



2012 Minerals Yearbook

STONE, DIMENSION

STONE, DIMENSION

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U.S. production of dimension stone in 2012 was estimated to be 2.15 million metric tons (Mt) valued at \$452 million, which was a 16% increase in tonnage and a 15% increase in value compared with those of 2011 (table 1). Exports decreased slightly in value to \$64.9 million, and imports for consumption increased in value by 10% to \$1.74 billion. The value of apparent consumption was estimated to be \$2.13 billion in 2012, 11% more than that of 2011. World dimension stone production, including the United States, was estimated to be approximately 122 Mt in 2011, the last year for which data were available. Trade data in this report are from the U.S. Census Bureau. All percentages in the report were computed using unrounded data.

In recent years, most dimension stone has been used in construction applications, with the largest portions being sold or used as ashlar and partially squared pieces, curbing, flagstone, and rough block for building and construction. The major nonconstruction application is monumental stone, which includes memorials of various kinds.

Dimension stone is a natural rock material quarried for the purpose of obtaining blocks or slabs that meet specifications as to size (width, length, and thickness) and shape. Color, grain texture and pattern, and surface finish of the stone also are normal requirements by both customers and the stone industry. Durability (a time measure of the ability of dimension stone to endure and maintain its essential and distinctive characteristics), strength, and the ability of the stone to take a polish are other important selection criteria.

Although various igneous, metamorphic, and sedimentary rocks are used as dimension stone, the principal rock types are granite, limestone, marble, sandstone, and slate. Other varieties of dimension stone that are normally considered to be special minor types include alabaster (massive gypsum) and soapstone (massive talc).

Description and Terminology

Scientific and commercial descriptions of various types of dimension stone overlap. The scientific descriptions of types of dimension stone are focused primarily on the geographic locality and mineralogical composition of the stones, whereas the commercial description is focused primarily on the locality and color of the stone. Furthermore, various combinations of the scientific and commercial descriptions are used by stone producers to market their stone products effectively. The descriptions that follow were adapted from Currier (1960, p. 1–10) and Barton (1968, p. 2–8). Although these references are dated, the information remains applicable.

Granite.—Commercial granites include all feldspathic crystalline rocks of mainly interlocking texture and with individual mineral grains that are visible to the naked eye. This category includes such rock types as anorthosite, gneiss, granite, granodiorite, monzonite, syenite, and all other intermediate

igneous and coarse-grained metamorphic rock types. The most common colors of commercial granites are white, gray, pink, and red; green and brown are secondary colors. Although black granites are also included in this category and range in color from dark gray to black, they are not true granites mineralogically but rather mafic rocks, such as diabases, diorites, gabbros, and similar rocks.

Limestone.—Commercial limestones are rocks of sedimentary origin that primarily are composed of calcium carbonate with or without magnesium. Included in this category are limestone, dolomite, dolomitic limestone, and travertine, which is a calcitic rock that is precipitated from hot springs.

Marble.—Commercial marble includes metamorphosed limestones and serpentine rocks, all of which are capable of taking a polish. An important member of this classification is serpentine marble, which is also known as verde antique, and comprises green-to-black serpentine, which is a hydrous magnesium silicate mineral that is crisscrossed by veins of lighter minerals, such as calcite or dolomite.

Sandstone.—Commercial sandstone is a lithified sand that comprises chiefly quartz or quartz and feldspar with a fragmental (clastic) texture. Sandstone contains interstitial cementing materials, such as calcite, clay, iron oxides, or silica. Arkose (abundant feldspar grains), graywacke (abundant angular rock fragments), and conglomerate (abundant rounded rock fragments) are included in this category. Other members of this category include bluestone, which is a dense, hard, fine-grained feldspathic sandstone that splits easily along planes into thin, smooth slabs; brownstone, which is feldspathic sandstone of brown to reddish-brown color owing to abundant iron oxide; and flagstone, which is a sandstone, or sandy slate, typically red, tan, or gray, that splits into large, thin slabs.

Slate.—Commercial slate is a microgranular metamorphic rock formed by the recrystallization of clay sediments, such as claystone, shale, or siltstone. Characterized by excellent parallel cleavage, slates may be easily split into relatively thin slabs.

Greenstone.—Commercial greenstones are the result of the metamorphosis of basaltic rocks. Greenstone is named because of the predominance of greenish minerals, such as actinolite, chlorite, or epidote.

Basalt and Traprock.—Commercial basalt and traprock includes igneous rocks that are too fine grained to be termed “black granite.” The name traprock is derived from the Swedish word “trappa,” which means step, because of the characteristic terraced or steplike appearance of certain basalt lava fields. This category includes extrusive igneous rocks, such as andesite, basalt, or dacite, and intrusive igneous rocks, such as amphibolites, diabase, diorites, fine-grained gabbros, peridotites, and pyroxenites.

