

2005 Minerals Yearbook

STONE, CRUSHED

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A total 1.69 billion metric tons (Gt) of crushed stone was produced for consumption in the United States in 2005, a 59-million-metric-ton (Mt), or 3.6%, increase compared with the total production of 2004. This tonnage represents the highest production level ever recorded in the United States. The value of the total crushed stone produced in the United States in 2005 was \$12.1 billion, a 22.4% increase compared with the revised 2004 total (table 1).

About 70.1% of crushed stone production continued to be limestone and dolomite followed by, in descending order of tonnage, granite, traprock, sandstone and quartzite, miscellaneous stone, marble, calcareous marl, shell, slate, and volcanic cinder and scoria (table 2).

Foreign trade of crushed stone remained small. Exports decreased in 2005 to 1.26 Mt, or by 1.6%, compared with the total of 1.28 Mt in 2004, and the value decreased to \$50.5 million, or by 7.4%, compared with the total of \$54.5 million in 2004 (table 26).

Imports of crushed stone, including calcium carbonate fines, increased by 12.6% to 21 Mt, and the value increased by 8.7% to \$194 million compared with the 2004 totals (table 27). Apparent domestic consumption of crushed stone, which is defined as production for consumption (sold or used) plus imports minus exports, increased to 1.71 Gt, or by 3.7%, compared with the total of 1.64 Gt in 2004 (tables 1, 26-27).

Stone is one of the most accessible natural resources of the Earth and one of the fundamental building blocks of our society. It has been used from the earliest times of our civilization for a variety of uses that have increased in number and complexity with time and technological progress. Today, in its crushed form, stone is a major basic raw material for the construction industry, as well as agriculture, and other industries that use complex chemical and metallurgical processes. Despite the relatively low, but increasing, unit value of its basic products, the crushed stone industry is a major contributor to and an indicator of the economic well-being of the Nation. Construction aggregates are defined as the combination of crushed stone and construction sand and gravel. The construction sand and gravel industry is reviewed in a separate chapter, and both mineral commodities should be included in any review of the national, State, or local aggregates industry.

Production

Domestic production data for crushed stone were derived by the U.S. Geological Survey (USGS) from voluntary surveys of U.S. producers. In 2005, a total of 1,163 companies produced or sold crushed stone from 3,114 operations with 3,171 quarries and 184 sales/distribution sites. Of the 3,114 active operations, 2,303 operations reported their production or sales to the USGS,

and their total production was 1.38 Gt, or 82.0% of the U.S. total. Of the 2,303 reporting operations, 833 operations with 753 quarries and 83 sales yards owned by 91 companies did not report a breakdown by end use. Their total production was 540 Mt, or 32.1% of the U.S. total, and is included in table 13 under "Unspecified, reported" uses.

Production of the nonresponding quarries was estimated using employment data provided by the Mine Safety and Health Administration. The estimated output of 811 nonrespondent operations with 859 quarries and 7 sales yards owned by 556 companies was 304 Mt, or 18.0% of the U.S. total, and is included in table 13 under "Unspecified, estimated" uses.

A total of 184 sales yards in 31 States was active in 2005, a decrease from 187 sales yards in 31 States in 2004. The total output sold through the sales/distribution yards was 73.6 Mt. Information regarding the number of active operations, active quarries, type of processing plants, and number of sales yards by State is provided in table 25.

Crushed stone was produced in every State except Delaware. Starting with 2005, Delaware's production is included in the U.S. total because of sales yards that operated in the State. The 10 leading producing States were, in descending order of tonnage, Texas, Florida, Pennsylvania, Missouri, Virginia, Georgia, Illinois, Ohio, North Carolina, and Tennessee. Their combined production increased by 4.8% and was about 909 Mt, or 53.9% of the national total.

There are 84 underground mines included in the total number of active operations, and they produced 77.2 Mt of crushed stone in 2005. Active underground mines were located in 18 States. The five leading States were, in descending order of tonnage, Missouri, Kentucky, Illinois, Iowa, and Pennsylvania. Their combined production was 62.4 Mt, or 80.8% of the total U.S. crushed stone produced underground.

A total of 743 operations was either idle or presumed to have been idle in 2005 because no production report was received and no employment information was available to estimate their production. Since the 2004 survey, 220 operations have been closed. Most of the idle or closed operations were small, temporary quarries, some of which were operated by State or local governments. Operations in U.S. territories are not included in the above count.

Of the total 1.69 Gt of crushed stone produced for consumption in the United States in 2005, 1.2 Gt, or 70.1%, was limestone and dolomite; 263 Mt, or 15.6%, was granite; and 130 Mt, or 7.7%, was traprock. The remaining 112 Mt, or 6.7%, was shared, in descending order of tonnage, by sandstone and quartzite (3.3%), miscellaneous stone (1.8%), marble (0.5%), calcareous marl (0.3%), shell (0.3%), slate (0.2%), and volcanic cinder and scoria (0.2%) (table 2).

A comparison of the four geographic regions of the United States indicates that the production for consumption of crushed stone increased in three of four regions in 2005 (table 3). The largest percent increases were in the South (6.8%) and the West (3.5%) compared with production in 2004. In 2005, the South continued to lead the Nation in the production of crushed stone with 837 Mt, or 49.6% of the total, followed by the Midwest with 464 Mt, or 27.5%. The South and Midwest regions, composing 28 of the 48 continuous States, accounted for 77% of the total U.S. crushed stone output. The Northeast region recorded a decrease of 2.7% in the production for consumption of crushed stone.

A comparison of the nine geographic divisions of the United States indicates that, in 2005, the production for consumption of crushed stone increased in seven divisions compared with 2004. The major increases in percentages were recorded in the West South Central (11.4%), South Atlantic (6.3%), and Pacific (5.0%) divisions. Of the nine geographic divisions, the South Atlantic led the Nation in the production of crushed stone with 438 Mt, or 26.0% of the U.S. total, followed by the East North Central with 284 Mt, or 16.8%, and the West South Central with 223 Mt, or 13.2% (table 3). Decreases in production for consumption of crushed stone were recorded in the Middle Atlantic (3.5%) and East North Central (0.2%) divisions.

The leading U.S. producing companies in 2005 were, in descending order of tonnage, Vulcan Materials Co.; Martin Marietta Aggregates; Hanson Building Materials America, Inc.; Oldcastle, Inc./Materials Group; Lafarge North America Inc.; Rinker Materials Corp.; CEMEX, Inc.; Rogers Group, Inc.; Holcim/Aggregate Industries; and Florida Rock Industries, Inc. The combined production of the top 10 companies was 766 Mt, or about one-half of the national total. There was no change in the ranking of the five leading producing companies compared with the previous year.

A review of production by size of operation at the national level indicates that, in 2005, 959 Mt of crushed stone, or 56.9% of the total crushed stone total, was produced by 529 operations reporting more than 1 million metric tons per year; 423 Mt, or 25.1%, was produced by 639 operations reporting between 500,000 and 999,999 metric tons per year (t/yr); and 274 Mt, or 16.3%, was produced by 1,107 operations reporting between 100,000 and 499,999 t/yr. The production by size of operation information also indicates that 82.0% of total crushed stone produced in the United States in 2005 came from operations that produced more than 500,000 t/yr (table 7a). By geographic regions, in 2005, the South had 1,092 active operations, followed by the Midwest with 1,006 active operations and the West with 595 active operations (table 7b).

Merger and acquisition activity in the U.S. crushed stone industry in 2005 remained at relatively the same level as in 2004. Martin Marietta Materials, Inc. announced at the end of 2004 that it had formed a joint-venture company with Hunt Midwest Enterprises. The new company, Hunt Martin Materials, is equally owned by each party and will operate the aggregates operations owned by both companies in Kansas City and the surrounding area (Martin Marietta Materials, Inc., 2004).

Oglebay Norton had an active year in 2005, beginning with its emergence from Chapter 11 bankruptcy in January. In May,

Oglebay Norton unified its limestone and lime operations by joining Michigan Limestone Operations and Global Stone under the new name of O-N Minerals (Rock Products, 2005b). In December, O-N Minerals sold their St. Clair underground mine in Oklahoma to United States Lime & Minerals, Inc. (Rock Products, 2006).

In March, the Switzerland-based Holcim Group acquired Aggregates Industries plc, which would increase the global cement manufacturer's market position in the U.S. cement, aggregates and ready-mix concrete markets. The transaction also allowed Holcim a place in the large, consolidated British market (Aggregates Manager, 2005).

In 2005, Vulcan bought 12 aggregates operations and 5 asphalt plants and sold the company's chemical business, Vulcan Chemicals. The five asphalt plants and five of the aggregates operations were acquired in March from New West Materials Co., L.L.C., an aggregates and asphalt producer in Phoenix and Tucson, AZ. In June, Vulcan Materials added the Long Branch Quarry in Georgia to the company's Southeast Division. In August, Vulcan Materials purchased multiple operations, including a crushed stone quarry in Tennessee, from Polk County Stone LLC., and four operations in northwest Indiana from the Critser family. In January 2006, Vulcan Materials expanded their Mideast Division with the purchase of the Penrose Quarry in North Carolina from Macon Construction, Inc. (Markley, 2006).

In November, CRH plc announced additions to its U.S. materials division, Oldcastle Materials. CRH acquired the aggregates, asphalt, paving and construction company Mountain Companies, which will be added into Oldcastle's Central Division. CRH also acquired Southern Minnesota Construction ("SMC") of Minnesota, an aggregates and asphalt supplier, to expand Oldcastle's West Division market (CRH plc, 2005). Also in November, Lafarge North America Inc. added three aggregates operations in Kansas by purchasing the aggregates, concrete, asphalt, and paving assets of Ritchie Corp. in Wichita, Kansas (Rock Products, 2005a).

Calcareous Marl.—Output of calcareous marl increased by 32.4% to 4.9 Mt valued at \$28.3 million compared with 2004 (table 2). Marl was produced by five companies with six quarries in three States. The leading producers were, in descending order of tonnage, Holcim/Aggregate Industries; Lafarge North America; and Giant Group, Ltd.

Dolomite.—Production of dolomite increased by 4.5% to 95.2 Mt valued at \$649 million compared with the total for 2004 (table 2). Crushed dolomite was reportedly produced by 85 companies at 186 operations with 205 quarries in 26 States. An additional undetermined amount of dolomite is included in the total crushed limestone, as explained in the limestone portion of the "Production" section.

The leading producing States were, in descending order of tonnage, Illinois, Pennsylvania, and New York; the total production of these three States was 42.1 Mt, or 44.2% of the total U.S. output (table 8). The leading producers were, in descending order of tonnage, Oldcastle, Material Services Corp., Hanson, Vulcan Materials, and Martin Marietta. Their combined total production was 47.2 Mt, or 49.6% of the U.S. dolomite total.

Granite.—The output of crushed granite increased by 1.2% to 263 Mt valued at \$2.16 billion compared with 2004 (table 2). Crushed granite was produced by 129 companies at 364 operations with 339 quarries in 35 States. The leading States were, in descending order of tonnage, Georgia, North Carolina, Virginia, South Carolina, and California; the total production of these five States was 191 Mt, or 72.6% of the U.S. output (table 9). The leading producers were, in descending order of tonnage, Vulcan Materials, Martin Marietta, Hanson, Luck Stone Corp., and Florida Rock. Their combined total production was 165 Mt, or 63.1% of the U.S. granite total.

Limestone.—The 2005 output of crushed limestone, including some dolomite, increased by 3.3% to 1.1 Gt valued at \$7.5 billion compared with 2004 (table 2). Limestone was produced by 686 companies at 1,800 operations with 1,867 quarries in 47 States. In addition, 37 companies with 61 operations and 61 quarries reported producing limestone and dolomite from the same quarries. Their production of about 33 Mt of limestone and dolomite combined is included with the limestone listed in table 2. The limestone totals listed in this chapter, therefore, include an undetermined amount of dolomite in addition to the dolomite reported separately.

The leading producing States were, in descending order of tonnage, Texas, Florida, Missouri, Ohio, and Tennessee; the total production of these five States was 461 Mt, or 42.5% of the total U.S. output (table 8). The leading producers of limestone were, in descending order of tonnage, Vulcan Materials, Martin Marietta, Hanson, Lafarge, and Rinker Materials. Their combined total production was 337 Mt, or 31.0% of the U.S. total.

Marble.—Production of crushed marble decreased by 21.7% to 7.8 Mt valued at \$58.7 million compared with the total for 2004 (table 2). Crushed marble was produced by 12 companies with 22 operations and 20 quarries in 12 States. The leading producers of crushed marble were, in descending order of tonnage, Imerys Marble, Inc.; Omya, Inc.; Pluess Staufer Industries; Vulcan Materials; and Huber Engineered Materials. Their combined total production was 7.2 Mt, or 93.1% of the U.S. marble total.

