



2014 Minerals Yearbook

STONE, DIMENSION [ADVANCE RELEASE]

STONE, DIMENSION

By Thomas P. Dolley

Domestic survey data and tables were prepared by Samir Hakim, statistical assistant.

U.S. production of dimension stone in 2014 was estimated to be 2.47 million metric tons (Mt) valued at \$470 million, which was an 8% increase in tonnage and a slight increase in value compared with those of 2013 (table 1). Exports increased by 16% in value to \$70.3 million, and imports for consumption increased in value by 7% to \$2.24 billion. The value of apparent consumption was estimated to be \$2.64 billion in 2014, 6% more than that of 2013. According to data compiled by the U.S. Geological Survey (USGS), U.S. production of dimension stone in 2014 approached production levels last seen in 1956. World dimension granite and marble production, including the United States, was estimated to be approximately 142 Mt in 2013, the last year for which data were available (Gussoni, 2015, p. 74). Trade data in this report are from the U.S. Census Bureau. All percentages in the report were calculated 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). A more detailed discussion describing specific types of dimension stone can be found in the 2012 USGS Minerals Yearbook, volume I, Metals and Minerals.

Production

Dimension stone production data for the United States are derived by the USGS from a voluntary canvass of U.S. quarry producers of rough and dressed dimension stone. Of the 293 dimension-stone-producing operations included in the survey for 2014, 111 (38%) responded, which represented 30% of the tonnage; the remaining tonnage was estimated based on prior years' reporting and (or) employment data provided by the Mine Safety and Health Administration.

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 a significant portion of the demand for dimension stone of all types. Of particular interest to the dimension stone industry during 2014 was increased activity in existing home sales, increased new home sales, increased new housing construction starts, and strong activity in the home improvement (remodeling and renovations) sector. This increased activity in the construction sector continued from 2014 into early 2015, despite a shortage of skilled laborers in the construction industry. Despite increased activity in the construction and housing markets, growth remained below rates seen in 2000, when demand and speculation led to rising real estate prices followed by a sudden drop in prices (Marble Institute of America, 2015, p. 30).

In 2014, limestone accounted for 1.04 Mt (42%) of the total domestic dimension stone production quantity of 2.47 Mt, followed by granite (21%), sandstone (17%), miscellaneous stone (16%), and marble and slate (2% each). By value, limestone accounted for about \$180 million (38%) of the \$470 million total domestic production value, followed by granite (25%), miscellaneous stone (18%), sandstone (11%), and marble and slate (4% each) (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 66% of domestic production. Leading producer States were, in descending order by value, Texas, Massachusetts, Wisconsin, Indiana, and Vermont. These States contributed about 64% 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; Espinoza Stone, Inc. in Texas; Fletcher Granite Co. in Massachusetts; and Mezger Enterprises Inc. in Texas. These companies accounted for about 18% of domestic production tonnage and about 17% of production value. The leading 15 companies accounted for 40% of total domestically produced tonnage and 42% of production 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.

Operating dimensional limestone quarries in Indiana since the 1800s, Indiana Limestone Co. has supplied stone to help construct buildings such as the Empire State Building, the Pentagon, 35 State capitols, and many other U.S. landmarks. In February 2014, Indiana Limestone declared bankruptcy after being purchased by Resilience Capital Partners in 2010 and merged with Viktor Oolitic Limestone Co. In declaring bankruptcy and the concomitant employee layoffs, the company cited poor debt management despite sustained demand for dimensional limestone as the reason for the company's decision. However, in April 2014, Wynnchurch Capital Ltd. brought Indiana Limestone out of bankruptcy and agreed to take over \$26 million in secured debt. By yearend 2014, Indiana Limestone had rehired many of its laid-off quarry workers and invested \$2 million in new equipment and infrastructure to increase limestone production (Schoettle, 2014).

