

DIMENSION STONE

By Jim F. Lemons, Jr.

Dimension stone consists of rough stone and quarried blocks of igneous, sedimentary, and metamorphic rock, including granite, marble, limestone, sandstone, and slate. These stones, because of strength, toughness, hardness, and resistance to environmental damage find application as panels, slabs, and other shapes in building and construction, in monuments, and in curbing.

U.S. stone production data are developed by the U.S. Geological Survey from a voluntary survey of U.S. producers of rough and finished dimension stone. Of the 228 producing dimension stone operations included in the survey for 1996, 174 or 76% responded. These represent 79% of the estimated tonnage for the industry shown in table 1. (*See table 1.*) In addition, 13 former producers were reported to be idle in 1996. In 1996, stone production remained comparable with that of 1995 at 1.15 million metric tons valued at \$234 million. Exports of dimension stone decreased slightly in value to \$49.5 million. Dimension stone imports for consumption are almost double domestic production at \$462 million.

Legislation and Government Programs

U.S. Customs has approved a separate classification of imported monuments and markers from other stone products. This new classification, sought by a coalition of U.S. dimension stone producers, will assist domestic companies in evaluating foreign competition in this product category. Current import duty information is shown for dimension stone products in table 2. (*See table 2.*)

Production

Stone blocks cut or split from a quarry face typically are transported to processing plants, commonly located at the site, for final sizing and finishing operations. Stone finishing may include polishing, edging, and decorating. Recent developments in quarry and processing technology include techniques for utilizing water-jet technology and computer-aided design to produce curved cuts, inlays, medallions, and borders (Dimensional Stone, 1996a).

Of the total dimension stone production in 1996, 44% was granite, 30% was limestone, 13% was sandstone, 2% was marble, 2% was slate, and 9% was miscellaneous stone. Georgia, Indiana, Texas, Vermont, and Wisconsin were the largest dimension-stone-producing States representing 50% of total domestic production. (*See table 3.*)

Leading producing companies (listed alphabetically) were Cold Spring Granite Co., principally in California, Minnesota, South Dakota, and Texas; Eden Stone Co. in Wisconsin; Fletcher Granite Co., Inc. in Massachusetts and New Hampshire; Halquist Stone Co., Inc. in Wisconsin; Indiana Limestone Co., Inc. in Indiana; and Rock of Ages Corp. in

Georgia, New Hampshire, and Vermont.

Rock of Ages is now the largest supplier of granite memorials in North America following its merger with two Vermont granite producers, Anderson-Friberg Co. (AFCO) and Lawson Granite Co. Rock of Ages has operations in Canada, Georgia, New Hampshire, and Vermont. More than one-half of its sales are for the granite memorial market (Stone World, 1996c).

Indiana Limestone Co. continues as one of the principal suppliers to the Ronald Reagan Building and International Trade Center in Washington, DC, planned for completion in late 1997. This building will encompass 7,000 cubic meters of limestone, about 42,000 fabricated pieces. Indiana Limestone was also used on the nearby U.S. Commerce Building (Dimensional Stone, 1996b).

Colorado Yule Marble has been chosen for The Women in Military Service Memorial in Washington, DC. This marble was selected to match the exterior marble used in the nearby Lincoln Memorial. The new memorial will be composed of more than 835 square meters of marble in panel thicknesses ranging from 38 to 76 millimeters (Stone World, 1996a).

