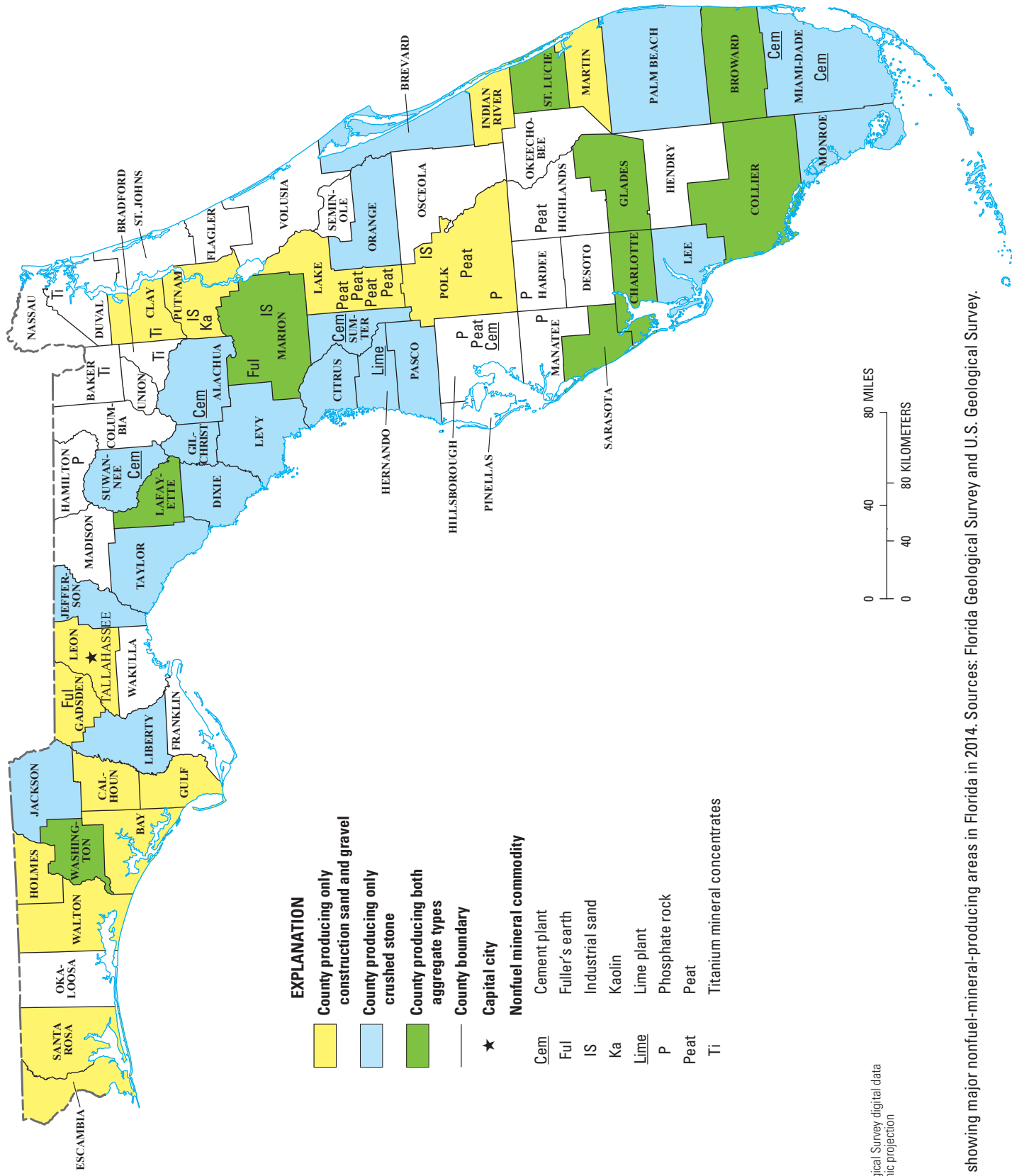




2014 Minerals Yearbook

FLORIDA [ADVANCE RELEASE]



Base from U.S. Geological Survey digital data
 Albers Equal-Area Conic projection

Figure 1. Map showing major nonfuel-mineral-producing areas in Florida in 2014. Sources: Florida Geological Survey and U.S. Geological Survey.

THE MINERAL INDUSTRY OF FLORIDA

By Madan M. Singh

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Florida Geological Survey for collecting information on all nonfuel minerals.

In 2014, in the State of Florida (fig. 1), the value of nonfuel mineral production¹ was \$2.89 billion. This was a 19.5% decrease from the State's nonfuel mineral production value of \$3.59 billion in 2013 (table 1). Florida accounted for approximately 3.6% of the total U.S. nonfuel mineral value in 2014, which ranked it ninth among the 50 States. On a per capita basis, the value of nonfuel mineral production decreased to \$145 as compared with \$183 in 2013. The number of mines and mine employment also decreased slightly in 2014 (table 2).

In 2014, the leading five minerals in the State, in descending order of production value, were phosphate rock, crushed stone, portland cement, construction sand and gravel, and masonry cement. Based on production quantity, Florida was the only State producing staurolite and led all States in the production of attapulgite, masonry cement, peat, and phosphate rock out of 3, 25, 12, and 4 producing States, respectively.

