

## 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 618,000 in 1980 to 886,000 in 1990. Vehicle miles rose during the same period from 5.6 billion to 8.1 billion. Hawaii residents purchased 87,000 new passenger cars and 15,000 trucks in 1990. By the end of that year, 678,000 licensed drivers had access to 4,101 miles of streets and highways throughout the State. Bus passengers carried by the Honolulu Mass Transit Lines increased from 72 million in 1980 to 76 million in 1990.

Almost all scheduled interisland travel is by air. In 1990, airlines and air taxis reported 9.9 million interisland passengers, some 47 percent more than in 1980, and carried 73,000 tons of cargo. The State has seven commercial airports, 15 general aviation, military or semi-private airports, 13 civilian heliports, 3,800 active pilots, and about 500 active civil aircraft in general aviation.

Rapid growth is similarly evident in transpacific air travel. In 1990, 7,311,000 overseas passengers arrived by air, a 10-year growth of 71 percent. Overseas air cargo received that year weighed 169,000 tons.

Undocumented State-registered vessels as of December 31, 1990 numbered 14,081, compared with 8,000 in 1970. Median length was 18.1 feet, and five-sixths were stored on land. There were 1,700 documented vessels in the State in 1990, triple the 1970 total. Overseas vessels brought 17,500 passengers into the State in 1991. Receipts of cargo in 1988 included 11.0 million tons in overseas cargo and 5.3 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, 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. Similar statistics for other areas are reported in Statistical Abstract of the United States: 1991, Sections 21 and 22.

Table 494.-- HIGHWAY DISTANCES: 1991

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	OAHU 1/	
Hilo-Kailua, via Saddle Rd. ..	84.3	Honolulu-Ala Moana Center .....	1.6
Hilo-Kailua, via Hamakua .....	91.2	Honolulu-UH, via King Street ....	3.2
Hilo-Waimea, via Saddle Rd. ..	57.9	Honolulu-Waikiki .....	3.2
Hilo-Waimea, via Hamakua .....	55.3	Honolulu-Waimanalo, via Koko Head	21.8
Hilo-Upolu Pt., via Hamakua ..	83.7	Honolulu-Waimanalo, via Nuuanu ..	13.3
Hilo-Kawaihae, via Hamakua ...	69.5	Honolulu-Kailua, via Nuuanu .....	11.6
Waimea-Hawi .....	21.4	Honolulu-Kaneohe, via Kalihi ....	10.8
Waimea-Kawaihae .....	11.5	Honolulu-Kahuku, via Kahaluu ....	36.2
Kawaihae-Hawi .....	18.0	Honolulu-Kahuku, via Wahiawa ....	46.2
Kawaihae-Kailua .....	48.4	Honolulu-Kaena Pt., via Wahiawa .	42.4
Kailua-Keahole Airport .....	6.8	Honolulu-Kaena Pt., via Waianae .	44.3
Kailua-Keauhou .....	6.9	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	KAUAI	
Wailuku-Lahaina, via Olowalu .	20.9	Lihue-Haena .....	38.0
Kahului-Kihei .....	7.9	Lihue-Wailua .....	5.9
Lahaina-Wailea .....	32.4	Lihue-Lihue Airport .....	2.0
Lahaina-Napili .....	8.9	Lihue-Poipu .....	11.9
Lahaina-Kaanapali .....	3.7	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 King and Bishop Streets; Waikiki, from Kalakaua and Lewers.

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

Table 495.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED:  
1970 TO 1990

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

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

Source follows next table.

Table 496.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED,  
BY ISLANDS: DECEMBER 31, 1990

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

Island	Total mileage	Paved		Unpaved
		Free-ways <u>1/</u>	Other	
State total .....	4,100.88	96.55	3,790.32	214.01
Hawaii <u>2/</u> .....	1,450.21	7.04	1,367.79	75.38
Maui .....	592.10	3.21	532.19	56.70
Lanai .....	45.83	-	31.83	14.00
Molokai .....	129.29	-	117.29	12.00
Oahu .....	1,487.15	86.30	1,367.41	33.44
Kauai .....	396.30	-	373.81	22.49
Niihau .....	-	-	-	-

1/ Classified as interstate and freeways and expressways.

2/ Data exclude Chain of Craters Road, closed due to volcanic eruption.

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

Table 497.-- HIGHWAY BRIDGES, BY ISLANDS: DECEMBER 31, 1990

Island	Number of bridges <u>1/</u>	Longest bridge		Highest bridge	
		Location	Length (feet)	Location	Height (feet)
State .	700	Airport Viaduct .	14,890	Nanue .....	208
Hawaii .....	129	Hakalau .....	775	Nanue .....	208
Maui .....	93	Honokahua .....	600	Uaoa .....	79
Lanai .....	-	None .....	...	None .....	...
Molokai ....	19	Manawainui .....	360	Manawainui ....	50
Oahu .....	406	Airport Viaduct .	14,890	Kipapa .....	156
Kauai .....	53	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 498.-- HIGHWAY TUNNEL LENGTHS: DECEMBER 31, 1990

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
Middle Street .....	393
Structure No. 8, Waiawa Interchange .....	300
Maui:	
Olowalu .....	318
Kauai:	
Kipu-Mahaulepu (private road) .....	2,200

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

Table 499.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1980 TO 1990

[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	Pas-senger vehicles <u>1/</u>	Ambulances, hearses, patrol wagons	Buses
1980 ....	633,846	617,571	514,669	85	3,366
1981 ....	667,019	649,350	541,932	88	3,577
1982 ....	689,468	671,513	566,060	80	3,863
1983 ....	(NA)	702,854	(NA)	(NA)	(NA)
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 ....	907,950	885,755	715,464	56	4,303
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
1980 ....	87,542	1,725	488	9,696	16,275
1981 ....	90,954	1,641	458	10,700	17,669
1982 ....	88,410	1,395	388	11,317	17,955
1983 ....	(NA)	(NA)	(NA)	(NA)	(NA)
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 ....	151,857	1,049	306	12,720	22,195

Footnotes and source on next page.

Table 499.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE:  
1980 TO 1990 -- Con.

NA Not available.