Granite.—Dimension granite was produced by 37 companies operating 53 quarries in 16 States. Production was 519,000 metric tons (t) valued at \$117 million. Granite production tonnage increased by 5% but the value decreased by 12% compared with those of 2013. The top producing States were, in descending order by tonnage, Massachusetts and Georgia, and they accounted for 57% of the tonnage and 46% of the value of U.S. granite production (table 4). Champlain Stone, Cold Spring Granite Co., Fletcher Granite Co., Swenson Granite Works, and Williams Stone Co., Inc., which were the leading producers, accounted for 55% of U.S. granite production by tonnage and 44% of U.S. granite production by value.

Limestone.—Dimension limestone was produced by 79 companies from 87 quarries in 17 States. Production increased slightly in 2014 to 1.04 Mt from 1.03 Mt in 2013. The value increased slightly to \$180 million in 2014 from \$178 million in 2013. The top five producing States were, in descending order by tonnage, Texas, Indiana, Wisconsin, Kansas, and Tennessee, which combined produced 93% of U.S. tonnage and value (table 5). Espinoza Stone; Indiana Limestone; Mezger Enterprises; RLF Salado Quarries, LLC; and Texas Stone Quarries, which were the leading producers, accounted for about 38% of all U.S. limestone tonnage and about 29% of the value.

Marble.—Marble was mined by five companies that operated eight quarries in four States. Production tonnage decreased by 5% in 2014 to 45,700 t valued at \$17.4 million from 47,800 t valued at \$19.1 million in 2013 (table 10). Tennessee was the leading producing State by tonnage, followed by Vermont, Georgia, and Colorado. The leading producers were Tennessee Marble Co. and Vermont Quarries Corp.

Sandstone.—Dimension sandstone was produced by 64 companies that operated 71 quarries in 15 States. Production increased by 15% to 416,000 t in 2014 from 360,000 t in 2013. The value increased slightly to \$53.4 million in 2014 from \$52.9 million in 2013. The top five producing States were, in descending order by tonnage, Texas, Arizona, New York, Pennsylvania, and Oklahoma (table 6) and accounted for 82% of U.S. tonnage and 79% of value. Gordon Stone Co. LLC; Harley Gray Stone Co.; MBK Associates LLC; Schaefer Enterprises of Deposit, Inc.; and TBK Materials LLC, which were the leading

producers, accounted for about 30% of the tonnage and 13% of the value of domestic production.

Slate.—Slate was produced by 14 companies that operated 15 quarries in six States. Production tonnage increased by 26% to 43,300 t in 2014 from 34,500 t in 2013. The value increased slightly to \$17 million in 2014 from \$16.6 million in 2013 (table 12). The top producing States by tonnage were Vermont, Idaho, and Pennsylvania. The leading producers were Penn Big Bed Slate Co. Inc.; Newmont 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 \$2.64 billion in 2014; 6% more than that of 2013 (table 1).

Rough stone represented about 59% of the tonnage and 49% 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 (58%) and in irregular-shaped stone (27%). Dressed stone represented 41% by tonnage and 51% by value of the total stone sold or used. The leading uses within dressed stone, by tonnage, were in ashlar and partially squared pieces (44%); curbing (20%); and flagging (11%) (table 7).

Uses for the different varieties of dimension stone varied considerably. The major uses of granite sold or used in 2014, by tonnage, were in curbing (34%), monumental rough stone (22%), rough blocks for building and construction (15%), and in other rough stone (9%) (table 8). Primary uses of limestone, by tonnage, were in rough blocks for building and construction (47%) and in dressed stone for ashlar and partially squared pieces (25%) (table 9). A primary use of marble, by tonnage, was in rough stone for building and construction (31%). Additional details on uses of marble have been withheld to avoid disclosing company proprietary data (table 10). Primary uses of sandstone, by tonnage, were in rough blocks for building and construction (42%) and in dressed stone for flagging (16%) (table 11). Dimension slate sold or used by producers in the United States in 2014, by tonnage, was principally for roofing (53%) and flagging (44%) (table 12).

