



# 2005 Minerals Yearbook

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STONE, DIMENSION

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# STONE, DIMENSION

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U.S. production of dimension stone in 2005 was estimated to be 1.5 million metric tons (Mt) valued at \$269 million, which was about a 4% decrease in value compared with that of 2004 (table 1). U.S. production tonnage of dimension stone in 2005 increased by about 3% compared with that of 2004. Exports increased in value by about 4% to \$66.1 million, and imports for consumption increased by about 21% in value to about \$2.18 billion. The value of apparent consumption was estimated to be \$2.4 billion. 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. Monumental stone, another major type, 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 (essentially based on mineral composition, hardness, and past performance), 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 dimension stone types overlap. The scientific description of dimension stone types is focused primarily on the stone's geographic locality and mineralogical composition, 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).

**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. Primary 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 of 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 aforementioned 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 211 dimension-stone-producing operations included in the survey for 2005, 111 (53%) responded, which represented 69% of the tonnage; the remaining tonnage was estimated based partly on prior years' reporting (table 1). 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 2005, limestone accounted for 581,000 metric tons (t) (38%) of the total domestic dimension stone production of 1.5 Mt, followed by granite (27%), marble (14%), sandstone (13%), miscellaneous stone (7%), and slate (1%). Granite accounted for about \$106 million (39%) of the value of total domestic production of \$269 million, followed by limestone (35%), sandstone (9%), marble (7%), miscellaneous (6%), and slate (4%).

Production was reported in 34 States and Puerto Rico. Leading producer States were, in descending order by tonnage, Wisconsin, Georgia, Indiana, Vermont, and Massachusetts. These States accounted for about 63% of the domestic production. The leading producer States were, in descending order by value, Indiana, Vermont, Wisconsin, Georgia, and South Dakota. These States contributed about 53% of the value of domestic production (table 3).

The top five producing companies were Buechel Stone Corp. in Wisconsin; Georgia Marble Co. (a subsidiary of Polycor Inc.) in Georgia; Victor Oolitic Stone Co. in Indiana; Rock of Ages Corp. in Vermont, North Carolina, and Pennsylvania; and Fletcher Granite Co., Inc. in Massachusetts, Maine, and New Hampshire. These companies produced about 45% of domestic production in tonnage and about 29% of production value. The leading 14 companies accounted for 67% of total domestically produced tonnage and 55% of the value.

Rough stone blocks split or cut from a quarry face are transported to processing plants that are typically 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 30 companies operating 56 quarries in 17 States. Production was 416,000 t valued at \$106 million. Granite production tonnage decreased by 3% and the value decreased by 2% compared with those of 2004. The top five producing States were, in descending order by tonnage, Massachusetts, Vermont, Georgia, New Hampshire, and South Dakota. Massachusetts accounted for 19% of the tonnage of U.S. granite production. Massachusetts and Vermont combined accounted for about 23% of the value of the U.S. granite production (table 4).

Cold Spring Granite, Inc., Fletcher Granite, and Rock of Ages, which were the leading producers, accounted for 52% of U.S. granite production in tonnage and 23% of U.S. granite production in value.

**Limestone.**—Dimension limestone was produced by 28 companies from 31 quarries in 9 States. Production increased in 2005 by about 3% to 581,000 t from 564,000 t in 2004. The value increased slightly to \$95.7 million in 2005 from \$95 million in 2004. The top five producing States were, in descending order by tonnage Wisconsin, Indiana, Texas, Minnesota, and Kansas. Wisconsin and Indiana combined produced more than 86% of the U.S. tonnage and 74% of the value (table 5). Buechel Stone, Elliott Stone Co., Independent Limestone Co., Indiana Limestone, and Victor Oolitic Stone, which were the leading producers, accounted for 78% of all U.S. limestone tonnage and about 59% of the value.

**Sandstone.**—Dimension sandstone was produced by 24 companies that operated 27 quarries in 16 States. Production decreased by about 7% to 192,000 t in 2005 from 208,000 t in 2004. The value decreased slightly to \$24.3 million in 2005 from \$24.7 million in 2004. The top five producing States were, in descending order by tonnage, Arizona, New York, Ohio, Colorado, and Arkansas (table 6).

