



2010 Minerals Yearbook

SAND AND GRAVEL, CONSTRUCTION [ADVANCE
RELEASE]

SAND AND GRAVEL, CONSTRUCTION

By Wallace P. Bolen

Domestic survey data and tables were prepared by Michelle B. Blackwell and Hodan A. Fatah, statistical assistants.

A total of 795 million metric tons (Mt) of construction sand and gravel was produced in the United States in 2010. This was a decrease of 36 Mt, or 4.4%, from the revised production of 2009. This was the fourth consecutive decrease in annual production and reflected continuing low demand from most building and highway construction markets. The last time there were four consecutive years of decreasing sand and gravel production was during the Great Depression years of 1930 through 1933. The 795 Mt was the lowest production since 1991 when an estimated 708 Mt was produced.

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.

The decrease in sand and gravel consumption in 2010 was a reflection of the decrease in the total construction put in place as reported by the U.S. Census Bureau. Total construction declined by about 10% in 2010 compared with that in 2009. Residential and nonresidential construction declined in 2010, 0.8% and 13.9%, respectively. Only 4 of 16 nonresidential categories of construction increased in 2010: conservation and development (20.9%), sewage and waste disposal (4.6%), transportation (2.6%), and highway and street (1.7%) (Davis and others, 2011).

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 2010, 6,489 construction sand and gravel operations were active (table 6A), 603 operations were reported as idle, and 81 operations either were reported to be closed or were assumed to be permanently shut down. Of the 6,489 active operations, 69 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, 76 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 6,489 operations with 7,763 active sand and gravel pits were owned by 4,036 companies or government agencies operating in all 50 States. A review of the data provided by the U.S. Mine Safety and Health Administration (MSHA) revealed 448 newly opened or previously unaccounted for sand and gravel locations that reported at least 500 employee hours of activity during 2010. Information was gathered from these newly recognized operations and included in this report. In 2010, of the 6,489 active operations surveyed, 3,266, or 50%, responded to the USGS canvass. Their total production represented 54% of the 795 Mt produced in 2010. Estimates for operations that did not report were based on prior year's data and MSHA employee hour reports.

According to the U.S. Census Bureau in 2010, sand and gravel exports decreased by 13% to 381,000 metric tons (t), and the value decreased by 2% to \$22.6 million compared with the 2009 data (tables 1, 12). For the second straight year, imports of construction sand and gravel decreased, falling 10% in 2010 compared with those in 2009, but the value increased by 45% to \$96 million (tables 1, 13). Imports have become a significant source for sand and gravel in some areas of the country, although imports were down 63% since 2005. 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 797 Mt.

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.

Production

Of the four major geographic regions, the West again led the Nation in the production of construction sand and gravel in 2010 with 275 Mt, or 35% of the U.S. total (table 2). The West was followed by the Midwest with 235 Mt, or 30%; the South with 194 Mt, or 24%; and the Northeast with 90 Mt, or 11%. Compared with that of 2009, production was essentially unchanged in the Midwest region but decreased in the other regions in 2010.

Of the nine geographic divisions, the Mountain division led the Nation in the production of construction sand and gravel in 2010 with 154 Mt, or 20% of the U.S. total, and was followed by the East North Central with 128 Mt, or 16%, and the Pacific with 121 Mt, or 15% (table 2). Production decreased in eight of the nine divisions compared with that of 2009. Production increased in the West North Central division, gaining 4.6% in

2010 compared with that of 2009. Some of the gains seen here may be related to the spectacular rise in demand for hydraulic fracturing (frac) sands. Increased production of frac sand could result in an increase in byproduct construction grade material which, in turn, may be replacing other aggregate such as crushed stone in some locales. Frac sand activity, both prospecting and new mining, is especially pronounced in Arkansas, Illinois, Minnesota, Texas, and Wisconsin. The USGS is working to clarify the markets supplied by these new frac sand producers. The USGS, MSHA, and State and local agencies continue to refine the tracking of developments within this booming sector.

In 2010, construction sand and gravel was produced in every State (table 3). The leading States with production greater than 25 million metric tons were, in descending order of tonnage, California, Texas, Arizona, Michigan, Minnesota, New York, Ohio, Colorado, Washington, Wisconsin, and Utah. The combined production of these 11 States represented about 52% of the national total. In 2010, production increased in 18 States but decreased in the other 32 States compared with that of 2009, when only 3 States showed production increases. Production increases of greater than 10% were reported in six States—South Carolina (20%), North Dakota (19%), Arkansas (16%), Kansas (12%), Tennessee (10%), and Ohio (10%). Production decreases of 20% or more were reported in four States—Nevada (23%), Delaware (22%), Utah (21%), and Rhode Island (20%).

A review of the production of construction sand and gravel for consumption by size of operation indicates that about 50% of the total production came from 2,027 operations that reported between 100,000 and 499,999 metric tons per year (t/yr); 21% of the construction sand and gravel produced came from 280 operations that reported between 500,000 and 999,999 t/yr; and 12% came from 69 operations that reported 1 million metric tons per year (Mt/yr) production or more. The largest number of operations (4,113, or 63% of total operations) produced less than 100,000 t/yr (16% of the total production) (table 6A).

In 2010, 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.; MDU Resources Group, Inc.; Holcim Group/Aggregate Industries Management, Inc.; Martin Marietta Aggregates; Lafarge North America, Inc.; Granite Construction, Inc.; and Mitsubishi Materials Corp. The combined production of these 10 companies was about 174 Mt, or about 24% of the national total. This is a significant increase compared with 2009 when the top 10 companies produced approximately 20% of the national total. The top 100 producers of construction sand and gravel in the United States in 2010 are listed in table 14.

Consumption

Production of construction sand and gravel reported to the USGS by producers 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 795 Mt of construction sand and gravel produced in 2010, 60% was used for unspecified uses (tables 4–5). Of the remaining 322 Mt, 43% was used as concrete aggregate; 26% was used for road base and coverings and road stabilization; 12%, for asphaltic concrete aggregate and other bituminous mixtures; 12%, for construction fill; 1% each, for concrete products, plaster and gunite sands, and snow and ice control; and the remaining 4% was used for golf course maintenance; filtration; railroad ballast; road stabilization; roofing granules; 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

The USGS collects 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.

Recycled Asphalt.—In 2010, 11 Mt of asphalt concrete valued at \$119 million was recycled by aggregate, construction, and demolition companies in 48 States and Puerto Rico (table 10). The leading States, all with more than 500,000 tons of recycled asphalt were, in descending order of tonnage recycled, California, Kansas, North Carolina, Michigan, Illinois, and Pennsylvania. Sand and gravel producers who reported the most recycled asphalt were, in descending order, Stuczynski Trucking and Excavating, Inc.; All American Asphalt Co.; The Lane Construction Corp.; Lyon Sand and Gravel Co.; Matich Corp.; and Holliday Rock Co., Inc.

Recycled Concrete.—In 2010, about 13 Mt of cement concrete valued at \$99 million was recycled in 48 States (table 11). The leading States, all with more than 500,000 tons of

recycled concrete were, in descending order of tonnage recycled, California, Wisconsin, Michigan, Illinois, Virginia, Colorado, and Minnesota. Sand and gravel producers who reported the most recycled concrete were, in descending order, James Peterson Sons, Inc.; Vulcan Materials, Inc.; Kalin Construction Co., Inc.; Dan Copp Crushing Corp.; and Knopik Crushing, 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 and the total United States. Reports regarding the method of transportation were provided by the producers for 263 Mt, or 33% of the total U.S. production of construction sand and gravel in 2010. Of this total, 81% was transported by truck; 3%, by waterway; and less than 1%, by rail (table 7). A significant amount of construction sand and gravel produced (about 15%) 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 discussed in this chapter are synonymous with average unit value and are free on board (f.o.b.) plant, usually the first point of sale or captive use. This 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 2010 average price decreased 3% to \$7.31 per metric ton compared with that of 2009. By use, the prices varied from a high of \$11.61 per ton for roofing granules to a low of \$4.47 per ton for fill (table 4). The largest increases in price were recorded for plaster and gunite sands (19.2%), golf course maintenance (2.9%), and filtration (1.2%). The largest decreases were for roofing granules (43%), asphaltic concrete (11.3%), road stabilization, cement (9.1%), and concrete aggregate (7.7%).