Prices

The average 2014 value as reported by domestic producers for dimension stone was \$190 per metric ton, a 6% decrease from that of 2013 based on the USGS canvass data. The average unit values for various types of dimension stone were granite, \$225 per ton; limestone, \$173 per ton; marble, \$380 per ton; sandstone, \$129 per ton; and slate, \$392 per ton. Available price data show considerable variation. Prices are substantially different not only for the type of stone but also for the appearance of the same type of stone. Color, grain structure, and finish contribute significantly to price and marketability.

Foreign Trade

Exports.—In 2014, the value of total exports of dimension stone increased by 16% to \$70.3 million compared with that of 2013; granite accounted for 45% 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 dimension stone increased by 7% in 2014 to \$2.24 billion (table 1). Brazil continued to be the leading source of imported granite in 2014, accounting for 49% by value. China, which was a major source of granite, accounted for 21% of granite imports by value. Other important import sources of granite included India (14%) and Italy (10%) (table 15). In 2014, Turkey was a major source of rough and dressed marble imports and accounted for about 27% by tonnage and 16% by value, surpassing China in marble import tonnage. China continued to be a major source of rough and dressed marble imports and accounted for 23% by tonnage and 22% by value. Additionally, Italy continued to be a major source of rough and dressed marble imports and accounted for 21% by tonnage and 37% by value. In 2014, Italy had both the highest total value and unit value of rough and dressed marble imports (tables 16, 17). Duties on imported dimension stone are listed in table 14.

World Review

World dimension granite and marble production, including the United States, was estimated to be approximately 142 Mt in 2013, the last year for which data were available. Although some small-scale production was likely in many nations, dimension granite and marble were produced and officially reported in 29 countries. The top five producing countries in 2013 were, in descending order by tonnage, China, Turkey, India, Iran, and Italy, and these countries accounted for about 72% of the world's dimension granite and marble production. Global production of dimension granite and marble increased by 14% in 2013 compared with that of 2012. The United States ranked 18th in world production of dimension granite and marble in 2013 (Gussoni, 2015, p. 74).

Outlook

U.S. apparent consumption of dimension stone increased by 6% in 2014. Domestic production and imports of dimension stone showed increases in 2014, coupled with steady growth in new commercial and residential construction and home improvement activities. Steady activity from domestic stone installation businesses indicate that residential and commercial improvement and refurbishment remain important end markets for dimension stone, and these activities are expected to continue an upward trend in 2015.

In descending order by market share, China, Italy, and Turkey were major global producers of dimension stone, with China accounting for about 36% of value of the global dimension stone export sector in 2014. In terms of demand for imported dimension stone materials in 2014, China ranked first followed by the United States. Industry observers expect steady growth in the global dimension stone industry in the near term, particularly in northern Europe (Gussoni, 2015, p. 69–71).

References Cited

- Gussoni, Manuela, 2015, Stone sector 2015—Annual report and prospects for the international stone trade: Marina di Carrara, Italy, Internazionale Marmi e Macchine Carrara S.p.A., 102 p.
- Marble Institute of America, 2015, The cutting edge—The construction corner—US housing prices headed upward as industry normalizes: Marble Institute of America, September/October, 35 p.
- Schoettle, Anthony, 2014, Indiana Limestone Co. digs out of deep hole: Indianapolis [IN] Business Journal, July 26. (Accessed September 8, 2015, at <http://www.ijb.com/articles/48746-indiana-limestone-co-digs-out-of-deep-hole>.)

SOURCES OF INFORMATION

U.S. Geological Survey Publications

- Construction Stone. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
- Historical Statistics for Mineral and Material Commodities in the United States. Data Series 140.
- Stone (Dimension). Ch. in Mineral Commodity Summaries, annual.

Other

- American Monument Association.
- Barre [VT] Granite Association.
- Building Stone Magazine. Building Stone Institute, quarterly.
- Dimensional Stone. Ashlee Publishing Co., Inc., monthly.
- Elberton Granite Association, Inc.
- Glossary of Stone Terms. In Stone World, Business News Publishing Co., December 2005.
- Indiana Limestone Institute of America, Inc.
- Industrial Minerals. Metal Bulletin plc, monthly (with particular references in July 1984, February 1991, November 1991, and February 1996).
- Marble Institute of America.
- Stone, Dimension. Ch. in Industrial Minerals and Rocks (7th ed.), Society for Mining, Metallurgy, and Exploration, Inc., 2006.
- Stone, Dimension. Ch. in Mineral Facts and Problems, U.S. Bureau of Mines Bulletin 675, 1985.
- Stone World. Business News Publishing Co., monthly.

