



2015 Minerals Yearbook

STONE, DIMENSION [ADVANCE RELEASE]

STONE, DIMENSION

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U.S. production of dimension stone in 2015 was estimated to be 2.63 million metric tons (Mt) valued at \$461 million, which was a 7% increase in tonnage and a slight decrease in value compared with production in 2014 (table 1). Exports increased by 7% in value to \$75.1 million, and imports for consumption increased in value by 5% to \$2.35 billion. The value of apparent consumption was estimated to be \$2.74 billion in 2015, 3% more than that of 2014. According to data compiled by the U.S. Geological Survey (USGS), U.S. production of dimension stone in 2015 was the highest production level in the past 10 years. World dimension granite and marble production, including the United States, was estimated to be 155 Mt in 2014, the last year for which data were available (Gussoni, 2016, p. 68). 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 from 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.

In 2015, the U.S. dimension stone industry appeared to have fully recovered from the economic downturn of 2008, after several years of steady growth. Along with a slowly recovering construction market, this growth was augmented by a healthy remodeling and renovation market that has benefitted stone producers and fabricators (Richinelli, 2015).

Legislation and Government Programs

One of the most important issues affecting the dimension stone industry has been the potential effect of crystalline silica on human health. The understanding of the regulations, the implementation of the measurements and actions taken to mitigate exposure to crystalline silica, and the appreciation of

the effect of such exposure on the future of many industries remain central to an ongoing debate. The Occupational Safety and Health Administration (OSHA) enforces permissible exposure limits that stipulate the maximum amount of crystalline silica to which workers may be safely exposed during an 8-hour work shift (29 CFR §§1926.55 and 1910.1000). OSHA provides guidelines and training tools for the proper handling of crystalline silica (Occupational Safety and Health Administration, 2002). After many years of study, OSHA issued a Notice of Proposed Rulemaking for Occupational Exposure to Respirable Crystalline Silica in the Federal Register on September 12, 2013. OSHA stated that the proposed rule was the result of an extensive review of scientific evidence relating to the health risks of exposure to respirable crystalline silica, analysis of the diverse industries where worker exposure to crystalline silica takes place, robust outreach efforts to affected stakeholders, and careful consideration of current industry consensus standards for crystalline silica exposure. OSHA stated that current permissible exposure limits for crystalline silica were inadequate (Occupational Safety and Health Administration, 2013). In December 2015, OSHA submitted its draft final rule on silica for review to the Office of Management and Budget. Following approval, OSHA planned to publish the final rule on silica in early 2016, which would be the first time that silica regulations have been updated since 2002 (Safety and Health Magazine, 2015).

Production

Dimension stone production data for the United States were derived by the USGS from a voluntary canvass of U.S. quarry producers of rough and dressed dimension stone. Of the 276 dimension-stone-producing operations included in the survey for 2015, 121 (44%) responded, which represented 58% 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.

Commercial and residential construction accounts for a significant portion of the consumption of dimension stone of all types. Of particular interest to the dimension stone

industry during 2015 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 2015 into early 2016, despite a shortage of skilled laborers in the construction industry (Marble Institute of America, 2016, p. 28).

In 2015, limestone accounted for 1.13 Mt (43%) of the total domestic dimension stone production quantity of 2.63 Mt, followed by granite (22%), sandstone (18%), miscellaneous stone (13%), and marble and slate (2% each). By value, limestone accounted for about \$168 million (36%) of the \$461 million total domestic production value, followed by granite (28%), miscellaneous stone (15%), sandstone (13%), and marble and slate (4% each) (table 2).

Production of dimension stone was reported in 35 States. Leading producer States were, in descending order by tonnage, Texas, Indiana, Wisconsin, Massachusetts, and Georgia. These States accounted for about 67% 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; Fletcher Granite in Massachusetts; Indiana Limestone Co. in Indiana; and Mezger Enterprises Inc. in Texas. These companies accounted for about 19% of domestic production tonnage and about 18% of production value. The leading 15 companies accounted for 41% of total domestically produced tonnage and 20% 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.

