

SAND AND GRAVEL (CONSTRUCTION)¹(Data in million metric tons unless otherwise noted)²

Domestic Production and Use: Construction sand and gravel valued at \$6.7 billion was produced by an estimated 4,100 companies and government agencies from about 6,600 operations in 50 States. Leading producing States were, in order of decreasing tonnage, Texas, California, Minnesota, Michigan, Arizona, Washington, Colorado, North Dakota, Ohio, and New York, which together accounted for about 52% of total output. It is estimated that about 44% of construction sand and gravel was used as concrete aggregates; 25% for road base and coverings and road stabilization; 13% as asphaltic concrete aggregates and other bituminous mixtures; 12% as construction fill; 1% each for concrete products, such as blocks, bricks, and pipes; plaster and gunite sands; and snow and ice control; and the remaining 3% for filtration, golf courses, railroad ballast, roofing granules, and other miscellaneous uses.

The estimated output of construction sand and gravel in the United States, 657 million tons shipped for consumption in the first 9 months of 2013, was 3% higher than the 637 million tons estimated for the same period in 2012. The first two quarters of the year were slightly lower than the same quarters in 2012, but a 9% increase in the third quarter pushed the year-to-date production increase to 3%. A snowier- and colder-than-average fourth quarter may dampen demand and production for the quarter. Additional production information by quarter for each State, geographic region, and the United States is published by the U.S. Geological Survey (USGS) in its quarterly Mineral Industry Surveys for Crushed Stone and Sand and Gravel.

Salient Statistics—United States:	2009	2010	2011	2012	2013^e
Production	838	805	810	^e 839	861
Imports for consumption	3	3	3	3	3
Exports	(³)	(³)	(³)	(³)	(³)
Consumption, apparent	841	808	813	^e 842	864
Price, average value, dollars per ton	7.51	7.30	7.43	^e 7.74	7.80
Employment, mines, mills, and shops, number	30,800	29,500	29,800	30,600	31,500
Net import reliance ⁴ as a percentage of apparent consumption	(³)	(³)	(³)	(³)	(³)

Recycling: Recycling of asphalt road surface layers, cement concrete surface layers, and concrete structures was increasing, although it was still a small percentage of aggregates consumption.

Import Sources (2009–12): Canada, 79%; Mexico, 7%; The Bahamas, 5%; and other, 9%.

Tariff: Item	Number	Normal Trade Relations 12–31–13
Sand, silica and quartz, less than 95% silica	2505.10.5000	Free.
Sand, other	2505.90.0000	Free.
Pebbles and gravel	2517.10.0015	Free.

Depletion Allowance: Common varieties, 5% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: With U.S. economic activity gradually improving, construction sand and gravel output for 2013 increased about 3% compared with that of 2012. The total number of employees in the U.S. construction sand and gravel industry continued to increase from the low employment figure of 2010. According to the U.S. Census Bureau of the Department of Commerce, construction spending in the United States for the first 10 months of 2013 increased by about 5% compared to the same period in 2012. This growth is an indicator of improving conditions for sand and gravel consumption in the United States.

The construction sand and gravel industry remained concerned with environmental, health, permitting, safety, and zoning regulations. Movement of sand and gravel operations away from densely populated regions was expected to continue where regulations and local sentiment discouraged them. Resultant regional shortages of construction sand and gravel would likely result in higher-than-average price increases in industrialized and urban areas.

World Mine Production and Reserves:

	Mine production		Reserves ⁵
	2012	2013 ^e	
United States	^e 839	861	Reserves are controlled largely by land use and/or environmental concerns.
Other countries ⁶	NA	NA	
World total	NA	NA	

World Resources: Sand and gravel resources of the world are plentiful. However, because of environmental restrictions, geographic distribution, and quality requirements for some uses, sand and gravel extraction is uneconomic in some cases. The most important commercial sources of sand and gravel have been glacial deposits, river channels, and river flood plains. Use of offshore deposits in the United States is mostly restricted to beach erosion control and replenishment. Other countries routinely mine offshore deposits of aggregates for onshore construction projects.

Substitutes: Crushed stone, the other major construction aggregate, is often substituted for natural sand and gravel, especially in more densely populated areas of the Eastern United States. Crushed stone remains the dominant choice for construction aggregate use. Increasingly, recycled asphalt and portland cement concretes are being substituted for virgin aggregate, although the percentage of total aggregate supplied by recycled materials remained very small in 2013.

^eEstimated. NA Not available.

¹See also Sand and Gravel (Industrial) and Stone (Crushed).

²[See Appendix A for conversion to short tons.](#)

³Less than ½ unit.

⁴Defined as imports – exports.

⁵[See Appendix C for resource/reserve definitions and information concerning data sources.](#)

⁶No reliable production information is available for most countries owing to the wide variety of ways in which countries report their sand and gravel production. Some countries do not report production for this mineral commodity. Production information for some countries is available in the country chapters of the USGS Minerals Yearbook.