Miscellaneous Stone.—Output of other kinds of crushed stone increased by 10.8% to 33.0 Mt valued at \$226 million compared with 2004 (table 2). Miscellaneous stone was produced by 90 companies at 149 operations with 147 quarries in 29 States. The leading producing States were, in descending order of tonnage, Pennsylvania, North Carolina, California, Oregon, and Alaska; their combined production was 18.9 Mt, or 57.4% of the total U.S. output. Leading producers were, in descending order of tonnage, the U.S. Bureau of Land Management; Haines & Kibblehouse, Inc.; and Wake Stone Corp. Their combined total production was 10.1 Mt, or 30.6% of the U.S. miscellaneous stone total.

Sandstone and Quartzite.—The output of crushed sandstone and quartzite increased by 9.3% to 55.3 Mt valued at \$387 million compared with the total for 2004 (table 2). Crushed sandstone was produced by 90 companies with 114 quarries in 22 States, while quartzite was produced by 33 companies with 40 quarries in 18 States.

The leading producing States were, in descending order of combined tonnage of sandstone and quartzite, Arkansas, Pennsylvania, Colorado, California, and South Dakota, and their combined total production was 32.3 Mt, or 58.4% of the U.S. output (table 9). The leading producers of sandstone and quartzite were, in descending order of tonnage, Lafarge; Martin Marietta; Ashland Paving and Construction, Inc. (APAC); CEMEX; and Pine Bluff Sand and Gravel Co. Their combined total production was 19.5 Mt, or 35.3% of the U.S. sandstone and quartzite total.

Shell.—Shell is derived mainly from fossil reefs or oyster shell banks. The output of crushed shell more than tripled to 4.42 Mt valued at \$27.2 million compared with the 2004 total (table 2). Crushed shell was produced by nine companies with eight quarries in six States. The leading producers were, in descending order of tonnage, Schroeder-Manatee Ranch, Inc.; Caloosa Shell Corp.; and Langenfelder & Sons, Inc.

Slate.—The output of crushed slate decreased by 5.5% to 3.3 Mt and its value decreased by 11.7% to \$23.6 million compared with 2004 (table 2). Crushed slate was produced by 15 companies at 16 quarries in 11 States. Most of the crushed slate was produced in North Carolina. The leading producers were, in descending order of tonnage, Martin Marietta, McCartney Construction, and NAPA Development Corp., Inc. Their combined total production was 2.3 Mt, or 69.8% of the U.S. slate total.

Traprock.—Production of crushed traprock increased by 5.0% to 130 Mt compared with 2004 total (table 2). Traprock was produced by 199 companies at 331 operations with 348 quarries in 24 States. The leading producing States were, in descending order of tonnage, Oregon, Virginia, New Jersey, California, and Washington; these five States produced 76.6 Mt, or 58.9% of U.S. output (table 9). Leading producers were, in descending order of tonnage, Oldcastle; Luck Stone; Vulcan Materials; MDU Resources Group, Inc.; and Deatley Co., Inc. Their combined total production was 52.7 Mt, or 40.5% of the U.S. traprock total.

Volcanic Cinder and Scoria.—Production of volcanic cinder and scoria increased by 54.8% to 3.0 Mt compared with the total for 2004 (table 2). Volcanic cinder and scoria were produced by 22 companies from 39 operations with 40 quarries in 13 States. Owing to the small numbers of companies operating in most States, only one or two, no State totals could be published for those States, and therefore leading producing States could not be identified (table 11). The leading producer was the U.S. Forest Service with about one-half of the 2005 production of volcanic cinder and scoria.

Consumption

Crushed stone production reported to the USGS is actually material that was either sold to other companies or consumers or was used by the producers. Stockpiled production is not included in the reported quantities. The "sold or used" tonnage, therefore, represents the amount of production released for domestic consumption or export in a given year. Because some of the crushed stone producers did not report a breakdown by

end use, their total production is included in the "Unspecified, reported" use category. The estimated production of nonrespondents is included in the "Unspecified, estimated" use category.

In 2005, U.S. apparent consumption of crushed stone, which is defined as U.S. production plus imports minus exports, was 1.71 Gt, a 3.7% increase compared with the apparent consumption of 2004. Of the 1.71 Gt of crushed stone consumed, 540 Mt, or 31.7% of the total, was "Unspecified, reported," and 304 Mt, or 17.8% of the total, was "Unspecified, estimated." Of the remaining 841 Mt, reported by uses by producers, 84.7% was used as construction aggregate, mostly for highway and road construction and maintenance as well as residential construction and sewers; 12.4%, for chemical and metallurgical uses, including cement and lime manufacture; 1.6%, for agricultural uses; and 1.4%, for special and miscellaneous uses and products (table 13). Unspecified uses are not included in the calculation of the above percentages. It is suggested that, in marketing analysis or use-pattern studies, the quantities included in unspecified uses be prorated and added to the reported uses by applying the above percentages calculated for the reported quantities. Using this procedure, the analyst assumes that the breakdown by uses of the unspecified uses is similar to that of the reported uses.

In 2005, the value of the total construction put in place increased to \$1,140 billion, or 10.5%, as reported by the U.S. Census Bureau (2006§¹). The value of total private construction increased by 11.8% to \$899 billion, while the value of total public construction increased by 6.2% to \$245 billion. The value of private construction showed signs of slower growth when compared with the 14.4% increase reported in 2004. The public construction sector recorded its largest increase since 2001, and the 6.2% increase in 2005 was an improvement compared with last year's 2.9% increase.

In 2005, there was also a 5.4% increase in the U.S. consumption of portland cement to 124 Mt compared with the 2004 total consumption of 117 Mt, another indication of increased construction activity at the national level.

Calcareous Marl.—Of the 4.9 Mt of crushed calcareous marl consumed, 2.5 Mt, or 50.1% of the total, was in "Unspecified, uses." Most of the remaining 2.5 Mt was used for cement manufacturing.

Dolomite.—Of the 95.2 Mt of crushed dolomite consumed, 29.0 Mt or 30.5% of the total, was in "Unspecified, reported" uses, and 8.4 Mt, or 8.9% of the total, was in "Unspecified, estimated" uses. Of the remaining 57.8 Mt of crushed dolomite reported by uses by the producers, 51.0 Mt, or 88.2%, was used as construction aggregates; 3.5 Mt, or 6%, was used for chemical and metallurgical applications, and 1.2 Mt, or 2%, for agricultural uses. An additional undefined amount of dolomite consumed in a variety of uses, mostly construction aggregates, is reported with limestone (table 14).

Additional detailed information for total combined limestone and dolomite by State and major uses is provided in table 15.

Granite.—Of the 263 Mt of crushed granite consumed, 119 Mt, or 45.3%, was in "Unspecified, reported" uses, and 31 Mt,

or 11.8%, was in "Unspecified, estimated" uses. Most of the remaining 113 Mt was used as construction aggregates (table 17).

Limestone.—Of the 1,090 Mt of crushed limestone consumed, 294 Mt, or 27.1% of the total, was in "Unspecified, reported" uses, and 214 Mt, or 19.8% of the total, was in "Unspecified, estimated" uses. Of the remaining 577 Mt of crushed limestone, reported by uses by the producers, 464 Mt, or 80.4%, was used as construction aggregate; 94.2 Mt, or 16.3%, was used for chemical and metallurgical applications, including cement and lime manufacturing; 11.5 Mt, or 2.0%, for agricultural uses; and 4.2 Mt, or 0.7%, for special and miscellaneous uses and products (table 14).

Marble.—Of the 7.8 Mt of crushed marble consumed 4 Mt, or 51.7%, was in "Unspecified, estimated." Of the remaining 3.8 Mt of crushed marble reported by uses by the producers, 2.9 Mt, or 77.3%, was used as construction aggregates; 608,000 metric tons (t), or 16.2%, was used for special uses including fillers and extenders, and 241,000 t, or 6.4%, for agricultural uses (table 16).

Miscellaneous Stone.—Of the 33.0 Mt of miscellaneous crushed stone consumed, 12.3 Mt, or 37.1% of the total, was in "Unspecified, reported" uses, and 8.2 Mt, or 24.9% of the total, was in "Unspecified, estimated" uses. Construction aggregate accounted for more than 90% of the remaining 12.5 Mt reported by uses by the producers (table 19).

Sandstone and Quartzite.—Of the 37.2 Mt of crushed sandstone consumed, 14.0 Mt, or 37.8%, was in "Unspecified, reported" uses, and 10.9 Mt or 29.3%, in "Unspecified, estimated." Most of the remaining 12.2 Mt of crushed sandstone reported by uses by the producers was used as construction aggregates (table 18).

Of the 18.1 Mt of crushed quartzite consumed in the United States, 9.5 Mt, or 52.2% of the total, was in "Unspecified, reported" uses, and 2.3 Mt, or 12.8% of the total, was in "Unspecified, estimated" uses. Most of the remaining 6.4 Mt of crushed quartzite reported by uses by the producers was used as construction aggregate (table 18).

Shell.—Of the 4.4 Mt of crushed shell consumed, 480,000 t, or 10.9%, was reported as "Unspecified, uses." Most of the remaining 3.9 Mt was used as construction aggregate.

Slate.—Of the 3.3 Mt of crushed slate consumed, two-thirds of the total, or 2.2 Mt, was in "Unspecified, uses." The remaining one-third was used as construction aggregate including roofing granules.

Traprock.—Of the 130 Mt of crushed traprock consumed, 58.8 Mt, or 45.2%, was in "Unspecified, reported" uses, and 21.5 Mt, or 16.5%, was in "Unspecified, estimated" uses. Most of the remaining 49.9 Mt was used as construction aggregate (table 17).

Volcanic Cinder and Scoria.—Of the 3.0 Mt of volcanic cinder and scoria consumed, 1.6 Mt, or 53.5% of the total, was in "Unspecified, reported" uses, and 286,000 t, or 9.7% of the total, was in "Unspecified, estimated" uses. Most of the remaining 1.1 Mt of crushed volcanic cinder and scoria was used as construction aggregate (table 19).

Additional information regarding production and consumption of crushed stone by type of rock and major uses in each State

¹A reference that includes a section mark (§) is found in the Internet Reference Cited section.

and the State districts may be found in the USGS Minerals Yearbook, volume II, Area Reports: Domestic.

Recycling

As the recycling of most waste materials increases, aggregates producers are recycling more cement concrete and asphalt concrete materials recovered from construction projects to produce concrete and asphalt aggregates and other aggregate materials, especially fill and road base. The recycling of cement concrete is done at some quarries and increasingly at sales yards or distribution sites, whereas asphalt concrete is recycled mostly at the construction sites. The annual survey of crushed stone producers collects information on recycling of cement and asphalt concretes produced by the crushed stone producers only. These amounts represent a small percentage of the total recycled cement and asphalt concretes because the recycling of these materials is done mostly by construction or demolition companies, and those companies are not surveyed by the USGS.

Asphalt Concrete.—A total of 1.9 Mt of asphalt concrete valued at \$17.7 million was recycled in 2005 by 46 companies in 21 States. The tonnage of recycled asphalt concrete decreased by 17.1% compared with the 2004 total (tables 20, 21). The leading recycling geographic regions were, in descending order of tonnage, the Northeast with 591,000 t, the West with 549,000 t, and the South, with 499,000 t (table 20). The leading recycling States were, in descending order of tonnage, California, Florida, Pennsylvania, New York, and Indiana. Their combined total represented 67.8% of the U.S. total. The leading recycling companies, in descending order of tonnage produced, were Vecellio & Grogan, Inc.; Oldcastle; and Hanson.

Cement Concrete.—A total of 3.9 Mt of portland cement concrete valued at \$29.4 million was recycled by 40 companies in 19 States. This tonnage represents a 37.2% increase compared with 2004 (tables 22, 23). The leading recycling geographic regions were, in descending order of tonnage, the Midwest with 1.7 Mt, the West with 1.6 Mt, and the South with 332,000 t. The leading recycling States were, in descending order of tonnage, Illinois, California, Virginia, New York, and Wisconsin. Their combined total represented 95.5% of the U.S. total. The leading companies were, in descending order of tonnage produced, Vulcan Materials, Stevens Creek Quarry Inc., and Oldcastle.

Prices

Prices in this chapter are the average annual free on board plant prices, usually at the first point of sale or captive use, as reported by the crushed stone producing companies. This value does not include transportation from the plant or yard to the consumer. It does, however, include all costs of mining, processing, in-plant transportation, overhead costs, and profit. In 2005, fewer than one-half of the operations responding to the annual survey reported the value of their production. The number of operations that reported the value of their production increased slightly in 2005. The average unit value for operations reporting production and value in 2005 was \$7.26. This was an increase of 8.2% compared with the average unit value of \$6.71 in 2004. The annual reports of the top three U.S. producing

companies reported an 8% price increase in 2005 compared with prices in 2004. The average unit prices, by kind of stone, increased for every stone type except slate (table 2). For those operations that reported production only, the unit values of total production or specific end uses were estimated based on what other operations in the same State reported. The average unit value for specific end uses within a State was used in the estimation of value for operations reporting specific end uses. The State average was used in the estimation for operations reporting a total production but not total value. The estimation process was modified from previous years to align with the methodology used in the construction sand and gravel chapter.

