



2019 Minerals Yearbook

STONE, CRUSHED [ADVANCE RELEASE]

STONE, CRUSHED

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A total of 1.45 billion metric tons (Gt) of crushed stone was produced for consumption in the United States in 2019, a 4% increase from the total production in 2018 but 18% less than the record high of 1.78 Gt in 2006 (fig. 1). In 2019, the total value of crushed stone produced in the United States was \$17.9 billion, an increase of 10% compared with that in 2018. The average unit value for crushed stone increased by 6% compared with the average unit value for 2018. Employment increased to 69,000 employees working at operations identified by the Mine Safety and Health Administration (MSHA) as producing crushed stone (table 1).

About 70% of crushed stone production was limestone and dolomite, followed by, in descending order of tonnage, granite, traprock, miscellaneous stone, sandstone and quartzite, volcanic cinder and scoria, marble, calcareous marl, slate, and shell (table 2).

Foreign trade in crushed stone remained relatively small compared with domestic apparent consumption. In 2019, U.S. exports decreased by 18% to 275,000 metric tons (t) compared with 335,000 t in 2018; the value decreased to \$60.7 million compared with \$61.0 million in 2018 (tables 1, 17). U.S. imports of crushed stone, including calcium carbonate fines, increased by 15% to 24.2 million metric tons (Mt), and the value increased by 12% to \$225 million compared with 2018 totals (tables 1, 18). Domestic apparent consumption of crushed stone, which is defined as production for consumption (sold or used) plus recycling and imports minus exports, increased by 4% compared with domestic apparent consumption in 2018.

Stone is one of the most accessible natural resources on Earth and one of the fundamental building blocks of society. Stone has been used since the beginning of civilization in a variety of ways that have increased in number and complexity alongside technological progress. Today, in its crushed form, stone is a basic, major, raw material for construction, agriculture, and industries that use complex chemical and metallurgical processes. Despite the relatively low 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 the combination of crushed stone and construction sand and gravel. The construction sand and gravel industry is reviewed in a separate chapter of the U.S. Geological Survey (USGS) Minerals Yearbook, volume I, Metals and Minerals, and both mineral commodities usually are included in any review of the national or State construction aggregates industry.

Production

Domestic production data for crushed stone were derived by the USGS from voluntary surveys of U.S. producers. In 2019, a total of 1,365 companies produced or sold crushed stone from 3,239 operations with 3,375 quarries and 355 sales

and (or) distribution sites. Of the 3,239 active operations, 1,869 operations reported their production or sales to the USGS, and their total production was 1.11 Gt (76% of the U.S. total). Of the 1,869 reporting operations, 694 operations did not report a breakdown by end use. The total production for operations reporting without end uses was 484 Mt (33% of the U.S. total) and is included in table 9 under “Unspecified, reported” uses.

Production from the nonresponding operations was estimated by using employment data provided by MSHA. The estimated output of 1,370 nonrespondent operations was 349 Mt (24% of the U.S. total) and is included in table 9 under “Unspecified, estimated” uses.

A total of 355 operations reported that they were active sales yards, and 179 of those operations reported that they sold only recycled aggregates. Virgin crushed stone sales were reported by the other 176 sales yards in 2019, and the total quantity of crushed stone sold from these operations was 48.8 Mt. Information on the number of active operations, including recycling operations, active quarries, dredging operations, types of processing plants, and number of sales yards is provided, by State, in table 16.

Crushed stone was sold in every State and produced in every State except Delaware. The 10 leading producing States were, in descending order of tonnage, Texas, Pennsylvania, Florida, Missouri, Ohio, North Carolina, Georgia, Kentucky, Virginia, and Indiana. The combined production of the 10 leading States increased by 5% compared with that in 2018 and accounted for 53% of the national total (table 4).

