Sand and Gravel, Construction

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Construction sand and gravel is one of the most accessible and widely used natural resources. The construction sand and gravel industry is a major contributor to the economic well--being of the Nation and produces a large volume of mineral products with a low unit value. Sand and gravel and crushed stone combined are defined as construction aggregate. The crushed stone industry is reviewed in a companion publication, and both mineral commodities should be included in any review of the national, State, or local aggregates industry.

A total of 1.16 billion metric tons (Gt) of construction sand and gravel was produced in the United States in 2003. This record-high production was an increase of about 28 million metric tons (Mt), or 2.5%, compared with that of 2002. After a decrease in production in 1991, sand and gravel production increased each year for the following 12 years. Calculations for this report were made using unrounded numbers but all published data were rounded to three significant digits. Total construction activity in the United States increased by 3% in 2003 and followed gains of 1% in 2002 and 5% in 2001. Construction gains were in the residential building category as declines were recorded in the nonresidential building and nonbuilding construction categories. Total housing starts in 2003 reached the highest levels in the past 25 years (Rock Products, 2004a).

In 2003, 6,536 construction sand and gravel operations were active, 1,606 operations were idle, and 227 operations either were reported to be closed or were assumed to be permanently shut down. Of the 6,536 operations, 75 were classified as sales or distribution yards only; a sales yard is defined as a fixed location that receives sand and gravel from a distant source and sells it at the yard. In addition, 36 operations reported that they were either an open pit or a dredge combined with a sales yard that supplemented local production with material from a remote location. A small number of the idle sand and gravel operations reported recycling of asphalt and portland cement concrete, but no sand and gravel mining. In 2003, of the 6,536 active operations surveyed, 3,979, or 60.9%, responded to the U.S. Geological Survey (USGS) canvass. Their total production represented 74.7% of the 1.16 Gt produced in 2003. The 6,536 operations with 10,460 active sand and gravel pits were owned by 4,031 companies or governmental agencies.

Foreign trade of construction sand and gravel remained minor in 2003. Exports decreased by 45% to 1,780 Mt, but the value increased by 6% to $24.9 million compared with the 2002 results. Imports increased by about 2.3% to 4.41 Mt, and the value increased by about 6.9% to $57.7 million (tables 1, 16, 17).

Because imports and exports were small, domestic apparent consumption of construction sand and gravel, which is defined as production for consumption (sold or used) plus total imports minus total exports, was essentially equal to the U.S. production of 1.16 Gt.

Production

Of the four major geographic regions, the West again led the Nation in the production of construction sand and gravel with 440 Mt, or 38% of the U.S. total (table 2). It was followed by the Midwest with 346 Mt, or 30%; the South with 261 Mt, or 22%; and the Northeast with 114 Mt, or 10%. Compared with production in 2002, production in 2003 decreased slightly in the West but increased in the other three regions.

Of the nine geographic divisions, the East North Central led the Nation in the production of construction sand and gravel with 224 Mt, or 19.3% of the U.S. total, and was followed by the Pacific with 222 Mt, or 19.1%, and the Mountain with 218 Mt, or 18.8% (table 2; figure 1). Production increased in seven of the nine divisions compared with that of 2002—West North Central, 7.8%; South Atlantic, 7.3%; West South Central, 7.2%; New England, 4.6%; Middle Atlantic, 4.4%; East South Central, 4.1%; and Mountain, 3.6%. Production decreased in two divisions—Pacific, 3.8%; and East North Central, 0.2%.

A review of the production of construction sand and gravel for consumption by size of operation indicates that about 29% of the total production came from 216 operations that reported 1 million metric tons per year (Mt/yr) production or more, 24% came from 442 operations that reported between 500,000 and 999,999 metric tons per year (t/yr), and 36% of the construction sand and gravel produced in 2003 came from 2,069 operations that reported between 100,000 and 499,999 t/yr. The largest number of operations (3,809, or 58% of total operations) produced less than 100,000 t/yr (11% of the total) (table 8A).

Each year, hundreds of operations are idled, closed, or abandoned, and hundreds more are reactivated or opened. The changing location of construction and highway projects is the major stimulus in decisions to open, idle, or close operations.

The estimated production for consumption by quarter for 2003 indicates that 31% of the construction sand and gravel in the United States was produced in the third quarter followed by the second and the fourth quarters (tables 3, 4). Estimated production by each quarter also was available for most States (table 4).

In 2003, construction sand and gravel was produced in every State (tables 4, 5). The leading States were, in descending order of tonnage, California, Texas, Michigan, Arizona, Minnesota, Ohio, Washington, Wisconsin, Colorado, and Nevada. Their combined production represented about 54% of the national total. Production increased in 32 States, decreased in 15 States, and was essentially unchanged in 3 States compared with that of 2002. Production increased in one-half of the top 10 States—Arizona, California, Minnesota, Nevada, and Texas; production decreased in Colorado, Michigan, Ohio, Washington, and Wisconsin compared with 2002.

In 2003, the leading domestic commercial producers of construction sand and gravel were, in descending order of production, Oldcastle, Inc./Materials Group; Hanson Building Materials America, Inc.; Vulcan Materials Co.; Rinker Materials Corporation; MDU Resources Group, Inc./Knife River Corporation; Aggregate Industries, Inc.; Martin Marietta Aggregates; Cemex, Inc.; Granite Construction Company; and RMC Industries Corporation.

Limited information about the production of construction sand and gravel in foreign countries can be found in the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports: International. For nonreporting countries, estimates of sand and gravel and crushed stone outputs can be based on indirect indicators, such as the levels of cement and asphalt consumption.

Mergers and acquisitions in the construction materials industry declined in 2003 compared with each of the previous 5 years. The pace of activity in 2003 appeared to be slightly less than that of 2002 (Rock Products, 2004b). Major changes in ownership in the sand and gravel industry in 2003 are listed below.

In May, Hanson PLC acquired Better Materials Corp., including five sand and gravel pits in New Jersey. Better Materials was the fourth largest producer of construction sand and gravel in New Jersey in 2003. This purchase gave Hanson its first operations in New Jersey (Pit&Quarry, 2003b).

MDU Resources, through its subsidiary Knife River, continued its expansion in the Midwest with the purchase of Pioneer Construction, Inc. of North Dakota. Pioneer Concrete owned and mined significant reserves in North Dakota and South Dakota. These purchases gave MDU Resources its first sand and gravel operations in the Dakotas (Rock Products, 2003). In April, MDU Resources purchased McElroy and Wilken, Inc. in Montana (Aggregates Manager, 2003a). McElroy and Wilken was the seventh leading sand and gravel producer in Montana in 2002, and with this purchase, MDU Resources strengthened its position as the leading producer in Montana. In July, MDU Resources announced the purchase of Young Brothers, Inc. of Texas. Young Brothers' three operations are the first sand and gravel operations for MDU Resources in Texas (Pit&Quarry, 2003a).

