

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 564,000 in 1977 to 798,000 in 1987. Vehicle miles rose during the same period from 4.5 billion to 7.2 billion. Hawaii residents purchased 60,000 new passenger cars and 12,000 trucks in 1987. By the end of that year, 628,000 licensed drivers had access to 4,071 miles of streets and highways throughout the State. Bus passengers carried by the Honolulu Mass Transit Lines increased from 66 million in 1977 to 74 million in 1987. Registered bicycles numbered 111,000 in 1987.

Most scheduled interisland travel is by air. In 1987, airlines and air taxis reported 8.8 million interisland passengers, some 37 percent more than in 1977, and carried 61,000 tons of cargo. The State has seven commercial airports, 15 general aviation, military or semi-private airports, 10 civilian heliports, 3,300 active pilots, and about 366 active civil aircraft in general aviation.

Rapid growth is similarly evident in transpacific air travel. Although surface passenger arrivals dropped from 54,000 in 1959 to 870 in 1987, air arrivals increased during the same 28-year span from 224,000 to 6.3 million. Overseas cargo received in the State in 1986 amounted to 92,000 tons by air and 8.5 million tons by ship.

Undocumented State-registered vessels as of December 31, 1987 numbered 14,000, compared with 8,000 in 1970. Median length was 17.4 feet, and four-fifths were stored on land. There were 1,380 documented vessels in the State in 1988, more than double the 1970 total.

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: 1988, Sections 21 and 22.

Table 517.-- HIGHWAY DISTANCES: 1988

Route	Statute miles	Route	Statute miles
HAWAII		MOLOKAI	
Hilo-Lyman Field	2.0	Kaunakakai-Kaluakoi 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	KAUAI	
Wailuku-Makena	17.6	Lihue-Haena	38.0
Wailuku-Lahaina, via Kahakuloa	38.0	Lihue-Wailua	5.9
Wailuku-Lahaina, via Olowalu .	20.9	Lihue-Lihue Airport	2.0
Kahului-Kihei	7.9	Lihue-Poipu	11.9
Lahaina-Wailea	32.4	Lihue-Mana	32.9
Lahaina-Napili	8.9	Lihue-Kalalau Lookout	44.6
Lahaina-Kaanapali	3.7	Poipu-Kalalau Lookout	36.8
LANAI		Poipu-Princeville	40.7
Lanai City-Lanai Airport	2.7		
Lanai City-Hulopoe	8.0		

^{1/} Honolulu distances measured from King and Bishop Streets; Waikiki, from Kalakāua and Lewers.

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

Table 518.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED:
1923 TO 1987

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

Category	1923	1938	1958	1973	1987
Total mileage ...	1,479	2,040	2,967	3,666	4,071
Paved	565	1,367	2,393	3,172	3,860
Unpaved	914	673	575	494	211

Source: Robert C. Schmitt, *Historical Statistics of Hawaii* (University Press of Hawaii, 1977), p. 429; present report, table 519.

Table 519.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED,
BY ISLANDS: DECEMBER 31, 1987

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

Island	Total mileage	Paved		Unpaved
		Freeways	Other	
State total	4,070.78	96.55	3,762.99	211.25
Hawaii	1,462.93	7.04	1,383.27	72.62
Maui	581.78	3.21	521.87	56.70
Lanai	45.83	-	31.83	14.00
Molokai	129.29	-	117.29	12.00
Oahu	1,460.99	86.30	1,341.25	33.44
Kauai	389.17	-	367.48	22.49
Niihau	-	-	-	-

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

Table 520.-- HIGHWAY BRIDGES, BY ISLANDS: DECEMBER 31, 1987

Island	Number of bridges	Longest bridge		Highest bridge	
		Location	Length (feet)	Location	Height (feet)
State .	1,107	Airport Viaduct	14,890	Nanue	208
Hawaii	254	Hakalau	775	Nanue	208
Maui	155	Kalialinui	324	Uaoa	79
Lanai	-	None .....	...	None .....	...
Molokai	13	Manawainui	325	Manawainui	50
Oahu	607	Airport Viaduct .	14,890	Kipapa	156
Kauai	78	Kalihiwai	798	Wahiawa, Koloa ..	90

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

Table 521.-- HIGHWAY TUNNEL LENGTHS: DECEMBER 31, 1987

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 522.-- SIGNALIZED INTERSECTIONS AND METERED PARKING SPACES,
BY ISLANDS: DECEMBER 31, 1985

Type of facility	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Signalized intersections	580	38	18	-	-	516	8
Metered on-street parking spaces	3,630	816	-	-	-	2,814	-
Metered off-street parking spaces <u>1/</u>	3,226	277	68	-	18	2,797	66

1/ Limited to spaces under State or county control. Excludes about 900 spaces on Oahu converted to contract operation.

Source: Compiled by Hawaii State Department of Planning and Economic Development from Hawaii State Department of Accounting and General Services, Hawaii State Department of Transportation, City and County of Honolulu Department of Transportation Services, Hawaii County Department of Public Works, Kauai County Department of Public Works, and Maui County Department of Public Works.

Table 523.-- VEHICLE DENSITIES: 1923 TO 1987

Measure	1923	1938	1958	1973	1987
Motor vehicles per --					
1,000 persons <u>1/</u>	65.6	151.2	330.9	529.0	664.7
Mile of street or highway	13.3	30.4	68.2	130.0	196.1
Persons per <u>1/</u> --					
Motor vehicle	15.2	6.6	3.0	1.9	1.5
Mile of street or highway	202.5	201.0	206.2	245.9	295.0

1/ Based on resident population through 1938 and de facto population thereafter.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), tables 1.4 and 17.2; present report, tables 3, 518, and 524.

Table 524.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1977 TO 1987

[Taxable and non-taxable, including military non-resident exempt vehicles]

Year	All vehicles registered	Motor vehicles			
		All motor vehicles	Passenger vehicles <u>1/</u>	Ambulances, hearses, patrol wagons	Buses
1977	580,380	563,964	475,368	81	2,888
1978	599,990	583,601	489,878	84	3,052
1979	626,841	610,570	510,353	91	3,267
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
Motor vehicles -- continued					
Year	Trucks <u>1/</u>	Truck tractors, tow trucks	Truck crane, misc.	Motorcycles, motor scooters <u>2/</u>	Trailers and semi-trailers
1977	73,762	1,848	609	9,408	16,416
1978	78,447	1,809	560	9,771	16,389
1979	84,578	1,784	511	9,986	16,271
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

Footnotes and source on next page.

Table 524.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE:
1977 TO 1987 -- Con.

NA Not available.

1/ Beginning in 1979, vans and other trucks under 6,500 lb. 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, unpublished tabulations, provided by the Hawaii State Department of Transportation, Motor Vehicle Safety Office; present report, table 527.