American Sandstone, Finger Lakes Stone Co. Inc., Hackett Quarry Co., Loukonen Brothers Stone Co., and Jude Stone Quarry Co., which were the leading producers, accounted for about 66% of the tonnage and 47% of the value of domestic production.

**Marble.**—Marble was mined by five companies that operated seven quarries in five States. Production more than doubled in 2005 to 207,000 t valued at \$18.9 million from 98,700 t valued at \$16.1 million in 2004 (table 10). Georgia was the leading producing State, followed by Vermont, Tennessee, Colorado, and Alabama. The leading producers were Georgia Marble, Vermont Quarries Co., and Tennessee Valley Marble. Additional data have been withheld to avoid disclosing company proprietary information.

**Slate.**—Slate was produced by 13 companies that operated 15 quarries in 5 States. Production decreased to 18,200 t in 2005 from 19,600 t in 2004. The value decreased to \$11.2 million in 2005 from \$13.7 million in 2004 (table 12). The top producing States were Vermont, Pennsylvania, and North Carolina. The leading producers were Pennsylvania Big Red Slate Co. Inc., Quarry Slate Industries Inc., and U.S. Quarried Slate Products Inc. Additional data have been withheld to avoid disclosing company proprietary information.

## Consumption

Rough stone represented about 64% of the tonnage and 54% 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 other uses, which included flagging, exports, and unlisted and unspecified uses (36%), and in construction (34%). Dressed stone represented 36% by tonnage and 46% by value of the total stone sold or used. The leading uses within dressed stone, by tonnage, were in flagging (27%), curbing (24%), and ashlar and partially squared pieces (17%) (table 7).

Uses for the different varieties of dimension stone varied considerably. The major uses of granite sold or used in 2005, by tonnage, were in curbing (31%), monumental rough stone (22%), monumental dressed stone (14%), and rough blocks for building and construction (12%) (table 8). Primary uses of limestone, by tonnage, were in dressed stone other uses, including curbing, panels, veneer, tile, and unlisted and unspecified uses (56%), and rough blocks for building and construction (30%) (table 9). Primary uses of marble, by tonnage, were rough blocks for monumental and unspecified uses (62%), and rough blocks for building and construction (33%) (table 10). Primary uses of sandstone, by tonnage, were in dressed stone for flagging (63%) and rough blocks for building and construction (15%) (table 11). Dimension slate sold or used by producers in the United States in 2005, by tonnage, was principally for flooring (50%), roofing (18%), and flagging (14%) (table 12).

Overall, the value of apparent consumption of dimension stone in the United States was estimated to be \$2.4 billion in 2005; this was an increase of about 20% compared with that of 2004. 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. Also, changes in industry stocks are not considered because such data are not available.

## Prices

The average 2005 value for dimension stone was \$178 per metric ton; this was a decrease of 7% from that of 2004 based on the USGS canvass. The average unit values for different types of dimension stone were granite, \$254 per ton; limestone, \$165 per ton; marble, \$91 per ton; sandstone, \$126 per ton; and slate, \$617 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 2005, total exports of dimension stone increased in value slightly to about \$66.1 million compared with those of 2004; granite accounted for 58% of the export value. The largest share of granite was exported to China (table 13). Although

unreported, a significant amount of granite was probably reexported back to the U.S. market.

**Imports.**—The value of imports for consumption of dimension stone types increased in 2005 by 22% to \$2.2 billion. Brazil superseded Italy as the major single source of imported granite in 2005, accounting for 31% by value. Italy, which continued to be a major source of granite, accounted for 25% of granite imports by value. Other important granite import sources included China (17%) and India (15%) (table 14). Italy also was a major source of rough and dressed marble imports (tables 15, 16). Duties on imported dimension stone are listed in table 2.

## World Industry Structure

World dimension stone production, including the United States, was estimated to be approximately 93 Mt in 2005. Although there was probably some small-scale production in the majority of the world's nations, dimension stone was produced and officially reported in about 26 countries. The top five producing countries in 2005 were, in descending order by tonnage, China, India, Iran, Italy, and Spain, and these countries accounted for about 68% of the world's production. The United States ranked 11th in world production of dimension stone in 2005 (Internazionale Marmi e Macchine Carrara S.p.A., 2006<sup>§1</sup>).