Granite.—Dimension granite was produced by 42 companies operating 60 quarries in 18 States. Production was 585,000 metric tons (t) valued at \$130 million. Granite production tonnage increased by 13% and the value increased by 12% compared with those of 2014. The top producing States were, in descending order by tonnage, Massachusetts and Georgia, and they accounted for 49% of the tonnage and 40% of the value of U.S. granite production (table 4). Cold Spring Granite Co., Fletcher Granite, The North Carolina Granite Corp., Rock of Ages Corp., and Williams Stone Co., Inc., which were the leading producers, accounted for 61% of U.S. granite production by tonnage and 72% of U.S. granite production by value.

Limestone.—Dimension limestone was produced by 77 companies from 84 quarries in 16 States. Production increased by 9% in 2015 to 1.13 Mt from 1.04 Mt in 2014. The value decreased by 7% to \$168 million in 2015 from \$180 million in 2014. The top five producing States were, in descending order by tonnage, Texas, Indiana, Wisconsin, Tennessee, and Kansas, which combined produced 93% of U.S. tonnage and 91% of the value (table 5). Espinoza Stone; Howard Pierce and Sons Stone Co.; Indiana Limestone; Mezger

Enterprises; and RLF Salado Quarries, LLC, which were the leading producers, accounted for about 37% of all U.S. limestone tonnage and about 33% of the value.

Marble.—Marble was mined by five companies that operated eight quarries in four States. Production tonnage increased by 23% in 2015 to 56,300 t valued at \$17 million from 45,700 t valued at \$17.4 million in 2014 (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 65 companies that operated 71 quarries in 15 States. Production tonnage increased by 14% to 473,000 t in 2015 from 416,000 t in 2014. The production value increased by 9% to \$58.4 million in 2015 from \$53.4 million in 2014 (table 6). The top five producing States were, in descending order by tonnage, Texas, Arizona, New York, Oklahoma, and Pennsylvania and accounted for 84% of U.S. tonnage and 76% of value. Harley Gray Stone Co.; Howard Pierce and Sons; Jacobs Stone Products Inc.; Millsap Materials LLC; and Schaefer Enterprises of Deposit, Inc., which were the leading producers, accounted for about 31% of the tonnage and 15% of the value of domestic production.

Slate.—Slate was produced by 14 companies that operated 14 quarries in six States. Production tonnage decreased slightly to 42,900 t in 2015 from 43,300 t in 2014. The value increased by 13% to \$19.1 million in 2015 from \$17.0 million in 2014 (table 12). The top producing States by tonnage were Vermont, Idaho, and Pennsylvania. The leading producers were Greenstone Slate Co.; 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 \$2.74 billion in 2015; 3% more than that of 2014 (table 1).

Rough stone represented about 59% of the tonnage and 48% 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 irregular-shaped stone (31%). Dressed stone represented 41% by tonnage and 52% by value of the total stone sold or used. The leading uses within dressed stone, by tonnage, were in ashlar and partially squared pieces (43%), curbing (19%), and flagging (11%) (table 7).

Uses for the different varieties of dimension stone varied considerably. The major uses of granite sold or used in 2015, by tonnage, were in curbing (35%), monumental rough stone (20%), rough blocks for building and construction (19%), and in irregular-shaped stone (12%) (table 8). Primary uses of limestone, by tonnage, were in rough blocks for building and construction (44%), irregular-shaped stone (23%), and ashlar and partially squared pieces (22%) (table 9). A primary use

of marble, by tonnage, was in rough stone for building and construction (38%). 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 (44%) and dressed stone for ashlars and partially squared pieces (20%) (table 11). Dimension slate sold or used by producers in the United States in 2015, by tonnage, was principally for roofing (51%) and flagging (45%) (table 12).