Miscellaneous.—This category includes commercial dimension stone types that do not easily fall into the

mentioned categories, such as soapstone, steatite, or talc, which contain various amounts of the mineral talc. Additional miscellaneous dimension stones include diatomite, mylonite, pumice, schist, tripoli, tuff, porous or scoriaceous volcanic rocks, or any other rocks used as building stones.

Production

Dimension stone production data for the United States are derived by the U.S. Geological Survey (USGS) from a voluntary canvass of U.S. quarry producers of rough and dressed dimension stone. Of the 309 dimension stone-producing operations included in the survey for 2012, 110 (36%) responded, which represented 37% of the tonnage; the remaining tonnage was estimated based on prior years' reporting and (or) on employment data provided by the Mine Safety and Health Administration (MSHA).

Data in this report cover rough crude quarried stone, irregular-shaped and rectangular blocks, and more highly processed stone. A number of other terms also are used to describe further processing, such as "worked," "dressed," "finished," and "manufactured." These and other terms used by the dimension stone industry describe such features as the mineral composition of the rock, the shape of the product, the method of finishing a stone, and the type of finish applied. No adjustments are made in the data to account for the sometimes substantial losses in processing rough stone into dressed stone. Sold or used data are considered to be equivalent to production because changes in stocks are not surveyed.

In any given year, commercial and residential construction accounts for an important portion of the demand for dimension stone of all types. Of particular interest to the dimension stone industry during the year were the increases in existing home sales, new home sales, and new housing construction starts in 2012, as cited by the National Association of Realtors. All sectors of the housing market showed increases in 2012, as compared to the previous 4 years (Marble Institute of America, 2012).

In 2012, limestone accounted for 882,000 metric tons (t) (41%) of the total domestic dimension stone production of 2.15 Mt, followed by granite (23%), miscellaneous stone (16%), sandstone (15%), marble (3%), and slate (2%). Limestone accounted for about \$176 million (39%) of the \$452 million total domestic production value, followed by granite (26%), miscellaneous stone (14%), sandstone (11%), marble (5%), and slate (4%) (table 2).

Production of dimension stone was reported in 34 States. Leading producer States were, in descending order by tonnage, Texas, Indiana, Wisconsin, Massachusetts, and Georgia. These States accounted for about 65% of domestic production. Leading producer States were, in descending order by value, Texas, Wisconsin, Massachusetts, Indiana, and Minnesota. These States contributed about 62% of the value of domestic production (table 3).

The top five producing companies were Buechel Stone Corp. in Wisconsin; Champlain Stone, Ltd. in New York; Indiana Limestone Co. in Indiana; Mezger Enterprises Inc. in Texas; and Swenson Granite Works in New Hampshire. These companies

accounted for about 21% of domestic production in tonnage and about 16% of production value. The leading 15 companies accounted for 44% of total domestically produced tonnage and 44% of the value.

Rough stone blocks split or cut from a quarry face are transported to processing plants that typically are located at the quarry site, at least for preliminary sizing. Further dressing, which includes final sizing and finishing operations, such as decorating, edging, and polishing, also may be done at the quarry site.

Granite.—Dimension granite was produced by 39 companies operating 61 quarries in 15 States. Production was 500,000 t valued at \$118 million. Granite production tonnage increased by 8% and the value increased by 9% compared with those of 2011. The top five producing States were, in descending order by tonnage, Massachusetts, Georgia, Vermont, North Carolina, and New Hampshire, and they accounted for 74% of the tonnage and 54% of the value of U.S. granite production (table 4). Cold Spring Granite Co., Fletcher Granite Co., North Carolina Granite Corp., Swenson Granite Works, and Williams Stone Co., Inc., which were the leading producers, accounted for 60% of U.S. granite production by tonnage and 69% of U.S. granite production by value.

Limestone.—Dimension limestone was produced by 83 companies from 84 quarries in 13 States. Production increased 25% in 2012 to 882,000 t from 704,000 t in 2011. The value increased by 18% to \$176 million in 2012 from \$149 million in 2011. The top four producing States were, in descending order by tonnage, Texas, Indiana, Kansas, and Minnesota, which combined produced 96% of the U.S. tonnage and value (table 5). Buechel Stone; Eden Stone Co., Inc.; Espinoza Stone, Inc.; Indiana Limestone; and Mezger Enterprises; which were the leading producers, accounted for about 37% of all U.S. limestone tonnage and about 30% of the value.

Sandstone.—Dimension sandstone was produced by 79 companies that operated 92 quarries in 18 States. Production decreased slightly to 324,000 t in 2012 from 328,000 t in 2011. The value increased by 6% to \$51.7 million in 2012 from \$48.6 million in 2011. The top five producing States were, in descending order by tonnage, Texas, Oklahoma, Arizona, Pennsylvania, and Tennessee (table 6). Aguado Stone Inc., Cook Stone Co., Drake Stone Products Inc., Harley Gray Stone Co., and TBK Materials LLC, which were the leading producers, accounted for about 29% of the tonnage and 25% of the value of domestic production.