In May, Oldcastle purchased S.E. Johnson Cos., which had sand and gravel operations in Indiana and Michigan. The operations will become integrated into Thompson-McCully Co., Oldcastle's subsidiary in Michigan and Indiana (Aggregates Manager, 2003b). These purchases gave Oldcastle its first sand and gravel operations in Indiana. In Michigan, Oldcastle was already the third leading producer in the State, while S.E. Johnson was the 18th leading producer.

Consumption

Construction sand and gravel production reported by producers to the USGS was material that was sold or used by the companies. Stockpiled production is not reported until it is sold or consumed by the producer. Because no consumption surveys are conducted by the USGS for sand and gravel, the sold or used tonnage is assumed to represent the amount produced for domestic consumption and export. Because some of the construction sand and gravel producers did not report a breakdown by end use, their total production was reported under "Unspecified uses, reported." The estimated production of nonrespondents was reported under "Unspecified uses, estimated."

Of the 1.16 Gt of construction sand and gravel produced in 2003, 51.5% was for unspecified uses (table 6). Of the remaining 564 Mt, 43.9% was used as concrete aggregate; 22.3%, for road base and coverings and road stabilization; 14.9%, for construction fill; 12.7%, for asphaltic concrete aggregate and other bituminous mixtures; 1.9%, for plaster and gunite sands; 1.7%, for concrete products, such as blocks, bricks, and pipes; and the remainder for filtration, railroad ballast, roofing granules, snow and ice control, and other miscellaneous uses.

To provide a more accurate estimate of the consumption patterns for construction sand and gravel, the unspecified uses are not included in the above percentages. In any marketing or use-pattern analysis, the total quantities included in "Unspecified uses" should be distributed among the reported uses by applying the above percentages. Compared with 2002, about 6.6% more of the sand and gravel production was reported for specific uses, and this must be taken into account when analyzing changes in market consumption because the total increase in U.S. production was only 2.5%.

Additional information regarding production and/or consumption of construction sand and gravel by major uses in each State and State districts can be found in the U.S. Geological Survey Minerals Yearbook, volume II, Area Reports: Domestic.

Recycling

The aggregates industry has been involved with recycling for several decades. Recycling has become more important to aggregates producers, and the number of aggregates-producing companies that are recycling has been increasing. Recycling in this industry generally refers to the crushing, screening, and reuse of asphalt and cement concretes. Aggregate and related asphalt and ready-mix companies are often involved in construction projects during which they collect and reuse the materials at the site. Some construction companies haul their materials to the recycling location where the asphalt or concrete is processed for reuse. The annual survey of construction sand and gravel producers collects information only on recycling of asphalt and cement concrete by sand-and-gravel-producing companies; no information on recycling of these materials by construction or demolition companies is collected by the USGS.

Asphalt Concrete.—In 2003, 5.50 Mt of asphalt concrete valued at $28.7 million was recycled by 209 sand and gravel companies in 40 States; this represented a 17.6% increase compared with that of 2002 (tables 12, 13). The leading States were, in descending order of tonnage recycled, California, Minnesota, and Colorado. The leading companies were, in order of tonnage produced, Vulcan Materials; Midwest Asphalt Corp.; Southway Construction Company; All American Aggregates Company; and Baverly Materials, LLC.

Cement Concrete.—In 2003, about 6 Mt of cement concrete valued at $30.7 million was recycled by 192 companies in 39 States; this tonnage represented a 6.5% decrease compared with that of 2002 (tables 14, 15). The leading States were, in descending order of tonnage recycled, California, Minnesota, and Wisconsin. The leading companies were, in order of quantity produced, Vulcan Materials; Aggregate Industries; C.W. Poss, Inc.; MDU Resources; and Lehigh Cement Co.

Transportation

Information regarding the method of transportation of construction sand and gravel from the pit or processing plant to the first point of sale or use is available for each geographic division and the total United States (table 9). Reports regarding the method of transportation were provided by the producers for 517 Mt, or 44% of the total U.S. production of construction sand and gravel. Of this total, 80.5% was transported by truck; 3.4%, by waterway; and 1.0%, by rail. A significant amount of construction sand and gravel produced (about 14%) was not transported and was probably used at the production site. Because most producers neither keep records of nor report shipping distances or cost per metric ton per mile, transportation cost data are not available.

Prices

Prices in this chapter are free on board (f.o.b.) plant usually at the first point of sale or captive use. This value does not include transportation from the plant or yard to the consumer. It does, however, include all costs of mining, processing, in-plant transportation, overhead, and profit.

The 2003 average unit price increased by about 1.7% to $5.16 per metric ton compared with that of 2002 (table 6). By use, the unit prices varied from a high of $7.84 per ton for plaster and gunite sands to a low of $3.74 per ton for fill. The largest increases were recorded for plaster and gunite sands (17.9%), fill (12.3%), and railroad ballast (8.2%). The largest decreases were for filtration (33.5%), roofing granules (21.5%), and concrete products (15.9%).

Foreign Trade

The widespread distribution of domestic sand and gravel deposits and the high cost of transportation limit foreign trade to mostly local transactions across international boundaries. U.S. imports and exports represented about 1.4% of domestic consumption.

Exports of construction sand decreased by about 55% to 1.18 Mt compared with that of 2002, but the value increased by about 8% to $20.7 million (table 16). Mexico, which was the leading destination, received about 92% of the total sand, followed by Canada with about 6%. Exports of construction gravel were about the same as those of 2002, but the value decreased by about 1.2% to $4.18 million. Canada, which was the leading destination, received about 95% of the total gravel. The average value of the sand and gravel exports in 2003 was $14.02 per ton; this was up from $7.24 per ton in 2002.

Imports increased by about 2.3% to 4.41 Mt, and the value increased by about 6.9% to $57.7 million (table 17). Canada was the leading source of imported construction sand and gravel with 93% of the total. The average value of the sand and gravel imports was $13.07 per ton; this was up from $12.51 per ton in 2002.

Outlook

The demand for construction sand and gravel in 2004 is expected to increase from 3% to 5% compared with that of 2003. Data from the USGS quarterly survey of aggregates producers indicate growing sales of sand and gravel compared with that of the first half of 2003. Most regions of the United States also will probably have increased sales in the second half of 2004 and demand will likely rise compared with 2003 levels.

