

SECTION 16

COMMUNICATIONS, POWER, AND SCIENCE

This section presents statistics relating to postal service, 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 80 post offices, 414,000 telephones, 29 radio stations, 10 commercial television stations, and seven daily newspapers.

Electricity sales exceeded 3.4 billion kilowatt-hours in 1969, or 6,577 per housing unit. Domestic gas sales totalled 34 million therms.

The State is also well served with scientific resources. A 1969 inventory reported 265 companies and agencies with research or scientific capabilities. Employment in these organizations was more than 20,000.

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: 1970*, Sections 18, 19, and 20.

Table 110.—COMMUNICATIONS FACILITIES AND USAGE: 1898 TO 1971

Year	Post offices		Telephones in operation, Dec. 31		Telephone calls		
	Number, June 30	Receipts (\$1,000)	State	Oahu	Inter-island	Transpacific	
						In and out	Out
1901 ¹	90	103	(NA)	1,090	—	—	—
1910	93	(NA)	(NA)	2,657	—	—	—
1920	91	352	(NA)	10,761	—	—	—
1930	93	774	24,319	19,169	—	—	—
1940	95	1,480	39,179	31,799	48,103	9,799	(NA)
1950	97	3,955	99,310	79,968	271,501	92,752	(NA)
1960	83	7,732	208,411	171,793	538,294	(NA)	303,334
1965	80	13,692	283,689	236,006	969,531	(NA)	757,352
1966	80	13,742	302,506	251,505	1,153,375	(NA)	957,163
1967	80	14,951	323,849	268,190	1,354,805	(NA)	1,271,406
1968	80	17,617	352,196	291,317	1,649,734	(NA)	1,561,184
1969	80	20,178	381,982	314,915	1,994,026	(NA)	1,948,391
1970	(NA)	(NA)	414,165	339,952	2,315,000	(NA)	2,300,000
1971	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Year	Telegraph messages to and from Hawaii	Commercial broadcast stations on the air ²			Daily newspaper circulation ³		
		AM	FM	TV	Advertiser	Star-Bulletin	Hawaii Tribune- Herald
1912	(NA)	—	—	—	3,210	4,262	(NA)
1920	(NA)	—	—	—	5,793	8,509	(NA)
1930	(NA)	2	—	—	12,308	20,618	(NA)
1940	336,537	4	—	—	23,078	37,079	4,674
1950	337,984	12	—	—	45,449	79,568	9,848
1960	499,331	17	1	7	64,719	104,107	9,884
1965	561,377	23	2	10	64,763	107,342	11,136
1966	589,386	24	2	10	68,351	110,735	11,447
1967	579,696	25	2	10	69,686	114,770	10,944
1968	463,985	25	3	10	73,799	118,529	11,645
1969	466,197	25	4	10	74,869	122,680	12,473
1970	(NA)	25	4	10	(NA)	(NA)	(NA)
1971	(NA)	25	4	10	(NA)	(NA)	(NA)

NA Not available.

¹The figure on telephones in operation refers to 1898.

²July 1, 1930 and 1940; June 7, 1950; January 1, 1960 forward. Excludes educational stations (1 FM and 2 TV in 1971).

³October 1, 1912 to 1940; October-December average, 1960 forward.

Source: Hawaii State Department of Planning and Economic Development, *Communications Statistics for Hawaii, 1964* (Statistical Report 19, May 31, 1964); *Annual Report of the Postmaster General*; Hawaiian Telephone Company, records; Federal Communications Commission, records; Audit Bureau of Circulations, reports.

