

SAND AND GRAVEL, CONSTRUCTION

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Construction sand and gravel, which is one of the most accessible natural resources and a major basic raw material, is used mostly by the construction industry. The construction sand and gravel industry is a major contributor to and an indicator of the economic well-being of the Nation, by producing a high volume of basic products with a low unit value.

A total of 1.13 billion metric tons (Gt) of construction sand and gravel was produced in the United States in 2001; this was a very slight increase compared with that of 2000 (table 1). After a decrease in production in 1991, sand and gravel production increased each year for the following 10 years, which is an indication of the continuous strong demand for construction aggregates in the United States.

In January 2002, the U.S. Geological Survey (USGS) mailed 7,797 construction sand and gravel survey forms to operations throughout the United States; an additional 498 operations that were not mailed survey forms provided production information to the USGS. Of these 8,295 operations, about 900 were new or reactivated operations added for the 2001 survey. In 2001, 6,280 operations were active, 1,223 operations were idle, and 792 operations either reported or were assumed to be permanently shut down. Of the 6,280 operations, 52 were classified as sales 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. Additionally, 22 operations reported that they were either an open pit or dredge combined with a sales yard supplementing local production with material from a remote location. A small number of the idle sand and gravel operations reported the recycling of asphalt and portland cement concrete, but no sand and gravel mining. In 2001, of the 6,280 active operations surveyed, 3,978, or 63.3%, responded to the USGS survey. Their total production represented 75.7% of the 1.13 Gt produced in 2001. The 6,280 operations with 8,168 active sand and gravel pits were owned by 3,997 companies (tables 9-10).

Foreign trade of construction sand and gravel remained minor in 2001. Exports increased by about 27% to 3.06 million metric tons (Mt), but the value decreased by 21% to \$19.1 million compared with the 2000 results.

Imports increased by about 33% to 3.82 Mt, and their value increased by about 23% to \$40.8 million. 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 1.13 Gt.

Production

Of the four major geographic regions, the West again led the Nation in the production of construction sand and gravel with

419 Mt, or 37% of the U.S. total (table 2). It was followed by the Midwest with 342 Mt, or 30%; the South with 254 Mt, or 23%; and the Northeast with 115 Mt, or 10%. Compared with production in 2000, production in 2001 decreased in the West but increased slightly 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 232 Mt, or 20.5% of the U.S. total, and was followed by the Pacific with 219 Mt, or 19.4%, and the Mountain with 200 Mt, or 17.7% (table 2; fig. 1). Production increased in six of the nine divisions compared with that of 2000—the West South Central, 8.3%; the Middle Atlantic, 6.1%; the New England, 5.1%; the East North Central, 3.1%; the West North Central, 1.9%; and the Pacific, 0.5%. Production decreased in the Mountain, 8.3%; the South Atlantic, 0.6%; and the East South Central, 0.2%.

A review of the production for consumption by size of operation indicates that about 36% of the construction sand and gravel produced in 2001 came from 1,976 operations that reported between 100,000 and 499,999 metric tons per year (t/yr), about 24% came from 431 operations that reported between 500,000 and 999,999 t/yr, and 29% came from 220 operations that reported more than 1 million metric tons per year (Mt/yr) (table 8).

Each year, hundreds of operations are idled, closed, or abandoned and a similar number 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 2001 indicates that 30% of the construction sand and gravel in the United States was produced in the third quarter followed by the second and the fourth quarters (table 3). Estimated production by each quarter was also available for most States (table 5).

In 2001, construction sand and gravel was produced in every State (table 4). The leading States, in descending order of tonnage, were California, Texas, Michigan, Arizona, Ohio, Wisconsin, Washington, Minnesota, and Colorado. Their combined production represented about 51% of the national total. Production increased in 29 States and decreased in 19 States compared with that of 2000. Production increased in five of the top nine States; decreases occurred in Arizona, Colorado, Ohio, and Washington.

Limited information about the production of construction sand and gravel in foreign countries may be found in the USGS 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 level of cement and asphalt consumption.

Mergers and acquisitions in the construction materials

industry declined in 2001 compared with the previous 3 years. Total transaction volume declined by 23% to 40 deals. The industry performed better than the overall merger and acquisition market, however, which fell by 30% compared with that of 2000 (Watkins, 2002). The following are some of the noteworthy changes in ownership in the sand and gravel industry in 2001:

Ennstone, Inc., Falmouth, VA, through its subsidiary Atlantic States Materials, also in Falmouth, acquired Russell Minerals Pennsylvania, Inc., Darlington, PA, in February 2001. Russell Minerals operated two sand and gravel quarries with reserves of 10 Mt (Aggregates Manager, 2001a).

Lafarge Corporation, Herndon, VA, purchased Pine Hills Materials Corp., Buffalo, NY, in February 2001. Pine Hills operated four pits at two sand and gravel operations (Aggregates Manager, 2001b).

Martin Marietta Materials, Inc., Raleigh, NC, acquired Powell Gravel and Topsoil, Inc., Cincinnati, OH in March 2001. Powell operated two pits at one operation with reserves of about 32 Mt (Aggregates Manager, 2001b).

Oldcastle Materials, Inc., Washington, DC, acquired the assets of U.S. Aggregates, Inc., in the Salt Lake City, UT, area in April 2001. With this purchase, Oldcastle Materials becomes the largest producer of sand and gravel in Utah (Aggregates Manager, 2001d).

In April 2001, Robert Brett and Sons, Canterbury, UK, through its U.S. division Brett Aggregates, Inc., Richmond, VA, purchased West Sand and Gravel Co, Inc., also in Richmond. West Sand and Gravel consisted of four operations in the Richmond and Shenandoah Valley, VA, areas. The company also purchased Stuarts Draft Sand and Gravel Co., Roanoke, VA, from the Blue Ridge Stone Corp. division of W.W. Boxley and Company, Roanoke (Pit and Quarry, 2001b).

In April 2001, Martin Marietta Materials purchased the remaining equity interest in Meridian Aggregates Co., Englewood, CO. Martin Marietta Materials made its initial purchase of Meridian Aggregates in October 1998. Meridian Aggregates operated 25 aggregates producing facilities and seven rail distribution yards in 11 States (Rock Products, 2001b).

