

THE MINERAL INDUSTRY OF HAWAII

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the Department of Land and Natural Resources of the State of Hawaii for collecting information on all nonfuel minerals.

Hawaii remained 43d among the 50 States in total nonfuel mineral production value¹ in 1996, according to the U.S. Geological Survey (USGS). The estimated value for 1996 was \$112 million, about a 2% decrease from that of 1995. This followed a 1.7% decrease from 1994 to 1995 (based on final 1995 data). The State accounted for a little less than one-half percent of the U.S. total nonfuel mineral production value.

Mining in Hawaii consisted mostly of the quarrying of stone to produce crushed stone and the extraction of sand and gravel from open pits, both for use by the Islands' construction industry. Most of the State's portland cement was produced at one manufacturing plant on the island of Oahu, Honolulu County. Hawaii's small decrease in the value of nonfuel mineral production in 1996 is mostly attributable to portland cement. While the value of crushed stone increased by 5% and construction sand and gravel edged up slightly, almost a 14% decrease in portland cement plus a small drop in masonry cement more than offset the increase. In 1995, except for the net decrease, the opposite was true. The decrease in crushed stone value was larger than the increase in portland cement. Both mineral commodities have shown an

overall decrease in value since both reached a high in 1992. In 1992, 9.5 million metric tons of crushed stone were produced at an estimated value of \$93.5 million and 520,000 tons of portland cement were produced at a value of almost \$54 million.

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1996 USGS mineral production data published in this chapter are estimates as of February 1997. Construction sand and gravel, crushed stone, and portland cement estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at: <http://minerals.er.usgs.gov/minerals/contacts/comdir.html>.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN HAWAII 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1994		1995		1996 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	6	395	5	501	5	455
Portland	404	28,300	357	35,500	305	30,300
Sand and gravel (construction)	521	4,740	405	4,030	425	4,340
Stone (crushed)	8,170	82,300	7,450 3/	73,500 3/	7,800 3/	77,200 3/
Total 4/	XX	116,000	XX	114,000	XX	112,000

p/ Preliminary. XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Excludes certain stones; data excluded to avoid disclosing company proprietary data.

4/ Partial total, excludes values that must be concealed to avoid disclosing company proprietary data.

TABLE 2
HAWAII: CRUSHED STONE 1/ SOLD OR USED BY PRODUCERS
IN 1995, BY USE 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Riprap and jetty stone	7	\$102	\$14.60
Filter stone	30	265	8.83
Other coarse aggregate	269	3,070	11.40
Coarse aggregate, graded:			
Concrete aggregate, coarse	1,310	18,000	13.70
Bituminous aggregate, coarse	192	1,920	10.00
Fine aggregate (-3/8 inch):			
Stone sand, concrete	532	8,080	15.20
Stone sand, bituminous mix or seal	153	1,560	10.20
Screening, undesignated	W	W	4.10
Other fine aggregate	W	W	11.80
Coarse and fine aggregates:			
Graded road base or subbase	692	6,990	10.10
Unpaved road surfacing	W	W	8.71
Terrazzo and exposed aggregate	W	W	10.00
Crusher run or fill or waste	1,130	6,120	5.42
Other construction materials 3/	328	2,110	6.43
Agricultural: Agricultural limestone	(4/)	(4/)	20.50
Chemical and metallurgical: Cement manufacture	(4/)	(4/)	8.30
Unspecified: 5/			
Actual	32	351	11.00
Estimated	2,430	22,000	9.05
Total	7,450	73,500	9.87

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials."

1/ Includes limestone, traprock, and volcanic cinder and scoria; excludes miscellaneous stone and sandstone from State total to avoid disclosing company proprietary data.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes pipe bedding and roofing granules.

4/ Withheld to avoid disclosing company proprietary data; included in "Total."

5/ Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 3
HAWAII: CRUSHED STONE SOLD OR USED, BY KIND 1/

Kind	1994				1995			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	7 r/	1,070 r/	\$11,200 r/	\$10.50	7	1,190	\$10,300	\$8.66
Sandstone	1	W	W	11.00	(2/)	(2/)	(2/)	(2/)
Traprock	21 r/	6,680 r/	66,800 r/	10.00 r/	22	6,230	63,100	10.10
Volcanic cinder and scoria	6 r/	74 r/	426 r/	5.76 r/	4	29	166	5.72
Miscellaneous stone	2 r/	W	W	11.00	(2/)	(2/)	(2/)	(2/)
Total	XX	8,170	82,300	10.10	XX	7,450	73,500	9.87

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Excludes miscellaneous stone and sandstone from State total to avoid disclosing company proprietary data.