Table 525.-- MOTOR VEHICLES REGISTERED, BY COUNTIES:
1977 TO 1987

[Taxable and non-taxable, including military non-resident exempt vehicles. Includes passenger cars, buses, trucks, and motor-cycles but excludes trailers and semi-trailers]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1977	563,964	424,892	60,374	26,920	51,778
1978	583,601	436,347	63,025	27,614	56,615
1979	610,570	452,449	67,718	29,492	60,911
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

Source: City and County of Honolulu, Department of Data Systems, unpublished tabulations provided by the Hawaii State Department of Transportation, Motor Vehicle Safety Office; present report, table 527.

Table 526.-- PASSENGER VEHICLES REGISTERED, BY COUNTIES:
1977 TO 1987

[Taxable and non-taxable, including military non-resident exempt vehicles. Excludes ambulances, hearses, buses, trucks, motorcycles, and trailers]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1977	475,368	367,398	46,072	21,001	40,897
1978	489,878	376,260	47,764	21,411	44,443
1979 <u>1/</u> ...	510,353	388,788	51,159	22,790	47,616
1980	514,669	389,576	52,682	23,561	48,850
1981	541,932	409,305	57,397	25,363	49,867
1982	566,060	429,244	59,103	26,297	51,416
1983	(NA)	(NA)	(NA)	(NA)	(NA)
1984	599,845	447,872	63,182	27,376	61,415
1985	625,823	460,906	68,602	29,890	66,425
1986	642,636	466,938	73,356	32,853	69,489
1987	661,674	475,140	76,655	35,862	74,017

NA Not available.

1/ Beginning in 1979, vans and other trucks under 6,500 lb. in personal use were legally classified as passenger vehicles, but the 1979 and subsequent data shown here have been adjusted to continue inclusion of such vehicles in the totals for trucks.

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

Table 527.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE, FOR COUNTIES:
1987 AND 1983

[Taxable and non-taxable, including military non-resident exempt vehicles]

Type of vehicle	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1987					
All vehicles	818,430	582,807	97,656	46,091	91,876
Motor vehicles	798,317	571,738	93,095	43,925	89,559
Passenger vehicles <u>1/</u>	661,674	475,140	76,655	35,862	74,017
Ambulances <u>2/</u>	54	39	11	1	3
Buses	4,198	3,332	249	122	495
Trucks <u>1/</u>	119,338	83,307	14,552	7,386	14,093
Truck tractors <u>3/</u>	1,220	608	287	124	201
Truck cranes <u>4/</u>	318	124	78	32	84
Motorcycles <u>5/</u>	11,515	9,188	1,263	398	666
Trailers and semi-trailers ..	20,113	11,069	4,561	2,166	2,317
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/ Vans and other trucks under 6,500 lb. in personal use, legally classified as passenger vehicles, are included in the trucks category.

2/ Including hearses and patrol wagons.

3/ Including tow trucks.

4/ Including miscellaneous vehicles.

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

Source: 1987 from City and County of Honolulu, Department of Data Systems, unpublished tabulation provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office; 1983 from Applied Analysis, Inc., Estimating Annual Vehicle-miles Traveled (VMT) in the State of Hawaii (August 1987), and records.

Table 528.-- AUTOMOBILES, TRUCKS, AND VANS AVAILABLE TO OCCUPIED HOUSING UNITS, BY COUNTIES: 1980

Number of vehicles available	The State	Hawaii	Honolulu	Kalawao	Kauai	Maui
Occupied units	294,052	29,237	230,214	71	12,020	22,510
None	30,509	2,463	25,628	8	788	1,622
1	115,357	9,193	95,735	18	3,209	7,202
2	94,699	10,775	71,456	25	4,440	8,003
3 or more	53,487	6,806	37,395	20	3,583	5,683

Source: U.S. Bureau of the Census, 1980 Census of Housing, Detailed Housing Characteristics, Hawaii, HC80-1-B13 (May 1983), tables 61 and 94.

Table 529.-- TAXABLE VEHICLES, BY TYPE AND EMPTY WEIGHT: 1987

Empty weight	Passenger vehicles	Buses	Trucks ^{1/}	Truck tractors, tow trucks	Motorcycles	Trailer
All taxable vehicles	595,592	2,747	38,942	668	6,349	13,302
Under 2,000 lb.	45,047	-	23	-	6,345	10,147
2,000 to 2,999 lb.	323,053	43	8,881	9	1	477
3,000 to 3,999 lb.	181,651	80	11,648	9	2	174
4,000 to 4,999 lb.	42,226	776	8,919	9	1	170
5,000 to 5,999 lb.	2,959	858	2,338	13	-	194
6,000 to 9,999 lb.	423	343	3,358	95	-	900
10,000 lb. and over	233	647	3,775	533	-	1,240
Median weight (lb.)	2,782	5,553	3,907	14,141	<2,000	<2,000

^{1/} Vans and other trucks under 6,500 lb. in personal use are classified as passenger vehicles.

Source: Hawaii State Department of Transportation, Highways Division, Staff Services Office, Budget, Methods and Systems Staff; printouts from Honolulu Department of Data Systems. Medians calculated by Hawaii State Department of Business and Economic Development.

Table 530.-- TRUCK CHARACTERISTICS: 1972, 1977, AND 1982

[Percent]

Vehicular and operational characteristics	1972	1977	1982 ^{1/}
Major use: Personal transportation	37.6	50.0	54.3
Body type: Pickup, panel, multistop, or walk-in .	73.5	86.4	89.6
Vehicle size: Light	71.6	89.0	92.9
Annual miles: Less than 10,000	59.8	54.1	59.7
Year model: Over 4 years old	59.3	68.1	75.8
Vehicle acquisition: Purchased new	55.9	54.6	47.3
Fleet size: 1 truck	53.4	64.0	72.3
Truck type: Single-unit, 2 axles	91.2	95.7	96.6
Range of operation: Local	84.6	87.3	78.2
Fuel type: Diesel and LPG	6.2	4.6	3.7

^{1/} There were 120,000 trucks in Hawaii in 1982, which traveled 1,071,700,000 truck miles, or 8,900 per truck.

Source: U.S. Bureau of the Census, 1982 Census of Transportation, Truck Inventory and Use Survey, Hawaii, TC82-T-12 (June 1985), tables 1 and 2.

Table 531.-- NEW PASSENGER CARS AND MOTOR TRUCKS REGISTERED: 1982 TO 1987

Year	Total	Passenger cars	Motor trucks
1982	44,489	37,137	7,352
1983	52,927	42,772	10,155
1984	63,625	48,791	14,834
1985	67,875	51,330	16,545
1986	68,060	49,680	18,380
1987	73,138	51,446	21,692

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 532.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS,
BY COUNTIES: 1985 TO 1987

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

Source: Hawaii Automobile Dealers' Association, 1988 HADA Yearbook, p. 10.