Granite.—Dimension granite includes all coarse-grained igneous rocks. Production in 1996 remained comparable with 1995 levels at 501,000 tons with a value of \$108 million. Granite was produced by 39 companies at 74 quarries in 20 States. Cold Spring Granite, Fletcher Granite, and Rock of Ages were the leading producers (listed alphabetically) and accounted for 56% of U.S. production. Georgia continued to be the leading State, producing 18% of the U.S. total. (*See table 4.*)

Limestone.—Dimension limestone includes bituminous, dolomitic, and siliceous limestones. Production in 1996 decreased 4% compared with 1995 levels, to 350,000 tons, with a 6% decrease in value, to \$57.3 million. It was produced by 29 companies at 39 quarries in 10 States. Indiana, the leading State, produced 156,000 tons in 1996, with Wisconsin as the second largest producer and Kansas as the third largest. (*See table 5.*)

Sandstone.—Dimension sandstone includes calcareous- and siliceous-cemented sandstones or conglomerates. Quartzite, which also is included, may be described as any siliceous-cemented sandstone. In 1996, the U.S. total for sandstone increased by 4% from 1995 levels to 151,000 tons valued at \$20.1 million. Dimension sandstone was produced by 26 companies at 47 quarries in 15 States. Leading producing States were New York and Pennsylvania. (*See table 6.*)

Consumption

Production during the year was assumed to equal consumption, because no separate accounting is made of changes in industry stocks. Rough stone represented 50% by tonnage and 36% by value of the dimension stone market. The

largest uses of rough stone were in building and construction (51%) and monumental (25%). Dressed stone represented 50% by tonnage and 64% by value of the total stone consumed. The largest uses of dressed stone were in ashlar and partially squared pieces at 25%, flagging at 21%, curbing at 19%, and monumental at 8%. (See table 7.)

Granite.—Primary uses of the 1996 reported consumption of granite by weight (501,000 tons) were in monumental applications (rough stone 28% and dressed stone 8%), rough blocks for construction 26%, and dressed stone used in curbing 20%. (See table 8)

According to a 1996 National Kitchen and Bath Association survey, granite is used 23% of the time for kitchen countertops and 9% of the time in bathroom applications (Stone World, 1996b).

Limestone.—Primary uses of the 1995 reported consumption of limestone by weight (350,000 tons) were in rough blocks for building and construction 41%, and dressed stone for ashlar and partially squared pieces, 18%. (See table 9.)

Marble.—Dimension marble includes certain hard limestones, travertines, and any other calcareous stone that can be polished. Marble sold or used in the United States in 1996 is reported to be 27,900 tons valued at \$19.9 million. Marble was produced by 7 companies at 13 quarries in 6 States and Puerto Rico. (See table 10.)

Sandstone.—Primary uses of the 1996 reported consumption of sandstone by weight (151,000 tons) were in dressed stone for flagging (52%), and dressed stone for ashlar and partially squared pieces (18%). (See table 11.)

Slate.—Slate is a fine-grained metamorphic rock derived from shale, siltstone, or claystone. Shale is composed mostly of original clay minerals, and cleavage is parallel to the bedding. Dimension slate sold or used by producers in the United States in 1996 was reported to be 24,700 tons valued at \$16.5 million. Slate was produced by 15 companies at 20 quarries in 8 States. Forty-three percent of the slate was used for roofing. (See table 12.)

Prices

The average 1996 price for dimension stone remained comparable with 1995 values at \$203 per ton. Color and grain structure contribute significantly to price and marketability.

Foreign Trade

Exports.—Exports of dimension stone decreased slightly in value to \$49.5 million. The primary export was granite, principally to Italy. There has been some decline in sales to Japan and the Republic of Korea due to increased competition from Chinese producers. (See table 13.)

Imports.—Imports for consumption of dimension stone decreased slightly from 1995 values to \$462 million, as noted in table 1. A more detailed breakdown by type of stone is shown in tables 13, 14, 15, and 16. Italy remains a principal supplier of granite. Other principal suppliers of granite are Brazil, Canada, and India.

Current Research and Technology

The development of techniques to use thin sandwich panels of stone attached to various backings with the use of adhesives has opened applications of stone usage in luxury cruise liners as walls and floors and in residential markets as dividing panels, countertops, and doors. (Napoli and Ragore, 1996).