1/ Beginning in 1979, vans, pickups, and other trucks under 6,500<sup>1b.</sup> in personal use were legally classified as passenger vehicles, but the data shown here have been adjusted to continue inclusion of such vehicles 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 500.-- MOTOR VEHICLES REGISTERED, BY COUNTIES:  
1980 TO 1990

[Taxable and non-taxable. Includes passenger cars, buses, trucks, and motor-cycles 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
1980 .....	617,571	454,316	70,047	30,604	62,604
1981 .....	649,350	476,995	75,812	32,932	63,611
1982 .....	671,513	495,629	77,024	33,931	64,929
1983 .....	702,854	515,002	80,090	35,365	72,397
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 .....	885,755	611,919	109,910	55,537	108,389

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

Table 501.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE, FOR COUNTIES:  
1990 AND 1983

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

Type of vehicle	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1990					
All vehicles .....	907,950	624,582	114,551	57,795	111,022
Motor vehicles .....	885,755	611,919	109,910	55,537	108,389
Passenger vehicles .....	811,503	563,090	97,854	51,520	99,039
Automobiles .....	715,464	497,116	87,299	44,171	86,878
Trucks .....	91,680	62,470	10,287	7,249	11,674
Buses .....	4,303	3,467	257	99	480
Ambulances, hearses .....	56	37	11	1	7
Freight .....	61,532	39,066	10,519	3,489	8,458
Trucks .....	60,177	38,485	10,224	3,343	8,125
Truck tractors, tow trucks .....	1,049	472	244	112	221
Truck cranes, misc. ....	306	109	51	34	112
Motorcycles 1/ .....	12,720	9,763	1,537	528	892
Trailers, semi-trailers .....	22,195	12,663	4,641	2,258	2,633
1983					
Motor vehicles .....	702,854	515,002	80,090	35,365	72,397
U-drive .....	30,442	18,580	2,891	1,478	7,493
All others .....	672,412	496,422	77,199	33,887	64,904

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

Source: 1990 from City and County of Honolulu, Department of Data Systems, records; 1983 from Applied Analysis, Inc., Estimating Annual Vehicle-miles Traveled (VMT) in the State of Hawaii (August 1987), and records.

Table 502.-- TRUCK CHARACTERISTICS: 1977, 1982, AND 1987

[Percent]

Vehicular and operational characteristics	1977	1982	1987 <sup>1/</sup>
Major use: Personal transportation .....	50.0	54.3	60.5
Body type: Pickup, panel, or mini-van .....	85.1	89.1	91.2
Vehicle size: Light .....	89.0	92.9	94.6
Annual miles: Less than 10,000 .....	54.1	59.7	57.0
Year model: Over 4 years old .....	68.1	75.8	62.1
Vehicle acquisition: Purchased new .....	54.6	47.3	49.6
Fleet size: 1 truck .....	64.0	72.3	64.4
Truck type: Single-unit, 2 axles .....	95.7	96.6	96.4
Range of operation: Local .....	87.3	78.2	80.2
Fuel type: Diesel and LPG .....	4.6	3.7	5.4

<sup>1/</sup> There were 160,800 trucks in Hawaii in 1987, which traveled 1,550.5 million truck miles, or 9,600 per truck.

Source: U.S. Bureau of the Census, 1987 Census of Transportation, Truck Inventory and Use Survey, Hawaii, TC87-T-12 (March 1990), tables 1 and 2.

Table 503.-- VEHICLE DENSITIES: 1970 TO 1990

Measure	1970	1975	1980	1985	1990
Motor vehicles per --					
1,000 persons <sup>1/</sup> .....	506	532	585	657	705
Mile of street or highway .....	115	134	158	184	216
Persons per <sup>1/</sup> --					
Motor vehicle .....	2.0	1.9	1.7	1.5	1.4
Mile of street or highway .....	226	252	270	280	306

<sup>1/</sup> Based on de facto population.

Source: Hawaii State Department of Transportation, Highways Division, records; Hawaii State Data Center population estimates.



Table 504.-- NEW PASSENGER CARS AND MOTOR TRUCKS  
REGISTERED: 1985 TO 1990

Year	Total	Passenger cars	Motor trucks
1985 .....	67,875	51,330	16,545
1986 .....	68,060	49,680	18,380
1987 .....	73,138	51,446	21,692
1988 .....	78,454	56,278	22,176
1989 .....	84,485	59,893	24,592
1990 .....	97,754	71,950	25,804

Source: R.L. Polk and Co., cited in Motor Vehicle Manufacturers Association of the United States, Inc., MVMA Motor Vehicle Facts and Figures (annual).

Table 505.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS,  
BY COUNTIES: 1985 TO 1990

Year	State total	Hono- lulu	Maui	Hawaii	Kauai
1985 .....	68,676	50,058	8,095	7,660	2,863
1986 .....	68,379	48,497	8,535	7,896	3,451
1987 .....	71,987	49,028	10,865	7,436	4,658
1988 .....	74,962	49,401	11,413	8,410	5,738
1989 .....	85,425	52,855	13,733	11,362	7,475
1990 .....	102,721	57,424	19,737	14,527	11,033
Passenger cars ..	87,481	47,609	17,664	12,403	9,805
Trucks .....	15,240	9,815	2,073	2,124	1,228

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

Table 506.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, RETAIL AND FLEET, BY NAMEPLATE: 1990

Nameplate	Retail and fleet		Retail registrations		Fleet registrations	
	Rank	Number <u>1/</u>	Rank	Number	Rank	Number
All nameplates ...	...	102,721	...	54,381	...	48,340
Chevrolet .....	1	22,929	4	5,570	1	16,943
Pontiac .....	2	14,888	14	853	2	14,035
Ford .....	3	12,548	1	8,125	3	4,423
Toyota .....	4	7,716	3	5,695	6	2,459
Honda .....	5	6,902	2	6,781	14	123
Nissan .....	6	4,887	5	4,628	9	727
All others .....	...	32,361	...	22,729	...	9,630

1/ Independently calculated from county data, and may differ significantly from sum of retail registrations and fleet registrations.

Source: Hawaii Automobile Dealers Association, 1991 HADA Yearbook, pp. 6, 8, and 9.

