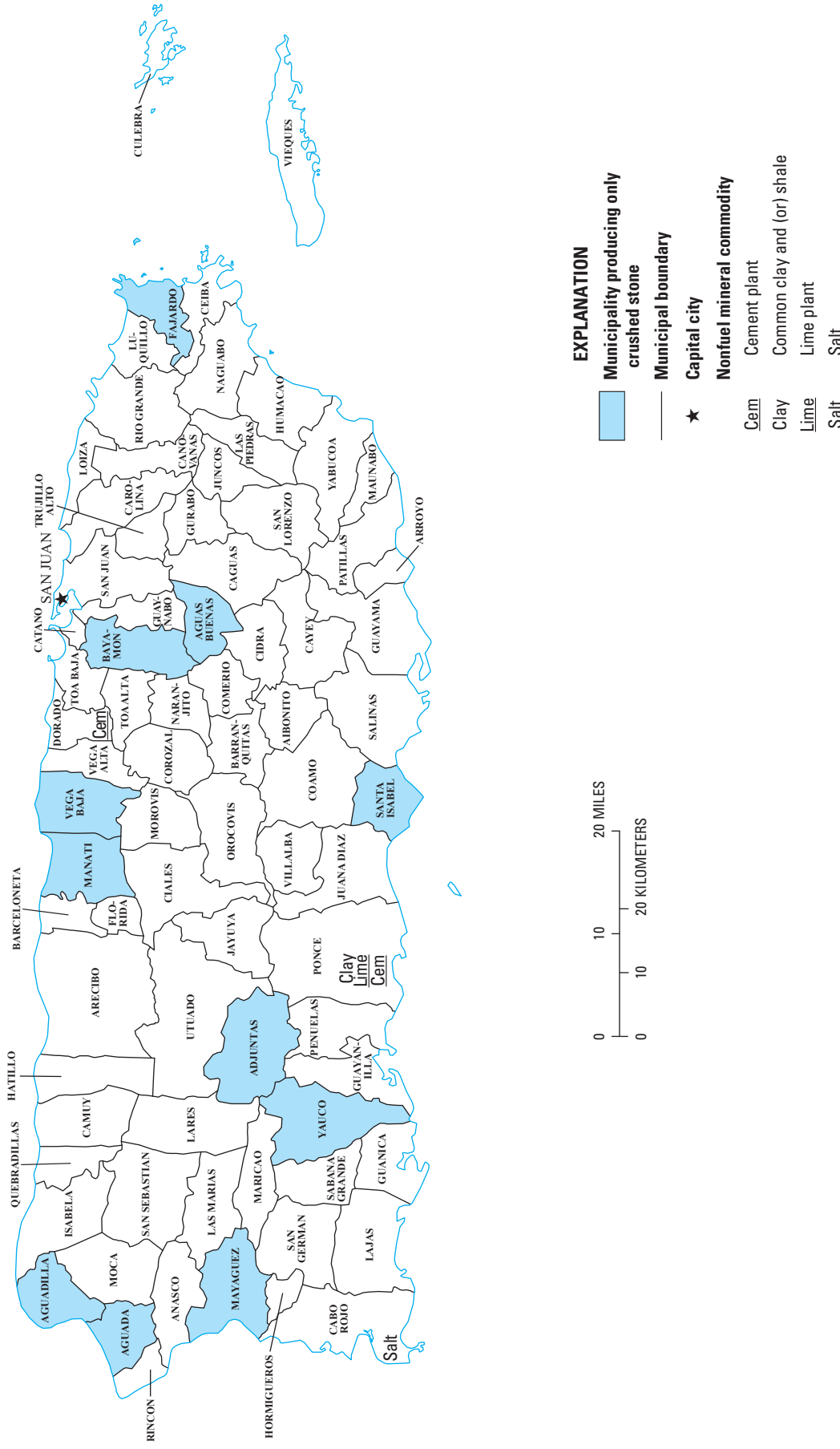




2014 Minerals Yearbook

PUERTO RICO [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 Puerto Rico in 2014. Source: U.S. Geological Survey. The U.S. Geological Survey did not survey sand and gravel operations.