Additional information regarding prices of crushed stone by type of rock and uses in the United States and each State and the State districts may be found throughout the tables included in this chapter as well as in the USGS Minerals Yearbook, volume II, Area Reports: Domestic.

Transportation

For 883 Mt, or 52.4%, of the 1.69 Gt of crushed stone produced for consumption in 2005, no means of transportation was reported by the producers. Of the remaining 802 Mt of crushed stone, 669 Mt, or 83.4%, was reported as being transported by truck from the quarry or the processing plant to the first point of sale or use; 48.7 Mt, or 6.1%, by rail; and 23.8 Mt, or 3.0%, by waterway. For 48.9 Mt, or 6.1%, of the specified production was reported as not having been transported and, therefore, is assumed to have been used onsite (table 24).

Shipment by truck remains the most widely used method of transportation for crushed stone. The significant increase in the number of sales and distribution yards in the past couple of years and the increase in the volume of crushed stone going through these sites have had a positive impact on the industry as well as the communities they serve. Distribution sites located near metropolitan areas significantly reduce the distance most trucks have to travel to pick up and deliver crushed stone. Therefore the transportation costs are reduced, as is the impact of heavy traffic on the infrastructure and the environment. Sales yards serve both to distribute products and increasingly as recycling sites. This provides efficiency for the industry while helping protect the environment.

Information regarding means of transportation used by the producers to ship crushed stone from the production site to the consumer in each geographic region is provided in table 24.

Foreign Trade

The widespread distribution of domestic deposits of stone suitable for mining as crushed stone, the large number of existing active operations around the country, and the high cost of transportation limit foreign trade to mostly local transactions across international boundaries. Shipments of crushed stone by water, especially from Canada, the Caribbean, and Mexico, continue to increase. U.S. imports and exports continue to be small, representing little more than 1% of domestic consumption.

Exports.—Exports of crushed stone decreased in 2005 by 1.2% to 1.26 Mt compared with the total of 1.28 Mt of 2004, and the value decreased by 7.4% to \$50.5 million. In 2005, one-half of the exported crushed stone was limestone for cement manufacturing valued at an average unit price of \$20.73 per metric ton, and 11.1% of the exported crushed stone was limestone used as construction aggregate valued at an average unit value of \$24.98 per ton (table 26).

Imports.—Imports of crushed stone increased by 12.6% to 21 Mt compared with those of 2004, and the value increased by 8.7% to \$194 million. Of the imported crushed stone, 57.1% was limestone used as construction aggregate, as flux stone, and in cement manufacturing. Imports of natural calcium carbonate fines almost doubled in value to \$517,000 in 2005 from \$286,000 in 2004 (table 27).

The total amount of imported crushed stone is a very small tonnage compared with the total U.S. production. While imports of crushed stone are expected to increase in the future, they will continue to be a very small percentage of total U.S. consumption.

Outlook

Consumption of crushed stone in 2006 is expected to continue at the current level or decrease slightly compared with 2005. Construction spending should continue to benefit from economic growth and improving fiscal conditions at the State and local levels. Increases in infrastructure and commercial construction could be somewhat offset by an overall decline in residential construction. In some markets, especially in the South, the recovery in private nonresidential construction should continue in 2006 and residential construction activity should remain flat. Crushed stone prices are expected to increase owing to the heavy demand, higher input costs—including rising transportation costs—and increasing scarcity of well-located mineral reserves in many of the U.S. market areas.

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$\label{eq:table 1} \textbf{TABLE 1}$ SALIENT CRUSHED STONE STATISTICS 1

(Thousand metric tons and thousand dollars)

2001	2002	2003	2004	2005
1,590,000	1,510,000	1,530,000	1,630,000 ^r	1,690,000
8,870,000	8,650,000	9,060,000	9,890,000 ^r	12,100,000
35,600	54,000	45,600	54,500	50,500
110,000	124,000	143,000	179,000	194,000
	1,590,000 8,870,000 35,600	1,590,000 1,510,000 8,870,000 8,650,000 35,600 54,000	1,590,000 1,510,000 1,530,000 8,870,000 8,650,000 9,060,000 35,600 54,000 45,600	1,590,000 1,510,000 1,530,000 1,630,000 r 8,870,000 8,650,000 9,060,000 9,890,000 r 35,600 54,000 45,600 54,500

rRevised.

 ${\rm TABLE~2}$ CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY ${\rm KIND}^{1,\,2}$

		2004				2005	i	
		Quantity				Quantity		
	Number	(thousand	Value	Unit	Number	(thousand	Value	Unit
Kind	of quarries	metric tons)	(thousands)	value	of quarries	metric tons)	(thousands)	value
Limestone ³	1,873 ^r	1,050,000 ^r	\$5,970,000 °	\$5.68 °	1,904	1,090,000	\$7,490,000	\$6.90
Dolomite	209 ^r	91,100 ^r	535,000 ^r	5.87 ^r	205	95,200	649,000	6.82
Marble	25 ^r	9,910 ^r	69,500 ^r	7.01 ^r	21	7,760	58,700	7.57
Calcareous marl	7	3,740	16,100	4.30	6	4,950	28,300	5.73
Shell	7	1,450	8,240	5.67	8	4,420	27,200	6.15
Granite	342 ^r	260,000 ^r	1,870,000 ^r	7.19 ^r	339	263,000	2,160,000	8.21
Traprock	370 ^r	124,000 ^r	878,000 ^r	7.08 ^r	348	130,000	1,040,000	7.97
Sandstone and quartzite ⁴	162	50,600 ^r	325,000 ^r	6.43 ^r	154	55,300	387,000	7.00
Slate	16	3,530	26,800	7.58	16	3,340	23,600	7.08
Volcanic cinder and scoria	39 ^r	1,910 ^r	13,200 ^r	6.90 ^r	40	2,960	21,400	7.21
Miscellaneous stone	144 ^r	29,800 ^r	181,000	6.09 ^r	147	33,000	226,000	6.85
Total or average	XX	1,630,000 ^r	9,890,000 ^r	6.08 r	XX	1,690,000	12,100,000	7.18

^rRevised. XX Not applicable.

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

²Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.

³Excludes precipitated calcium carbonate.

¹Data are rounded to no more than three significant digits, except unit values and number of quarries; may not add to totals shown.

²Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.

³Includes limestone-dolomite reported with no distinction between the two kinds of stone.

⁴Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

 ${\it TABLE~3}$ CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY GEOGRAPHIC DIVISION $^{\rm I,\,2}$

(Thousand metric tons and thousand dollars)

	20	004	20	005
Region/division	Quantity	Value ^r	Quantity	Value
Northeast:				
New England	39,600 ^r	282,000	40,000	336,000
Middle Atlantic	188,000 ^r	1,150,000	181,000	1,310,000
Midwest:				
East North Central	285,000 ^r	1,440,000	284,000	1,660,000
West North Central	173,000 ^r	1,050,000	180,000	1,310,000
South:				
South Atlantic	412,000 ^r	2,820,000	438,000	3,660,000
East South Central	172,000 ^r	1,100,000	176,000	1,280,000
West South Central	200,000 ^r	1,050,000	223,000	1,370,000
West:				
Mountain	60,500 ^r	355,000	61,200	375,000
Pacific	97,900	641,000	103,000	805,000
Total or average	1,630,000 ^r	9,890,000	1,690,000	12,100,000

rRevised.

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

²Does not include American Samoa, Puerto Rico, and the U.S. Virgin Islands.

 ${\it TABLE~4}$ CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY ${\it STATE}^{1,\,2}$

		2004			2005	
	Quantity			Quantity		
	(thousand	Value	Unit	(thousand	Value	Unit
State	metric tons)	(thousands)	value	metric tons)	(thousands)	value
Alabama	47,800 ^r	\$296,000 r	\$6.19 °	49,500	\$325,000	\$6.57
Alaska ³	2,270 ^r	14,200 ^r	6.25 ^r	2,360	15,600	6.60
Arizona ⁴	— 14,100 ^г	75,900 ^r	5.37 ^r	12,000	69,300	5.75
Arkansas ⁵	34,100 ^r	173,000 ^r	5.07 ^r	35,400	223,000	6.29
California ⁶	55,300 ^r	364,000 ^r	6.59 ^r	54,300	455,000	8.37
Colorado	11,100 ^r	68,300 ^r	6.14 ^r	13,000	89,100	6.85
Connecticut	10,100 ^r	75,700	7.53	10,100	92,600	9.19
Delaware ⁷				W	W	6.89
Florida ⁸	105,000	680,000 ^r	6.50 ^r	115,000	994,000	8.67
Georgia	79,700 ^r	548,000 ^r	6.88 ^r	79,400	606,000	7.63
Hawaii	5,470 ^r	61,300 ^r	11.21 ^r	6,170	82,300	13.34
Idaho	3,420 ^r	18,100 ^r	5.30 ^r	4,450	23,900	5.37
Illinois	75,300 ^r	462,000 ^r	6.14 ^r	76,200	545,000	7.16
Indiana	56,800	265,000 ^r	4.68 ^r	57,500	311,000	5.40
Iowa	35,800 ^r	219,000 ^r	6.12 ^r	34,500	251,000	7.27
Kansas	20,600 ^r	122,000 ^r	5.93 ^r	22,100	159,000	7.20
Kentucky ⁹	62,100 ^r	384,000 ^r	6.18 ^r	58,200	421,000	7.24
Louisiana ¹⁰	W	W	11.27 ^r	W	W	8.18
Maine	4,370	29,500	6.75	4,490	30,700	6.85
Maryland	35,300 ^r	214,000 ^r	6.05 ^r	33,100	274,000	8.28
Massachusetts	13,700 ^r	109,000	7.97 ^r	13,200	121,000	9.19
Michigan ¹¹	36,700 ^r	143,000 ^r	3.90 ^r	36,100	141,000	3.89
Minnesota ¹²	10,400 ^r	64,900 ^r	6.24 ^r	10,500	86,900	8.30
Mississippi ¹³		34,200	12.40	3,500	41,700	11.90
Missouri	92,600 ^r	564,000 ^r	6.09 ^r	99,400	733,000	7.37
Montana	4,090	13,700 ^r	3.35 ^r	3,540	16,800	4.76
Nebraska	6,900	51,900	7.52	6,950	49,300	7.10
Nevada	9,760	72,800	7.46	9,320	66,800	7.17
New Hampshire	4,720 ^r	23,900 ^r	5.06	5,100	40,900	8.02
New Jersey ¹⁴	25,400 ^r	185,000 ^r	7.29 ^r	22,700	160,000	7.04
New Mexico ¹⁵	2,830 ^r	16,400 ^r	5.79 ^r	3,010	20,100	6.67
New York	49,400 ^r	327,000 ^r	6.62	52,700	445,000	8.44
North Carolina	72,300 ^r	549,000 ^r	7.59	74,300	638,000	8.59
North Dakota ¹⁶	W	W	3.88 ^r	89	396	4.45
Ohio	76,500 ^r	396,000 ^r	5.17 ^r	75,200	437,000	5.82
Oklahoma	39,800	206,000 ^r	5.19 ^r	45,400	257,000	5.67
Oregon	22,700 ^r	126,000	5.54 ^r	26,000	157,000	6.01
Pennsylvania	113,000 ^r	639,000 ^r	5.68 ^r	106,000	704,000	6.67
Rhode Island ¹⁷	1,600	12,400	7.74	1,610	12,400	7.74
South Carolina ¹⁸	_ 31,300	210,000	6.70	33,800	258,000	7.61
South Dakota	6,410 ^r	27,600 ^r	4.30 ^r	6,650	30,600	4.60
Tennessee	_ 57,900	381,000 ^r	6.58 ^r	63,900	482,000	7.55
Texas	122,000	621,000 ^r	5.11 ^r	134,000	823,000	6.15
Utah	8,030 ^r	45,100 ^r	5.62 ^r	8,350	46,600	5.58
Vermont ¹⁹	_ 5,110	30,800	6.03	5,480	37,000	6.75
Virginia ²⁰	73,700 ^r	540,000 ^r	7.33 ^r	86,200	778,000	9.03
Washington	12,100 ^r	75,500 ^r	6.25 ^r	13,900	96,300	6.92
West Virginia	14,700	72,600 ^r	4.95 ^r	14,500	99,400	6.86
Wisconsin	_ 39,300 ^r	172,000 ^r	4.38 ^r	38,900	227,000	5.83
Wyoming	6,300 ^r	35,300 ^r	5.60 ^r	7,370	41,800	5.68
Other	7,240 ^r	71,400 ^r	9.86 r	11,000	86,500	7.89
Total or average	1,630,000 ^r	9,890,000 ^r	6.08 ^r	1,690,000	12,100,000	7.18

See footnotes at end of table.