The use of high-precision water-jet technology makes it possible to create very complicated designs with near zero tolerance levels on an industrial scale. This technology can cut angles of a fraction of a degree, work with inclinations of up to 45°, cut groves less than 1.5 millimeters and cut round shapes and curves (Dimensional Stone, 1996a).

Outlook

Demand is expected to grow for dimension stone during the next 5 to 10 years because of applications in residential markets, improved technology and variety, and the increased costs of alternate construction materials. In office building construction, growth is expected in the renovation markets. Current high commercial vacancy rates has increased competition in attracting and keeping tenants, causing some owners to upgrade appearance with stone (Reis, 1996).

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Elberton Granite Association Inc., Elberton, GA.
Marble Institute of America, Columbus, OH.
National Stone Association, Washington, DC.

¹Prior to January 1996, published by the U.S. Bureau of Mines.

TABLE 1
SALIENT U.S. DIMENSION STONE STATISTICS 1/

(Thousand metric tons and thousand dollars)

	1992	1993	1994	1995	1996
Sold or used by producers:					
Quantity 2/	1,140	1,280	1,190	1,160	1,150
Value 2/	\$198,000	\$226,000	\$218,000	\$233,000	\$234,000
Exports (value)	\$54,900	\$52,700	\$53,000	\$51,800	\$49,500
Imports for consumption (value)	\$404,000	\$398,000	\$440,000	\$478,000	\$462,000

1/ Data are rounded to three significant digits.

2/ Includes Puerto Rico.

TABLE 2
U.S. IMPORT DUTIES ON DIMENSION STONE

Tariff item	HTS. No.	Most favored nation (MFN) Jan. 1, 1997	Non-MFN Jan. 1, 1997
Slate: Rough blocks or slabs	2514.00.0000	2.2% ad valorem	25% ad valorem.
Rough blocks or slabs of marble, travertine, and other calcareous monumental or building stone	2515.00.0000		
Marble and travertine:			
Crude or roughly trimmed	2515.11.0000	\$2.08 per cubic meter	\$22.95 per cubic meter.
Marble, merely cut	2515.12.0010	1.3% ad valorem	13% ad valorem.
Travertine, merely cut	2515.12.0020	4.8% ad valorem	50% ad valorem.
Other calcareous stone alabaster	2515.20.0000	4.8% ad valorem	50% ad valorem.
Rough blocks or slabs of granite, porphyry, basalt, sandstone, and 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	3.6% ad valorem	60% ad valorem.
Sandstone:			
Crude or roughly trimmed	2516.21.0000	Free	\$5.30 per cubic meter.
Merely cut	2516.22.0000	4.8% ad valorem	50% ad valorem.
Other monumental or building stone	2516.90.0000	4.8% ad valorem	50% ad valorem.
Setts, curbstones, and flagstones	6801.00.0000	3.6% ad valorem	60% ad valorem.
Worked monumental or building stone	6802.00.0000		
Tiles and cubes under 7 centimeters square, granules	6802.10.0000	6.1% 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	5.3% ad valorem	50% ad valorem.
Other	6802.21.5000	2% ad valorem	13% ad valorem.
Other calcareous stone	6802.22.0000	5.6% ad valorem	50% ad valorem.
Granite	6802.23.0000	4% ad valorem	60% ad valorem.
Other stone	6802.29.0000	6.9% ad valorem	30% ad valorem.
Other:			
Marble, travertine, and alabaster: 6802.91.0000			
Marble:			
Slabs	6802.91.0500	2.7% ad valorem	15% ad valorem.
Other	6802.91.1500	5.6% ad valorem	50% ad valorem.
Travertine:			
Articles of subheading 6802.21.1000 that have been dressed or polished, but not further worked	6802.91.2000	5.3% ad valorem	50% ad valorem.
Other	6802.91.2500	4.7% ad valorem	40% ad valorem.
Alabaster	6802.91.3000	5.1% ad valorem	50% ad valorem.
Other calcareous stone	6802.92.0000	5.6% ad valorem	50% ad valorem.
Granite	6802.93.0000	4% 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	6803.00.0010	5.3% ad valorem	25% ad valorem.
Other	6803.00.0050	2.2% ad valorem	25% ad valorem.