TABLE 1
SALIENT U.S. DIMENSION STONE STATISTICS¹

(Thousand metric tons and thousand dollars)

	2010	2011	2012	2013	2014
<u>Sold or used by producers:</u>					
Quantity	1,670	1,850	2,150	2,280 ^r	2,470 ^e
Value	323,000	395,000	452,000	459,000 ^r	470,000 ^e
Exports, value	54,500	66,000	64,900	60,800 ^r	70,300
Imports for consumption, value	1,500,000	1,590,000	1,740,000	2,100,000	2,240,000
Apparent consumption, value	1,770,000	1,910,000	2,130,000	2,500,000	2,640,000 ^e

^eEstimated. ^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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Granite	496,000 ^r	\$132,000	519,000	\$117,000
Limestone	1,030,000	178,000	1,040,000	180,000
Marble	47,800	19,100	45,700	17,400
Sandstone	360,000	52,900	416,000	53,400
Slate	34,500	16,600	43,300	17,000
Miscellaneous stone ³	314,000 ^r	60,200 ^r	406,000	85,100
Total	2,280,000 ^r	459,000 ^r	2,470,000	470,000

^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 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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Alabama	W	W	W	W
Arizona	57,500	\$6,420	54,600	\$6,080
Arkansas	10,300	1,320	10,300	1,290
California	23,600	9,210	23,500	9,170
Colorado	17,700	7,270	17,300	6,230
Connecticut	W	W	W	W
Georgia	145,000	17,200	152,000	15,500
Idaho	32,800	5,840	63,700	8,640
Illinois	W	W	W	W
Indiana	150,000	26,200	200,000	34,400
Kansas	43,100	5,610	13,700	1,330
Maine	4,970	2,770	5,210	2,820
Maryland	2,400	687	3,230	723
Massachusetts	148,000	43,500	165,000	43,100
Michigan	W	W	W	W
Minnesota	59,500	24,300	51,000	21,000
Missouri	W	W	W	W
Montana	31,400	1,590	27,500	1,970
Nevada	W	W	W	W
New Hampshire	33,600	4,510	27,500	3,460
New Mexico	W	W	W	W
New York	120,000	17,300	126,000	17,600
North Carolina	46,900	19,600	43,800	20,700
Ohio	26,700	6,610	20,800	5,150
Oklahoma	43,400	7,880	62,200	5,240
Pennsylvania	25,400	5,890	50,900	5,720
South Carolina	W	W	W	W
South Dakota	W	W	W	W
Tennessee	32,300	6,140	51,100	11,000
Texas	905,000	151,000	922,000	159,000
Utah	W	W	W	W
Vermont	79,700	25,200	91,800	24,100
Virginia	12,400	7,590	12,800	7,730
Wisconsin	156,000	37,200	190,000	40,200
Other	70,200 ^r	18,000 ^r	84,900	17,900
Total	2,280,000 ^r	459,000 ^r	2,470,000	470,000

^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.

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

State	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Georgia	126,000 [†]	\$9,100 [†]	144,000	\$12,000
Maine	4,970	2,770	5,210	2,820
Massachusetts	143,000	42,600	150,000	41,400
New Hampshire	33,600	4,510	W	W
Vermont	W	W	54,100	9,850
Other ²	187,000 [†]	73,000 [†]	165,000	50,500
Total	496,000 [†]	132,000	519,000	117,000

[†]Revised. 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, Connecticut, Minnesota, Missouri, New Hampshire (2014), New York, North Carolina, South Dakota, Texas, Vermont (2013), Virginia, and Wisconsin.

