



# 2008 Minerals Yearbook

---

## SAND AND GRAVEL, CONSTRUCTION

---

# SAND AND GRAVEL, CONSTRUCTION

By Wallace P. Bolen

Domestic survey data and tables were prepared by Cheryl J. Crawford and Marc A. Angulo, statistical assistants.

A total of 1.04 billion metric tons (Gt) of construction sand and gravel was produced in the United States in 2008. This was a decrease of about 200 million metric tons (Mt), or 16%, from the revised production of 2007. This was the second consecutive decrease in annual production and reflected continuing low demand mainly from the residential construction markets. The last time there were consecutive years of decreasing sand and gravel production was in 1981 and 1982.

Construction sand and gravel is a traditional basic building material and is one of the earliest materials used by humanity for dwellings and later for outdoor areas such as paths, roadways, and other constructs. Sand and gravel is very accessible and is widely used throughout the United States and the world. As sand and gravel became less available owing to resource restraint or economic conditions in some locales, builders began to crush bedrock to produce a manufactured sand and gravel often referred to as crushed stone. Sand and gravel and crushed stone combined are defined as construction aggregate. The crushed stone industry is reviewed in a separate chapter of the U.S. Geological Survey (USGS) Minerals Yearbook; both of these mineral commodities are usually included in reviews of national, State, or local aggregates industries. All percentages in this report were computed using unrounded data.

Strong nonresidential activity in the private and public sectors partially offset the effects of the downturn in residential construction (Aggregates Manager, 2009). Total construction value put in place in the United States decreased by 5.1% in 2008, following a decrease of 2.5% in 2007. According to the U.S. Commerce Department, this decrease was led by residential construction, which decreased 27% from 2007 to 2008. Nonresidential construction increased 12% from 2007 to 2008, and this increase helped to mitigate the loss in housing construction (Davis, Holland, and Tremblay, 2009).

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

In the United States in 2008, 6,192 construction sand and gravel operations were active (table 6A), 608 operations were reported as idle, and 67 operations either were reported to be closed or were assumed to be permanently shut down. Of the 6,192 active operations, 64 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, 34 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. The 6,192 operations

with 7,754 active sand and gravel pits were owned by 3,832 companies or government agencies operating in all 50 States. A review of the data provided by the U.S. Mine Safety and Health Administration revealed 152 previously unaccounted for sand and gravel locations that reported at least 2,000 employee hours of activity during 2008. Information was gathered from these newly recognized operations and included in this report. In 2008, of the 6,192 active operations surveyed, 3,191, or 52%, responded to the USGS canvass. Their total production represented 53% of the 1.04 Gt produced in 2008.

According to the U.S. Census Bureau, exports in 2008 increased by 7% to 392,000 metric tons (t), but the value decreased by 22% to \$22.4 million compared with the 2007 results (tables 1, 12). Imports of construction sand and gravel increased after 2 years of decline following record high levels in 2005. Imports increased by 23% to 5.43 Mt, and the value increased by 30% to \$114 million (tables 1, 13). Imports have become a significant source for sand and gravel in some areas of the country. 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 1.05 Gt.

## Production

Of the four major geographic regions, the West again led the Nation in the production of construction sand and gravel in 2008 with 409 Mt, or 39% of the U.S. total (table 2). The West was followed by the Midwest with 272 Mt, or 26%; the South with 254 Mt, or 24%; and the Northeast with 106 Mt, or 10%. Compared with that of 2007, production decreased in all four regions in 2008.

Of the nine geographic divisions, the Mountain division led the Nation in the production of construction sand and gravel in 2008 with 233 Mt, or 22% of the U.S. total, and was followed by the Pacific with 176 Mt, or 17%, and the East North Central with 162 Mt, or 16% (table 2). Production decreased in all nine divisions compared with that of 2007 ranging from a 21% decline in the Pacific division to 6% in the Middle Atlantic division.

In 2008, construction sand and gravel was produced in every State (table 3). The leading States were, in descending order of tonnage, California, Texas, Arizona, Michigan, Washington, Utah, Colorado, Wisconsin, Minnesota, and New York. The combined production of these 10 States represented about 50% of the national total. Production increased in just one State, Nebraska, and decreased in the other 49 States compared with that of 2007. Production decreases of greater than 20% were reported in 13 States—West Virginia (37%), Oregon (30%), Massachusetts (29%), Delaware (28%), Georgia (28%), Minnesota (27%), Idaho (23%), Arizona (22%), California

(22%), Michigan (22%), North Dakota (21%), Colorado (21%), and New Mexico (21%).

A review of the production of construction sand and gravel for consumption by size of operation indicates that about 36% of the total production came from 2,260 operations that reported between 100,000 and 499,999 metric tons per year (t/yr); 23% of the construction sand and gravel produced came from 379 operations that reported between 500,000 and 999,999 t/yr; and 21% came from 149 operations that reported 1 million metric tons per year (Mt/yr) production or more. The largest number of operations (3,404, or 55% of total operations) produced less than 100,000 t/yr (11% of the total production) (table 6A).

In 2008, the leading domestic commercial producers of construction sand and gravel were, in descending order of production, Oldcastle Materials, Inc.; CEMEX S.A.B. de C.V.; Vulcan Materials Co.; Lehigh Hanson, Inc.; Holcim Group/Aggregate Industries Management, Inc.; MDU Resources Group, Inc./Knife River Corp.; Granite Construction Co., Inc.; Martin Marietta Aggregates; Fisher Industries, Inc.; and Lafarge North America, Inc. The combined production of these 10 companies was about 234 Mt, or about 22% of the national total.

Some 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 production can be based on indirect indicators, such as the levels of asphalt and cement consumption.

## Consumption

Production of construction sand and gravel 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 1.04 Gt of construction sand and gravel produced in 2008, 56% was for unspecified uses (tables 4, 5). Of the remaining 453 Mt, 46% was used as concrete aggregate; 25% was used for road base and coverings and road stabilization; 13%, for construction fill; 11%, for asphaltic concrete aggregate and other bituminous mixtures; 2%, for plaster and gunite sands; and the remaining 3% was used for concrete products, such as blocks, bricks, and pipes; golf course maintenance, filtration, railroad ballast, roofing granules, snow and ice control, and many 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” may be distributed among the reported use categories by applying the above percentages.

