SCHEDULED AIRLINE SEAT CAPACITY FOR ARRIVING FLIGHTS: 1989 TO 1994

Year	Total	Westbound and southbound	Eastbound and northbound
1989.....	11,005,765	7,241,987	3,763,778
1990.....	11,779,602	7,367,305	4,412,297
1991.....	11,851,900	7,157,210	4,694,690
1992.....	11,424,600	6,362,440	5,062,160
1993.....	10,752,580	5,882,450	4,870,130
1994.....	9,946,830	5,551,880	4,394,950

Source: Hawaii Visitors Bureau, records.

Table 18.39-- CIVIL FLYING: 1990 TO 1993

Item	1990	1991	1992	1993
Aircraft facilities, Dec. 31.....	50	48	47	47
Airports	34	33	32	32
Heliports.....	16	15	15	15
Public aircraft facilities, Dec. 31	16	17	17	18
Paved and lighted facilities, Dec. 31.....	12	12	13	13
Large aircraft in operation, Dec.	52	56	59	50
Aloha Airlines.....	17	19	21	17
Hawaiian Airlines.....	35	29	29	24
Mid Pacific Airlines.....	-	8	9	9
General aviation: <u>1/</u>				
Active civil aircraft, Dec.	561	484	372	312
Hours flown (1,000)	278	259	176	140
Active personnel, Dec. 31:				
Pilots, except instructors	3,505	3,339	3,293	3,088
Flight instructors.....	309	350	388	360
Nonpilot airmen <u>2/</u>	3,306	3,492	3,711	3,828

1/ Aircraft based in Hawaii. Data based on small samples with large standard errors (in 1993, 29.8 percent for aircraft and 42.2 percent for hours).

2/ Mechanics, parachute riggers, ground instructors, dispatchers, flight navigators, and flight engineers.

Source: U.S. Department of Transportation, Federal Aviation Administration, *FAA Statistical Handbook of Aviation* (annual).

**Table 18.40-- OVERSEAS AND INTER-ISLAND AIR PASSENGER
MOVEMENTS: 1984 TO 1994**

[Calendar years. Data include both revenue and non-revenue passengers]

Year	Overseas passengers <u>1/</u>			Inter-island passenger arrivals
	Arrivals	Departures	Through	
1984.....	5,263,213	5,261,373	727,947	7,632,239
1985.....	5,317,862	5,293,528	858,501	7,878,598
1986.....	6,041,078	6,083,508	841,241	8,340,048
1987.....	6,265,211	6,317,747	1,109,850	8,802,594
1988.....	6,653,346	6,713,621	1,421,707	8,964,928
1989.....	7,022,986	7,234,653	1,167,954	9,634,077
1990.....	7,310,635	7,562,156	1,065,408	9,907,154
1991.....	7,135,595	7,215,323	1,020,464	9,368,576
1992.....	7,248,645	7,087,463	1,318,044	9,568,434
1993.....	6,924,571	6,907,236	1,298,684	9,345,320
1994.....	7,309,894	7,478,052	956,926	9,920,709

1/ Includes West Coast, Canada, Europe, and the Central and South Pacific.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 18.41-- PASSENGERS, CARGO, AND MAIL, OVERSEAS AND INTERISLAND, BY AIRPORT: 1994

Airport	Passengers ^{1/}		Cargo (tons)		Mail (tons)	
	Enplaned	Deplaned	Enplaned	Deplaned	Enplaned	Deplaned
OVERSEAS						
Total	7,478,052	7,309,894	169,543	154,480	23,961	60,981
Honolulu.....	6,621,058	6,387,930	157,771	144,024	23,961	60,981
Hilo	-	-	-	-	-	-
Kahului.....	710,174	771,304	4,533	7,016	-	-
Keahole.....	146,820	150,660	7,239	3,440	-	-
Lihue	-	-	-	-	-	-
INTERISLAND						
Total	9,920,709	9,920,709	74,452	74,452	13,982	13,982
Honolulu.....	4,489,460	4,540,602	45,857	26,487	8,800	5,162
Hilo	790,172	813,449	15,518	9,501	1,210	2,077
Upolu	-	-	-	-	-	-
Waimea-Kohala ..	1,513	1,455	4	8	-	-
Keahole.....	981,913	959,190	4,329	8,474	1,038	1,783
Kahului.....	2,173,862	2,119,178	5,104	18,250	1,991	3,182
Hana	6,966	6,789	-	-	-	-
Kapalua.....	95,994	92,610	253	470	1	35
Molokai	128,466	125,054	168	381	69	29
Kalaupapa.....	7,340	6,930	-	4	-	-
Lanai	81,990	89,252	24	668	21	16
Lihue	1,146,319	1,151,971	3,195	10,272	852	1,698
Princeville ^{2/}	13,714	14,229	-	-	-	-