TABLE 4—Continued

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE^{1, 2}

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

³Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

⁴Excludes traprock (2005).

⁵Excludes slate.

⁶Excludes shell (2004).

⁷Excludes limestone.

⁸Excludes sandstone.

⁹Excludes dolomite.

¹⁰A significant amount of sold or used material was shipped in from other States. Excludes limestone and sandstone.

¹¹Excludes calcareous marl (2004).

¹²Excludes quartzite (2004).

¹³A significant amount of sold or used material was shipped in from other States.

¹⁴Excludes miscellaneous stone (2004).

¹⁵Excludes granite (2004).

¹⁶Excludes granite, traprock, volcanic cinder, and miscellaneous stone (2004).

¹⁷Excludes limestone.

¹⁸Excludes marble (2005).

¹⁹Excludes slate (2005).

²⁰Excludes marble (2004).

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

²To avoid disclosing company proprietary data, certain State totals do not include all kinds of stone produced within the State; the portion not shown has been included with "Other."

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY QUARTER AND GEOGRAPHIC DIVISION 1,2 TABLE 5

	Ouantity.		Onantity		Ouantity		Onantity		T	Total ⁴
	1st quarter		2d quarter		3d quarter		4th quarter		Quantity	
	(thousand	Percentage	(thousand	Percentage	(thousand	Percentage	(thousand	Percentage	(thousand	Value
Region/division	metric tons)	change ³	metric tons)	(thousands)						
Northeast:										
New England	2,610	-10.9	12,000	7.3	13,400	-4.0	10,300	8.6-	38,300	\$283,000
Middle Atlantic	22,500	-3.2	58,100	7.3	60,500	-7.4	44,700	-6.0	186,000	1,190,000
Midwest:	ı									
East North Central	34,700	-2.3	78,700	1	84,100	-8.8	72,200	-7.0	270,000	1,400,000
West North Central	27,700	15.9	48,000	13.8	51,200	11.3	38,500	4.8	165,000	1,030,000
South:										
South Atlantic	88,600	4.5	112,000	2.7	115,000	6.2	102,000	-1.1	418,000	2,990,000
East South Central	33,900	3.9	46,400	7.8	45,600	-5.4	45,700	8.6	172,000	1,150,000
West South Central	50,100	16.5	58,000	17.3	57,500	4.4	52,200	10.4	218,000	1,090,000
West:	, ,									
Mountain	10,800	3.5	15,600	-1.9	18,800	1.3	13,700	0.9	58,900	352,000
Pacific ⁵	18,000	1.5	23,200	-1.7	25,400	-4.1	23,900	5.7	90,500	587,000
Total or average ⁴	297,000	5.5	453,000	5.7	470,000	-0.2	405,000	0.5	1,630,000	1,630,000 6 10,100,000 6

'As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2005" Mineral Industry Surveys.

²Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

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

¹Data may not add to totals shown because of independent rounding and differences between projected totals by States and region.

⁵Does not include Alaska and Hawaii.

⁶Includes Alaska, Hawaii, and other States as detailed in table 6.

TABLE 6 CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY QUARTER AND STATE $^{\rm 1,\,2}$

	Quantity,		Quantity,		Quantity,		Quantity,		Tot	al ⁴
	1st quarter		2d quarter		3d quarter		4th quarter		Quantity	
	(thousand	Percentage	(thousand	Percentage	(thousand	Percentage	(thousand	Percentage	(thousand	Value
State	metric tons)	change ³	metric tons)	change ³	metric tons)	change ³	metric tons)	change ³	metric tons)	(thousands)
Alabama	_ 10,800	-2.8	12,900	2.7	12,800	-2.3	11,400	-7.4	47,900	\$308,000
Alaska	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6
Arizona		(7)	(7)	(7)	(7)	(7)	(7)	(7)	14,700	79,100
Arkansas	_ 8,120	19.5	9,420	9.5	9,770	1.9	8,710	9.7	36,000	183,000
California	10,600	-9.6	14,100	-1.1	15,100	-1.6	13,600	-3.6	53,300	366,000
Colorado	2,100	45.2	3,210	3.9	3,940	1.6	2,560	-1.1	11,800	75,200
Connecticut	_ 579	-18.5	3,110	9.9	3,390	-4.3	2,660	-10.4	9,740	76,300
Delaware	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Florida	_ 28,000	9.5	26,700	-1.6	28,100	11.4	29,100	6.4	112,000	747,000
Georgia	17,300	-5.8	20,900	-0.7	21,900	3.7	19,600	3.6	79,700 ⁶	568,000
Hawaii	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)
Idaho	710	-16.9	1,110	76.6	1,070	34.2	842	-18.7	3,740	20,400
Illinois	10,500	13.0	23,700	19.1	25,200	2.1	22,700	0.5	82,100	519,000
Indiana	8,150	1.8	16,600	4.3	17,100	-8.8	14,500	2.5	56,300	261,000
Iowa	5,000	16.6	11,800	8.4	13,100	12.6	9,750	-2.1	39,700	241,000
Kansas	4,550	10.6	6,680	25.2	6,490	16.4	5,430	13.9	23,200	132,000
Kentucky	8,630	-11.0	13,800	-5.3	14,100	-19.4	17,900	29.4	54,500	354,000
Louisiana	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)
Maine	483	16.9	1,240	-6.3	1,400	-12.3	902	-13.2	4,020	28,200
Maryland	5,330	8.2	8,530	0.1	8,550	-0.8	7,410	-5.1	29,800 ⁶	192,000
Massachusetts	764	-27.1	4,140	5.2	4,070	-9.1	3,470	-17.0	12,400	103,000
Michigan	3,290	-1.2	8,640	-19.1	9,850	-17.3	9,060	-8.3	30,800 6	125,000
Minnesota	498	-0.8	3,460	-7.4	4,840	10.0	2,230	-1.5	11,000	71,900
Mississippi	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	(6, 7)	3,660	47,200
Missouri	15,800	19.4	22,400	22.2	23,000	10.0	18,100	9.0	79,300	496,000
Montana	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	4,170	18,500
Nebraska	1,050	0.4	2,020	1.5	2,090	4.2	1,830	-1.7	6,990	54,700
Nevada	2,100	-10.9	2,420	-22.3	2,260	-2.2	2,060	4.5	8,850	68,600
New Hampshire	320	8.5	1,500	8.3	1,850	8.0	1,460	7.6	5,120	27,000
New Jersey	3,370	24.9	8,390	32.9	8,000	-8.7	6,920	-10.3	26,700	202,000
New Mexico	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	651	4,810
New York	4,710	2.4	17,200	5.2	19,400	-5.1	12,900	14.6	54,300	374,000
North Carolina	14,500	7.0	20,400	1.8	21,000	5.7	16,800	-10.9	72,600	573,000
North Dakota	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)	(5, 6)
Ohio	8,790	-16.1	20,400	-4.1	21,300	-11.0	17,300	-16.6	67,800	355,000
Oklahoma	10,600	11.3	11,900	15.5	11,300	2.8	9,860	4.5	43,600	219,000
Oregon	4,650	20.1	6,430	3.5	7,440	0.5	6,750	27.2	25,300	14,500
Pennsylvania	14,600	-10.4	32,200	2.6	32,700	-8.5	24,700	-13.8	104,000	614,000
Rhode Island	_ (7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	1,730	13,900
South Carolina	- 7,570	10.9	8,910	8.4	9,540	13.2	8,310	5.7	34,300	239,000
South Dakota	- ×,570	34.4	1,780	-2.3	2,010	15.3	1,150	-4.7	5,750	30,100
Tennessee	13,100	19.3	18,400	19.7	17,300	2.3	16,200	10.3	65,000	445,000
Texas	31,500	18.9	36,900	20.2	36,600	5.5	33,600	12.8	139,000	691,000
Utah	1,660	13.8	2,160	-3.9	2,790	-1.5	2,190	47.0	8,800	51,100
Vermont	_ 1,000	(7)	2,100	-3.9	2,790	-1.3	2,190	(7)	5,500	34,500
Virginia	14,600	5.0	22,100	11.9	21,300	5.9	17,700	-5.4	75,700	593,000
Washington	2,800	34.6	2,590	-17.0	2,830	-26.1	3,660	12.7	11,900	76,500
West Virginia	2,580	9.2	4,320	4.2	4,300	-20.1 -1.4	3,360	-12.0	14,600	75,400
Wisconsin	_ 2,580 3,650	-1.7	4,320 8,600	-17.4	11,100	-1.4	7,960	-12.0 -22.2	31,300	141,000
Wyoming	_ 861 	-20.4	1,770	-9.5	2,770	13.8	1,470	-12.2	6,880	34,500
Other	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	XX XX	13,800	109,000

See footnotes at end of table.

XX Not applicable.

TABLE 7A

CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2005,

BY SIZE OF OPERATION¹

		U.S	. total	
			Quantity	
Size range	Number of	Percentage	(thousand	Percentage
(metric tons)	operations	of total	metric tons)	of total
Less than 25,000	358	11.5	2,860	(2)
25,000 to 49,999	192	6.2	6,470	(2)
50,000 to 99,999	289	9.3	19,400	0.1
100,000 to 199,999	362	11.6	48,100	0.3
200,000 to 299,999	307	9.9	69,700	0.4
300,000 to 399,999	256	8.2	82,900	0.5
400,000 to 499,999	182	5.8	73,600	0.4
500,000 to 599,999	137	4.4	67,900	0.4
600,000 to 699,999	145	4.7	85,700	0.5
700,000 to 799,999	165	5.3	113,000	0.7
800,000 to 899,999	86	2.8	66,500	0.4
900,000 to 999,999	106	3.4	90,000	0.5
1,000,000 to 1,499,999	256	8.2	283,000	17.0
1,500,000 to 1,999,999	126	4.0	195,000	12.0
2,000,000 to 2,499,999	61	2.0	125,000	0.7
2,500,000 to 4,999,999	69	2.2	218,000	13.0
5,000,000 and more	17	0.5	138,000	0.8
Total	3,114	100.0	1,690,000	100.0

¹Data are rounded to no more than three significant digits except "Number of operations;" may not add to totals shown.

¹As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2005" Mineral Industry Surveys.

²Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

³All percentage changes are calculated by using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year.

⁴Data may not add to totals shown because of independent rounding and differences between projected totals by States and regions.

⁵State not included in quarterly survey.

⁶To avoid disclosing proprietary data, data for certain States do not include all types of stone produced within the State; the portion not shown has been included wit "Other."

⁷Owing to the low number of companies, no production estimates by quarter were generated.

²Less than ½ unit.