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

## Recycling

Beginning with the 2008 survey, the USGS began collecting recycling statistics from construction and demolition companies. Although not all of the companies surveyed responded to the request for information on concrete and asphalt recycling, many did. These data have been combined with recycling data received from aggregate mining companies, both crushed stone and sand and gravel producers. Recycling in this industry generally refers to the crushing, screening, and reuse of asphalt and cement concretes. Aggregates, construction, and demolition companies and related asphalt and ready-mix companies are often involved in construction projects during which they collect and reuse the materials at the site. Sometimes construction companies haul their materials to a recycling location where the asphalt or concrete is processed for reuse. The USGS welcomes additional information on recycling and encourages all construction materials recycling companies to provide statistics on their activities. Companies involved in recycling may contact the author of this report to receive more information on how to report.

**Asphalt Concrete.**—In 2008, 14.5 Mt of asphalt concrete valued at \$157 million was recycled by aggregate, construction, and demolition companies in 48 States and Puerto Rico (table 10). The leading States were, in descending order of tonnage recycled, California, Kansas, Pennsylvania, Virginia, Illinois, Minnesota, Wisconsin, and Texas.

**Cement Concrete.**—In 2008, about 14.8 Mt of cement concrete valued at \$110 million was recycled in 47 States (table 11). The leading States were, in descending order of tonnage recycled, California, Texas, Illinois, Minnesota, Colorado, Wisconsin, Virginia, and Michigan.

## 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. Reports regarding the method of transportation were provided by the producers for 343 Mt, or 33% of the total U.S. production of construction sand and gravel in 2008. Of this total, 82% was transported by truck; 3%, by waterway; and 1%, by rail (table 7). A significant amount of construction sand and gravel produced (about 14%) was not transported and was used at or near the production site, probably for asphalt or cement concrete production. 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 the first point of sale or captive use. This value does not include transportation from the plant or yard to the consumer. It does

include all costs of mining, processing, in-plant transportation, overhead, and profit.

The 2008 average unit price increased by about 6% to \$7.48 per metric ton compared with that of 2007 (table 4). By use, the unit prices varied from a high of \$22.52 per metric ton for roofing granules to a low of \$4.50 per metric ton for fill. The largest increases in unit price were recorded for roofing granules (99.7%), concrete products (37.7%), and asphaltic concrete (8.6%). The largest decreases were for golf course maintenance (23.0%), filtration (22.5%), and railroad ballast (5.0%).

The States having the highest unit price per metric ton were, in descending order, Hawaii (\$18.17), Rhode Island (\$15.87), California (\$11.39), New Jersey (\$11.27), Virginia (\$10.63), Maryland (\$10.47), and Louisiana (\$10.09). The States having the lowest unit price per metric ton were, in ascending order, North Dakota (\$3.23), South Dakota (\$3.84), Michigan (\$4.68), South Carolina (\$4.81), and Kansas (\$4.93). The unit value decreased in 8 States and increased in the other 42 States (table 3). The States having the largest increases in unit value were, in descending order, Hawaii (40%), Alaska (27%), Minnesota (26%), Rhode Island (23%), New Jersey (22%), Wyoming (17%), Michigan (16%), and Washington (16%). The States having the largest decreases in unit value were, in descending order, Georgia (13%), South Carolina (12%), Maine (10%), and New York (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 less than 1% of domestic consumption.

According to the U.S. Census Bureau, exports of construction sand decreased by about 9% to 98,000 t compared with that of 2007, and the value decreased by about 21.8% to \$18.0 million (table 12). Canada, which was the leading destination, received about 50% of the total sand, followed by Peru (15%) and Germany (3%). Exports of construction gravel increased by 14% to 294,000 t compared with those of 2008, but the value decreased by about 24% to \$4.4 million. Canada, which was the leading destination, received about 77% of the total gravel. The average value of the sand and gravel exports in 2008 was \$57 per metric ton; this was down from \$79 per metric ton in 2007. These relatively high values may have been reached because of some higher grade sand and gravel such as industrial sand and gravel being misclassified as construction sand and gravel.

In 2008, imports of construction sand and gravel increased by about 23% to 5.43 Mt, and the value increased by about 30% to \$114 million (table 13). Canada was the leading source of imported construction sand and gravel with 83% of the total. The Bahamas supplied about 9% of the imports, and Mexico supplied about 6%. The average unit value of the sand and gravel imports in 2008 was \$20.93 per metric ton, up from \$19.85 per metric ton in 2007.

### Outlook

Consumption of construction sand and gravel in 2009 was expected to decrease by about 25% compared with that of 2008. Continuing weak demand from most construction segments and reduced revenues to and funding for governmental agencies and programs resulted in less sand and gravel consumption in 2009. Data from the 2009 USGS quarterly survey of U.S. aggregates producers indicate about a 27% decrease in sales of sand and gravel compared with those of the first three quarters of 2008, based on a limited sample of sand and gravel producers in the United States. After price increases of about 8% as recorded in 2007 and a 7% increase in 2008, analysts expected construction sand and gravel f.o.b. prices to continue to increase for the full 12 months of 2009 by a slightly smaller margin. Improving but still historically lower sales in the housing market and fluctuating fuel costs could keep some upward pressures on sand and gravel prices. Larger price increases are more likely to continue in and near metropolitan areas because, as nearby resources are used up, more aggregates will be transported from distant sources with the accompanying extra fuel cost.

### References Cited

- Aggregates Manager, 2009, Aggman outlook: Aggregates Manager, v. 14, no. 4, April, p. 10–11.
- Davis, Michael, Holland, Linnet, and Tremblay, John, 2009, December 2008 construction at \$1,053.7 billion annual rate: U.S. Census Bureau News, February 2, 5 p. (Accessed December 15, 2009, at <http://econoindicators.com/wp-content/uploads/2009/02/constructionspending.pdf>)

### GENERAL SOURCES OF INFORMATION

#### U.S. Geological Survey Publications

- Crushed Stone and Sand and Gravel. Mineral Industry Surveys, quarterly.
- Directory of Principal Crushed Stone Producers. Mineral Industry Surveys, annual.
- Directory of Principal Sand and Gravel Producers. Mineral Industry Surveys, annual.
- Directory of State Publications Listing Crushed Stone, Sand and Gravel Producers, Mineral Industry Surveys, periodic.
- Natural Aggregate—Building America's Future. Circular 1110, 1990.
- Natural Aggregates of the Conterminous United States. Bulletin 1594, 1988.
- Natural Aggregates—Foundation of America's Future. Fact Sheet FS 144–97, 1997.
- Sand and Gravel. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
- Sand and Gravel, Construction. Ch. in Mineral Commodity Summaries, annual.
- Stone, Crushed. Ch. in Mineral Commodity Summaries, annual.
- Stone, Crushed. Ch. in Minerals Yearbook, annual.

#### Other

- Aggregates Handbook. National Stone Association, 1991.
- Aggregates Manager.

