

## SECTION 21

# MANUFACTURES

This section presents statistics on the manufacturing segment of the economy.

The number of manufacturing establishments in Hawaii increased from 222 in 1899 to 474 in 1939 and 697 in 1967, and the value added by manufacture rose from \$11 million to \$58 million to \$236 million during the same period. Over 77 percent of all manufacturing activity in the State was on Oahu in 1967. Food processing—mostly sugar and pineapple—accounted for 57 percent of the value added by manufacture in that year.

Growth has been most rapid, however, in manufacturing outside of the sugar and pineapple industries. Between 1960 and 1970, the general excise and use tax base increased 77 percent for sugar processing, 18 percent for pineapple canning, and 96 percent for all other manufacturing.

Sources for data on this subject include the United States Census of Manufacturers, most recently taken as of 1967, publications of the Hawaii State Department of Labor and Industrial Relations and Department of Taxation, Hawaiian Sugar Planters' Association, and Pineapple Growers Association of Hawaii. Statistics for the nation as a whole appear in Section 28 of the *Statistical Abstract of the United States: 1970*.

**Table 141.—MANUFACTURING: 1899 TO 1967**

Year <sup>1</sup>	Establishments		All employees		Production workers			Value added by manufacture, adjusted (\$1,000)	Capital expenditures, new (\$1,000)
	Total	With 20 employees or more	Total	Payroll (\$1,000)	Total	Man-hours (1,000)	Wages (\$1,000)		
1967 .....	697	215	25,400	139,600	19,000	35,900	86,900	326,200	26,000
1963 .....	672	203	25,144	109,007	18,722	33,210	67,471	261,147	15,375
1958 .....	618	179	23,896	82,249	17,823	31,930	51,802	164,861	17,181
1954 .....	520	137	24,381	77,130	19,524	36,114	50,806	140,275	11,693
1939 .....	474	(NA)	19,518	15,319	17,002	(NA)	11,458	58,354	(NA)
1919 .....	496	(NA)	11,744	8,666	9,969	(NA)	6,637	51,917	(NA)
1909 .....	500	(NA)	7,572	2,795	5,904	(NA)	2,109	21,586	(NA)
1899 .....	222	(NA)	4,418	2,038	3,655	(NA)	1,473	11,103	(NA)

NA Not available.

<sup>1</sup>Data are only approximately comparable from year to year; see sources for discussion.

Source: U.S. Bureau of the Census, *Census of Manufacturers, 1963. Area Statistics: Hawaii*, MC 63(3)-12, table 2, and *Census of Manufacturers, 1967. Area Series: Hawaii*, MC67(3)-12, table 2.

**Table 142.—MANUFACTURING, BY INDUSTRY AND COUNTY: 1967**

County and industry	Establishments		All employees		Production workers			Value added by manufacture (million dollars)	Capital expenditures, new (million dollars)
	Total	With 20 employees or more	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (million)	Wages (million dollars)		
The State . . . . .	694	215	25.4	139.6	19.0	35.9	86.9	326.2	26.0
Counties:									
Hawaii . . . . .	72	22	1.9	11.6	1.5	3.1	8.2	34.4	4.2
Honolulu . . . . .	550	170	19.5	107.6	14.4	26.9	64.4	252.2	18.0
Kauai . . . . .	26	10	1.2	6.6	1.0	2.0	4.6	20.6	1.4
Maui . . . . .	49	13	2.8	13.9	2.2	3.9	9.8	19.0	2.3
Industries:									
Canned fruits and vegetables . . . . .	18	8	6.8	26.8	6.1	11.1	20.8	67.2	3.4
Raw cane sugar . . . . .	23	23	3.8	24.4	2.7	5.7	16.3	71.3	10.5
Other food and kindred products . . . . .	176	48	3.6	20.3	2.3	4.2	10.2	46.9	3.9
Apparel, other textile products . . . . .	96	41	2.5	9.9	2.2	4.0	7.4	16.3	(D)
Printing and publishing . . . . .	81	20	2.0	13.0	1.2	2.1	7.4	27.0	1.3
Stone, clay, and glass products . . . . .	43	14	1.1	8.3	0.8	1.6	5.4	18.4	1.8
Other manufacturing industries . . . . .	260	61	5.6	36.9	3.7	7.2	19.4	79.1	5.1

D Included with "other manufacturing industries."

Source: U.S. Bureau of the Census, *Census of Manufactures, 1967. Area Series: Hawaii*, MC67(3)-12, tables 4 and 5.