Table 507.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY PLACE OF MANUFACTURE: 1989 AND 1990

Year	Total	Domestics <u>1/</u>	Imported <u>1/</u>	
			Number	Percent
1989 .....	85,425	50,923	34,502	40.4
1990 .....	102,721	70,718	32,003	31.2

1/ Japanese cars sold in the U.S. with U.S. nameplates are classified as domestic. Cars assembled in the U.S. with Japanese nameplates are classified as imports.

Source: Hawaii Automobile Dealers Association, 1991 HADA Yearbook, p. 10.

Table 508.-- HAWAII DRIVERS LICENSES IN FORCE, BY COUNTIES:  
1985 TO 1990

[As of December 31]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1985 .....	593,952	441,278	68,177	29,188	55,309
1986 .....	612,101	453,220	70,493	30,374	58,014
1987 .....	628,027	463,522	72,142	31,831	60,532
1988 .....	634,880	465,331	74,545	33,007	61,997
1989 .....	657,156	478,078	78,448	34,963	65,667
1990 .....	677,626	488,119	82,730	37,026	69,751

Source: Tabulations by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 509.-- HAWAII DRIVERS LICENSES IN FORCE, BY AGE  
AND SEX: DECEMBER 31, 1990

Age	Both sexes	Male	Female
Total .....	677,626	366,208	311,418
15 to 19 years .....	37,911	21,256	16,655
20 to 24 years .....	63,333	34,152	29,181
25 to 34 years .....	167,308	87,486	79,822
35 to 44 years .....	163,745	85,690	78,055
45 to 54 years .....	99,298	53,248	46,050
55 to 64 years .....	74,548	39,991	34,557
65 to 74 years .....	53,213	31,682	21,531
75 to 84 years .....	16,880	11,650	5,230
85 years and over .....	1,390	1,053	337
Median age (years) .....	39.3	39.7	38.8

Source: Tabulation by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 510.-- MOTOR VEHICLE FUEL CONSUMPTION AND VEHICLE MILES:  
1980 TO 1990

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>
1980 .....	330,734	536	5,570.0	9,019
1981 .....	319,588	492	5,855.7	9,018
1982 .....	323,827	482	6,048.3	9,007
1983 .....	327,769	(NA)	(NA)	(NA)
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
COUNTIES: 1990				
Honolulu .....	264,613	434	5,395.7	8,847
Hawaii .....	58,834	525	1,094.8	9,765
Kauai .....	24,107	421	591.7	10,322
Maui .....	47,631	434	983.2	8,957

NA Not available.

1/ Includes gasoline, gasohol, diesel oil, and butane gas. Gasohol was no longer used in motor vehicles after June 1982.

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 511.-- TOTAL 24-HOUR TRAFFIC VOLUMES AT SELECTED OAHU  
SURVEY SITES: 1988 TO 1990

Site	1988	1989	1990
Pali Highway at tunnels .....	50,453	51,503	50,590
Likelike Highway at tunnels .....	48,358	57,025	54,296
H-1 Freeway at Manoa-Palolo Drainage Canal <sup>1/</sup> .....	127,367	128,273	123,621
H-1 Freeway at Kapalama Drainage Canal Bridge .....	191,286	193,254	193,983
Nimitz Highway at Kapalama Drainage Canal Bridge .....	69,040	79,870	73,188
Kalaniana'ole Highway east of Ainakoa Ave. ....	77,928	79,275	80,135

NA Not available.

<sup>1/</sup> Includes Kapiolani on- and off-ramps.

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

Table 512.-- HIGHWAY SPEEDS, BY TYPE OF HIGHWAY: 1985 TO 1990  
[Average speeds, in miles per hour. Years ended September 30]

Year	State- wide	Urban inter- state	Rural		
			Inter- state	Other arteri- als	Major collec- tors
1985 .....	54.8	56.9	58.0	52.3	53.0
1986 .....	55.1	58.4	(NA)	51.4	52.6
1987 .....	55.0	58.4	(NA)	51.3	52.1
1988 .....	56.2	59.5	(NA)	52.0	52.3
1989 .....	55.7	58.2	(NA)	52.4	53.1
1990 .....	<sup>1/</sup> 56.7	58.9	(NA)	53.5	54.9

NA Not available.

<sup>1/</sup> The corresponding U.S. average was 56.6. Hawaii ranked 31st  
among the 50 States.

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

Table 513.-- MAJOR TRAFFIC ACCIDENTS, TRAFFIC INJURIES, AND TRAFFIC DEATHS, 1979 TO 1989, AND BY COUNTIES, 1989

Year	Major traffic accidents <u>1/</u>		Persons injured or killed	
	Total	Fatal	Injured only	Killed
1979 .....	19,158	183	13,963	205
1980 .....	18,301	165	13,026	185
1981 .....	16,582	136	11,999	150
1982 .....	16,407	143	11,865	161
1983 .....	16,372	131	11,852	139
1984 .....	17,657	127	12,390	136
1985 .....	19,577	118	12,613	126
1986 .....	20,852	108	10,941	117
1987 .....	23,618	126	11,987	138
1988 .....	26,039	129	12,801	149
1989 .....	26,893	127	12,834	147
COUNTIES: 1989				
Honolulu .....	20,388	70	8,475	78
Hawaii .....	3,290	33	2,263	40
Kauai .....	1,201	6	663	8
Maui .....	2,014	18	1,433	21

1/ Traffic accidents with damage of \$300 or more or causing injury or death.

Source: Hawaii State Department of Transportation, Highways Division, Major Traffic Accidents, State of Hawaii (annual) and records.

Table 514.-- REGISTERED TAXICABS AND BICYCLES, BY ISLANDS:  
1990

[As of December 31]

Island	Taxicabs <u>1/</u>	Bicycles and mopeds <u>2/</u>
Hawaii .....	110	5,357
Maui .....	157	861
Lanai .....	2	47
Molokai .....	5	80
Oahu .....	1,620	109,834
Kauai .....	-	1,272

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

2/ Number licensed during 1989 and 1990 for Hawaii and Oahu, and during 1990 only for Maui, Lanai, Molokai, and Kauai. 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.

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

Table 515.-- U-DRIVE WEEKDAY AVERAGE DAILY RATES, BY  
SIZE OF PASSENGER CAR, FOR OAHU: 1989 TO 1991

[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

Source: Information provided by listed companies.