Martin Marietta Materials purchased Jones Crushed Stone and Adamsville Sand and Gravel, both in Indianapolis, IN. The June 2001 purchase consisted of both stone quarries and a sand and gravel operation (Aggregates Manager, 2001c). In July 2001, Martin Marietta Materials announced the acquisition of Sha-Neva, Inc., Reno, NV. Sha-Neva operated two quarries and a sand operation (Pit and Quarry, 2001a).

In August 2001, CSR America, West Palm Beach, FL (a subsidiary of the Australian CSR Limited of Chastwood, Australia) announced that it was changing its name to Rinker Materials Corp. in an effort to build a strong national awareness in the United States. Rinker Materials, also in West Palm Beach, was the first company acquired by CSR Limited. This acquisition was followed by a series of other acquisitions that made CSR America, now Rinker Materials, one of the top aggregates producing companies in the United States (Rock Products, 2001a).

Oldcastle Materials purchased Hallett Materials and Des Moines Asphalt and Paving, both in Des Moines, IA, in August

2001. Hallett Materials, which was estimated to be the 30th largest producer in the United States and the largest in Iowa in 2000, operated from more than 40 sand and gravel deposits in central and western Iowa with more than 80 million tons of reserves. With this purchase, Oldcastle, which was the fourth largest producer of sand and gravel in 2000, became the largest producer of sand and gravel in the United States (Aggregates Manager, 2001e).

Consumption

Construction sand and gravel reported by producers to the USGS was actually material that was “sold or used” by the companies and was defined as such. 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 1.13 Gt of construction sand and gravel produced in 2001, 50.7% of the total was for unspecified uses (table 6). Of the remainder, 44.5% was used as concrete aggregate; 21.9%, for road base and coverings and road stabilization; 13.4%, for construction fill; 12.5%, for asphaltic concrete aggregate and other bituminous mixtures; 1.5%, for concrete products, such as blocks, bricks, and pipes; 1.2%, for plaster and gunite sands; and the remainder, for filtration, railroad ballast, roofing granules, snow and ice control, and other miscellaneous uses.

To provide a more accurate estimation 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 quantities included in “Unspecified uses” should be distributed among the reported uses by applying the above percentages. Compared with 2000, nearly 5% more of the sand and gravel produced was reported as unspecified uses, and this must be taken into account when analyzing changes in market consumption.

Additional information regarding production and/or consumption of construction sand and gravel by major uses in each State and the State districts may be found in the USGS 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 aggregate 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 cement and asphalt 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 collect information on recycling of cement and asphalt concrete performed only 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 2001, 5.46 Mt of asphalt concrete valued at \$25.5 million was recycled by 204 sand and gravel companies in 38 States; this represented a 15% increase compared with that of 2000 (tables 14-15). The leading States, in descending order of tonnage recycled, were Minnesota, California, and Michigan. The leading companies, in order of tonnage produced, were Martin Marietta Aggregates; Weber Sand and Gravel, Inc; J.A. Jones, Inc; Midwest Asphalt Corp; and Red Flint Group, LLC.

Cement Concrete.—In 2001, 6.74 Mt of cement concrete valued at \$34.0 million was recycled by 189 companies in 35 States; this tonnage represented a 6.5% decrease compared with that of 2000 (tables 14, 16). The leading States, in descending order of tonnage recycled, were California, Minnesota, Michigan, and Illinois. The leading companies, in order of quantity produced, were C.W. Poss, Inc; Martin Marietta Aggregates; Aggregate Industries, Inc; Atlas Sand and Gravel Co; and Teichert Aggregates, Inc.

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 as well as for the total United States and is listed in table 11. Reports regarding the method of transportation were provided by the producers for 517 Mt, or 46% of the total U.S. production, of construction sand and gravel. Of this total, 78.7% was transported by truck; 3.5%, by waterway; and 1.6%, by rail. A significant amount of construction sand and gravel produced (about 15%) was not transported and was probably used at the production site. Because most producers did not either keep records or report shipping distances or cost per metric ton per mile, no transportation cost data were 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 costs, and profit.

The 2001 average unit price increased by about 4.4% to \$5.02 per metric ton compared with that of 2000 (table 6). By use, the unit prices varied from a high of \$8.86 per ton for roofing granules to a low of \$3.30 per ton for fill. The largest increases were recorded for road stabilization (lime) (33%), filtration (30.5%), and plaster and gunite sand (14.5%). Only the price for roofing granules declined (28.3%).

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 less than 1% of the domestic consumption.

Exports of construction sand increased by about 19% to 2.55 Mt compared with that of 2000, but the value decreased by nearly 24% to \$16.2 million (table 12). Mexico, which was the major destination, received about 90% of the total followed by Canada with about 5%. Exports of construction gravel increased by about 90% to 514,000 metric tons, but the value decreased by about 6% to \$2.86 million. Canada, which was the major destination, received about 98% of the total. The average value of the sand and gravel exports in 2001 was \$6.22 per ton; this was down from \$10.09 per ton in 2000.

Imports increased by about 33% to 3.82 Mt, and the value increased by about 23% to \$40.8 million (table 13). Canada was the major source of imported construction sand and gravel with 71% of the total followed by Mexico with about 20%. The average value of the sand and gravel imports was \$10.68 per ton; this was down from \$11.60 per ton in 2000.

Outlook

The demand for construction sand and gravel in 2002 is expected to be about equal to that of 2001 in response to the sluggish national economy that directly affects State and Federal tax revenues and reduces spending on public construction projects. Some indications from the quarterly survey indicate that a slowing economy has stalled growth in aggregate demand through the first half of 2002, but some regions of the United States should see increased sales in the second half of 2002 so that overall demand will likely remain close to 2001 levels.