THE MINERAL INDUSTRY OF PUERTO RICO

By Robert M. Callaghan

In 2014, the partial value of the nonfuel mineral production¹ in the Commonwealth of Puerto Rico (fig. 1) was \$60.2 million,² a 9% decrease from the 2013 revised partial total of \$66.5 million² (table 1). Crushed stone was the primary mineral commodity produced; construction sand and gravel was also produced but the USGS has not surveyed sand and gravel producers of Puerto Rico in recent years, including 2014. Cement, lime, and salt were produced for consumption in Puerto Rico and for export; clay was produced for use in the cement industry. On a per capita basis, the combined value of clay, crushed stone, lime, and salt decreased to \$17 in 2014 compared with an average of \$252 in the 50 States, and employment decreased in mines and mills of Puerto Rico (table 2).

Events, Trends, and Issues

Puerto Rico's nonfuel mineral industry began to recover in terms of value after the recession of 2007–09 but after 2012 continued a decreasing trend (fig. 2). The value of cement was excluded from the time series to avoid disclosing company proprietary data. In terms of quantity, including portland cement, Puerto Rico's nonfuel mineral production continued a downward trend that began in 2008, and production was lower in 2014 than at any point in the previous 10 years. Because of economic difficulty, decreased funding was available for public construction and infrastructure projects that would use aggregates. Housing unit completions, an indicator of private construction activity, stood at 2,474 in 2014, a low in recent years, and significantly below the peak of 19,780 in 2002 (U.S. Census Bureau, undated). This was in part because of decreasing population; the peak of about 3.9 million took place in 2004 before beginning to decline to about 3.5 million in 2014 (U.S. Census Bureau, 2016, 2018).

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>.

²Partial total; excludes values that must be withheld to avoid disclosing company proprietary data.

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.

References Cited

- U.S. Census Bureau, 2016, Intercensal estimates of the resident population for municipios of Puerto Rico—April 1, 2000 to July 1, 2010 (PR-EST00INT-02): U.S. Census Bureau, Population Division, Release Date September 2011, Last Revised November 30, 2016. (Accessed February 8, 2018, at <https://www2.census.gov/programs-surveys/popest/tables/2000-2010/intercensal/puerto-rico/pr-est00int-02.xls>.)
- U.S. Census Bureau, 2018, Annual estimates of the resident population for the United States, regions, States, and Puerto Rico—April 1, 2010 to July 1, 2017 (NST-EST2017-01): U.S. Census Bureau, Population Division, Release Date December 2017, Last Revised January 18, 2018. (Accessed February 8, 2018, at <https://www2.census.gov/programs-surveys/popest/tables/2010-2017/state/totals/nst-est2017-01.xlsx>.)
- U.S. Census Bureau, [undated], Number of new residential housing units by State (total): U.S. Census Bureau, 51 p. (Accessed July 16, 2016, at <http://www.census.gov/construction/bps/xls/annualhistorybystatebystructure.xls>.)

TABLE 1
NONFUEL MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO BY THE UNITED STATES^{1,2,3,4}

(Thousand metric tons and thousand dollars)

Mineral	2012		2013		2014	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	(5)	W	(5)	W	--	--
Portland	783	W	610	W	588	W
Clays, common clay ^c	55	328	58 ^r	320 ^r	58	320
Lime	W	3,760 ^e	W	3,760 ^e	W	3,760 ^e
Salt ^c	45	1,500	45	1,500	45	1,720
Stone, crushed	7,410 ^r	74,300 ^r	5,990 ^r	61,000 ^r	5,410	54,500
Total	XX	79,900 ^r	XX	66,500 ^r	XX	60,200

^eEstimated. ^rRevised. W Withheld to avoid disclosing company proprietary data; excluded from "Total." 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.

⁴Crushed stone data from the Administered Islands (American Samoa, Guam, and the Virgin Islands) are all withheld to avoid disclosing company proprietary data.

⁵Less than ½ unit.

TABLE 2
MINING ACTIVITY IN PUERTO RICO

Mining activity	2012	2013	2014
State rank	NA	NA	NA
Employment, number: ¹			
Nonfuel mineral mines	649	568	463
Mills and plants	525	523	512
Number of nonfuel mineral mines ¹	81	80	69
Number of mills and plants ¹	29	27	25
Average annual wage, all mining	dollars per year	NA	NA
Average annual wage, all industries	do.	NA	NA
Per capita value ²	dollars per person	22	17
National per capita value ³	do.	241	236

do. Ditto. NA Not available.

¹Source: U.S. Mine Safety and Health Administration.

²Based on partial Commonwealth total value to avoid disclosing company proprietary data.

³Based on unadjusted Commonwealth total value.

TABLE 3
STRUCTURE OF THE NONFUEL MINERAL INDUSTRY IN PUERTO RICO

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

Commodity	Company	Municipality
Cement	CEMEX S.A. de C.V.	Ponce
Do.	Essroc San Juan, Inc.	Dorado
Lime	CEMEX S.A. de C.V.	Ponce
Salt	Prisco Solar Salt	Cabo Rojo
Do. Ditto.		