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

State	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Indiana	150,000	\$26,200	200,000	\$34,400
Kansas	42,800	5,550	13,500	1,300
Minnesota	31,100	9,970	W	W
Tennessee	W	W	10,200	1,630
Texas	765,000	128,000	730,000	126,000
Wisconsin	16,800	3,970	16,800	4,030
Other ²	19,100	3,810	69,300	13,300
Total	1,030,000	178,000	1,040,000	180,000

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, Arkansas, California, Idaho, Illinois, Minnesota (2014), New Hampshire, New York, Ohio, Oklahoma, Tennessee (2013), Utah, and Virginia.

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

State	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Arizona	52,300	\$5,820	53,800	\$5,970
Arkansas	9,530	1,230	9,700	1,240
Colorado	8,870	1,940	10,100	1,960
New York	36,500	1,580	41,200	1,880
Ohio	21,200	5,730	18,300	4,760
Oklahoma	43,400	7,880	35,400	3,200
Pennsylvania	18,900	4,100	40,700	3,600
Tennessee	16,300	1,290	22,700	2,020
Texas	135,000	20,700	169,000	27,400
Other ²	18,200	2,600	14,500	1,380
Total	360,000	52,900	416,000	53,400

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

²Includes Alabama, California, Kansas, Maryland, Michigan, and Wisconsin.

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

Use	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	670,000 ^r	\$121,000 ^r	845,000	\$142,000
Irregular-shaped stone	430,000	53,500	387,000	54,500
Monumental	150,000	22,900	142,000	18,200
Other ²	70,700	12,700	72,200	15,500
Dressed stone:				
Ashlars and partially squared pieces	427,000	95,500	450,000	104,000
Slabs and blocks for building and construction	59,500	16,300	55,500	12,700
Monumental	25,500	12,000	22,800	12,100
Curbing	203,000	52,100	200,000	48,800
Flagging	96,100	15,400	116,000	15,900
Flagging (slate)	14,900	3,040	18,800	3,450
Panels and veneer	58,800	23,900	34,600	11,700
Roofing slate	18,200	12,400	23,100	12,400
Flooring slate	535	744	394	720
Tile, all dimensions	1,480	136	3,590	229
Other ³	52,200 ^r	16,800 ^r	98,800	17,300
Total	2,280,000 ^r	459,000 ^r	2,470,000	470,000

^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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	79,000 ^r	\$27,400 ^r	75,300	\$25,000
Irregular-shaped stone	4,910	766	23,700	1,850
Monumental	135,000	14,800	115,000	13,500
Other ²	11,900	1,390	49,200	7,580
Dressed stone:				
Ashlars and partially squared pieces	16,100	10,200	14,600	8,850
Slabs and blocks for building and construction	169	57	6,100	175
Monumental	23,000	11,200	22,000	11,300
Curbing	201,000	51,700	179,000	41,500
Other ³	25,000	14,500	34,000	6,880
Total	496,000 ^r	132,000	519,000	117,000

^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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	352,000	\$60,900	491,000	\$81,500
Irregular-shaped stone	286,000	30,000	212,000	26,900
Other ²	1,040	256	9,960	3,600
Dressed stone:				
Ashlars and partially squared pieces	295,000	65,300	262,000	56,200
Slabs and blocks for building and construction	27,200	5,650	13,300	2,280
Monumental	2,270	669	W	W
Flagging	12,500	1,400	5,400	963
Panels and veneer	26,700	6,910	4,780	3,580
Other ³	22,700	6,550	42,200	5,160
Total	1,030,000	178,000	1,040,000	180,000

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 exports, monumental, and uses not listed.