Events, Trends, and Issues

In 2014, Florida produced nearly 65% of domestic U.S. phosphate rock production capacity, about 90% of which was used for fertilizer. In March 2014, Mosaic completed the acquisition of all CF Industries Holdings Inc. In July, the company closed the Hookers Prairie Mine because its reserves were depleted. Phosphate that was not used for fertilizer was used for animal feed supplements. The combined value for minerals

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the 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 USGS mineral production data published in this chapter are those available as of June 2017. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the internet at <http://minerals.usgs.gov/minerals>.

in 2014 was lower than in 2013 because of less phosphate production (which was significantly lower because of the mine closure mentioned above), use of high stocks accumulated in 2013, and slight reduction in production of phosphoric acid and fertilizer (Jasinski, 2016, p. 56.1).

Ilmenite and rutile are primary components in the production of titanium dioxide pigments, used in the manufacture of paint, varnish and lacquers, plastics, and paper.

Nonfuel mineral production in the State surpassed \$4 billion in value in 2009, but was below that figure before and after that year (fig. 2). In 2014, the production quantity of construction sand and gravel increased by 8.8% and crushed stone increased by 6.2% from the previous year. In the 2007–9 prerecession period, the quantities of industrial sand and gravel production in Florida were in the range of 400,000 to 600,000 metric tons, but the values were lower than in 2013 and 2014.

Aggregates by State and End Use

A companion dataset, "Aggregates by State and End Use," replaces the discrete aggregate tables that were included in the individual State chapters prior to 2014 and is available on the State Minerals Statistics and Information web page at <https://minerals.usgs.gov/minerals/pubs/state/>. This dataset is updated annually.

Reference Cited

Jasinski, S.M., 2016, Phosphate rock [advance release], *in* Metals and minerals: U.S. Geological Survey Minerals Yearbook 2014, v. I, p. 56.1–56.9. (Accessed April 25, 2018, at https://minerals.usgs.gov/minerals/pubs/commodity/phosphate_rock/myb1-2014-phosp.pdf.)

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN FLORIDA^{1,2,3}

(Thousand metric tons and thousand dollars)

Mineral	2012		2013		2014	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	225	25,500 ^e	342	42,500 ^e	365	47,700 ^e
Portland	3,790	313,000 ^e	4,680	402,000 ^e	4,990	453,000 ^e
Clays, common clay	2	W	--	--	--	--
Gemstones, natural ^c	NA	1	NA	1	NA	2
Peat	356	7,270	338	6,800	370	7,340
Sand and gravel:						
Construction	13,700	111,000	14,700 ^r	133,000 ^r	16,000	152,000
Industrial	195	5,800	200	10,300	219	12,100
Stone, crushed	48,200 ^r	578,000 ^r	53,900 ^r	632,000 ^r	57,200	681,000
Combined values of clays (fuller's earth and kaolin), lime, phosphate rock, staurolite, titanium mineral concentrates (ilmenite), zircon concentrates, and value indicated by symbol W						
	XX	2,780,000	XX	2,370,000	XX	1,540,000
Total	XX	3,820,000 ^r	XX	3,590,000	XX	2,890,000

^eEstimated. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Combined values" data. XX Not applicable. -- Zero.

¹Includes data available through June 2017.

²Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

³Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
MINING ACTIVITY IN FLORIDA

Mining activity	2012	2013	2014
State rank ¹	4	5	9
Employment, number: ²			
Nonfuel mineral mines	2,109	2,190	2,182
Mills and plants	1,585	1,588	1,583
Number of nonfuel mineral mines ²	154	160	159
Number of mills and plants ²	49	50	50
Average annual wage, all mining ³	dollars per year	60,779	63,457
Average annual wage, all industries ³	do.	42,441	42,896
Per capita value ¹	dollars per person	198	183
National per capita value ¹	do.	241	236

do. Ditto.

¹Based on unadjusted State total value.

²Source: U.S. Mine Safety and Health Administration.

³Source: National Mining Association.

TABLE 3
STRUCTURE OF THE NONFUEL MINERAL INDUSTRY IN FLORIDA

(Nonfuel-mineral-producing companies, not including aggregate producers)

Commodity	Company	County
Cement	American Cement Co. LLC (Sumterville plant)	Sumter
Do.	Argos USA Corp. (Newberry and Miami plants)	Alachua and Hillsborough
Do.	CEMEX, Inc. (Brooksville N & S and Miami plants)	Dade and Hernando
Do.	Suwannee American Cement Co. (Branford plant)	Suwannee
Do.	Titan Cement Co. S.A. (Pennsuco plant)	Dade
Clays:		
Fuller's earth	BASF Inc.	Gadsden
Do.	Mid Florida Mining Co	Marion
Kaolin	Feldspar Corp.	Putnam
Gemstones ¹	Various	Various
Lime	Lhoist North America (Brooksville)	Hernando
Peat	C & C Peat Co.	Lake
Do.	Florida Potting Soils Inc. (Sun-Gro Horticulture)	Do.
Do.	Harrell's Horticultural Products	Highlands
Do.	Hillary Peat Co.	Do.
Do.	Reliable Peat Co.	Lake
Do.	The Scotts Miracle-Gro Co.	Do.
Phosphate rock	Mosaic Fertilizer, LLC	Hardee, Hillsborough, Manatee, Polk
Do.	PCS Phosphate Co.	Hamilton
Sand and gravel, industrial	Edgar Minerals Inc	Putnam
Do.	Florida Rock Industries Inc	Do.
Do.	Standard S&S Co.	Marion
Do.	ICS Materials Inc	Polk
Do.	Jahna E R Industries Inc	Do.
Titanium mineral concentrates, ilmenite and rutile	Chemours	Baker, Bradford, Clay, Duval
Zircon	do.	Bradford