TABLE 7B CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2005, BY REGION AND SIZE OF OPERATION $^{\rm I}$

		Nor	theast			Mic	lwest	
			Quantity				Quantity	
Size range	Number of	Percentage	(thousand	Percentage	Number of	Percentage	(thousand	Percentage
(metric tons)	operations	of total	metric tons)	of total	operations	of total	metric tons)	of total
Less than 25,000	29	6.9	201	(2)	114	11.3	1,110	(2)
25,000 to 49,999	13	3.1	432	(2)	81	8.1	2,760	0.1
50,000 to 99,999	24	5.7	1,740	0.1	109	10.8	7,140	0.2
100,000 to 199,999	59	14.0	8,010	0.4	145	14.4	18,800	0.4
200,000 to 299,999	42	10.0	9,880	0.4	106	10.5	23,800	0.5
300,000 to 399,999	45	10.7	14,400	0.7	97	9.6	32,000	0.7
400,000 to 499,999	40	9.5	16,200	0.7	56	5.6	22,600	0.5
500,000 to 599,999	31	7.4	15,500	0.7	39	3.9	19,200	0.4
600,000 to 699,999	23	5.5	13,600	0.6	45	4.5	26,600	0.6
700,000 to 799,999	14	3.3	9,600	0.4	30	3.0	20,300	0.4
800,000 to 899,999	22	5.2	17,000	0.8	20	2.0	15,500	0.3
900,000 to 999,999	7	1.7	6,160	0.3	35	3.5	29,900	0.6
1,000,000 to 1,499,999	40	9.5	43,600	20.0	66	6.6	73,800	16.0
1,500,000 to 1,999,999	17	4.0	26,700	12.0	25	2.5	38,600	0.8
2,000,000 to 2,499,999	- 8	1.9	16,700	0.8	16	1.6	32,900	0.7
2,500,000 to 4,999,999	7	1.7	21,300	10.0	17	1.7	53,400	12.0
5,000,000 and more					5	0.5	45,800	10.0
Total	421	100.0	221,000	100.00	1,006	100.0	464,000	100.00
		Sc	outh			W	/est	
			Quantity				Quantity	

		Sc	outh			W	7est	
			Quantity				Quantity	
	Number of	Percentage	(thousand	Percentage	Number of	Percentage	(thousand	Percentage
	operations	of total	metric tons)	of total	operations	of total	metric tons)	of total
Less than 25,000	47	4.3	385	(2)	168	28.2	1,170	(2)
25,000 to 49,999	41	3.8	1,340	(2)	57	9.6	1,940	0.1
50,000 to 99,999	69	6.3	4,470	0.1	87	14.6	6,020	0.4
100,000 to 199,999	86	7.9	11,700	0.1	72	12.1	9,590	0.6
200,000 to 299,999	111	10.2	25,000	0.3	48	8.1	11,000	0.7
300,000 to 399,999	81	7.4	25,600	0.3	33	5.5	11,000	0.7
400,000 to 499,999	58	5.3	23,600	0.3	28	4.7	11,200	0.7
500,000 to 599,999	56	5.1	27,700	0.3	11	1.8	5,510	0.3
600,000 to 699,999	60	5.5	35,500	0.4	17	2.9	10,000	0.6
700,000 to 799,999	107	9.8	73,800	0.9	14	2.4	9,700	0.6
800,000 to 899,999	36	3.3	27,800	0.3	8	1.3	6,240	0.4
900,000 to 999,999	61	5.6	51,300	0.6	3	0.5	2,620	0.2
1,000,000 to 1,499,999	124	11.4	137,000	16.0	26	4.4	28,400	17.0
1,500,000 to 1,999,999	74	6.8	114,000	14.0	10	1.7	15,700	10.0
2,000,000 to 2,499,999	29	2.7	59,100	0.7	8	1.3	16,400	10.0
2,500,000 to 4,999,999	41	3.8	131,000	16.0	4	0.7	11,900	0.7
5,000,000 and more	11	1.0	86,700	10.0	1	0.2	5,620	0.3
Total	1,092	100.0	837,000	100.0	595	100.0	164,000	100.0

⁻⁻ Zero.

¹Data are rounded to no more than three significant digits except "number of operations;" may not add to totals shown.

²Less than ½ unit.

TABLE 8 ${\it CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS } \\ {\it IN THE UNITED STATES IN 2005, BY STATE}^1$

(Thousand metric tons and thousand dollars)

	Lim	estone	Dolo	mite
State	Quantity	Value	Quantity	Value
Alabama	41,000	269,000	W	W
Arizona	6,340 ²	33,200 ²		
Arkansas	13,500	81,700	W	W
California	21,700 ²	161,000 ²	W	W
Colorado	1,540	11,300	W	W
Connecticut	W ²	\mathbf{W}^{2}	W	W
Delaware	W	W		
Florida	110,000 ²	963,000 ²	982	7,370
Georgia	8,690	66,900		
Hawaii	W	W		
Idaho	W	W		
Illinois	56,600 ²	400,000 ²	19,500	144,000
Indiana	47,700 ²	250,000 ²	9,750	60,200
Iowa	32,600 ²	237,000 2	W	W
Kansas	21,500	155,000		
Kentucky	58,200 ²	421,000 ²	W	W
Louisiana ³	W	W		
Maine	1,940	12,500		
Maryland	21,400 ²	181,000 ²		
Massachusetts	W ²	W^{2}	W	W
Michigan	27,900	108,000	7,380	31,200
Minnesota	W ²	W^2	W	W
Mississippi ³	3,500	41,700		
Missouri	93,300 ²	631,000 ²	3,860	26,400
Montana	2,550	12,500		
Nebraska	6,950	49,300		
Nevada	4,710	26,700	W	W
New Jersey	W	W		
New Mexico	2,250	13,800		
New York	31,900 ²	267,000 ²	10,200	86,500
North Carolina	W	W	W	W
Ohio	65,800 ²	392,000 ²	8,940	42,700
Oklahoma	38,500 ²	232,000 ²		,,,,,,,
Oregon	W	W		
Pennsylvania	62,100 ²	420,000 2	12,400	79,700
Rhode Island	W	.20,000 W		
South Carolina	W	W		
South Dakota	3,200	14,800		
Tennessee	62,900 ²	474,000 ²	W	W
Texas	129,000 ²	792,000 ²	W	W
Utah	3,550	19,400	W	W
Vermont		W ²	W	W
Virginia	29,000 ²	260,000 ²	3,400	27,900
Washington	2,120 ²	13,100 ²	W	27,500 W
West Virginia	13,200	89,800		
Wisconsin	31,800 ²	187,000 ²	1,000	4,920
	2,500 ²	12,500 ²	1,000	4,920
Wyoming			17 200	139 000
Other	24,700	199,000	17,800	138,000
Total	1,090,000	7,490,000	95,200	649,000

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

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

²Includes limestone-dolomite reported with no distinction between the two kinds of stone.

³A significant amount of sold or used material was shipped in from other States.

TABLE 9 CRUSHED GRANITE, TRAPROCK, AND SANDSTONE AND QUARTZITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY STATE $^{\rm I}$

(Thousand metric tons and thousand dollars)

	Gra	anite	T	raprock	Sandstone a	nd quartzite ²
State	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	1,830	12,600			1,290	7,690
Alaska ³	120	1,100	W	W		
Arizona	3,650	21,900	W	W	597	6,790
Arkansas	9,320	59,600			10,500	56,100
California	13,700	122,000	11,600	115,000	3,810	24,300
Colorado	6,240	42,400	W	W	4,430	30,400
Connecticut	382	3,470	7,980	73,000		
Florida					W	W
Georgia	66,900	509,000			2,110	16,100
Hawaii			5,420	72,000		
Idaho	692	3,280	2,240	12,000	442	2,390
Illinois					125	1,200
Kansas					599	4,310
Louisiana ⁴					W	W
Maine	1,730	12,400	W	W	520	3,470
Maryland	5,710	40,200	W	W	W	W
Massachusetts	3,850	30,900	7,830	68,600		
Minnesota	2,690	22,100			419	3,570
Missouri	W	W	W	W		
Montana	221	1,070	W	W	34	164
Nevada	3,130	22,500				
New Hampshire	2,080	16,400	3,020	24,400		
New Jersey	8,110	57,900	14,500	102,000		
New Mexico	W	W			W	W
New York	3,540	28,400	W	W	2,330	22,200
North Carolina	53,900	472,000	7,690	62,400	W	W
North Dakota	W	W	10	43		
Ohio					467	2,700
Oklahoma	3,740	23,900			2,530	16,600
Oregon	2	14	22,500	136,000		
Pennsylvania	6,450	40,700	4,670	31,200	10,300	70,800
Rhode Island	455	3,930	1,150	8,510		
South Carolina	25,200	203,000				
South Dakota	241	1,110			3,210	14,800
Tennessee	515	3,880			W	W
Texas	W	W	W	W	857	7,420
Utah					1,350	7,730
Vermont	303	2,130			887	6,190
Virginia	31,200	291,000	18,600	164,000	2,180	19,900
Washington	539	3,890	9,300	62,400	W	W
West Virginia					1,260	9,620
Wisconsin	2,740	15,800	1,780	9,420	1,580	9,920
Wyoming	W	W			9	44
Other	3,740	88,900	11,700	96,300	3,420	42,600
Total	263,000	2,160,000	130,000	1,040,000	55,300	387,000

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

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

²Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

³Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

⁴A significant amount of sold or used material was shipped in from other States.

TABLE 10 CRUSHED CALCAREOUS MARL AND MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY STATE $^{\rm I}$

(Thousand metric tons and thousand dollars)

	Calcareo	us marl	Mar	ble
State	Quantity	Value	Quantity	Value
Alabama			2,750	18,200
Arizona			67	361
California			W	W
Colorado			W	W
Georgia			1,740	14,100
Michigan	W	W		
New York			W	W
Pennsylvania			W	W
South Carolina	4,920	28,200	W	W
Texas	W	W	55	1,160
Vermont			2,030	13,700
Washington			217	1,520
Wyoming			W	W
Other		138	910	9,740
Total	4,950	28,300	7,760	58,700

W Withheld to avoid disclosing company proprietary data, included in "Other." -- Zero.

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

 ${\it TABLE~11}$ CRUSHED VOLCANIC CINDER AND SCORIA AND CRUSHED MISCELLANEOUS STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY STATE $^{\rm I}$

(Thousand metric tons and thousand dollars)

	Volcanic cind	Miscellaneous stone		
State	Quantity	Value	Quantity	Value
Alabama			50	436
Alaska ²			2,140	13,600
Arizona	151	813	1,250	6,180
Arkansas			676	4,140
California	176	1,810	2,270	22,400
Colorado	159	1,080	583	3,590
Connecticut			1	5
Hawaii	W	W	419	4,320
Idaho			546	2,570
Maine			W	W
Maryland				
Massachusetts			W	W
Michigan			W	W
Montana	W	W	254	1,010
Nevada	W	W	1,060	6,580
New Jersey			W	W
New Mexico	338	2,620	240	1,820
New York			327	2,430
North Carolina			3,460	33,500
North Dakota	42	186	15	64
Oklahoma			584	3,110
Oregon	47	261	2,180	12,700
Pennsylvania			8,870	57,800
Texas	27	51	1,760	9,880
Utah	W	W	536	3,370
Virginia			1,640	13,500
Washington	W	W	1,050	7,300
Wyoming	W	W	1,560	8,240
Other	2,020	14,600	1,520	7,230
Total	2,960	21,400	33,000	226,000

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

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

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

 ${\it TABLE~12}$ KIND OF CRUSHED STONE PRODUCED AND/OR DISTRIBUTED IN THE UNITED STATES IN 2005, BY STATE

				Calcareous							Volcanic cinder and	
State	Limestone	Dolomite	Marble	marl	Shell	Granite	Traprock	Sandstone	Quartzite	Slate	scoria	Miscellaneous
Alabama	X	X	X			X		X		X		X
Alaska ¹					X	X	X					X
Arizona	X		X			X	X	X	X		X	X
Arkansas	X	X				X		X	X	X		X
California	X	X	X		X	X	X	X	X	X	X	X
Colorado	X	X	X			X	X	X	X		X	X
Connecticut	X	X				X	X					X
Delaware	X											
Florida	X	X			X			X				
Georgia	X		X			X			X			
Hawaii	X						X				X	X
Idaho	X				X	X	X		X			X
Illinois	X	X						X				X
Indiana	X	X										
Iowa	X	X										
Kansas	X								X			
Kentucky	X	X										
Louisiana	X							X				X
Maine	X					X	X		X	X		X
Maryland	X				X	X	X	X				
Massachusetts	X	X				X	X					X
Michigan	X	X		X								X
Minnesota	X	X		71		X			X			71
Mississippi	X	71				21			71			
Missouri	X	X				X	X					
Montana	X	71				X	X	X			X	X
Nebraska	X					21	71	71			71	
Nevada	X	X				X					X	X
New Hampshire	Λ	Λ				X	X				Λ	A
New Jersey	X					X	X					X
New Mexico	X					X	Λ	X			X	X
New York	X	X	X			X	X	X		X	Λ	X
North Carolina	X	X	Λ			X	X	Λ	X	X		X
North Dakota	Λ	Λ.				X	X		Λ		X	X
Ohio	X	X				Λ	Λ	X			Λ	Λ
Oklahoma	X	Λ				X		X	X			X
						X	v	Λ	Λ		X	
Oregon	X	X	X				X X	X	X	v	Λ	X
Pennsylvania	X	Λ	Α			X		Λ	Λ	X		X
Rhode Island	X		37	37		X	X					
South Carolina	X		X	X		X			37	37		
South Dakota	X	37				X		37	X	X		
Tennessee	X	X	37	37	3.7	X	37	X	37		37	37
Texas	X	X	X	X	X	X	X	X	X		X	X
Utah	X	X	**			**		X	X	7.	X	X
Vermont	X	X	X			X			X	X		
Virginia	X	X				X	X	X	X	X		X
Washington	X	X	X			X	X	X		X	X	X
West Virginia	X	_				_	_	X				
Wisconsin	X	X				X	X	X				
Wyoming	X		X			X			X		X	X