Construction sand and gravel f.o.b. prices are expected to increase only marginally. The delivered prices of construction sand and gravel are expected to increase more noticeably, especially in and near metropolitan areas mainly because more aggregates are transported from distant sources.

For 2004, the industry is expected to continue to consolidate. Resistance to mining, especially at the local level, will push production to more rural areas and increase transportation costs. The cost to acquire existing companies will increase because of the difficulty of starting a new operation (greenfield). The length of time that is needed to put a new operation into production has been estimated to be from 5 to 10 years. This includes the time required to prove the reserve base, to acquire zoning and permit approvals, and to deliver and install the necessary equipment. Also, throughout the process, the possibility exists that the project may have to be abandoned owing to local opposition and permit or zoning denial. Many companies prefer to buy permitted, active operations with reserves rather than face the cost and uncertainties involved with a greenfield operation.

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TABLE 1
SALIENT U.S. CONSTRUCTION SAND AND GRAVEL STATISTICS[1]

(Thousand metric tons and thousand dollars)

	1999	2000	2001	2002	2003
Sold or used by producers:[2]					
Quantity	1,110,000	1,120,000	1,130,000	1,130,000	1,160,000
Value	5,250,000	5,390,000	5,670,000	5,750,000	5,990,000
Exports, value	27,900	24,200	19,100	23,400	24,900
Imports, value	24,400	33,300	40,800	53,900	57,700

[1]Data are rounded to no more than three significant digits.
[2]Puerto Rico is excluded from all sand and gravel statistics.

TABLE 2
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION[1]

Region/division	2002				2003			
	Quantity (thousand metric tons)	Percentage of total	Value (thousands)	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Value (thousands)	Percentage of total
Northeast:								
New England	45,400	4.0	$243,000	4.2	47,500	4.1	$267,000	4.5
Middle Atlantic	63,900	5.6	369,000	6.4	66,700	5.7	392,000	6.5
Midwest:								
East North Central	225,000	19.8	939,000	16.3	224,000	19.3	935,000	15.6
West North Central	113,000	10.0	427,000	7.4	122,000	10.5	483,000	8.1
South:								
South Atlantic	80,000	7.1	396,000	6.9	85,800	7.4	431,000	7.2
East South Central	44,800	4.0	220,000	3.8	46,700	4.0	241,000	4.0
West South Central	120,000	10.5	597,000	10.4	128,000	11.0	631,000	10.5
West:								
Mountain	210,000	18.6	1,010,000	17.5	218,000	18.8	1,070,000	17.9
Pacific	231,000	20.4	1,550,000	26.9	222,000	19.1	1,540,000	25.7
Total	1,130,000	100	5,750,000	100	1,160,000	100	5,990,000	100

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

TABLE 3
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY QUARTER AND GEOGRAPHIC DIVISION[1]

Region/division	Quantity, 1st quarter (thousand metric tons)	Percentage change[2]	Quantity, 2d quarter (thousand metric tons)	Percentage change[2]	Quantity, 3d quarter (thousand metric tons)	Percentage change[2]	Quantity, 4th quarter (thousand metric tons)	Percentage change[2]	Total[3]	
									Quantity (thousand metric tons)	Value (thousands)
Northeast:										
New England	4,430	-6.4	12,800	-4.1	16,900	5.3	13,700	21.2	47,800	$255,000
Middle Atlantic	9,470	8.6	18,800	-5.0	23,100	9.2	18,900	32.8	70,300	416,000
Midwest:										
East North Central	24,200	-9.1	67,100	-2.5	73,500	-1.5	56,700	3.9	222,000	951,000
West North Central	8,030	-6.2	35,700	3.9	47,700	11.6	31,400	13.2	123,000	472,000
South:										
South Atlantic	17,700	-5.2	22,500	1.3	22,000	5.7	20,400	11.5	82,600	403,000
East South Central	7,640	-15.3	11,100	-16.2	12,500	-1.2	10,800	8.3	42,000	210,000
West South Central	2,100	-12.9	33,200	-2.1	31,700	5.5	29,900	16.6	121,000	615,000
West:										
Mountain	41,800	11.3	60,600	3.0	62,600	-0.2	50,200	-2.2	215,000	1,040,000
Pacific[4]	41,900	-0.4	61,900	6.3	62,600	1.8	47,500	-8.7	214,000	1,480,000
Total[3]	181,000	-2.5	324,000	0.3	353,000	3.0	280,000	5.4	1,140,000 [5]	5,830,000 [5]

[1]As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2003" Mineral Industry Surveys.
[2]All percentage changes are calculated using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year.
[3]Data may not add to totals shown because of independent rounding and differences between projected totals by States and regions.
[4]Does not include Alaska and Hawaii.
[5]Includes Alaska and Hawaii.

TABLE 4
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY QUARTER AND STATE[1]