The States having the highest unit value per metric ton were, in descending order, Hawaii (\$15.23), Rhode Island (\$11.80), Virginia (\$11.47), California (\$10.83), New Jersey (\$10.50), and Maryland (\$10.18). The States having the lowest unit value per metric ton were, in ascending order, North Dakota (\$3.89), South Dakota (\$4.21), South Carolina (\$4.25), Minnesota (\$4.91), Wyoming (\$5.00), and Wisconsin (\$5.11). The unit value decreased in 30 States and increased 20 States (table 3). The States having the largest increases in unit value were, in descending order, Hawaii (20%), North Dakota (20%), South Dakota (17%), Indiana (16%), and Michigan (12%). The States having the largest decreases in unit value were, in descending order, Delaware (36%), South Carolina (24%), Minnesota (20%), Maryland (18%), and Alabama (14%).

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 25% to 59,000 t compared with that of 2009, and the value decreased by about 13% to \$16.6 million (table 12). Canada, which was the leading destination, received about 29% of the total sand, followed by the British Virgin Islands (12%), China (8%), the Netherlands (7%), and Mexico (5%). Exports of construction gravel decreased by 11% to 322,000 t compared with those of 2009, but the value increased by about 47% to \$6 million. Canada, which was the leading destination, received about 74% of total gravel exports. The average value of the sand and gravel exports in 2010 was \$59 per metric ton; this was up from \$53 per metric ton in 2009. These values may have been relatively high because some higher grade sand and gravel, such as industrial sand and gravel (especially frac sand), was being misclassified as construction sand and gravel.

In 2010, imports of construction sand and gravel decreased by about 10% to 2.67 Mt, but the value increased by about 45% to \$95.9 million (table 13). Canada was the leading source of construction sand and gravel imports, with 82% of the total. Mexico supplied about 8% of the imports, and The Bahamas supplied about 7%. The average unit value of the sand and gravel imports in 2010 was \$35.86 per metric ton, up from \$22.14 per metric ton in 2009.

Outlook

Consumption of construction sand and gravel in 2011 was expected to be about equal to that of 2010. Continuing weak demand from most construction segments and reduced revenues to and funding for governmental agencies and programs were expected to result in little or no growth in sand and gravel consumption in 2011. Data from the 2011 USGS quarterly survey of U.S. aggregates producers indicate a very slight increase in sales of sand and gravel compared with those of the 2010, based on a limited sample of sand and gravel producers surveyed in the United States.

Mostly owing to weakened demand and increased competition, the industry experienced a contraction in construction sand and gravel prices in 2010, but a slight increase in prices was expected for 2011. Improving but still historically low sales in the housing market and higher 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 depleted, more aggregates will be transported from distant sources with the accompanying extra fuel cost.

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TABLE 1
SALIENT U.S. CONSTRUCTION SAND AND GRAVEL STATISTICS¹

(Thousand metric tons and thousand dollars)

| | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|-----------|------------------------|------------------------|------------------------|-----------|
| Sold or used by producers:² | | | | | |
| Quantity | 1,340,000 | 1,250,000 | 1,060,000 | 831,000 ^r | 795,000 |
| Value | 8,650,000 | 8,810,000 ^r | 7,890,000 ^r | 6,240,000 ^r | 5,810,000 |
| Recycle:³ | | | | | |
| Quantity | 15,400 | 20,100 | 29,100 | 28,500 ^r | 24,900 |
| Value | 111,000 | 150,000 | 252,000 | 264,000 ^r | 218,000 |
| Exports: | | | | | |
| Quantity | 515 | 365 | 392 | 439 | 381 |
| Value | 24,100 | 28,700 | 22,400 | 23,100 | 22,600 |
| Imports: | | | | | |
| Quantity | 4,960 | 4,420 | 5,430 | 2,980 | 2,670 |
| Value | 94,100 | 87,700 | 114,000 | 66,100 | 95,900 |

^rRevised.

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

²Puerto Rico is excluded from all sand and gravel statistics.

³Asphalt 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 DIVISION¹

| Region/division | 2009 | | | | 2010 | | | |
|--------------------|---------------------------------------|------------------------|------------------------|------------------------|---------------------------------------|------------------------|----------------------|------------------------|
| | 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 | 37,400 | 4.5 ^r | \$321,000 | 5.2 ^r | 36,100 | 4.5 | \$298,000 | 5.1 |
| Middle Atlantic | 56,100 | 6.8 ^r | 497,000 | 8.0 ^r | 54,100 | 6.8 | 471,000 | 8.1 |
| Midwest: | | | | | | | | |
| East North Central | 131,000 ^r | 15.8 | 758,000 ^r | 12.1 ^r | 128,000 | 16.1 | 798,000 | 13.8 |
| West North Central | 103,000 ^r | 12.4 ^r | 554,000 ^r | 8.9 ^r | 107,000 | 13.5 | 557,000 | 9.6 |
| South: | | | | | | | | |
| South Atlantic | 51,900 ^r | 6.2 ^r | 440,000 ^r | 7.1 | 50,700 | 6.4 | 390,000 | 6.7 |
| East South Central | 34,900 ^r | 4.2 | 246,000 ^r | 3.9 | 34,300 | 4.3 | 230,000 | 4.0 |
| West South Central | 110,000 ^r | 13.2 ^r | 859,000 ^r | 13.8 | 109,000 | 13.8 | 853,000 | 14.7 |
| West: | | | | | | | | |
| Mountain | 177,000 ^r | 21.3 ^r | 1,250,000 ^r | 20.1 | 155,000 | 19.5 | 1,050,000 | 18.1 |
| Pacific | 130,000 | 15.6 ^r | 1,310,000 | 21.1 ^r | 121,000 | 15.2 | 1,160,000 | 19.9 |
| Total | 831,000 ^r | 100 | 6,240,000 ^r | 100 | 795,000 | 100 | 5,810,000 | 100 |

^rRevised.