¹Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

TABLE 13 CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY USE $^{\rm I}$

	Quantity		
	(thousand	Value	Unit
Use	metric tons)	(thousands)	value
Construction:			
Coarse aggregate (+1½ inch):	_		
Macadam	5,100	\$35,700	\$7.01
Riprap and jetty stone	15,000	152,000	10.19
Filter stone	8,920	82,200	9.21
Other coarse aggregate	16,900	119,000	7.06
Coarse aggregate, graded:			
Concrete aggregate, coarse	80,200	669,000	8.34
Bituminous aggregate, coarse	65,200	518,000	7.94
Bituminous surface-treatment aggregate	15,000	134,000	8.93
Railroad ballast	9,000	61,800	6.86
Other graded coarse aggregate	87,800	747,000	8.51
Fine aggregate $(-\frac{3}{8})$ inch):			
Stone sand, concrete	21,200	155,000	7.34
Stone sand, bituminous mix or seal	15,500	98,800	6.37
Screening, undesignated	16,800	120,000	7.12
Other fine aggregate	35,500	281,000	7.93
Coarse and fine aggregates:			
Graded road base or subbase	147,000	907,000	6.17
Unpaved road surfacing	24,300	155,000	6.38
Terrazzo and exposed aggregate	1,120	16,300	14.55
Crusher run or fill or waste	26,300	149,000	5.69
Roofing granules	1,700	73,800	43.32
Other coarse and fine aggregates	109,000	750,000	6.87
Other construction materials ²	10,600	104,000	9.87
Agricultural:			
Agricultural limestone	10,800	64,200	5.94
Poultry grit and mineral food	1,060	11,400	10.76
Other agricultural uses	1,200	18,300	15.24
Chemical and metallurgical:			
Cement manufacture	76,100	349,000	4.58
Lime manufacture	18,600	134,000	7.21
Dead-burned dolomite manufacture	W	W	5.73
Flux stone	4,360	22,800	5.24
Chemical stone	334	5,890	17.64
Glass manufacture	1,180	11,500	9.76
Sulfur oxide removal	3,610	22,000	6.09
Special:	_		
Mine dusting or acid water treatment	208	4,550	21.87
Asphalt fillers or extenders	1,160	15,400	13.29
Whiting or whiting substitute	103	1,280	12.44
Other fillers or extenders	4,330	66,100	15.27
Other miscellaneous uses:			
Chemicals	34	1,120	32.94
Refractory stone	W	W	2.00
Sugar refining		1,240	5.54
Waste material	W	W	2.00
Other specified uses not listed	5,500	42,500	7.73
Unspecified: ³		,000	5
Reported	540,000	3,830,000	7.09
Estimated	304,000	2,170,000	7.13
Total or average	1,690,000	12,100,000	7.13
See footnotes at end of table	1,070,000	12,100,000	7.10

See footnotes at end of table.

TABLE 13—Continued CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY USE $^{\rm I}$

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

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

²Includes building products, drain fields, and pipe bedding.

³Reported and estimated production without a breakdown by end use.

 ${\it TABLE~14}$ CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY USE $^{\rm I}$

(Thousand metric tons and thousand dollars)

	Lime	stone ²	Dolo	mite
Use	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch):				
Macadam	2,500	17,500	1,560	12,100
Riprap and jetty stone	8,040	62,700	1,590	16,200
Filter stone	5,190	48,000	1,720	12,800
Other coarse aggregate	13,000	89,300	524	3,680
Coarse aggregate, graded:				
Concrete aggregate, coarse	43,200	327,000	6,050	43,100
Bituminous aggregate, coarse	42,100	311,000	5,000	40,200
Bituminous surface-treatment aggregate	6,830	61,700	3,310	25,700
Railroad ballast	1,730	10,400	988	6,590
Other graded coarse aggregate	70,800	600,000	3,100	17,300
Fine aggregate (-3/8 inch):				
Stone sand, concrete	9,720	62,800	1,370	7,920
Stone sand, bituminous mix or seal	8,260	50,200	1,680	9,080
Screening, undesignated	9,990	72,400	1,340	6,540
Other fine aggregate	29,300	238,000	1,060	6,690
Coarse and fine aggregates:				
Graded road base or subbase	94,000	520,000	9,290	57,200
Unpaved road surfacing	18,000	114,000	3,110	20,000
Terrazzo and exposed aggregate	65	789		20,000
Crusher run or fill or waste	17,600	93,300	2,080	12,400
Roofing granules	427	3,370	2,000	12,100
Other coarse and fine aggregates	78,700	547,000	6,540	37,400
Other construction materials ³	4,940	54,000	641	6,370
Agricultural:	7,240	54,000	041	0,370
Agricultural limestone	9,660	56,400	1,160	7,770
Poultry grit and mineral food	1,030	10,900	1,100	7,770
Other agricultural uses	795	8,260	W	W
Chemical and metallurgical:	193	0,200	**	vv
Cement manufacture	70,900	329,000		
Lime manufacture			1,120	1 220
	17,500	130,000	,	4,330
Dead-burned dolomite manufacture	1.600	0.000	W 2.240	W
Flux stone	1,690	9,980	2,340	10,800
Chemical stone	W	W		
Glass manufacture	491	3,450	W	W
Sulfur oxide removal	3,610	22,000		
Special:				
Mine dusting or acid water treatment	205	4,480		
Asphalt fillers or extenders	674	7,340	W	W
Whiting or whiting substitute	79	1,100	W	W
Other fillers or extenders	3,240	57,900	W	W
Other miscellaneous uses:				
Chemicals	34	1,120		
Refractory stone (including ganister)	W	W		
Sugar refining	224	1,240		
Waste material	W	W		
Other specified uses not listed	2,620	17,200	216	1,000
Unspecified: ⁴				
Reported	294,000	2,020,000	29,000	192,000
Estimated	214,000	1,520,000	8,440	66,000
Total or average	1,090,000	7,490,000	95,200	649,000
See footnotes at and of table				

See footnotes at end of table.

$\label{thm:continued} TABLE~14\\ --Continued$ CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY USE 1

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

⁻⁻ Zero.

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

²Includes a minor amount of limestone-dolomite reported without a distinction between the two.

³Includes building products, drain fields, and pipe bedding.

⁴Reported and estimated production without a breakdown by end use.

 ${\it TABLE~15}$ CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2005, BY STATE AND USE $^{\rm l}$

(Thousand metric tons and thousand dollars)

	Concrete	aggregate	Bitumino	is aggregate	Roadstone a	nd coverings	Riprap and ra	ilroad ballast	Other const	ruction uses
State	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	3,290	19,700	10,400	68,400	2,990	18,400	211	1,500	7,790	52,900
Arizona									W	W
Arkansas	1,050	8,360	951	8,180	2,680	17,700	210	1,370	2,240	12,300
California	W	W	373	5,750	273	2,230	218	5,450	1,400	12,000
Colorado	W	W	W	W	W	W	W	W		
Connecticut	W	W	W	W	W	W			W	W
Delaware										
Florida	13,200	149,000	14,000	187,000	14,100	69,400	47	835	13,800	123,000
Georgia	W	W	W	W	W	W	W	W	W	W
Hawaii			W	W					W	W
Idaho					W	W				
Illinois	12,300	92,500	12,300	98,900	16,000	91,400	2,480	25,000	6,690	40,700
Indiana	5,490	26,400	6,930	37,700	11,800	68,600	1,280	8,240	5,130	28,300
Iowa	1,110	10,500	852	6,400	4,730	31,800	95	1,100	1,610	11,700
Kansas	W	W	587	4,160	1,660	8,430	220	1,610	1,350	9,090
Kentucky	4,490	27,500	7,840	58,300	5,420	41,200	575	4,090	8,120	57,300
Louisiana ²	W	W	W	W	W	W			W	W
Maine	W	W			W	W	33	282	316	2,540
Maryland	1,840	19,700	3,990	46,400	2,840	20,900	366	2,600	2,940	23,800
Massachusetts					W	W			W	W
Michigan	4,690	22,100	2,090	11,100	2,060	10,500	148	2200	979	4,060
Minnesota	W	W	W	W	970	7,620	62	1210	118	974
Mississippi ²	W	W	W	W	W	W			W	W
Missouri	4,680	35,800	7,340	50,600	7,140	37,000	1,710	6,410	10,900	68,200
Montana	W	W			W	W	W	W	W	W
Nebraska	W	W	W	W	W	W	W	W	W	W
Nevada									W	W
New Jersey	W	W			W	W				
New Mexico	54	482	W	W	68	447	W	W	W	W
New York	3,430	30,300	6,550	65,400	4,050	26,200	257	2,340	6,680	57,600
North Carolina	W	W	W	W	W	W	W	W	W	W
Ohio	2,380	10,800	5,930	30,600	20,500	127,000	556	3,110	2,680	14,600
Oklahoma	1,320	8,080	12,400	72,600	1,670	8,580	420	3,050	10,300	46,300
Oregon										
Pennsylvania	4,990	34,500	13,600	96,600	7,410	48,700	906	6,640	8,660	51,500
Rhode Island								·	·	·
South Carolina	W	W	W	W	W	W			W	W
South Dakota	W	W	W	W	W	W			W	W
Tennessee	3,530	30,000	17,800	138,000	9,720	59,800	1,290	8,890	10,700	76,200
Texas	14,700	97,000	7,400	56,800	14,500	71,500	497	3,580	15,300	97,300
Utah					W	W			W	W
Vermont	W	W	W	W	W	W			W	W
Virginia	1,620	13,400	3,860	28,500	1,710	12,600	284	2,620	3,780	29,600
Washington			W	W	W	W		-,	W	W
West Virginia	869	5,390	756	5,090	780	4,670	102	738	1,230	8,500
Wisconsin	1,270	7,870	658	3,340	6,290	31,900	171	986	1,810	17,300
Wyoming			W	W	W	W			W	W
Total	86,300	650,000	137,000	1,080,000	139,000	817,000	12,100	93,800	125,000	846,000
Total withheld	4,390	34,900	5,680	50,700	2,660	17,700	199	2,080	4,630	48,900
Grand total	90,700	685,000	142,000	1,130,000	142,000	834,000	12,300	95,900	129,000	894,000
Granu ioiai	70,700	000,000	172,000	1,130,000	174,000	007,000	12,500	75,700	127,000	377,000

See footnotes at end of table.

$\label{thm:continued} TABLE~15\\ --Continued$ CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2005, BY STATE AND USE 1

(Thousand metric tons and thousand dollars)

	Cement ma	anufacture	Agricultu	ıral uses	Lime 1	nanufacture	C	Other uses	To	otal
State	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	2,640	14,900	W	W	W	W	13,200	89,500	(3)	(3)
Arizona	W	W	W	W	W	W	2,270	12,200	6,340 4	33,200 4
Arkansas	W	W	241	2,010	W	W	5,300	34,700	(3, 4)	(3, 4)
California	6,870	33,300	176	3,610			13,000	104,000	22,400 4	166,000 4
Colorado			W	W			741	6,540	(3)	(3)
Connecticut							1,610	14,800	(3, 4)	(3, 4)
Delaware							W	W	(3)	(3)
Florida	6,150	18,200	620	5,080			48,900	418,000	111,000 4	970,000 4
Georgia	W	W	W	W			4,000	29,900	8,690	66,900
Hawaii									(3)	(3)
Idaho	W	W	W	W			W	W	(3)	(3)
Illinois	W	W	2,420	8,490	W	W	20,800	165,000	76,000 4	544,000 4
Indiana	W	W	1,660	7,340			22,300	126,000	57,500 4	311,000 4
Iowa			W	W	W	W	24,800	179,000	(3, 4)	(3, 4)
Kansas	3,260	28,600	188	618			13,900	100,000	21,500	155,000
Kentucky			W	W	W	W	28,500	206,000	(3, 4)	(3, 4)
Louisiana ²							W	W	(3)	(3)
Maine	W	W			W	W	W	W	1,940	12,500
Maryland	W	W	W	W			6,660	51,200	21,400 4	181,000 ⁴
Massachusetts			W	W	W	W	337	7,810	(3, 4)	(3, 4)
Michigan	W	W	103	971	W	W	20,100	78,800	35,200	139,000
Minnesota			38	234			6,150	51,000	(3, 4)	(3, 4)
Mississippi ²	W	W	W	W			1,110	8,170	3,500	41,700
Missouri	4,160	16,300	857	3,750	1,850	8,670	58,500	431,000	97,200 ⁴	657,000 ⁴
Montana	W	W	W	W	W	W	1,260	5,800	2,550	12,500
Nebraska	W	W	W	W			4,410	31,500	6,950	49,300
Nevada	W	W	W	W	W	W	2,810	17,300	(3)	(3)
New Jersey									(3)	(3)
New Mexico							1,740	11,600	2,250	13,800
New York			W	W	W	W	20,600	168,000	42,100 4	353,000 4
North Carolina							W	W	(3)	(3)
Ohio	W	W	625	3,810	W	W	37,000	219,000	74,700 4	435,000 4
Oklahoma	W	W	123	761	W	W	9,900	57,500	38,500 ⁴	214,000 4
Oregon	W	W					W	W	(3)	(3)
Pennsylvania	3,270	23,500	W	W	W	W	35,000	231,000	74,600 4	499,000 4
Rhode Island			W	W			W	W	(3)	(3)
South Carolina							2,810	20,200	3,700	26,200
South Dakota	W	W			W	W	W	W W	3,200	14,800
Tennessee	W	W	251	2,070	W	W	18,500	142,000	(3, 4)	(3, 4)
Texas	12,000	43,600	W	2,070 W	W	W	64,200	418,000	(3, 4)	(3, 4)
Utah	W	43,000 W	57	1,010	W	W	3,320	18,800	(3)	(3)
Vermont				1,010			1,990	13,400	(3, 4)	(3, 4)
Virginia			W	W	W	W	20,400	187,000	32,400 4	288,000 4
Washington	W	W	W	W	W	W	1,290	8,740	(3, 4)	(3, 4)
West Virginia			W				1,290 W			89,800
				W	 W	 W		W 127,000	13,200	192,000 ⁴
Wyoming			W	W	W	W	22,200	127,000	32,800 ⁴	
Wyoming	29 200	170,000	7 250	20.700	1 950	9 670	2,480	12,300	2,500 ⁴	12,500 ⁴
Total	38,300	179,000	7,350	39,700	1,850	8,670	542,000	3,800,000	XX	XX
Total withheld	32,600	150,000	1,580	24,500	13,500	128,000	19,300	135,000	1 100 000	9 120 000
Grand total	70,900	329,000	8,930	64,300	15,300	136,000	561,000	3,940,000	1,180,000	8,130,000