Table 533.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS,
BY MAKE, 1987, AND RANK, 1985 TO 1987

Make	New registrations, 1987			Rank		
	Total	Passenger cars	Trucks	1985	1986	1987
All makes ..	71,987	60,232	11,755	...	...	...
Toyota	10,517	8,844	1,673	1	1	1
Nissan	9,970	8,063	1,907	2	2	2
Ford	9,170	6,732	2,438	4	3	3
Chevrolet	7,690	6,322	1,368	3	4	4
Honda	6,043	6,043	-	5	5	5
Dodge	4,369	3,206	1,163	7	7	6
Mazda	3,163	2,372	791	6	6	7
Isuzu	2,091	1,373	718	12	14	8
Oldsmobile	1,844	1,841	3	8	8	9
Jeep	1,705	1,466	239	18	11	10
All others <u>1/</u> ...	15,425	13,970	1,455	...	...	...

1/ For details, see source.

Source: Hawaii Automobile Dealers Association, 1988 HADA Yearbook, p. 6.

Table 534.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY PLACE OF MANUFACTURE: 1986 AND 1987

[Percent distributions]

Place of manufacture <u>1/</u>	All types		Passenger cars		Trucks	
	1986	1987	1986	1987	1986	1987
Total ...	100.0	100.0	100.0	100.0	100.0	100.0
Imports:						
Japanese ...	53.2	49.9	54.3	45.2	45.5	50.7
European ...	1.0	3.8	2.2	4.2	0.1	0.0
Domestics	45.6	45.4	42.7	50.0	51.3	47.0
Unclassified <u>2/</u>	0.2	0.9	0.8	0.6	3.1	2.3

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.

2/ AMC (except Jeep), Jaguar, Rolls-Royce, and other cars with small market share in Hawaii.

Source: Hawaii Automobile Dealers' Association, 1988 HADA Yearbook, p. 6, as corrected.

Table 535.-- HAWAII DRIVERS LICENSES IN FORCE, BY COUNTIES:
1977 TO 1987

[As of December 31]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1977	541,353	424,242	51,773	23,557	41,781
1978	541,263	420,005	53,504	24,381	43,373
1979	543,202	418,751	53,735	25,606	45,110
1980	541,842	411,102	57,780	26,333	46,627
1981	541,279	407,062	60,171	27,261	46,785
1982	561,345	419,468	63,610	28,446	49,821
1983	574,533	428,897	64,560	29,169	51,907
1984	582,218	434,053	65,778	28,801	53,586
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

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

Table 536.-- HAWAII DRIVERS LICENSES IN FORCE, BY AGE
AND SEX: DECEMBER 31, 1987

Age	Both sexes	Male	Female
Total	628,027	341,638	286,389
15 to 19 years	37,648	21,568	16,080
20 to 24 years	63,456	33,971	29,485
25 to 34 years	162,533	84,724	77,809
35 to 44 years	144,915	76,128	68,787
45 to 54 years	84,034	45,061	38,973
55 to 64 years	75,740	41,589	34,151
65 to 74 years	45,653	28,368	17,285
75 to 84 years	13,142	9,506	3,636
85 years and over	906	723	183
Median age (years)	38.5	39.0	37.9

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

Table 537.-- TOTAL 24-HOUR TRAFFIC VOLUMES AT SELECTED OAHU
SURVEY SITES: 1985 TO 1987

Site	1985	1986	1987
Pali Highway at tunnels	47,753	49,242	50,611
Likeline Highway at tunnels	48,501	47,452	48,386
H-1 Freeway at Manoa-Palolo Drainage Canal ^{1/}	118,028	122,603	(NA)
H-1 Freeway at Kapalama Drainage Canal Bridge	174,655	193,962	(NA)
Nimitz Highway at Kapalama Drainage Canal Bridge	62,410	63,626	63,040
Kalaniana'ole Highway east of Ainakoa Ave.	79,830	75,852	77,413

NA Not available.

^{1/} Includes Kapiolani on- and off-ramps.

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

Table 538.-- MOTOR VEHICLE FUEL CONSUMPTION AND VEHICLE MILES:
1977 TO 1987

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>
1977	324,449	578	4,542.3	8,088
1978	338,440	583	4,738.2	8,164
1979	339,989	560	4,759.9	7,834
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
COUNTIES: 1987				
Honolulu	255,687	450	5,017.3	8,831
Hawaii	49,210	521	923.8	9,772
Kauai	21,685	477	469.7	10,331
Maui	41,402	459	806.4	8,946

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 539.-- MEANS OF TRANSPORTATION TO WORK, BY ISLAND OF RESIDENCE:
1960 TO 1980

[Includes members of the Armed Forces]

Means of transportation to work	Oahu			Other islands		
	1960	1970	1980	1960	1970	1980
All workers	201,362	272,909	369,523	47,044	54,401	88,194
Private automobile ^{1/}	128,615	213,700	282,479	28,377	44,314	76,728
Bus or streetcar	19,634	19,147	36,447	405	323	915
Railroad, subway	11	455	38	12	-	-
Taxicab	(NA)	612	557	(NA)	43	143
Other means	4,310	7,038	12,553	5,840	3,148	1,892
Walked only	13,899	27,771	31,069	8,315	5,232	6,043
Worked at home	29,571	4,186	6,380	3,272	1,341	2,473
Not available	5,322	-	-	823	-	-
PERCENT						
Private automobile ^{1/}	63.9	78.3	76.4	60.3	81.5	87.0
Bus or streetcar	9.8	7.0	9.9	0.9	0.6	1.0
Walked only	6.9	10.2	8.4	17.7	9.6	6.9
Worked at home	14.7	1.5	1.7	7.0	2.5	2.8

^{1/} Includes carpool.

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, PC(1)-13C; table 71; 1970 Census of Population, PC(1)-C13, table 72; 1980 Census of Population, PC80-1-C13, table 65.