¹Data 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 STATE¹

| State | 2009 | | | 2010 | | |
|------------------|---------------------------------------|------------------------|--------------------|---------------------------------------|----------------------|---------------|
| | Quantity (thousand metric tons) | Value (thousands) | Unit value | Quantity (thousand metric tons) | Value (thousands) | Unit value |
| Alabama | 10,100 ^r | \$65,800 ^r | \$6.49 | 10,100 | \$56,200 | \$5.56 |
| Alaska | 7,320 | 55,500 | 7.58 | 6,340 | 52,300 | 8.24 |
| Arizona | 40,200 | 357,000 | 8.88 | 35,200 | 291,000 | 8.27 |
| Arkansas | 7,780 ^r | 60,000 ^r | 7.72 ^r | 9,050 | 76,800 | 8.49 |
| California | 79,200 | 912,000 | 11.52 | 74,700 | 809,000 | 10.83 |
| Colorado | 29,300 | 217,000 | 7.42 | 28,900 | 209,000 | 7.22 |
| Connecticut | 5,680 | 60,800 | 10.70 | 5,910 | 55,300 | 9.35 |
| Delaware | 2,080 | 24,500 | 11.80 | 1,620 | 12,300 | 7.59 |
| Florida | 15,500 ^r | 124,000 ^r | 8.02 ^r | 12,500 | 98,900 | 7.93 |
| Georgia | 5,260 | 31,100 | 5.91 | 5,120 | 28,400 | 5.54 |
| Hawaii | 1,130 | 14,300 | 12.70 | 932 | 14,200 | 15.23 |
| Idaho | 12,900 | 74,800 ^r | 5.82 | 13,700 | 78,200 | 5.71 |
| Illinois | 22,500 | 144,000 | 6.40 | 19,400 | 128,000 | 6.57 |
| Indiana | 18,800 | 100,000 | 5.31 | 18,600 | 115,000 | 6.16 |
| Iowa | 13,600 | 87,800 ^r | 6.43 ^r | 13,800 | 84,800 | 6.17 |
| Kansas | 8,580 | 43,300 | 5.04 | 9,610 | 50,300 | 5.23 |
| Kentucky | 6,770 | 36,000 ^r | 5.32 ^r | 5,740 | 30,000 | 5.24 |
| Louisiana | 20,600 | 205,000 | 9.92 | 20,800 | 190,000 | 9.14 |
| Maine | 9,090 | 59,300 | 6.52 | 7,840 | 45,100 | 5.75 |
| Maryland | 7,980 | 99,200 | 12.43 | 8,120 | 82,700 | 10.18 |
| Massachusetts | 9,460 | 85,600 | 9.05 | 9,700 | 91,400 | 9.42 |
| Michigan | 34,600 | 176,000 | 5.10 ^r | 33,600 | 192,000 | 5.70 |
| Minnesota | 31,300 ^r | 191,000 ^r | 6.12 ^r | 32,300 | 158,000 | 4.91 |
| Mississippi | 12,700 | 101,000 | 7.97 | 12,500 | 97,100 | 7.76 |
| Missouri | 11,500 | 71,900 | 6.26 | 11,800 | 73,200 | 6.21 |
| Montana | 11,200 | 86,000 ^r | 7.66 | 10,100 | 81,800 | 8.07 |
| Nebraska | 12,900 | 75,500 | 5.87 | 12,500 | 79,900 | 6.38 |
| Nevada | 19,800 ^r | 124,000 ^r | 6.25 ^r | 15,100 | 87,500 | 5.78 |
| New Hampshire | 6,930 | 55,600 | 8.02 | 6,390 | 54,300 | 8.51 |
| New Jersey | 11,100 | 116,000 | 10.49 | 10,000 | 105,000 | 10.50 |
| New Mexico | 14,100 | 111,000 ^r | 7.86 ^r | 11,600 | 84,400 | 7.30 |
| New York | 31,100 | 266,000 | 8.57 ^r | 30,600 | 248,000 | 8.09 |
| North Carolina | 7,570 | 43,000 | 5.68 | 8,130 | 45,700 | 5.63 |
| North Dakota | 14,300 ^r | 46,500 ^r | 3.25 ^r | 17,000 | 66,100 | 3.89 |
| Ohio | 27,200 | 199,000 ^r | 7.33 ^r | 29,900 | 232,000 | 7.75 |
| Oklahoma | 11,600 | 68,200 | 5.90 | 10,000 | 60,500 | 6.04 |
| Oregon | 12,200 | 102,000 | 8.39 | 11,400 | 93,000 | 8.15 |
| Pennsylvania | 14,000 ^r | 115,000 ^r | 8.23 | 13,400 | 118,000 | 8.81 |
| Rhode Island | 1,820 | 23,300 | 12.79 | 1,450 | 17,100 | 11.80 |
| South Carolina | 5,900 | 32,900 | 5.57 | 7,100 | 30,200 | 4.25 |
| South Dakota | 10,600 ^r | 38,000 ^r | 3.59 | 10,500 | 44,300 | 4.21 |
| Tennessee | 5,360 | 42,800 | 7.98 | 5,900 | 47,000 | 7.97 |
| Texas | 70,000 | 527,000 ^r | 7.53 ^r | 69,500 | 525,000 | 7.55 |
| Utah | 32,400 | 190,000 | 5.86 | 25,700 | 148,000 | 5.77 |
| Vermont | 4,470 | 36,700 | 8.21 | 4,770 | 35,200 | 7.39 |
| Virginia | 7,230 ^r | 82,200 ^r | 11.37 ^r | 7,690 | 88,200 | 11.47 |
| Washington | 29,900 | 230,000 | 7.69 | 27,200 | 188,000 | 6.89 |
| West Virginia | 410 | 3,480 | 8.49 | 448 | 3,740 | 8.35 |
| Wisconsin | 28,300 ^r | 139,000 ^r | 4.92 | 26,000 | 133,000 | 5.11 |
| Wyoming | 17,200 | 92,200 | 5.36 | 14,300 | 71,500 | 5.00 |
| Total or average | 831,000 ^r | 6,240,000 ^r | 7.51 ^r | 795,000 | 5,810,000 | 7.31 |

^rRevised.

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

TABLE 4
CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN THE UNITED STATES IN 2010,
BY MAJOR USE¹

| Use | Quantity (thousand metric tons) | Value (thousands) | Unit value |
|---|---------------------------------------|----------------------|---------------|
| Concrete aggregates (including concrete sand) | 139,000 | \$1,090,000 | \$7.81 |
| Plaster and gunitite sands | 3,900 | 36,700 | 9.42 |
| Concrete products (blocks, bricks, pipe, decorative, etc.) | 3,210 | 30,100 | 9.37 |
| Asphaltic concrete aggregates and other bituminous mixtures | 39,400 | 352,000 | 8.93 |
| Road base and coverings | 83,000 | 499,000 | 6.02 |
| Road stabilization, cement | 1,520 | 11,000 | 7.29 |
| Road stabilization, lime | 785 | 5,690 | 7.25 |
| Fill | 39,100 | 175,000 | 4.47 |
| Snow and ice control | 3,590 | 25,500 | 7.11 |
| Railroad ballast | 614 | 5,110 | 8.32 |
| Roofing granules | 163 | 1,890 | 11.61 |
| Filtration | 1,100 | 9,600 | 8.73 |
| Golf course maintenance sand | 702 | 7,070 | 10.07 |
| Other miscellaneous uses | 5,310 | 55,600 | 10.46 |
| Unspecified: ² | | | |
| Actual | 144,000 | 1,070,000 | 7.44 |
| Estimated | 329,000 | 2,430,000 | 7.39 |
| Total or average | 795,000 | 5,810,000 | 7.31 |

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

²Reported 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 2010, BY GEOGRAPHIC
DIVISION AND MAJOR USE¹

(Thousand metric tons and thousand dollars)