Marble.—Marble was mined by four companies that operated seven quarries in four States. Production tonnage increased by 32% in 2012 to 54,600 t valued at \$23.6 million from 41,500 t valued at \$16.7 million in 2011 (table 10). Tennessee was the leading producing State, followed by Georgia and Vermont. The leading producers were Georgia Marble Co. (a subsidiary of Polycor Inc.) and Tennessee Marble Co.

Slate.—Slate was produced by 13 companies that operated 15 quarries in 5 States. Production increased by 14% to 35,900 t in 2012 from 31,400 t in 2011. The value increased 17% to \$17.7 million in 2012 from \$15.1 million in 2011 (table 12). The top producing States were Idaho, Vermont, and

Virginia. The leading producers were Newmont Slate Co., Inc.; Rupe Slate Co. Inc.; and Scrivanich Natural Stone Co.

Consumption

For the purposes of this report, apparent consumption is defined as production plus imports for consumption minus exports. Value data are used in the apparent consumption calculation because tonnage data are not available for imports and exports. Overall, the value of apparent consumption of dimension stone in the United States was estimated to be \$2.13 billion in 2012; 11% more than that of 2011.

Rough stone represented about 59% of the tonnage and 50% of the value of all dimension stone sold or used by domestic producers, which included exports. The leading uses of rough stone, by tonnage, were in building and construction (57%), and in irregular-shaped stone (28%). Dressed stone represented 41% by tonnage and 50% by value of the total stone sold or used. The leading uses within dressed stone, by tonnage, were in ashlar and partially squared pieces (46%); curbing (22%); and flagging (9%) (table 7).

Uses for the different varieties of dimension stone varied considerably. The major uses of granite sold or used in 2012, by tonnage, were in curbing (38%), rough blocks for building and construction (25%), monumental rough stone (20%), and in monumental dressed stone (6%) (table 8). Primary uses of limestone, by tonnage, were in rough blocks for building and construction (39%) and in dressed stone for ashlar and partially squared pieces (30%) (table 9). The primary use of marble, by tonnage, was in rough stone for building and construction (37%) (table 10). Primary uses of sandstone, by tonnage, were in rough blocks for building and construction (44%) and in dressed stone for ashlar and partially squared pieces (15%) (table 11). Dimension slate sold or used by producers in the United States in 2012, by tonnage, was principally for roofing (60%) and flagging (37%) (table 12).

Prices

The average 2012 value as reported by domestic producers for dimension stone was \$211 per metric ton, a slight decrease from that of 2011 based on the USGS canvass data. The average unit values for different types of dimension stone were granite, \$235 per ton; limestone, \$199 per ton; marble, \$431 per ton; sandstone, \$159 per ton; and slate, \$495 per ton. Available price data show considerable variation. Prices are substantially different not only for the kind of stone but also for the appearance of the same kind of stone. Color, grain structure, and finish contribute significantly to price and marketability.

Foreign Trade

Exports.—In 2012, the value of total exports of dimension stone decreased slightly to \$64.9 million compared with that of 2011; granite accounted for 47% of the export value. The largest share of granite was exported to China (table 13). Although unreported, a significant amount of U.S. granite processed overseas probably was exported back to the U.S. market.

Imports.—The value of imports for consumption of types of dimension stone increased by 9% in 2012 to \$1.74 billion

(table 1). Brazil was the leading source of imported granite in 2012, accounting for 44% by value. China, which continued to be a major source of granite, accounted for 23% of granite imports by value. Other important granite import sources included India (15%) and Italy (11%) (table 15). In 2012, China continued to be a major source of rough and dressed marble imports and accounted for 22% by tonnage and 21% by value. Italy continued to be a major source of rough and dressed marble imports and accounted for 19% by tonnage and 34% by value. Additionally, Turkey was a major source of rough and dressed marble imports and accounted for 25% by tonnage and 16% by value (tables 16–17). Duties on imported dimension stone are listed in table 14.

World Review

World dimension stone production, including the United States, was estimated to be approximately 122 Mt in 2011, the last year for which data were available. Although some small-scale production was likely in the majority of the world's nations, dimension stone was produced and officially reported in 28 countries. The top five producing countries in 2011 were, in descending order by tonnage, China, Turkey, India, Indonesia, and Italy, and these countries accounted for about 69% of the world's production. Global production of dimension stone increased by 12% in 2011 compared with that of 2010. The United States ranked 11th in world production of dimension stone in 2011 (Gussoni, 2013, p. 63).