Aggregates—Sand, Gravel, & Crushed Rock Aggregates for Construction Purposes. The Geological Society [United Kingdom], 1985.

Bates, R.L., and Harben, P.W., 1984, Geology of Nonmetallics: London, United Kingdom, Metal Bulletin Inc., 357 p.

Canadian Aggregates.

Concrete Manual—A Water Resources Publication. U.S. Department of the Interior, Bureau of Reclamation, 1975.

Earth Manual—A Water Resources Publication. U.S. Department of the Interior, Bureau of Reclamation, 1974.

Handbook of Concrete Aggregates. Dolar-Mantuani, L. Noyes Publications, 1983.

Industrial Minerals.

Pit&Quarry.

Quarry Management.

Rock Products.

Sand and Gravel. Ch. in Industrial Minerals and Rocks (7th ed.), Society for Mining, Metallurgy, and Exploration, Inc., 2006.

Sand and Gravel. Ch. in Mineral Facts and Problems, U.S. Bureau of Mines Bulletin 675, 1985.

Stone, Sand & Gravel Review.

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

(Thousand metric tons and thousand dollars)

	2004	2005	2006	2007	2008
<b>Sold or used by producers:<sup>2</sup></b>					
Quantity	1,240,000 <sup>r</sup>	1,280,000 <sup>r</sup>	1,330,000 <sup>r</sup>	1,240,000 <sup>r</sup>	1,040,000
Value	6,600,000 <sup>r</sup>	7,490,000 <sup>r</sup>	8,600,000 <sup>r</sup>	8,730,000 <sup>r</sup>	7,780,000
<b>Recycle:<sup>3</sup></b>					
Quantity	13,400	14,400	15,400	20,100	29,200
Value	79,900	99,200	111,000	150,000	267,000
<b>Exports:</b>					
Quantity	677	519	515	365	392
Value	32,100	28,200	24,100	28,700	22,400
<b>Imports:</b>					
Quantity	4,760	7,160	4,960	4,420	5,430
Value	56,900	86,800	94,100	87,700	114,000

<sup>r</sup>Revised.

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

<sup>2</sup>Puerto Rico is excluded from all sand and gravel statistics.

<sup>3</sup>Asphalt and portland cement concrete recycled by construction, demolition, and aggregate mining companies.

TABLE 2  
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION<sup>1</sup>

Region/division	2007				2008			
	Quantity (thousand metric tons)	Percentage of total	Value (thousands)	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Value (thousands)	Percentage of total
<b>Northeast:</b>								
New England	50,500 <sup>r</sup>	4.1 <sup>r</sup>	\$411,000 <sup>r</sup>	4.7 <sup>r</sup>	43,100	4.1	\$360,000	4.6
Middle Atlantic	67,200 <sup>r</sup>	5.4 <sup>r</sup>	565,000 <sup>r</sup>	6.5	63,000	6.1	539,000	6.9
<b>Midwest:</b>								
East North Central	196,000 <sup>r</sup>	15.8 <sup>r</sup>	1,020,000	11.6 <sup>r</sup>	163,000	15.6	933,000	12.0
West North Central	130,000	10.5 <sup>r</sup>	631,000 <sup>r</sup>	7.2 <sup>r</sup>	109,000	10.5	592,000	7.6
<b>South:</b>								
South Atlantic	91,100 <sup>r</sup>	7.3 <sup>r</sup>	684,000 <sup>r</sup>	7.8	79,600	7.6	620,000	8.0
East South Central	48,100 <sup>r</sup>	3.9 <sup>r</sup>	299,000 <sup>r</sup>	3.4	40,600	3.9	271,000	3.5
West South Central	147,000 <sup>r</sup>	11.8 <sup>r</sup>	1,050,000 <sup>r</sup>	12.0 <sup>r</sup>	133,000	12.8	1,010,000	13.0
<b>West:</b>								
Mountain	289,000 <sup>r</sup>	23.3 <sup>r</sup>	1,970,000	22.5 <sup>r</sup>	233,000	22.4	1,660,000	21.3
Pacific	222,000 <sup>r</sup>	17.9 <sup>r</sup>	2,110,000 <sup>r</sup>	24.2 <sup>r</sup>	176,000	17.0	1,800,000	23.1
Total	1,240,000 <sup>r</sup>	100	8,730,000 <sup>r</sup>	100	1,040,000	100	7,780,000	100

<sup>r</sup>Revised.

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

TABLE 3  
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN  
THE UNITED STATES, BY STATE<sup>1</sup>