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

For 2002, 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 greenfield operations. The length of time that is needed to put a new resource (greenfield) into production has been estimated to be from 5 to 8 years. This includes the time required to prove the reserve base, to receive 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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GENERAL SOURCES OF INFORMATION

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TABLE 1
SALIENT U.S. CONSTRUCTION SAND AND GRAVEL STATISTICS 1/

		1997	1998	1999	2000	2001
Sold or used by producers: 2/						
Quantity	thousand metric tons	952,000	1,070,000	1,110,000	1,120,000	1,130,000
Value	thousands	\$4,260,000	\$4,910,000	\$5,250,000	\$5,390,000	\$5,670,000
Exports, value	do.	\$22,300	\$37,800	\$27,900	\$24,200	\$19,100
Imports, value	do.	\$18,100	\$15,000	\$24,400	\$33,300	\$40,800

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

2/ Puerto Rico 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	2000				2001			
	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	44,900	4.0	\$235,000	4.3	47,200	4.2	\$251,000	4.4
Middle Atlantic	63,900	5.7	349,000	6.5	67,800	6.0	385,000	6.8
Midwest:								
East North Central	225,000	20.0	927,000	17.2	232,000	20.5	960,000	16.9
West North Central	108,000	9.6	396,000	7.3	110,000	9.7	404,000	7.1
South:								
South Atlantic	84,600	7.4	406,000	7.5	84,100	7.4	413,000	7.3
East South Central	45,900	4.1	208,000	3.8	45,800	4.1	217,000	3.8
West South Central	113,000	10.2	569,000	10.5	124,000	11.0	592,000	10.4
West:								
Mountain	218,000	19.5	988,000	18.3	200,000	17.7	972,000	17.1
Pacific	218,000	19.4	1,320,000	24.4	219,000	19.4	1,470,000	25.9
Total	1,120,000	100	5,390,000	100	1,130,000	100	5,670,000	100

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

TABLE 3
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2001, BY QUARTER AND DIVISION 1/

Region/division	Quantity		Quantity		Quantity		Quantity		Total 3/ (thousand metric tons)	Value total 3/ (thousands)
	1st quarter (thousand metric tons)	Percent- age change 2/	2d quarter (thousand metric tons)	Percent- age change 2/	3d quarter (thousand metric tons)	Percent- age change 2/	4th quarter (thousand metric tons)	Percent- age change 2/		
Northeast:										
New England	5,700	(9.0)	12,300	(4.8)	15,500	3.7	12,100	11.0	45,500	242,000
Middle Atlantic	10,200	17.2	22,700	21.1	26,700	21.9	17,300	18.2	76,800	427,000
Midwest:										
East North Central	28,500	(0.9)	68,100	2.0	80,800	10.3	57,900	3.7	235,000	985,000
West North Central	9,600	(10.0)	33,300	(8.3)	38,800	(0.9)	24,600	14.7	106,000	386,000
South:										
South Atlantic	17,600	(7.9)	22,300	(0.4)	21,400	(1.8)	19,900	0.1	81,300	400,000
East South Central	8,000	(15.5)	12,700	(8.1)	12,000	(6.6)	11,200	13.3	43,900	198,000
West South Central	28,400	11.2	38,500	44.2	36,200	19.3	30,400	(5.2)	134,000	677,000
West:										
Mountain	40,900	(0.6)	51,600	(14.2)	51,800	(16.6)	43,400	(20.8)	188,000	866,000
Pacific 4/	39,500	6.0	55,000	1.7	59,800	(3.1)	51,000	(4.1)	205,000	1,280,000
Total 3/	188,000	0.8	316,000	1.5	343,000	1.5	268,000	(1.8)	1,130,000 5/	5,540,000 5/

1/ As published in the Crushed Stone and Sand and Gravel in the Fourth Quarter of 2001 Mineral Industry Surveys.

2/ All percentage changes are calculated by using unrounded totals; percentage changes are based on the previous year's corresponding quarter.

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
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE 1/

State	2000			2001		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	14,500	\$63,700	\$4.41	13,600	\$60,200	\$4.42
Alaska 2/	10,600	53,500	5.06	11,300	65,600	5.79
Arizona	59,400	304,000	5.12	52,900	288,000	5.44
Arkansas	9,820	48,600	4.95	11,600	57,600	4.95
California	148,000	940,000	6.34	149,000	1,080,000	7.28
Colorado	43,900	216,000	4.92	37,300	194,000	5.19
Connecticut	8,010	46,900	5.85	7,670	44,700	5.83
Delaware	2,330	12,400	5.34	3,370	19,300	5.73
Florida	24,500	107,000	4.39	24,800	109,000	4.38
Georgia	6,940	28,700	4.13	7,060	28,800	4.08
Hawaii	607	6,420	10.57	534	6,270	11.74
Idaho	17,500	55,700	3.18	15,000	52,400	3.50
Illinois	30,300	132,000	4.35	35,000	156,000	4.45
Indiana	27,900	121,000	4.33	29,000	124,000	4.27
Iowa	12,300	54,100	4.40	14,200	63,800	4.50
Kansas	10,000	28,200	2.81	10,200	29,100	2.84
Kentucky	11,000	36,000	3.28	10,100	40,400	3.99
Louisiana	14,900	76,900	5.17	18,100	85,100	4.71
Maine	9,670	37,600	3.89	11,200	44,900	4.03
Maryland	13,100	84,700	6.48	12,500	84,800	6.81
Massachusetts	13,200	80,100	6.07	14,000	89,300	6.37
Michigan	75,600	269,000	3.55	76,300	266,000	3.49
Minnesota	39,500	158,000	4.00	39,800	155,000	3.88
Mississippi	11,700	60,900	5.21	13,700	70,100	5.13
Missouri	10,700	41,700	3.89	10,900	45,800	4.21
Montana	9,950	40,600	4.08	14,600	67,200	4.59
Nebraska	11,700	39,200	3.34	13,000	43,000	3.31
Nevada	36,800	172,000	4.67	34,000	173,000	5.09
New Hampshire	8,660	41,400	4.78	8,630	43,300	5.02
New Jersey	16,300	85,000	5.22	16,800	98,000	5.84
New Mexico	13,400	66,800	4.97	10,600	54,500	5.17
New York	29,700	154,000	5.18	30,900	160,000	5.17
North Carolina	12,000	59,100	4.93	12,400	61,500	4.97
North Dakota	10,600	27,800	2.62	10,300	26,300	2.54
Ohio	51,200	256,000	5.01	50,400	256,000	5.07
Oklahoma	9,210	35,500	3.85	11,000	43,700	3.96
Oregon	16,500	97,000	5.89	17,300	99,200	5.72
Pennsylvania	17,900	110,000	6.13	20,200	128,000	6.33
Rhode Island	1,240	9,780	7.92	1,200	9,220	7.67
South Carolina	10,300	40,800	3.95	10,500	36,900	3.52
South Dakota	12,800	46,500	3.64	11,200	41,500	3.70
Tennessee	8,760	47,000	5.37	8,350	46,400	5.56
Texas	80,800	408,000	5.04	82,900	405,000	4.89
Utah	30,900	109,000	3.52	28,400	109,000	3.83
Vermont	4,140	18,800	4.55	4,570	20,000	4.37
Virginia	12,100	63,200	5.20	11,800	64,400	5.46
Washington	41,800	221,000	5.29	41,400	220,000	5.32
West Virginia	1,980	9,800	4.94	1,820	9,260	5.09
Wisconsin	39,600	150,000	3.78	41,600	159,000	3.82
Wyoming	6,340	23,800	3.75	7,200	35,100	4.87
Total	1,120,000	5,390,000	4.81	1,130,000	5,670,000	5.02