| Region/division | Concrete aggregates (including concrete sand) | | Plaster and gunite sands | | Concrete products (blocks, bricks, pipe decorative, etc.) | | Asphaltic concrete aggregates and other bituminous mixtures | | Road base and coverings ² | |
|--------------------|--|-----------|-----------------------------|--------|---|--------|---|-----------|---|-----------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| Northeast: | | | | | | | | | | |
| New England | 3,570 | 31,200 | 79 | 1,180 | 140 | 958 | 1,400 | 17,800 | 3,810 | 26,500 |
| Middle Atlantic | 7,390 | 68,400 | 190 | 2,040 | 298 | 2,880 | 2,350 | 24,200 | 4,570 | 38,600 |
| Midwest: | | | | | | | | | | |
| East North Central | 24,900 | 149,000 | 493 | 2,200 | 725 | 5,960 | 9,160 | 64,100 | 13,700 | 83,800 |
| West North Central | 14,300 | 86,200 | 349 | 2,160 | 658 | 6,200 | 4,940 | 28,600 | 21,800 | 80,600 |
| South: | | | | | | | | | | |
| South Atlantic | 17,900 | 157,000 | 548 | 3,180 | 623 | 5,850 | 1,270 | 9,580 | 614 | 4,380 |
| East South Central | 8,390 | 51,800 | 49 | 460 | 64 | 636 | 1,470 | 14,100 | 1,300 | 7,210 |
| West South Central | 27,300 | 224,000 | 275 | 3,510 | 113 | 1,480 | 1,380 | 11,900 | 5,750 | 36,500 |
| West: | | | | | | | | | | |
| Mountain | 14,300 | 115,000 | 640 | 5,690 | 349 | 3,180 | 7,520 | 68,000 | 22,600 | 148,000 |
| Pacific | 21,200 | 204,000 | 1,270 | 16,300 | 239 | 2,960 | 9,900 | 113,000 | 11,200 | 90,500 |
| Total | 139,000 | 1,090,000 | 3,890 | 36,700 | 3,210 | 30,100 | 39,400 | 351,000 | 85,300 | 516,000 |
| | Fill | | Snow and ice control | | Railroad ballast | | Other uses ³ | | Total | |
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| Northeast: | | | | | | | | | | |
| New England | 2,180 | 10,800 | 579 | 6,050 | 51 | 503 | 24,300 | 203,000 | 36,100 | 298,000 |
| Middle Atlantic | 2,360 | 12,000 | 1,120 | 7,060 | 17 | 135 | 35,800 | 316,000 | 54,100 | 471,000 |
| Midwest: | | | | | | | | | | |
| East North Central | 8,230 | 35,000 | 929 | 4,330 | 194 | 1,100 | 69,100 | 453,000 | 128,000 | 798,000 |
| West North Central | 3,690 | 13,300 | 314 | 2,050 | 15 | 227 | 61,500 | 338,000 | 107,000 | 557,000 |
| South: | | | | | | | | | | |
| South Atlantic | 6,120 | 19,900 | 65 | 633 | -- | -- | 23,500 | 190,000 | 50,700 | 390,000 |
| East South Central | 935 | 2,590 | 7 | 67 | -- | -- | 22,100 | 154,000 | 34,300 | 230,000 |
| West South Central | 4,350 | 15,300 | 11 | 80 | 35 | 576 | 70,200 | 560,000 | 109,000 | 853,000 |
| West: | | | | | | | | | | |
| Mountain | 5,210 | 21,400 | 506 | 4,910 | 172 | 1,360 | 103,000 | 684,000 | 155,000 | 1,050,000 |
| Pacific | 5,990 | 44,400 | 59 | 325 | 131 | 1,210 | 70,700 | 683,000 | 121,000 | 1,160,000 |
| Total | 39,100 | 175,000 | 3,590 | 25,500 | 615 | 5,110 | 480,000 | 3,580,000 | 795,000 | 5,810,000 |

-- Zero.

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

²Includes road and other stabilization (cement and lime).

³Includes reported and estimated production without a breakdown by end use.

TABLE 6A
CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES
IN 2010, BY SIZE OF OPERATION

| Size range (metric tons) | Number of operations | Percentage of total | Quantity ¹ (thousand metric tons) | Percentage of total |
|-----------------------------|-------------------------|------------------------|--|------------------------|
| Less than 25,000 | 1,920 | 29.5 | 18,700 | 2.4 |
| 25,000 to 49,999 | 1,030 | 15.8 | 34,000 | 4.3 |
| 50,000 to 99,999 | 1,170 | 18.0 | 76,200 | 9.6 |
| 100,000 to 199,999 | 1,120 | 17.2 | 145,000 | 18.2 |
| 200,000 to 299,999 | 498 | 7.7 | 111,000 | 14.0 |
| 300,000 to 399,999 | 257 | 4.0 | 80,800 | 10.2 |
| 400,000 to 499,999 | 156 | 2.4 | 62,800 | 7.9 |
| 500,000 to 599,999 | 111 | 1.7 | 54,900 | 6.9 |
| 600,000 to 699,999 | 72 | 1.1 | 42,200 | 5.3 |
| 700,000 to 799,999 | 46 | 0.7 | 31,300 | 3.9 |
| 800,000 to 899,999 | 28 | 0.4 | 21,800 | 2.7 |
| 900,000 to 999,999 | 23 | 0.4 | 19,600 | 2.5 |
| 1,000,000 to 1,499,999 | 45 | 0.7 | 49,500 | 6.2 |
| 1,500,000 to 1,999,999 | 13 | 0.2 | 20,700 | 2.6 |
| 2,000,000 to 2,499,999 | 5 | 0.1 | 9,690 | 1.2 |
| 2,500,000 and more | 6 | 0.1 | 16,200 | 2.0 |
| Total | 6,490 | 100 | 795,000 | 100 |

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

TABLE 6B
CONSTRUCTION SAND AND GRAVEL PRODUCTION IN THE UNITED STATES IN 2010, BY REGION AND SIZE OF OPERATION

| Size range (metric tons) | Northeast | | | | Midwest | | | |
|-----------------------------|-------------------------|------------------------|--|------------------------|-------------------------|------------------------|--|------------------------|
| | Number of operations | Percentage of total | Quantity ¹ (thousand metric tons) | Percentage of total | Number of operations | Percentage of total | Quantity ¹ (thousand metric tons) | Percentage of total |
| Less than 25,000 | 361 | 35.4 | 3,470 | 3.8 | 653 | 28.6 | 6,440 | 2.7 |
| 25,000 to 49,999 | 180 | 17.6 | 5,890 | 6.5 | 391 | 17.1 | 13,000 | 5.5 |
| 50,000 to 99,999 | 183 | 17.9 | 11,700 | 13.0 | 470 | 20.6 | 30,800 | 13.1 |
| 100,000 to 199,999 | 157 | 15.4 | 20,900 | 23.1 | 411 | 18.0 | 53,000 | 22.5 |
| 200,000 to 299,999 | 66 | 6.5 | 14,900 | 16.6 | 158 | 6.9 | 35,300 | 15.0 |
| 300,000 to 399,999 | 30 | 2.9 | 9,150 | 10.2 | 77 | 3.4 | 24,200 | 10.3 |
| 400,000 to 499,999 | 20 | 2.0 | 8,160 | 9.1 | 42 | 1.8 | 16,800 | 7.2 |
| 500,000 to 599,999 | 11 | 1.1 | 5,410 | 6.0 | 28 | 1.2 | 13,800 | 5.9 |
| 600,000 to 699,999 | 5 | 0.5 | 2,940 | 3.3 | 21 | 0.9 | 12,300 | 5.2 |
| 700,000 to 799,999 | 2 | 0.2 | 1,340 | 1.5 | 11 | 0.5 | 7,460 | 3.2 |
| 800,000 to 899,999 | 1 | 0.1 | 755 | 0.8 | 2 | 0.1 | 1,550 | 0.7 |
| 900,000 to 999,999 | 1 | 0.1 | 826 | 0.9 | 10 | 0.4 | 8,490 | 3.6 |
| 1,000,000 to 1,499,999 | 4 | 0.4 | 4,670 | 5.2 | 8 | 0.4 | 8,500 | 3.6 |
| 1,500,000 to 1,999,999 | -- | -- | -- | -- | 1 | -- | 1,530 | 0.7 |
| 2,000,000 to 2,499,999 | -- | -- | -- | -- | 1 | -- | 1,870 | 0.8 |
| 2,500,000 and more | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 1,020 | 100 | 90,100 | 100 | 2,280 | 100 | 235,000 | 100 |

