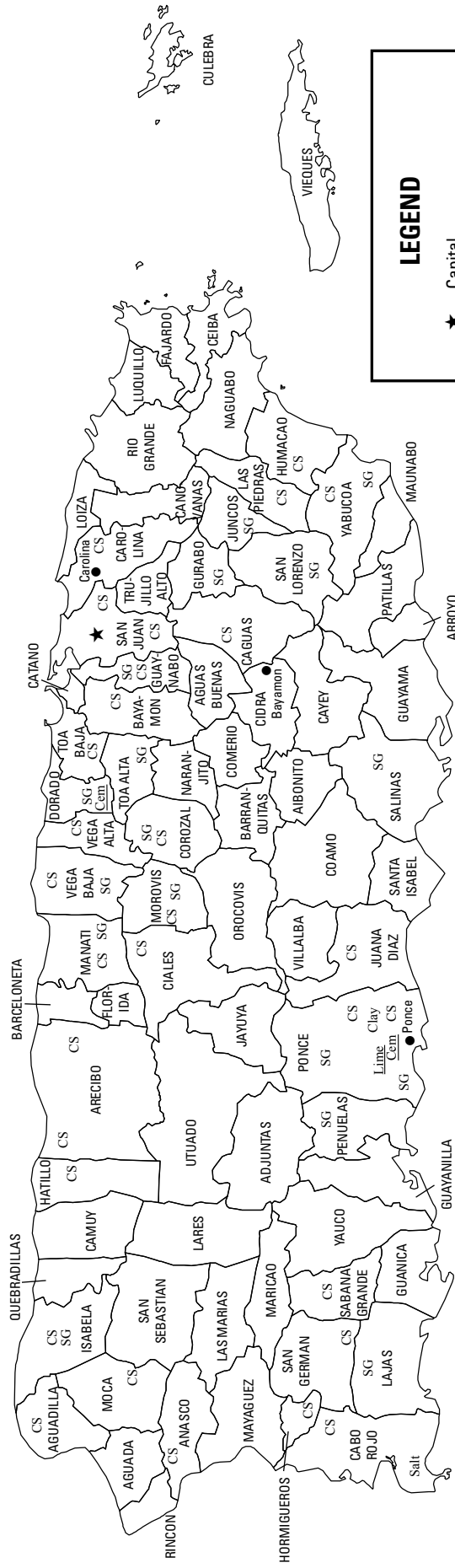




2009 Minerals Yearbook

PUERTO RICO

PUERTO RICO

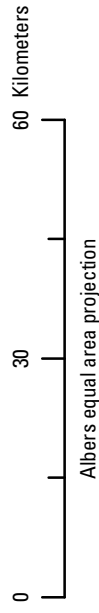


LEGEND

- ★ Capital
- City
- Municipality boundary

**MINERAL SYMBOLS
(Principal producing areas)**

- Cem Cement plant
- Clay Common clay
- CS Crushed stone
- Lime Lime plant
- Salt Salt
- SG Construction sand and gravel



Source: Department of Natural Resources, Commonwealth of Puerto Rico/U.S. Geological Survey (2009).

THE MINERAL INDUSTRY OF PUERTO RICO AND THE ADMINISTERED ISLANDS¹

In 2009, Puerto Rico's nonfuel raw mineral production¹ was valued at \$72.3 million, based upon annual U.S. Geological Survey (USGS) data. This was nearly a \$26.5 million, or 27%, decrease from the \$99 million of 2008, which had decreased by \$6 million, or by 5.4% from 2007 to 2008. If ranked in comparison with the 50 States, Puerto Rico would rank 48th in total nonfuel mineral production value (down from 42d in 2008).

Portland cement, by value remained Puerto Rico's leading nonfuel mineral commodity, followed by crushed stone, lime, salt, and common clay. The value of portland cement decreased by more than 21% in 2009, coinciding with a significant decline in production. The Commonwealth's decrease in total mineral production value does not reflect the value of portland cement in order to avoid disclosing company proprietary data. In 2009, crushed stone decreased in value by \$27.2 million, or 28%, followed by common clays, down by \$109,000, or 25%, from the 2008 production value. The most significant increase in production value was lime, up by \$749,000, or 75%. Additionally, crushed stone value makes up 95% of Puerto Rico's publishable nonfuel mineral value and together with the next leading commodity's value, lime, makes up 97% of the Commonwealth's publishable nonfuel mineral value. The value of salt remained the same as that of 2008.

Construction sand and gravel was produced in Puerto Rico, mainly for use as aggregate in concrete and concrete

¹Data on nonfuel raw mineral production were reported from several of the Administered Islands to the USGS. Only aggregated crushed stone data for the island of Guam of the Pacific Island Possessions and the same for the U.S. Virgin Islands southeast of Puerto Rico are nonproprietary; these data appear in table 1.

²The 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 2009 USGS mineral production data published in this chapter are those available as of September 2011. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

products, as road base materials, and as fill. The collection and compilation of production data for construction sand and gravel in Puerto Rico were discontinued by the U.S. Bureau of Mines (the Federal Government agency then responsible for collecting domestic raw nonfuel mineral production data) because of a substantially low rate of response to surveys by the industry (Sikich and Alonso, 1994). In 1995, the function of collecting mineral production data was transferred to the USGS. The USGS does not survey sand and gravel producers in Puerto Rico; construction sand and gravel operations on the map are based on the Mine Safety and Health Administration's (MSHA's) data. However, in 2009, MSHA reported about 400,000 employee hours in the sand and gravel industry (Solis and Main, 2009). Based on these employee hours, an estimate of about 7 million metric tons of sand and gravel was produced in the Commonwealth in 2009.

In 2009, the significant production of portland cement in Puerto Rico would rank the Commonwealth 20th, if ranked in comparison with the 36 portland cement-producing States in the Nation. Puerto Rico would rank 29th out of 38 in common clay and 32d of all the States in crushed stone, again, if compared with the producing States of each mineral commodity. Salt production value and quantity remained the same as 2008.

Of the U.S. Administered Islands, only American Samoa, Guam, and the Virgin Islands have reported nonfuel mineral production data for 2009, and this was limited to crushed stone (table 1).

References Cited

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TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO AND ISLANDS ADMINISTERED
BY THE UNITED STATES^{1,2}

(Thousand metric tons and thousand dollars)

Mineral	2007		2008		2009	
	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement, portland	1,390	W	1,300	W	936	W
Clays, common	96	547	75	437	54	328
Lime ^e	11	2,250	11	998	11	1,750
Salt	45	1,500	45	1,500	45	1,500
Stone, crushed	13,400	100,000	11,000 ^r	96,000 ^r	8,370	68,700
Total	XX	105,000	XX	98,900 ^r	XX	72,300
Administered Islands:						
American Samoa, stone, crushed	W	W	W	W	W	W
Guam, stone, crushed	329	3,760	325	3,780	296	3,380
Virgin Islands, stone, crushed	W	W	W	W	W	W
Total	XX	3,760	XX	3,780	XX	3,380

^eEstimated. ^rRevised. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.

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

²Data are rounded to no more than three significant digits; may not add to totals shown.