Table 540.-- HIGHWAY SPEEDS, BY TYPE OF HIGHWAY: 1981 TO 1986

[Years ended September 30]

Measurement and year	State-wide	Urban inter-state	Rural		
			Inter-state	Other arterials	Major collectors
AVERAGE SPEEDS (MILES PER HOUR)					
1981	53.0	54.0	55.1	51.1	52.8
1982	54.1	56.6	56.2	51.5	52.4
1983	54.0	56.7	56.5	51.6	51.8
1984	54.7	56.8	56.8	52.4	53.1
1985	54.8	56.9	58.0	52.3	53.0
1986	55.1	58.4	(NA)	51.4	52.6
1985					
Miles per hour:					
Median speed	55.1	57.3	58.7	52.7	53.1
85th percentile speed ..	61.8	63.8	65.2	59.4	60.8
Percent exceeding --					
55 miles per hour	43.4	58.4	67.4	29.0	19.1
60 miles per hour	18.8	26.3	34.9	10.5	8.5
65 miles per hour	6.5	8.5	11.5	3.8	5.3
1986					
Miles per hour:					
Median speed	55.4	58.9	(NA)	51.6	52.8
85th percentile speed ..	62.5	65.8	(NA)	59.1	59.0
Percent exceeding --					
55 miles per hour	49.5	67.9	(NA)	31.8	26.3
60 miles per hour	23.1	37.3	(NA)	8.7	7.8
65 miles per hour	8.6	14.1	(NA)	3.0	2.7

NA Not available.

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

Table 541.-- MAJOR TRAFFIC ACCIDENTS, TRAFFIC INJURIES, AND TRAFFIC DEATHS, 1977 TO 1987, AND BY COUNTIES, 1987

Year	Major traffic accidents <u>1/</u>		Persons injured or killed	
	Total	Fatal	Injured only	Killed
1977	16,188	139	12,245	154
1978	18,545	175	13,327	195
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 <u>2/</u>	20,852	108	10,941	117
1987	23,618	126	11,987	138
COUNTIES: 1987				
Honolulu	18,700	72	8,582	75
Hawaii	2,530	29	1,743	36
Kauai	882	10	530	11
Maui	1,506	15	1,132	16

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

2/ Revised from Data Book 1987, table 542.

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

Table 542.-- REGISTERED TAXICABS AND BICYCLES, BY ISLANDS:
1986 AND 1987

[As of December 31]

Island	Taxicabs		Bicycles and mopeds	
	1987 <u>1/</u>	1986	1987	1986
State total	1,716	1,618	111,542	104,271
Hawaii	93	90	3,675	2,980
Maui	123	123	2,739	2,572
Lanai	-	2	223	215
Molokai	-	-	238	268
Oahu	1,473	1,366	100,753	94,626
Kauai	27	37	3,914	3,610

1/ The figure for Kauai is incomplete.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

Table 543.-- MOTOR CARRIER CHARACTERISTICS, BY COUNTIES: JULY 1988

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	1,019	4,859	131,742	2,755	16,371
Hawaii	76	532	20,526	516	2,930
Maui	146	810	21,808	376	1,932
Honolulu	736	3,133	77,996	1,673	10,466
Kauai	61	384	11,412	190	1,043

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 Regulatory Agencies, Public Utilities Commission.

Table 544.-- STEAM RAILROAD MILEAGE AND PASSENGERS:
1980 TO 1987

[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	1984 ...	6	197,876
1981	6	128,178	1985 ...	6	199,759
1982	6	155,059	1986 ...	6	215,735
1983 ...	6	171,892	1987 ...	6	244,555

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

Table 545.-- BUS PASSENGERS, BY FARE CATEGORY, FOR OAHU:
1985 TO 1987

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

Fare category	1985	1986	1987
All passengers	74,816,485	74,410,104	74,066,369
Adults, full fare	41,997,746	42,296,391	42,489,644
Students	12,717,660	12,185,244	11,820,592
School subsidy	350,346	368,135	352,692
Stadium express	10,173	10,861	10,152
Senior citizens and handicapped	14,207,457	14,151,242	14,103,035
Chartered service	12,981	17,261	10,674
Free transfers	5,520,122	5,380,970	5,279,580

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

Table 546.-- BUS SERVICE, FOR OAHU: 1970 TO 1987

[Service provided by Honolulu Rapid Transit Co., Ltd., through December 31, 1970 and by City and County of Honolulu beginning March 1, 1971]

Year	Number of buses, Dec. 31	Bus mileage <u>1/</u>	Total passengers <u>2/</u>	Revenues <u>3/</u> (dollars)
1970 <u>4/</u>	141	4,611,357	30,434,906	4,970,000
1971 <u>5/</u>	108	2,986,724	19,413,259	1,246,351
1972	143	4,964,044	31,031,764	4,445,817
1973	315	7,973,393	36,741,009	5,254,908
1974	333	11,670,774	50,519,626	6,807,147
1975	350	13,328,501	58,295,732	7,990,505
1976	350	15,547,127	64,585,334	9,007,134
1977	350	16,242,537	66,311,882	9,629,349
1978	350	15,991,798	67,746,396	9,686,876
1979	350	15,915,000	68,765,000	9,931,000
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

1/ All categories of service through 1978 and revenue vehicle miles (estimated) thereafter. Calendar year data.

2/ All categories of service through 1978 and revenue passengers (including senior citizens and handicapped) as estimated thereafter. Calendar year data.

3/ Calendar year 1970; 4-month period ended June 30, 1971; fiscal years ended June 30, 1972 to 1979; calendar years, 1980 forward. The fiscal year figure for 1980 was \$14,817,639.

4/ Passenger total excludes 2,277,502 zone fares.

5/ Bus service by HRT was terminated by a strike that began January 1. The City and County of Honolulu commenced service March 1.

Source: HRT, Ltd., data provided by Hawaii State Department of Regulatory Agencies, Public Utilities Division; MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 547.-- BUS FARE CHRONOLOGY, FOR OAHU: 1961 TO 1988

[In dollars. Service was provided by Honolulu Rapid Transit, Ltd., from August 31, 1901 until December 31, 1970, and by the City and County of Honolulu beginning March 1, 1971. For earlier data, see The State of Hawaii Data Book 1978, table 305, pp. 273-274]

Effective date	Cash fares <u>1/</u>		Tickets		Monthly passes	
	Adult	School	Adult	School	Adult	School
May 29, 1961 .....	.25	.15	5/1.00	5/.50	...	...
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 September 12, 1988.

Source: Honolulu Rapid Transit Co., Ltd., records; City and County of Honolulu, Department of Transportation Services, records.

Table 548.-- PASSENGER CAR RENTAL AND LEASING (SIC 7512) ESTABLISHMENTS WITH PAYROLL, BY COUNTIES: 1982 AND 1986

Year	State total	Hono- lulu	Hawaii	Kauai	Maui
1982	79	39	14	10	16
1986	88	36	19	9	24

Source: U.S. Bureau of the Census, County Business Patterns, Hawaii (annual).