State	Quantity 1st quarter (thousand metric tons)	Percentage change[2]	Quantity 2d quarter (thousand metric tons)	Percentage change[2]	Quantity 3d quarter (thousand metric tons)	Percentage change[2]	Quantity 4th quarter (thousand metric tons)	Percentage change[2]	Total[3] Quantity (thousand metric tons)	Total[3] Value (thousands)
Alabama	2,470	-9.9	3,010	-24.1	2,920	-7.9	2,690	4.2	11,100	$51,600
Alaska	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	16,300	95,200
Arizona	13,500	0.1	15,600	11.7	15,900	24.5	14,800	9.6	59,800	334,000
Arkansas	1,790	-10.2	2,520	5.1	2,570	9.8	2,310	11.2	9,190	48,400
California	30,900	1.5	46,800	15.9	44,000	1.2	33,200	-9.8	155,000	1,160,000
Colorado	5,080	19.1	11,500	-5.8	10,400	-31.2	6,480	-28.6	33,500	186,000
Connecticut	634	-7.4	2,640	-0.6	3,710	31.2	3,060	55.5	10,000	61,200
Delaware	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	2,000	15,900
Florida	6,800	6.9	7,820	12.7	7,450	12.7	6,990	7.3	29,100	127,000
Georgia	1,560	-1.6	2,050	6.6	2,120	28.9	1,840	27.0	7,560	31,800
Hawaii	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	600	7,030
Idaho	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	14,300	53,600
Illinois	3,580	4.4	9,700	7.2	11,300	2.9	8,930	4.5	33,500	156,000
Indiana	4,990	-10.7	8,410	2.1	7,550	1.7	6,470	1.6	27,400	124,000
Iowa	1,040	-21.2	4,030	-10.5	5,070	0.5	3,690	-2.0	13,800	59,900
Kansas	1,750	-2.8	3,020	14.9	3,080	7.6	2,300	1.6	10,200	31,200
Kentucky	866	-33.7	2,220	-12.0	2,330	-32.4	2,460	9.2	7,870	32,000
Louisiana	4,470	6.7	5,460	5.6	5,470	24.3	4,540	8.8	19,900	110,000
Maine	590	-1.0	2,500	10.3	4,060	-11.1	2,390	6.2	9,540	40,600
Maryland	2,070	-24.8	3,100	-10.3	3,180	-6.1	3,160	19.3	11,500	80,000
Massachusetts	1,830	-10.8	2,760	-12.5	3,310	-14.8	3,150	1.4	11,000	69,300
Michigan	5,240	-9.3	24,600	-5.4	26,100	-3.0	18,400	-0.9	74,400	262,000
Minnesota	1,190	63.3	14,600	8.7	22,100	18.5	14,300	32.0	52,300	213,000
Mississippi	2,310	-13.9	3,270	-21.5	3,890	1.4	3,220	10.4	12,700	69,600
Missouri	1,290	-6.8	2,880	4.5	3,440	4.3	1,970	-23.6	9,590	41,200
Montana	2,410	67.6	6,000	13.7	6,040	-4.1	3,000	-19.5	17,500	81,000
Nebraska	1,800	-25.4	4,160	-3.0	3,980	-0.4	2,700	20.7	12,600	43,800
Nevada	8,820	13.4	9,080	-6.0	11,600	22.7	10,000	18.2	39,600	182,000
New Hampshire	776	2.0	2,680	5.1	3,560	15.7	2,860	27.2	9,880	48,500
New Jersey	3,190	20.2	4,440	-8.6	4,540	0.7	5,700	41.7	17,900	110,000
New Mexico	3,090	18.4	3,970	15.9	3,900	4.8	2,950	-4.7	13,900	69,100
New York	4,020	12.3	9,190	3.4	12,300	10.7	7,560	20.8	33,000	178,000
North Carolina	1,950	-22.7	2,200	-25.5	2,490	-0.9	2,090	0.9	8,720	44,800
North Dakota	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	9,100	24,300
Ohio	5,380	-13.6	13,300	-3.5	15,900	-6.4	12,800	9.6	47,500	249,000
Oklahoma	2,160	-14.2	2,760	-4.4	2,670	-2.5	2,300	10.4	9,890	40,700
Oregon	2,990	-7.8	3,760	-24.1	5,730	-13.0	4,490	-4.9	17,000	103,000
Pennsylvania	2,300	-4.4	5,250	-10.6	6,580	12.4	5,430	37.7	19,600	128,000
Rhode Island	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	1,680	13,800
South Carolina	2,170	-2.7	2,970	-0.9	2,780	1.4	2,410	3.9	10,300	36,300
South Dakota	721	-1.3	4,540	24.3	5,640	20.5	3,440	21.6	14,300	58,300
Tennessee	1,470	-22.4	2,560	12.1	3,190	19.4	2,600	9.9	9,830	56,400
Texas	17,700	-17.6	22,400	-4.9	20,700	1.4	20,800	20.8	81,500	416,000
Utah	3,980	49.0	6,660	-20.8	8,720	-5.4	6,750	-7.4	26,100	101,000
Vermont	437	-3.1	1,410	-23.9	1,560	5.7	1,340	9.7	4,740	21,500
Virginia	2,250	4.6	3,100	2.1	3,350	14.7	3,020	26.7	11,700	68,200
Washington	7,350	-8.4	9,810	-26.7	13,100	14.5	9,940	-4.4	40,200	212,000
West Virginia	265	9.4	476	3.5	529	-12.7	282	-28.8	1,550	7,840
Wisconsin	4,220	-4.5	11,500	-8.8	13,600	11.5	10,400	5.9	39,700	160,000
Wyoming	553	17.2	2,170	1.4	3,170	-7.7	1,270	-23.9	7,160	30,400
Total	XX	XX	XX	XX	XX	XX	XX	XX	1,140,000	5,830,000

XX Not applicable.

[1]As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2003" Mineral Industry Surveys.

[2]All percentage changes are calculated using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year.

[3]Data may not add to totals shown because of independent rounding and differences between projected totals by States and regions.

[4]State not included in quarterly survey.

[5]Owing to a low number of reporting companies, no production estimates by quarters were generated.

TABLE 5
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES
BY STATE[1]

State	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	12,500	$56,700	$4.55	14,500	$67,600	$4.67
Alaska	16,300	93,400	5.73	9,980	55,700	5.58
Arizona	53,800	294,000	5.48	62,600	340,000	5.44
Arkansas	8,810	45,600	5.17	9,720	52,100	5.36
California	151,000	1,110,000	7.33	152,000	1,150,000	7.54
Colorado	40,700	222,000	5.45	37,500	213,000	5.67
Connecticut	8,140	48,800	6.00	8,150	51,200	6.28
Delaware	2,190	17,300	7.90	2,550	17,900	7.05
Florida	26,400	114,000	4.29	30,900	141,000	4.56
Georgia	6,600	27,200	4.13	7,690	31,800	4.14
Hawaii	610	7,010	11.48	809	9,560	11.82
Idaho	15,700	57,700	3.67	16,500	59,300	3.60
Illinois	32,000	146,000	4.57	34,600	161,000	4.65
Indiana	27,600	122,000	4.42	32,900	129,000	3.92
Iowa	14,600	62,300	4.26	13,400	61,000	4.54
Kansas	9,560	28,700	3.00	10,700	34,900	3.26
Kentucky	9,530	37,900	3.98	10,000	46,500	4.64
Louisiana	17,900	96,800	5.40	21,200	105,000	4.95
Maine	9,680	40,400	4.18	10,400	47,600	4.56
Maryland	12,200	83,500	6.82	11,800	79,900	6.77
Massachusetts	12,200	75,300	6.18	12,900	80,900	6.25
Michigan	77,300	267,000	3.45	71,000	253,000	3.56
Minnesota	43,700	175,000	3.99	48,900	212,000	4.33
Mississippi	13,600	73,200	5.37	14,600	82,500	5.64
Missouri	10,000	42,300	4.22	10,600	49,400	4.66
Montana	16,700	76,000	4.54	15,200	74,200	4.86
Nebraska	12,900	44,200	3.42	13,300	45,000	3.39
Nevada	35,400	159,000	4.50	37,100	174,000	4.69
New Hampshire	8,640	41,600	4.82	8,470	41,200	4.86
New Jersey	16,000	96,300	6.00	18,200	105,000	5.77
New Mexico	12,800	62,600	4.87	13,300	65,300	4.89
New York	29,800	158,000	5.30	30,200	172,000	5.71
North Carolina	10,000	50,700	5.04	10,500	55,600	5.28
North Dakota	10,700	27,900	2.62	13,500	35,900	2.66
Ohio	48,700	250,000	5.14	47,300	242,000	5.13
Oklahoma	10,200	41,300	4.04	11,000	48,500	4.42
Oregon	19,500	116,000	5.94	18,500	110,000	5.92
Pennsylvania	18,100	115,000	6.38	18,400	115,000	6.25
Rhode Island	1,760	14,100	8.03	2,990	25,100	8.40
South Carolina	10,300	35,500	3.45	10,100	34,700	3.44
South Dakota	11,900	47,500	4.00	11,800	44,800	3.81
Tennessee	9,220	51,900	5.63	7,550	44,100	5.84
Texas	82,600	413,000	5.01	86,200	425,000	4.93
Utah	27,600	104,000	3.79	27,400	113,000	4.11
Vermont	4,990	22,200	4.45	4,520	21,100	4.68
Virginia	10,500	60,000	5.71	11,300	65,500	5.78
Washington	43,200	223,000	5.16	40,700	216,000	5.29
West Virginia	1,700	8,450	4.96	971	4,750	4.90
Wisconsin	39,000	154,000	3.94	38,500	150,000	3.91
Wyoming	7,710	32,100	4.16	8,290	36,400	4.39
Total or average	1,130,000	5,750,000	5.07	1,160,000	5,990,000	5.16