Table 516.-- AUTOMOTIVE RENTAL AND LEASING WITHOUT DRIVERS (SIC 751)  
ESTABLISHMENTS WITH PAYROLL, BY COUNTIES: 1987

Subject	State total <u>1/</u>		Counties (SIC 751)			
	SIC 751	SIC 7514	Hono- lulu	Hawaii	Kauai	Maui
No. of establishments ..	101	77	48	19	11	23
Receipts (mil. dol.) ...	243.3	231.1	134.5	23.5	23.9	61.4

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, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a, 4a, 7, and 8a.

Table 517.-- MOTOR CARRIER CHARACTERISTICS, BY COUNTIES: JULY 1991

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 .....	355	2,465	51,864	2,510	12,360
Hawaii .....	21	199	5,165	470	2,332
Maui .....	32	408	9,264	346	1,405
Honolulu .....	289	1,660	32,779	1,525	7,859
Kauai .....	13	198	4,656	169	764

1/ Includes mostly tour bus operators; excludes public transit (such as MTL, Inc.), 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 518.-- PUBLIC TRANSIT, FOR OAHU: 1980 TO 1990

[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)
1980 .....	400	16,579,392	71,601,744	17,388,760
1981 .....	400	16,748,338	73,546,802	17,991,735
1982 .....	400	16,767,816	74,109,528	18,269,144
1983 .....	395	16,654,568	75,051,618	18,157,876
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

1/ Estimated number of revenue vehicle miles.

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

Source: MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 519.-- PUBLIC TRANSIT PASSENGERS, BY FARE CATEGORY, AND AVERAGE BUS SPEED, FOR OAHU: 1988 TO 1990

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

Fare category	1988	1989	1990
All passengers .....	74,467,760	74,964,453	75,648,930
Adults, full fare .....	43,182,518	43,699,952	44,508,635
Students .....	11,533,291	11,558,225	11,301,854
School subsidy .....	311,027	242,201	212,211
Stadium express .....	10,309	11,249	7,894
Senior citizens and handicapped .....	14,197,265	14,319,192	14,454,242
Chartered service .....	4,967	-	-
Free transfers .....	5,228,383	5,133,592	5,164,094
Average bus speed (m.p.h.)	15.0	15.0	15.0

Source: MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 520.-- BUS FARE CHRONOLOGY, FOR OAHU: 1971 TO 1991

[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 <u>3/</u> .....	.60	.25	15.00	7.50

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 15, 1991.

Source: City and County of Honolulu, Department of Transportation Services, records.

Table 521.-- STEAM RAILROAD MILEAGE AND PASSENGERS:  
1980 TO 1990

[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
1980 ....	6	111,699	1986 ....	6	215,735
1981 ....	6	128,178	1987 ....	6	244,555
1982 ....	6	155,059	1988 ....	6	285,139
1983 ....	6	171,892	1989 ....	6	296,391
1984 ....	6	197,876	1990 ....	6	308,910
1985 ....	6	199,759			

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

Table 522.-- AIRPORTS AND HELIPORTS, BY CONTROL, BY ISLANDS:  
DECEMBER 31, 1990

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

1/ Excludes private airports (not available).

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

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

Table 523.-- AIRCRAFT OPERATIONS FOR SPECIFIED AIRPORTS:  
1980 TO 1990

[An aircraft operation is an aircraft arrival or departure]

Year	Honolulu International Airport	Hilo International Airport <u>1/</u>	Keahole Airport	Kahului Airport	Lihue Airport	Molokai Airport
1980 .....	375,408	49,969	66,944	111,573	62,829	67,761
1981 .....	339,359	53,274	57,488	102,760	59,404	61,876
1982 .....	308,728	47,964	51,889	112,428	65,305	69,142
1983 .....	333,038	54,470	66,581	124,288	71,739	54,882
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

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

Source: ~~follows next table.~~ HAWAII STATE DEPARTMENT OF TRANSPORTATION, AIRPORTS DIVISION, RECORDS

Table 524.-- RANK OF HONOLULU INTERNATIONAL AIRPORT IN OPERATIONS AND ENPLANED PASSENGERS: 1988 AND 1989

Subject	Rank <u>1/</u>		Number	
	1988	1989	1988	1989
Total aircraft operations .....	23	16	376,893	403,738
Air carrier operations .....	23	19	184,856	194,354
Total enplaned passengers <u>2/</u> ...	15	14	8,396,313	8,943,521

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: FAA Statistical Handbook of Aviation for 1988 (pp. 24 and 82) and 1989 (pp. 2-18 and 4-33).

Table 525.-- AIRCRAFT OPERATIONS, BY TYPE OF AIRCRAFT, AT MAJOR STATE OWNED AIRPORTS: 1990

[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 ..	407,048	194,357	57,506	122,349	32,836
Hilo International .....	98,755	19,709	42,249	23,550	13,247
Kahului .....	182,686	56,532	75,923	44,209	6,022
Lihue .....	113,860	34,656	63,754	8,230	7,220
Keahole .....	60,086	27,608	10,838	17,504	4,136
Molokai .....	43,509	12	33,145	9,121	1,231

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

Table 526.-- TRANSPACIFIC AND INTERISLAND AIR CARRIERS SERVING HAWAII: 1988 TO 1991

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

Service	1988	1989	1990	1991
All carriers .....	34	44	43	43
Transpacific only .....	25	27	26	25
Domestic .....	10	12	11	10
Foreign .....	15	15	15	15
Transpacific and interisland .....	2	5	4	5
Interisland only .....	7	12	13	13
Passenger carriers .....	5	8	9	9
Cargo and mail only .....	2	4	4	4

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

Table 527.-- CIVIL FLYING: 1986 TO 1989

Item	1986	1987	1988	1989
Aircraft facilities, Dec. 31 .....	51	54	54	53
Airports .....	34	35	35	34
Heliports .....	17	19	19	19
Public aircraft facilities, Dec. 31 ...	18	18	18	17
Paved and lighted facilities, Dec. 31 .	12	12	12	12
Large aircraft in operation, Dec. ....	54	57	51	51
Aloha Airlines .....	11	10	12	13
Hawaiian Airlines .....	24	29	31	31
Mid Pacific Airlines .....	19	18	8	7
General aviation: 1/				
Active civil aircraft, Dec. ....	366	486	600	519
Standard error .....	118	140	153	119
Hours flown (1,000) .....	182	163	426	290
Standard error (1,000) .....	81	75	133	96
Active personnel, Dec. 31:				
Pilots, except instructors .....	3,327	3,373	3,598	3,814
Flight instructors .....	246	271	293	284
Nonpilot airmen 2/ .....	2,609	2,778	3,008	3,185

1/ Aircraft based in Hawaii. Data based on samples with specified standard errors.