Included in the total number of active operations for 2019 were 107 underground mines, which produced 99.7 Mt of crushed stone in 17 States. The five leading States for production from underground mines were, in descending order of tonnage, Kentucky, Missouri, Pennsylvania, Illinois, and Iowa. The combined production of the five leading States was 70.3 Mt (70% of the total of U.S. crushed stone produced underground).

A total of 98 crushed stone operations were either idle or presumed idle in 2019 because no production response was received to the USGS survey and no employment information was available to estimate production. Since the 2018 survey, 90 operations have 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 were not included in the above count.

Of the total 1.45 Gt of crushed stone produced for consumption in the United States in 2019, 70% was limestone and dolomite, 15% was granite, 6.2% was traprock, 5.1% was miscellaneous stone, and 3.1% was sandstone and quartzite. The remaining amount was a combination, in descending order of tonnage, of volcanic cinder and scoria, marble, calcareous marl, slate, and shell. These percentages were calculated on the basis of the total quantity of crushed stone produced for consumption that was reported and estimated (table 2).

A review of production by operation size at the national level indicated that in 2019, 755 Mt of crushed stone (52% of the total crushed stone) was produced by 385 operations reporting production of more than 1 million metric tons per year; 333 Mt (23%) was produced by 479 operations reporting production between 500,000 and 999,999 metric tons per year (t/yr); and 325 Mt (22%) was produced by 1,265 operations reporting production between 100,000 and 499,999 t/yr. Operations that produced less than 500,000 t/yr accounted for 25% of total crushed stone produced in the United States. In 2019, by geographic region, the South had 1,228 active operations, followed by the Midwest with 944, the West with 549, and the Northeast with 518 (tables 5A, 5B).

The leading producing companies in 2019 were, in descending order of tonnage, Vulcan Materials Co.; Martin Marietta Materials, Inc.; CRH Americas Materials, Inc.; Lehigh Hanson, Inc.; LafargeHolcim Ltd; CEMEX S.A.B. de C.V.; Rogers Group Inc.; Carmeuse Americas; Lhoist North America, Inc; and Luck Stone Corp. (table 19). In 2019, the combined production of the top 10 companies increased by 5% to 747 Mt (51% of the national total) from 709 Mt in 2018. The combined production of the top 100 companies was 1.13 Gt (78% of the national total). The combined production of the leading 273 companies was 1.30 Gt of crushed stone; thus, 20% of the companies produced 90% of the total sales in 2019.

Calcareous Marl.—Production of calcareous marl in 2019 was essentially unchanged compared with that in 2018, at 2.18 Mt valued at \$9.84 million (table 2).

Dolomite.—Production of dolomite decreased slightly compared with that in 2018, to 57.3 Mt valued at \$665 million (table 2). Crushed dolomite production was reported in 26 States. The leading producing States were, in descending order of tonnage, Pennsylvania, New York, and Utah; the total production of these three States was 37% of the total U.S. output (table 6). An additional undetermined quantity of dolomite was included in the crushed limestone total, as explained in the limestone portion of the “Production” section.

Granite.—Production of crushed granite increased by 6% compared with that in 2018, to 214 Mt valued at about \$3.42 billion (table 2). Crushed granite production was reported in 35 States. The leading producing States were, in descending order of tonnage, Georgia, North Carolina, Virginia, South Carolina, and California; the total production of these five States was 149 Mt (69% of U.S. output) (table 7).

Limestone.—Production of crushed limestone (including some dolomite) increased by 5% compared with that in 2018, to 961 Mt valued at \$10.8 billion (table 2). Limestone production was reported in 45 States, which included small quantities of limestone and dolomite that were produced in the same quarries. Companies in 32 States reported production of 49.7 Mt of limestone and dolomite combined, which was included with the limestone listed in table 2. The limestone totals listed in this chapter, therefore, include an undetermined quantity of dolomite in addition to the dolomite reported separately. The leading producing States were, in descending order of tonnage, Texas, Florida, Ohio, Missouri, and Pennsylvania; the total production of these five States was 440 Mt (46% of the total U.S. output) (table 6).