W Withheld to avoid disclosing company proprietary data; included in "Total" or "Total withheld." XX Not applicable. -- Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

TABLE 16 ${\it CRUSHED MARBLE SOLD OR USED BY PRODUCERS IN } \\ {\it THE UNITED STATES IN 2005, BY USE}^{1}$

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Macadam	46	343
Riprap and jetty stone	320	3,850
Filter stone	W	W
Coarse aggregate, graded:	_	
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	18	110
Other graded coarse aggregate		26
Fine aggregate (- ³ / ₈ inch):	_	
Stone sand, concrete	W	W
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	W	W
Coarse and fine aggregates:	_	
Graded road base or subbase	W	W
Terrazzo and exposed aggregate	W	W
Crusher run or fill or waste	16	34
Other coarse and fine aggregates	1,670	11,900
Agricultural:	_	
Poultry grit and mineral food	_ 1	61
Other agricultural uses	240	830
Special:	_	
Mine dusting or acid water treatment	W	W
Other fillers or extenders	566	4,400
Other miscellaneous uses and other specified uses not listed	39	2,490
Unspecified, estimated ²	4,010	27,400
Total	7,760	58,700

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

 $^{^{\}mathrm{l}}\mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

 $^{^2\}mbox{Estimated}$ production without a breakdown by end use.

TABLE 17 CRUSHED GRANITE AND TRAPROCK SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY $\rm USE^{\rm I}$

(Thousand metric tons and thousand dollars)

Construction:		Gr	anite	Traj	prock
Coarse aggregate (+1 ½ inch): 591 3,130 300 1 Riprap and jetty stone 3,460 43,500 685 10 Filter stone 766 8,710 864 9 Other coarse aggregate 1,000 9,560 1,370 8 Coarse aggregate, graded: 24,400 237,000 4,170 41 Bituminous aggregate, coarse 12,800 120,000 3,040 27 Bituminous surface-treatment aggregate 2,860 29,400 1,570 13 Railroad ballast 3,570 25,400 2,210 15 Other graded coarse aggregate 6,680 64,400 3,750 3 Fine aggregate (-3/8 inch): 8,530 61,200 761 15 Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregates: 25,800 1	Use	Quantity	Value	Quantity	Value
Macadam 591 3,130 300 1 Riprap and jetty stone 3,460 43,500 685 10 Filter stone 766 8,710 864 9 Other coarse aggregate 1,000 9,560 1,370 8 Coarse aggregate, graded: 24,400 237,000 4,170 41 Bituminous aggregate, coarse 12,800 120,000 3,040 27 Bituminous surface-treatment aggregate 2,860 29,400 1,570 12 Railroad ballast 3,570 25,400 2,210 13 Other graded coarse aggregate 6,680 64,400 3,750 3 Fine aggregate (-3/8 inch): 3,570 25,400 2,210 15 Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregates: 25,800 195,000	truction:				
Riprap and jetty stone	urse aggregate (+1 ½ inch):				
Filter stone	lacadam	591	3,130	300	1,760
Other coarse aggregate 1,000 9,560 1,370 8 Coarse aggregate, graded: 24,400 237,000 4,170 41 Bituminous aggregate, coarse 12,800 120,000 3,040 22 Bituminous surface-treatment aggregate 2,860 29,400 1,570 13 Railroad ballast 3,570 25,400 2,210 15 Other graded coarse aggregate 6,680 64,400 3,750 37 Fine aggregate (-3/8 inch): Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher ru	iprap and jetty stone	3,460	43,500	685	10,800
Coarse aggregate, graded: 24,400 237,000 4,170 41 Bituminous aggregate, coarse 12,800 120,000 3,040 22 Bituminous surface-treatment aggregate 2,860 29,400 1,570 13 Railroad ballast 3,570 25,400 2,210 15 Other graded coarse aggregate 6,680 64,400 3,750 37 Fine aggregate (-3/8 inch): 5 5 6,680 64,400 3,750 37 Stone sand, concrete 8,530 61,200 761 15 5 15 16 5 2,2500 1,070 9 1,070 9 1,070 9 1,070	ilter stone	766	8,710	864	9,190
Concrete aggregate, coarse 24,400 237,000 4,170 41 Bituminous aggregate, coarse 12,800 120,000 3,040 22 Bituminous surface-treatment aggregate 2,860 29,400 1,570 13 Railroad ballast 3,570 25,400 2,210 14 Other graded coarse aggregate 6,680 64,400 3,750 37 Fine aggregate (-3/8 inch): 5 5 6,680 64,400 3,750 37 Stone sand, concrete 8,530 61,200 761 15 15 16 5 5 16 16 5 16 17	ther coarse aggregate	1,000	9,560	1,370	8,490
Bituminous aggregate, coarse 12,800 120,000 3,040 22	rrse aggregate, graded:				
Bituminous surface-treatment aggregate	oncrete aggregate, coarse	24,400	237,000	4,170	41,100
Railroad ballast 3,570 25,400 2,210 15 Other graded coarse aggregate 6,680 64,400 3,750 35 Fine aggregate (-3/8 inch): 8,530 61,200 761 15 Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials ² 9 74 1,810	ituminous aggregate, coarse	12,800	120,000	3,040	27,400
Other graded coarse aggregate 6,680 64,400 3,750 37 Fine aggregate (-3/8 inch): 8,530 61,200 761 15 Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 60 Other construction materials² 9 74 1,810 24 Agricultural: 9 74 1,810 24	ituminous surface-treatment aggregate	2,860	29,400	1,570	13,300
Fine aggregate (-3/8 inch): 8,530 61,200 761 15 Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 96 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Other agricultural uses 18 80 Special: -	ailroad ballast	3,570	25,400	2,210	15,000
Stone sand, concrete 8,530 61,200 761 15 Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: 9 74 1,810 24 Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: <td>ther graded coarse aggregate</td> <td>6,680</td> <td>64,400</td> <td>3,750</td> <td>37,000</td>	ther graded coarse aggregate	6,680	64,400	3,750	37,000
Stone sand, bituminous mix or seal 3,450 22,500 1,070 9 Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: 9 74 1,810 24 Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: W	e aggregate (- ³ / ₈ inch):				
Screening, undesignated 3,190 24,900 1,750 12 Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: 9 74 1,810 24 Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: W	tone sand, concrete	8,530	61,200	761	15,200
Other fine aggregate 2,230 12,500 696 7 Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: 9 74 1,810 24 Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: W	tone sand, bituminous mix or seal	3,450	22,500	1,070	9,810
Coarse and fine aggregates: 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: 9 74 1,810 24 Other agricultural uses 18 80 Special: W	creening, undesignated	3,190	24,900	1,750	12,400
Graded road base or subbase 25,800 195,000 12,400 95 Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	ther fine aggregate	2,230	12,500	696	7,320
Unpaved road surfacing 1,060 7,710 1,550 9 Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	rrse and fine aggregates:				
Terrazzo and exposed aggregate 584 8,160 32 Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	raded road base or subbase	25,800	195,000	12,400	95,600
Crusher run or fill or waste 3,100 20,300 2,220 14 Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	npaved road surfacing	1,060	7,710	1,550	9,330
Roofing granules 627 67,800 W Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	errazzo and exposed aggregate	584	8,160	32	348
Other coarse and fine aggregates 7,550 50,100 9,050 66 Other construction materials² 9 74 1,810 24 Agricultural: Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	rusher run or fill or waste	3,100	20,300	2,220	14,900
Other construction materials ² 9 74 1,810 24 Agricultural: W W W W W W W W W W	oofing granules	627	67,800	W	W
Agricultural: 5 286 Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: W	ther coarse and fine aggregates	7,550	50,100	9,050	66,100
Poultry grit and mineral food 5 286 Other agricultural uses 18 80 Special: W	er construction materials ²	9	74	1,810	24,800
Other agricultural uses 18 80 Special: Asphalt fillers or extenders W	ultural:				
Special: Asphalt fillers or extenders W	ltry grit and mineral food	5	286		
Asphalt fillers or extenders W	er agricultural uses	18	80		
	al:				
Other fillers or extenders W	shalt fillers or extenders			W	W
Other inters of extenders	er fillers or extenders			W	W
Other miscellaneous uses and specified uses not listed 536 8,660 106	miscellaneous uses and specified uses not listed	536	8,660	106	1,380
Unspecified: ³	ecified: ³				
		119,000	910,000	58,800	462,000
Estimated 31,000 228,000 21,500 153	mated	31,000	228,000	21,500	153,000
Total 263,000 2,160,000 130,000 1,040	al	263,000	2,160,000	130,000	1,040,000

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

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

²Includes drain fields and pipe bedding.

³Reported and estimated production without a breakdown by end use.

TABLE 18 CRUSHED SANDSTONE AND QUARTZITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY USE $^{\!1,2}$

(Thousand metric tons and thousand dollars)

	Sands	stone	Quar	tzite
Use	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch):				
Macadam	W	W		
Riprap and jetty stone	527	8,230	16	200
Filter stone	214	1,670	W	W
Other coarse aggregate	448	3,550	110	773
Coarse aggregate, graded:				
Concrete aggregate, coarse	876	6,420	144	1,100
Bituminous aggregate, coarse	977	7,700	421	5,060
Bituminous surface-treatment aggregate	174	1,380	W	W
Railroad ballast	W	W	W	W
Other graded coarse aggregate	1,310	11,600	325	2,140
Fine aggregate (-3/8 inch):				
Stone sand, concrete	485	3,910	W	W
Stone sand, bituminous mix or seal	625	4,290	80	690
Screening, undesignated	254	1,510		
Other fine aggregate	1,140	9,140	457	3,760
Coarse and fine aggregates:				
Graded road base or subbase	2,250	14,900	525	4,170
Unpaved road surfacing	38	327	W	W
Terrazzo and exposed aggregate			W	W
Crusher run or fill or waste	469	2,460	W	W
Roofing granules	W	W		
Other coarse and fine aggregates	1,710	12,200	440	2,130
Other construction materials ³	98	865		
Chemical and metallurgical:				
Cement manufacture	W	W	W	W
Flux stone	W	W	W	W
Glass manufacture	W	W		
Special, other fillers or extenders	W	W		
Other miscellaneous uses:				
Abrasives	(4)	(4)		
Other specified uses not listed	275	3,080	158	2,100
Unspecified: ⁵				,
Reported	14,000	95,700	9,460	59,400
Estimated	10,900	71,800	2,310	17,600
Total	37,200	267,000	18,100	120,000

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

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

²Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

³Includes drain fields.

⁴Less than ½ unit.

⁵Reported and estimated production without a breakdown by end use.

TABLE 19 CRUSHED VOLCANIC CINDER AND SCORIA AND CRUSHED MISCELLANEOUS STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY $\rm USE^1$

(Thousand metric tons and thousand dollars)

	Volcanic cinc	ler and scoria	Miscellane	eous stone
Use	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch):				
Macadam			W	W
Riprap and jetty stone	(2)	5	328	6,720
Filter stone			132	1,510
Other coarse aggregate	91	1,040	371	2,900
Coarse aggregate, graded:				
Concrete aggregate, coarse	200	1,830	1,120	11,900
Bituminous aggregate, coarse			571	4,020
Bituminous surface-treatment aggregate			155	1,480
Railroad ballast			448	3,940
Other graded coarse aggregate			1,570	12,500
Fine aggregate (- ³ / ₈ inch):				
Stone sand, concrete	W	W	90	765
Stone sand, bituminous mix or seal			340	2,230
Screening, undesignated	W	W	254	2,010
Other fine aggregate	2	24	503	3,500
Coarse and fine aggregates:				
Graded road base or subbase	48	623	1,690	13,100
Unpaved road surfacing			493	2,650
Terrazzo and exposed aggregate	W	W	W	W
Crusher run or fill or waste	52	486	487	3,640
Other coarse and fine aggregates	233	1,830	1,930	11,100
Other construction materials	28	55	802	7,120
Agricultural, other agricultural uses	W	W	W	W
Chemical and metallurgical, cement manufacture			69	384
Special, other fillers or extenders			W	W
Other miscellaneous uses and other specified uses not listed	319	2,280	1,150	3,590
Unspecified: ³				
Reported	1,580	8,230	12,300	72,400
Estimated	286	1,840	8,200	57,900
Total	2,960	21,400	33,000	226,000

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

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

²Less than ½ unit.