Table 549.-- AIRPORTS AND HELIPORTS, BY CONTROL, BY ISLANDS:
DECEMBER 31, 1987

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	1	9
Hawaii <u>3/</u>	2	2	1	-	-	4
Maui <u>4/</u>	1	1	-	1	-	2
Kahoolawe	-	-	-	-	-	-
Lanai	1	-	-	-	-	-
Molokai	1	1	-	-	-	-
Oahu	1	2	3	-	1	-
Kauai	1	1	1	1	-	3
Niihau	-	-	-	-	-	-
Kure Atoll	-	-	1	-	-	-

1/ Excludes private airports (not available).

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

3/ Waimea-Kohala Airport reclassified from commercial to general aviation during 1987.

4/ West Maui Airport opened during 1987.

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

Table 550.-- AIRCRAFT OPERATIONS FOR SPECIFIED AIRPORTS:
1977 TO 1987

[An aircraft operation is an aircraft arrival or departure]

Year	Honolulu International Airport	General Lyman Field, Hilo	Keahole Airport	Kahului Airport	Lihue Airport	Molokai Airport ^{1/}
1977	329,926	60,377	83,616	100,655	65,636	(NA)
1978	379,106	52,677	91,033	125,291	74,583	32,801
1979	412,739	51,703	92,235	127,477	71,033	72,024
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

NA Not available.

^{1/} FAA tower opened July 13, 1978.

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

Table 551.-- AIRCRAFT OPERATIONS, BY TYPE OF AIRCRAFT, AT MAJOR STATE OWNED AIRPORTS: 1987

Airport	All movements	Air carrier	Air taxi	General aviation	Military
Honolulu International ..	385,275	216,044	62,172	83,558	23,501
Gen. Lyman	80,123	20,920	9,888	29,354	19,961
Kahului	165,920	76,368	54,845	26,534	8,173
Lihue	134,495	44,599	70,813	10,730	8,353
Keahole	67,497	29,171	17,866	10,628	9,832
Molokai	50,829	5,916	34,473	8,334	2,106

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

Table 552.-- RANK OF HONOLULU INTERNATIONAL AIRPORT IN OPERATIONS
AND ENPLANED PASSENGERS: 1985 AND 1986

Subject	Rank <u>1/</u>		Number	
	1985	1986	1985	1986
Total aircraft operations	21	21	357,509	367,938
Air carrier operations	21	19	167,159	191,890
Total enplaned passengers <u>2/</u> ...	19	17	5,979,712	7,352,027

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

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

Source: FAA Statistical Handbook of Aviation for 1985 (pp. 30 and 77) and 1986 (pp. 30 and 97).

Table 553.-- TRANSPACIFIC AND INTERISLAND AIR CARRIERS SERVING
HAWAII: 1985 TO 1988

[As of June 30. Includes both scheduled and nonscheduled services]

Service	1985 <u>1/</u>	1986 <u>1/</u>	1987 <u>2/</u>	1988 <u>2/</u>
All air carriers <u>3/</u>	32	32	33	34
Transpacific	30	30	27	27
Domestic	17	18	14	12
Foreign	13	12	13	15
Interisland	4	4	8	9
Passenger carriers	3	3	8	7
Cargo and mail only	1	1	-	2

1/ Excludes commuter lines and other air taxi service.

2/ Includes commuter lines and other air taxi service.

3/ Unduplicated totals. Two carriers provided both transpacific and interisland service in all four years.

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

Table 554.-- CIVIL FLYING: 1983 TO 1986

Item	1983	1984	1985	1986
Aircraft facilities, Dec. 31	51	51	50	51
Airports	37	37	36	34
Heliports	14	14	14	17
Public aircraft facilities, Dec. 31 ...	14	14	16	18
Paved and lighted facilities, Dec. 31 .	12	12	12	12
Large aircraft in operation, Dec.	32	38	49	54
Aloha Airlines, Inc.	8	9	8	11
Hawaiian Airlines, Inc.	13	18	21	24
Mid Pacific Airlines, Inc.	11	11	20	19
General aviation: <u>1/</u>				
Active civil aircraft, Dec.	381	463	348	366
Standard error	152	143	109	118
Hours flown (1,000)	97	206	137	182
Standard error (1,000)	34	95	56	81
Active personnel, Dec. 31:				
Pilots, except instructors	3,224	3,187	3,256	3,327
Flight instructors	260	303	267	246
Nonpilot airmen <u>2/</u>	3,099	3,191	2,498	2,609

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

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

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

Table 555.-- CHARACTERISTICS OF HAWAII-BASED CERTIFICATED ROUTE AIRLINES: 1985 AND 1986

[Scheduled service data for Aloha Airlines, Inc., Hawaiian Airlines, Inc., and Mid Pacific Airlines, Inc. Includes interisland, interstate, and international flights]

Subject	1985	1986
Number of airlines	3	3
Aircraft revenue departures (1,000)	121.5	155.3
Aircraft revenue miles (1,000)	17,490	26,696
Average airborne speed (miles per hour)	284	314
Average available seats per aircraft mile flown	138.7	171.7
Revenue passengers:		
Enplanements (1,000)	6,876	8,283
Load factor (percent)	59.4	65.4
Revenue ton-miles (1,000):		
Freight	5,802	13,546
Mail	1,847	2,560
Number of employees	2,731	4,335
Operating revenues (\$1,000)	251,521	381,915
Operating profit or loss (\$1,000)	2,919	4,147
Average passenger revenues per revenue passenger-mile (cents)	14.8	10.6
Average freight revenues per revenue ton-mile (dollars)	1.66	1.42

Source: U.S. Department of Transportation, Research and Special Programs Administration, unpublished data.

Table 556.-- TRANSPACIFIC AND INTERISLAND AIR
PASSENGER MOVEMENTS: 1970 TO 1987

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

Year	Transpacific passengers			Inter- island passenger arrivals <u>1/</u>
	Arrivals	Departures	Through	
1970 ..	2,190,809	2,158,577	893,890	2,992,777
1971 ..	2,296,119	2,304,570	729,237	3,380,031
1972 ..	2,540,472	2,550,199	733,362	4,093,338
1973 ..	2,866,003	2,913,446	870,378	4,809,097
1974 ..	3,009,769	2,964,992	885,122	5,174,914
1975 ..	3,181,580	3,134,774	956,576	5,321,616
1976 ..	3,496,645	3,432,908	816,915	5,873,138
1977 ..	3,667,756	3,615,717	714,150	6,413,847
1978 ..	4,131,466	4,054,544	854,276	7,341,815
1979 ..	4,245,032	4,148,645	971,452	7,578,877
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

1/ Air taxi service was seriously underreported before 1977.