| Size range (metric tons) | South | | | | West | | | |
|-----------------------------|-------------------------|------------------------|--|------------------------|-------------------------|------------------------|--|------------------------|
| | Number of operations | Percentage of total | Quantity ¹ (thousand metric tons) | Percentage of total | Number of operations | Percentage of total | Quantity ¹ (thousand metric tons) | Percentage of total |
| Less than 25,000 | 237 | 21.8 | 2,390 | 1.2 | 666 | 31.8 | 6,410 | 2.3 |
| 25,000 to 49,999 | 132 | 12.1 | 4,460 | 2.3 | 323 | 15.4 | 10,700 | 3.9 |
| 50,000 to 99,999 | 166 | 15.3 | 10,900 | 5.6 | 351 | 16.7 | 22,800 | 8.3 |
| 100,000 to 199,999 | 204 | 18.8 | 26,700 | 13.7 | 344 | 16.4 | 44,500 | 16.2 |
| 200,000 to 299,999 | 121 | 11.1 | 27,400 | 14.1 | 153 | 7.3 | 33,800 | 12.3 |
| 300,000 to 399,999 | 68 | 6.3 | 21,500 | 11.1 | 82 | 3.9 | 26,000 | 9.4 |
| 400,000 to 499,999 | 48 | 4.4 | 19,300 | 9.9 | 46 | 2.2 | 18,600 | 6.7 |
| 500,000 to 599,999 | 36 | 3.3 | 18,000 | 9.3 | 36 | 1.7 | 17,700 | 6.4 |
| 600,000 to 699,999 | 20 | 1.8 | 11,700 | 6.0 | 26 | 1.2 | 15,300 | 5.5 |
| 700,000 to 799,999 | 15 | 1.4 | 10,200 | 5.2 | 18 | 0.9 | 12,300 | 4.5 |
| 800,000 to 899,999 | 14 | 1.3 | 11,000 | 5.7 | 11 | 0.5 | 8,440 | 3.1 |
| 900,000 to 999,999 | 8 | 0.7 | 6,750 | 3.5 | 4 | 0.2 | 3,500 | 1.3 |
| 1,000,000 to 1,499,999 | 12 | 1.1 | 13,500 | 6.9 | 21 | 1.0 | 22,900 | 8.3 |
| 1,500,000 to 1,999,999 | 5 | 0.5 | 7,840 | 4.0 | 7 | 0.3 | 11,300 | 4.1 |
| 2,000,000 to 2,499,999 | -- | -- | -- | -- | 4 | 0.2 | 7,820 | 2.8 |
| 2,500,000 and more | 1 | 0.1 | 2,790 | 1.4 | 5 | 0.2 | 13,400 | 4.9 |
| Total | 1,090 | 100 | 194,000 | 100 | 2,100 | 100 | 275,000 | 100 |

-- Zero.

¹Data 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 2010, BY GEOGRAPHIC DIVISION AND METHOD OF TRANSPORTATION¹

(Thousand metric tons)

| Region/division | Truck | Rail | Water | Other | Not transported | Not specified | Total |
|--------------------|---------|-------|-------|-------|-----------------|---------------|---------|
| Northeast: | | | | | | | |
| New England | 7,710 | -- | -- | -- | 1,460 | 26,900 | 36,100 |
| Middle Atlantic | 14,900 | 31 | 307 | 48 | 1,450 | 37,300 | 54,100 |
| Midwest: | | | | | | | |
| East North Central | 42,500 | 77 | 2,750 | 674 | 4,300 | 77,300 | 128,000 |
| West North Central | 30,700 | 212 | 705 | 17 | 7,650 | 68,100 | 107,000 |
| South: | | | | | | | |
| South Atlantic | 24,500 | 71 | 150 | 84 | 428 | 25,400 | 50,700 |
| East South Central | 6,120 | 109 | 871 | 47 | 725 | 26,400 | 34,300 |
| West South Central | 22,100 | 530 | -- | 55 | 7,860 | 78,800 | 109,000 |
| West: | | | | | | | |
| Mountain | 31,000 | -- | -- | 441 | 6,990 | 116,000 | 155,000 |
| Pacific | 33,200 | 701 | 2,830 | 956 | 7,970 | 75,000 | 121,000 |
| Total | 213,000 | 1,730 | 7,610 | 2,320 | 38,800 | 531,000 | 795,000 |

-- Zero.

¹Data 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 2010, 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 | 229 | 205 | 40 | 16 | -- | 490 |
| Middle Atlantic | 252 | 182 | 43 | 32 | 22 | 531 |
| Midwest: | | | | | | |
| East North Central | 481 | 406 | 75 | 63 | 87 | 1,112 |
| West North Central | 427 | 466 | 34 | 74 | 171 | 1,172 |
| South: | | | | | | |
| South Atlantic | 147 | 76 | 13 | 53 | 71 | 360 |
| East South Central | 113 | 41 | 4 | 11 | 49 | 218 |
| West South Central | 250 | 120 | 14 | 37 | 88 | 509 |
| West: | | | | | | |
| Mountain | 557 | 630 | 65 | 94 | 9 | 1,355 |
| Pacific ¹ | 391 | 238 | 55 | 38 | 20 | 742 |
| Total | 2,847 | 2,364 | 343 | 418 | 517 | 6,489 |

-- Zero.

¹An 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 2010, BY STATE

| State | Mining operations on land | | | | Dredging operations | Total active operations |
|---------------------|---------------------------|----------|-------------------------|--------------------------|---------------------|-------------------------|
| | Stationary | Portable | Stationary and portable | No plants or unspecified | | |
| Alabama | 37 | 12 | -- | 5 | 15 | 69 |
| Alaska ¹ | 39 | 19 | 4 | 6 | 3 | 71 |
| Arizona | 88 | 106 | 12 | 4 | -- | 210 |
| Arkansas | 36 | 17 | 3 | -- | 3 | 59 |
| California | 220 | 81 | 21 | 6 | 10 | 338 |
| Colorado | 96 | 126 | 11 | 24 | 5 | 262 |
| Connecticut | 33 | 21 | 9 | -- | -- | 63 |
| Delaware | 4 | -- | -- | 4 | 4 | 12 |
| Florida | 28 | 10 | 1 | 7 | 15 | 61 |
| Georgia | 21 | 4 | 3 | -- | 17 | 45 |
| Hawaii | 13 | 6 | 2 | -- | -- | 21 |
| Idaho | 52 | 82 | 4 | 21 | 2 | 161 |
| Illinois | 61 | 18 | 6 | 4 | 27 | 116 |
| Indiana | 67 | 41 | 13 | 1 | 12 | 134 |
| Iowa | 46 | 70 | 6 | 7 | 25 | 154 |
| Kansas | 24 | 47 | 3 | 11 | 34 | 119 |
| Kentucky | 9 | 3 | 2 | 1 | 9 | 24 |
| Louisiana | 40 | 14 | -- | 14 | 40 | 108 |
| Maine | 72 | 73 | 10 | 8 | -- | 163 |
| Maryland | 21 | 5 | 1 | 8 | 3 | 38 |
| Massachusetts | 58 | 23 | 3 | 1 | -- | 85 |
| Michigan | 126 | 145 | 31 | 26 | 14 | 342 |
| Minnesota | 166 | 168 | 15 | 23 | 5 | 377 |
| Mississippi | 46 | 18 | -- | 5 | 15 | 84 |
| Missouri | 35 | 9 | 2 | -- | 27 | 73 |
| Montana | 87 | 71 | 7 | 10 | -- | 175 |
| Nebraska | 45 | 22 | 2 | 7 | 80 | 156 |
| Nevada | 57 | 33 | 9 | 8 | -- | 107 |
| New Hampshire | 31 | 41 | 8 | 1 | -- | 81 |
| New Jersey | 33 | 7 | 4 | 3 | 9 | 56 |
| New Mexico | 52 | 50 | 8 | 9 | -- | 119 |
| New York | 161 | 148 | 28 | 22 | 6 | 365 |
| North Carolina | 38 | 21 | 5 | 19 | 14 | 97 |
| North Dakota | 67 | 66 | 3 | 4 | -- | 140 |
| Ohio | 100 | 52 | 12 | 6 | 32 | 202 |
| Oklahoma | 24 | 17 | -- | 5 | 29 | 75 |
| Oregon | 39 | 45 | 7 | 13 | 1 | 105 |
| Pennsylvania | 58 | 27 | 11 | 7 | 7 | 110 |
| Rhode Island | 7 | 3 | 4 | 1 | -- | 15 |
| South Carolina | 12 | 19 | -- | 2 | 12 | 45 |
| South Dakota | 44 | 84 | 3 | 22 | -- | 153 |
| Tennessee | 21 | 8 | 2 | -- | 10 | 41 |
| Texas | 150 | 72 | 11 | 18 | 16 | 267 |
| Utah | 66 | 82 | 13 | 7 | -- | 168 |
| Vermont | 28 | 44 | 6 | 5 | -- | 83 |
| Virginia | 20 | 15 | 3 | 13 | 6 | 57 |
| Washington | 80 | 87 | 21 | 13 | 6 | 207 |
| West Virginia | 3 | 2 | -- | -- | -- | 5 |
| Wisconsin | 127 | 150 | 13 | 26 | 2 | 318 |
| Wyoming | 59 | 80 | 1 | 11 | 2 | 153 |
| Total | 2,847 | 2,364 | 343 | 418 | 517 | 6,489 |