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 528.-- OVERSEAS AND INTERISLAND AIR  
PASSENGER MOVEMENTS: 1980 TO 1990

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

Year	Overseas passengers <u>1/</u>			Inter- island passenger arrivals
	Arrivals	Departures	Through	
1980 ..	4,270,633	4,174,739	1,118,987	6,737,894
1981 ..	4,290,752	4,292,159	1,032,264	6,724,113
1982 ..	4,669,747	4,641,716	882,832	7,327,447
1983 ..	4,760,459	4,714,689	777,490	7,037,687
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

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

Source: Hawaii State Department of Trans-  
portation, Airports Division, records.

Table 529.-- PASSENGERS, CARGO, AND MAIL, OVERSEAS AND INTERISLAND,  
BY AIRPORT: 1990

Airport	Passengers <u>1/</u>		Cargo (tons)		Mail (tons)	
	Enplaned	Deplaned	Enplaned	Deplaned	Enplaned	Deplaned
OVERSEAS		<i>ARRIVALS</i>		<i>ARRIVALS</i>		<i>ARRIVALS</i>
Total .....	7,562,156	7,310,635	147,663	168,862	16,011	19,099
Honolulu .....	6,837,726	6,549,459	138,797	157,376	16,011	19,099
Hilo .....	-	-	177	83	-	-
Kahului .....	550,169	567,073	5,418	7,748	-	-
Keahole .....	109,947	119,265	3,012	2,436	-	-
Lihue .....	64,314	74,838	259	1,219	-	-
INTERISLAND						
Total .....	9,907,154	9,907,154	72,709	72,709	11,424	11,424
Honolulu .....	4,445,160	4,470,017	49,309	20,979	6,786	4,529
Hilo .....	721,104	739,506	14,247	10,887	1,231	1,680
Upolu .....	5	8	-	7	-	-
Waimea-Kohala ...	7,312	7,187	100	39	-	-
Keahole .....	987,598	961,886	3,159	8,683	922	1,379
Kahului .....	1,920,221	1,899,508	3,883	18,770	1,616	2,501
Hana .....	11,216	11,005	-	34	-	-
Molokai .....	164,472	166,777	328	455	65	26
Kalaupapa .....	6,315	5,929	-	4	-	-
Lanai .....	56,240	56,599	31	579	6	-
Lihue .....	1,358,837	1,350,334	1,487	11,774	798	1,309
Other airports <u>2/</u>	228,674	238,398	165	498	-	-

1/ Revenue and non-revenue, excluding Military Airlift Command (MAC). Also excludes overseas passengers in transit (1,065,408, all passing through Honolulu International Airport).

2/ Privately owned.

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



Table 530.-- AIR CARGO AND AIRMAIL: 1980 TO 1990

[In thousands of pounds]

Calendar year	Overseas air cargo		Overseas airmail		Interisland	
	Out-going	In-coming	Out-going	In-coming	Air cargo: incoming	Airmail: incoming
1980 .....	130,586	114,673	21,105	19,581	138,008	13,576
1981 .....	151,513	101,301	22,388	19,887	132,559	14,131
1982 .....	155,278	105,388	21,280	25,006	114,038	15,014
1983 .....	174,582	136,354	23,620	28,288	109,828	16,024
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

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

Table 531.-- HELICOPTER TOURS: 1977 TO 1991

Subject	1977	1982	1987	1988	1989	1990	1991
Companies .....	9	14	36	36	36	37	33
Aircraft .....	15	26	71	74	74	78	90

Source: Hawaii Helicopter Operators Association, records.

Table 532.-- FLIGHTS SCHEDULED TO DEPART HONOLULU INTERNATIONAL AIRPORT, BY DESTINATION: APRIL 1991

[Data for the 569 transpacific flights scheduled to depart from Honolulu during a one-week period]

Destination	Flights during week		
	Total	Final destination	Intermediate point
Tokyo .....	80	75	5
Osaka .....	20	20	-
Taipei .....	10	5	5
Manila .....	15	15	-
Sydney .....	40	26	14
Auckland .....	22	8	14
Melbourne .....	14	14	-
Guam .....	12	12	-
Vancouver .....	22	22	-
Seattle .....	23	16	7
Portland .....	7	7	-
San Francisco .....	74	64	10
Los Angeles .....	152	126	26
Denver .....	9	7	2
Dallas/Fort Worth .....	19	12	7
Chicago .....	21	21	-
Atlanta .....	12	12	-
New York .....	7	7	-
All others .....	141	100	41

Source: Greeters of Hawaii, Jiffisked<sup>[tm]</sup> April 1991. Courtesy of Greeters of Hawaii, P. O. Box 29638, Honolulu, HI 96820.

Table 533.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR FLIGHTS  
BY UNITED AIRLINES BETWEEN SAN FRANCISCO AND HONOLULU: 1981 TO 1991

[Updated to September 13, 1991. For historical data, see Robert C. Schmitt,  
What People Paid to Travel (Hawaiian Historical Society, 1991), pp. 40-41]