Marble.—Production of crushed marble decreased by 7% compared with the total for 2018, to 3.66 Mt valued at \$76.6 million (table 2). Crushed marble production was reported in 10 States (table 6).

Miscellaneous Stone.—This category includes three types of miscellaneous crushed stone production: (1) crushed stone reported by the company as “other” on the survey form or as a type of stone not listed in table 2, (2) an unknown stone type from a company or operation new to the survey, and (3) a known stone type when the quantity reported must be withheld to protect company proprietary data. The withheld quantity is added to the quantity of miscellaneous stone produced in that State and then published. The first year that an operation is added to the survey, its production often is estimated using MSHA employment data. The type of stone is updated when a response is received from the operation, and the data are revised for the next report.

The reported production of miscellaneous stone increased by 4% compared with the total for 2018, to 73.9 Mt valued at \$826 million (table 2). In 2019, the reported quantity of miscellaneous stone accounted for 69% of the total tonnage of miscellaneous stone and 61% of its value (table 8). The remaining 31% (32.6 Mt) of the total output consisted of known stone types for which data were withheld.

Sandstone and Quartzite.—Production of crushed sandstone and quartzite was essentially unchanged compared with the total for 2018, at 44.8 Mt valued at \$549 million (table 2). The leading producing States were, in descending order of combined tonnage of sandstone and quartzite, Pennsylvania and Arkansas (table 7). Crushed sandstone was produced in 30 States, and production was 32.7 Mt, which included 379,000 t of sandstone and quartzite produced in the same quarry. Crushed quartzite was produced in 17 States, and production was 11.7 Mt.

Shell.—Shell is derived mainly from fossil reefs or oyster shell banks. Production of crushed shell increased by 9% compared with the total for 2018, to 924,000 t valued at \$13.9 million (table 2). Crushed shell production was reported only in Florida and Louisiana (table 8).

Slate.—Production of crushed slate increased by 4% compared with that in 2018, to 1.38 Mt valued at \$19.5 million (table 2). Crushed slate was produced in nine States (table 7).

Traprock.—Production of crushed traprock increased by 5% compared with the total for 2018, to 90.5 Mt valued at \$1.48 billion (table 2). Traprock production was reported in 29 States. The leading producing States were, in descending order of tonnage, New Jersey, Virginia, Oregon, North Carolina, and California; these five States produced 46.9 Mt (52% of U.S. output) (table 7).

Volcanic Cinder and Scoria.—Production of volcanic cinder and scoria decreased by 11% compared with the total for 2018, to 5.12 Mt valued at \$30.1 million (table 2). Volcanic cinder and scoria production was reported in 11 States, with Wyoming accounting for 72% of U.S. output (table 8).

Consumption

Crushed stone production reported to the USGS is material either sold to other companies or consumers or used by producers. Stockpiled production is not included in the

reported quantities. The “sold or used” tonnage, therefore, represents the quantity of production, including some imports, 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 was included in the “Unspecified, reported” use category. The estimated production of nonrespondents was included in the “Unspecified, estimated” use category.

The ultimate use of crushed stone determines the specification for particle size and gradation, shape, rock type, and chemical composition. Crushed stone can be used without any binder for a variety of construction or industrial applications or it can be mixed with a matrix binding material, such as dark bituminous pitch (asphalt) or portland cement. The most common use of crushed stone for construction purposes was as aggregate without a binder, including road base or road-surfacing material, macadam, riprap, railroad ballast, and filter stone (table 9). The second-ranked use of crushed stone was as bituminous aggregate or concrete aggregate in a variety of forms and applications in residential and nonresidential construction, highway and road construction and repair, airports, dams, sewers, and foundations. Sized crushed stone was used as bituminous aggregate and road base. Broken surfaces adhere to the hot, dark, bituminous asphaltic mixture better than rounded surfaces and provide interlocking surfaces that tend to strengthen the asphaltic concrete. Broken particles pack better and tend to move less under load than rounded particles and, therefore, make a better road base product for highway and road construction. This characteristic is essential because the road base and asphaltic concrete tend to flow when placed under great or long-duration stresses. Other uses included limestone for lime and portland cement manufacturing, as agricultural limestone for direct application to soil, as filler and conditioner for fertilizers, in animal mineral feeds, and as poultry grit. Smaller quantities of crushed stone were used for a variety of applications, including metallurgical fluxing of antimony, copper, iron, lead, and zinc; the manufacture of glass, ceramic pottery, and paper; and as fillers and extenders in asphalt, paint, rubber, and plastics. Finely ground limestone was used to remove sulfur oxides from stack gases, primarily from coal-burning, electric-generating stations, and for mine dusting to enhance mine safety by reducing the explosion risk of highly combustible coal dust.