TABLE 3
DIMENSION STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, 1/ BY STATE 2/

State	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
California	27,300	\$6,660	28,600	\$7,020
Colorado	17,800	2,640	23,900	3,330
Georgia 3/	125,000	13,800	89,600	10,300
Indiana 3/	172,000	31,400	156,000	24,500
Kansas 3/	19,800	1,810	21,400	2,100
Maryland	20,700	2,260	19,800	2,210
Massachusetts	77,600	14,600	79,600	15,000
Minnesota	--	--	25,400	10,700
New Hampshire	23,000	6,290	29,000	6,500
New York	33,900	8,440	34,400	8,120
North Carolina	41,100	15,400	37,300	14,300
Ohio	--	--	19,800	2,060
Oklahoma	9,170	2,350	9,710	2,220
Pennsylvania	57,600	12,300	54,300	11,800
Texas	--	--	86,600	21,100
Vermont	100,000	28,700	99,600	27,900
Wisconsin	128,000	14,500	143,000	16,600
Other 4/	308,000	72,000	196,000	48,000
Total	1,160,000	233,000	1,150,000	234,000

1/ Includes Puerto Rico.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Totals only include Georgia granite, Indiana limestone, and Kansas limestone; other stone included with "Other."

4/ Includes data for Alabama, Arizona, Arkansas, Connecticut, Idaho, Iowa (1995), Maine, Michigan, Minnesota (1995), Missouri, Montana, New Mexico, South Carolina, South Dakota (1996), Tennessee, Texas (1995), Utah (1996), Virginia (1996), Washington, and West Virginia.

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

State	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Georgia	125,000	\$13,800	89,600	\$10,300
Massachusetts	77,600	14,600	79,600	15,000
New Hampshire	23,000	6,290	29,000	6,500
North Carolina	41,100	15,400	34,700	13,800
Oklahoma	6,960	2,180	5,760	1,990
Pennsylvania	8,050	2,670	6,140	2,040
Other 2/	214,000	49,200	256,000	58,500
Total	495,000	104,000	501,000	108,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes California, Colorado, Connecticut, Maine, Minnesota, Missouri, New Mexico, New York, South Carolina, South Dakota, Texas, Vermont, Virginia, and Wisconsin.

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

State	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Indiana	172,000	\$31,400	156,000	\$24,500
Kansas	19,800	1,810	21,400	2,100
Oklahoma	2,220	176	2,220	176
Wisconsin	120,000	11,600	133,000	13,500
Other 2/	48,800	16,200	38,100	17,100
Total	363,000	61,200	350,000	57,300

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Alabama, Arkansas, California, Iowa (1995), Minnesota, New Mexico (1995), Ohio, Pennsylvania (1996), Texas, Utah (1995), and Vermont (1996).

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

State	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
New York	26,100	\$6,300	28,200	\$6,730
Pennsylvania	22,900	3,320	23,700	3,390
Other 2/	95,800	7,540	99,000	9,950
Total	145,000	17,200	151,000	20,100

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Alabama, Arizona, Arkansas, California, Colorado, Kansas, Michigan, North Carolina, Ohio, Oklahoma, Utah, West Virginia, and Wisconsin.