State	2007			2008		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	16,700	\$96,500	\$5.79	13,700	\$86,700	\$6.33
Alaska	13,200 <sup>r</sup>	77,300 <sup>r</sup>	5.83 <sup>r</sup>	11,300	84,000	7.43
Arizona	85,800	652,000	7.60	66,600	556,000	8.35
Arkansas	9,080	66,300	7.31	8,800	65,100	7.40
California	141,000 <sup>r</sup>	1,520,000 <sup>r</sup>	10.84 <sup>r</sup>	110,000	1,250,000	11.36
Colorado	46,100	364,000	7.91	36,300	286,000	7.88
Connecticut	8,290	73,400	8.85	7,320	69,300	9.47
Delaware	3,520 <sup>r</sup>	26,400 <sup>r</sup>	7.49 <sup>r</sup>	2,550	20,600	8.08
Florida	30,300	231,000	7.62	28,100	219,000	7.79
Georgia	10,200	63,800	6.28	7,350	40,200	5.47
Hawaii	1,570 <sup>r</sup>	20,400 <sup>r</sup>	12.95 <sup>r</sup>	1,410	25,600	18.16
Idaho	23,900 <sup>r</sup>	125,000 <sup>r</sup>	5.24 <sup>r</sup>	18,400	105,000	5.71
Illinois	31,800	175,000	5.51	26,600	165,000	6.20
Indiana	28,300 <sup>r</sup>	153,000 <sup>r</sup>	5.43	23,200	138,000	5.95
Iowa	17,100	94,000	5.50	15,600	88,400	5.67
Kansas	10,700	49,600	4.65	9,930	49,000	4.93
Kentucky	9,070	48,300	5.33	7,600	41,600	5.47
Louisiana	25,700 <sup>r</sup>	235,000 <sup>r</sup>	9.16 <sup>r</sup>	22,200	224,000	10.09
Maine	10,900 <sup>r</sup>	83,100 <sup>r</sup>	7.60 <sup>r</sup>	9,820	67,000	6.82
Maryland <sup>2</sup>	12,400 <sup>r</sup>	123,000 <sup>r</sup>	9.92 <sup>r</sup>	12,000	126,000	10.50
Massachusetts	15,800 <sup>r</sup>	141,000 <sup>r</sup>	8.91 <sup>r</sup>	11,200	109,000	9.73
Michigan	56,900 <sup>r</sup>	230,000 <sup>r</sup>	4.04 <sup>r</sup>	44,300	208,000	4.70
Minnesota	46,100	239,000	5.17	33,700	220,000	6.53
Mississippi	15,000 <sup>r</sup>	102,000 <sup>r</sup>	6.77	12,500	89,400	7.15
Missouri	14,200 <sup>r</sup>	78,400 <sup>r</sup>	5.51	12,300	75,800	6.16
Montana	15,900	134,000	8.43	13,200	108,000	8.18
Nebraska	13,400	70,600	5.28	13,700	73,500	5.36
Nevada	34,700	180,000	5.18	29,200	161,000	5.51
New Hampshire	7,940	49,000	6.17	7,930	49,900	6.29
New Jersey	15,600 <sup>r</sup>	145,000	9.26	14,100	159,000	11.28
New Mexico	18,300	157,000	8.55	14,500	126,000	8.69
New York	33,300	278,000	8.34	33,100	251,000	7.58
North Carolina	11,400	62,300	5.48	9,700	58,300	6.01
North Dakota	14,900	49,100	3.29	11,800	38,000	3.22
Ohio	40,800	271,000	6.65	33,000	237,000	7.18
Oklahoma	16,200 <sup>r</sup>	94,100 <sup>r</sup>	5.94 <sup>r</sup>	14,600	93,400	6.40
Oregon	21,200	163,000	7.70	14,800	120,000	8.11
Pennsylvania	18,300	143,000	7.80	15,800	129,000	8.16
Rhode Island	2,410	31,200	12.94	2,080	33,000	15.87
South Carolina	10,300 <sup>r</sup>	56,500 <sup>r</sup>	5.48 <sup>r</sup>	9,160	44,100	4.81
South Dakota	13,900	50,500	3.62	12,300	47,100	3.83
Tennessee	7,310 <sup>r</sup>	52,200 <sup>r</sup>	7.14	6,860	53,700	7.83
Texas	95,900 <sup>r</sup>	654,000 <sup>r</sup>	6.82	87,700	627,000	7.15
Utah	45,100	261,000	5.79	37,400	214,000	5.72
Vermont	5,140	34,100	6.65	4,700	31,900	6.79
Virginia	12,300	115,000	9.35	10,200	109,000	10.69
Washington	45,500	324,000	7.12	39,400	324,000	8.22
West Virginia	675	5,620	8.32	426	3,840	9.01
Wisconsin	38,200	186,000	4.86	35,400	185,000	5.23
Wyoming	19,100	95,800	5.02	17,100	100,000	5.85
Total or average	1,240,000 <sup>r</sup>	8,730,000 <sup>r</sup>	7.04 <sup>r</sup>	1,040,000	7,780,000	7.48

<sup>r</sup>Revised.

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

<sup>2</sup>Includes data reported in Washington, DC.

TABLE 4  
CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN THE UNITED STATES IN 2008,  
BY MAJOR USE<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregates (including concrete sand)	207,000	\$1,710,000	\$8.28
Plaster and gunite sands	9,250	82,300	8.91
Concrete products (blocks, bricks, pipe, decorative, etc.)	3,280	27,600	8.41
Asphaltic concrete aggregates and other bituminous mixtures	50,500	541,000	10.71
Road base and coverings	106,000	677,000	6.38
Road stabilization, cement	3,110	22,600	7.25
Road stabilization, lime	2,190	13,900	6.36
Fill	60,300	272,000	4.50
Snow and ice control	4,180	28,800	6.89
Railroad ballast	711	7,740	10.89
Roofing granules	129	2,910	22.52
Filtration	401	4,840	12.07
Golf course maintenance sand	1,050	10,900	10.39
Other miscellaneous uses	5,620	59,100	10.51
Unspecified: <sup>2</sup>			
Actual	202,000	1,490,000	7.39
Estimated	385,000	2,830,000	7.34
Total or average	1,040,000	7,780,000	7.48

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

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2008, BY GEOGRAPHIC  
DIVISION AND MAJOR USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Region/division	Concrete aggregates (including concrete sand)		Plaster and gunitite sands		Concrete products (blocks, bricks, pipe decorative, etc.)		Asphaltic concrete aggregates and other bituminous mixtures		Road base and coverings <sup>2</sup>	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Northeast:										
New England	4,140	41,400	98	2,190	68	503	2,590	36,300	5,210	36,000
Middle Atlantic	10,600	97,700	530	6,290	523	4,460	3,810	47,300	5,270	41,500
Midwest:										
East North Central	31,100	191,000	475	3,170	1,070	6,550	10,600	64,600	15,500	81,900
West North Central	12,800	74,300	268	1,870	286	2,490	4,390	39,900	21,800	90,600
South:										
South Atlantic	30,900	264,000	529	5,110	594	4,360	1,180	8,450	1,950	17,400
East South Central	14,700	89,500	232	2,220	234	2,960	1,950	17,700	875	5,720
West South Central	40,400	326,000	281	2,840	37	319	1,540	19,300	5,130	46,900
West:										
Mountain	25,900	229,000	3,070	18,500	195	1,640	9,330	111,000	36,600	228,000
Pacific	36,100	397,000	3,770	40,200	274	4,320	15,200	196,000	18,900	165,000
Total	207,000	1,710,000	9,240	82,300	3,280	27,600	50,500	541,000	111,000	713,000
	Fill		Snow and ice control		Railroad ballast		Other uses <sup>3</sup>		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Northeast:										
New England	2,820	12,800	806	7,410	42	410	27,300	223,000	43,100	360,000
Middle Atlantic	3,920	17,300	1,110	7,270	151	2,780	37,100	314,000	63,000	539,000
Midwest:										
East North Central	14,600	53,600	1,040	4,560	37	267	88,000	528,000	163,000	933,000
West North Central	4,170	13,800	374	2,400	52	535	65,200	366,000	109,000	592,000
South:										
South Atlantic	6,750	22,600	W	W	W	W	37,600	298,000	79,600	620,000
East South Central	1,270	5,200	11	82	--	--	21,300	148,000	40,600	271,000
West South Central	6,980	26,900	W	W	W	W	78,900	585,000	133,000	1,010,000
West:										
Mountain	11,000	51,200	617	5,460	127	1,170	146,000	1,010,000	233,000	1,660,000
Pacific	8,850	68,100	167	1,210	205	1,550	93,000	926,000	176,000	1,800,000
Total	60,300	272,000	4,180	28,800	712	7,740	594,000	4,400,000	1,040,000	7,780,000

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

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

<sup>2</sup>Includes road and other stabilization (cement and lime).