Effective date of change in fare	Regular one-way fares, including taxes (dollars)			Flight time <sup>1/</sup> (hours, min.)
	First class	Coach, weekend	Coach weekday	
1981: Jan. 20 ...	384.12	265.08	265.08	5:02
Mar. 31 ...	415.12	286.09	286.09	5:02
June 17 ...	425.13	296.09	296.09	5:02
Oct. 1 ....	392.12	280.08	280.08	5:00
1982: Mar. 1 ....	412.12	219.07	219.07	5:00
Apr. 1 ....	412.12	310.09	310.09	5:00
June 1 ....	412.12	328.10	328.10	5:00
Sept. 1 ...	415.16	331.13	331.13	5:00
1983: June 15 ...	415.16	353.14	353.14	5:00
1984: Sept. ....	415.00	353.14	353.14	5:00
Oct. ....	415.00	353.00	353.00	5:02
Dec. ....	454.00	364.00	364.00	5:02
1986: Nov. 14 ...	576.00	459.00	459.00	5:03
1987: Apr. 11 ...	588.00	469.00	469.00	5:00
June 5 ....	598.00	479.00	479.00	5:00
June 30 ...	605.00	486.00	486.00	5:00
Aug. 7 ....	613.00	494.00	494.00	5:00
1989: Feb. 4 ....	718.00	514.00	514.00	5:06
June 3 ....	733.00	524.00	524.00	5:05
1990: Jan. 4 ....	762.00	545.00	545.00	5:05
Feb. 14 ...	771.00	554.00	554.00	5:05
March 2 ...	777.00	560.00	560.00	5:05
Sept. 1 ...	818.00	589.00	589.00	5:05
Oct. 2 ....	852.00	613.00	613.00	5:05
Nov. 3 ....	901.00	648.00	648.00	5:05
1991: July 1 ....	895.00	642.00	642.00	5:05

<sup>1/</sup> Average scheduled flight time eastbound and westbound, by B-747 or DC-10 aircraft. Flight time varies seasonally.

Source: United Airlines, records.

Table 534.-- AIR FARES BETWEEN HONOLULU AND LOS ANGELES, SAN FRANCISCO,  
AND SEATTLE, FOR MAJOR AIRLINES: JULY 1, 1991

[Dollars. Includes taxes]

Carrier and fare category	Los Angeles	San Francisco	Seattle
United Airlines, one-way:			
First class .....	946	895	987
Coach (unrestricted) .....	633	642	708
United Airlines, round-trip:			
First class .....	1,892	1,790	1,974
Coach (unrestricted) .....	1,266	1,284	1,416
Major carriers, lowest round-trip:			
United Airlines <u>1/</u> .....	438	438	528
Lowest carrier .....	359	359	359
Highest carrier .....	608	688	708
Average .....	468	495	532

1/ Coach fare, restricted. Requires 14-day advance notice, departure only on Tuesday, Wednesday, or Thursday, and 30-day maximum stay. No one-way fare available.

Source: United Airlines, records.

Table 535.-- ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR INTERISLAND FLIGHTS BY HAWAIIAN AIRLINES: 1990 TO 1991

[Updated to August 28, 1991]

Effective date of change in fare	One-way fares <u>1/</u> (dollars)		
	Regular	Kamaaina	
1990: January 1 .....	49.95	44.95	
June 16 .....	54.95	49.95	
July 24 .....	56.95	39.50	
August 16 .....	56.95	42.00	
August 26 .....	56.95	45.00	
September 15 .....	58.95	54.95	
December 1 .....	63.00	49.95	
December 4 .....	62.95	54.95	
1991: May 3 .....	69.95	54.95	
May 15 .....	62.95	54.95	
June 14 .....	65.95	54.95	
June 21 .....	65.95	57.95	
	Flight time between Honolulu and-- <u>2/</u>		
Aircraft	Lihue	Kahului	Hilo
DC-9 .....	30	32	46
DASH-7 .....	41	43	71

1/ Fares are identical between Honolulu and each of the Neighbor Islands. "Kamaaina" fares are available only to Hawaii residents. 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 II, pp. 38-39.

2/ Average scheduled nonstop flight times (eastbound and westbound averaged), in minutes.

Source: Hawaiian Airlines, tariff records and Schedule and Planning Division.

Table 536.-- STATE COMMERCIAL HARBORS: 1991

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	496
Kawaihae .....	40	35	1,500	1,450	1,012	23	166
Maui:							
Kahului .....	35	35	2,400	2,050	3,019	124	703
Molokai:							
Kaunakakai ....	23	23	1,500	600	691	10	123
Oahu:							
Honolulu:							
Main .....	45	40	3,300	1,520	28,007	1,733	7,812
Kapalama ....			3,400	1,000			
Barbers Point .	42	38	2,100	1,800	1,600	-	1,280
Kauai:							
Nawiliwili ....	40	35	1,950	1,540	1,291	66	291
Port Allen ....	35	35	1,500	1,200	1,200	35	32

Source: Hawaii State Department of Transportation, Harbors Division, unpublished data, November 5, 1991.

Table 537.-- SMALL CRAFT MOORING FACILITIES CAPACITY, BY ISLANDS:  
1990-1991

Island	State-operated <u>1/</u>				Non-State <u>2/</u>	
	Catwalks and piers		Other moorage		Slips	Other moorage <u>3/</u>
	Total	Vacant	Total	Vacant		
State total ...	1,457	134	756	105	1,355	749
Hawaii .....	14	3	370	34	-	100
Maui .....	48	7	145	9	-	-
Lanai .....	28	5	-	-	-	-
Molokai .....	3	1	29	11	-	-
Oahu .....	1,282	104	176	35	1,355	-
Kauai .....	82	14	36	16	-	-

1/ As of December 31, 1990. At that time, 2,013 vessels were moored (1,323 at catwalks and piers, 690 at other moorage), and valid applications on file numbered 2,851.

2/ As of March 4, 1991. Totals for 15 organizations controlling moorage.

3/ Includes moorings (82), ramps (8), and dry storage (659).

Source: Hawaii State Department of Transportation, Harbors Division, Boating Branch, Small Craft Mooring Facilities Utilization Report (quarterly), and records.

Table 538.-- LIGHTHOUSES AND RELATED FACILITIES, BY ISLANDS: 1991

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

Island	Number of aids to navigation			Light-houses	Greatest nominal range (naut. miles)	Highest above--	
	By control					Sea level (feet)	Ground (feet)
	Total	Federal	Private				
Total .	430	300	130	22	<u>1/</u> 25	<u>2/</u> 931	<u>3/</u> 138
Hawaii .....	63	50	13	7	24	156	115
Maui .....	44	27	17	4	24	170	48
Molokini ...	1	1	-	-	7	182	30
Kahoolawe .	1	1	-	-	7	120	20
Lanai .....	14	8	6	-	8	91	13
Molokai ....	18	10	8	1	25	213	138
Oahu .....	219	150	69	4	25	913	71
Kauai .....	39	22	17	6	25	174	80
Niihau .....	-	-	-	-	-	-	-
Lehua .....	1	1	-	1	7	704	10
Midway .....	25	25	-	-	4	43	(NA)
At sea .....	5	5	-	-	-	-	-

NA Not available.