**Table 111.—POSTAL, TELEPHONE AND TELEGRAPH RATES AND NEWSPAPER PRICES
JULY 1, 1929 TO 1970**

Subject	1929 ¹	1940	1951	1960	1970
Postage rates²					
First-class letter	0.02	0.03	0.03	0.04	0.06
Air mail letter	—	0.25	0.06	0.07	0.10
Telephone rates:					
Local calls ³	0.05	0.05	0.05	0.10	0.10
Honolulu-Hilo ⁴	3.00	2.00	2.00	1.75	0.90
Honolulu-San Francisco ⁴ ..	21.00	9.00	7.50	6.00	3.90
Cable rate ⁵	0.20	0.12	0.19	0.21	0.21
Newspaper prices:					
Daily ⁶	0.05	0.05	0.05	0.10	0.10
Saturday ⁷	0.05	0.05	0.10	0.10	0.10
Sunday ⁸	0.10	0.10	0.15	0.15	0.25

¹Telephone rates refer to 1931.

²Between Hawaii and U.S. Mainland. Air mail letter rate for 1940 is per half ounce; all other rates listed are per ounce.

³From pay telephones in Honolulu. The present rate was established on December 30, 1952.

⁴Station to station, 3-minute daytime call. Excludes tax.

⁵Between Oahu and San Francisco, per full rate word. Minimum number of chargeable words in a full rate cablegram or radiogram was five in 1940 and 1951, seven in 1960 and thereafter (there was no minimum in 1929, although, as a practical matter, cablegrams must have at least three and probably four or five words).

⁶*Honolulu Advertiser*, Monday through Saturday; *Honolulu Star-Bulletin*, Monday through Friday.

⁷*Honolulu Star-Bulletin*.

⁸*Honolulu Advertiser*, 1929-1961; *Honolulu Star-Bulletin*, 1960 and 1961; *Honolulu Star-Bulletin and Advertiser*, 1962 and thereafter.

Source: Postmaster, U.S. Post Office, Honolulu; Public Relations Department, Hawaiian Telephone Company; Secretary, Federal Communications Commission; newspaper mastheads.

Table 112.—ELECTRICITY AND GAS SOLD, BY COUNTY: 1940 TO 1969

Subject	The State	City & County of Honolulu	Hawaii County	Maui County	Kauai County
Electricity sold (1,000 KWH):					
1940	240,272	213,189	15,096	7,708	3,118
1950	604,811	522,325	41,413	26,359	10,412
1960	1,601,322	1,370,880	83,363	96,294	41,108
1968	3,110,006	2,727,627	167,176	124,570	77,542
1969	3,426,052	3,004,187	186,478	145,102	90,285
Ave. ann. residential use (KWH):¹					
1940	(NA)	1,244	(NA)	(NA)	(NA)
1950	2,388	2,645	1,770	1,743	1,009
1960	4,330	4,803	3,084	3,485	1,724
1968	6,322	6,799	4,591	4,863	4,070
1969	6,577	7,085	4,845	5,013	4,256
Gas sold (1,000 therms):²					
1940	(NA)	4,425	(NA)	(NA)	(NA)
1950	(NA)	11,453	(NA)	(NA)	(NA)
1960	18,977	16,538	1,331	447	361
1968	31,146	26,041	2,639	1,398	1,068
1969	34,315	28,546	2,975	1,623	1,171

NA Not available.

¹Based on number of customers at end of year.

²Either manufactured or bottled.

Source: Hawaii State Department of Regulatory Agencies, Public Utilities Division.

Table 113.—STATISTICAL SUMMARY OF SCIENTIFIC RESOURCES: 1969

Type of organization	Number reported	Employment		
		Total	Professional or technical	
Total companies and agencies	265	20,490	5,094	
Organizations with scientific capabilities	19	7,158	1,339	
Computer sciences	27	1,351	637	
Research and development	46	3,513	629	
Testing laboratories	23	704	415	
Government research agencies	101	7,183	1,882	
Federal civilian	20	1,703	260	
Military	12	806	150	
State, except U.H.	34	1,950	662	
University of Hawaii	22	1,133	622	
County	13	1,596	188	
Private research agencies	29	581	192	
Type of organization	Number reported	Membership		Scientific books
		Regular	Associate	
Professional associations	43	10,226	545	—
Scientific libraries	27	—	—	656,918

Source: Hawaii State Department of Planning and Economic Development, *Hawaii's Scientific Resources 1969-1970 Directory*, Fourth Edition, p.7.