-- Zero.

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

TABLE 10
 RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE^{1,2}

| State | 2009 | | | 2010 | | |
|----------------|---------------------------------------|----------------------|----------------------|---------------------------------------|----------------------|---------------|
| | Quantity (thousand metric tons) | Value (thousands) | Unit value | Quantity (thousand metric tons) | Value (thousands) | Unit value |
| Alabama | 127 ^r | \$2,520 | \$19.81 ^r | 133 | \$2,670 | \$20.09 |
| Alaska | 58 ^r | 1,200 | 20.77 ^r | 31 | 650 | 20.85 |
| Arizona | 228 ^r | 1,370 | 5.99 ^r | 139 | 1,200 | 8.62 |
| Arkansas | 86 ^r | 908 | 10.61 ^r | 18 | 100 | 5.51 |
| California | 1,700 | 11,600 | 6.82 | 1,480 | 11,400 | 7.73 |
| Colorado | 362 | 4,050 | 11.17 ^r | 377 | 1,590 | 4.21 |
| Connecticut | 125 ^r | 517 | 4.14 ^r | 141 | 601 | 4.26 |
| Delaware | 2 | 35 | 15.44 ^r | (3) | 5 | 14.36 |
| Florida | 904 ^r | 12,300 | 13.65 ^r | 77 | 1,310 | 17.11 |
| Georgia | 197 ^r | 4,280 | 21.74 ^r | 112 | 1,970 | 17.55 |
| Hawaii | 73 | 1,030 | 14.24 ^r | -- | -- | -- |
| Idaho | 95 ^r | 587 | 6.16 ^r | 185 | 1,190 | 6.42 |
| Illinois | 1,470 ^r | 12,500 | 8.56 ^r | 828 | 6,360 | 7.67 |
| Indiana | 225 | 1,870 | 8.29 ^r | 138 | 2,850 | 20.64 |
| Iowa | 27 ^r | 210 ^r | 7.70 ^r | 62 | 227 | 3.64 |
| Kansas | 1,290 | 33,200 | 25.73 ^r | 1,290 | 32,600 | 25.34 |
| Kentucky | 49 | 928 | 19.00 ^r | 65 | 457 | 7.00 |
| Louisiana | 135 ^r | 757 | 5.59 ^r | 121 | 565 | 4.67 |
| Maine | 139 | 1,130 | 8.13 ^r | 61 | 597 | 9.86 |
| Maryland | 146 ^r | 703 ^r | 4.80 ^r | 120 | 625 | 5.21 |
| Massachusetts | 288 ^r | 2,410 | 8.38 ^r | 171 | 1,350 | 7.90 |
| Michigan | 533 ^r | 3,010 | 5.66 ^r | 883 | 3,560 | 4.03 |
| Minnesota | 531 ^r | 5,460 ^r | 10.28 ^r | 445 | 3,550 | 7.97 |
| Mississippi | 137 ^r | 1,780 | 13.04 ^r | 81 | 1,570 | 19.44 |
| Missouri | 164 | 693 | 4.22 ^r | 31 | 120 | 3.88 |
| Montana | 9 ^r | 89 | 10.33 ^r | 50 | 609 | 12.22 |
| Nebraska | 84 ^r | 1,090 | 12.91 ^r | 36 | 535 | 14.87 |
| Nevada | 276 ^r | 1,500 | 5.45 ^r | 114 | 638 | 5.61 |
| New Hampshire | 297 ^r | 3,480 | 11.68 ^r | 301 | 3,840 | 12.77 |
| New Jersey | 156 ^r | 1,350 | 8.66 ^r | 63 | 376 | 5.95 |
| New Mexico | 47 ^r | 262 ^r | 5.57 ^r | 150 | 749 | 5.00 |
| New York | 382 ^r | 2,840 | 7.45 ^r | 299 | 2,160 | 7.22 |
| North Carolina | 875 ^r | 7,850 | 8.96 ^r | 931 | 9,610 | 10.33 |
| North Dakota | 42 ^r | 450 | 10.74 ^r | 23 | 294 | 12.59 |
| Ohio | 179 | 1,090 | 6.10 | 123 | 717 | 5.83 |
| Oklahoma | 118 | 1,570 | 13.28 ^r | 69 | 657 | 9.52 |
| Oregon | 217 ^r | 1,580 | 7.25 ^r | 87 | 832 | 9.56 |
| Pennsylvania | 1,020 | 10,100 | 9.96 ^r | 572 | 5,110 | 8.92 |
| Rhode Island | 67 ^r | 642 ^r | 9.59 ^r | 20 | 114 | 5.62 |
| South Carolina | 205 ^r | 4,420 | 21.54 ^r | 269 | 3,500 | 12.99 |
| South Dakota | 122 ^r | 752 ^r | 6.18 ^r | 112 | 1,260 | 11.26 |
| Tennessee | 198 ^r | 1,450 | 7.34 ^r | 108 | 747 | 6.91 |
| Texas | 616 | 4,650 | 7.54 | 259 | 2,000 | 7.74 |
| Utah | 235 ^r | 1,560 | 6.64 ^r | 37 | 248 | 6.71 |
| Vermont | 29 ^r | 426 ^r | 14.58 ^r | 55 | 1,030 | 18.67 |
| Virginia | 233 | 2,980 | 12.78 ^r | 275 | 2,750 | 10.01 |
| Washington | 170 ^r | 948 ^r | 5.59 ^r | 114 | 767 | 6.74 |
| West Virginia | -- | -- | -- | -- | -- | -- |
| Wisconsin | 625 ^r | 4,290 | 6.86 ^r | 352 | 3,350 | 9.53 |
| Wyoming | 15 ^r | 205 | 13.94 ^r | 5 | 33 | 6.72 |

See footnoets at end of table.

TABLE 10—Continued
 RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE^{1,2}

| State | 2009 | | | 2010 | | |
|------------------------|---------------------------------------|----------------------|--------------------|---------------------------------------|----------------------|---------------|
| | Quantity (thousand metric tons) | Value (thousands) | Unit value | Quantity (thousand metric tons) | Value (thousands) | Unit value |
| U.S. total or average | 15,300 ^r | 161,000 ^r | 10.50 ^r | 11,400 | 119,000 | 10.44 |
| Territory | | | | | | |
| Puerto Rico | 45 | 186 ^r | 4.13 ^r | 45.00 | 186.004 | 4.13 |
| Grand total or average | 15,400 ^r | 161,000 ^r | 10.48 ^r | 11,400 | 119,000 | 10.41 |

^rRevised. -- Zero.