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

Use	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	287,000	\$31,200	295,000	\$36,900
Irregular-shaped stone	99,300	9,360	74,500	8,300
Monumental	141,000	20,600	143,000	23,000
Other 3/	66,300	13,500	68,100	17,200
Dressed stone:				
Ashlars and partially squared pieces	135,000	26,200	142,000	25,700
Slabs and blocks for building and construction	30,800	16,000	29,400	10,700
Monumental	50,300	27,100	44,400	28,100
Curbing	126,000	26,300	106,000	22,600
Flagging	99,300	9,290	121,000	11,900
Flagging (slate)	5,460	713	4,340	747
Roofing slate	14,300	11,200	10,600	10,200
Structural and sanitary	5,480	4,550	1,430	2,080
Flooring slate	4,530	2,030	3,610	1,950
Other 4/	99,800	36,300	107,000	34,900
Total	1,160,000	233,000	1,150,000	234,000

1/ Includes Puerto Rico.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes flagging (1996), exports, and uses not specified.

4/ Includes panels and veneer (1996), tile (1996), exports, and uses not specified.

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

Use	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	100000	\$13,900	128000	\$18,400
Irregular-shaped stone 2/	43900	7720	1050	355
Monumental	136000	19400	140000	20400
Other 3/	--	--	23500	7650
Dressed stone:				
Ashlars and partially squared pieces	32800	9180	35600	9750
Slabs and blocks for building and construction	830	664	2470	634
Monumental	45600	18100	39700	19000
Curbing	122000	25800	102000	22100
Other 4/	13,600	9,270	29,100	9,810
Total	495,000	104,000	501,000	108,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes exports (1995), and uses not specified (1995).

3/ Includes exports and uses not specified.

4/ Includes panels and veneer (1996), tile (1996), flagging (1995), paving blocks (1995), and uses not specified.

TABLE 9
DIMENSION LIMESTONE SOLD OR USED BY PRODUCERS IN THE
UNITED STATES, BY USE 1/

Use	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	148,000	\$13,200	143,000	\$15,100
Irregular-shaped stone 2/	43,700	5,440	27,300	2,090
Other 3/	--	--	23,100	8,910
Dressed stone:				
Ashlars and partially squared pieces	62,300	12,300	64,700	10,200
Slabs and blocks for building and construction	20,700	8,280	19,300	3,370
Flagging	25,100	2,210	24,600	2,080
Other 4/	63,300	19,800	48,200	15,600
Total	363,000	61,200	350,000	57,300

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes exports (1995) and uses not specified (1995).

3/ Includes exports and uses not specified.

4/ Includes panels and veneer (1996), tile (1996), monumental (1995), curbing, and uses not specified.

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

Use	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	W	W	W	W
Irregular-shaped stone	--	--	W	W
Monumental	--	--	W	W
Other 3/	18,500	\$4,430	13,200	\$2,360
Dressed stone:				
Ashlars and partially squared pieces	3,110	504	3,110	517
Slabs and blocks for building and construction	5,430	6,500	2,490	5,750
Other 4/	12,500	9,700	9,120	11,300
Total	39,600	21,100	27,900	19,900

W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Includes Puerto Rico.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes rubble (1995), exports (1995), and uses not specified.

4/ Includes panels and veneer (1996), tile (1996), monumental, curbing (1996), flagging, and uses not specified.

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

Use	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Rough stone:				
Rough blocks for building and construction	14,200	\$779	W	W
Irregular-shaped stone 2/	33,700	3,330	19,800	\$3,040
Other 3/	--	--	1,460	247
Dressed stone:				
Ashlars and partially squared pieces	24,300	2,720	27,700	2,820
Slabs and blocks for building and construction	1,950	420	3,350	799
Flagging	64,200	6,060	79,200	8,330
Other 4/	6,400	3,820	19,500	4,840
Total	145,000	17,200	151,000	20,100

W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes rubble (1995).

3/ Includes uses not specified.

4/ Includes panels and veneer (1996), monumental (1995), curbing, exports (1996), and uses not specified.

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

Use	1995		1996	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Flagging	5,620	\$733	4,340	\$747
Roofing	15,300	12,100	10,600	10,200
Structural and sanitary purposes	5,480	4,550	1,430	2,080
Flooring	4,580	2,030	3,610	1,950
Other 2/	4,680	2,230	4,740	1,490
Total	35,600	21,600	24,700	16,500

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes billiard tabletops, blackboards, school slates (1995), and uses not specified.

