

SECTION 16

COMMUNICATIONS, POWER, AND SCIENCE

This section presents statistics relating to postal services, telephones, telegraphs, radio, television, newspapers, electrical and gas power and energy, and scientific resources.

Hawaii is served by all communications media. The most recent statistics indicate 89 post offices, 449,000 telephones, 31 radio stations, 12 television stations, and seven daily newspapers.

Electricity sales exceeded 4.1 billion kilowatt-hours in 1971, or 7,124 per housing unit. Manufactured gas sales totaled 30 million therms.

The State is also well served with scientific resources. A 1972 inventory reported 345 companies and agencies with research or scientific capabilities. Employment in these organizations was more than 25,000.

Information on communications, power and science can be obtained from reports and records of the U.S. Post Office Department, Federal Communications Commission, Hawaii State Public Utilities Commission, individual utility companies, and Audit Bureau of Circulations. Similar data for the nation as a whole can be found in the *Statistical Abstract of the United States: 1972*, Sections 18, 19, and 20.

Table 183.—POSTAL SERVICE: 1851 TO 1972

Year	Number of post offices ¹	Gross postal receipts (\$1,000) ²	Pieces of mail handled (1,000) ³
1851-1852	(NA)	1	34
1855	(NA)	7	74
1858-1860	33	2	(NA)
1864-1866	(NA)	3	(NA)
1868-1870	(NA)	6	139
1874-1876	(NA)	10	101
1878-1880	(NA)	15	175
1884-1886	55	33	(NA)
1890	(NA)	60	1,579
1895	(NA)	61	(NA)
1901	90	103	(NA)
1905	89	123	(NA)
1910	93	(NA)	(NA)
1915	93	(NA)	(NA)
1920	91	352	(NA)
1925	93	611	(NA)
1930	93	774	(NA)
1935	94	834	(NA)
1940	94	1,480	(NA)
1945	91	22,726	(NA)
1950	97	3,955	(NA)
1955	101	5,603	(NA)
1960	83	7,732	127,000
1961	82	8,434	(NA)
1962	82	11,041	(NA)
1963	80	13,037	(NA)
1964	80	(NA)	(NA)
1965	80	13,692	144,000
1966	80	14,984	147,000
1967	80	15,881	149,000
1968	80	17,617	159,000
1969	80	20,178	172,000
1970	80	20,840	187,000
1971	78	21,976	201,000
1972	89	23,434	215,102

NA Not available

¹Includes all 1st-, 2nd-, 3rd-, and 4th-class post offices; excludes branches and stations. Total for 1858-1860 refers to 1859; 1884-1886, to number in operation at beginning (and also end) of biennium ended March 31, 1886; data for 1901 and later years, as of June 30.

²Receipts for 1851-1852 refer to year ended March 31, 1852 (the earliest full year available after establishment of the postal system in December 1850); for 1855, to either calendar 1855 or the year ended March 31, 1856; for 1858-1886, to annual averages for biennial periods ended March 31; for 1890, to the year ended March 31, 1890; for 1895, to the calendar year; and for 1901 and later years, to years ended June 30.

³Data for 1851-1880 limited to letters; for 1890, to letters and prints; for 1960 and thereafter, to all pieces originated in Hawaii. Total for 1851-1852 refers to year ended March 31, 1852; 1855, either to calendar year or year ended March 31, 1856; for 1868-1890, to annual averages for biennial periods ended March 31; for 1960 and later years, to years ended June 30.

Source: *Report of the Minister of the Interior* for 1856, 1880, 1886, and 1890; *Report of the Minister of Finance* for 1860, 1866, 1870, 1876, and 1895; *Annual Report of the Postmaster General* for 1913-1970; *Statistical Abstract of the United States* for 1923-1971; U.S. Postal Service, records; Henry A. Meyer et al., *Hawaii, Its Stamps and Postal History* (1948), p. 276.