Do., do. Ditto.

¹Most natural gemstone producers in the United States are small businesses that are widely dispersed and operate independently.

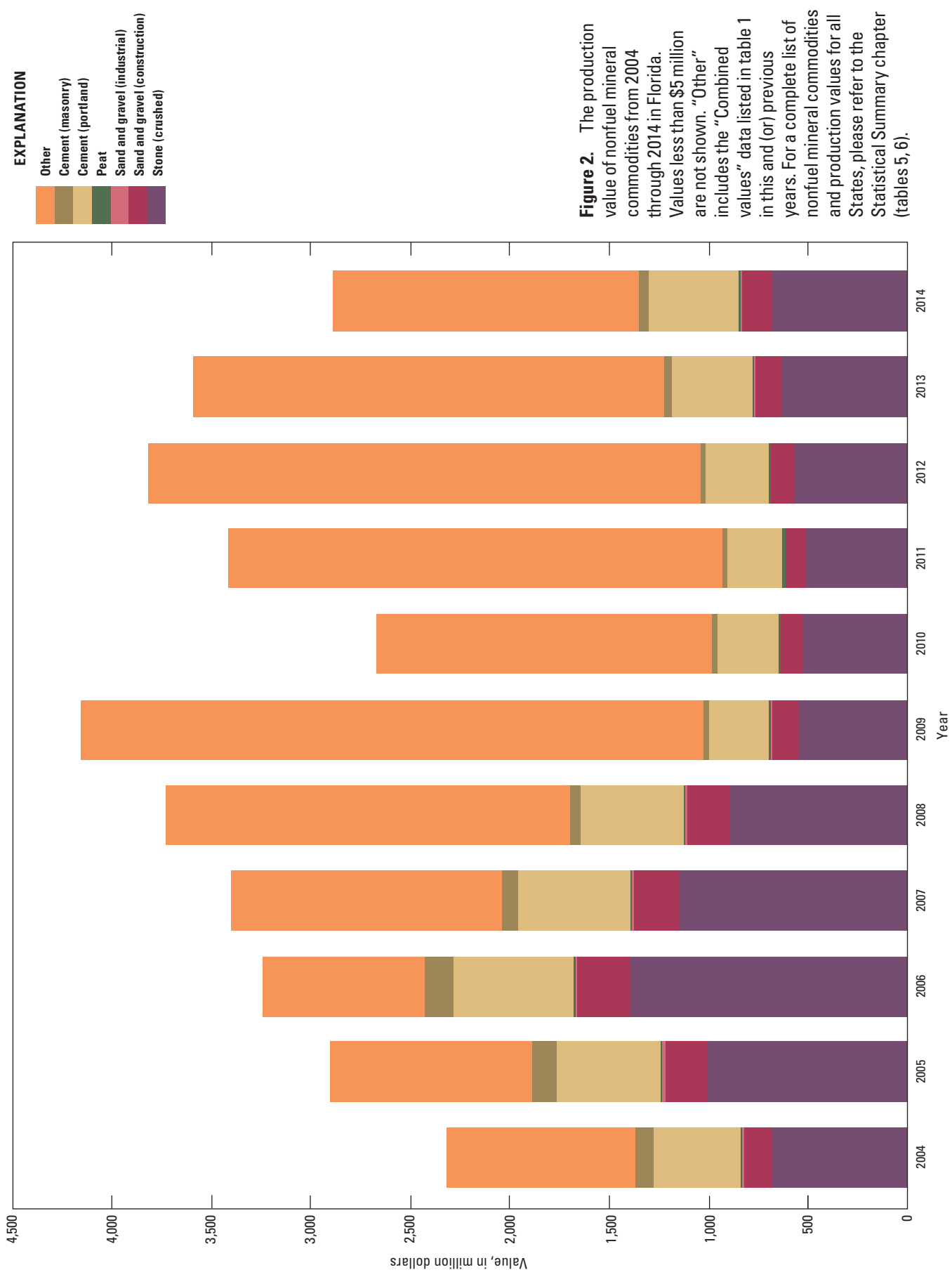


Figure 2. The production value of nonfuel mineral commodities from 2004 through 2014 in Florida. Values less than \$5 million are not shown. "Other" includes the "Combined values" data listed in table 1 in this and (or) previous years. For a complete list of nonfuel mineral commodities and production values for all States, please refer to the Statistical Summary chapter (tables 5, 6).