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

Table 557.-- PASSENGERS, CARGO, AND MAIL, BY AIRPORT: 1987

Airport	Passengers ^{1/}		Cargo (tons)		Mail (tons)	
	Enplaned	Deplaned	Enplaned	Deplaned	Enplaned	Deplaned
OVERSEAS						
Total	6,317,747	6,265,211	117,049	106,359	11,780	14,502
Honolulu	5,756,190	5,684,126	110,719	96,702	11,780	14,502
General Lyman ...	460	453	-	-	-	-
Kahului	437,617	437,617	1,331	6,715	-	-
Keahole	98,649	98,663	4,899	2,802	-	-
Lihue	36,064	44,352	100	140	-	-
INTERISLAND						
Total	8,802,594	8,802,594	61,241	61,241	8,781	8,781
Honolulu	3,898,325	3,931,551	39,617	19,459	4,982	5,521
General Lyman ...	590,793	611,870	12,493	8,682	1,122	1,251
Waimea-Kohala ...	9,222	8,903	-	-	-	-
Keahole	815,184	791,094	3,162	5,185	720	985
Kahului	1,814,090	1,818,413	3,307	17,480	1,272	2,041
Hana	10,848	11,211	-	-	-	-
Molokai	162,300	164,591	233	254	53	5
Kalaupapa	5,051	4,659	-	-	-	-
Lanai	28,152	29,131	11	39	7	-
Lihue	1,304,441	1,288,292	2,374	10,011	625	978
Other airports ^{2/}	164,188	142,879	44	131	-	-

^{1/} Revenue and non-revenue, excluding Military Airlift Command (MAC). Also excludes overseas passengers in transit (1,109,850, all through Honolulu International Airport).

^{2/} Princeville and Waikoloa.

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

Table 558.-- AIR CARGO AND AIRMAIL: 1982 TO 1987

[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
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

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

Table 559.-- HELICOPTER TOURS: 1977 TO 1988

Subject	1977	1982	1985	1987	1988
Companies	9	14	25	36	36
Aircraft	15	26	48	71	74

Source: Hawaii Helicopter Operators Association, records.

Table 560.-- FLIGHTS SCHEDULED TO DEPART HONOLULU INTERNATIONAL AIRPORT, BY DESTINATION: APRIL 24-30, 1988

Destination	Flights during week		
	Total	Final destination	Intermediate point
Total	<u>1/</u> 600	600	290
Tokyo	53	30	23
Hong Kong	14	7	7
Manila	12	12	-
Singapore	10	10	-
Seattle	21	7	14
San Francisco	89	54	35
Los Angeles	168	102	66
Denver	16	14	2
Dallas/Fort Worth	33	-	33
Chicago	41	14	27
Atlanta	28	28	-
New York	50	50	-
All others	355	272	83

1/ Unduplicated total.

Source: Greeters of Hawaii, Jiffisked ... April 3-30, 1988.

Table 561.-- AIRLINE PASSENGER ORIGINS AND DESTINATIONS: 1986

[Year ended December 31, 1986. Top city pairs originating or terminating passengers and revenue passenger-miles, ranked by passengers. Data limited to domestic operations in scheduled service. Figures are combined totals in both directions]

City pair in both directions 1/ (in order of passenger rank)	Inter-city distance (miles)	Passengers		Passenger-miles	
		U.S. rank	Number (1,000)	U.S. rank	Number (1,000)
Honolulu-Kahului	100	19	1,091	442	109,490
Honolulu-Los Angeles	2,568	20	1,084	3	2,787,966
Honolulu-San Francisco	2,399	35	703	9	1,699,292
Honolulu-Lihue	102	35	757	610	78,668
Honolulu-Kona	169	74	517	532	90,630
Honolulu-New York	4,971	190	255	16	1,276,938
Honolulu-Chicago	4,251	261	193	29	827,101
Honolulu-Seattle	2,678	292	172	68	482,500
Honolulu-Las Vegas	2,762	354	140	88	395,101
Honolulu-Boston	5,095	627	79	84	415,645
Honolulu-Washington	4,828	666	75	94	368,951

1/ Includes all cities in Hawaii included in top 100 U.S. city pairs, as ranked either by number of passengers or number of passenger-miles.

Source: U.S. Department of Transportation, Research and Special Programs Administration, records.

Table 562.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR FLIGHTS
BY UNITED AIRLINES BETWEEN SAN FRANCISCO AND HONOLULU: 1980 TO 1988

[Updated to November 30, 1988]

Effective date of change in fare	Regular one-way fares, including taxes (dollars)			Flight time ^{1/} (hours, min.)
	First class	Coach, weekend	Coach weekday	
1980: Jan. 1	302.12	209.08	199.08	5:02
June 1	319.13	221.09	211.08	5:02
Aug. 1	351.14	243.10	233.09	5:02
Oct. 1	365.11	252.08	252.08	5:02
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

^{1/} Average scheduled flight time eastbound and westbound, by B-747 or DC-10 aircraft. Flight time varies seasonally.

Source: United Airlines, records.

Table 563.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR SPECIFIED INTERISLAND FLIGHTS BY HAWAIIAN AIRLINES, BY TYPE OF AIRCRAFT: 1982 TO 1988

[Updated to October 17, 1988]

Effective date of change in fare	Honolulu-Lihue		Honolulu-Kahului		Honolulu-Hilo	
	DC-9 <u>1/</u>	DASH-7	DC-9 <u>1/</u>	DASH-7	DC-9 <u>1/</u>	DASH-7
FARES <u>2/</u>						
1982: May 1	46.00	46.00	46.00	46.00	56.00	56.00
June 1	48.00	48.00	48.00	48.00	58.00	58.00
Aug. 1	53.00	53.00	53.00	53.00	63.00	63.00
Sept. 1	54.50	54.50	54.50	54.50	65.00	65.00
1983: Feb. 1	45.00	45.00	45.00	45.00	45.00	45.00
July 1	49.95	49.95	49.95	49.95	49.95	49.95
Oct. 30	49.95	29.95	49.95	29.95	49.95	29.95
Dec. 16	49.95	41.95	49.95	41.95	49.95	41.95
Dec. 22	49.95	33.95	49.95	33.95	49.95	33.95
1984: Jan. 20	49.95	41.95	49.95	41.95	49.95	41.95
May 28	49.95	43.95	49.95	43.95	49.95	43.95
Nov. 15	52.95	46.95	52.95	46.95	52.95	46.95
Dec. 16	52.95	37.95	52.95	37.95	52.95	37.95
1985: Jan. 7	52.95	34.95	52.95	34.95	52.95	34.95
Mar. 11	52.95	36.95	52.95	36.95	52.95	36.95
Apr. 28	52.95	38.95	52.95	38.95	52.95	38.95
July 1	44.95	37.95	44.95	37.95	44.95	37.95
Aug. 1	46.95	38.95	46.95	38.95	46.95	38.95
1987: Mar. 1	48.95	46.95	48.95	46.95	48.95	46.95
FLIGHT TIMES <u>3/</u>						
1982-1984	26	34	27	34	40	60
1985-1987	25	33	26	33	40	58
1988	27	37	27	37	41	67

1/ DC-9-50 and DC-9-80 from May 1981 through 1985; DC-9-15, DC-9-50, and DC-9-80 thereafter.