^{1/} Revenue and non-revenue, excluding Military Airlift Command (MAC). Also excludes overseas passengers in transit (956,926, passing through Honolulu International Airport).

^{2/} Privately owned.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 18.42-- AIR CARGO AND AIRMAIL: 1984 TO 1994

[In thousands of pounds]

Calendar year	Overseas air cargo		Overseas airmail		Interisland	
	Outgoing	Incoming	Outgoing	Incoming	Air cargo: incoming	Airmail: incoming
1984.....	196,215	153,654	23,356	29,497	111,472	16,282
1985.....	180,470	150,295	21,657	22,119	101,700	16,072
1986.....	200,255	184,894	22,842	23,725	114,657	16,913
1987.....	234,098	212,717	23,560	29,004	122,481	17,561
1988.....	284,783	247,174	27,764	31,028	130,203	18,847
1989.....	313,402	301,674	28,258	33,542	146,960	20,706
1990.....	295,326	337,724	32,022	38,198	145,418	22,848
1991.....	306,376	342,032	33,658	44,281	144,104	23,673
1992.....	305,224	305,658	39,268	66,052	153,912	25,594
1993.....	307,302	255,516	52,324	112,970	147,054	26,406
1994.....	339,086	308,962	47,921	121,964	148,904	27,964

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 18.43-- HELICOPTER TOURS: 1977 TO 1994

Subject	1977	1982	1987	1991	1992	1993	1994
Companies.....	9	14	33	33	31	25	25
Aircraft.....	15	35	72	88	89	87	82

Source: Hawaii Helicopter Operators Association, records.

Table 18.44-- FLIGHTS SCHEDULED TO DEPART HONOLULU INTERNATIONAL AIRPORT, BY DESTINATION: JULY 1994

[Data for the 652 transpacific flights scheduled to depart from Honolulu during a one-week period]

Destination	Flights during week		
	Total	Final destination	Intermediate point
Tokyo.....	83	64	19
Nagoya.....	14	14	-
Osaka.....	22	22	-
Fukuoka.....	11	11	-
Sapporo.....	4	4	-
Taipei.....	19	19	-
Seoul.....	27	20	7
Manila.....	12	12	-
Sydney.....	11	11	-
Auckland.....	13	13	-
Guam.....	24	19	5
Vancouver.....	9	9	-
Toronto.....	4	4	-
Seattle.....	21	14	7
San Francisco.....	74	60	14
Los Angeles.....	153	97	56
Las Vegas.....	9	9	-
Denver.....	14	7	7
Dallas/Fort Worth.....	28	21	7
Chicago.....	35	28	7
Atlanta.....	12	12	-
New York.....	7	7	-
All others.....	123	91	32

Source: Greeters of Hawaii, *Jiffisked* [tm] July 1994. Courtesy of Greeters of Hawaii, P. O. Box 29638, Honolulu, HI 96820.

Table 18.45-- AIR FARES BETWEEN HONOLULU AND LOS ANGELES, SAN FRANCISCO, AND SEATTLE, FOR MAJOR AIRLINES: AUGUST 1, 1995

[Dollars. Includes taxes but does not reflect \$3.00 airport charge where applicable]

Carrier and fare category	Los Angeles	San Francisco	Seattle
United Airlines, one-way:			
First class	921	1,156	1,266
Coach (unrestricted)	716	<u>1/</u> 696	736
United Airlines, round-trip:			
First class	1,842	2,312	2,532
Coach (unrestricted)	1,432	1,392	1,472
Major carriers, lowest round-trip: <u>2/</u>			
United Airlines	479	479	488
Lowest carrier	398	398	398
Highest carrier	479	579	579

1/ For annual midyear (July 1) data on United Airlines unrestricted one-way coach fares, 1980-1995, see table 7.26, p. 209. For earlier years, see Robert C. Schmitt, *What People Paid to Travel* (Hawaiian Historical Society, January 1991), table 12, pp. 40-41.