## Outlook

Dimension stone sales during the near term are expected to remain level. For residential and office building construction, growth in the use of dimension stone is expected in new home construction, new prestige markets for home improvement, as well as in renovations to attract and keep tenants. Conversely, some sectors of the stone industry report a lack of skilled labor at quarries and that, in recent years, competent masons have left the stone industry for more lucrative and higher paying building projects in the construction industry.

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## GENERAL SOURCES OF INFORMATION

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<sup>1</sup>A reference that includes a section mark (§) is found in the Internet Reference Cited section.

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TABLE 1  
 SALIENT U.S. DIMENSION STONE STATISTICS<sup>1</sup>

(Thousand metric tons and thousand dollars)

	2001	2002	2003	2004	2005
Sold or used by producers: <sup>2</sup>					
Quantity	1,220	1,260	1,340	1,460	1,500
Value	263,000	254,000	268,000	281,000	269,000
Exports, value	73,500	64,400	63,500	63,700	66,100
Imports for consumption, value	1,070,000	1,190,000	1,390,000	1,790,000	2,180,000

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Includes Puerto Rico and other U.S. possessions and territories.

TABLE 2  
U.S. IMPORT DUTIES ON DIMENSION STONE

Tariff item	HTS <sup>1</sup> code	NTR, <sup>2</sup>	
		January 1, 2005	Non-NTR, <sup>2</sup> January 1, 2005
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	2516.21.0000	Free	\$5.30 per cubic meter.
Merely cut	2516.22.0000	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.
Other calcareous stone	6802.22.0000	4.9% ad valorem	50% ad valorem.
Granite	6802.23.0000	3.7% ad valorem	60% ad valorem.
Other stone	6802.29.0000	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.

<sup>1</sup>Harmonized Tariff Schedule of the United States.

<sup>2</sup>Normal trade relations.



TABLE 3  
DIMENSION STONE SOLD OR USED BY PRODUCERS IN  
THE UNITED STATES, BY STATE<sup>1</sup>

State	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
California	42,100	\$10,200	41,000	\$10,200
Colorado	16,200	1,980	18,200	2,400
Georgia	146,000	22,100	246,000	21,000
Indiana	251,000	45,500	240,000	46,300
Kansas	13,900	1,730	13,100	1,590
Maryland	26,700	9,580	25,700	3,010
Massachusetts	81,700	11,600	81,800	11,500
Minnesota	21,600	12,400	18,600	13,400
Montana	13,900	2,550	11,600	2,620
New Mexico	57,000	2,430	6,660	279
New York	43,600	4,560	42,100	7,470
North Carolina	43,000	18,200	39,500	17,000
Ohio	37,700	5,100	28,200	4,880
Oklahoma	16,500	2,100	3,200	501
Pennsylvania	32,600	10,100	35,400	11,800
South Carolina	9,230	850	9,230	850
Texas	63,600	15,200	44,000	12,200
Vermont	100,000	30,600	98,000	27,800
Virginia	5,410	594	5,640	631
Wisconsin	232,000	23,800	278,000	27,600
Other <sup>2</sup>	206,000	49,600	219,000	45,500
Total	1,460,000	281,000	1,500,000	269,000

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

<sup>2</sup>Includes Alabama, Arizona, Arkansas, Connecticut, Idaho, Maine, Michigan, Missouri, New Hampshire, South Dakota, Tennessee, Utah, Washington, West Virginia, Puerto Rico, and other U.S. possessions and territories.

TABLE 4  
DIMENSION GRANITE SOLD OR USED BY PRODUCERS IN  
THE UNITED STATES, BY STATE<sup>1</sup>

State	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
California	17,200	\$5,800	17,300	\$5,810
Georgia	75,400	9,630	64,300	8,590
Massachusetts	81,700	11,600	81,800	11,500
South Carolina	9,230	850	9,230	850
Wisconsin	12,100	2,200	2,550	1,690
Other <sup>2</sup>	233,000	77,800	241,000	77,300
Total	429,000	108,000	416,000	106,000

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

<sup>2</sup>Includes Maine, Minnesota, Missouri, New Hampshire, New York, Oklahoma, North Carolina, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Puerto Rico, and other U.S. possessions and territories.