A total of 1.45 Gt of crushed stone was produced for consumption in the United States in 2019, a 4% increase from the total in 2018. Of the 1.45 Gt of crushed stone produced for consumption, 33% was “Unspecified, reported,” and 24% was “Unspecified, estimated.” Of the remaining production reported by use, 72% was used as construction aggregate, mostly for highway and road construction and maintenance, as well as for a variety of building and other construction; 18% for cement manufacturing; 6.0% for lime manufacturing; 2.6% for miscellaneous uses and products, including other chemical and special uses; and 0.9% for agricultural uses (table 9). In marketing analysis or use-pattern studies, the quantities included in unspecified uses may be prorated and added to the reported uses by applying the above percentages calculated for the reported quantities.

At least 25% of the limestone produced annually was used to manufacture cement and lime. Totals in table 10 do not accurately account for the total quantity used because the response rate of companies providing limestone data by product or use was not 100%; however, the quantity of limestone needed to manufacture the quantity of lime and cement that was produced could be estimated.

For high-calcium lime, under ideal conditions, 1.8 t of limestone is needed to produce 1 t of lime. This quantity excludes lime kiln dust, which may increase limestone requirements by 20% to 30% (H.G. van Oss, mineral commodity specialist, National Minerals Information Center, U.S. Geological Survey, written commun., September 12, 2015). The ratio can vary by producer from 2.5 to 4.0 t of limestone per ton of lime produced. For 2019, total lime produced in the United States was 16.9 Mt, which consumed between 42 Mt and 68 Mt of limestone (Apodaca, 2022).

For cement, limestone was used to make clinker and as an additive in the finish mill to bulk out portland cement, to make certain types of blended cement, or to make most forms of masonry cement. The actual requirements cannot be easily calculated because portland cement manufacturers can use quite impure limestone. The theoretical requirements for clinker with 65% calcium oxide (CaO), assuming all of it comes from limestone, is 1.16 t of limestone per 650 kilograms of CaO (that is, per ton of clinker). Because of impurities in the limestone, moisture content, and cement kiln dust (commonly recycled), producers typically need about 1.50 t of limestone per ton of clinker. A single ton of clinker makes about 1.10 t of cement. Thus, producers consume about 1.36 t of limestone per ton of cement produced (H.G. van Oss, mineral commodity specialist, National Minerals Information Center, U.S. Geological Survey, written commun., September 12, 2015). In 2019, total cement produced in the United States was 87 Mt, which consumed approximately 118 Mt of limestone (Hatfield, 2022).

The value of the total construction put in place in 2019 increased by 4% compared with that in 2018, to \$1.39 trillion. The value of total private construction increased slightly to \$1.05 trillion. The value of total public construction increased by 11% to \$344 billion (U.S. Census Bureau, 2022).

Recycling

The recycling of many construction materials expanded in 2019, and construction aggregate producers actively recycled portland cement concrete and asphalt concrete materials recovered from construction projects for reuse as construction aggregate materials, especially for fill and road-base applications. Portland cement concrete was recycled at some quarries and increasingly at sales yards and distribution sites, whereas asphalt concrete often was recycled in place. The USGS surveyed construction aggregate mining companies and 175 construction and demolition companies, which reported the following data. Incomplete data from the construction and demolition industry represents an unknown percentage of the actual U.S. total of recycled construction aggregates.