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

TABLE 6
CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN THE UNITED STATES IN 2003, BY MAJOR USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregates (including concrete sand)	247,000	$1,480,000	$6.00
Plaster and gunite sands	10,400	81,700	7.84
Concrete products (blocks, bricks, pipe, decorative, etc.)	9,500	62,100	6.54
Asphaltic concrete aggregates and other bituminous mixtures	71,300	452,000	6.33
Road base and coverings	121,000	582,000	4.80
Road stabilization, cement	3,280	18,600	5.68
Road stabilization, lime	967	3,940	4.07
Fill	83,900	313,000	3.74
Snow and ice control	5,210	27,600	5.30
Railroad ballast	635	4,180	6.58
Roofing granules	163	1,090	6.68
Filtration	725	3,340	4.61
Other miscellaneous uses	9,030	49,500	5.48
Unspecified:[2]			
Actual	305,000	1,510,000	4.96
Estimated	292,000	1,390,000	4.77
Total or average	1,160,000	5,990,000	5.16

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Reported and estimated production without a breakdown by end use.

TABLE 7
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION AND MAJOR USE[1]

(Thousand metric tons and thousand dollars)

	Concrete aggregates (including concrete sand)		Plaster and gunite sands		Concrete products (blocks, bricks, pipe decorative, etc.)		Asphaltic concrete aggregates and other bituminous mixtures		Road base and coverings[2]	
Region/division	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Northeast:										
New England	5,160	35,600	301	2,640	377	2,870	1,780	13,400	4,640	24,700
Middle Atlantic	11,400	87,000	252	1,720	568	4,120	4,880	27,500	4,510	21,800
Midwest:										
East North Central	43,000	188,000	672	3,870	2,600	13,400	12,400	56,800	20,900	86,700
West North Central	21,100	108,000	534	3,350	680	4,590	7,200	37,300	20,800	64,800
South:										
South Atlantic	28,600	162,000	1,570	8,090	1,590	7,760	2,080	9,280	2,180	10,700
East South Central	17,800	92,200	410	3,240	484	3,300	6,040	37,200	2,240	9,620
West South Central	44,100	250,000	399	2,860	613	2,480	2,930	17,900	6,730	39,600
West:										
Mountain	22,000	131,000	963	9,120	539	5,080	12,500	76,600	35,800	160,000
Pacific	54,100	430,000	5,320	46,700	2,050	18,500	21,600	176,000	27,800	187,000
Total	247,000	1,480,000	10,400	81,700	9,500	62,100	71,300	452,000	126,000	605,000

See footnotes at end of table.

TABLE 7--Continued
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION AND MAJOR USE[1]

(Thousand metric tons and thousand dollars)

	Fill		Snow and ice control		Railroad ballast		Other uses		Total	
Region/division	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Northeast:										
New England	3,500	13,600	1,090	8,500	37	254	30,600	166,000	47,500	267,000
Middle Atlantic	6,910	31,200	1,270	6,270	105	715	36,900	212,000	66,700	392,000
Midwest:										
East North Central	18,900	67,700	1,450	5,680	2	11	124,000	513,000	224,000	935,000
West North Central	7,230	16,500	583	2,460	53	441	64,100	246,000	122,000	483,000
South:										
South Atlantic	7,330	18,300	W	W	W	W	42,300	214,000	85,800	431,000
East South Central	906	2,710	5	26	--	--	18,700	92,200	46,700	241,000
West South Central	12,400	31,400	W	W	W	W	60,900	286,000	128,000	631,000
West:										
Mountain	7,950	28,400	415	2,150	207	1,000	138,000	661,000	218,000	1,070,000
Pacific	18,800	104,000	245	1,710	183	1,080	92,100	574,000	222,000	1,540,000
Total	83,900	313,000	5,200	27,600	636	4,180	608,000	2,960,000	1,160,000	5,990,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes road and other stabilization (cement and lime).

TABLE 8A
CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES IN 2003, BY REGION AND SIZE OF OPERATION

	U.S. total			
Size range (metric tons)	Number of operations	Percentage of total	Quantity[1] (thousand metric tons)	Percentage of total
Less than 25,000	1,652	25.3	16,300	1.4
25,000 to 49,999	985	15.1	32,500	2.8
50,000 to 99,999	1,172	17.9	75,700	6.5
100,000 to 199,999	1,067	16.3	138,000	11.9
200,000 to 299,999	518	7.9	115,000	9.9
300,000 to 399,999	293	4.5	91,700	7.9
400,000 to 499,999	191	2.9	77,900	6.7
500,000 to 599,999	135	2.1	66,300	5.7
600,000 to 699,999	119	1.8	69,200	6.0
700,000 to 799,999	88	1.3	59,900	5.2
800,000 to 899,999	53	0.8	40,500	3.5
900,000 to 999,999	47	0.7	40,600	3.5
1,000,000 to 1,499,999	106	1.6	114,000	9.8
1,500,000 to 1,999,999	55	0.8	87,700	7.6
2,000,000 to 2,499,999	26	0.4	52,500	4.5
2,500,000 to 4,999,999	28	0.4	78,400	6.8
5,000,000 and more	1	0.0	5,270	0.5
Total	6,536	100	1,160,000	100