<sup>3</sup>Includes reported and estimated production without a breakdown by end use.

TABLE 6A  
 CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES  
 IN 2008, BY SIZE OF OPERATION

Size range (metric tons)	Number of operations	Percentage of total	Quantity <sup>1</sup> (thousand metric tons)	Percentage of total
Less than 25,000	1,363	22.0	12,700	1.2
25,000 to 49,999	899	14.5	30,300	2.9
50,000 to 99,999	1,142	18.4	74,800	7.2
100,000 to 199,999	1,117	18.0	146,000	14.0
200,000 to 299,999	572	9.2	127,000	12.2
300,000 to 399,999	362	5.8	113,000	10.9
400,000 to 499,999	209	3.4	84,300	8.1
500,000 to 599,999	142	2.3	71,200	6.8
600,000 to 699,999	85	1.4	49,600	4.8
700,000 to 799,999	68	1.1	46,200	4.4
800,000 to 899,999	46	0.7	35,400	3.4
900,000 to 999,999	38	0.6	32,500	3.1
1,000,000 to 1,499,999	92	1.5	100,000	9.6
1,500,000 to 1,999,999	29	0.5	45,200	4.3
2,000,000 to 2,499,999	16	0.3	31,600	3.0
2,500,000 and more	12	0.2	40,700	3.9
Total	6,192	100	1,040,000	100

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

TABLE 6B  
CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES IN 2008, BY REGION AND SIZE OF OPERATION

Size range (metric tons)	Northeast				Midwest			
	Number of operations	Percentage of total	Quantity <sup>1</sup> (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity <sup>1</sup> (thousand metric tons)	Percentage of total
Less than 25,000	261	27.9	2,470	2.3	466	22.4	4,600	1.7
25,000 to 49,999	145	15.5	4,890	4.6	346	16.6	11,500	4.2
50,000 to 99,999	185	19.8	12,000	11.3	421	20.2	27,700	10.2
100,000 to 199,999	167	17.9	22,200	20.9	416	20.0	53,700	19.8
200,000 to 299,999	77	8.2	17,200	16.2	173	8.3	38,200	14.1
300,000 to 399,999	44	4.7	13,700	12.9	98	4.7	30,500	11.2
400,000 to 499,999	18	1.9	7,460	7.0	49	2.4	19,600	7.2
500,000 to 599,999	14	1.5	6,960	6.6	32	1.5	16,100	5.9
600,000 to 699,999	8	0.9	4,760	4.5	18	0.9	10,400	3.8
700,000 to 799,999	4	0.4	2,810	2.7	19	0.9	12,900	4.7
800,000 to 899,999	--	--	--	--	13	0.6	9,940	3.7
900,000 to 999,999	4	0.4	3,410	3.2	7	0.3	6,020	2.2
1,000,000 to 1,499,999	6	0.6	6,400	6.0	19	0.9	20,600	7.6
1,500,000 to 1,999,999	1	0.1	1,790	1.7	4	0.2	5,980	2.2
2,000,000 to 2,499,999	--	--	--	--	2	0.1	4,020	1.5
2,500,000 and more	--	--	--	--	--	--	--	--
Total	934	100	106,000	100	2,083	100	272,000	100

  

Size range (metric tons)	South				West			
	Number of operations	Percentage of total	Quantity <sup>1</sup> (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity <sup>1</sup> (thousand metric tons)	Percentage of total
Less than 25,000	171	15.7	1,460	0.6	465	22.3	4,140	1.0
25,000 to 49,999	115	10.6	4,010	1.6	293	14.1	9,860	2.4
50,000 to 99,999	180	16.5	11,900	4.7	356	17.1	23,100	5.6
100,000 to 199,999	181	16.6	24,000	9.5	353	16.9	45,700	11.2
200,000 to 299,999	141	12.9	31,300	12.4	181	8.7	40,500	9.9
300,000 to 399,999	79	7.2	24,500	9.7	141	6.8	44,200	10.8
400,000 to 499,999	70	6.4	28,500	11.2	72	3.5	28,700	7.0
500,000 to 599,999	45	4.1	22,400	8.8	51	2.4	25,800	6.3
600,000 to 699,999	23	2.1	13,400	5.3	36	1.7	21,000	5.1
700,000 to 799,999	18	1.7	12,200	4.8	27	1.3	18,300	4.5
800,000 to 899,999	17	1.6	13,200	5.2	16	0.8	12,200	3.0
900,000 to 999,999	9	0.8	7,720	3.0	18	0.9	15,400	3.8
1,000,000 to 1,499,999	22	2.0	23,800	9.4	45	2.2	49,500	12.1
1,500,000 to 1,999,999	11	1.0	17,000	6.7	13	0.6	20,400	5.0
2,000,000 to 2,499,999	6	0.6	11,900	4.7	8	0.4	15,600	3.8
2,500,000 and more	2	0.2	5,980	2.4	10	0.4	34,700	8.5
Total	1,090	100	254,000	100	2,085	100	409,000	100

-- Zero.

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

TABLE 7  
CONSTRUCTION SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE  
UNITED STATES IN 2008, BY GEOGRAPHIC DIVISION AND METHOD OF TRANSPORTATION<sup>1</sup>

(Thousand metric tons)

Region/division	Truck	Rail	Water	Other	Not transported	Not specified	Total
Northeast:							
New England	10,200	27	--	--	2,110	30,800	43,100
Middle Atlantic	16,700	4	793	--	2,270	43,200	63,000
Midwest:							
East North Central	47,700	172	1,710	162	5,800	107,000	163,000
West North Central	25,100	--	935	13	4,290	78,900	109,000
South:							
South Atlantic	32,400	246	198	--	2,200	44,600	79,600
East South Central	9,540	233	1,170	5	1,180	28,500	40,600
West South Central	31,200	686	96	25	4,310	97,000	133,000
West:							
Mountain	49,000	349	--	409	13,200	170,000	233,000
Pacific	60,300	1,160	4,030	439	12,100	98,400	176,000
Total	282,000	2,870	8,930	1,050	47,500	698,000	1,040,000

-- Zero.