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

2/ Data derived in part from Alaska Division of Geological and Geophysical Surveys information.

TABLE 5
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2001, BY QUARTER AND STATE 1/

State	Quantity		Quantity		Quantity		Quantity		Total 2/	
	1st quarter (thousand metric tons)	Percent- age change 3/	2d quarter (thousand metric tons)	Percent- age change 3/	3d quarter (thousand metric tons)	Percent- age change 3/	4th quarter (thousand metric tons)	Percent- age change 3/	Quantity (thousand metric tons)	Value (thousands)
Alabama	3,000	(12.0)	3,500	(15.1)	3,400	(10.7)	3,100	(1.7)	13,000	\$58,100
Alaska 4/	--	--	--	--	--	--	--	--	14,000	71,800
Arizona	14,400	12.5	14,300	(11.8)	13,700	(11.9)	12,600	(15.2)	55,000	286,000
Arkansas 5/	--	--	--	--	--	--	--	--	9,820	49,400
California	28,600	7.2	38,900	2.9	41,400	(6.8)	37,500	(3.9)	146,000	940,000
Colorado	5,700	(21.8)	9,000	(28.1)	10,900	(18.9)	8,200	(23.7)	33,700	168,000
Connecticut	1,000	(33.0)	1,900	(25.2)	1,900	(20.8)	1,600	(4.3)	6,330	37,500
Delaware 5/	--	--	--	--	--	--	--	--	2,570	13,900
Florida	5,900	(1.7)	6,500	1.1	6,200	1.8	6,300	6.5	25,000	112,000
Georgia	1,600	(4.1)	1,800	6.1	1,800	(0.5)	1,700	(1.8)	6,940	29,100
Hawaii 4/	--	--	--	--	--	--	--	--	650	6,970
Idaho	1,800	(4.3)	5,500	19.5	4,800	(18.0)	2,300	(54.8)	14,500	46,800
Illinois	3,900	(1.6)	8,300	(4.0)	14,100	42.3	8,200	5.6	34,500	152,000
Indiana	5,800	0.4	8,600	6.3	7,600	(3.9)	6,100	(0.2)	28,100	124,000
Iowa	1,200	10.9	3,800	(0.8)	4,700	17.5	3,500	5.5	13,300	59,400
Kansas	1,700	(14.4)	3,200	1.9	3,100	14.2	2,600	19.8	10,600	30,200
Kentucky	1,800	(0.8)	2,300	(26.9)	2,300	(31.0)	2,100	(22.5)	8,500	28,300
Louisiana 5/	--	--	--	--	--	--	--	--	18,600	97,600
Maine	800	0.5	2,900	(1.9)	3,500	(0.9)	2,300	(7.0)	9,410	37,100
Maryland	2,400	(12.8)	3,800	5.2	3,500	(1.9)	3,400	8.5	13,100	86,100
Massachusetts	2,300	8.1	3,300	(4.8)	4,100	0.0	3,900	10.0	13,600	83,800
Michigan	6,600	7.0	24,400	1.8	26,600	1.4	18,900	(2.0)	76,400	276,000
Minnesota	700	(47.9)	12,300	(14.4)	15,100	(10.9)	7,700	14.3	35,900	146,000
Mississippi	1,700	(21.7)	4,000	9.1	4,100	19.5	4,100	67.5	13,800	73,000
Missouri	1,900	(8.1)	3,500	5.9	3,800	19.2	2,800	28.0	11,900	47,000
Montana 5/	--	--	--	--	--	--	--	--	11,400	47,300
Nebraska	1,500	(1.9)	3,700	(8.9)	3,900	(9.8)	2,200	31.3	11,400	38,700
Nevada	7,400	(12.7)	9,000	(7.7)	6,800	(30.5)	7,100	(18.9)	30,300	144,000
New Hampshire	1,100	1.1	2,600	12.4	3,700	18.4	2,600	21.8	9,990	48,500
New Jersey	3,000	(9.1)	5,300	32.6	5,000	4.5	4,100	(4.1)	17,300	91,600
New Mexico	2,400	(11.6)	3,200	(6.5)	3,000	(27.0)	2,500	(20.7)	11,100	56,100
New York	4,100	24.2	10,500	19.1	14,800	34.5	7,300	10.6	36,700	193,000
North Carolina	2,500	(25.5)	2,900	1.5	2,800	(6.0)	2,200	(22.8)	10,400	52,000
North Dakota 4/	--	--	--	--	--	--	--	--	10,600	28,200
Ohio	6,700	(3.7)	15,400	7.5	18,900	12.3	14,000	7.0	55,000	280,000
Oklahoma	2,300	2.1	3,000	24.3	3,000	12.5	2,600	39.2	10,900	42,600
Oregon	2,600	4.3	6,400	27.8	7,000	38.1	4,800	23.1	20,800	125,000
Pennsylvania	2,900	46.6	6,800	16.5	7,500	18.9	5,600	47.4	22,800	142,000
Rhode Island 5/	--	--	--	--	--	--	--	--	1,050	8,440
South Carolina	2,300	(0.7)	2,600	(4.4)	2,800	(1.8)	2,200	(9.5)	9,880	39,600
South Dakota	1,100	(14.1)	3,100	(31.9)	3,500	(25.8)	2,200	(0.1)	9,930	36,700
Tennessee	1,300	(21.6)	2,400	(13.2)	1,800	(27.6)	1,500	(17.4)	7,030	38,300
Texas	21,100	22.0	27,700	52.7	24,500	22.4	21,700	(14.4)	95,000	487,000
Utah	4,100	(0.6)	7,100	(21.1)	7,900	(16.1)	6,100	(25.9)	25,300	90,600
Vermont	400	8.3	1,400	13.8	2,400	53.8	1,700	64.3	5,830	27,000
Virginia	2,300	(11.6)	3,400	(3.6)	2,900	(8.7)	2,700	(6.5)	11,200	59,200
Washington	8,000	0.6	10,800	(10.5)	12,800	5.9	8,500	(12.5)	40,100	216,000
West Virginia	200	(29.6)	500	(15.9)	500	(21.8)	400	(13.0)	1,600	8,030
Wisconsin	4,300	(11.2)	11,200	(8.7)	13,500	4.1	11,100	15.9	40,000	153,000
Wyoming	1,300	(17.3)	2,000	12.7	1,900	9.9	1,800	43.9	7,030	26,800
Total	XX	XX	XX	XX	XX	XX	XX	XX	1,130,000	5,540,000