2/ Restrictions apply. Fares are subject to change without notice. Payment up to 21 days before travel may be required. Fare may not be available for travel on certain days of the week or holidays.

Source: International Travel Service, records.

Table 18.46-- ONE-WAY FARES FOR INTERISLAND FLIGHTS BY HAWAIIAN AIRLINES: 1991 TO 1995

[As of July 1. Fares are identical between Honolulu and each of the Neighbor Islands]

Category	1991 <u>1/</u>	1992	1993	1994	1995
Regular fare	65.95	69.95	74.00	74.00	74.00
Kamaaina fare: <u>2/</u>					
Monday - Thursday	57.95	57.95	51.00	56.00	56.00
Friday - Sunday	57.95	57.95	59.00	64.00	64.00

1/ For a complete chronology of interisland air fares, 1929 to 1990, see Robert C. Schmitt, *What People Paid to Travel* (Hawaiian Historical Society, January 1991), table 11, pp. 38-39.

2/ Available only to Hawaii residents.

Source: Hawaiian Airlines, records.

Table 18.47-- STATE COMMERCIAL HARBORS: 1995

Island and harbor	Harbor entrance depth (feet)	Harbor basin			Piers (linear feet)	Storage area (1,000 square feet)		
		Depth (feet)	Length (feet)	Width (feet)		Shedded	Open	
Hawaii:								
Hilo	35	35	2,300	1,400	2,787	122	566	
Kawaihae	40	35	1,500	1,450	1,562	23	427	
Maui:								
Kahului	35	35	2,400	2,050	3,019	124	850	
Molokai:								
Kaunakakai	23	23	1,500	600	691	7.4	129	
Oahu:								
Honolulu:								
Main	} 45	{	40	3,300	1,520	} 28,007	1,560	8,460
Kapalama			40	3,400	1,000			
Barbers Point			38	2,100	1,800				1,860	-	1,647
Kauai:								
Nawiliwili	40	35	1,950	1,540	1,291	109	1,150	
Port Allen	35	35	1,500	1,200	1,200	35	32	

Source: Hawaii State Department of Transportation, Harbors Division, unpublished data.

Table 18.48-- HARBOR DEPTHS: 1993

[In feet]

Harbor	Controlling depth		Project depth	
	Entrance channel	Basin	Entrance channel	Basin
Hilo .....	...	34	...	35
Kawaihae	42	36	40	35
Kahului .....	...	34	...	35
Honolulu	45	40	45	40
Barbers Point	42	38	42	38
Nawiliwili	41	34	40	35

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1993*, Part 4 (November 1994), pp. 81-99.

Table 18.49-- SMALL CRAFT MOORING FACILITIES CAPACITY, BY ISLANDS: DECEMBER 31, 1994

Island	State-operated ^{1/}				Non-State	
	Catwalks and piers		Other moorage		Slips	Other moorage ^{2/}
	Total	Vacant	Total	Vacant		
State total	1,740	113	481	40	2,748	1,747
Hawaii	251	2	121	2	-	375
Maui	46	-	144	-	-	50
Lanai	28	3	5	-	-	10
Molokai	2	-	27	2	-	50
Oahu	1,331	100	154	22	2,748	1,211
Kauai	82	74	30	8	-	51

^{1/} 2,068 vessels were moored (1,627 at catwalks and piers, 441 at other moorage), and valid applications on file numbered 2,072.

^{2/} Includes moorings (142), ramps (16), and dry storage (1,589).

Source: Hawaii State Department of Land and Natural Resources, Division of Boating and Ocean Recreation, *Small Craft Mooring Facilities Utilization Report* (quarterly), and records.