Outlook

U.S. apparent consumption of dimension stone increased by 11% in 2012. Production and imports of dimension stone all showed increases in 2012, coupled with growth in new commercial and residential construction. Steady activity from domestic stone installation businesses indicate that residential and commercial improvement and refurbishment remain the primary end markets for dimension stone, and these activities are expected to continue in 2013. Industry observers anticipate steady growth in the global dimension stone industry in the near term (Gussoni, 2013, p. 57–60).

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TABLE 1
SALIENT U.S. DIMENSION STONE STATISTICS¹

(Thousand metric tons and thousand dollars)

	2008	2009	2010	2011	2012
Sold or used by producers:					
Quantity	1,800	1,620	1,670	1,850 ^r	2,150
Value	326,000	328,000	323,000	395,000 ^r	452,000
Exports, value	65,700	48,300	54,500	66,000	64,900
Imports for consumption, value	2,150,000	1,350,000	1,500,000	1,590,000	1,740,000
Apparent consumption, value	2,410,000	1,630,000	1,770,000	1,910,000 ^r	2,130,000

^rRevised.

¹Data are rounded to no more than three significant digits.

TABLE 2
DIMENSION STONE SOLD OR USED BY PRODUCERS IN
THE UNITED STATES, BY TYPE^{1,2}

Type	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Granite	462,000 ^r	\$108,000	500,000	\$118,000
Limestone ³	704,000 ^r	149,000 ^r	882,000	176,000
Marble	41,500	16,700	54,600	23,600
Sandstone ⁴	328,000 ^r	48,600 ^r	324,000	51,700
Slate	31,400	15,100	35,900	17,700
Miscellaneous stone ⁵	281,000 ^r	56,600 ^r	348,000	65,300
Total	1,850,000 ^r	395,000 ^r	2,150,000	452,000

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.

³Includes limestone, dolomite, and other calcareous stone reported with no distinction between the kinds of stone.

⁴Includes sandstone and quartzite reported with no distinction between the kinds of stone.

⁵Includes any other type of stone used as building stone and commercial stone that does not fit the other listed aforementioned categories.

TABLE 3
DIMENSION STONE SOLD OR USED BY PRODUCERS IN
THE UNITED STATES, BY STATE¹

State	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Alabama	W	W	W	W
Arizona	112,000	\$13,300	45,600	\$5,570
Arkansas	15,100	1,770	9,840	1,160
California	24,600	9,590	23,100	9,200
Colorado	4,920	994	23,000	10,200
Georgia	141,000	20,300	142,000	16,800
Idaho	27,500	4,200	30,100	5,370
Indiana	164,000	29,200	186,000	32,000
Kansas	51,600	4,640	48,900	4,700
Maine	6,320	3,640	7,200	4,150
Maryland	6,270	1,230	3,900	1,120
Massachusetts	83,100	16,200	145,000	34,200
Michigan	W	W	W	W
Minnesota	46,300	28,500	65,500	27,200
Montana	12,000	2,930	13,600	1,360
New Hampshire	W	W	W	W
New Mexico	W	W	W	W
New York	99,000	17,800	98,800	18,400
North Carolina	58,600	11,600	52,700	8,480
Ohio	25,400	5,100	25,300	5,700
Oklahoma	35,100	6,310	52,600	7,420
Pennsylvania	24,800	5,040	25,400	6,540
South Dakota	W	W	W	W
Tennessee	W	W	32,200	7,210
Texas	535,000 ^r	117,000 ^r	766,000	151,000
Utah	6,720	595	W	W
Vermont	78,700	21,800	75,300	24,900
Virginia	12,500	7,380	13,200	8,110
Wisconsin	170,000	38,600	158,000	37,900
Other ²	107,000 ^r	26,600 ^r	102,000	22,900
Total	1,850,000 ^r	395,000 ^r	2,150,000	452,000

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes Alabama, Connecticut (2011), Illinois, Michigan, Missouri, Nevada, New Hampshire, New Mexico, South Carolina, South Dakota, Tennessee (2011), Utah (2012), Washington, and West Virginia.

TABLE 4
DIMENSION GRANITE SOLD OR USED BY PRODUCERS IN
THE UNITED STATES, BY STATE¹

State	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
California	W	W	W	W
Georgia	112,000	\$8,520	128,000	\$9,170
Maine	6,320	3,640	7,200	4,150
Massachusetts	78,800	15,400	130,000	32,500
Minnesota	W	W	W	W
New Hampshire	W	W	32,200	4,370
New York	W	W	W	W
North Carolina	53,600	11,100	37,800	7,390
South Dakota	W	W	W	W
Vermont	W	W	43,100	10,200
Other ²	211,000 ^r	69,800	122,000	50,300
Total	462,000 ^r	108,000	500,000	118,000

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes California, Minnesota, Missouri, New Hampshire (2011), New York, South Carolina, South Dakota, Texas, Vermont (2011), Virginia, and Wisconsin.