**Table 184.—TELEPHONES IN SERVICE, TELEPHONE CALLS, AND TELEGRAPH MESSAGES:
1880 TO 1972**

Year	Telephones in service ¹		Completed calls ²			Telegraph messages ³	
	State total	Oahu	Local (1,000)	Inter-Island	Transpacific	Total	Cable only
1880	(NA)	47	(NA)	—	—	—	—
1885	(NA)	666	(NA)	—	—	—	—
1890	(NA)	931	(NA)	—	—	—	—
1895	(NA)	1,152	(NA)	—	—	—	—
1900	(NA)	1,393	(NA)	—	—	—	—
1905	(NA)	1,800	(NA)	—	—	(NA)	(NA)
1910	(NA)	2,657	(NA)	—	—	(NA)	(NA)
1915	6,527	(NA)	(NA)	—	—	(NA)	(NA)
1920	10,761	(NA)	(NA)	—	—	(NA)	(NA)
1925	18,332	14,471	(NA)	—	—	(NA)	(NA)
1930	24,319	19,169	(NA)	—	—	(NA)	(NA)
1935 ⁴	24,664	19,137	(NA)	16,748	1,332	261,456	52,732
1940 ⁵	39,179	31,799	106,464	43,661	9,687	336,537	74,777
1945	54,734	44,432	125,436	87,347	93,602	713,756	164,326
1950	99,310	79,968	202,344	247,071	92,481	337,984	50,598
1955	143,063	114,678	290,528	285,328	179,274	381,725	—
1960	208,411	171,793	413,908	512,404	516,527	499,331	—
1961	221,599	183,401	422,729	519,789	569,122	492,610	—
1962	233,680	193,570	434,132	573,789	702,428	511,890	—
1963	247,629	205,342	449,933	651,787	750,161	514,782	—
1964	265,793	220,939	470,097	794,060	926,424	559,426	—
1965	283,689	236,006	506,198	948,585	1,336,557	561,377	—
1966	302,506	251,505	539,632	1,129,492	1,687,105	589,386	—
1967	323,849	268,190	562,522	1,332,551	2,144,049	579,696	—
1968	352,196	291,317	585,071	1,624,206	2,594,151	463,985	—
1969	381,982	314,915	611,919	1,963,219	3,267,601	466,197	—
1970	414,165	339,952	631,543	2,288,320	3,753,449	434,936	—
1971	445,995	365,733	667,542	2,569,758	4,476,130	290,087	—
1972	498,593	412,443	702,346	3,072,319	5,427,667	(NA)	—

NA Not available.

¹As of December 31. Includes telephones of the Hawaiian Bell Telephone and Telegraph Co. for 1880 and 1885 and the Mutual Telephone Company (renamed the Hawaiian Telephone Company in 1953) from 1885 to the present time, and is thus complete with regard to public telephone service on Oahu for the entire period of record. Other companies, not included in these statistics, operated on Hawaii and Maui until 1919 and Kauai until 1929. Neighbor Island midyear totals for all companies combined (according to the *Annual Reports of the Governor of Hawaii*) were 1,997 in 1915, 3,301 in 1920, and 4,274 in 1925.

²Statewide totals. The interisland and transpacific data refer to paid calls (whether paid in Hawaii or elsewhere). The transpacific data include both in and out calls. Interisland and transpacific radiotelephone service began late in 1931.

³Combined totals for messages between Hawaii and the Mainland United States in either direction, whether by cable or radio. Cable service was begun in 1903 and terminated in 1951.

⁴Telegraph data refer to 1936, the earliest year available.

⁵Data on local telephone calls refer to 1941, the earliest year available.

Source: Hawaiian Telephone Co., records; Federal Communications Commission, records.

Table 185.—COMMERCIAL AND EDUCATIONAL RADIO AND TELEVISION BROADCAST STATIONS ON THE AIR AND DAILY NEWSPAPER CIRCULATION: 1912 TO 1973

Year	Commercial broadcast stations ¹			Educational broadcast stations ¹		Daily newspaper circulation ²		
	AM	FM	TV	FM	TV	Honolulu Advertiser	Honolulu Star-Bulletin	Hawaii Tribune-Herald
1912	—	—	—	—	—	3,210	4,262	(NA)
1915	—	—	—	—	—	4,900	4,606	(NA)
1920	—	—	—	—	—	5,793	8,509	(NA)
1925	2	—	—	—	—	12,432	16,444	(NA)
1930	1	—	—	—	—	12,308	20,618	(NA)
1935	2	—	—	—	—	13,026	24,141	(NA)
1940	3	—	—	—	—	25,418	38,188	4,674
1945	4	—	—	—	—	140,414	156,041	9,166
1950	12	—	—	—	—	44,965	77,696	9,848
1955	13	1	3	1	—	50,814	91,355	10,222
1960	17	1	7	2	—	64,287	104,901	9,884
1961	18	1	8	1	—	70,097	104,212	10,421
1962	20	1	9	1	—	62,239	100,858	10,679
1963	20	1	10	1	—	59,391	102,195	10,826
1964	23	2	10	1	—	62,337	105,099	11,006
1965	23	2	10	—	—	64,435	107,976	11,136
1966	24	2	10	—	—	66,499	109,865	11,447
1967	25	2	10	—	2	67,550	112,182	10,944
1968	25	3	10	—	2	70,135	115,688	11,645
1969	25	4	10	—	2	71,835	119,148	12,483
1970	25	4	10	1	2	74,318	123,765	13,125
1971	25	4	10	1	2	74,441	124,601	13,851
1972	25	5	10	1	2	72,723	126,341	14,250
1973	24	5	10	1	2	—	—	—