**Table 18.50-- LIGHTHOUSES AND RELATED FACILITIES, BY ISLANDS:
1993**

[Includes all lights, day beacons, buoys, and similar aids to navigation in the Hawaiian Archipelago]

Island	Number of aids to navigation				Greatest nominal range (naut. miles)	Highest above--	
	By control			Light-houses		Sea level (feet)	Ground (feet)
	Total	Federal	Other <u>1/</u>				
Total	627	311	316	20	<u>2/</u> 25	<u>3/</u> 913	<u>4/</u> 138
Hawaii	70	57	13	8	24	156	115
Maui	52	22	30	2	24	170	48
Molokini.....	1	1	-	-	7	182	30
Kahoolawe ...	1	1	-	-	7	120	20
Lanai	14	8	6	-	8	91	13
Molokai	18	11	7	1	25	213	138
Oahu	324	152	172	5	25	913	71
Kauai.....	48	28	20	4	25	174	80
Niihau.....	-	-	-	-	-	-	-
Lehua	1	1	-	-	7	704	10
Midway.....	25	25	-	-	4	43	(NA)
At sea.....	73	5	68	-	-	-	-

NA Not available.

1/ State and private. Includes State-maintained fish aggregating buoys at sea.

2/ Molokai Light, Kaena Point Light, and Kilauea Light.

3/ Kaena Point Light.

4/ Molokai Light.

Source: 14th Coast Guard District, April 15, 1993.

**Table 18.51-- UNDOCUMENTED STATE-REGISTERED VESSELS:
DECEMBER 31, 1994**

Subject	Number	Subject	Number
Certificates outstanding.....	13,839	Type of vessel:	
Length:		Cabin motorboat.....	2,195
Under 16 feet.....	5,573	Open motorboat.....	5,102
16 to less than 26 feet.....	6,732	Runabout.....	2,653
26 to less than 40 feet.....	1,336	Sail/inboard.....	601
40 to 65 feet.....	182	Sail/outboard.....	564
Over 65 feet.....	16	Sail only.....	789
Median (feet).....	18.0	Motor vessel over 65 feet.....	9
Hull material:		Other.....	1,926
Wood.....	897	Uses:	
Fiberglass.....	11,093	Pleasure.....	12,305
Metal.....	520	Commercial fishing.....	580
Inflatable.....	1,122	Charter fishing.....	23
Other.....	207	Commercial passenger.....	255
Propulsion:		Other commercial.....	76
Inboard.....	881	Livery.....	197
Outboard.....	8,103	Dealer or manufacturer.....	30
Inboard/outboard.....	1,979	Youth group.....	62
Sail/inboard.....	601	Government.....	261
Sail/outboard.....	564	Other.....	50
Sail only.....	789	Island kept:	
Manual.....	207	Hawaii.....	1,887
Other.....	715	Kauai.....	1,261
Type of storage:		Lanai.....	59
On water.....	2,449	Maui.....	1,353
On land.....	11,390	Molokai.....	156
		Oahu.....	9,123

Source: Hawaii State Department of Land and Natural Resources, Division of Boating and Ocean Recreation, *Report of Undocumented Vessel Registration* (annual).

**Table 18.52-- DOCUMENTED AND NUMBERED VESSELS REGISTERED
IN HAWAII: 1989 TO 1994**

Category	1989	1990	1991	1992	1993	1994
Documented <u>1/</u>	1,600	1,700	1,775	(NA)	(NA)	(NA)
Numbered <u>2/</u>	13,501	14,081	13,592	13,973	13,832	13,839

NA Not available.

1/ Vessels documented under the laws of the United States with the U.S. Coast Guard in Hawaii. All vessels over five net tons, used for commercial purposes, must be documented. In addition, yachts over five net tons may be documented. As of June 30 through 1990 and December 4, 1991. Series discontinued after 1991.

2/ Non-documented numbered vessels registered with the Hawaii State Department of Transportation. Any mechanically propelled boat (including those with auxiliary engines), and any boat powered solely by sail if over eight feet in length, must be numbered. As of December 31.

Source: U.S. Coast Guard, Marine Safety Office, records; Hawaii State Department of Transportation, *Report of Undocumented Vessel Registration* (annual).

Table 18.53-- BOATING ACCIDENTS: 1989 TO 1994

Year	Number of accidents		Number of persons		Number of vessels involved	Amount of damage (\$1,000)
	Total	Fatal	Killed	Injured, not fatally		
1989.....	40	1	1	28	48	216.8
1990.....	21	2	3	6	25	271.7
1991.....	19	3	5	14	19	189.5
1992.....	19	(NA)	3	5	(NA)	472.4
1993.....	19	3	3	4	25	219.4
1994.....	25	3	4	9	28	256.9

NA Not available.