TABLE 5
DIMENSION LIMESTONE SOLD OR USED BY PRODUCERS IN
THE UNITED STATES, BY STATE¹

State	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Alabama	W	W	W	W
Indiana	164,000	\$29,200	186,000	\$32,000
Kansas	51,000	4,540	48,300	4,600
Minnesota	10,700	6,980	30,700	10,100
Ohio	W	W	8,360	972
Texas	441,000 ^r	100,000 ^r	584,000	121,000
Wisconsin	W	W	W	W
Other ²	36,600	8,480	24,400	6,510
Total	704,000 ^r	149,000 ^r	882,000	176,000

^rRevised. W Withheld to avoid disclosing company proprietary data; included in

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes Alabama, Arkansas, California, Illinois, Maryland, New York, Ohio (2011), Virginia, and Wisconsin.

TABLE 6
DIMENSION SANDSTONE SOLD OR USED BY PRODUCERS IN
THE UNITED STATES, BY STATE¹

State	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Arizona	112,000	\$13,300	45,600	\$5,570
Arkansas	14,400	1,690	9,310	1,110
Colorado	4,920	994	10,500	2,290
New York	13,200	1,960	12,600	2,290
Ohio	19,000	4,330	16,900	4,730
Oklahoma	35,100	6,310	52,600	7,420
Pennsylvania	18,500	3,350	18,000	4,990
Tennessee	5,230	435	17,100	1,350
Texas	77,700 ^r	12,600 ^r	123,000	19,700
Other ²	28,200 ^r	3,560 ^r	18,900	2,250
Total	328,000 ^r	48,600 ^r	324,000	51,700

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes California, Idaho, Kansas, Maryland, Michigan, Montana, Utah, West Virginia, and Wisconsin.

TABLE 7
DIMENSION STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	478,000 ^r	\$99,100 ^r	716,000	\$138,000
Irregular-shaped stone	258,000 ^r	38,700 ^r	358,000	53,300
Monumental	116,000	25,300	115,000	19,400
Other ²	79,600	12,200	73,800	15,400
Dressed stone:				
Ashlars and partially squared pieces	391,000 ^r	95,700 ^r	405,000	94,600
Slabs and blocks for building and construction	44,600	13,400	53,300	15,300
Monumental	30,600	14,800	32,300	16,400
Curbing	168,000	26,600	195,000	40,400
Flagging	149,000	18,000	81,200	13,000
Flagging (slate)	9,880	1,950	13,300	2,540
Panels and veneer	41,200	15,700	30,100	11,500
Roofing slate	19,700	12,500	21,500	14,300
Flooring slate	107	234	216	429
Tile, all dimensions	1,790	602	590	409
Other ³	60,200 ^r	19,900 ^r	50,400	16,600
Total	1,850,000 ^r	395,000 ^r	2,150,000	452,000

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes flagging stone, exports, uses not specified, and uses not listed.

³Includes blackboards, exports, structural and sanitary, uses not specified, and uses not listed.

TABLE 8
DIMENSION GRANITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	90,600 ^r	\$27,900	127,000	\$33,300
Irregular-shaped stone	11,700	1,530	4,570	434
Monumental	90,600	18,000	97,700	11,800
Other ²	37,600	6,310	8,500	1,960
Dressed stone:				
Ashlars and partially squared pieces	13,400	7,340	13,500	8,520
Slabs and blocks for building and construction	445	496	509	493
Monumental	30,500	14,800	29,400	15,600
Curbing	155,000	24,200	193,000	39,800
Other ³	32,400	7,830	26,100	6,150
Total	462,000 ^r	108,000	500,000	118,000

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes exports and uses not listed.

³Includes panels and veneer, tile, uses not specified, and uses not listed.

TABLE 9
DIMENSION LIMESTONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	232,000 ^r	\$42,900 ^r	347,000	\$63,200
Irregular-shaped stone	143,000 ^r	18,000 ^r	208,000	29,600
Other ²	8,170	574	6,050	621
Dressed stone:				
Ashlars and partially squared pieces	257,000 ^r	64,800 ^r	263,000	63,200
Slabs and blocks for building and construction	29,800	6,050	18,200	4,860
Monumental	112	36	2,700	699
Flagging	5,050	1,050	4,690	1,220
Panels and veneer	6,500	6,580	3,920	2,850
Other ³	22,200 ^r	9,080 ^r	27,900	9,410
Total	704,000 ^r	149,000 ^r	882,000	176,000

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes exports, monumental, and uses not listed.

³Includes curbing limestone, tile, uses not specified, and uses not listed.

TABLE 10
DIMENSION MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE^{1,2}

Use	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	W	W	20,000	\$8,090
Dressed stone³				
Total	41,500	16,700	54,600	23,600

W Withheld to avoid disclosing company proprietary data; included in total.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes monumental stone, uses not specified, and uses not listed.