NA Not available.

¹As of January 1 (except 1950, June 7). Data before 1950 refer to licensed stations; from 1950 forward, to stations on the air. Television station totals include satellite stations (1 in 1973) but exclude relay stations. Commercial AM broadcasting in Hawaii began in 1922; FM, both commercial and educational, in 1953; commercial television, in 1952; and educational television, in 1966.

²For the three English-language dailies. Data prior to 1935 are October 1 figures supplied by the publishers to the U.S. Post Office; data for 1935 and later years are April-September averages (for Honolulu) and fourth quarter averages (for Hilo) compiled by the Audit Bureau of Circulations, covering daily (but not Sunday) editions. Regular daily newspaper publication began in Hawaii in 1882.

Source: Federal Communications Commission, records; FCC data on broadcast stations on the air, cited in *Statistical Abstract of the United States, 1951-1970*; Hawaii Newspaper Agency, Inc., records; Hawaii Tribune-Herald, records; Hawaii State Department of Planning and Economic Development, *Communications Statistics for Hawaii, 1964* (Statistical Report 19, May 31, 1964).

Table 186.—TELEPHONE AVAILABILITY AND TELEVISION SETS IN OCCUPIED HOUSING UNITS, BY COUNTY: 1970

Subject	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
All occupied units	203,088	164,763	17,260	8,282	12,783
Telephone:					
Available	185,265	152,198	14,907	7,064	11,096
None	17,823	12,565	2,353	1,218	1,687
Number of television sets:					
One	143,288	114,351	13,101	6,376	9,460
Two or more	46,373	41,254	2,286	864	1,969
None	13,427	9,158	1,873	1,042	1,354

Source: U.S. Bureau of the Census, *U.S. Census of Housing: 1970*, Final Report HC(1)-B13, tables 32, 37, 62, and 63.

Table 187.—CABLE TELEVISION SUBSCRIBERS: DECEMBER 31, 1970 TO 1972

Year (Dec. 31)	State total	City and County of Honolulu	County of Hawaii	County of Kauai ¹	County of Maui
1970	12,091	11,066	—	—	1,025
1971	13,718	12,581	—	37	1,100
1972	16,887	14,732	—	478	1,677

¹Began operation in November 1971.

Source: Hawaii State Department of Regulatory Agencies, CATV Division.

Table 188.—POSTAGE, TELEPHONE, AND TELEGRAPH RATES AND NEWSPAPER PRICES: 1860 TO 1972
(In dollars)

Year (as of July 1)	Postage (letter) rates ¹			Telephone rates (Honolulu) ²				Telegraph rates ³		Newspaper price ⁴	
	Local	To Mainland U.S.		Local call ⁵	To Hilo ⁶	To San Fran. ⁶	Monthly charge ⁷	Cable	Radio	Daily	Sunday
		Surface	Air								
1860	0.05	0.12	—	—	—	—	—	—	—	—	—
1870	0.06	0.06	—	—	—	—	—	—	—	—	—
1880	0.02	0.06	—	(NA)	—	—	6.00	—	—	—	—
1890	0.02	0.05	—	(NA)	—	—	2.00	—	—	0.05	—
1900	0.02	0.02	—	(NA)	—	—	2.50	—	—	0.05	—
1910	0.02	0.02	—	(NA)	—	—	3.50	0.35	—	0.05	0.05
1920	0.02	0.02	—	0.05	—	—	3.25	0.35	0.25	0.05	0.05
1930	0.02	0.02	—	0.05	3.00	21.00	4.00	0.20	0.20	0.05	0.10
1940	0.03	0.03	0.20	0.05	2.00	9.00	3.75	0.12	0.12	0.05	0.10
1950	0.03	0.03	0.06	0.05	2.50	9.38	4.75	0.25	0.25	0.05	0.15
1960	0.04	0.04	0.07	0.10	1.93	6.60	8.42	—	0.21	0.10	0.15
1970	0.06	0.06	0.10	0.10	0.99	4.29	9.90	—	0.21	0.10	0.25
1971	0.08	0.08	0.11	0.10	0.99	4.29	9.90	—	0.21	0.15	0.35
1972	0.08	0.08	0.11	0.10	0.99	4.29	10.12	—	0.21	0.15	0.35

NA Not available.