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

²Includes construction and demolition companies that do not mine virgin aggregates.

³Less than ½ unit.

TABLE 11
 RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE^{1,2}

| State | 2009 | | | 2010 | | |
|----------------|---------------------------------------|----------------------|---------------------|---------------------------------------|----------------------|---------------|
| | Quantity (thousand metric tons) | Value (thousands) | Unit value | Quantity (thousand metric tons) | Value (thousands) | Unit value |
| Alabama | 51 | \$377 | \$7.34 ^r | (3) | \$1 | \$8.17 |
| Alaska | 26 ^r | 124 | 4.76 ^r | 61 | 300 | 4.96 |
| Arizona | 69 ^r | 485 | 7.00 ^r | 25 | 269 | 10.71 |
| Arkansas | 43 ^r | 193 | 4.53 ^r | 27 | 60 | 2.20 |
| California | 1,780 ^r | 14,200 ^r | 7.94 ^r | 2,860 | 20,900 | 7.31 |
| Colorado | 721 ^r | 5,010 ^r | 6.94 ^r | 582 | 3,710 | 6.38 |
| Connecticut | 41 | 328 | 8.01 ^r | 91 | 647 | 7.07 |
| Delaware | 7 | 75 | 11.02 ^r | 108 | 598 | 5.51 |
| Florida | 424 | 4,830 | 11.40 | 304 | 3,400 | 11.19 |
| Georgia | 83 | 274 | 3.29 ^r | 99 | 2,020 | 20.34 |
| Hawaii | 22 | 215 | 9.64 ^r | 6 | 70 | 12.23 |
| Idaho | 32 | 192 | 6.05 ^r | 181 | 1,090 | 6.00 |
| Illinois | 1,180 | 8,820 | 7.50 ^r | 836 | 5,720 | 6.85 |
| Indiana | 139 | 753 ^r | 5.43 ^r | 114 | 863 | 7.54 |
| Iowa | 28 | 239 ^r | 8.39 ^r | 240 | 1,170 | 4.88 |
| Kansas | 298 ^r | 2,230 | 7.49 ^r | 275 | 1,870 | 6.80 |
| Kentucky | 441 | 4,370 | 9.92 | -- | -- | -- |
| Louisiana | 7 | 71 | 10.21 ^r | 39 | 691 | 17.75 |
| Maine | 39 | 294 | 7.53 ^r | 26 | 198 | 7.68 |
| Maryland | 389 | 2,030 | 5.21 | 294 | 1,330 | 4.53 |
| Massachusetts | 192 | 1,610 | 8.39 | 142 | 1,340 | 9.42 |
| Michigan | 1,010 | 7,180 | 7.13 | 1,210 | 8,030 | 6.66 |
| Minnesota | 782 ^r | 4,890 ^r | 6.25 ^r | 571 | 4,250 | 7.44 |
| Mississippi | 71 | 1,550 | 21.85 ^r | 133 | 1,990 | 14.96 |
| Missouri | 1 | 2 | 4.37 ^r | 37 | 322 | 8.76 |
| Montana | 20 | 156 ^r | 7.97 ^r | 34 | 282 | 8.34 |
| Nebraska | 122 | 1,120 | 9.19 | 128 | 1,070 | 8.38 |
| Nevada | 94 ^r | 561 ^r | 5.98 ^r | 42 | 255 | 6.02 |
| New Hampshire | 12 | 109 | 8.87 ^r | 8 | 77 | 9.07 |
| New Jersey | 583 | 4,730 | 8.11 | 195 | 1,360 | 6.97 |
| New Mexico | 1 | 2 | 1.10 ^r | 5 | 38 | 7.71 |
| New York | 338 | 2,620 | 7.74 ^r | 250 | 2,070 | 8.28 |
| North Carolina | 144 ^r | 1,850 | 12.86 ^r | 222 | 2,490 | 11.22 |
| North Dakota | 17 | 188 ^r | 11.23 ^r | 6 | 63 | 11.43 |
| Ohio | 337 | 2,230 | 6.60 ^r | 349 | 2,380 | 6.81 |
| Oklahoma | 224 | 2,940 | 13.14 ^r | 87 | 1,050 | 11.99 |
| Oregon | 101 | 882 | 8.76 ^r | 70 | 733 | 10.44 |
| Pennsylvania | 420 | 2,450 | 5.83 ^r | 352 | 1,740 | 4.94 |
| Rhode Island | 127 | 948 ^r | 7.48 ^r | 84 | 583 | 6.91 |
| South Carolina | 216 | 3,630 | 16.79 ^r | 219 | 3,310 | 15.07 |
| South Dakota | 110 ^r | 535 ^r | 4.89 ^r | 92 | 537 | 5.85 |
| Tennessee | 25 | 149 | 6.02 ^r | 22 | 95 | 4.41 |
| Texas | 859 | 6,750 | 7.86 | 34 | 273 | 7.96 |
| Utah | 224 ^r | 1,890 | 8.45 ^r | 280 | 2,340 | 8.37 |
| Vermont | 22 | 102 | 4.59 ^r | 4 | 20 | 5.38 |
| Virginia | 631 | 5,680 | 9.01 | 674 | 6,010 | 8.91 |
| Washington | 216 | 1,360 ^r | 6.31 ^r | 307 | 1,740 | 5.67 |
| West Virginia | -- | -- | -- | -- | -- | -- |
| Wisconsin | 369 | 1,940 | 5.24 | 1,710 | 9,160 | 5.36 |
| Wyoming | 58 ^r | 339 | 5.86 ^r | 14 | 77 | 5.53 |

See footnotes at end of table.

TABLE 11—Continued
 RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE^{1,2}

| State | 2009 | | | 2010 | | |
|------------------------|---------------------------------------|----------------------|-------------------|---------------------------------------|----------------------|---------------|
| | Quantity (thousand metric tons) | Value (thousands) | Unit value | Quantity (thousand metric tons) | Value (thousands) | Unit value |
| U.S. total or average | 13,100 ^r | 103,000 ^r | 7.87 ^r | 13,400 | 98,600 | 7.33 |
| Territory | | | | | | |
| Puerto Rico | -- | -- | -- | -- | -- | -- |
| Grand total or average | 13,100 ^r | 103,000 ^r | 7.87 ^r | 13,400 | 98,600 | 7.33 |

^rRevised. -- Zero.

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

²Includes construction and demolition companies that do not mine virgin aggregates.

³Less than ½ unit.

TABLE 12
 U.S. EXPORTS OF CONSTRUCTION SAND AND GRAVEL IN 2010, BY COUNTRY¹

(Thousand metric tons and thousand dollars)

| Country or territory | Sand | | Gravel | |
|-----------------------|----------|-------------------------------|----------|-------------------------------|
| | Quantity | Value, f.a.s. ² | Quantity | Value, f.a.s. ² |
| North America: | | | | |
| Bahamas, The | 2 | 450 | 8 | 88 |
| British Virgin Island | 7 | 78 | 4 | 57 |
| Canada | 17 | 2,020 | 239 | 3,570 |
| Mexico | 3 | 449 | 35 | 915 |
| Other | 3 | 823 | 1 | 129 |
| Total | 32 | 3,820 | 287 | 4,760 |
| South America: | | | | |
| Argentina | 2 | 575 | -- | -- |
| Brazil | 2 | 1,650 | (3) | 17 |
| Peru | 2 | 342 | -- | -- |
| Other | 3 | 1,120 | 1 | 4 |
| Total | 9 | 3,690 | 1 | 21 |
| Europe: | | | | |
| Denmark | 2 | 1,030 | -- | -- |
| Germany | 1 | 541 | 21 | 764 |
| Netherlands | 4 | 2,260 | -- | -- |
| United Kingdom | 1 | 565 | 4 | 92 |
| Other | 2 | 569 | 2 | 93 |
| Total | 10 | 4,960 | 27 | 951 |
| Asia: | | | | |
| China | 5 | 1,450 | (3) | 22 |
| Korea Republic of | 2 | 342 | (3) | 8 |
| Other | 2 | 1,880 | 6 | 213 |
| Total | 9 | 3,680 | 6 | 243 |
| Oceania | (3) | 13 | 1 | 33 |
| Middle East | 1 | 289 | -- | -- |
| Africa | (3) | 126 | (3) | 4 |
| Grand total | 59 | 16,600 | 322 | 6,010 |

-- Zero.