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

TABLE 8  
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS  
IN THE UNITED STATES IN 2008, 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	195	188	47	34	2	466
Middle Atlantic	197	165	41	37	28	468
Midwest:						
East North Central	505	369	79	63	104	1,120
West North Central	294	374	30	58	207	963
South:						
South Atlantic	145	46	18	56	89	354
East South Central	127	17	6	10	54	214
West South Central	265	94	26	35	102	522
West:						
Mountain	511	603	95	107	15	1,331
Pacific <sup>1</sup>	396	215	64	56	23	754
Total	2,635	2,071	406	456	624	6,192

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

TABLE 9  
NUMBER OF CONSTRUCTION SAND AND GRAVEL OPERATIONS AND PROCESSING PLANTS  
IN THE UNITED STATES IN 2008, BY STATE

State	Mining operations on land				Dredging operations	Total active operations
	Stationary	Portable	Stationary and portable	No plants or unspecified		
Alabama	51	4	1	3	13	72
Alaska <sup>1</sup>	28	20	2	5	6	61
Arizona	117	89	19	5	1	231
Arkansas	34	15	5	--	6	60
California	229	72	27	19	9	356
Colorado	88	107	15	22	8	240
Connecticut	30	18	11	2	1	62
Delaware	5	--	--	2	4	11
Florida	28	5	--	6	23	62
Georgia	17	2	3	--	22	44
Hawaii	13	3	1	--	--	17
Idaho	40	85	5	15	4	149
Illinois	63	17	6	4	30	120
Indiana	82	21	13	4	20	140
Iowa	41	50	5	2	30	128
Kansas	26	27	5	8	42	108
Kentucky	8	--	2	1	10	21
Louisiana	42	9	1	10	44	106
Maine	48	67	9	17	1	142
Maryland	23	1	1	12	4	41
Massachusetts	59	22	4	2	--	87
Michigan	131	143	34	24	12	344
Minnesota	101	138	16	19	7	281
Mississippi	47	7	--	4	19	77
Missouri	33	8	2	--	30	73
Montana	66	68	8	19	--	161
Nebraska	25	16	--	7	97	145
Nevada	53	42	13	9	--	117
New Hampshire	28	38	10	5	--	81
New Jersey	29	5	3	2	14	53
New Mexico	46	46	8	10	--	110
New York	110	138	30	28	6	312
North Carolina	28	18	10	12	14	82
North Dakota	31	65	2	1	--	99
Ohio	106	33	14	7	40	200
Oklahoma	26	11	1	8	32	78
Oregon	39	35	13	13	2	102
Pennsylvania	58	22	8	7	8	103
Rhode Island	6	4	4	2	--	16
South Carolina	17	10	1	5	14	47
South Dakota	37	70	--	21	1	129
Tennessee	21	6	3	2	12	44
Texas	163	59	19	17	20	278
Utah	73	83	20	13	--	189
Vermont	24	39	9	6	--	78
Virginia	25	9	3	18	7	62
Washington	87	85	21	19	6	218
West Virginia	2	1	--	1	1	5
Wisconsin	123	155	12	24	2	316
Wyoming	28	83	7	14	2	134
Total	2,635	2,071	406	456	624	6,192

-- Zero.

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

TABLE 10  
 RECYCLED ASPHALT<sup>1</sup> SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE<sup>2</sup>

State	2007			2008 <sup>3</sup>		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	--	--	--	112	\$2,090	\$18.66
Alaska	16 <sup>r</sup>	\$163 <sup>r</sup>	\$10.19 <sup>r</sup>	77	1,290	16.75
Arizona	510	1,730	3.39	137	820	5.99
Arkansas	--	--	--	--	--	--
California	2,060 <sup>r</sup>	18,800 <sup>r</sup>	9.13 <sup>r</sup>	2,200	20,100	9.14
Colorado	157 <sup>r</sup>	929 <sup>r</sup>	5.92 <sup>r</sup>	516	4,950	9.59
Connecticut	84 <sup>r</sup>	575 <sup>r</sup>	6.85 <sup>r</sup>	133	530	3.98
Delaware	--	--	--	2	35	17.50
Florida	369 <sup>r</sup>	2,470 <sup>r</sup>	6.69 <sup>r</sup>	415	5,980	14.41
Georgia	--	--	--	96	2,770	28.85
Hawaii	73 <sup>r</sup>	720 <sup>r</sup>	9.86 <sup>r</sup>	73	1,040	14.25
Idaho	136	1,130	8.31	88	659	7.49
Illinois	890 <sup>r</sup>	7,210 <sup>r</sup>	8.10 <sup>r</sup>	843	8,210	9.74
Indiana	169 <sup>r</sup>	1,330 <sup>r</sup>	7.87 <sup>r</sup>	182	1,690	9.29
Iowa	44 <sup>r</sup>	549 <sup>r</sup>	12.48 <sup>r</sup>	37	290	7.84
Kansas	47	609 <sup>r</sup>	12.96 <sup>r</sup>	1,140	30,900	27.11
Kentucky	22	28	1.27	49	928	18.94
Louisiana	36 <sup>r</sup>	387 <sup>r</sup>	10.75 <sup>r</sup>	147	908	6.18
Maine	260 <sup>r</sup>	2,520 <sup>r</sup>	9.69 <sup>r</sup>	176	1,380	7.84
Maryland	45 <sup>r</sup>	450 <sup>r</sup>	10.00 <sup>r</sup>	194	999	5.15
Massachusetts	520 <sup>r</sup>	7,550 <sup>r</sup>	14.52 <sup>r</sup>	305	1,960	6.43
Michigan	215 <sup>r</sup>	875 <sup>r</sup>	4.07 <sup>r</sup>	315	1,540	4.89
Minnesota	807 <sup>r</sup>	5,250 <sup>r</sup>	6.51	763	6,990	9.16
Mississippi	--	--	--	81	1,570	19.38
Missouri	111 <sup>r</sup>	610 <sup>r</sup>	5.50 <sup>r</sup>	208	922	4.43
Montana	118 <sup>r</sup>	831 <sup>r</sup>	7.04 <sup>r</sup>	75	338	4.51
Nebraska	1 <sup>r</sup>	10 <sup>r</sup>	10.00 <sup>r</sup>	32	745	23.28
Nevada	62 <sup>r</sup>	251 <sup>r</sup>	4.05 <sup>r</sup>	49	275	5.61
New Hampshire	200 <sup>r</sup>	2,240 <sup>r</sup>	11.20 <sup>r</sup>	256	3,420	13.36
New Jersey	72 <sup>r</sup>	444 <sup>r</sup>	6.17 <sup>r</sup>	154	1,120	7.27
New Mexico	222 <sup>r</sup>	1,960 <sup>r</sup>	8.83 <sup>r</sup>	195	1,410	7.23
New York	200 <sup>r</sup>	1,430 <sup>r</sup>	7.15 <sup>r</sup>	256	1,630	6.37
North Carolina	291 <sup>r</sup>	1,420 <sup>r</sup>	4.88 <sup>r</sup>	318	2,300	7.23
North Dakota	84	855	10.18	28	126	4.50
Ohio	66 <sup>r</sup>	212 <sup>r</sup>	3.21 <sup>r</sup>	68	249	3.66
Oklahoma	--	--	--	103	1,540	14.95
Oregon	330 <sup>r</sup>	3,120 <sup>r</sup>	9.45 <sup>r</sup>	231	1,910	8.27
Pennsylvania	555 <sup>r</sup>	4,820 <sup>r</sup>	8.68 <sup>r</sup>	1,120	10,700	9.55
Rhode Island	115 <sup>r</sup>	2,100 <sup>r</sup>	18.26 <sup>r</sup>	69	920	13.33
South Carolina	124	635	5.12	189	3,970	21.01
South Dakota	51 <sup>r</sup>	160 <sup>r</sup>	3.14 <sup>r</sup>	80	446	5.58
Tennessee	45 <sup>r</sup>	359 <sup>r</sup>	7.98 <sup>r</sup>	54	409	7.57
Texas	204 <sup>r</sup>	4,060 <sup>r</sup>	19.90 <sup>r</sup>	700	7,280	10.40
Utah	158	585	3.70	253	1,570	6.21
Vermont	14 <sup>r</sup>	104 <sup>r</sup>	7.43 <sup>r</sup>	30	242	8.07
Virginia	31 <sup>r</sup>	328 <sup>r</sup>	10.58 <sup>r</sup>	955	11,300	11.83
Washington	154 <sup>r</sup>	776 <sup>r</sup>	5.04 <sup>r</sup>	195	1,080	5.54
West Virginia	--	--	--	--	--	--
Wisconsin	69 <sup>r</sup>	377 <sup>r</sup>	5.46 <sup>r</sup>	747	4,980	6.67
Wyoming	27	279	10.33	29	360	12.41
U.S. total or average	9,760 <sup>r</sup>	81,300 <sup>r</sup>	8.32 <sup>r</sup>	14,500	157,000	10.83