¹Per ounce, with the following exceptions: local mail, 1880 and 1890; surface mail to the Mainland U.S., 1860-1890; and air mail to the Mainland, 1940—all of which were per half-ounce. The 1860 rate to the Mainland applied only to distances under 3,000 miles. The Honolulu Post Office was established December 22, 1850, and regular transpacific air mail service was initiated in November 1936.

²Including tax. Telephone service commenced on Maui in 1879, Oahu and Kauai in 1880, and Hawaii in 1882. Both inter-island and transpacific telephone service began in 1931.

³Per full-rate word (non-coded language). Cable service between Hawaii and the Mainland commenced January 1, 1903 and ceased operations November 17, 1951. Radio telegraph service between Hawaii and the Mainland was inaugurated September 3, 1912.

⁴Street sales price per copy for the Honolulu Advertiser (daily beginning in 1882, Sundays from 1903 to 1962), the Honolulu Star-Bulletin (daily beginning in 1912, Sundays from 1959 to 1962), and Sunday Star-Bulletin and Advertiser (beginning in 1962). The first newspaper in Hawaii appeared in 1834; the first full-scale dailies, in 1882.

⁵Pay telephones, first five minutes (unlimited after 1940).

⁶Station to station daytime calls, first three minutes, including tax. Data for 1930 refer to rates at initiation of service, late in 1931.

⁷For an individual residential line in Honolulu, including tax. Data for 1880 and 1890 are for Bell Telephone Company, which merged with Mutual (now Hawaiian) Telephone Company in 1895. Rates for 1920-1940 refer to the basic model; for 1950 and later, to any model.

Source: Henry A. Meyer et al., *Hawaii, Its Stamps and Postal History* (1948), pp. 84, 89, and 400-402; *Session Laws of 1878*, Chap. XVIII, Sect. 4; *Hawaiian Almanac and Annual* for 1881 (p. 27) and 1891 (p. 15); Office of the Postmaster General, records; Hawaiian Telephone Company, records; Federal Communications Commission, records; newspaper mast-heads.

Table 189.—ELECTRIC UTILITIES: 1901 TO 1971

Year	Customers, Dec. 31 ¹		KWH sold (1,000) ²			Average annual use (KWH) ³		Average rate (\$/KWH)		Installed capacity (KW)
	Residential	Other	Total	Residential	Other	Residential	Other	Residential	Other	
1901	—	—	1,690	—	—	—	—	—	—	—
1910	—	—	3,926	—	—	—	—	—	—	—
1920	14,800	—	18,039	—	—	301	—	—	—	—
1930	41,600	8,241	86,699	—	—	568	—	—	—	—
1940	74,248	—	240,040	—	—	1,244	—	—	—	—
1950	85,069	21,018	599,309	203,284	396,025	2,390	18,842	.029406	.020066	252,955
1959	127,336	24,602	1,422,145	519,222	902,923	4,078	36,701	.030240	.021664	469,343
1960	132,440	25,138	1,602,197	580,849	1,021,348	4,386	40,630	.029723	.021559	469,343
1961	136,788	25,664	1,766,031	624,730	1,141,301	4,567	44,471	.029057	.021015	527,708
1962	140,661	26,440	1,966,105	678,628	1,287,477	4,825	48,694	.028886	.020722	543,737
1963	144,638	27,194	2,077,570	730,317	1,347,254	5,049	49,542	.028389	.020609	628,312
1964	149,547	28,137	2,284,275	786,118	1,498,157	5,257	53,245	.027949	.020133	716,312
1965	154,822	28,901	2,445,024	853,086	1,591,939	5,510	55,082	.027569	.020072	731,395
1966	160,784	29,492	2,639,866	912,616	1,727,250	5,676	58,567	.027290	.019949	830,644
1967	166,256	30,161	2,832,468	989,785	1,842,684	5,953	61,109	.027039	.020037	829,157
1968	171,346	30,821	3,109,256	1,083,233	2,026,023	6,322	65,735	.026803	.020022	894,532
1969	178,569	31,761	3,426,052	1,174,502	2,251,550	6,577	70,890	.026548	.019647	896,271
1970	186,282	32,721	3,758,094	1,270,732	2,487,362	6,822	76,017	.026810	.020113	1,007,021
1971	193,043	33,471	4,167,127	1,375,308	2,791,819	7,124	83,410	.028229	.021493	1,016,350
COUNTIES:										
1971										
Honolulu	150,285	24,015	3,600,728	1,147,968	2,452,760	7,639	102,135	.025549	.018825	873,000
Hawaii	18,744	4,523	247,104	100,504	146,600	5,362	32,412	.043413	.040996	73,804
Kauai	8,905	1,628	111,882	41,611	70,271	4,673	43,164	.046211	.042850	26,875
Maui	15,109	3,305	207,413	85,225	122,188	5,641	36,971	.037646	.039542	42,671