Prices

The average 2015 value as reported by domestic producers for dimension stone was \$175 per metric ton, an 8% decrease from that of 2014 based on the USGS canvass data. The average unit values for various types of dimension stone were granite, \$222 per ton; limestone, \$149 per ton; marble, \$303 per ton; sandstone, \$123 per ton; and slate, \$445 per ton (table 2). 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 2015, the value of total exports of dimension stone increased by 7% to \$75.1 million compared with that of 2014; marble accounted for 37% of the export value. The largest share of marble was exported to Italy (table 13). Although unreported, a significant quantity of U.S. marble 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 5% in 2015 to \$2.35 billion (tables 1, 15, 16, 17). Brazil continued to be the leading source of imported granite in 2015, accounting for 48% 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 (15%) and Italy (9%) (table 15). In 2015, Turkey was the leading source of rough and dressed marble imports and accounted for about 28% by tonnage and 17% by value. China remained a major source of rough and dressed marble imports and accounted for 24% by tonnage and 24% by value. Italy continued to be a major source of rough and dressed marble imports and accounted for 20% by tonnage and 35% by value. In 2015, Italy again had the highest total 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 155 Mt in 2014, 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 27 countries. The top five producing countries in 2014 were, in descending order by tonnage, China, India, Turkey, Iran, and Italy, and these countries accounted for about 74% of the world's dimension granite and marble production.

Global production of dimension granite and marble increased by 12% in 2014 compared with that of 2013. The United States ranked 18th in world production of dimension granite and marble in 2014 (Gussoni, 2016, p. 68).

Outlook

U.S. apparent consumption of dimension stone increased by 3% in 2015. Domestic production and imports of dimension stone increased in 2015, as a result of steady growth in new commercial and residential construction and robust activity in the home remodeling and renovation market. Steady activity from domestic stone installation businesses indicate that residential and commercial renovation and refurbishment remain important end markets for dimension stone, and these activities are expected to continue an upward trend in 2016.

In descending order by market share, China, Italy, and Turkey were major global producers of dimension stone, with China accounting for about 42% of the value of the global dimension stone product export sector in 2015. In terms of demand for imported dimension stone materials in 2015, the United States ranked first followed by China. Industry observers expect steady growth in the global dimension stone industry in the near term, particularly in Asia and Europe (Gussoni, 2016, p. 45–52).

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TABLE 1
 SALIENT U.S. DIMENSION STONE STATISTICS¹

(Thousand metric tons and thousand dollars)

	2011	2012	2013	2014	2015
Sold or used by producers:					
Quantity	1,850	2,150	2,280	2,470	2,630 ^e
Value	395,000	452,000	459,000	470,000	461,000 ^e
Exports, value	66,000	64,900	60,800	70,300	75,100
Imports for consumption, value	1,590,000	1,740,000	2,100,000	2,240,000	2,350,000
Apparent consumption, value ²	1,910,000	2,130,000	2,500,000	2,640,000	2,740,000 ^e

^eEstimated.

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

²Equals value of sold or used by producers plus imports for consumption minus exports.

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

Type	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Granite	519,000	\$117,000	585,000	\$130,000
Limestone	1,040,000	180,000	1,130,000	168,000
Marble	45,700	17,400	56,300	17,000
Sandstone	416,000	53,400	473,000	58,400
Slate	43,300	17,000	42,900	19,100
Miscellaneous stone ³	406,000	85,100	346,000	68,400
Total	2,470,000	470,000	2,630,000	461,000