TABLE 5  
DIMENSION LIMESTONE SOLD OR USED BY PRODUCERS IN  
THE UNITED STATES, BY STATE<sup>1</sup>

State	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Indiana	249,000	\$45,400	240,000	\$46,300
Kansas	12,200	1,570	11,700	1,490
Other <sup>2</sup>	303,000	48,000	329,000	47,900
Total	564,000	95,000	581,000	95,700

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

<sup>2</sup>Includes Arkansas, California, Minnesota, Ohio, Oklahoma, Texas, and Wisconsin.

TABLE 6  
DIMENSION SANDSTONE SOLD OR USED BY PRODUCERS IN  
THE UNITED STATES, BY STATE<sup>1</sup>

State	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
New York	41,300	\$3,170	39,700	\$6,080
Pennsylvania	2,330	357	2,350	358
Other <sup>2</sup>	164,000	21,100	150,000	17,900
Total	208,000	24,700	192,000	24,300

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

<sup>2</sup>Includes Arizona, Arkansas, California, Colorado, Idaho, Kansas, Michigan, New Mexico, Ohio, Oklahoma, Utah, Virginia, West Virginia, and Wisconsin.

TABLE 7  
DIMENSION STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE<sup>1,2</sup>

Use	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
<b>Rough stone:</b>				
Rough blocks for building and construction	414,000	\$68,700	324,000	\$43,000
Irregular-shaped stone	77,100	10,100	72,900	9,850
Monumental	138,000	14,100	221,000	27,700
Other <sup>3</sup>	257,000	32,700	347,000	66,000
<b>Dressed stone:</b>				
Ashlars and partially squared pieces	104,000	17,500	91,100	20,600
Slabs and blocks for building and construction	15,900	6,900	14,400	3,670
Monumental	63,100	30,700	59,500	27,500
Curbing	130,000	21,500	129,000	20,600
Flagging	170,000	20,800	146,000	13,700
Flagging (slate)	1,240	245	2,550	837
Roofing slate	4,860	8,060	3,310	5,130
Structural and sanitary	2,370	2,710	2,270	2,590
Flooring slate	8,870	1,720	9,030	1,920
Other <sup>4</sup>	75,500	45,000	82,400	25,700
Grand total	1,460,000	281,000	1,500,000	269,000

<sup>1</sup>Includes Puerto Rico and other U.S. possessions and territories.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Includes flagging stone, exports, uses not specified, and uses not listed.

<sup>4</sup>Includes panels and veneer, tile, blackboards, exports, uses not specified, and uses not listed.



TABLE 8  
DIMENSION GRANITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE<sup>1</sup>

Use	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	103,000	\$29,200	48,800	\$8,700
Irregular-shaped stone	9,870	1,140	10,900	1,430
Monumental	59,900	6,810	90,900	18,500
Other <sup>2</sup>	39,300	11,700	48,200	17,000
Dressed stone:				
Ashlars and partially squared pieces	3,690	1,550	5,260	2,140
Slabs and blocks for building and construction	1,640	808	731	595
Monumental	61,600	28,200	59,400	27,400
Curbing	129,000	21,400	129,000	20,500
Other <sup>3</sup>	20,900	7,070	22,900	9,350
Grand total	429,000	108,000	416,000	106,000

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

<sup>2</sup>Includes exports and uses not listed.

<sup>3</sup>Includes 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 USE<sup>1</sup>

Use	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	201,000	\$29,400	172,000	\$24,600
Irregular-shaped stone	13,500	1,290	11,500	1,000
Monumental	16,100	4,400	772	92
Other <sup>2</sup>	4,080	574	4,730	624
Dressed stone:				
Ashlars and partially squared pieces	65,800	10,700	52,300	12,000
Slabs and blocks for building and construction	11,500	2,290	8,270	1,980
Flagging	11,300	4,130	4,140	1,270
Other <sup>3</sup>	241,000	42,300	327,000	54,100
Grand total	564,000	95,000	581,000	95,700

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

<sup>2</sup>Includes exports and uses not listed.

<sup>3</sup>Includes curbing limestone, panels and veneer, tile, uses not specified, and uses not listed.

TABLE 10  
DIMENSION MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE<sup>1,2</sup>

Use	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
<b>Rough stone:</b>				
Rough blocks for building and construction	85,100	\$6,880	69,400	\$6,910
Other <sup>3</sup>	5,170	837	129,000	9,040
<b>Dressed stone:</b>				
Slabs and blocks for building and construction	W	W	W	W
Monumental	W	W	W	W
Flagging	W	W	W	W
Tile	W	W	W	W
Other <sup>4</sup>	8,380	8,350	8,780	2,960
Grand total	98,700	16,100	207,000	18,900

W Withheld to avoid disclosing company proprietary data; included with "Dressed stone, other."