2/ Total regular one-way fare, including taxes and other charges, in dollars.

3/ Average non-stop scheduled flight time eastbound and westbound, in minutes.

Source: Hawaiian Airlines, records.

Table 564.-- STATE COMMERCIAL HARBORS: 1988

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	446
Kawaihae	40	35	1,500	1,450	1,012	23	166
Maui:							
Kahului	35	35	2,400	2,050	3,019	124	586
Molokai:							
Kaunakakai	23	23	1,500	600	691	10	123
Oahu:							
Honolulu:							
Main	45	40	3,300	1,520	28,007	1,779	7,770
Kapalama		40	3,400	1,000			
Barbers Point .	42	38	2,100	1,800	-	-	-
Kauai:							
Nawiliwili	40	35	1,950	1,540	1,216	66	247
Port Allen	35	35	1,500	1,200	1,200	35	32

Source: Hawaii State Department of Transportation, Harbors Division, unpublished data, September 12, 1988.

Table 565.-- UNDOCUMENTED STATE-REGISTERED VESSELS: DECEMBER 31, 1987

Subject	Number	Subject	Number
Certificates outstanding .	14,008	Type of vessel:	
Length:		Cabin motorboat	1,914
Under 16 feet	5,620	Open motorboat	5,169
16 to less than 20 feet	4,048	Runabout	2,717
20 to less than 40 feet	4,109	Sail/inboard	642
Over 40 feet	206	Sail/outboard	562
Dealers, manufacturers	25	Sail only	1,163
Median (feet)	17.4	Motor vessel over 65 feet .	6
		Other	1,835
Hull material:		Uses:	
Wood	1,762	Pleasure	11,986
Fiberglass	10,640	Commercial fishing	1,205
Metal	496	Charter fishing	18
Inflatable	822	Commercial passenger	220
Other	263	Other commercial	42
Propulsion:		Livery	207
Inboard	963	Dealer or manufacturer	66
Outboard	8,130	Youth group	29
Inboard/outboard	2,085	Government	175
Sail/inboard	611	Other	60
Sail/outboard	623	Island kept:	
Sail only	1,165	Hawaii	1,982
Other	406	Kauai	1,148
Type of storage:		Lanai	49
On water	2,605	Maui	1,275
On land	11,403	Molokai	182
		Oahu	9,372

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

Table 566.-- DOCUMENTED AND NUMBERED VESSELS REGISTERED IN HAWAII:
1978 TO 1988

Category	1978	1984	1985	1986	1987	1988
Documented 1/	987	1,203	1,306	1,348	1,389	1,380
Numbered 2/	13,695	13,122	13,443	14,052	14,008	...

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 December 31, 1978 and June 30 thereafter.

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. All data 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 567.-- BOATING ACCIDENTS: 1985 TO 1987

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

Source: U.S. Department of Transportation, Coast Guard, Boating Statistics (annual).

Table 568.-- VESSELS ARRIVING AT SPECIFIED HARBORS: 1986

[Excludes domestic fishing craft]

Harbor	Total inbound vessels	By type of vessel			
		Self propelled vessels			
		Passenger and dry cargo	Tanker	Towboat or tugboat	
Hilo	756	38	4	296	
Kawaihae	451	6	2	165	
Hana	2	-	-	1	
Kahului	1,177	28	8	437	
Kaunakakai	668	-	-	295	
Kalaupapa	8	-	-	4	
Honolulu	6,715	2,272	51	1,783	
Barbers Point	535	1	76	350	
Nawiliwili	607	6	-	212	
Port Allen	12	-	1	7	
		By type of vessel -- con.		By draft	
		Non-self propelled vessels			
Harbor		Dry cargo	Tanker	18 feet and less	19 feet and more
Hilo	347	71	713	43	
Kawaihae	271	7	439	12	
Hana	1	-	2	-	
Kahului	625	79	1,104	73	
Kaunakakai	366	7	(NA)	(NA)	
Kalaupapa	4	-	8	-	
Honolulu	2,174	435	6,025	690	
Barbers Point	6	102	459	76	
Nawiliwili	360	29	600	7	
Port Allen	1	3	(NA)	(NA)	

NA Not available.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1986, Part 4 (1988), pp. 106-107.

Table 569.-- SHIP ARRIVALS AT THE PORT OF HONOLULU:
1977 TO 1987

[Years ended June 30]

Year	Overseas vessels		Interisland vessels	
	Number	Gross tonnage	Number	Gross tonnage
1977	1,589	12,568,896	2,700	2,249,446
1978	1,651	12,676,469	1,981	1,947,893
1979	1,757	12,101,936	2,875	2,838,609
1980	1,963	10,483,989	2,338	2,572,778
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

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

Table 570.-- OVERSEAS AND INTERISLAND PASSENGER ARRIVALS AND DEPARTURES, FOR HONOLULU HARBOR: 1983 TO 1988

[Fiscal years ended June 30]

Type of passenger	1983	1984	1985	1986	1987	1988
Overseas:						
In	9,559	9,492	5,337	6,537	8,681	5,815
Out	9,679	5,906	5,276	6,190	8,103	5,350
Interisland:						
In	35,529	58,571	72,665	84,943	71,049	77,731
Out	33,638	59,293	74,304	82,895	69,337	71,804

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

Table 571.-- TRANSPACIFIC AND INTERISLAND SURFACE REVENUE PASSENGERS:
1982 TO 1987

Year	Transpacific passengers <u>1/</u>			Inter-island passenger arrivals <u>2/</u>
	Disembarking	Embarking	Intransit	
1982	542	461	6,785	39,057
1983	741	740	8,419	56,073
1984	726	361	6,692	78,443
1985	1,360	1,479	3,249	69,864
1986	828	370	6,189	80,127
1987	870	338	6,647	73,794

1/ Data refer to years ended June 30 through 1983 and calendar years thereafter. Data limited to the Port of Honolulu.

2/ Calendar year statistics. Data exclude interisland travel by transpacific cruise ships.

Source: TheoDavies Marine Agencies, records, and American Hawaii Cruises, records.