Source: U.S. Department of Transportation, Coast Guard, *Boating Statistics* (annual); Hawaii State Department of Transportation, Harbors Division, Boating Branch, *Reportable Boating Accident Statistics for Period 1988 to 1990* and *Recreational Boating Accidents Statistics (Reportable) 1989 to 1991*; Hawaii State Department of Land and Natural Resources, *Recreational Boating Accident Statistics 1991 through 1993*, and records.

Table 18.54-- VESSEL ARRIVALS, BY DRAFT: ANNUALLY, 1990 TO 1993

[Excludes domestic fishing craft]

Harbor	1990			1991		
	Total	18 feet and less	19 feet and more	Total	18 feet and less	19 feet and more
Hilo	903	775	128	1,143	1,003	140
Kawaihae	505	492	13	591	579	12
Kahului	1,198	1,068	130	1,439	1,276	163
Kaunakakai	407	407	-	945	945	-
Kalaupapa	1	1	-	24	24	-
Honolulu	6,111	5,402	709	7,941	7,060	881
Barbers Point	709	585	124	806	669	137
Nawiliwili	608	493	115	767	646	121
Port Allen	97	(NA)	(NA)	90	(NA)	(NA)
Harbor	1992			1993		
	Total	18 feet and less	19 feet and more	Total	18 feet and less	19 feet and more
Hilo	1,166	1,025	141	909	879	30
Kawaihae	716	705	11	593	591	2
Kahului	1,513	1,387	126	1,257	1,233	24
Kaunakakai	1,174	1,174	-	1,023	1,023	-
Kalaupapa	8	8	-	4	4	-
Honolulu	10,391	8,690	1,701	7,821	6,369	1,452
Barbers Point	953	801	152	844	681	163
Nawiliwili	924	822	102	758	741	17
Port Allen	186	186	-	146	146	-

NA Not available.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States* (annual), Part 4.

Table 18.55-- SHIP ARRIVALS AND CARGO TONNAGE AT THE PORT OF HONOLULU: 1983 TO 1994

[Years ended June 30]

Year	Overseas vessels		Interisland vessels	
	Number	Cargo tonnage	Number	Cargo tonnage
1983.....	1,775	4,868,930	2,662	2,322,957
1984.....	1,686	4,870,182	2,660	2,369,863
1985.....	1,749	5,071,250	2,412	1,884,925
1986.....	1,825	5,379,135	2,697	2,121,858
1987.....	2,080	5,736,005	2,848	2,135,235
1988.....	2,014	6,586,749	3,172	2,746,776
1989.....	2,024	6,877,963	3,101	2,892,709
1990.....	2,159	7,439,568	3,212	2,917,984
1991.....	2,066	6,939,735	3,190	3,962,085
1992.....	2,104	8,235,947	3,207	3,101,050
1993.....	1,918	7,462,619	2,440	2,731,645
1994.....	1,603	6,434,257	2,737	2,372,971

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 18.56-- OVERSEAS AND INTERISLAND PASSENGER ARRIVALS AND DEPARTURES, FOR HONOLULU HARBOR: 1989 TO 1994

[Fiscal years ended June 30]

Type of passenger	1989	1990	1991	1992	1993	1994
Overseas:						
In.....	15,993	9,770	17,503	15,730	14,712	14,502
Out.....	16,716	9,084	17,812	15,766	14,942	14,502
Interisland:						
In.....	78,710	67,199	67,409	72,493	61,563	68,229
Out.....	78,711	67,199	67,409	72,493	61,563	68,229

Source: Hawaii State Department of Transportation, Harbors Division, records.