See footnotes at end of table.

TABLE 10—Continued  
 RECYCLED ASPHALT<sup>1</sup> SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE<sup>2</sup>

State	2007			2008 <sup>3</sup>		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Puerto Rico	--	--	--	45	\$169	\$3.75
Grand total or average	9,760	\$81,300	\$8.63	14,500	15,700	10.81

<sup>1</sup>Revised. -- Zero.

<sup>1</sup>Includes recycled asphalt reported by crushed stone producers that was previously published only in: Willett, J.C., 2008, Stone, Crushed, *in* Metals and minerals: U.S. Geological Survey Minerals Yearbook 2007, v. I, p. 71.22.

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

<sup>3</sup>Starting with 2008, includes construction and demolition companies that do not mine virgin aggregates.

TABLE 11  
 RECYCLED CONCRETE<sup>1</sup> SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE<sup>2</sup>

State	2007			2008 <sup>3</sup>		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	54 <sup>r</sup>	\$414 <sup>r</sup>	\$7.67 <sup>r</sup>	45	\$317	\$7.04
Alaska	10 <sup>r</sup>	77 <sup>r</sup>	7.70	37	173	4.68
Arizona	1,150 <sup>r</sup>	4,570 <sup>r</sup>	3.97 <sup>r</sup>	192	1,050	5.47
Arkansas	--	--	--	--	--	--
California	1,270 <sup>r</sup>	11,400 <sup>r</sup>	8.98 <sup>r</sup>	2,160	16,400	7.59
Colorado	237 <sup>r</sup>	1,640 <sup>r</sup>	6.92 <sup>r</sup>	767	5,010	6.53
Connecticut	41 <sup>r</sup>	301 <sup>r</sup>	7.34 <sup>r</sup>	90	310	3.44
Delaware	--	--	--	7	75	10.71
Florida	40 <sup>r</sup>	132 <sup>r</sup>	3.30 <sup>r</sup>	233	3,640	15.62
Georgia	--	--	--	10	57	5.70
Hawaii	22 <sup>r</sup>	198 <sup>r</sup>	9.00 <sup>r</sup>	23	252	10.96
Idaho	83	371	4.47	27	190	7.04
Illinois	981 <sup>r</sup>	8,190 <sup>r</sup>	8.35 <sup>r</sup>	1,410	10,600	7.52
Indiana	104	646	6.21	105	717	6.83
Iowa	73	600	8.22	34	248	7.29
Kansas	13 <sup>r</sup>	174 <sup>r</sup>	13.38 <sup>r</sup>	25	311	12.44
Kentucky	440 <sup>r</sup>	4,370 <sup>r</sup>	9.93 <sup>r</sup>	440	4,370	9.93
Louisiana	5 <sup>r</sup>	76 <sup>r</sup>	15.20 <sup>r</sup>	29	434	14.97
Maine	6 <sup>r</sup>	72 <sup>r</sup>	12.00 <sup>r</sup>	28	163	5.82
Maryland	64 <sup>r</sup>	256 <sup>r</sup>	4.00	254	1,160	4.57
Massachusetts	441 <sup>r</sup>	3,500 <sup>r</sup>	7.94 <sup>r</sup>	300	2,260	7.53
Michigan	562 <sup>r</sup>	3,200 <sup>r</sup>	5.69	520	2,520	4.85
Minnesota	1,260 <sup>r</sup>	7,480 <sup>r</sup>	5.94 <sup>r</sup>	1,290	6,850	5.31
Mississippi	(4)	1	1.10	71	1,540	21.69
Missouri	--	--	--	1	2	2.00
Montana	16 <sup>r</sup>	104 <sup>r</sup>	6.50	81	378	4.67
Nebraska	16	119	7.44	98	877	8.95
Nevada	452 <sup>r</sup>	2,790 <sup>r</sup>	6.17	151	804	5.32
New Hampshire	6	50	8.33	11	93	8.45
New Jersey	273 <sup>r</sup>	1,800 <sup>r</sup>	6.59 <sup>r</sup>	381	2,740	7.19
New Mexico	87 <sup>r</sup>	607 <sup>r</sup>	6.98 <sup>r</sup>	171	1,840	10.76
New York	215 <sup>r</sup>	1,500 <sup>r</sup>	6.98 <sup>r</sup>	388	2,730	7.04
North Carolina	141	1,720	12.20	139	1,810	13.02
North Dakota	53	719	13.57	9	61	6.78
Ohio	125 <sup>r</sup>	986 <sup>r</sup>	7.89 <sup>r</sup>	225	1,590	7.07
Oklahoma	2 <sup>r</sup>	20 <sup>r</sup>	10.00	225	2,940	13.07
Oregon	40 <sup>r</sup>	270 <sup>r</sup>	6.75 <sup>r</sup>	80	747	9.34
Pennsylvania	29 <sup>r</sup>	197 <sup>r</sup>	6.79 <sup>r</sup>	429	2,350	5.48
Rhode Island	170 <sup>r</sup>	2,050 <sup>r</sup>	12.06 <sup>r</sup>	32	301	9.41
South Carolina	10	83	8.30	235	3,400	14.47
South Dakota	30 <sup>r</sup>	163 <sup>r</sup>	5.43 <sup>r</sup>	158	699	4.42
Tennessee	--	--	--	--	--	--
Texas	45 <sup>r</sup>	475 <sup>r</sup>	10.56 <sup>r</sup>	1,660	12,400	7.47
Utah	314	1,400	4.46	300	2,410	8.03
Vermont	6 <sup>r</sup>	32 <sup>r</sup>	5.33	16	81	5.06
Virginia	155 <sup>r</sup>	1,760 <sup>r</sup>	11.35 <sup>r</sup>	588	5,440	9.25
Washington	147 <sup>r</sup>	928 <sup>r</sup>	6.31 <sup>r</sup>	407	2,220	5.45
West Virginia	--	--	--	--	--	--
Wisconsin	1,100 <sup>r</sup>	3,410 <sup>r</sup>	3.10 <sup>r</sup>	645	3,580	5.55
Wyoming	19	140	7.37	236	1,640	6.95
Total or average	10,300 <sup>r</sup>	69,000 <sup>r</sup>	6.70 <sup>r</sup>	14,800	110,000	7.43