XX Not applicable. -- Zero.

1/ As published in the Crushed Stone and Sand and Gravel in the Fourth Quarter of 2001 Mineral Industry Surveys.

2/ Data may not add to totals shown because of independent rounding and differences between projected totals by States and regions.

3/ All percentage changes are calculated by using unrounded totals; percentage changes are based on the previous year's corresponding quarter.

4/ State not included in quarterly survey.

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

TABLE 6
CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN THE UNITED STATES IN 2001, BY MAJOR USE 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregates (including concrete sand)	248,000	\$1,450,000	\$5.85
Plaster and gunite sands	6,970	49,000	7.04
Concrete products (blocks, bricks, pipe, decorative, etc.)	8,510	53,800	6.32
Asphaltic concrete aggregates and other bituminous mixtures	71,500	429,000	5.99
Road base and coverings	122,000	539,000	4.42
Road stabilization (cement)	2,120	10,900	5.15
Road stabilization (lime)	1,360	7,130	5.23
Fill	76,800	254,000	3.30
Snow and ice control	5,690	25,500	4.48
Railroad ballast	610	4,220	6.92
Roofing granules	306	2,710	8.86
Filtration	888	7,070	7.96
Other miscellaneous uses	12,000	74,400	6.22
Unspecified: 2/			
Actual	298,000	1,490,000	5.00
Estimated	275,000	1,270,000	4.63
Total	1,130,000	5,670,000	5.02

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 2001,
BY GEOGRAPHIC DIVISION AND MAJOR USE 1/

(Thousand metric tons and thousand dollars)

Region/division	Concrete aggregates (includes 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/	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Northeast:										
New England	5,820	36,200	117	1,040	437	2,370	2,400	17,000	4,950	24,700
Middle Atlantic	12,700	85,100	448	2,610	577	4,730	5,940	38,000	5,840	27,500
Midwest:										
East North Central	39,200	167,000	785	4,990	2,320	12,100	10,800	46,700	25,000	101,000
West North Central	25,000	116,000	661	3,290	1,020	7,650	8,240	29,900	21,600	62,500
South:										
South Atlantic	27,500	143,000	505	3,000	1,950	10,000	2,390	10,100	2,830	10,100
East South Central	14,800	69,200	517	3,540	413	2,750	3,370	18,500	3,520	15,900
West South Central	37,400	195,000	328	2,030	282	934	2,440	12,500	6,450	28,200
West:										
Mountain	31,900	181,000	658	4,980	1,140	8,470	12,900	83,100	29,000	124,000
Pacific	53,600	458,000	2,950	23,500	367	4,790	23,000	173,000	26,200	163,000
Total	248,000	1,450,000	6,960	49,000	8,510	53,800	71,500	429,000	125,000	557,000
		Fill		Snow and ice control		Railroad ballast		Other uses		Total
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Northeast:										
New England	3,110	11,800	1,740	8,330	69	547	28,600	149,000	47,200	251,000
Middle Atlantic	6,520	29,500	1,440	6,010	200	1,150	34,100	191,000	67,800	385,000
Midwest:										
East North Central	20,100	62,700	1,180	4,340	49	381	133,000	561,000	232,000	960,000
West North Central	6,620	15,400	744	2,980	7	62	45,700	166,000	110,000	404,000
South:										
South Atlantic	6,540	15,900	W	W	W	W	42,300	221,000	84,100	413,000
East South Central	732	2,420	5	23	--	--	22,400	105,000	45,800	217,000
West South Central	10,800	21,600	W	W	W	W	65,900	331,000	124,000	592,000
West:										
Mountain	8,180	29,200	354	2,600	63	318	116,000	538,000	200,000	972,000
Pacific	14,200	65,200	161	855	176	1,140	98,400	584,000	219,000	1,470,000
Total	76,800	254,000	5,690	25,500	610	4,220	586,000	2,840,000	1,130,000	5,670,000

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 8
CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES IN 2001, BY REGION AND SIZE OF OPERATION 1/