Table 572.-- OVERSEAS AND INTERISLAND SHIPPING: 1981 TO 1986

[In short tons]

Calendar year	Overseas cargo			Interisland cargo		
	Total	In	Out	Total	In	Out
1981 ...	11,683,330	9,389,458	2,293,872	7,230,395	3,691,297	3,539,098
1982 ...	10,503,229	8,168,339	2,334,890	7,204,456	3,697,785	3,506,671
1983 ...	11,853,502	9,371,317	2,482,185	8,337,860	4,285,416	4,052,444
1984 ...	11,506,043	8,972,870	2,533,173	8,973,092	4,530,456	4,442,636
1985 ...	11,647,021	9,098,694	2,548,327	7,839,743	3,836,113	4,003,630
1986 ...	10,521,866	8,451,641	2,070,225	8,464,107	4,241,904	4,222,203

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 573.-- FREIGHT AND PASSENGER TRAFFIC FOR SPECIFIED HARBORS:
1976 TO 1986

Subject and year	Hilo	Kawaihae	Kahului	Hono- lulu <u>1/</u>	Barbers Point	Nawiliwili
FREIGHT TRAFFIC <u>2/</u> (SHORT TONS)						
1976	995,544	263,562	1,276,424	7,189,538	6,593,497	460,900
1977	1,013,430	318,197	1,301,095	6,881,556	6,630,994	557,798
1978	1,272,734	502,451	1,922,112	7,750,537	6,306,580	765,877
1979	1,220,438	447,521	1,473,307	7,463,663	6,154,541	757,899
1980	1,102,019	518,116	1,441,524	7,646,270	5,725,722	785,212
1981	1,441,590	432,704	1,551,944	8,269,671	5,589,741	906,595
1982	1,381,996	441,130	1,483,955	7,593,097	5,707,386	808,153
1983	1,522,442	441,458	1,842,568	8,039,850	7,051,230	1,008,699
1984	1,570,528	545,508	1,889,204	8,469,971	6,564,687	944,770
1985	1,318,518	526,639	1,516,509	7,986,133	6,751,709	933,477
1986	1,198,692	592,018	1,626,650	8,603,760	5,629,312	745,396
PASSENGERS <u>3/</u>						
1976	1,313	-	1,307	1,390,524	-	40,674
1977	8,381	-	8,390	303,291	3,504	70,063
1978	3,207	-	3,879	183,721	4,441	6,384
1979	-	-	-	311,899	-	-
1980	-	-	-	547,242	-	-
1981	-	-	-	521,624	-	-
1982	-	-	-	465,466	-	-
1983	-	-	-	688,689	-	-
1984	-	-	-	741,922	-	-
1985	-	-	-	1,102,398	-	-
1986	-	-	-	708,268	-	-

1/ For discussion of the accuracy of these data, see the Data Book 1982, table 441.

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

3/ 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 1986, Part 4 (1988), pp. 28-35.

Table 574.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1986

[In short tons. Commodities under 125,000 tons not shown separately]

Harbor and commodity	Total <u>1/</u>	Foreign		Interstate		Interisland	
		Im-ports	Ex-ports	Re-ceipts	Ship-ments	Re-ceipts	Ship-ments
Hilo	1,198,692	18,315	28,259	14,158	149,400	683,906	304,654
Sugar	149,459	-	-	-	149,400	59	-
Fabricated metal products	281,672	-	-	6	-	143,898	137,768
Kawaihae	592,018	10,000	15,813	5,229	137,365	250,419	173,192
Sugar	137,365	-	-	-	137,365	-	-
Kahului	1,626,650	43,379	74,485	9,203	145,369	864,184	486,030
Sugar	145,687	-	-	-	145,260	26	401
Fabricated metal products	310,335	2	-	50	-	189,195	121,088
Motor vehicles, parts, equipment	156,821	2,700	-	5	-	102,163	51,953
Barbers Point	5,629,312	2,911,284	200,650	2,211,645	115,362	29,812	159,334
Crude petroleum	4,644,940	2,911,258	-	1,733,682	-	-	-
Distillate fuel oil	136,361	-	-	100,774	35,587	-	-
Residual fuel oil	725,369	-	186,818	331,803	44,734	29,812	130,977
Honolulu	8,603,760	632,632	150,514	2,573,465	951,759	1,769,991	2,350,094
Fresh fruits	426,542	1,481	57	17,146	87,649	318,361	1,848
Crude petroleum	420,343	77,283	-	343,060	-	-	-
Sand, gravel, crushed rock	195,010	22,335	-	249	84,000	64,681	23,745
Meat, fresh, chilled, frozen	139,524	6,142	1,067	108,785	2,321	1,243	19,966
Veg. and prep. nec	166,808	8,017	139	81,907	4,701	43,892	28,143
Prep. fruit & veg. juice, nec	398,930	5,456	3,764	6,606	257,582	124,963	559
Animal feeds	141,131	20,718	324	56,370	-	7,549	56,170

Continued on next page.

Table 574.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1986 - Con.

Harbor and commodity	Total <u>1/</u>	Foreign		Interstate		Interisland	
		Im-ports	Ex-ports	Re-ceipts	Ship-ments	Re-ceipts	Ship-ments
Honolulu - Con.							
Sugar	126,689	40	510	1,018	124,632	401	88
Molasses	275,392	-	-	5,674	168,970	100,748	-
Alcoholic beverages	196,630	6,872	576	151,304	299	26	37,553
Misc. food products	256,618	5,342	2,909	27,501	3,161	99,261	118,444
Lumber	190,375	342	2,135	162,863	795	1,932	22,308
Gasoline	203,845	3,606	19,693	24,400	-	-	151,878
Jet fuel	245,079	112,232	-	95,518	-	-	36,680
Residual fuel oil	340,215	-	13,380	7,176	-	79,892	74,203
Building cement	166,238	84,855	1	4,380	-	178	76,824
Fabricated metal prod. ..	1,125,994	7,250	458	88,932	3,017	435,005	591,332
Motor vehicles, parts, equipment	612,960	44,355	624	80,427	35,326	121,079	331,149
Nawiliwili	745,396	5,522	1	16,751	89,200	423,170	210,752
Fabricated metal products	210,919	-	-	383	-	109,289	101,247
Kaunapau	330,342	-	-	53,773	276,569	-	-
Fresh fruits	274,339	-	-	95	274,244	-	-
Hana	21	-	-	21	-	-	-
Pearl	(NA)	(NA)	(NA)	-	23,298	1,621	199,070
Kalaupapa	1,569	-	-	1,170	399	-	-
Kaunakakai	246,467	-	-	58	-	154,385	92,024
Port Allen	11,767	-	-	-	-	11,767	-

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NA Not available.

1/ Includes internal receipts and local traffic, not separately shown. Internal receipts amounted to 1,225 tons, all at Barbers Point. Local traffic amounted to 121,258 tons, all at Honolulu.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1986, Part 4 (May 1988), pp. 28-35, and unpublished printouts.