¹Data limited to Oahu before 1930. The 1930 Oahu totals were 30,972 residential and 6,682 nonresidential customers.

²Amount generated (rather than amount sold) for 1901 and 1910. Data before 1930 limited to Oahu. The 1930 Oahu total was 78,633M KWH, or 90.7 percent of the all-Island total.

³Data before 1950 limited to Oahu. The 1950 residential average on Oahu was 2,688 KWH.

Source: Hawaii State Public Utilities Commission, *Annual Report . . . 1931* (p. 23), *Historical Data, Gas and Electric Utilities, State of Hawaii, 1959 to 1968* (unpaged), and records; Territorial Planning Board, *First Progress Report* (p. 292); *Annual Report of the Governor of Hawaii . . . 1941* (p. 75); Hawaiian Electric Co., Ltd., records.

Table 190.—GAS UTILITIES: 1910 TO 1971

(Data limited to Honolulu Gas Co., Ltd., and its successor organization, Gasco Inc. Excludes bottled gas)

Year	Customers		Gas sold (1,000 therms) ¹			Ave. ann. use (therms)		Average rate (dollars per therm)		Installed capacity (1,000 therms)
	Residential	Other	Total	Residential	Other	Residential	Other	Residential	Other	
1910		1,928	—	—	—	—	—	—	—	—
1920		6,762	—	—	—	—	—	—	—	—
1930		14,144	—	—	—	—	—	—	—	—
1940		24,265	4,405	—	—	—	—	—	—	—
1950	32,392	2,935	11,453	8,755	2,698	270	919	.2348	.1744	—
1959	35,826	2,657	14,869	10,018	4,851	280	1,826	.3538	.2246	2,400
1960	35,536	2,555	15,881	10,299	5,582	290	2,185	.3619	.2280	2,400
1961	35,857	2,227	16,790	10,502	6,289	293	2,824	.3685	.2263	2,400
1962	35,463	2,050	18,197	10,839	7,358	306	3,589	.3679	.2262	2,400
1963	35,034	1,874	18,914	10,775	8,139	308	4,343	.3666	.2238	2,400
1964	34,994	1,515	19,697	10,919	8,778	312	5,794	.3639	.2202	2,400
1965	34,775	1,428	20,397	11,016	9,381	317	6,570	.3634	.2186	2,400
1966	34,956	1,355	21,019	11,171	9,848	320	7,268	.3626	.2185	2,400
1967	35,000	1,382	22,547	11,348	11,198	324	8,103	.3618	.2179	2,400
1968	34,955	1,300	23,570	11,331	12,240	324	9,415	.3618	.2169	2,400
1969	34,829	1,305	25,649	11,848	13,801	340	10,576	.3588	.2156	2,400
1970	32,163	3,979	27,831	10,891	16,940	339	4,257	.3619	.2227	2,400
1971	32,072	4,081	30,445	9,279	21,167	289	5,187	.3699	.2308	2,400
COUNTIES:										
1971										
Honolulu	29,621	4,070	29,082	8,290	20,791	280	5,108	.3660	.2306	2,400
Hawaii	2,072	11	1,257	882	375	426	34,107	.3981	.2419	—
Kauai	—	—	—	—	—	—	—	—	—	—
Maui	379	—	107	107	—	281	—	.4448	—	—

¹Data for years before 1940 were expressed in cubic feet rather than therms. Cubic feet of gas sold amounted to 47,484,100 in 1910, 194,062,800 in 1920, 431,934,600 in 1930, and 855,420,400 in 1940.

