

SAND AND GRAVEL (CONSTRUCTION)¹

(Data in million metric tons unless otherwise noted)

Domestic Production and Use: In 2020, 960 million tons of construction sand and gravel valued at \$9.2 billion was produced by an estimated 3,870 companies operating 6,800 pits and 340 sales and distribution yards in 50 States. Leading producing States were, in order of decreasing tonnage, California, Texas, Arizona, Minnesota, Michigan, Utah, Ohio, Washington, Colorado, and New York, which together accounted for about 53% of total output. It is estimated that about 46% of construction sand and gravel was used as portland cement concrete aggregates, 21% for road base and coverings and road stabilization, 13% for construction fill, 12% for asphaltic concrete aggregate and for other bituminous mixtures, and 4% for other miscellaneous uses. The remaining 4% was used for concrete products, filtration, golf course maintenance, plaster and gunite sands, railroad ballast, road stabilization, roofing granules, and snow and ice control.

The estimated output of construction sand and gravel in the United States shipped for consumption in the first 9 months of 2020 was 719 million tons, a slight decrease compared with that of the same period of 2019. Third quarter shipments for consumption decreased by 4% compared with those of the same period of 2019. Additional production information by quarter for each State, geographic region, and the United States is published by the U.S. Geological Survey in its quarterly Mineral Industry Surveys for crushed stone and sand and gravel.

<u>Salient Statistics—United States:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020^e</u>
Production	887	880	937	962	960
Imports for consumption	3	7	6	5	5
Exports	(2)	(2)	(2)	(2)	(2)
Consumption, apparent ³	891	886	943	967	965
Price, average value, dollars per metric ton	8.41	8.83	9.14	9.32	9.59
Employment, mine and mill, number ⁴	35,300	36,500	38,600	39,600	36,300
Net import reliance ⁵ as a percentage of apparent consumption	(2)	1	1	1	1

Import Sources (2016–19): Canada, 95%; Mexico, 3%; and other, 2%.

<u>Tariff:</u>	<u>Item</u>	<u>Number</u>	<u>Normal Trade Relations</u>
			<u>12–31–20</u>
	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: Construction sand and gravel production was about 960 million tons in 2020, a slight decrease compared with that of 2019. Apparent consumption also decreased slightly to 965 million tons. Demand for construction sand and gravel decreased in 2020 because of measures instituted to mitigate the spread of the global COVID-19 pandemic that caused disruptions in the mining and construction industries. Usually commercial and heavy-industrial construction activity, infrastructure funding, new single-family housing unit starts, and weather affect growth in sand and gravel production and consumption. Long-term increases in construction aggregates demand will be influenced by activity in the public and private construction sectors, as well as by construction work related to security measures being implemented around the Nation. The underlying factors that would support a rise in prices of construction sand and gravel are expected to be present in 2021, especially in and near metropolitan areas.

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 result in higher-than-average price increases in industrialized and urban areas.

World Mine Production and Reserves:

	Mine production		Reserves ⁶
	2019	2020 ^e	
United States	962	960	Reserves are controlled largely by land use and (or) environmental concerns.
Other countries ⁷	NA	NA	
World total	NA	NA	

World Resources:⁶ Sand and gravel resources are plentiful throughout the world. However, because of environmental regulations, geographic distribution, and quality requirements for some uses, sand and gravel extraction is uneconomical 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 2020.

^eEstimated. NA Not available.

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

²Less than ½ unit.

³Defined as production + imports – exports.

⁴Including office staff. Source: Mine Safety and Health Administration.

⁵Defined as imports – exports.

⁶See Appendix C for resource and reserve definitions and information concerning data sources.

⁷No 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 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International.