See footnotes at end of table.

TABLE 11—Continued  
 RECYCLED CONCRETE<sup>1</sup> SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE<sup>2</sup>

State	2007			2008 <sup>3</sup>		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Puerto Rico	--	--	--	--	--	--
Grand total or average	10,300	\$69,000	\$6.70	14,800	\$110,000	\$7.44

<sup>1</sup>Revised. -- Zero.

<sup>1</sup>Includes recycled concrete reported by crushed stone producers that was previously published only in: Willett, J.C., 2008, Stone, Crushed, *in* Metals and minerals: U.S. Geological Survey Minerals Yearbook 2007, v. I, p. 71.23.

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

<sup>3</sup>Starting with 2008, includes construction and demolition companies that do not mine virgin aggregates.

<sup>4</sup>Less than ½ unit.

TABLE 12  
U.S. EXPORTS OF CONSTRUCTION SAND AND GRAVEL IN 2008, BY COUNTRY<sup>1</sup>

(Thousand metric tons and thousand dollars)

Country or territory	Sand		Gravel	
	Quantity	Value, f.a.s. <sup>2</sup>	Quantity	Value, f.a.s. <sup>2</sup>
<b>North America:</b>				
Bahamas, The	2	533	7	272
Canada	49	4,190	227	2,480
Dominican Republic	(3)	87	(3)	4
Guatemala	(3)	81	(3)	4
Mexico	2	453	1	51
Other <sup>4</sup>	4	1,010	50	1,020
Total	57	6,360	285	3,840
<b>South America:</b>				
Brazil	2	1,190	--	--
Colombia	1	351	--	--
Peru	15	455	(3)	21
Venezuela	1	513	(3)	33
Other <sup>5</sup>	2	1,640	(3)	15
Total	21	4,150	(3)	69
<b>Europe:</b>				
Belgium	1	186	--	--
Denmark	(3)	272	--	--
Finland	(3)	59	--	--
France	(3)	65	--	--
Germany	3	1,250	(3)	3
Sweden	(3)	78	--	--
United Kingdom	1	615	1	58
Other <sup>6</sup>	1	627	1	26
Total	6	3,150	2	87
<b>Asia:</b>				
China	1	422	--	--
Japan	1	388	(3)	21
Korea, Republic of	1	415	--	--
Taiwan	1	429	--	--
Other <sup>7</sup>	(3)	294	2	19
Total	4	1,950	2	40
Oceania, other <sup>8</sup>	1	227	1	37
Middle East, other <sup>9</sup>	8	1,520	5	316
Africa, other <sup>10</sup>	1	634	--	--
Grand total	98	18,000	294	4,380

-- Zero.

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

<sup>2</sup>Free alongside ship. Value of material at U.S. port of export; based on transaction price, including all charges incurred in placing material alongside ship.

<sup>3</sup>Less than ½ unit.

<sup>4</sup>Includes Anguilla, Antigua and Barbuda, Aruba, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Costa Rica, Dominica, El Salvador, Grenada, Haiti, Honduras, Jamaica, the Netherlands Antilles, Nicaragua, Panama, St. Christopher, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, and Turks and Caicos Islands.

<sup>5</sup>Includes Argentina, Bolivia, Chile, Ecuador, Guyana, and Uruguay.

<sup>6</sup>Includes Austria, Greece, Ireland, Italy, Netherlands Antilles, Norway, Poland, Portugal, Romania, Russia, Spain, Turkey, and Ukraine.

<sup>7</sup>Includes Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

<sup>8</sup>Includes Australia and New Zealand.

<sup>9</sup>Includes Israel, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

<sup>10</sup>Includes Algeria, Angola, Gabon, Libya, Nigeria, Sierra Leone, Tunisia, and Zaire.

Source: U.S. Census Bureau.

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

(Thousand metric tons and thousand dollars)

Country or territory	2007		2008	
	Quantity	Value, c.i.f. <sup>2</sup>	Quantity	Value, c.i.f. <sup>2</sup>
Antigua and Barbuda	1	32	--	--
Australia	25	1,650	21	1,560
Bahamas, The	462	6,110	462	5,600
Canada	3,580	60,000	4,500	86,800
China	45	10,300	17	3,750
Germany	9	635	25	253
Japan	(3)	261	4	458
Mexico	263	3,450	318	5,500
New Zealand	12	1,880	11	1,990
Peru	2	412	3	690
Philippines	1	261	1	212
Other <sup>4</sup>	15	2,700 <sup>r</sup>	66	6,740
Total	4,420	87,700	5,430	114,000

<sup>1</sup>Revised. -- Zero.

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

<sup>3</sup>Cost, insurance, and freight. 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.

<sup>4</sup>Less than ½ unit.

<sup>r</sup>Includes Bangladesh (2008), Belgium, Bolivia (2008), Colombia, France, Guyana (2008), Iceland, Indonesia, Netherlands, and Vietnam.

Source: U.S. Census Bureau.