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

2/ Kaena Point Light.

3/ Molokai Light.

Source: 14th Coast Guard District, April 16, 1991.



Table 539.-- UNDOCUMENTED STATE-REGISTERED VESSELS: DECEMBER 31, 1990

Subject	Number	Subject	Number
Certificates outstanding .	14,081	Type of vessel:	
Length:		Cabin motorboat .....	2,336
Under 16 feet .....	5,581	Open motorboat .....	5,367
16 to less than 26 feet .....	6,978	Runabout .....	2,863
26 to less than 40 feet .....	1,319	Sail/inboard .....	557
40 feet and over.....	203	Sail/outboard .....	576
Median (feet) .....	18.1	Sail only .....	1,098
Hull material:		Motor vessel over 65 feet .	7
Wood .....	1,235	Other .....	1,277
Fiberglass .....	10,928	Uses:	
Metal .....	541	Pleasure .....	12,161
Inflatable .....	1,147	Commercial fishing .....	1,038
Other .....	230	Charter fishing .....	27
Propulsion:		Commercial passenger .....	243
Inboard .....	935	Other commercial .....	63
Outboard .....	8,427	Livery .....	219
Inboard/outboard .....	2,090	Dealer or manufacturer ....	43
Sail/inboard .....	557	Youth group .....	44
Sail/outboard .....	576	Government .....	190
Sail only .....	889	Other .....	53
Manual .....	256	Island kept:	
Other .....	351	Hawaii .....	1,980
Type of storage:		Kauai .....	1,181
On water .....	2,367	Lanai .....	56
On land .....	11,714	Maui .....	1,238
		Molokai .....	473
		Oahu .....	9,153

Source: Hawaii State Department of Transportation, Harbors Division, Report of Undocumented Vessel Registration (annual).

Table 540.-- DOCUMENTED AND NUMBERED VESSELS REGISTERED IN HAWAII:  
1986 TO 1991

Category	1986	1987	1988	1989	1990	1991
Documented <sup>1/</sup> .....	1,348	1,389	1,380	1,600	1,700	1,800
Numbered <sup>2/</sup> .....	14,052	14,008	14,250	13,501	14,081	...

<sup>1/</sup> 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.

<sup>2/</sup> 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 541.-- BOATING ACCIDENTS: 1985 TO 1990

Year	Number of accidents		Number of persons		Number of vessels involved	Amount of damage (\$1,000)
	Total	Fatal	Killed	Injured non-fatally		
1985 .....	41	2	5	10	50	417.3
1986 .....	54	3	3	14	69	293.0
1987 .....	62	1	2	18	76	720.2
1988 .....	31	4	5	11	41	209.6
1989 .....	40	1	1	28	48	216.8
1990 .....	21	2	3	6	25	271.7

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.

Table 542.-- HARBOR DEPTHS AND VESSEL ARRIVALS, BY DRAFT: 1989

[Excludes domestic fishing craft]

Harbor	Controlling depth (feet)		Inbound vessels, by draft		
	Entrance channel	Basin	Total	18 feet and less	19 feet and more
Hilo .....	...	34	1,445	1,278	167
Kawaihae .....	42	36	800	792	8
Kahului .....	...	34	1,766	1,630	136
Kaunakakai .....	...	...	738	738	-
Kalaupapa .....	...	...	8	8	-
Honolulu .....	45	40	<u>1/</u> 7,104	6,415	689
Barbers Point ..	42	37	558	475	83
Nawiliwili .....	41	34	1,079	966	113
Port Allen .....	...	...	100	(NA)	(NA)

NA Not available.

1/ By type of vessel: self propelled, 4,195 (1,133 passenger and dry cargo, 70 tanker, 2,992 towboat or tugboat); non-self propelled, 2,909 (2,335 dry cargo, 574 tanker).

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1989, Part 4 (1991), pp. 30-36 and 111-112.

Table 543.-- SHIP ARRIVALS AT THE PORT OF HONOLULU:  
1981 TO 1991

[Years ended June 30]

Year	Overseas vessels		Interisland vessels	
	Number	Gross tonnage	Number	Gross tonnage
1981 .....	1,968	10,959,161	2,597	2,670,405
1982 .....	1,943	9,604,985	2,496	2,598,632
1983 .....	1,775	10,406,544	2,662	2,623,321
1984 .....	1,686	10,397,905	2,660	3,649,085
1985 .....	1,749	9,398,179	2,412	4,480,660
1986 .....	1,825	9,450,373	2,697	4,913,219
1987 .....	2,080	9,974,948	2,848	5,200,667
1988 .....	2,014	10,548,893	3,172	(NA)
1989 .....	2,024	11,219,662	3,101	(NA)
1990 .....	2,159	11,752,880	3,212	(NA)
1991 .....	2,066	13,862,771	3,190	(NA)

NA Not available.

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

Table 544.-- OVERSEAS AND INTERISLAND PASSENGER ARRIVALS AND DEPARTURES, FOR HONOLULU HARBOR: 1986 TO 1991

[Fiscal years ended June 30]

Type of passenger	1986	1987	1988	1989	1990	1991
Overseas:						
In .....	6,537	8,681	5,815	15,993	9,770	17,503
Out .....	6,190	8,103	5,350	16,716	9,084	17,812
Interisland:						
In .....	84,943	71,049	77,731	78,710	67,199	67,409
Out .....	82,895	69,337	71,804	78,711	67,199	67,409

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

Table 545.-- OVERSEAS AND INTERISLAND SHIPPING: 1986 TO 1989

[In short tons]

Calendar year	Overseas cargo			Interisland cargo		
	Total	In	Out	Total	In	Out
1986 ...	10,521,866	8,451,641	2,070,225	8,464,107	4,241,904	4,222,203
1987 ...	12,379,815	9,767,966	2,611,849	10,358,749	5,071,134	5,287,615
1988 ...	13,140,832	11,019,824	2,121,008	10,844,603	5,267,754	5,576,849
1989 ...	12,139,988	10,411,122	1,728,866	11,483,387	5,653,950	5,829,437

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States (annual) and printouts, as tabulated by the Hawaii State Department of Transportation, Harbors Division.