Size range (metric tons)	Northeast				Midwest				South			
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	362	33.8	3,530	3.1	525	23.6	5,130	1.5	208	18.3	1,890	0.7
25,000 to 49,999	177	16.5	5,850	5.1	379	17.0	12,600	3.7	148	13.0	4,990	2.0
50,000 to 99,999	174	16.2	11,500	10.0	417	18.7	27,200	8.0	223	19.6	14,400	5.7
100,000 to 199,999	175	16.3	22,800	19.8	384	17.3	49,700	14.5	195	17.1	25,200	9.9
200,000 to 299,999	80	7.5	17,600	15.3	157	7.1	34,700	10.2	72	6.3	16,200	6.4
300,000 to 399,999	42	3.9	13,100	11.4	117	5.3	36,500	10.7	79	6.9	24,800	9.8
400,000 to 499,999	18	1.7	7,280	6.3	63	2.8	25,900	7.6	42	3.7	16,800	6.6
500,000 to 599,999	21	2.0	10,400	9.0	42	1.9	20,800	6.1	30	2.6	14,900	5.9
600,000 to 699,999	7	0.7	4,110	3.6	35	1.6	20,500	6.0	25	2.2	14,800	5.8
700,000 to 799,999	3	0.3	1,990	1.7	35	1.6	23,700	6.9	22	1.9	15,000	5.9
800,000 to 899,999	1	0.1	752	0.7	16	0.7	12,300	3.6	21	1.8	16,100	6.4
900,000 to 999,999	1	0.1	840	0.7	15	0.7	13,000	3.8	15	1.3	12,800	5.0
1,000,000 to 1,499,999	6	0.6	6,140	5.3	22	1.0	21,900	6.4	42	3.7	44,700	17.6
1,500,000 to 1,999,999	2	0.2	3,010	2.6	8	0.4	12,300	3.6	11	1.0	17,300	6.8
2,000,000 to 2,499,999	2	0.2	3,680	3.2	6	0.3	12,100	3.5	5	0.4	10,300	4.1
2,500,000 to 4,999,999	1	0.1	2,540	2.2	5	0.2	13,600	4.0	1	0.1	3,270	1.3
5,000,000 and over	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,072	100	115,000	100	2,226	100	342,000	100	1,139	100	253,000	100
Size range (metric tons)	West				U.S. total							
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total				
Less than 25,000	470	25.5	4,250	1.7	1,565	24.9	14,800	1.3				
25,000 to 49,999	280	15.2	9,250	3.6	984	15.7	32,700	2.9				
50,000 to 99,999	290	15.7	19,200	7.6	1,104	17.6	72,200	6.4				
100,000 to 199,999	256	13.9	33,200	13.1	1,010	16.1	131,000	11.6				
200,000 to 299,999	143	7.8	31,300	12.3	452	7.2	99,700	8.8				
300,000 to 399,999	92	5.0	29,100	11.5	330	5.3	104,000	9.2				
400,000 to 499,999	61	3.3	24,800	9.8	184	2.9	74,800	6.6				
500,000 to 599,999	44	2.4	22,100	8.7	137	2.2	68,100	6.0				
600,000 to 699,999	43	2.3	25,100	9.9	110	1.8	64,500	5.7				
700,000 to 799,999	26	1.4	17,600	6.9	86	1.4	58,200	5.2				
800,000 to 899,999	15	0.8	11,500	4.5	53	0.8	40,600	3.6				
900,000 to 999,999	14	0.8	12,000	4.7	45	0.7	38,700	3.4				
1,000,000 to 1,499,999	57	3.1	62,800	24.8	127	2.0	136,000	12.0				
1,500,000 to 1,999,999	16	0.9	25,700	10.1	37	0.6	58,300	5.2				
2,000,000 to 2,499,999	18	1.0	36,000	14.2	31	0.5	62,100	5.5				
2,500,000 to 4,999,999	17	0.9	49,400	19.5	24	0.4	68,800	6.1				
5,000,000 and over	1	0.1	5,810	2.3	1	0.0	5,810	0.5				
Total	1,843	100	419,000	100	6,280	100	1,130,000	100				

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

TABLE 9
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS IN THE
UNITED STATES IN 2001, BY GEOGRAPHIC DIVISION

Region/division	Mining operations on land				Dredging operations	Total active operations
	Stationary	Portable	Stationary and portable	No plants or unspecified		
Northeast:						
New England	189	208	46	34	1	478
Middle Atlantic	201	247	62	60	24	594
Midwest:						
East North Central	460	483	92	123	95	1,253
West North Central	215	418	34	63	243	973
South:						
South Atlantic	127	46	15	70	122	380
East South Central	124	32	7	13	53	229
West South Central	222	108	15	64	121	530
West:						
Mountain	341	567	114	117	16	1,155
Pacific 1/	306	231	73	47	31	688
Total	2,185	2,340	458	591	706	6,280

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

TABLE 10
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS IN THE
UNITED STATES IN 2001, BY STATE

State	Mining operations on land				Dredging operations	Total active operations
	Stationary	Portable	Stationary and portable	No plants or unspecified		
Alabama	44	14	--	6	14	78
Alaska 1/	8	11	3	5	4	31
Arizona	64	79	35	7	4	189
Arkansas	42	14	--	6	7	69
California	186	92	35	16	12	341
Colorado	83	129	19	14	7	252
Connecticut	33	24	9	2	--	68
Delaware	2	--	--	1	4	7
Florida	18	6	--	4	37	65
Georgia	14	2	--	1	25	42
Hawaii	1	3	--	1	--	5
Idaho	33	74	6	28	3	144
Illinois	48	42	15	14	40	159
Indiana	91	30	18	5	23	167
Iowa	41	62	5	5	40	153
Kansas	17	32	--	9	55	113
Kentucky	9	3	3	--	11	26
Louisiana	19	14	--	6	60	99
Maine	39	79	5	14	1	138
Maryland	18	3	5	12	2	40
Massachusetts	63	28	13	5	--	109
Michigan	140	192	28	43	7	410
Minnesota	54	149	18	22	6	249
Mississippi	44	8	2	6	19	79
Missouri	35	12	2	2	30	81
Montana	41	60	12	16	--	129
Nebraska	15	14	1	5	110	145
Nevada	32	68	15	8	--	123
New Hampshire	27	31	11	3	--	72
New Jersey	29	6	9	1	13	58

See footnotes at end of table.