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

(Thousand metric tons and thousand dollars)

Type	1995		1996		Major destination 2/ in 1996, (percent)
	Quantity	Value	Quantity	Value	
Marble, travertine, alabaster worked	27	3,770	24	3,390	Canada, 22%.
Marble, travertine - crude or roughly trimmed	3	879	2	782	Japan, 52%.
Marble, travertine - merely cut, by sawing or otherwise	19	1,620	2	1,520	United Kingdom, 31%.
Granite, crude or roughly trimmed	124	24,300	114	28,500	Italy, 43%.
Granite, merely cut by sawing or otherwise	34	10,300	23	3,840	Taiwan, 34%.
Sandstone, crude or roughly trimmed	2	398	3	437	Canada, 73%.
Sandstone, merely cut, by sawing or otherwise	4	931	5	879	Canada, 96%.
Slate, worked and articles of slate	NA	5,520	NA	5,710	Belize, 37%.
Slate, whether or not roughly trimmed or merely cut	NA	443	NA	280	Canada, 66%.
Other calcareous monumental or building stone; alabaster	4	1,570	8	1,370	Japan, 31%.
Other monumental or building stone	10	2,070	16	2,810	Canada, 42%.
Total	XX	51,800	XX	49,500	

NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ By value.

Source : Bureau of the Census.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF DIMENSION GRANITE, BY COUNTRY 1/

(Thousand dollars)

Country	Dressed worked granite									
	Rough granite 2/	Dressed granite articles	Not cut to size	Cut to size					Total worked	Total dressed
				Max 1.5 centimeters	1.5-7.5 centimeters 3/	Monumental Min 7.5 centimeters 3/	Building Min 7.5 centimeters 3/	Other		
1995:										
Argentina	29	142	82	59	119	--	--	172	432	574
Brazil	316	1,870	5,460	754	6,760	18	476	3,760	17,200	19,100
Canada	3,020	1,200	3,220	474	2,360	3,420	1,700	5,800	17,000	18,200
China	383	955	645	939	347	118	388	1,540	3,980	4,940
Finland	37	2	--	--	9	4	31	71	115	117
India	1,580	3,120	2,400	3,180	7,940	3,050	2,610	2,740	21,900	25,000
Italy	1,050	5,410	9,460	2,660	14,400	107	1,830	21,600	50,100	55,500
Japan	--	37	9	--	--	--	9	185	203	240
Mexico	9	30	63	72	547	--	2	6	690	720
Norway	190	6	--	--	74	15	5	--	94	100
Portugal	--	53	19	--	20	--	--	29	68	121
Saudi Arabia	26	176	334	19	220	--	16	57	646	822
South Africa	992	92	26	188	61	--	189	482	946	1,040
Spain	7	379	1,460	955	2,140	33	206	1,330	6,120	6,500
Other	557	627	467	701	413	66	302	758	2,710	3,330
Total	8,200	13,900	23,600	9,520	35,400	6,830	7,770	38,500	122,000	136,000
1996:										
Argentina	33	286	83	25	141	22	28	97	396	682
Brazil	327	1,820	4,410	1,310	6,400	1,180	1,140	4,860	19,300	21,100
Canada	4,220	938	1,330	1,040	2,250	6,120	3,830	8,580	23,100	24,100
China	243	404	461	794	737	292	637	1,430	4,350	4,760
Finland	6	--	--	--	--	--	67	169	236	236
India	1,510	3,260	1,620	2,370	6,410	3,090	1,510	4,220	19,200	22,500
Italy	1,780	6,150	13,600	4,890	16,200	2,540	5,100	19,300	61,600	67,700
Japan	4	136	--	--	14	13	4	9	40	176
Mexico	173	6	26	116	1,280	10	312	39	1,780	1,790
Norway	14	--	--	--	--	--	--	--	--	--
Portugal	3	104	25	--	12	--	58	8	103	207
Saudi Arabia	19	40	187	21	117	58	4	41	428	468
South Africa	721	183	--	--	16	23	20	107	166	349
Spain	65	576	1,250	492	3,610	1,200	804	981	8,320	8,900
Other	790	225	89	252	350	159	565	773	2,190	2,410
Total	9,910	14,100	23,000	11,300	37,500	14,700	14,100	40,600	141,000	155,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes crude or roughly trimmed, and merely cut by sawing or otherwise.

