

## SAND AND GRAVEL (CONSTRUCTION)<sup>1</sup>

(Data in million metric tons, unless otherwise noted)<sup>2</sup>

**Domestic Production and Use:** Construction sand and gravel valued at \$5.7 billion was produced by an estimated 4,000 companies from 6,100 operations in 50 States. Leading States, in order of tonnage, were California, Texas, Michigan, Arizona, Ohio, Washington, and Colorado, which combined accounted for about 46% of the total output. It is estimated that about 48% of the 1.17 billion metric tons of construction sand and gravel produced in 2000 was for unspecified uses. Of the remaining total, about 41% was used as concrete aggregates; 25% for road base and coverings and road stabilization; 14% as asphaltic concrete aggregates and other bituminous mixtures; 13% as construction fill; 2% for concrete products, such as blocks, bricks, pipes, etc.; 2% for plaster and gunite sands; and the remainder for snow and ice control, railroad ballast, roofing granules, filtration, and other miscellaneous uses.

The estimated output of construction sand and gravel in the 48 conterminous States shipped for consumption in the first 9 months of 2000 was about 860 million tons, which represents an increase of 4.1% compared with the same period of 1999. The estimated output of crushed stone in the 48 conterminous States shipped for consumption in the first 9 months of 2000 was 1.18 billion tons, which represents an increase of 3.1% compared with the same period of 1999. 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.

<b>Salient Statistics—United States:</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000<sup>e</sup></b>
Production	<sup>3</sup> 914	952	1,070	1,110	1,170
Imports for consumption	1	2	1	2	2
Exports	1	2	2	2	2
Consumption, apparent	914	952	1,070	1,110	1,170
Price, average value, dollars per ton	4.38	4.47	4.57	4.73	4.87
Stocks, yearend	NA	NA	NA	NA	NA
Employment, quarry and mill, number <sup>e</sup>	33,200	33,900	35,600	37,300	37,500
Net import reliance <sup>4</sup> as a percent of apparent consumption	—	—	—	—	—

**Recycling:** Asphalt road surfaces and cement concrete surfaces and structures were recycled on an increasing basis.

**Import Sources (1996-99):** Canada, 71%; The Bahamas, 11%; Mexico, 8%; and other, 10%.

<b>Tariff: Item</b>	<b>Number</b>	<b>Normal Trade Relations 12/31/00</b>
Sand, construction	2505.90.0000	Free.
Gravel, construction	2517.10.0000	Free.

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

**Government Stockpile:** None.

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**Events, Trends, and Issues:** Construction sand and gravel output increased 5.4% in 2000. It is estimated that 2001 domestic production and U.S. apparent consumption will be about 1.2 billion tons each, a 2.6% increase. Aggregate consumption is expected to continue growing because of increased outlays for highway construction and maintenance provided by the Transportation Equity Act for the 21<sup>st</sup> Century (Public Law 105-178). The law guarantees that \$165 billion will be obligated for highways and \$35 billion for transit work through 2003.

The construction sand and gravel industry continued to be concerned with safety and health regulations and environmental restrictions. Shortages in urban and industrialized areas were expected to continue to increase because of local zoning regulations and land development. For these reasons, movement of sand and gravel operations away from highly populated centers is expected to continue.

### **World Mine Production, Reserves, and Reserve Base:**

	Mine production		Reserves and reserve base <sup>5</sup>
	1999	2000 <sup>e</sup>	
United States	1,110	1,170	The reserves and reserve base are controlled largely by land use and/or environmental constraints.
Other countries	NA	NA	
World total	NA	NA	

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

**Substitutes:** Crushed stone remains the predominant choice for construction aggregate use.

<sup>e</sup>Estimated. NA Not available.

<sup>1</sup>See also Sand and Gravel (Industrial).

<sup>2</sup>See Appendix A for conversion to short tons.

<sup>3</sup>Excludes Hawaii.

<sup>4</sup>Defined as imports - exports + adjustments for Government and industry stock changes; changes in stocks not available and assumed to be zero.

<sup>5</sup>See Appendix C for definitions.