EXPLANATION

- Other
- Clays (common clay)
- Lime
- Salt
- Stone (crushed)

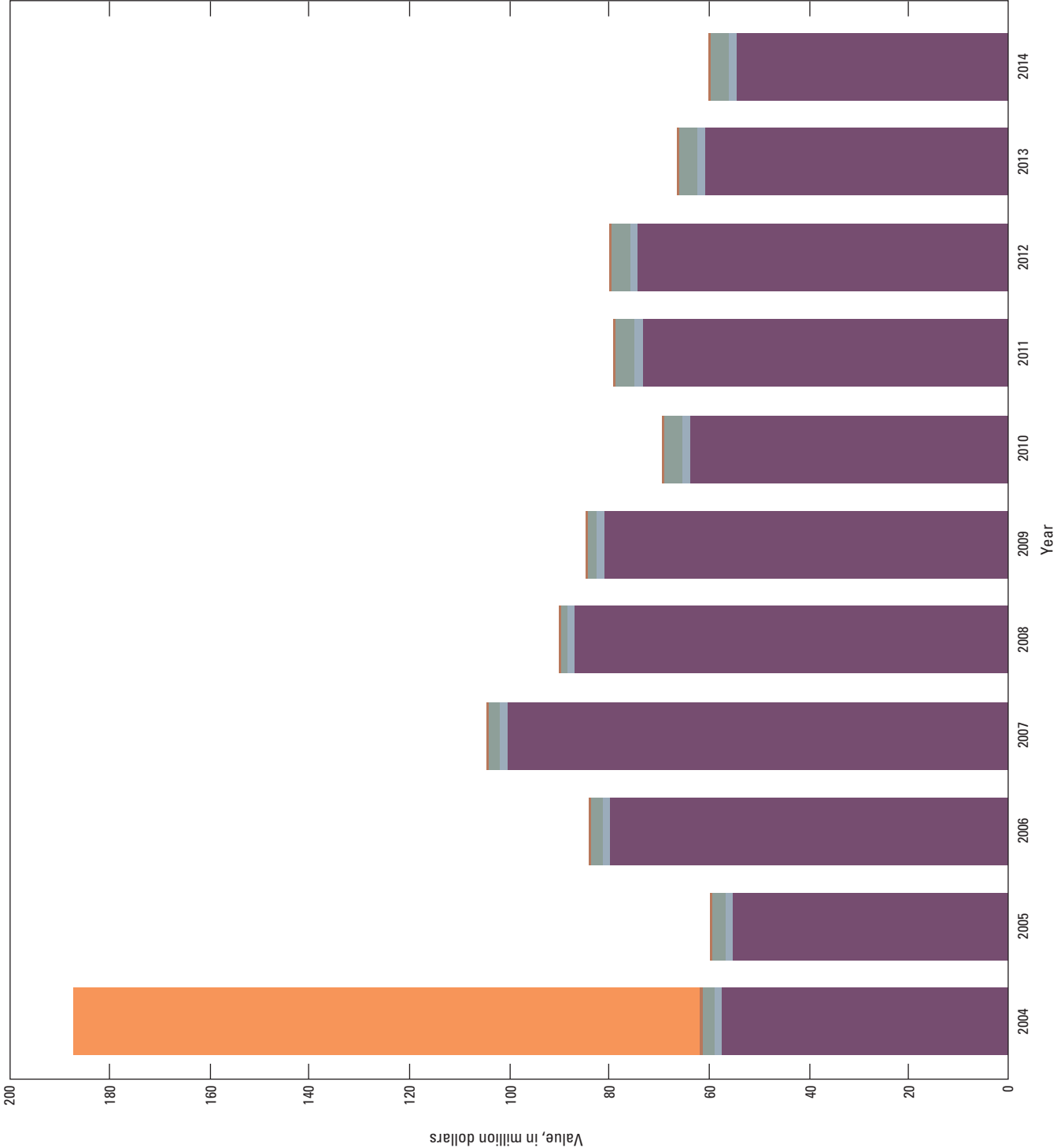


Figure 2. The production value of nonfuel mineral commodities from 2004 through 2014 in Puerto Rico. "Other" includes the "Combined values" data listed in table 1 in this and (or) previous years. For a complete list of nonfuel mineral commodities and production values for all States, please refer to the Statistical Summary chapter (tables 5, 6).