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	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Alabama	W	W	W	W
Arizona	54,600	\$6,080	62,000	\$6,660
Arkansas	10,300	1,290	10,300	1,290
California	23,500	9,170	20,800	7,780
Colorado	17,300	6,230	20,300	9,570
Connecticut	W	W	12,500	2,360
Georgia	152,000	15,500	140,000	13,000
Idaho	63,700	8,640	44,700	7,050
Illinois	W	W	W	W
Indiana	200,000	34,400	211,000	39,700
Kansas	13,700	1,330	11,100	1,090
Maine	5,210	2,820	3,380	1,840
Maryland	3,230	723	3,580	728
Massachusetts	165,000	43,100	160,000	41,900
Michigan	W	W	W	W
Minnesota	51,000	21,000	51,200	20,800
Missouri	W	W	W	W
Montana	27,500	1,970	24,400	1,000
Nevada	W	W	W	W
New Hampshire	27,500	3,460	W	W
New Mexico	W	W	W	W
New York	126,000	17,600	126,000	17,200
North Carolina	43,800	20,700	91,400	18,600
Ohio	20,800	5,150	22,300	6,070
Oklahoma	62,200	5,240	66,700	5,920
Pennsylvania	50,900	5,720	42,300	6,410
South Carolina	W	W	W	W
South Dakota	W	W	W	W
Tennessee	51,100	11,000	52,300	10,200
Texas	922,000	159,000	1,060,000	142,000
Utah	W	W	5,900	620
Vermont	91,800	24,100	87,100	27,900
Virginia	12,800	7,730	12,400	7,690
Washington	--	--	W	W
Wisconsin	190,000	40,200	199,000	41,200
Other	84,900	17,900	96,100	22,400
Total	2,470,000	470,000	2,630,000	461,000

W Withheld to avoid disclosing company proprietary data; included in "Other." -- Zero.

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	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Georgia	144,000	\$12,000	130,000	\$10,900
Maine	5,210	2,820	3,380	1,840
Massachusetts	150,000	41,400	156,000	41,100
Vermont	54,100	9,850	49,800	11,500
Other ²	165,000	50,500	246,000	64,700
Total	519,000	117,000	585,000	130,000

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

²Includes California, Connecticut, Maryland, Minnesota, Missouri, New Hampshire, New York, North Carolina, Oklahoma, South Carolina, South Dakota, Texas, Virginia, and Wisconsin.

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

State	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Indiana	200,000	\$34,400	211,000	\$39,700
Kansas	13,500	1,300	10,900	1,050
Tennessee	10,200	1,630	12,000	1,630
Texas	730,000	126,000	803,000	107,000
Wisconsin	16,800	4,030	17,600	4,170
Other ²	69,300	13,300	76,400	14,800
Total	1,040,000	180,000	1,130,000	168,000

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

²Includes Alabama, Arkansas, California, Idaho, Illinois, Minnesota, New York, Ohio, Oklahoma, Utah, and Washington.

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

State	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Arizona	53,800	\$5,970	61,100	\$6,550
Arkansas	9,700	1,240	9,790	1,240
Colorado	10,100	1,960	10,200	3,870
New York	41,200	1,880	43,300	1,570
Ohio	18,300	4,760	17,400	5,510
Oklahoma	35,400	3,200	37,800	3,790
Pennsylvania	40,700	3,600	31,400	3,790
Tennessee	22,700	2,020	20,300	1,890
Texas	169,000	27,400	226,000	28,600
Other ²	14,500	1,380	15,800	1,640
Total	416,000	53,400	473,000	58,400

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	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	845,000	\$142,000	911,000	\$139,000
Irregular-shaped stone	387,000	54,500	481,000	54,000
Monumental	142,000	18,200	144,000	17,100
Other ²	72,200	15,500	29,400	11,600
Dressed stone:				
Ashlars and partially squared pieces	450,000	104,000	465,000	79,100
Slabs and blocks for building and construction	55,500	12,700	57,400	13,700
Monumental	22,800	12,100	22,500	11,000
Curbing	200,000	48,800	205,000	44,800
Flagging	116,000	15,900	123,000	16,700
Flagging (slate)	18,800	3,450	19,300	4,530
Panels and veneer	34,600	11,700	63,600	25,400
Roofing slate	23,100	12,400	21,900	13,000
Flooring slate	394	720	757	1,160
Tile, all dimensions	3,590	229	2,350	97
Other ³	98,800	17,300	89,200	30,100
Total	2,470,000	470,000	2,630,000	461,000

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	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	75,300	\$25,000	111,000	\$31,700
Irregular-shaped stone	23,700	1,850	72,600	1,910
Monumental	115,000	13,500	116,000	12,200
Other ²	49,200	7,580	9,230	2,700
Dressed stone:				
Ashlars and partially squared pieces	14,600	8,850	14,200	8,080
Slabs and blocks for building and construction	6,100	175	6,980	1,430
Monumental	22,000	11,300	22,500	11,000
Curbing	179,000	41,500	203,000	44,600
Other ³	34,000	6,880	29,500	16,400
Total	519,000	117,000	585,000	130,000