³Includes slabs and blocks, exports, flagging, monumental, panels and veneer, ashlars and partially squared pieces, tile, and uses not listed.

TABLE 11
DIMENSION SANDSTONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	104,000 ^r	\$17,000 ^r	143,000	\$22,200
Irregular-shaped stone	17,700 ^r	2,210 ^r	21,900	3,250
Other ²	26,500	3,970	42,400	6,590
Dressed stone:				
Ashlars and partially squared pieces	25,100 ^r	4,070 ^r	47,600	8,010
Flagging	111,000	12,500	41,100	5,650
Panels and veneer	7,500	1,940	3,490	2,280
Slabs and blocks for building and construction	1,880	715	14,300	1,630
Other ³	33,600 ^r	6,120 ^r	9,920	2,060
Total	328,000 ^r	48,600 ^r	324,000	51,700

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes monumental and uses not specified.

³Includes tile, curbing, exports, uses not specified, and uses not listed.

TABLE 12
DIMENSION SLATE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2011		2012	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Flagging	9,880	\$1,950	13,300	\$2,540
Roofing	19,700	12,500	21,500	14,300
Flooring	107	234	216	429
Other ²	1,740	461	877	427
Total	31,400	15,100	35,900	17,700

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes structural and sanitary purposes, uses not specified, and uses not listed.

TABLE 13
U.S. EXPORTS OF DIMENSION STONE, BY TYPE¹

(Thousand metric tons and thousand dollars)

Type	2011		2012		Major destination in 2012 ²
	Quantity	Value	Quantity	Value	
Marble, travertine, alabaster worked ³	65	\$7,860	80	\$9,430	Canada, 47%.
Marble, travertine, crude or roughly trimmed	3	2,360	1	800	Italy, 42%.
Marble, travertine, merely cut, by sawing or otherwise ⁴	4	3,360	5	4,880	Italy, 52%.
Granite, crude or roughly trimmed	60	25,000	55	23,500	China, 55%.
Granite, merely cut by sawing or otherwise ⁴	20	6,410	22	6,830	Canada, 56%.
Slate, worked and articles of slate	NA	5,470	NA	4,010	Canada, 70%.
Slate, whether or not roughly trimmed or merely cut ⁴	NA	336	NA	507	Indonesia, 35%.
Other calcareous monumental or building stone; alabaster ⁵	51	10,300	35	11,100	Canada, 97%.
Other monumental or building stone ⁶	19	4,840	14	3,790	Canada, 92%.
Total	XX	66,000	XX	64,900	

NA Not available. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²By value.

³Further worked than simply cut with a flat surface.

⁴Blocks or slabs.

⁵Crude, roughly trimmed, or merely cut into blocks or slabs. Other than marble and travertine.

⁶Crude, roughly trimmed, or merely cut into blocks or slabs. Other than calcareous stone and alabaster, granite, sandstone, slate, dolomite, quartzite, and steatite.

Source: U.S. Census Bureau.

TABLE 14
U.S. IMPORT DUTIES ON DIMENSION STONE

Tariff item	HTS ¹ code	NTR, ²	
		January 1, 2012	Non-NTR, ² January 1, 2012
Slate, rough blocks or slabs	2514.00.0000	Free	25% ad valorem.
Rough blocks or slabs of marble, travertine, other calcareous monumental or building stone:	2515.00.0000		
Marble and travertine:			
Crude or roughly trimmed	2515.11.0000	Free	\$22.95 per cubic meter.
Marble, merely cut	2515.12.1000	do.	13% ad valorem.
Travertine, merely cut	2515.12.2000	3.0% ad valorem	50% ad valorem.
Other calcareous stone, alabaster	2515.20.0000	do.	Do.
Rough blocks or slabs of granite, porphyry, basalt, sandstone, other monumental or building stone:	2516.00.0000		
Granite:			
Crude or roughly trimmed	2516.11.0000	Free	\$8.83 per cubic meter.
Merely cut	2516.12.0000	2.8% ad valorem	60% ad valorem.
Sandstone:			
Crude or roughly trimmed	2516.20.1000	Free	\$5.30 per cubic meter.
Merely cut	2516.20.2000	3.0% ad valorem	50% ad valorem.
Other monumental or building stone	2516.90.0000	do.	Do.
Setts, curbstones, flagstones	6801.00.0000	2.8% ad valorem	60% ad valorem.
Worked monumental or building stone:	6802.00.0000		
Tiles and cubes under 7 centimeters square, granules	6802.10.0000	4.8% ad valorem	40% ad valorem.
Other stone and articles with a flat or even surface:			
Marble, travertine, and alabaster:	6802.21.0000		
Travertine	6802.21.1000	4.2% ad valorem	50% ad valorem.
Other	6802.21.5000	1.9% ad valorem	13% ad valorem.
Granite	6802.23.0000	3.7% ad valorem	60% ad valorem.
Other calcareous stone	6802.29.1000	4.9% ad valorem	50% ad valorem.
Other stone	6802.29.9000	6.0% ad valorem	30% ad valorem.
Other:			
Marble, travertine, and alabaster:	6802.91.0000		
Marble:			
Slabs	6802.91.0500	2.5% ad valorem	15% ad valorem.
Other	6802.91.1500	4.9% ad valorem	50% ad valorem.
Travertine:			
Travertine articles of subheading 6802.21.1000 that have been dressed or polished but not further worked	6802.91.2000	4.2% ad valorem	50% ad valorem.
Other	6802.91.2500	3.7% ad valorem	40% ad valorem.
Alabaster	6802.91.3000	4.7% ad valorem	50% ad valorem.
Other calcareous stone	6802.92.0000	4.9% ad valorem	Do.
Granite	6802.93.0000	3.7% ad valorem	60% ad valorem.
Other stone	6802.99.0000	6.5% ad valorem	40% ad valorem.
Worked slate and articles:	6803.00.0000		
Roofing slate	6803.00.1000	3.3% ad valorem	25% ad valorem.
Other	6803.00.5000	Free	Do.