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

TABLE 8B
CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES IN 2003, BY REGION AND SIZE OF OPERATION

Size range (metric tons)	Northeast				Midwest			
	Number of operations	Percentage of total	Quantity[1] (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity[1] (thousand metric tons)	Percentage of total
Less than 25,000	348	33.1	3,460	3.0	552	23.9	5,630	1.6
25,000 to 49,999	168	16.0	5,620	4.9	386	16.7	12,800	3.7
50,000 to 99,999	182	17.3	11,400	10.0	454	19.7	28,400	8.2
100,000 to 199,999	180	17.1	23,300	20.4	385	16.7	49,800	14.4
200,000 to 299,999	77	7.3	17,000	14.9	184	8.0	40,500	11.7
300,000 to 399,999	26	2.5	8,130	7.1	105	4.5	32,700	9.4
400,000 to 499,999	22	2.1	9,060	7.9	69	3.0	27,800	8.0
500,000 to 599,999	15	1.4	7,450	6.5	42	1.8	20,800	6.0
600,000 to 699,999	11	1.0	6,290	5.5	41	1.8	23,700	6.8
700,000 to 799,999	7	0.7	4,750	4.2	24	1.0	16,300	4.7
800,000 to 899,999	1	0.1	798	0.7	17	0.7	12,800	3.7
900,000 to 999,999	6	0.6	5,280	4.6	10	0.4	8,600	2.5
1,000,000 to 1,499,999	5	0.5	5,790	5.1	17	0.7	18,900	5.5
1,500,000 to 1,999,999	2	0.2	3,230	2.8	15	0.6	23,200	6.7
2,000,000 to 2,499,999	--	--	--	--	6	0.3	12,300	3.6
2,500,000 to 4,999,999	1	0.1	2,660	2.3	4	0.2	11,000	3.2
5,000,000 and more	--	--	--	--	--	--	--	--
Total	1,051	100	114,000	100	2,311	100	346,000	100

	South				West			
	Number of operations	Percentage of total	Quantity[1] (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity[1] (thousand metric tons)	Percentage of total
Less than 25,000	227	19.5	2,460	0.9	525	26.1	4,750	1.1
25,000 to 49,999	140	12.0	4,530	1.7	291	14.5	9,590	2.2
50,000 to 99,999	203	17.4	13,200	5.1	333	16.6	21,700	4.9
100,000 to 199,999	202	17.3	25,600	9.8	300	14.9	39,000	8.9
200,000 to 299,999	112	9.6	24,900	9.6	145	7.2	32,200	7.3
300,000 to 399,999	59	5.1	18,100	6.9	103	5.1	32,800	7.5
400,000 to 499,999	46	3.9	18,700	7.2	54	2.7	22,200	5.0
500,000 to 599,999	39	3.3	18,900	7.3	39	1.9	19,100	4.3
600,000 to 699,999	33	2.8	19,600	7.5	34	1.7	19,900	4.5
700,000 to 799,999	24	2.1	16,300	6.3	33	1.6	22,500	5.1
800,000 to 899,999	17	1.5	13,100	5.0	18	0.9	13,900	3.2
900,000 to 999,999	11	0.9	9,430	3.6	20	1.0	17,300	3.9
1,000,000 to 1,499,999	27	2.3	29,200	11.2	57	2.8	60,400	13.7
1,500,000 to 1,999,999	15	1.3	24,100	9.2	23	1.1	37,100	8.4
2,000,000 to 2,499,999	6	0.5	12,000	4.6	14	0.7	28,200	6.4
2,500,000 to 4,999,999	4	0.3	10,600	4.1	19	0.9	54,100	12.3
5,000,000 and more	--	--	--	--	1	0.0	5,270	1.2
Total	1,165	100	261,000	100	2,009	100	440,000	100

-- Zero.

TABLE 9
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION AND METHOD OF TRANSPORTATION[1]

(Thousand metric tons)

Region/division	Truck	Rail	Water	Other	Not transported	Not specified	Total
Northeast:							
New England	14,100	--	--	17	2,660	30,700	47,500
Middle Atlantic	24,300	9	1,600	--	2,990	37,800	66,700
Midwest:							
East North Central	75,900	246	5,230	--	9,900	133,000	224,000
West North Central	44,600	7	3,000	203	9,620	64,800	122,000
South:							
South Atlantic	38,300	233	30	--	2,600	44,600	85,800
East South Central	21,200	85	3,620	58	1,100	20,600	46,700
West South Central	41,900	2,060	--	778	13,800	69,600	128,000
West:							
Mountain	52,900	337	--	382	12,000	152,000	218,000
Pacific	103,000	1,820	4,300	2,660	19,500	91,300	222,000
Total	416,000	4,800	17,800	4,100	74,200	645,000	1,160,000

-- Zero.

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

TABLE 10
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION

	Mining operations on land					
Region/division	Stationary	Portable	Stationary and portable	No plants or unspecified	Dredging operations	Total active operations
Northeast:						
New England	209	196	48	40	2	495
Middle Atlantic	211	214	48	51	32	556
Midwest:						
East North Central	534	448	75	102	95	1,254
West North Central	298	417	34	66	242	1,057
South:						
South Atlantic	142	44	13	61	114	374
East South Central	133	27	8	20	53	241
West South Central	240	90	19	79	122	550
West:						
Mountain	471	527	104	143	21	1,266
Pacific[1]	376	205	68	62	32	743
Total	2,614	2,168	417	624	713	6,536

[1]An undetermined number of operations leased from the Bureau of Land Management in Alaska are counted as one operation.