**Table 143.—GENERAL EXCISE AND USE TAX BASE FOR SUGAR PROCESSING, PINEAPPLE CANNING, AND MANUFACTURING: 1958 TO 1970**

Year	Sugar processing (\$1,000)	Pineapple canning (\$1,000)	Manufacturing (\$1,000)
1958 .....	67,358	107,300	103,867
1959 .....	113,865	98,957	129,123
1960 .....	99,079	96,939	145,739
1961 .....	118,398	93,777	168,514
1962 .....	135,328	99,143	158,157
1963 .....	146,761	99,353	170,501
1964 .....	148,103	109,808	178,830
1965 .....	152,701	123,761	188,741
1966 .....	178,909	105,747	205,463
1967 .....	171,155	131,695	218,272
1968 .....	184,663	114,554	234,071
1969 .....	196,744	116,466	279,482
1970 .....	175,337	114,634	285,251

Source: Hawaii State Department of Taxation, annual releases.

**Table 144.—PINEAPPLE PRODUCTION: 1903 TO 1970**

Year <sup>1</sup>	Number of actual cases			Concentrated juice (equivalent 6/10 cases)
	Total	Fruit	Juice, except concentrated	
1903 .....	1,893	1,893	—	—
1910 .....	464,968	464,968	—	—
1920 .....	5,986,986	5,986,986	—	—
1930 .....	12,672,296	12,672,296	—	—
1940 .....	21,479,449	12,923,553	8,555,896	—
1950 .....	25,183,903	14,073,323	11,110,580	—
1960 .....	28,136,990	17,286,739	10,850,251	840,508
1961 .....	30,035,864	18,461,912	11,573,952	723,619
1962 .....	29,880,482	18,121,674	11,758,808	449,715
1963 .....	30,395,233	18,457,107	11,938,126	728,075
1964 .....	28,794,589	17,644,797	11,149,792	1,184,964
1965 .....	26,728,812	16,301,014	10,427,798	1,041,084
1966 .....	29,714,443	17,833,405	11,881,038	1,129,046
1967 .....	30,327,598	19,004,793	11,322,805	1,211,166
1968 .....	28,035,755	17,241,338	10,794,417	679,735
1969 .....	28,659,533	17,729,546	10,929,987	1,011,512
1970 .....	28,784,396	16,970,762	11,813,634	731,294

<sup>1</sup>Calendar years, 1903-1930; fiscal or pack years ended May 31, 1940 and thereafter.

Source: Pineapple Growers Association of Hawaii, *Pineapple Fact Book Hawaii 1969* (May 1969), p. 18, and records.

**Table 145.—SUGAR PRODUCTION: 1837 TO 1970**

Year	Total cane land (acres)	Sugar produced (96° raw value, short tons)	Average yield per acre (short tons)	Ave. N.Y. raw sugar price cwt. (dollars)	Ave. daily cash wage, non-superv. employees (dollars)	Man-hours per ton of sugar
1837 .....	—	2	—	—	—	—
1840 .....	—	180	—	—	—	—
1850 .....	—	375	—	—	—	—
1860 .....	—	572	—	—	—	—
1870 .....	—	9,392	—	—	—	—
1880 .....	—	31,792	—	—	—	—
1890 .....	—	129,899	—	—	—	—
1900 .....	—	289,544	—	—	—	—
1909-1910 <sup>1</sup> .....	209,469	529,940	37.4	—	—	—
1919-1920 <sup>1</sup> .....	247,838	560,379	39.2	—	—	—
1929-1930 <sup>1</sup> .....	242,761	939,287	58.7	—	—	—
1940 .....	235,110	976,677	62.7	2.78	2.18	—
1950 .....	220,383	960,961	74.7	5.93	8.30	25.86
1960 .....	224,617	935,744	83.15	6.31	13.18	16.72
1961 .....	227,027	1,092,481	88.58	6.30	14.11	13.90
1962 .....	228,926	1,120,011	90.36	6.45	14.96	13.76
1963 .....	231,321	1,100,768	93.39	8.20	16.68	13.56
1964 .....	233,145	1,178,770	94.76	6.90	17.60	11.76
1965 .....	235,576	1,217,667	97.97	6.75	18.40	10.82
1966 .....	237,499	1,234,121	98.82	6.99	19.76	10.50
1967 .....	239,813	1,191,042	98.74	7.28	21.35	10.88
1968 .....	242,476	1,232,182	99.36	7.52	21.62	10.52
1969 .....	242,216	1,182,414	95.73	7.75	23.26	(NA)
1970 .....	(NA)	1,162,025	(NA)	(NA)	(NA)	(NA)

<sup>1</sup>Year ending September 30.

Source: U.S. Bureau of Labor Statistics, *Labor in the Territory of Hawaii, 1939* (1940), p. 12; Hawaiian Sugar Planters' Association, *HSPA Sugar Manual* [1970], pp. 6-9, and records.