**Table 18.57-- WATERBORNE COMMERCE FOR SPECIFIED HARBORS:
1981 TO 1993**

[1,000 short tons. Excludes cargo carried by Army and Navy vessels and cargo in transit]

Year	Hilo	Kawaihae	Kahului	Honolulu	Barbers Point	Nawiliwili
1981	1,442	433	1,552	8,270	5,590	907
1982	1,382	441	1,484	7,593	5,707	808
1983	1,522	441	1,843	8,040	7,051	1,009
1984	1,571	546	1,889	8,470	6,565	945
1985	1,319	527	1,517	7,986	6,752	933
1986	1,199	592	1,627	8,604	5,629	745
1987	1,366	871	2,035	9,737	7,135	916
1988	1,456	655	2,157	10,655	7,511	876
1989	1,569	732	2,279	10,360	7,374	1,038
1990	1,690	887	2,409	11,341	8,034	959
1991	1,556	745	2,434	11,208	9,002	1,005
1992	1,588	790	2,357	11,522	8,824	1,143
1993	1,469	655	2,216	10,595	9,357	1,283

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States*, Part 4, for 1990, (pp. 82-101) and 1993 (pp. 81-100).

Table 18.58-- WATERBORNE COMMERCE, FOREIGN AND DOMESTIC, FOR SPECIFIED HARBORS: 1990

[1,000 short tons]

Category	Hilo	Kawaihae	Kahului	Honolulu	Barbers Point	Nawiliwili
All freight traffic	1,690	887	2,409	11,341	8,034	959
Foreign, except Canadian:						
Imports	15	14	20	681	3,825	3
Exports	-	1	-	234	158	-
Canadian imports	25	38	9	55	32	10
Domestic, total.....	1,650	834	2,379	10,372	4,019	945
Interisland:						
Receipts	1,174	465	1,682	1,603	45	641
Shipments	325	174	402	4,075	505	216
Interstate:						
Receipts	44	39	63	3,393	3,047	16
Shipments	106	156	233	1,114	380	72
Internal, total.....	-	-	-	187	42	-

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1990*, Part 4 (1994), pp. 82-101, and special tabulation of "coastwise" data.

**Table 18.59-- WATERBORNE COMMERCE, BY COMMODITIES, FOR
SPECIFIED HARBORS: 1990**

[In thousands of short tons. Shown separately for commodities of 300,000 or more tons]

Port and commodity	Total	Receipts <u>1/</u>	Shipments <u>2/</u>
Hilo	1,690	1,258	431
Petroleum and petroleum products.....	462	462	-
Fabricated metal products.....	312	196	117
Food and farm products	310	115	195
Kawaihae	887	556	331
Food and farm products	307	82	225
Kahului.....	2,409	1,774	635
Petroleum and petroleum products.....	446	446	-
Fabricated metal products.....	409	288	121
Food and farm products	531	173	358
Manufactured equipment, machinery and products.	594	447	148
Kaunakakai	160	(NA)	(NA)
Honolulu.....	11,341	5,732	5,610
Petroleum and petroleum products.....	2,381	994	1,386
Forest products, wood and chips	322	224	98
Fabricated metal products.....	1,305	526	777
Food and farm products	2,564	1,387	1,178
Manufactured equipment, machinery and products.	2,799	1,363	1,436
Barbers Point	8,034	6,949	1,085
Petroleum and petroleum products.....	7,871	6,786	1,085
Nawiliwili	959	660	298
Manufactured equipment, machinery and products.	339	262	77
Port Allen	115	(NA)	(NA)

NA Not available.

1/ Includes foreign imports and coastwise receipts.

2/ Includes foreign exports and coastwise, internal and intraport shipments.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1990*, Part 4 (1994), pp. 82-101.

Table 18.60-- WATERBORNE COMMERCE, FOREIGN AND DOMESTIC, FOR SPECIFIED HARBORS: 1991

[1,000 short tons]

Category	Hilo	Kawaihae	Kahului	Honolulu	Barbers Point	Nawiliwili
All freight traffic	1,556	745	2,434	11,208	9,002	1,005
Foreign, except Canadian:						
Imports	5	7	5	394	4,444	2
Exports	-	-	-	182	336	-
Canadian imports:						
Imports	18	3	7	29	-	6
Exports	-	2	-	-	-	-
Domestic, total.....	1,532	733	2,422	10,603	4,222	997
Coastwise: <u>1/</u>						
Receipts	1,203	467	1,739	5,428	3,425	625
Shipments	329	266	683	5,055	797	372
Internal, total <u>2/</u>	-	-	-	120	-	-

1/ Includes interisland and interstate.

2/ Includes intraport.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1991*, Part 4 (March 1995), pp. 87-104.