Do., do. Ditto.

¹Harmonized Tariff Schedule of the United States.

²Normal trade relations.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF DIMENSION GRANITE, BY COUNTRY¹

(Thousand dollars)

Country	Dressed									Total worked	Total dressed
	Worked granite										
	Cut to size ²										
	Rough granite ³	Simply cut ⁴	Not cut to size ⁵	Maximum 1.5 centimeters	1.5-7.5 centimeters	Monumental minimum 7.5 centimeters	Building minimum 7.5 centimeters	Other			
2011:											
Argentina	86	--	101	--	662	--	--	85	848	848	
Brazil	200	7,040	95,400	1,650	291,000	121	5,130	54,300	447,000	454,000	
Canada	3,450	1,340	476	1,160	4,020	7,410	6,300	3,900	23,300	24,600	
China	1,220	12,100	10,300	9,090	97,400	15,900	7,550	59,300	200,000	212,000	
Finland	3	--	--	--	14	--	--	20	34	34	
India	5,070	3,270	18,300	1,870	94,400	9,740	2,240	23,100	150,000	153,000	
Italy	378	1,730	15,500	1,430	78,800	45	2,540	20,000	118,000	120,000	
Japan	--	95	--	--	--	--	16	14	30	125	
Mexico	--	273	4	--	75	--	18	87	184	457	
Norway	223	--	--	--	54	--	--	88	142	142	
Portugal	--	7	--	77	144	--	--	186	407	414	
Saudi Arabia	--	96	1,610	--	5,830	--	43	238	7,720	7,820	
South Africa	414	2	59	--	664	--	--	420	1,140	1,150	
Spain	18	165	1,900	73	7,880	--	224	1,210	11,300	11,500	
Zimbabwe	103	--	--	--	103	--	--	--	103	103	
United Kingdom	313	--	6	--	31	--	--	9	46	46	
Other	731	528	4,550	459	15,400	69	350	4,140	24,900	25,500	
Total	12,200	26,700	148,000	15,800	596,000	33,300	24,400	167,000	985,000	1,010,000	
2012:											
Argentina	--	--	224	10	631	--	--	222	1,090	1,090	
Brazil	90	1,960	101,000	1,490	307,000	130	2,430	65,200	477,000	479,000	
Canada	3,910	781	415	1,090	3,440	6,000	8,680	4,040	23,700	24,400	
China	1,580	10,300	14,600	7,360	100,000	19,200	10,100	83,600	235,000	245,000	
Finland	3	--	--	--	14	18	--	5	37	37	
India	4,110	2,810	22,400	2,490	96,100	11,400	1,440	23,300	157,000	160,000	
Italy	202	3,920	13,900	862	73,200	22	1,570	23,300	113,000	117,000	
Japan	--	73	6	--	--	--	10	3	19	92	
Mexico	12	53	--	3	70	--	16	272	361	414	
Norway	112	--	3	--	72	--	--	86	161	161	
Portugal	4	7	--	19	108	--	2	250	379	386	
Saudi Arabia	--	264	1,830	--	5,130	--	--	431	7,390	7,650	
South Africa	846	38	56	--	1,530	--	2	552	2,140	2,170	
Spain	88	138	2,690	105	13,400	--	128	1,940	18,300	18,400	
Zimbabwe	88	--	--	--	76	--	--	--	76	76	
United Kingdom	891	22	23	--	--	--	6	--	29	51	
Other	826	1,030	5,090	306	14,900	32	185	5,530	26,100	27,100	
Total	12,800	21,400	162,000	13,700	616,000	36,800	24,500	209,000	1,060,000	1,080,000	

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²One or more faces worked more than simply cut.