TABLE 11
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS
IN THE UNITED STATES IN 2003, BY STATE

State	Mining operations on land				Dredging operations	Total active operations
	Stationary	Portable	Stationary and portable	No plants or unspecified		
Alabama	51	6	2	9	12	80
Alaska[1]	21	12	2	9	7	51
Arizona	113	68	25	17	7	230
Arkansas	37	11	2	9	6	65
California	226	89	34	22	15	386
Colorado	73	128	24	14	5	244
Connecticut	33	23	11	1	1	69
Delaware	3	1	--	2	3	9
Florida	20	3	2	2	37	64
Georgia	14	1	--	2	25	42
Hawaii	4	1	--	1	--	6
Idaho	40	70	7	25	5	147
Illinois	58	37	8	7	41	151
Indiana	94	26	11	7	24	162
Iowa	39	62	4	5	33	143
Kansas	19	28	2	10	58	117
Kentucky	10	1	4	2	10	27
Louisiana	22	11	1	12	58	104
Maine	58	66	5	21	1	151
Maryland	20	3	5	7	4	39
Massachusetts	59	27	10	3	--	99
Michigan	168	169	30	34	6	407
Minnesota	120	142	17	20	5	304
Mississippi	47	11	--	7	19	84
Missouri	42	11	3	1	30	87
Montana	58	61	10	19	1	149
Nebraska	12	17	--	5	115	149
Nevada	49	51	11	11	--	122
New Hampshire	24	34	11	3	--	72
New Jersey	28	9	7	1	13	58
New Mexico	45	36	12	21	--	114
New York	116	180	27	40	10	373
North Carolina	38	19	2	23	14	96
North Dakota	28	78	4	2	--	112
Ohio	112	47	9	21	22	211
Oklahoma	23	10	2	14	35	84
Oregon	42	27	10	11	4	94
Pennsylvania	67	25	14	10	9	125
Rhode Island	14	3	2	1	--	20
South Carolina	16	6	--	6	17	45
South Dakota	38	79	4	23	1	145
Tennessee	25	9	2	2	12	50
Texas	158	58	14	44	23	297
Utah	65	68	11	16	--	160
Vermont	21	43	9	11	--	84
Virginia	26	8	4	18	13	69
Washington	83	76	22	19	6	206
West Virginia	5	3	--	1	1	10
Wisconsin	102	169	17	33	2	323
Wyoming	28	45	4	20	3	100
Total	2,614	2,168	417	624	713	6,536

-- Zero.

[1]An undetermined number of operations leased from the Bureau of Land Management in Alaska are counted as one operation.

TABLE 12
RECYCLED ASPHALT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION[1]

Region/division	2002 Quantity (thousand metric tons)	2002 Value (thousands)	2002 Unit value	2003 Quantity (thousand metric tons)	2003 Value (thousands)	2003 Unit value
Northeast:						
New England	313	$1,440	$4.60	333	$1,770	$5.30
Middle Atlantic	136	682	5.01	56	296	5.29
Midwest:						
East North Central	794	3,790	4.77	1,020	5,520	5.43
West North Central	1,210	5,950	4.92	1,030	6,290	6.10
South:						
South Atlantic	566	2,950	5.21	273	1,340	4.92
East South Central	119	396	3.33	219	745	3.40
West South Central	70	285	4.07	54	290	5.37
West:						
Mountain	394	1,240	3.15	967	3,990	4.13
Pacific[2]	1,070	5,200	4.88	1,540	8,410	5.46
Total or average	4,670	21,900	4.69	5,500	28,700	5.22

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes Alaska.

TABLE 13
RECYCLED ASPHALT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2002 Quantity (thousand metric tons)	2002 Value (thousands)	2002 Unit value	2003 Quantity (thousand metric tons)	2003 Value (thousands)	2003 Unit value
Alabama	1	$6	$6.00	--	--	--
Alaska	33	207	6.27	116	$957	$8.25
Arizona	142	164	1.15	137	526	3.84
California	681	3,080	4.52	1,140	5,970	5.22
Colorado	96	462	4.81	437	2,020	4.63
Connecticut	11	24	2.18	12	82	6.83
Delaware	32	340	10.63	--	--	--
Florida	1	8	8.00	--	--	--
Georgia	17	132	7.76	43	275	6.40
Idaho	74	144	1.95	157	385	2.45
Illinois	37	175	4.73	270	1,320	4.89
Indiana	14	58	4.14	23	100	4.35
Iowa	20	123	6.15	41	232	5.66
Kansas	71	597	8.41	42	288	6.86
Louisiana	23	75	3.26	50	267	5.34
Maine	120	485	4.04	109	568	5.21
Maryland	27	96	3.56	--	--	--
Massachusetts	127	730	5.75	117	632	5.40
Michigan	392	1,250	3.18	365	1,270	3.47
Minnesota	1,010	4,570	4.51	913	5,530	6.05
Mississippi	27	90	3.33	127	420	3.31
Montana	30	234	7.80	159	714	4.49
Nevada	17	80	4.71	28	112	4.00
New Hampshire	47	164	3.49	34	141	4.15
New Jersey	82	424	5.17	38	195	5.13
New Mexico	7	45	6.43	4	40	10.00
New York	55	258	4.69	18	99	5.50
North Carolina	335	1,490	4.43	213	898	4.22
North Dakota	17	93	5.47	12	65	5.42

See footnotes at end of table.

TABLE 13--Continued
RECYCLED ASPHALT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Ohio	11	39	3.55	6	10	1.67
Oklahoma	48	210	4.38	2	13	6.50
Oregon	178	1,220	6.88	88	785	8.92
Pennsylvania	(2)	1	6.11	(2)	1	4.42
Rhode Island	5	25	5.00	47	301	6.40
South Carolina	152	856	5.63	18	168	9.33
South Dakota	89	568	6.38	25	181	7.24
Tennessee	91	300	3.30	92	325	3.53
Texas	--	--	--	2	11	5.50
Utah	16	72	4.50	30	104	3.47
Vermont	5	13	2.60	15	42	2.80
Virginia	3	30	10.00	(2)	3	11.06
Washington	174	696	4.00	193	699	3.62
Wisconsin	341	2,270	6.65	354	2,820	7.97
Wyoming	13	42	3.23	16	89	5.56
Total or average	4,670	21,900	4.69	5,500	28,700	5.22

-- Zero.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Less than 1/2 unit.

TABLE 14
RECYCLED CEMENT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION[1]

Region/division	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Northeast:						
New England	299	$1,620	5.42	332	$1,800	5.38
Middle Atlantic	386	2,410	6.24	266	1,670	6.26
Midwest:						
East North Central	1,330	6,660	5.01	1,480	7,230	4.89
West North Central	1,390	6,470	4.64	878	4,400	5.01
South:						
South Atlantic	303	2,330	7.70	118	534	4.53
East South Central	45	150	3.33	2	11	5.50
West South Central	259	1,610	6.23	74	446	6.03
West:						
Mountain	434	1,890	4.35	643	2,720	4.22
Pacific[2]	1,960	12,500	6.37	2,200	11,900	5.43
Total or average	6,410	35,600	5.56	5,990	30,700	5.13

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes Hawaii.