**Table 18.61-- WATERBORNE COMMERCE, BY COMMODITIES, FOR
SPECIFIED HARBORS: 1991**

[In thousands of short tons. Shown separately for commodities of 300,000 or more tons]

Port and commodity	Total	Receipts <u>1/</u>	Shipments <u>2/</u>
Hilo	1,556	1,226	329
Petroleum and petroleum products	488	447	1
Primary manufactured goods	354	271	83
Food and farm products	301	143	158
Kawaihae	745	477	268
Kahului	2,434	1,751	683
Petroleum and petroleum products	436	436	0
Primary manufactured goods	627	483	144
Food and farm products	531	188	343
Manufactured equipment, machinery and products	566	380	187
Kaunakakai	175	(NA)	(NA)
Honolulu	11,208	5,851	5,357
Petroleum and petroleum products	2,461	1,257	1,203
Forest products, wood and chips	306	235	72
Primary manufactured goods	2,381	1,174	1,208
Food and farm products	2,634	1,542	1,093
Manufactured equipment, machinery and products	2,720	1,360	1,360
Barbers Point	9,002	7,869	1,133
Petroleum and petroleum products	8,639	7,554	1,084
Nawiliwili	1,005	633	372
Primary manufactured goods	380	236	144
Port Allen	53	(NA)	(NA)

NA Not available.

1/ Includes foreign imports and coastwise receipts.

2/ Includes foreign exports and coastwise, internal and intraport shipments.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1991*, Part 4 (March 1995), pp. 87-104.

Table 18.62-- WATERBORNE COMMERCE, FOREIGN AND DOMESTIC, FOR SPECIFIED HARBORS: 1992

[1,000 short tons]

Category	Hilo	Kawaihae	Kahului	Honolulu	Barbers Point	Nawiliwili
All freight traffic	1,588	790	2,357	11,522	8,824	1,143
Foreign, except Canadian:						
Imports	22	5	78	651	3,979	2
Exports	-	-	-	144	571	-
Canadian imports:						
Imports	14	-	-	50	25	6
Exports	-	3	1	-	-	-
Domestic, total.....	1,553	781	2,278	10,676	4,248	1,135
Coastwise: <u>1/</u>						
Receipts	1,162	481	1,608	5,556	3,555	778
Shipments	390	300	670	5,080	691	357
Internal, total <u>2/</u>	-	-	-	40	2	-

1/ Includes interisland and interstate.

2/ Includes intraport.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1991*, Part 4 (April 1995), pp. 84-100.

Table 18.63-- WATERBORNE COMMERCE, BY COMMODITIES, FOR SPECIFIED HARBORS: 1992

[In thousands of short tons. Shown separately for commodities of 300,000 or more tons]

Port and commodity	Total	Receipts <u>1/</u>	Shipments <u>2/</u>
Hilo	1,588	1,198	390
Petroleum and petroleum products	436	429	7
Primary manufactured goods	349	279	70
Food and farm products	383	159	224
Manufactured equipment, machinery and products	328	247	80
Kawaihae	790	486	303
Kahului	2,357	1,686	671
Petroleum and petroleum products	392	392	0
Primary manufactured goods	593	465	129
Food and farm products	576	197	379
Manufactured equipment, machinery and products	463	316	148
Kaunakakai	242	(NA)	(NA)
Honolulu	11,522	6,257	5,264
Petroleum and petroleum products	2,115	1,234	881
Forest products, wood and chips	337	274	63
Soil, sand, gravel, rock and stone	315	25	290
Primary manufactured goods	2,354	1,136	1,219
Food and farm products	2,995	1,745	1,249
Manufactured equipment, machinery and products	2,898	1,536	1,361
Barbers Point	8,824	7,559	1,264
Petroleum and petroleum products	8,035	6,968	1,066
Primary manufactured goods	392	321	71
Nawiliwili	1,143	786	357
Primary manufactured goods	418	297	121
Manufactured equipment, machinery and products	400	303	98
Port Allen	11	(NA)	(NA)

NA Not available.

1/ Includes foreign imports and coastwise receipts.

2/ Includes foreign exports and coastwise, internal and intraport shipments.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1992*, Part 4 (April 1995), pp. 84-101.