<sup>1</sup>Includes Puerto Rico.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Includes monumental stone, uses not specified, and uses not listed.

<sup>4</sup>Includes slabs and blocks, flagging, monumental, panels and veneer, ashlar and partially squared pieces, tile, uses not listed, and uses indicated by symbol W.

TABLE 11  
DIMENSION SANDSTONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE<sup>1</sup>

Use	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
<b>Rough stone:</b>				
Rough blocks for building and construction	41,000	\$2,990	29,400	\$2,350
Irregular-shaped stone	12,800	2,060	16,300	2,780
Other <sup>2</sup>	--	--	2,270	2,000
<b>Dressed stone:</b>				
Ashlars and partially squared pieces	14,500	2,960	15,500	2,950
Slabs and blocks for building and construction	2,490	746	2,490	746
Curbing	W	W	W	W
Flagging	132,000	13,300	121,000	9,750
Panels and veneer	907	300	1,360	340
Other <sup>3</sup>	4,160	2,260	3,910	3,400
Grand total	208,000	24,700	192,000	24,300

W Withheld to avoid disclosing company proprietary data; included with "Dressed stone, other." -- Zero.

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

<sup>2</sup>Includes flagging stone and uses not listed.

<sup>3</sup>Includes tile, curbing, exports, uses not specified, uses not listed, and uses indicated by symbol W.

TABLE 12  
DIMENSION SLATE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE<sup>1</sup>

Use	2004		2005	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Flagging	2,400	\$436	2,550	\$837
Roofing	4,860	8,060	3,310	5,130
Structural and sanitary purposes	2,370	2,710	2,270	2,590
Flooring	8,870	1,720	9,030	1,920
Other <sup>2</sup>	1,080	774	1,040	762
Total	19,600	13,700	18,200	11,200

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

<sup>2</sup>Includes uses not specified and uses not listed.

TABLE 13  
U.S. EXPORTS OF DIMENSION STONE, BY TYPE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Type	2004		2005		Major destination in 2005 <sup>2</sup>
	Quantity	Value	Quantity	Value	
Marble, travertine, alabaster worked <sup>3</sup>	39	3,330	42	4,320	Canada, 56%.
Marble, travertine, crude or roughly trimmed	3	1,630	3	1,040	Canada, 80%.
Marble, travertine, merely cut, by sawing or otherwise <sup>4</sup>	3	1,400	5	1,700	Japan, 18%.
Granite, crude or roughly trimmed	131	36,900	123	33,000	China, 42%.
Granite, merely cut by sawing or otherwise <sup>4</sup>	12	4,010	12	5,010	Mexico, 15%.
Sandstone, crude or roughly trimmed	5	1,140	5	1,580	Canada, 77%.
Sandstone, merely cut, by sawing or otherwise <sup>4</sup>	6	1,580	5	1,680	Canada, 91%.
Slate, worked and articles of slate	NA	5,760	NA	4,150	Canada, 44%.
Slate, whether or not roughly trimmed or merely cut <sup>4</sup>	NA	454	NA	733	Canada, 79%.
Other calcareous monumental or building stone; alabaster <sup>5</sup>	18	4,970	36	8,730	Canada, 95%.
Other monumental or building stone <sup>6</sup>	15	2,490	33	4,130	Canada, 87%.
Total	XX	63,700	XX	66,100	

NA Not available. XX Not applicable.

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

<sup>2</sup>By value.

<sup>3</sup>Further worked than simply cut with a flat surface.

<sup>4</sup>Blocks or slabs.

<sup>5</sup>Crude, roughly trimmed, or merely cut into blocks or slabs. Other than marble and travertine (includes alabaster).