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

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

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 13
U.S. IMPORTS FOR CONSUMPTION OF CONSTRUCTION SAND
AND GRAVEL, BY COUNTRY¹

(Thousand metric tons and thousand dollars)

| Country or territory | 2009 | | 2010 | |
|----------------------|----------|-------------------------------|----------|-------------------------------|
| | Quantity | Value, c.i.f. ² | Quantity | Value, c.i.f. ² |
| Antigua and Barbuda | 4 | 94 | 1 | 16 |
| Australia | 2 | 604 | 7 | 819 |
| Bahamas, The | 81 | 1,490 | 181 | 2,620 |
| Canada | 2,540 | 47,500 | 2,190 | 42,100 |
| China | 19 | 2,580 | 10 | 2,810 |
| Germany | (3) | 327 | 1 | 576 |
| Japan | (3) | 154 | -- | -- |
| Mexico | 228 | 5,680 | 226 | 37,000 |
| New Zealand | 4 | 755 | 5 | 1,490 |
| Peru | 3 | 683 | 4 | 820 |
| Philippines | (3) | 70 | -- | -- |
| Other | 95 | 6,120 | 48 | 7,580 |
| Total | 2,980 | 66,100 | 2,670 | 95,900 |

-- Zero.

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

²Cost, 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.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14

THE TOP 100 PRODUCERS OF CONSTRUCTION SAND & GRAVEL IN THE UNITED STATES IN 2010¹

| 2010 Rank | 2009 Rank | Company | 2010 Rank | 2009 Rank | Company |
|-----------|-----------|---|-----------|-----------|-------------------------------------|
| 1 | 1 | Oldcastle Materials, Inc. | 51 | 46 | Thelen Sand & Gravel, Inc. |
| 2 | 2 | CEMEX S.A.B. de C.V. | 52 | 51 | Sundre Sand & Gravel, Inc. |
| 3 | 3 | Vulcan Materials Co. | 53 | 31 | Eucon Corp. |
| 4 | 4 | Lehigh Hanson, Inc. | 54 | 82 | Ennstone Inc. |
| 5 | 5 | MDU Resources Group, Inc. | 55 | 72 | Watson Gravel, Inc. |
| 6 | 8 | Bureau of Land Management | 56 | — | Lopke F S Contracting Inc. |
| 7 | 6 | Holcim Group/Aggregate Industries Mgmt., Inc. | 57 | 71 | Wood Resources Corp. |
| 8 | 10 | Martin Marietta Aggregates | 58 | 57 | Blain Sand & Gravel, Inc. |
| 9 | 9 | Lafarge North America, Inc. | 59 | 84 | Heritage Group |
| 10 | 12 | Granite Construction, Inc. | 60 | 67 | Boral USA |
| 11 | 7 | Mitsubishi Materials Corp. | 61 | 58 | Chandler Aggregates, Inc. |
| 12 | 15 | Trinity Industries, Inc. | 62 | — | Simpson Construction Materials, LLC |
| 13 | 14 | Cal Portland Co. | 63 | 47 | Dolese Bros. Co. |
| 14 | 11 | Fisher Industries | 64 | 81 | Memphis Stone & Gravel Co. |
| 15 | 13 | Clyde Cos., Inc. | 65 | 74 | Wright Materials, Inc. |
| 16 | 17 | Colas, Inc. | 66 | — | Varra Companies Inc. |
| 17 | 16 | A. Teichert & Son, Inc. | 67 | 95 | A. Lindberg & Sons, Inc. |
| 18 | 22 | Texas Industries, Inc. | 68 | — | Croell Redi-Mix Inc. |
| 19 | 34 | Edw. C. Levy Co. | 69 | 73 | Grand Rapids Gravel Co. |
| 20 | 20 | Nugent Sand Co. | 70 | 39 | Quikrete Companies, Inc. |
| 21 | 21 | Gila River Indian Community | 71 | — | Welch S&G Inc. |
| 22 | 19 | Fordyce Ltd. | 72 | 54 | Snyder Associated Cos., Inc. |
| 23 | 24 | Lyman-Richey Sand & Gravel Co. | 73 | 100 | Strata Corp. |
| 24 | 18 | Las Vegas Paving Corp. | 74 | 43 | Jobe Materials, LP |
| 25 | 29 | R.E. Janes Gravel Co. | 75 | 40 | Capital Sand Co., Inc. |
| 26 | 23 | York Building Products Co. | 76 | 68 | Southwest Rock Products, LLC |
| 27 | 25 | Mathy Construction Co. | 77 | 76 | Hilltop Basic Resources, Inc. |
| 28 | 38 | L.G. Everist, Inc. | 78 | — | Miller Springs Materials |
| 29 | 27 | Ash Grove Cement Co. | 79 | — | Cranesville Aggregates |
| 30 | 32 | All American Asphalt Co. | 80 | — | O.L. Thompson Construction |
| 31 | 37 | Lattimore Properties, Inc. | 81 | — | Hammett Gravel Co. |
| 32 | 48 | Multisources Ltd. | 82 | — | Mark S&G Co. |
| 33 | 70 | Fred Weber, Inc. | 83 | 56 | Standard Gravel Co., Inc. |
| 34 | 44 | Dan Gernatt Gravel Products, Inc. | 84 | 90 | Roanoke Sand & Gravel Corp. |
| 35 | 30 | McMurry Ready Mix Co. | 85 | — | Cretex Companies, Inc. |
| 36 | — | Summit Materials LLC | 86 | 52 | Amboy Aggregates |
| 37 | 28 | Southern Aggregates LLC | 87 | 61 | South way Construction Co., Inc. |
| 38 | 50 | Irving Materials, Inc. | 88 | — | Chaney Enterprises Ltd. |
| 39 | 60 | U.S. Concrete, Inc. | 89 | — | Aggregate Construction Inc. |
| 40 | 55 | Holliday Rock Products Corp. | 90 | — | Bayou Sand & Gravel LLC |
| 41 | 35 | Central Specialties, Inc. | 91 | — | Wissota Sand & Gravel Co. |
| 42 | 62 | F S T Sand & Gravel, Inc. | 92 | 88 | Continental Materials Corp. |
| 43 | 26 | Mulzer Crushed Stone, Inc. | 93 | 65 | Aggregate Resources, Inc. |
| 44 | 41 | Miles Sand & Gravel Co. | 94 | — | A & S Construction Co. |
| 45 | 91 | Scepaniak WM Construction | 95 | — | Upper Valley Materials Ltd. |
| 46 | 69 | The Olen Corp. | 96 | — | Baldwin Sand & Gravel Co. |
| 47 | 64 | Salt River Pima-Maricopa Indian Community | 97 | 66 | Pacific Aggregates, Inc. |
| 48 | 36 | E.R. Jahna Industries, Inc. | 98 | 63 | Rieth-Riley Construction Co., Inc. |
| 49 | 45 | New Enterprise Stone & Lime Co., Inc. | 99 | 96 | St. Charles Sand Co. |
| 50 | 86 | Clemente Materials, Inc. | 100 | — | Higman Sand & Gravel, Inc. |

— Not in the top 100 producers of crushed stone in the United States in 2009.

¹In descending order of tonnage produced.