Table 546.-- FREIGHT AND PASSENGER TRAFFIC FOR SPECIFIED HARBORS: 1985 TO 1989

Harbor	1985	1986	1987	1988	1989
FREIGHT <u>1/</u> (SHORT TONS)					
Hilo .....	1,318,518	1,198,692	1,365,768	1,455,589	1,569,142
Kawaihae .....	526,639	592,018	871,202	654,600	732,392
Kahului .....	1,516,509	1,626,650	2,035,247	2,156,631	2,278,516
Honolulu .....	7,986,133	8,603,760	9,736,688	10,654,845	10,360,134
Barbers Point .....	6,751,709	5,629,312	7,135,064	7,511,140	7,374,418
Nawiliwili .....	933,477	745,396	916,422	875,753	1,038,452
PASSENGERS <u>2/</u>					
Hilo .....	-	-	-	-	9,082
Kahului .....	-	-	-	-	9,083
Honolulu .....	1,102,398	708,268	154,082	825,377	626,671
Nawiliwili .....	-	-	-	-	9,082

1/ Excludes cargo carried by Army and Navy vessels and cargo in transit.

2/ Total arrivals and departures for transpacific, interisland, and local travel.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1989, Part 4 (1991), pp. 30-37.

Table 547.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1989

[In short tons. Commodities under 150,000 tons not shown separately]

Harbor and commodity	Total <u>1/</u>	Foreign		Interstate		Interisland	
		Imports	Exports	Receipts	Shipments	Receipts	Shipments
Hilo .....	1,569,142	31,291	-	49,451	64,864	1,109,320	314,216
Residual fuel oil .....	214,993	-	-	214,993	-	214,993	-
Fabricated metal products	305,600	-	-	305,600	40	174,172	131,388
Kawaihae .....	732,392	10,788	1,419	12,861	82,699	432,726	191,899
Fabricated metal products	156,712	-	-	(NA)	(NA)	(NA)	(NA)
Kahului .....	2,278,516	12,888	10,514	51,190	137,387	1,598,297	468,240
Sugar .....	155,021	-	-	-	137,387	21	17,613
Fabricated metal products	433,848	382	3	790	-	283,612	149,061
Motor vehicles, parts, and equipment .....	198,881	1,990	-	102	-	124,793	71,996
Barbers Point .....	7,374,418	3,709,321	148,505	2,723,379	167,694	42,140	493,600
Crude petroleum .....	5,862,212	3,491,896	-	2,370,316	-	-	-
Residual fuel oil .....	934,406	216,959	100,606	262,435	12,498	24,338	228,191
Petro. & coal prod. NEC .	204,839	-	-	-	-	1,816	203,023
Honolulu .....	10,360,134	815,645	192,764	2,968,090	795,743	1,593,070	3,827,048
Fresh fruits .....	257,374	2,868	190	24,713	77,049	149,132	3,422
Meat, fresh, chill, froz.	167,562	7,199	2,370	129,063	2,928	2,064	23,938
Vegetables & prep. NEC ..	202,757	5,234	575	112,194	6,047	45,988	32,719
Prepared fruit & vege- table juice NEC .....	389,612	3,299	3,476	8,109	251,810	122,682	236
Molasses .....	200,351	-	26,070	-	134,605	37,903	1,773
Alcoholic beverages .....	234,427	7,127	936	181,576	561	4	44,223
Misc. food products .....	329,712	4,860	7,344	40,052	3,146	108,759	165,551
Lumber .....	243,943	563	2,251	165,799	1,594	3,506	70,230
Pulp & paper prod. NEC ..	155,626	928	400	104,185	73	1,618	48,422

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Continued on next page.

Table 547.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1989 -- Con.

Harbor and commodity	Total <u>1/</u>	Foreign		Interstate		Interisland	
		Imports	Exports	Receipts	Shipments	Receipts	Shipments
Honolulu - Con.							
Gasoline .....	228,628	16,610	142	40,788	30,697	4,451	135,940
Jet fuel .....	261,808	-	-	186,438	-	4,793	70,577
Distillate fuel oil .....	335,526	-	168	82,207	2,855	25,326	220,248
Residual fuel oil .....	698,293	-	38,552	-	-	169,400	335,999
Petro. & coal prod. NEC .	210,402	2	-	18,344	-	16,471	175,035
Building cement .....	434,705	257,690	278	9,442	-	11	167,284
Fabricated metal product	1,291,524	2,693	351	72,587	642	471,440	743,811
Motor vehicles, parts, equipment .....	832,710	38,729	848	135,286	45,043	184,951	427,853
Nawiliwili .....	1,038,452	7,275	-	17,744	127,277	655,619	230,537
Fabricated metal products	287,967	499	-	-	-	163,312	124,156
Kalaupapa .....	1,687	-	-	-	-	1,238	449
Kaunakakai .....	144,494	-	-	1,199	-	97,511	45,784
Port Allen .....	131,592	-	-	-	-	124,029	111

NA Not available.

NEC Not elsewhere classified.

1/ Includes internal and local movements, not separately shown in this table: 89,779 tons at Barbers Point and 167,774 tons at Honolulu.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1989, Part 4 (June 1991), pp. 30-37, and unpublished printouts.

Table 548.-- SUMMARY STATISTICS FOR TRANSPORTATION SERVICES  
ESTABLISHMENTS: 1987 AND 1989

[Includes only establishments with payroll]

1987 SIC code	Kind of business	No. of establish- ments	Revenue (\$1,000)	Annual payroll (\$1,000)	Paid em- ployees, Mar. 12
	1987				
42	Motor freight transp., warehousing .....	215	192,336	66,389	3,734
44	Water transportation .....	58	147,349	44,168	1,547
47	Transportation services ..	550	241,602	83,405	5,755
	1989				
42	Motor freight transp., warehousing .....	205	(NA)	90,746	4,070
44	Water transportation .....	59	(NA)	71,918	2,883
47	Transportation services ..	550	(NA)	114,254	6,627

NA Not available.

Source: U. S. Bureau of the Census, 1987 Census of Transportation, TC87-S-1 (July 1991), table 1, and County Business Patterns 1989, Hawaii, CBP-89-13 (October 1991), table 1a.