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	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	491,000	\$81,500	495,000	\$71,600
Irregular-shaped stone	212,000	26,900	259,000	28,000
Other ²	9,960	3,600	7,680	3,530
Dressed stone:				
Ashlars and partially squared pieces	262,000	56,200	252,000	37,600
Slabs and blocks for building and construction	13,300	2,280	14,400	2,320
Flagging	5,400	963	19,100	1,580
Panels and veneer	4,780	3,580	32,200	8,480
Other ³	42,200	5,160	51,500	15,100
Total	1,040,000	180,000	1,130,000	168,000

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, tile, uses not specified, and uses not listed.

TABLE 10
DIMENSION MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone, rough blocks for building and construction	14,400	\$3,120	21,500	\$3,270
Dressed stone ²	W	W	W	W
Other ^{2,3}	W	W	W	W
Total	45,700	17,400	56,300	17,000

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

³Includes monumental stone, uses not specified, and uses not listed.

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

Use	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	174,000	\$22,700	207,000	\$24,200
Irregular-shaped stone	33,600	3,630	46,500	3,500
Other ²	22,200	2,210	20,000	2,270
Dressed stone:				
Ashlars and partially squared pieces	58,900	10,700	94,300	15,100
Flagging	65,900	6,480	71,300	6,510
Panels and veneer	9,870	2,760	8,710	2,370
Slabs and blocks for building and construction	15,800	1,540	15,900	1,470
Other ³	35,400	3,370	10,100	3,010
Total	416,000	53,400	473,000	58,400

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	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Flagging	18,800	\$3,450	19,300	\$4,530
Roofing	23,100	12,400	21,900	13,000
Flooring	394	720	757	1,160
Other ²	966	430	966	430
Total	43,300	17,000	42,900	19,100

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	2014		2015		Major destination in 2015, by value
	Quantity	Value	Quantity	Value	
Marble, travertine, alabaster worked ²	104	10,600	86	10,000	Canada, 50%.
Marble, travertine, crude or roughly trimmed	6	6,880	11	13,100	Italy, 87%.
Marble, travertine, merely cut, by sawing or otherwise ³	2	2,530	5	4,460	Italy, 20%.
Granite, crude or roughly trimmed	66	24,300	55	21,000	China, 63%.
Granite, merely cut by sawing or otherwise ³	22	7,520	18	5,650	Canada, 71%.
Slate, worked and articles of slate	NA	4,170	NA	3,400	Canada, 64%.
Slate, whether or not roughly trimmed or merely cut ³	NA	541	NA	650	Australia, 51%.
Other calcareous monumental or building stone; alabaster ⁴	26	10,000	33	10,800	Canada, 94%.
Other monumental or building stone ⁵	13	3,770	20	6,010	Canada, 84%.
Total	XX	70,300	XX	75,100	

NA Not available. XX Not applicable.

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

²Further worked than simply cut with a flat surface.

³Blocks or slabs.

⁴Crude, roughly trimmed, or merely cut into blocks or slabs. Other than marble and travertine.