³Normal quarry products. Includes crude or roughly trimmed and roughly cut by sawing or otherwise; Harmonized Tariff Schedule of the United States (HTS) codes 2516.11.0000, 2516.12.0030, and 2516.12.0060.

⁴Simply cut with a flat even surface; HTS code 6802.23.0000.

⁵Only one face worked more than simply cut; HTS code 6802.93.0010.

Source: U.S. Census Bureau.

TABLE 16
U.S. IMPORTS FOR CONSUMPTION OF MAJOR CATEGORIES OF DIMENSION MARBLE AND OTHER CALCAREOUS
STONE, BY COUNTRY¹

Country	Dressed							
	Marble, slabs ²		Marble, other ³		Other calcareous stone ⁴		Rough marble ⁵	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
2011:								
Brazil	2,230	\$2,590	283	\$289	807	\$830	--	--
Canada	97	348	784	1,760	5,810	2,730	3	\$9
China	46,600	36,200	39,500	50,500	17,000	13,500	5,010	1,610
France	126	267	284	644	4,870	7,830	28	19
Greece	3,240	5,910	1,730	3,140	155	230	25	9
India	3,510	2,870	2,050	3,310	2,050	963	142	80
Israel	2,340	2,240	1,240	1,600	4,200	5,240	--	--
Italy	52,400	94,500	17,000	37,100	7,070	11,400	274	487
Lebanon	16	11	--	--	35	126	--	--
Mexico	250	271	1,980	3,180	38,300	7,190	84	50
Portugal	1,130	1,440	668	1,240	9,900	11,400	--	--
Spain	23,500	21,600	15,700	14,900	7,550	7,500	74	92
Taiwan	329	357	1,450	2,510	140	150	--	--
Turkey	18,900	18,900	64,300	47,500	5,910	5,780	70	102
Other	7,670	6,110	13,800	11,900	19,700	11,500	164	136
Total	162,000	194,000	161,000	180,000	124,000	86,400	5,870	2,590
2012:								
Brazil	3,190	4,050	301	300	665	771	--	--
Canada	87	144	939	2,060	20,900	13,100	--	--
China	50,000	37,100	42,800	59,100	24,300	19,100	2,260	939
France	125	476	264	668	10,700	8,710	24	48
Greece	4,030	7,260	2,350	4,500	223	386	(6)	3
India	5,570	4,810	1,990	3,220	1,750	1,170	31	41
Israel	2,280	2,060	1,310	1,240	3,050	3,930	--	--
Italy	68,700	128,000	23,200	41,900	8,940	12,600	157	398
Lebanon	--	--	17	37	72	455	--	--
Mexico	2,460	1,560	1,550	2,850	5,170	5,940	33	10
Portugal	1,570	1,760	969	1,530	29,400	9,440	38	50
Spain	23,100	22,000	12,100	11,000	7,910	7,200	221	161
Taiwan	328	388	1,570	2,750	178	171	18	14
Turkey	24,100	21,400	80,100	57,100	29,200	7,190	126	79
Other	8,220	6,910	12,100	11,000	20,700	12,200	80	58
Total	194,000	238,000	182,000	199,000	163,000	102,000	2,990	1,800

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Worked more than simply cut with a flat surface; Harmonized Tariff Schedule of the United States (HTS) code 6802.91.0500.

³Merely cut by sawing or otherwise.

⁴Worked more than simply cut with a flat surface, other than marble and travertine; HTS code 6802.92.0000.

⁵Simply cut by sawing or otherwise into rectangular blocks or slabs; HTS code 2515.12.1000.

⁶Less than ½ unit.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 17
U.S. IMPORTS FOR CONSUMPTION OF DIMENSION STONE, BY TYPE¹

Type		2011		2012		Major source for 2012 ²
		Quantity	Value (thousands)	Quantity	Value (thousands)	
Marble and alabaster ³	metric tons	15,700	\$17,900	18,600	\$21,700	Italy, 31%.
Slate, roofing	million square feet	7	7,430	8	9,230	China, 33%.
Slate, roughly trimmed or simply cut ⁴	do.	4,890	1,710	7,960	3,320	China, 54%.
Slate, worked and articles of slate, and other ⁵	do.	NA	54,000	NA	51,500	China, 50%.
Travertine, monumental or building stone and articles thereof ⁶	do.	16,500	13,600	16,200	14,300	Mexico, 33%.
Travertine, worked monumental or building stone ⁷	do.	39,200	17,800	28,500	17,100	Turkey, 36%.

do. Ditto. NA Not available.

¹Data are rounded to no more than three significant digits. Does not include totals shown on tables 15 and 16.

²By value.

³Simply cut with a flat surface.

⁴Rectangular blocks or slabs.

⁵Other than roofing, including agglomerated slate.

⁶Simply cut with a flat surface, other than tiles and granules.

⁷Dressed or polished but not further worked.

Source: U.S. Census Bureau.