³Includes curbing limestone, monumental (2014), 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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	27,500	\$10,500	14,400	\$3,120
Dressed stone ³				
Other ^{2,3}	W	W	W	W
Total	47,800	19,100	45,700	17,400

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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	158,000	\$21,000	174,000	\$22,700
Irregular-shaped stone	26,300	2,560	33,600	3,630
Other ²	52,800	8,860	22,200	2,210
Dressed stone:				
Ashlars and partially squared pieces	45,500	7,500	58,900	10,700
Flagging	53,300	5,280	65,900	6,480
Panels and veneer	9,090	3,120	9,870	2,760
Slabs and blocks for building and construction	6,930	1,400	15,800	1,540
Other ³	8,840	3,200	35,400	3,370
Total	360,000	52,900	416,000	53,400

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	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Flagging	14,900	\$3,040	18,800	\$3,450
Roofing	18,200	12,400	23,100	12,400
Flooring	535	744	394	720
Other ²	841	409	966	430
Total	34,500	16,600	43,300	17,000

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	2013		2014		Major destination in 2014 ²
	Quantity	Value	Quantity	Value	
Marble, travertine, alabaster worked ³	90	9,250 ^r	104	10,600	Canada, 53%.
Marble, travertine, crude or roughly trimmed	1	812	6	6,880	Italy, 88%.
Marble, travertine, merely cut, by sawing or otherwise ⁴	4	2,760	2	2,530	Canada, 22%.
Granite, crude or roughly trimmed	56	21,200	66	24,300	China, 62%.
Granite, merely cut by sawing or otherwise ⁴	29	9,150	22	7,520	Canada, 59%.
Slate, worked and articles of slate	NA	3,540	NA	4,170	Canada, 63%.
Slate, whether or not roughly trimmed or merely cut ⁴	NA	504	NA	541	Canada, 28%.
Other calcareous monumental or building stone; alabaster ⁵	31	8,850	26	10,000	Canada, 97%.
Other monumental or building stone ⁶	14	4,760	13	3,770	Canada, 94%.
Total	XX	60,800 ^r	XX	70,300	

^rRevised. 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, 2014	Non-NTR, ² January 1, 2014
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	do.	\$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			
2013:											
Argentina	54	--	133	4	591	--	42	268	1,040	1,040	
Brazil	17	897	138,000	1,360	388,000	57	2,500	79,500	609,000	610,000	
Canada	3,120	1,320	469	914	3,030	5,610	8,490	3,030	21,500	22,900	
China	1,710	12,200	15,500	10,900	129,000	19,000	8,100	90,200	273,000	285,000	
Finland	16	--	--	--	16	--	--	18	34	34	
India	1,300	3,340	25,100	2,710	94,600	13,300	1,510	29,000	166,000	170,000	
Italy	658	2,180	16,000	1,160	96,000	118	1,390	24,800	139,000	142,000	
Japan	--	14	--	2	--	--	2	137	141	155	
Mexico	20	26	12	6	196	--	7	292	513	539	
Norway	295	--	--	--	127	--	--	3	130	130	
Portugal	--	3	--	10	162	--	17	80	269	272	
Saudi Arabia	--	58	2,120	--	5,170	--	18	780	8,080	8,140	
South Africa	1,690	143	279	56	3,330	29	--	594	4,290	4,430	
Spain	7	259	3,430	24	11,500	--	93	2,790	17,800	18,100	
United Kingdom	994	45	23	--	39	--	46	14	122	167	
Zimbabwe	47	--	--	--	203	--	--	24	227	227	
Other	633	704	3,820	468	14,900	131	226	5,200	24,700	25,400	
Total	10,600	21,100	205,000	17,600	747,000	38,200	22,400	237,000	1,270,000	1,290,000	
2014:											
Argentina	--	--	274	--	403	--	299	465	1,440	1,440	
Brazil	534	1,130	140,000	909	422,000	54	2,720	85,200	650,000	651,000	
Canada	3,450	1,180	557	751	3,810	4,830	8,940	3,050	21,900	23,100	
China	1,670	14,400	11,300	6,110	129,000	20,700	8,910	90,200	267,000	281,000	
Finland	3	--	--	--	7	--	--	18	25	25	
India	1,680	4,810	21,900	1,530	113,000	14,000	1,580	27,400	179,000	184,000	
Italy	684	1,320	15,400	693	89,800	42	1,380	20,500	128,000	129,000	
Japan	--	4	--	--	--	--	22	48	70	74	
Mexico	12	131	114	--	200	--	--	321	635	766	
Norway	304	3	7	--	109	--	--	7	123	126	
Portugal	--	30	6	--	329	--	--	41	376	406	
Saudi Arabia	--	2	1,030	15	2,990	--	--	251	4,280	4,290	
South Africa	612	195	871	56	3,470	--	34	488	4,920	5,110	
Spain	72	224	3,980	--	17,800	--	273	2,740	24,800	25,000	
United Kingdom	1,420	89	--	9	103	3	25	48	188	277	
Zimbabwe	27	--	28	--	135	--	--	--	163	163	
Other	763	589	1,980	234	10,900	313	197	4,330	17,900	18,500	
Total	11,200	24,100	197,000	10,300	794,000	39,900	24,400	235,000	1,300,000	1,320,000	

