STONE (CRUSHED)1

(Data in million metric tons unless otherwise noted)²

<u>Domestic Production and Use</u>: Crushed stone valued at \$11 billion was produced by 1,600 companies operating 3,900 quarries, 93 underground mines, and 207 sales/distribution yards in 50 States. Leading States, in descending order of production, were Texas, Pennsylvania, Missouri, Illinois, Kentucky, Ohio, Indiana, Virginia, Georgia, and Florida, together accounting for one-half of the total crushed stone output. Of the total crushed stone produced in 2011, about 70% was limestone and dolomite; 14%, granite; 6%, traprock; 5%, miscellaneous stone; 4%, sandstone and quartzite; and the remaining 1% was divided, in descending order of tonnage, among marble, slate, calcareous marl, volcanic cinder and scoria, and shell. It is estimated that of the 1.15 billion tons of crushed stone consumed in the United States in 2011, 46% was reported by use, 27% was reported for unspecified uses, and 27% of the total consumed was estimated for nonrespondents to the U.S. Geological Survey (USGS) canvasses. Of the 512 million tons reported by use, 82% was used as construction material, mostly for road construction and maintenance; 10%, for cement manufacturing; 2% each, for lime manufacturing and for agricultural uses; and 4%, for special and miscellaneous uses and products. To provide a more accurate estimate of the consumption patterns for crushed stone, the "unspecified uses—reported and estimated," as defined in the USGS Minerals Yearbook, are not included in the above percentages.

The estimated output of crushed stone in the 48 conterminous States shipped for consumption in the first 6 months of 2011 was 507 million tons, a decrease of 3.7% compared with that of the same period of 2010. Second quarter shipments for consumption decreased by 6.5% compared with those of the same period of 2010. Additional production information, by quarter for each State, geographic division, and the United States, is reported in the USGS quarterly Mineral Industry Surveys for Crushed Stone and Construction Sand and Gravel.

Salient Statistics—United States:	2007	2008	2009	<u>2010</u>	2011 ^e
Production	1,650	1,460	1,160	1,160	1,110
Recycled material	20	29	29	25	25
Imports for consumption	20	21	12	15	15
Exports	1	1	1	1	1
Consumption, apparent	1,690	1,510	1,200	1,200	1,150
Price, average value, dollars per metric ton	8.58	9.36	9.74	9.67	9.48
Employment, quarry and mill, number ^{e, 3}	81,900	81,000	81,000	79,000	79,000
Net import reliance⁴ as a percentage of					
apparent consumption	1	1	1	1	1

Recycling: Road surfaces made of asphalt and crushed stone and, to a lesser extent, cement concrete surface layers and structures were recycled on a limited but increasing basis in most States. Asphalt road surfaces and concrete were recycled in 49 States and Puerto Rico. The amount of material reported to be recycled decreased by 10% in 2011 compared with that of the previous year.

Import Sources (2007-10): Canada, 43%; Mexico, 38%; The Bahamas, 17%; and other, 2%.

Tariff: Item Number Normal Trade Relations

Crushed stone 2517.10.00 Free.

<u>Depletion Allowance</u>: (Domestic) 14% for some special uses; 5%, if used as ballast, concrete aggregate, riprap, road material, and similar purposes.

Government Stockpile: None.

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Events, Trends, and Issues: Crushed stone production was about 1.11 billion tons in 2011, a 4% decrease compared with that of 2010. Apparent consumption also decreased to about 1.15 billion tons. Demand for crushed stone is anticipated to be slightly less for 2011 because of the continuing slowdown in activity that some of the principal construction markets have experienced during the last 5 years. 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 crushed stone are expected to be present in 2012, especially in and near metropolitan areas.

The crushed stone industry continued to be concerned with environmental, health, and safety regulations. Shortages of crushed stone in some urban and industrialized areas are expected to continue to increase owing to local zoning regulations and land-development alternatives. These issues are expected to continue and to cause new crushed stone quarries to locate away from large population centers.

World Mine Production and Reserves:

	Mine production		Reserves		
	<u>2010</u>	<u>2011^e</u>			
United States	1,160	1,110	Adequate except where special		
Other countries ⁶	<u>NA</u>	<u>NA</u>	types are needed or where		
World total	NA	NA	local shortages exist.		

<u>World Resources</u>: Stone resources of the world are very large. Supply of high-purity limestone and dolomite suitable for specialty uses is limited in many geographic areas. The largest resources of high-purity limestone and dolomite in the United States are in the central and eastern parts of the country.

<u>Substitutes</u>: Crushed stone substitutes for roadbuilding include sand and gravel, and iron and steel slag. Substitutes for crushed stone used as construction aggregates include sand and gravel, iron and steel slag, sintered or expanded clay or shale, and perlite or vermiculite.

^eEstimated. NA Not available.

¹See also Stone (Dimension).

²See Appendix A for conversion to short tons.

³Including office staff.

⁴Defined as imports – exports + adjustments for Government and industry stock changes. Changes in stocks were assumed to be zero in the net import reliance and apparent consumption calculations because data on stocks were not available.

⁵See Appendix C for resource/reserve definitions and information concerning data sources.

⁶Consistent production information is not available for other countries owing to a wide variety of ways in which countries report their crushed stone 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.