TABLE 10--Continued
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS IN THE
UNITED STATES IN 2001, BY STATE

State	Mining operations on land				Dredging operations	Total active operations
	Stationary	Portable	Stationary and portable	No plants or unspecified		
New Mexico	40	49	7	17	--	113
New York	109	206	37	49	6	407
North Carolina	21	19	5	23	21	89
North Dakota	28	62	4	1	--	95
Ohio	112	44	14	28	21	219
Oklahoma	17	12	3	14	32	78
Oregon	36	34	13	8	4	95
Pennsylvania	63	35	16	10	5	129
Rhode Island	7	1	2	--	--	10
South Carolina	18	7	1	10	17	53
South Dakota	25	87	4	19	2	137
Tennessee	27	7	2	1	9	46
Texas	144	68	12	38	22	284
Utah	35	63	15	10	1	124
Vermont	20	45	6	10	--	81
Virginia	26	6	4	18	12	66
Washington	75	91	22	17	11	216
West Virginia	10	3	--	1	4	18
Wisconsin	69	175	17	33	4	298
Wyoming	13	45	5	17	1	81
Total	2,185	2,340	458	591	706	6,280

-- Zero.

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

TABLE 11
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES
IN 2001, BY REGION AND METHOD OF TRANSPORTATION 1/

(Thousand metric tons)

Region/division	Truck	Rail	Water	Other	Not transported	Not specified	Total
Northeast:							
New England	13,500	1,290	--	--	2,780	29,700	47,200
Middle Atlantic	23,900	10	1,380	162	5,970	36,400	67,800
Midwest:							
East North Central	75,700	319	4,660	913	14,700	136,000	232,000
West North Central	43,100	46	3,680	146	13,300	49,300	110,000
South:							
South Atlantic	38,700	666	393	--	3,090	41,300	84,100
East South Central	17,800	1,310	3,290	339	815	22,200	45,800
West South Central	42,600	2,090	--	--	8,030	70,900	124,000
West:							
Mountain	64,000	3	--	151	12,800	123,000	200,000
Pacific	87,400	2,740	4,700	1,240	18,900	104,000	219,000
Total	407,000	8,470	18,100	2,950	80,400	613,000	1,130,000

-- Zero.

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

TABLE 12
U.S. EXPORTS OF CONSTRUCTION SAND AND GRAVEL IN 2001, BY COUNTRY 1/

(Thousand metric tons and thousand dollars)

Country/territory	Sand		Gravel	
	Quantity	F.a.s. value 2/	Quantity	F.a.s. value 2/
North America:				
Bahamas, The	2	100	1	81
Canada	131	4,810	502	2,150
Mexico	2,300	4,320	4	208
Trinidad and Tobago	1	137	--	--
Other 4/	3	337	4	107
Total	2,430	9,700	511	2,540
South America:				
Argentina	2	229	--	--
Ecuador	(3/)	487	--	--
Peru	(3/)	68	--	--
Venezuela	1	397	(3/)	33
Other 5/	4	528	(3/)	3
Total	7	1,710	(3/)	36
Europe:				
Belgium	(3/)	129	--	--
Germany	(3/)	199	--	--
Poland	(3/)	55	(3/)	3
Sweden	(3/)	154	--	--
United Kingdom	1	575	2	204
Other 6/	69	471	--	--
Total	70	1,580	2	207
Asia:				
Hong Kong	--	--	(3/)	21
Japan	9	881	(3/)	9
Korea, Republic of	7	721	(3/)	4
Philippines	(3/)	15	--	--
Singapore	(3/)	51	--	--
Taiwan	(3/)	27	(3/)	4
Thailand	(3/)	72	--	--
Other 7/	22	867	(3/)	8
Total	38	2,630	(3/)	46
Oceania, other 8/	1	52	(3/)	4
Middle East, other 9/	2	259	(3/)	29
Africa, other 10/	2	298	--	--
Grand total	2,550	16,200	514	2,860

-- 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 Barbados, Bermuda, British Virgin Islands, Cayman Islands, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Panama, and St. Lucia.

5/ Includes Bolivia, Brazil, Chile, Colombia, Suriname, and Uruguay.

6/ Includes Bulgaria, Estonia, Finland, France, Iceland, Ireland, Italy, Latvia, Lithuania, the Netherlands, Portugal, Russia, and Switzerland.

7/ Includes China, India, Indonesia, Malaysia, and Pakistan.

8/ Includes Australia and the Federated States of Micronesia.

9/ Includes Israel, Lebanon, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

10/ Includes Algeria, Angola, Egypt, Equatorial Guinea, Morocco, and Tunisia.

Source: U.S. Census Bureau.

TABLE 13
U.S. IMPORTS FOR CONSUMPTION OF CONSTRUCTION
SAND AND GRAVEL, BY COUNTRY 1/

(Thousand metric tons and thousand dollars)

Country/territory	2000		2001	
	Quantity	C.i.f. value 2/	Quantity	C.i.f. value 2/
Australia	15	2,270	25	1,540
Bahamas, The	111	448	59	154
Canada	1,620	15,500	2,730	24,100
China	109	1,310	24	1,590
Dominica	11	189	21	392
France	1	259	8	481
Japan	14	1,500	20	784
Martinique	10	102	--	--
Mexico	711	4,360	782	4,730
Netherlands Antilles	4	50	--	--
United Kingdom	2	1,390	1	1,020
Other 3/	257	5,880	146	5,970
Total	2,870	33,300	3,820	40,800

-- 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 entry; based on purchase price and includes all charges (except U.S. import duties) in bringing material from foreign country to alongside carrier.

3/ Includes Antigua and Barbuda, Dominican Republic, Germany, Israel, Malaysia, New Zealand, Norway, South Africa, Spain, Suriname, and Venezuela (2000).

Source: U.S. Census Bureau.