Source: Hawaii State Public Utilities Commission, *Historical Data, Gas and Electric Utilities, State of Hawaii, 1959 to 1968* (unpaged), and records; Territorial Planning Board, *First Progress Report* (p. 307); Chamber of Commerce of Honolulu, *General Information About Honolulu... 1936-1940*, p. 27.

Table 191.—TYPICAL RESIDENTIAL UTILITY MONTHLY RATES, BY ISLAND: MAY 1973

Utility and usage	Oahu	Hawaii ¹	Kauai	Maui	Molokai	Lanai
Water:						
¾ inch meter, 5,000 gal. . . .	4.25	3.75	4.25	4.05	4.05	3.55
¾ inch meter, 10,000 gal. . .	6.10	5.75	6.25	6.10	6.10	5.25
¾ inch meter, 20,000 gal. . .	9.80	9.75	10.25	10.20	10.20	8.65
1½ inch meter, 50,000 gal. . .	26.00	24.00	26.00	25.25	25.25	22.00
Electricity:						
100 kilowatt-hours	5.49	8.62	7.29	7.39	8.34	7.79
250 kilowatt-hours	9.74	14.50	13.88	13.43	14.65	13.77
500 kilowatt-hours	15.23	21.52	23.05	21.29	22.49	21.53
Gas:						
10 therms	4.84	5.01	6.35	5.44	—	—
25 therms	8.99	10.96	13.06	11.35	—	—
50 therms	15.84	20.04	23.99	20.88	—	—
100 therms	29.84	37.20	46.03	39.92	—	—
Telephone:²						
Individual line	9.75	8.50	8.10	8.10	6.95	6.25
Two-party line	8.05	7.15	6.85	6.85	5.90	5.35

¹Water rates are those for Hilo, Kohala, and Ka'u.

²Plus 9 percent Federal excise tax.

Source: Hawaii State Public Utilities Commission; City and County of Honolulu, Board of Water Supply; County of Hawaii Department of Water Supply; County of Kauai Department of Water; County of Maui Department of Water Supply; Lanai Company.

Table 192.—SCIENTIFIC RESOURCES: 1971 AND 1972

Type of organization	Number of companies or agencies		Total employment		Professional employment	
	1972	1971	1972	1971	1972	1971
All organizations	345	301	25,268	22,230	7,206	5,681
With scientific capabilities	75	59	8,842	7,511	2,043	1,446
Computer sciences	46	45	2,022	1,883	765	1,034
R&D and allied companies	41	45	4,992	3,612	1,215	637
Testing laboratories	26	24	911	854	483	474
Government agencies	117	99	7,763	7,677	2,369	1,868
Federal civilian	23	23	1,518	1,670	413	277
Military	10	12	642	1,037	167	164
State, except U.H.	37	33	2,539	2,323	820	684
University of Hawaii	34	18	1,322	998	646	429
County	14	13	1,742	1,649	323	224
Private research agencies	40	29	738	693	331	222
Subject	1972	1971	Subject	1972	1971	
Professional associations	43	45	Colleges and universities	32	31	
Regular membership	11,182	10,365	Full-time enrollment ¹	34,276	31,033	
Associate membership	555	604	Part-time enrollment ¹	46,215	39,479	
Scientific libraries	22	24	Business and technical schools	5	4	
Scientific books	682,042	677,917	Full-time enrollment	1,550	1,520	
			Part-time enrollment	305	150	

¹Because of different enrollment definitions, these data are not comparable to those in Section 3.

Source: Hawaii State Department of Planning and Economic Development, *Hawaii's Scientific Resources, 1972 Directory*, 6th Edition, p. 5.

Table 193.—LARGE OPTICAL TELESCOPES: FEBRUARY 1973

Location	Operated by	Diameter (inches)
Mauna Kea	Univ. of Hawaii	88
Do	Do	24
Do	Do	24
Haleakala	Univ. of Michigan	60
Do	Do	48
Do	Do	48
Ewa Beach	Private	16
Honolulu	Bishop Museum	12

Source: Bernice P. Bishop Museum; University of Hawaii, Institute for Astronomy.