3/ 1995 data based on 10 centimeters instead of 7.5 centimeters.

Sources: Bureau of the Census.

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

Country	Dressed marble slabs		Dressed marble - other		Dressed marble and other calcareous stone 2/		Rough marble 3/	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
1995:								
China	1,350	\$932	2,880	\$2,720	1,710	\$1,520	358	\$158
France	119	138	104	154	11,200	15,000	35	38
Greece	4,180	4,970	3,520	3,750	3,940	4,170	2	3
India	1,170	828	1,230	1,310	469	389	83	115
Italy	23,700	22,700	37,000	35,200	31,800	29,500	1,110	1,000
Mexico	766	769	2,680	2,120	6,300	5,400	74	67
Portugal	1,180	1,100	1,280	1,120	6,470	4,670	--	--
Spain	3,730	3,480	7,740	7,800	28,700	28,000	268	135
Other	11,100	8,600	8,270	12,700	44,900	8,980	349	466
Total	47,300	43,500	64,700	66,800	136,000	97,600	2,280	1,990
1996:								
China	847	703	3,690	3,140	7,530	2,330	51	60
France	74	65	38	77	29,900	12,900	275	95
Greece	4,380	5,270	4,350	4,670	4,050	3,870	281	268
India	598	588	710	837	1,310	499	12	13
Italy	24,200	25,200	38,800	37,200	42,000	35,700	2,920	1,640
Mexico	353	483	4,870	4,670	5,580	5,230	489	309
Portugal	1,280	1,180	1,330	1,270	12,800	9,450	92	12
Spain	2,880	2,490	9,360	9,680	30,100	27,300	287	218
Other	9,180	7,470	10,900	13,600	17,200	12,900	438	597
Total	43,700	43,400	74,100	75,200	150,000	110,000	4,850	3,210

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ HTS No. 6802.92.0000

3/ Merely cut by sawing or otherwise.

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

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

Type		1995		1996		Major source 2/ for 1996, (percent)
		Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	
Calcareous stone-other 3/	metric tons	48,700	\$5,920	32,200	\$7,030	Spain, 27%.
Marble, travertine, alabaster, and other	do.	6,150	4,200	7,030	5,180	Italy, 57%.
Sandstone, merely cut, by sawing or otherwise	do.	261	268	593	182	India, 81%.
Slate, roofing	million square feet	8	3,730	7	3,560	China, 45%.
Slate, whether or not roughly trimmed or merely cut	do.	2,280	832	1,880	755	Italy, 33%.
Slate, worked and articles of slate, and other	do.	NA	25,900	NA	27,700	Italy, 39%.
Stone, worked monumental or building stone-other	metric tons	64,300	60,400	NA	NA	Italy, 0%.
Travertine, monumental or building stone and articles thereof	do.	6,320	4,180	5,100	3,430	Italy, 74%.
Travertine, worked monumental or building stone	do.	17,100	13,000	49,900	15,600	Italy, 77%.
Other monumental or building stone	do.	20,700	4,650	NA	NA	Italy, 0%.
Other stone-monumental or building stone-articles thereof	do.	2,760	1,300	4,890	1,410	Mexico, 41%.

NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ By value.

3/ HTS No. 6802.22.0000.

Source: Bureau of the Census.