

THE MINERAL INDUSTRY OF SOUTH CAROLINA

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 South Carolina Geological Survey for collecting information on all nonfuel minerals.

South Carolina climbed in rank from 30th to 27th in the Nation in total nonfuel mineral production value¹ in 1996, according to the U.S. Geological Survey (USGS). The estimated value for 1996 was \$495 million, about a 10.6% increase from that of 1995. This followed a more than 13% increase from 1993 to 1994 and a 1.1% increase from 1994 to 1995 (based on revised final 1994 and final 1995 data). The State accounted for more than 1% of the U.S. total nonfuel mineral production value.

In 1996, nearly all nonfuel minerals increased in value except for kaolin clay and vermiculite, both of which decreased by a small amount. Portland cement led the way with a \$16-million increase, followed by crushed stone, up \$14 million, and gold and construction sand and gravel, up about \$12 million and \$4 million, respectively. In 1995, a nearly \$9-million decrease in kaolin value and a smaller drop in the value of gold were more than offset by the nonfuel minerals that increased in value. Portland cement increased by nearly \$13 million, and smaller yet significant increases occurred in masonry cement and construction and industrial sand and gravel. (*See table 1.*)

Based on USGS estimates of the quantities produced in the 50 States in 1996, South Carolina remained first of two States that produced vermiculite and fourth in crude mica. The State rose from sixth to fifth in the production of masonry cement, from seventh to sixth in common clays, from ninth to seventh in gold; while it dropped from

second to third in kaolin. Manganiferous ore was produced in South Carolina alone; however, the ore, a manganiferous schist, was used as a brick colorant and not in the production of manganese metal. Additionally, significant quantities of portland cement, crushed stone, and industrial sand and gravel were produced in the State. Primary aluminum and raw steel also were produced in the State, but from raw materials that were acquired from other domestic and foreign sources. In 1996, South Carolina climbed in rank from 11th to 7th of 14 States in the production of primary aluminum.

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. For some commodities (for example, 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 SOUTH CAROLINA 1/ 2/

(Thousand metric tons and thousand dollars)

Mineral	1994		1995		1996 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement (portland)	2,210	143,000	2,210	156,000	2,440	172,000
Clays	1,520 3/	30,400 3/	1,620	21,700 3/	1,690	21,700
Sand and gravel:						
Construction	8,600	26,100	8,880	29,000	9,590	33,100
Industrial	699	18,100	839	20,500	839	20,500
Stone (crushed)	20,500 4/	131,000 4/	22,000	132,000	23,800	146,000
Combined value of cement (masonry), clays [fire (1995), kaolin (1994)], gemstones, gold, manganiferous ore, mica (scrap), peat, silver, stone [crushed marble (1994), dimension granite], and vermiculite	XX	93,900	XX	88,700	XX	102,000
Total	XX	442,000	XX	447,000	XX	495,000

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 clays; kind and value included with "Combined value" data.

4/ Excludes certain stones; kind and value included with "Combined value" data.

TABLE 2
SOUTH CAROLINA: 1/ CRUSHED STONE 2/ SOLD OR USED BY PRODUCERS
IN 1995, BY USE 3/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Macadam	W	W	\$5.07
Riprap and jetty stone	375	\$3,290	8.77
Filter stone	W	W	6.32
Coarse aggregate, graded:			
Concrete aggregate, coarse	2960	19900	6.72
Bituminous aggregate, coarse	2330	16500	7.07
Railroad ballast	134	913	6.81
Other graded coarse aggregate 4/	320	2340	7.31
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	2.96
Stone sand, bituminous mix or seal	W	W	5.96
Screening, undesignated	636	4430	6.96
Coarse and fine aggregates:			
Graded road base or subbase	3810	21400	5.61
Crusher run or fill or waste	862	4430	5.14
Other coarse and fine aggregates	46	319	6.93
Other construction materials	1160	7600	6.54
Chemical and metallurgical: Cement manufacture	(5/)	(5/)	2.66
Unspecified: 6/			
Actual	(5/)	(5/)	5.98
Estimated	79	428	5.42
Total	22000	132000	5.98

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

1/ To avoid disclosing company proprietary data; "District tables were not produced for 1995."

2/ Includes calcareous marl, granite, limestone, and marble.

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

4/ Includes bituminous surface-treatment aggregate.

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

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

TABLE 3
SOUTH CAROLINA: 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/	3,070 r/	\$13,000 r/	\$4.23 r/	9	3,140	\$14,000	\$4.44
Calcareous marl	2 r/	W	W	W	2	W	W	W
Granite	21	15,200	97,600	6.43	23	16,600	109,000	6.57
Marble	1	W	W	W	1	W	W	W
Total	XX	20,500 r/	131,000 r/	6.40 r/	XX	22,000	132,000	5.98

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.

TABLE 4
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1995,
BY MAJOR USE CATEGORY 1/

Use	Quantity		
	(thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate (including concrete sand) 2/	4,170	\$16,300	\$3.90
Concrete products (blocks, bricks, pipe, decorative, etc.)	184	642	3.49
Asphaltic concrete aggregates and other bituminous mixtures	642	1,690	2.63
Road base and coverings 3/	86	190	2.21
Fill	760	1,710	2.25
Snow and ice control	8	51	6.38
Other	929	2,330	2.50
Unspecified: 4/			
Actual	486	1,360	2.80
Estimated	1,620	4,780	2.96
Total or average	8,880	29,000	3.27

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

2/ Includes plaster and gunite sands.

3/ Includes road and other stabilization (cement).

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

TABLE 5
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1995, BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 2/	227	1,070	1,580	6,000	2,540	9,840
Asphaltic concrete aggregates and road base materials 3/	309	1,170	144	334	1,040	2,140
Other miscellaneous uses	8	114	--	--	921	2,210
Unspecified: 4/						
Actual	--	--	486	1,360	--	--
Estimated	4	15	584	1,490	1,030	3,280
Total	548	2,360	2,800	9,190	5,540	17,500

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

2/ Includes plaster and gunite sands.

3/ Includes fill, road and other stabilization (cement), and snow and ice control.

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