TABLE 15
RECYCLED CEMENT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2002			2003		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alaska	20	$112	$5.60	7	$39	$5.57
Arizona	39	193	4.95	3	11	3.67
California	1,760	11,300	6.43	1,760	10,200	5.79
Colorado	34	139	4.09	218	1,140	5.22
Connecticut	14	87	6.21	6	41	6.83
Delaware	38	408	10.74	--	--	--
Florida	39	389	9.97	--	--	--
Hawaii	5	33	6.60	4	26	6.50
Idaho	1	7	7.00	2	10	5.00
Illinois	339	2,180	6.43	377	2,150	5.69
Indiana	111	476	4.29	64	298	4.66
Iowa	121	739	6.11	34	217	6.38
Kansas	16	109	6.81	16	134	8.38
Louisiana	194	1,060	5.48	7	44	6.29
Maine	23	127	5.52	2	11	5.50
Maryland	109	765	7.02	31	160	5.16
Massachusetts	237	1,330	5.60	309	1,690	5.48
Michigan	442	1,800	4.08	339	1,370	4.03
Minnesota	1,030	4,600	4.48	766	3,910	5.10
Mississippi	45	150	3.33	--	--	--
Montana	24	166	6.92	148	626	4.23
Nevada	81	213	2.63	89	105	1.18
New Hampshire	15	41	2.73	11	44	4.00
New Jersey	141	767	5.44	63	255	4.05
New Mexico	206	982	4.77	110	582	5.29
New York	242	1,620	6.69	181	1,310	7.23
North Carolina	71	527	7.42	33	180	5.45
North Dakota	3	23	7.67	5	25	5.00
Ohio	82	521	6.35	58	365	6.29
Oklahoma	--	--	--	23	125	5.43
Oregon	28	159	5.68	18	110	6.11
Pennsylvania	3	21	7.00	23	101	4.39
Rhode Island	5	25	5.00	--	--	--
South Carolina	41	238	5.80	14	135	9.64
South Dakota	227	996	4.39	58	112	1.93
Tennessee	--	--	--	3	11	3.67
Texas	65	550	8.46	44	277	6.30
Utah	34	112	3.29	67	201	3.00
Vermont	5	13	2.60	4	11	2.75
Virginia	4	6	1.50	41	59	1.44
Washington	149	888	5.96	416	1,600	3.85
Wisconsin	356	1,680	4.71	639	3,050	4.77
Wyoming	15	76	5.07	6	43	7.17
Total or average	6,410	35,600	5.56	5,990	30,700	5.13

-- Zero.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

TABLE 16
U.S. EXPORTS OF CONSTRUCTION SAND AND GRAVEL IN 2003, BY COUNTRY[1]

(Thousand metric tons and thousand dollars)

	Sand		Gravel	
Country or Territory	Quantity	Value, free alongside ship[2]	Quantity	Value, free alongside ship[2]
North America:				
British Virgin Island	(3)	4	2	22
Canada	65	5,570	561	3,410
Guatemala	(3)	61	--	--
Mexico	1,080	2,360	14	392
Other[4]	5	362	1	57
Total	1,150	8,350	578	3,880
South America:				
Brazil	1	354	--	--
Colombia	(3)	45	--	--
Peru	2	193	(3)	7
Venezuela	1	164	--	--
Other[5]	(3)	187	(3)	3
Total	4	943	(3)	10
Europe:				
Belgium	1	260	--	--
France	2	2,130	(3)	3
Germany	1	560	11	13
United Kingdom	1	577	3	141
Other[6]	2	3,010	--	--
Total	7	6,550	14	156
Asia:				
China	1	273	--	--
Korea, Republic of	(3)	172	(3)	9
Taiwan	19	3,280	(3)	6
Other[7]	2	412	(3)	7
Total	22	4,130	(3)	22
Oceania, other[8]	(3)	44	(3)	21
Middle East, other[9]	1	158	(3)	81
Africa, other[10]	1	552	(3)	6
Grand total	1,180	20,700	593	4,180

-- Zero.

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

[2]Value of material at U.S. port of export; based on transaction price, including all charges incurred in placing material alongside ship.

[3]Less than 1/2 unit.

[4]Includes The Bahamas, Belize, Bermuda, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, the Netherlands Antilles, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, and Trinidad and Tobago.

[5]Includes Argentina, Bolivia, Chile, and Ecuador.

[6]Includes Croatia, France, Germany, Iceland, Ireland, Italy, Latvia, Monaco, the Netherlands, Norway, Poland, Portugal, Russia, and Spain.

[7]Includes Bangladesh, Brunei, Hong Kong, India, Indonesia, Japan, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

[8]Includes Australia.

[9]Includes Israel, Lebanon, Qatar, Saudi Arabia, and the United Arab Emirates.

[10]Includes Algeria, Angola, Egypt, Equatorial Guinea, Mozambique, Nigeria, South Africa, and St. Helena.

Source: U.S. Census Bureau.

TABLE 17
U.S. IMPORTS FOR CONSUMPTION OF CONSTRUCTION SAND AND GRAVEL, BY COUNTRY[1]

(Thousand metric tons and thousand dollars)

Country	2002		2003	
	Quantity	Value, cost, insurance and freight[2]	Quantity	Value, cost, insurance and freight[2]
Antigua and Barbuda	54	655	56	721
Australia	22	1,670	25	1,430
Bahamas, The	59	910	44	616
Canada	3,600	37,600	4,110	42,100
China	37	2,720	43	2,520
Dominica	28	445	20	368
France	13	385	(3)	201
Japan	10	2,740	32	4,100
Mexico	448	3,260	(3)	341
Philippines	17	142	(3)	128
Other[4]	24	3,390	80	5,130
Total	4,310	53,900	4,410	57,700

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Value of material at U.S. port of entry; based on purchase price and includes all charges (except U.S. import duties) in bringing material from foreign country to alongside carrier.
[3]Less than 1/2 unit.
[4]Includes Angola (2002), Belgium, the British Virgin Islands (2002), Chile (2002), Denmark (2002), Germany, Haiti, Hong Kong, India (2002), Indonesia, Ireland (2003), Italy, Malaysia, Mali (2003), the Netherlands (2003), the Netherlands Antilles, New Zealand, Norway, Peru, Poland, Portugal (2002), Singapore (2002), South Africa, Spain (2002), Sweden, Switzerland, Taiwan, Turkey (2002), and the United Kingdom.

Source: U.S. Census Bureau.

FIGURE 1
PRODUCTION OF CONSTRUCTION SAND AND GRAVEL IN THE UNITED STATES IN 2003, BY GEOGRAPHIC DIVISION