⁵Crude, 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, 2015	Non-NTR, ² January 1, 2015
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										
	Rough granite ²	Simply cut ³	Not cut to size ⁴	Maximum 1.5 centimeters	1.5–7.5 centimeters	Cut to size ⁵			Other		
						Minimum 7.5 centimeters Monumental	Building				
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	
2015:											
Argentina	73	--	21	--	346	--	62	192	621	621	
Brazil	914	1,950	127,000	1,600	409,000	73	2,020	97,600	638,000	640,000	
Canada	3,910	898	766	1,080	5,270	5,190	14,300	2,970	29,600	30,500	
China	2,680	17,000	10,500	5,500	124,000	20,400	9,300	93,000	263,000	280,000	
Finland	13	--	--	--	--	--	4	3	7	7	
India	4,460	12,100	17,600	1,760	119,000	16,800	2,480	25,600	184,000	196,000	
Italy	466	1,750	15,100	801	79,800	100	1,180	23,700	121,000	123,000	
Japan	--	--	--	--	--	--	40	52	92	92	
Mexico	7	30	151	--	278	55	2	48	534	564	
Norway	323	--	--	--	11	--	40	--	51	51	
Portugal	--	38	81	24	604	--	25	196	930	968	
Saudi Arabia	--	33	516	--	2,180	--	16	161	2,870	2,900	
South Africa	464	68	691	40	2,850	23	--	511	4,110	4,180	
Spain	76	215	5,330	92	19,500	--	35	3,750	28,700	28,900	
United Kingdom	1,310	102	--	--	27	--	--	28	55	157	
Zimbabwe	--	--	22	--	53	--	--	--	75	75	
Other	784	692	1,600	244	7,310	105	113	2,910	12,300	13,000	
Total	15,500	34,800	180,000	11,100	771,000	42,800	29,700	251,000	1,290,000	1,320,000	

-- Zero.

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

²Normal 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.

³Simply cut with a flat even surface; HTS code 6802.23.0000.

⁴Only one face worked more than simply cut; HTS code 6802.93.0010.

⁵One or more faces worked more than simply cut.

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)
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
Egypt	1,720	932	4,300	2,590	2,130	1,250	537	180
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 ^f	5,060	6,110	11,100	12,700	19,900	14,900	141	405
Total	301,000	364,000	233,000	306,000	151,000	108,000	2,260	2,690
2015:								
Brazil	19,300	24,900	449	1,030	333	510	--	--
Canada	29	223	969	3,770	29,000	7,290	22	50
China	79,800	58,100	81,900	128,000	32,200	21,300	324	381
Egypt	1,250	634	4,150	2,180	1,610	1,100	1,750	486
France	390	1,060	186	1,060	7,350	6,990	69	59
Greece	7,170	10,900	5,900	10,300	705	804	132	113
India	28,600	15,600	8,380	10,600	3,320	2,140	93	93
Israel	1,540	1,850	640	888	3,550	3,980	40	22
Italy	112,000	226,000	39,400	71,300	13,300	14,000	358	793
Lebanon	24	28	50	55	260	1,030	--	--
Mexico	1,200	988	2,860	3,300	4,210	5,080	84	45
Portugal	1,420	1,780	885	1,620	13,200	13,400	113	138
Spain	23,600	20,500	9,330	10,600	10,300	8,140	39	38
Taiwan	533	820	1,700	3,580	83	100	18	23
Turkey	134,000	60,700	81,300	74,200	16,800	13,200	223	129
Other	4,690	5,030	9,360	11,400	20,500	14,300	181	392
Total	415,000	429,000	247,000	334,000	157,000	113,000	3,440	2,760

^fRevised. -- 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.

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		2014		2015		Major source for 2015, by value
		Quantity	Value (thousands)	Quantity	Value (thousands)	
Marble and alabaster ²	metric tons	21,500	\$27,600	25,900	\$31,700	Italy, 34%.
Slate, roofing	million square feet	10	10,100	11	10,500	Spain, 42%.
Slate, roughly trimmed or simply cut ³	do.	8,000	3,610	7,360	3,210	China, 49%.
Slate, worked and articles of slate, and other ⁴	do.	NA	57,200	NA	58,900	China, 57%.
Travertine, monumental or building stone and articles thereof ⁵	do.	22,000	11,200	35,700	13,600	Mexico, 29%.
Travertine, worked monumental or building stone ⁶	do.	29,400	18,200	25,600	17,200	China, 27%.

do. Ditto. NA Not available.

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

²Simply cut with a flat surface.

³Rectangular blocks or slabs.

⁴Other than roofing, including agglomerated slate.

⁵Simply cut with a flat surface, other than tiles and granules.

⁶Dressed or polished but not further worked.

Source: U.S. Census Bureau.