TABLE 14
 RECYCLED ASPHALT CONCRETE AND CEMENT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY REGION 1/

Region/division	Recycled asphalt concrete						Recycled cement concrete					
	2000			2001			2000			2001		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Northeast:												
New England	284 r/	\$920	\$3.24 r/	293	\$1,660	\$5.68	191 r/	\$970	\$5.08 r/	267	\$1,490	\$5.59
Middle Atlantic	55 r/	298	5.42 r/	62	380	6.13	407	2,310	5.68	327	1,880	5.74
Midwest:												
East North Central	827	4,100	4.96	1,380	6,100	4.43	1,870	7,270	3.88	1,680	8,420	5.01
West North Central	874 r/	4,000	4.58 r/	1,220	5,390	4.41	2,110 r/	7,910	3.76	1,530	6,920	4.51
South:												
South Atlantic	301 r/	1,450	4.81 r/	599	2,260	3.77	225 r/	906	4.03 r/	435	2,180	5.01
East South Central	231	888	3.84	214	756	3.53	--	--	--	--	--	--
West South Central	34	412	12.12	--	--	--	20 r/	230	11.50 r/	9	127	14.11
West:												
Mountain	761	3,000	3.95	556	2,800	5.03	259	1,130	4.35	539	2,650	4.92
Pacific	1,370 2/	6,520 2/	4.76 2/	1,130 2/	6,190 2/	5.46 2/	2,130 3/	11,900 3/	5.57 3/	1,940 3/	10,300 3/	5.32 3/
Total	4,740	21,600	4.56	5,460	25,500	4.68	7,210	32,600	4.52	6,740	34,000	5.05

r/ Revised. -- Zero.

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

2/ Includes Alaska.

3/ Includes Hawaii.

TABLE 15
 RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE 1/

State	2000			2001		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alaska	191	\$919	\$4.81	148	\$852	\$5.76
Arizona	76	196	2.58	W	W	5.69
California	987	4,500	4.56	740	3,830	5.18
Colorado	174	958	5.51	140	824	5.89
Connecticut	2	10	5.00	W	W	4.00
Florida	27	450	16.67	--	--	--
Georgia	W	W	6.11	W	W	4.67
Idaho	81	178	2.20	67	120	1.79
Illinois	21	75	3.57	45	222	4.93
Indiana	50	154	3.08	214	939	4.39
Iowa	20	77	3.85	31	164	5.29
Kansas	W	W	9.96	53	287	5.42
Louisiana	W	W	12.41	--	--	--
Maine	143	494	3.45	139	603	4.34
Maryland	--	--	--	W	W	2.03
Massachusetts	115	259	2.25	113	727	6.43
Michigan	56	226	4.04	449	1,080	2.40
Minnesota	741	2,970	4.01	1,070	4,420	4.13
Mississippi	100	330	3.30	109	360	3.30
Montana	10	61	6.10	31	180	5.81
Nevada	65	289	4.45	31	168	5.42
New Hampshire	2	14	7.00	3	16	5.33
New Jersey	40	237	5.93	54	308	5.70
New Mexico	W	W	4.22	238	1,250	5.24
New York	15	61	4.07	7	71	10.14
North Carolina	140	528	3.77	255	992	3.89
North Dakota	W	W	5.41	W	W	6.45
Ohio	125	752	6.02	238	1,200	5.03
Oklahoma	W	W	5.00	--	--	--
Oregon	62	468	7.55	94	680	7.23
Pennsylvania	--	--	--	W	W	3.60
Rhode Island	9	80	8.89	W	W	9.64
South Carolina	45	237	5.27	113	568	5.03
South Dakota	41	313	7.63	50	383	7.66
Tennessee	W	W	4.23	105	396	3.77
Utah	W	W	3.01	W	W	5.00
Vermont	14	63	4.50	12	68	5.67
Virginia	69	116	1.68	109	237	2.17
Washington	128	623	4.87	152	827	5.44
Wisconsin	575	2,890	5.03	431	2,660	6.18
Wyoming	71	348	4.90	15	75	5.00
Total	4,740	21,600	4.56	5,460	25,500	4.68

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.

TABLE 16
 RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE 1/

State	2000			2001		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alaska	W	W	\$5.33	W	W	\$7.52
California	1,910	\$10,800	5.67	1,750	\$9,260	5.28
Colorado	121	528	4.36	164	967	5.90
Connecticut	2	9	4.50	6	21	3.50
Florida	18	60	3.33	W	W	10.81
Georgia	--	--	--	W	W	4.68
Hawaii	4	31	7.75	5	31	6.20
Idaho	W	W	1.50	12	42	3.50
Illinois	211	1,080	5.10	314	1,780	5.67
Indiana	20	33	1.65	249	1,090	4.39
Iowa	109	711	6.52	70	457	6.53
Kansas	5	45	9.00	W	W	3.17
Louisiana	W	W	8.73	--	--	--
Maine	W	W	3.60	45	228	5.07
Maryland	W	W	2.79	W	W	2.10
Massachusetts	110	533	4.85	161	869	5.40
Michigan	842	2,320	2.75	528	2,620	4.96
Minnesota	1,760	6,510	3.69	1,170	5,170	4.41
Montana	W	W	6.11	31	180	5.81
Nevada	--	--	--	W	W	2.79
New Hampshire	46	214	4.65	2	11	5.50
New Jersey	74	476	6.43	89	587	6.60
New Mexico	W	W	5.84	242	1,060	4.37
New York	333	1,840	5.51	238	1,290	5.42
North Carolina	31	102	3.29	53	321	6.06
North Dakota	(2/)	1	4.51	--	--	--
Ohio	234	1,260	5.38	279	1,480	5.31
Oregon	33	235	7.12	33	132	4.00
Pennsylvania	--	--	--	W	W	3.59
Rhode Island	23	180	7.83	46	305	6.63
South Carolina	W	W	6.90	31	220	7.10
South Dakota	229	651	2.84	280	1,250	4.48
Texas	10	134	13.40	9	127	14.11
Utah	77	253	3.29	63	328	5.21
Vermont	W	W	2.67	6	16	2.67
Virginia	W	W	8.13	--	--	--
Washington	175	724	4.14	130	734	5.65
Wisconsin	566	2,580	4.56	310	1,440	4.66
Total	7,210	32,600	4.52	6,740	34,000	5.04

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

FIGURE 1
 PRODUCTION OF CONSTRUCTION SAND AND GRAVEL IN THE UNITED STATES IN 2001, BY GEOGRAPHIC DIVISION