-- 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)
2013:								
Brazil	5,620	\$8,220	90	\$192	635	\$1,150	--	--
Canada	32	125	754	1,660	5,680	3,570	--	--
China	60,200	47,000	57,100	81,200	45,900	23,400	366	\$474
France	233	724	175	631	7,880	7,910	14	52
Greece	5,940	10,500	4,120	7,790	853	1,140	23	11
India	4,870	3,820	2,340	3,110	3,900	1,290	2	9
Israel	2,500	2,270	1,120	1,410	5,100	3,630	3	2
Italy	83,600	171,000	26,500	65,100	7,230	13,300	474	1,270
Lebanon	3	5	(6)	5	82	606	--	--
Mexico	1,580	1,350	2,480	3,470	4,110	5,060	95	72
Portugal	1,490	2,070	3,810	1,350	12,700	10,900	31	25
Spain	24,500	24,300	11,300	10,700	11,600	10,300	109	71
Taiwan	476	587	1,780	3,330	221	215	34	33
Turkey	41,800	32,500	111,000	77,200	10,600	8,610	56	32
Other	8,670	8,120	14,300	13,200	18,900	13,500	296	283
Total	242,000	312,000	236,000	270,000	135,000	105,000	1,500	2,340
2014:								
Brazil	11,100	15,500	206	289	216	329	--	--
Canada	85	416	582	4,400	6,520	2,520	2	6
China	65,000	52,300	63,500	99,300	30,700	22,100	489	656
France	187	756	293	1,360	11,300	7,150	--	--
Greece	6,000	10,400	4,110	8,480	689	885	44	62
India	14,000	7,820	3,740	5,810	2,430	1,150	25	43
Israel	1,820	2,030	568	781	4,160	4,090	--	--
Italy	95,200	195,000	28,900	80,200	16,400	14,400	308	936
Lebanon	--	--	35	67	164	932	--	--
Mexico	1,210	1,030	2,630	2,850	7,580	6,070	1	5
Portugal	1,570	1,970	822	1,450	12,300	13,000	335	94
Spain	26,500	23,800	9,980	10,300	19,500	7,900	141	170
Taiwan	529	776	1,540	3,080	77	93	17	23
Turkey	70,600	44,900	101,000	72,100	16,400	11,600	219	113
Other	6,780	7,040	15,400	15,300	22,000	16,100	678	585
Total	301,000	364,000	233,000	306,000	151,000	108,000	2,260	2,690

-- 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		2013		2014		Major source for 2014 ²
		Quantity	Value (thousands)	Quantity	Value (thousands)	
Marble and alabaster ³	metric tons	18,100	\$25,300	21,500	\$27,600	Italy, 36%.
Slate, roofing	million square feet	8	9,180	10	10,100	Spain, 37%.
Slate, roughly trimmed or simply cut ⁴	do.	7,520	3,650	8,000	3,610	China, 53%.
Slate, worked and articles of slate, and other ⁵	do.	NA	55,400	NA	57,200	China, 53%.
Travertine, monumental or building stone and articles thereof ⁶	do.	13,700	12,700	22,000	11,200	Mexico, 28%.
Travertine, worked monumental or building stone ⁷	do.	23,500	17,700	29,400	18,200	Turkey, 44%.

do. Ditto. NA Not available.

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

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.