<sup>6</sup>Crude, 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. IMPORTS FOR CONSUMPTION OF DIMENSION GRANITE, BY COUNTRY<sup>1</sup>

(Thousand dollars)

Country	Dressed									Total worked	Total dressed
	Worked granite										
	Rough granite <sup>3</sup>	Simply cut <sup>4</sup>	Not cut to size <sup>5</sup>	Cut to size <sup>2</sup>					Other		
				Maximum 1.5 centimeters	1.5-7.5 centimeters	Monumental minimum 7.5 centimeters	Building minimum 7.5 centimeters				
2004:											
Argentina	55	159	228	119	1,900	--	76	157	2,480	2,640	
Brazil	10,900	27,900	50,800	6,790	143,000	227	4,150	28,200	234,000	261,000	
Canada	4,170	1,180	187	3,150	15,400	7,250	10,300	11,100	47,400	48,600	
China	4,660	11,700	10,400	16,700	54,800	6,090	8,650	32,300	129,000	141,000	
Finland	8	7	--	6	68	--	2	11	87	94	
India	7,740	14,700	15,100	10,900	81,000	7,530	6,140	23,300	144,000	159,000	
Italy	7,600	21,100	37,900	7,820	152,000	924	10,300	51,700	261,000	282,000	
Japan	--	32	--	--	--	--	--	593	593	625	
Mexico	407	1,550	26	19	404	--	136	632	1,220	2,760	
Norway	351	14	--	--	126	--	5	21	152	166	
Portugal	68	342	65	86	222	--	19	246	638	980	
Saudi Arabia	255	33	46	67	1,510	--	35	123	1,780	1,810	
South Africa	2,670	210	341	32	3,190	9	60	476	4,110	4,320	
Spain	814	2,700	3,690	1,300	18,300	37	429	4,330	20,600	23,300	
Other	1,120	2,160	17,800	854	23,500	16	2,570	9,350	54,100	56,300	
Total	40,800	83,600	137,000	47,800	496,000	22,100	42,900	163,000	900,000	984,000	
2005:											
Argentina	--	269	219	21	1,700	--	45	285	2,270	2,540	
Brazil	12,800	54,700	67,400	6,920	215,000	291	5,910	36,200	331,000	386,000	
Canada	3,960	1,040	663	4,160	14,400	7,430	8,700	6,920	42,200	43,300	
China	5,520	24,900	20,700	21,100	86,300	7,000	10,000	47,600	193,000	218,000	
Finland	--	8	33	--	69	--	6	392	500	508	
India	7,170	31,900	21,000	11,200	86,300	7,350	6,500	24,100	156,000	188,000	
Italy	6,050	29,500	42,900	4,920	154,000	313	7,260	53,700	263,000	311,000	
Japan	3	147	--	--	--	--	--	--	--	147	
Mexico	431	1,470	185	68	62	--	2	275	592	2,060	
Norway	199	25	--	--	111	--	--	49	160	185	
Portugal	8	54	54	3	269	--	60	123	509	563	
Saudi Arabia	337	163	123	49	2,620	--	27	39	2,860	3,020	
South Africa	2,040	10	514	3	4,230	--	29	265	5,040	5,050	
Spain	515	3,910	3,130	840	16,800	--	182	3,680	24,600	28,500	
Other	2,110	4,870	21,100	770	19,400	233	1,700	6,310	49,500	54,400	
Total	41,200	153,000	178,000	50,100	601,000	22,600	40,500	180,000	1,070,000	1,240,000	

-- Zero.

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

<sup>2</sup>One or more faces worked more than simply cut.

<sup>3</sup>Normal 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.

<sup>4</sup>Simply cut with a flat even surface; HTS code 6802.23.0000.

<sup>5</sup>Only one face worked more than simply cut; HTS code 6802.93.0010.

Source: U.S. Census Bureau.

TABLE 15  
U.S. IMPORTS FOR CONSUMPTION OF MAJOR CATEGORIES OF DIMENSION MARBLE AND OTHER CALCAREOUS  
STONE, BY COUNTRY<sup>1</sup>