Table 18.64-- WATERBORNE COMMERCE, FOREIGN AND DOMESTIC, FOR SPECIFIED HARBORS: 1993

[1,000 short tons]

Category	Hilo	Kawaihae	Kahului	Honolulu	Barbers Point	Nawiliwili
All freight traffic	1,469	655	2,216	10,595	9,357	1,283
Foreign, except Canadian:						
Imports	41	-	54	244	4,468	6
Exports	-	-	-	89	511	-
Canadian imports:						
Imports	14	3	9	32	19	7
Exports	1	-	1	1	-	-
Domestic, total.....	1,412	652	2,152	10,228	4,359	1,271
Coastwise: <u>1/</u>						
Receipts	1,075	470	1,600	5,249	3,763	923
Shipments	337	182	553	4,901	586	348
Internal, total <u>2/</u>	-	-	-	78	10	-

1/ Includes interisland and interstate.

2/ Includes intraport.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1993*, Part 4 (November 1994), pp. 81-99.

**Table 18.65-- WATERBORNE COMMERCE, BY COMMODITIES, FOR
SPECIFIED HARBORS: 1993**

[In thousands of short tons. Shown separately for commodities of 300,000 or more tons]

Port and commodity	Total	Receipts <u>1/</u>	Shipments <u>2/</u>
Hilo	1,469	1,130	338
Fabricated metal products	412	338	74
Food and farm products	329	145	184
Kawaihae	655	473	182
Kahului	2,216	1,663	554
Petroleum and petroleum products	325	325	-
Fabricated metal products	620	487	133
Food and farm products	473	194	279
Manufactured equipment, machinery and products.	432	300	132
Kaunakakai	202	(NA)	(NA)
Honolulu	10,595	5,525	5,069
Petroleum and petroleum products	1,282	596	686
Lumber	304	251	53
Fabricated metal products	2,114	585	1,530
Food and farm products	2,708	1,746	962
Manufactured equipment, machinery and products.	2,741	1,481	1,259
Vehicles and parts	956	425	532
Barbers Point	9,357	8,250	1,107
Petroleum and petroleum products	8,309	7,366	944
Nawiliwili	1,283	936	348
Fabricated metal products	543	408	135
Manufactured equipment, machinery and products.	391	288	103
Port Allen	12	(NA)	(NA)

NA Not available.

1/ Includes foreign imports and coastwise receipts.

2/ Includes foreign exports and coastwise, internal and intraport shipments.

Source: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States, Calendar Year 1993*, Part 4 (November 1994), pp. 81-100.

**Table 18.66-- TRANSPORTATION, COMMUNICATION, AND UTILITY INDUSTRIES,
WITH AND WITHOUT PAYROLL: 1992**

SIC code	Kind of business	Number of establishments			Revenue (million dollars)		
		Total	With payroll	Without payroll	Total	With payroll	Without payroll
41	Passenger transportation.....	1,534	117	1,417	205	179	26
42	Motor freight transportation, warehousing	601	312	289	404	393	11
44	Water transportation.....	147	97	50	453	452	1
45pt.	Air transportation <u>1/</u>	164	113	51	415	412	3
46	Pipelines, exc. natural gas	-	-	-	-	-	-
47	Transportation services	1,477	626	851	421	401	20
48	Communications	311	211	100	926	924	2
49	Electric, gas, sanitary services ..	90	57	33	946	944	1

1/ Data exclude large, certificated passenger carriers that report to the Office of Airline Statistics.

Source: U.S. Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities, Nonemployer Statistics Series, Summary, UC92-N-1* (March 1995), table 3.

**Table 18.67-- OCEAN INDUSTRIES REVENUE AND EMPLOYMENT:
1986 AND 1992**

Industry	Estimated revenue (mil. dol.)		Estimated employment	
	1986	1992	1986	1992
Total.....	1,838	2,894	12,261	17,969
Aquaculture	13	23	423	550
Commercial fishing	28	62	689	883
Maritime <u>1/</u>	1,380	2,000	4,334	5,830
Ocean R & D	47	95	1,415	2,039
Ocean recreation	269	560	2,970	5,846
Seafood marketing	101	154	2,430	2,821

1/ Includes cargo carriers, shipbuilding and repair, marine fuels and bunker services, freight handling and forwarding, marine insurance, etc.

Source: Craig D. MacDonald and Howard E. Deese, *The Role of Ocean Industries in the Economy of Hawaii* (DBEDT, 1994), table 1.