³Reported and estimated production without a breakdown by end use.

 ${\it TABLE~20}$ RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION $^{\rm I}$

		2004			2005	
	Quantity			Quantity		
	(thousand	Value	Unit	(thousand	Value	Unit
Region/division	metric tons)	(thousands)	value	metric tons)	(thousands)	value
Northeast:						
New England	171 ^r	\$963 ^r	\$5.63 ^r	143	\$944	\$6.60
Middle Atlantic	684 ^r	5,500 ^r	8.04 ^r	448	2,690	6.00
Midwest:	•					
East North Central	260	1,710	6.57	253	1,580	6.24
West North Central	329	1,790	5.45	45	300	6.67
South:						
South Atlantic	357	2,360	6.62	329	2,190	6.65
East South Central	72	781	10.85			
West South Central	143	770	5.38	170	2,350	13.82
West:	-					
Mountain	9	57	6.33	1	8	8.00
Pacific	311	2,130	6.84	548	7,610	13.89
Total or average	2,340 ^r	16,100 ^r	6.88 ^r	1,940	17,700	9.12

^rRevised. -- Zero.

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

TABLE 21 RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE $^{\rm l}$

		2004			2005	
	Quantity			Quantity		
	(thousand	Value	Unit	(thousand	Value	Unit
State	metric tons)	(thousands)	value	metric tons)	(thousands)	value
Alabama	45	\$250	\$5.55			
Alaska	2	33	16.50	24	\$138	\$5.75
California	211	1,150	5.45	433	6,610	15.27
Connecticut	38	187	4.92	58	329	5.67
Florida	357	2,360	6.62	329	2,190	6.65
Hawaii	73	800	10.95	73	800	10.95
Illinois	107	687	6.42	5	18	3.60
Indiana	42	459	10.93	172	1,150	6.67
Iowa	1	5	5.00			
Kansas	(2)	3	3.00	45	300	6.67
Kentucky	27	531	19.66			
Louisiana ³	20	167	8.35	9	84	9.33
Maine	104	616	5.92	79	573	7.25
Massachusetts	19	90	4.74			
Michigan				5	25	5.00
Minnesota	56	298	5.32			
Missouri	253	1,390	5.50			
Nevada	9	57	6.33			
New Jersey	342	1,890	5.52	69	230	3.33
New Mexico				1	8	8.00
New York	142	1,270	8.93	177	1,100	6.21
Oklahoma				86	461	5.36
Oregon	20	107	5.35	3	16	5.33
Pennsylvania	198 ^r	2,340 ^r	11.81 ^r	202	1,360	6.74
South Dakota	18	96	5.33			
Texas	123	603	4.90	74	1,800	24.38
Vermont	11	70	6.36	6	42	7.00
Washington	6	35	5.83	15	48	3.20
Wisconsin	112	563	5.02	72	388	5.39
Total or average	2,340 ^r	16,100 ^r	6.88 r	1,940	17,700	9.12

Revised. -- Zero

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

²Less than ½ unit.

 $^{^{3}\}mathrm{A}$ significant amount of sold or used material was shipped in from other States.

TABLE 22 RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY GEOGRAPHIC DIVISION $^{\rm I}$

		2004		2005			
	Quantity			Quantity			
	(thousand	Value	Unit	(thousand	Value	Unit	
Region/division	metric tons)	(thousands)	value	metric tons)	(thousands)	value	
Northeast:							
New England	60	\$296	\$4.93	36	\$200	\$5.56	
Middle Atlantic	178	993	5.58	220	1,300	5.90	
Midwest:							
East North Central	1,390 ^r	8,490 ^r	6.09 ^r	1,670	10,400	6.24	
West North Central	158	784	4.96	20	107	5.35	
South:							
South Atlantic	423	3,540	8.37	320	2,840	8.86	
West South Central	109	524	4.81	12	119	9.92	
West:							
Mountain				24	103	4.29	
Pacific	490	3,490	7.11	1,560	14,300	9.20	
Total or average	2,810 ^r	18,100 ^r	6.44 ^r	3,860	29,400	7.62	

^rRevised. -- Zero.

 ${\rm TABLE~23}$ RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY ${\rm STATE}^1$

		2004		2005			
	Quantity			Quantity			
	(thousand	Value	Unit	(thousand	Value	Unit	
State	metric tons)	(thousands)	value	metric tons)	(thousands)	value	
Alaska	5	\$58	\$11.60				
California	352	2,200	6.24	1,540	\$14,200	\$9.19	
Colorado				24	103	4.29	
Connecticut	36	191	5.31	17	101	5.94	
Florida	152	1,330	8.76	10	54	5.40	
Hawaii	96	1,040	10.78	12	128	10.67	
Illinois	1,070 ^r	6,280 ^r	5.86 ^r	1,560	9,830	6.30	
Indiana	50	276	5.52				
Louisiana ²	5	36	7.20	12	119	9.92	
Maine	11	50	4.55	13	71	5.46	
Massachusetts	13	55	4.23	6	28	4.67	
Michigan				5	25	5.00	
Minnesota	138	682	4.94	20	107	5.35	
New Jersey	61	395	6.48	16	60	3.75	
New York	113	568	5.03	182	1,080	5.92	
North Carolina	1	7 ^r	7.00 ^r				
Ohio				9	42	4.67	
Oregon	18	101	5.61	4	24	6.00	
Pennsylvania	5	29	5.80	23	161	7.00	
South Carolina				4	20	5.00	
South Dakota	21	102	4.86				
Texas	104	488	4.69				
Virginia	271	2,210	8.14	305	2,760	9.06	
Washington	19	94	4.95				
Wisconsin	270	1,930	7.14	94	512	5.45	
Total or average	2,810 ^r	18,100 ^r	6.44 ^r	3,860	29,400	7.62	
TDaying d Zone							

^rRevised. -- Zero.

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

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

²A significant amount of sold or used material was shipped in from other States.

TABLE 24 CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2005, BY GEOGRAPHIC DIVISION AND METHOD OF TRANSPORTATION $^{\rm I}$

(Thousand metric tons)

					Not	Not	
Region/division	Truck	Rail	Water	Other	transported	specified	Total
Northeast:							
New England	3,710	42			2,760	33,500	40,000
Middle Atlantic	72,000	2,160			6,730	100,000	181,000
Midwest:							
East North Central	112,000	9,990	8,950	876	9,070	143,000	284,000
West North Central	50,300	2,660	5,220	1,510	3,370	117,000	180,000
South:							
South Atlantic	194,000	10,800	2,640	3,480	7,420	220,000	438,000
East South Central	96,900	2,670	2,900	1,320	4,400	68,100	176,000
West South Central	83,100	14,800	3,390		9,010	112,000	223,000
West:							
Mountain	24,000	886		2,630	2,830	30,800	61,200
Pacific	33,600	4,700	722	1,850	3,300	58,600	103,000
Total	669,000	48,700	23,800	11,700	48,900	883,000	1,690,000

⁻⁻ Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

 ${\it TABLE~25}$ CRUSHED AND BROKEN STONE OPERATIONS IN THE UNITED STATES IN 2005, BY STATE

				Processing plants				
	Active	Active	Dredging			Stationary	None or	Sales
State	operations	quarries	operations	Stationary	Portable	and portable	unspecified	yards
Alabama	82	71		61	6	3	1	11
Alaska ¹	14	15		1	8	1	3	1
Arizona	40	38		16	15	6	2	1
Arkansas	56	54		28	15	6	5	2
California	124	137	1	77	27	11	7	1
Colorado	36	36		19	9	5	3	
Connecticut	23	22		17	4	1		1
Delaware	4							4
Florida	101	93	1	31	37	13	5	14
Georgia	82	78	1	71	3		2	5
Hawaii	21	24		10	10	1		
Idaho	37	41		5	26	3	3	
Illinois	122	123		74	34	6		8
Indiana	91	88		70	6	7	4	4
Iowa	184	198		27	148	1	3	5
Kansas	98	116		18	75	4	1	
Kentucky	91	88		70	6	11	1	3
Louisiana	19							19
Maine	18	16		11	5			2
Maryland	26	25	1	16	4	2	1	2
Massachusetts	33	31		19	6	6		2
Michigan	34	33		19	9	1	3	2
Minnesota	37	47		8	23	1	5	
Mississippi	16	4		2	1	1		12
Missouri	175	175		100	55	11	4	1
Montana	22	23		5	15		2	
Nebraska	9	9		6	2	1		
Nevada	17	17		14	2			
New Hampshire	14	14		13	1			
New Jersey	24	23		12	2	8		1
New Mexico	28	28		10	15	3	2	
New York	98	98	1	78	10	6	2	
North Carolina	109	101		90	9	2	1	7
North Dakota	4	4			2		2	
Ohio	111	107		77	17	3	4	4
Oklahoma	55	55		41	4	7	2	
Oregon	125	136		35	80	2	7	1
Pennsylvania	187	187		147	16	14	10	
Rhode Island	7	7		7				
South Carolina	36	31		27		2	1	6
South Dakota	12	12		9	2	1		
Tennessee	117	113		101	6		3	7
Texas	149	124		75	30	9	6	29
Utah	25	27		11	12	1	1	
Vermont	14	14		8	3	2	1	
Virginia	113	96		83	4	5	1	19
Washington	90	125		25	45	6	12	2
West Virginia	36	32		24	1	3	2	6
Wisconsin	132	219		30	86	4	6	2
Wyoming	16	16		7	7	1	1	
Total	3,114	3,171	5	1,705	903	181	119	184
Zero.	-,	- ,		-,			/	

⁻⁻ Zero.

¹Data derived, in part, from Alaska Division of Geological and Geophysical Surveys.

TABLE 26
U.S. EXPORTS OF CRUSHED STONE IN 2005, BY DESTINATION¹

			Limestone				
		for cement Chalk,		Granules,			
Destination		Limestone	manufacturing	crude	chippings	Other	Total
North America	metric tons	48,100	630,000	2,840	91,500	386,000	1,160,000
South America	do.	2	33	10,100	2,340	237	12,700
Europe	do.	119	10,300	61	3,090	32,400	46,000
Asia	do.	55	15,300	96	9,880	17,100	42,400
Oceania	do.	18	40	26	19	220	323
Middle East	do.		12	2	3,760	255	4,020
Africa	do.					76	76
Total:							
Quantity	do.	48,300	656,000	13,100	111,000	437,000	1,260,000
Value	thousands	\$1,210	\$13,600 ²	\$4 ²	\$13,700	\$22,000	\$50,500

⁻⁻ Zero.

Source: U.S. Census Bureau.

 ${\it TABLE~27}$ U.S. IMPORTS OF CRUSHED STONE AND CALCIUM CARBONATE FINES, BY ${\it TYPE}^1$

		2004	2005			
	Quantity			Quantity		
	(thousand)	Value, c.i.f. ²	Unit	(thousand)	Value, c.i.f. ²	Un
Туре	metric tons)	(thousands)	value	metric tons)	(thousands)	val
Crushed stone and chips:						
Limestone	7,670	\$65,700	\$8.56	7,860	\$59,300	\$7
Limestone for flux or cement manufacturing	4,710	37,000	7.85	4,100	38,100	9
Quartzite	2	905	474.57	11	2,350	213
Other	6,240 ^r	74,700 ^r	11.98 ^r	8,990	93,800	10
Total or average	18,600 ^r	178,000 ^r	XX	21,000	194,000	2
Calcium carbonate fines: ³						
Natural chalk	(4)	11	95.47	(4)	21	87
Calcium carbonates, other chalk	1	275	325.06	1	496	597
Total or average	1	286	XX	1	517	2
Grand total or average	18,600 ^r	179,000 ^r	XX	21,000	194,000	2

Revised. XX Not applicable.

Source: U.S. Census Bureau.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

 $^{^2\}mbox{All}$ or part of these data have been referred to the U.S. Census Bureau for verification.

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

²Cost, insurance, and freight value.

³Excludes precipitated calcium carbonate.

⁴Less than ½ unit.