Country	Dressed							
	Marble, slabs <sup>2</sup>		Marble, other <sup>3</sup>		Other calcareous stone <sup>4</sup>		Rough marble <sup>5</sup>	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
2004:								
Brazil	3,810	\$3,420	491	\$376	2,880	\$1,470	92	\$73
Canada	112	184	1,040	1,980	4,420	3,610	10	23
China	18,600	8,690	40,900	29,600	48,500	21,100	792	546
France	389	783	252	1,140	63,800	17,400	10	27
Greece	4,680	6,600	7,010	8,540	2,400	2,780	6	19
India	2,990	2,430	4,280	6,130	5,600	3,350	48	38
Israel	2,240	2,000	6,240	6,040	12,100	13,000	332	275
Italy	58,300	74,300	59,600	75,900	76,600	55,100	948	1,280
Mexico	2,040	1,360	10,900	11,700	10,500	9,210	132	138
Portugal	2,350	2,410	2,450	2,320	11,700	8,700	39	20
Spain	23,300	18,700	30,300	27,900	94,700	57,900	1,090	947
Taiwan	658	697	2,290	3,550	517	504	41	54
Turkey	8,010	6,240	35,400	25,600	25,900	11,600	425	314
Other <sup>f</sup>	8,650	7,290	21,700	17,800	69,100	23,800	1,070	838
Total	136,000	135,000	223,000	219,000	429,000	230,000	5,030	4,590
2005:								
Brazil	3,580	3,130	573	455	3,600	1,490	398	216
Canada	77	225	427	933	323,000	5,270	15	24
China	31,200	16,400	41,900	35,900	31,900	20,100	1,260	829
France	672	1,630	846	1,420	59,200	15,700	18	30
Greece	5,390	7,710	7,200	10,500	1,370	1,520	8	8
India	4,600	3,880	4,640	5,830	3,690	2,090	105	87
Israel	2,450	2,100	6,630	6,620	20,100	16,700	40	61
Italy	71,100	92,200	54,400	79,900	35,000	39,900	2,510	2,950
Mexico	3,160	2,940	12,200	13,400	28,500	11,100	124	179
Portugal	4,860	3,980	2,990	2,780	13,100	10,700	16	22
Spain	33,900	31,100	39,600	37,700	48,900	42,100	871	984
Taiwan	1,120	1,070	1,810	3,010	1,190	361	35	42
Turkey	12,600	9,710	50,500	35,000	15,100	13,000	2,520	1,120
Other	12,200	10,100	30,000	24,800	59,200	25,900	1,270	905
Total	187,000	186,000	254,000	258,000	644,000	206,000	9,190	7,450

<sup>f</sup>Revised.

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

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

<sup>3</sup>Merely cut by sawing or otherwise.

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

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

Source: U.S. Census Bureau as modified by the U.S. Geological Survey.

TABLE 16  
U.S. IMPORTS FOR CONSUMPTION OF DIMENSION STONE, BY TYPE<sup>1</sup>

Type		2004		2005		Major source for 2005 <sup>2</sup>
		Quantity	Value (thousands)	Quantity	Value (thousands)	
Calcareous stone, other <sup>3</sup>	metric tons	10,300	\$7,130	34,700	\$8,280	Italy, 22%.
Marble and alabaster <sup>4</sup>	do.	19,200	15,000	29,200	23,500	Italy, 26%.
Sandstone, cut, by sawing or otherwise <sup>5</sup>	do.	1,290	798	4,420	2,180	India, 61%.
Slate, roofing	million square feet	15	7,000	13	7,970	China, 32%.
Slate, roughly trimmed or simply cut <sup>5</sup>	do.	14,100	4,880	18,300	6,000	China, 38%.
Slate, worked and articles of slate, and other <sup>6</sup>	do.	NA	91,300	NA	113,000	India, 40%.
Travertine, monumental or building stone and articles thereof <sup>7</sup>	do.	41,700	27,200	67,000	41,400	Turkey, 65%.
Travertine, worked monumental or building stone <sup>8</sup>	do.	114,000	61,700	118,000	62,800	Turkey, 58%.
Other stone, monumental or building stone <sup>9</sup>	do.	17,500	8,010	20,500	11,100	Mexico, 21%.

NA Not available.

<sup>1</sup>Data are rounded to no more than three significant digits. Table does not include totals shown on tables 14 and 15.

<sup>2</sup>By value.

<sup>3</sup>Simply cut with a flat surface, other than marble, travertine, and alabaster.

<sup>4</sup>Simply cut with a flat surface.

<sup>5</sup>Rectangular blocks or slabs.

<sup>6</sup>Other than roofing, including agglomerated slate.

<sup>7</sup>Simply cut with a flat surface, other than tiles and granules.

<sup>8</sup>Dressed or polished but not further worked.

<sup>9</sup>Simply cut with a flat surface, other than granite, calcareous stone, alabaster, slate, dolomite, quartzite, and steatite.

Source: U.S. Census Bureau.