Recycled Asphalt Concrete.—Companies reported that asphalt concrete was recycled in every State except Hawaii and West Virginia. The U.S. total of recycled asphalt was 14.3 Mt

valued at \$129 million (table 14). The leading States in 2019, in descending order of tonnage of recycled asphalt, were Illinois, California, Minnesota, North Carolina, and Michigan. The combined total for these States was 6.0 Mt, which accounted for 42% of the U.S. total.

Since 2010, the National Asphalt Pavement Association, in partnership with the Federal Highway Administration, has conducted an annual survey of the asphalt pavement industry on the use of recycled materials. It was reported that more than 99% of the reclaimed asphalt pavement (RAP) was recycled and reused. The disposal of RAP in construction and demolition landfills is rare. In 2019, the average percentage of RAP used in asphalt mixtures was approximately 21%, which was estimated to be 89.2 Mt, and an estimated 3.8 Mt of RAP was reused as a construction aggregate (Williams and others, 2020, p. 14).

Recycled Portland Cement Concrete.—Recycling of portland cement concrete totaled 16.4 Mt, valued at \$136 million, and took place in every State except Arkansas and West Virginia (table 15). The leading States in 2019, in descending order of tonnage of recycled concrete, were California, Texas, Illinois, Michigan, and Virginia. The combined total for these States was 7.4 Mt, which accounted for 45% of the U.S. total.

Transportation

No means of transportation was reported by the producers for 969 Mt of the 1.45 Gt of crushed stone produced for consumption in 2019. Of the remaining 485 Mt of crushed stone, 74% was reported as transported by truck from the quarry or the processing plant to the first point of sale or use, 6% by waterway, and 6% by rail. About 58 Mt of the specified production was reported as not transported and, therefore, is assumed to have been used onsite.

Shipment by truck remained the most widely used method of transportation for crushed stone. The significant increase in the number of sales and distribution yards in the prior few years and the increase in the volume of crushed stone sold at these sites affected the markets they served, especially in areas without sufficient resources to support the quarrying of crushed stone. Distribution yards supplied by rail or waterway were located near metropolitan areas and significantly reduced the distance trucks traveled to pick up and deliver crushed stone. Therefore, the transportation costs were reduced, as was the effect of heavy-vehicle traffic on the infrastructure and the environment. Sales yards served as distribution sites and, increasingly, as recycling sites.

Prices

Prices reported in this chapter are the annual average free-on-board plant prices, usually at the first point of sale or captive use, as reported by crushed stone producing companies. This value does not include transportation from the plant or yard to the consumer. The value does include all the costs of mining, processing, in-plant transportation, overhead, and profit. In 2018, 843 operations reported the monetary value of their production; the average unit value was \$12.45 per metric ton. In 2019, 795 operations reported the monetary value of their

production; the average unit value was \$13.67 per metric ton. Leading U.S. producers reported that prices increased by 4% to 6.5% in 2019. For those operations that reported production only, the unit values for specific end uses were estimated on the basis of reported values for those specific uses in the same State. The reported State average was used in the estimation for operations reporting total production only and for operations that did not respond to the survey.

Additional information regarding prices of crushed stone by type of rock and uses in the United States, and each State, can be found throughout the tables included in this chapter.

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 limited foreign trade to mostly local transactions across international boundaries. U.S. imports and exports continued to be small, representing slightly more than 1% of domestic consumption.

Information on imports of crushed stone used for this report was derived from two sources. The primary source was import and export data from the U.S. Census Bureau (tables 1, 17–18). Additionally, companies provided import data when reporting the quantity sold or used for consumption at each operation, usually a sales yard. The tonnage reported was attributed to the State where it was first sold or used; for example, the crushed stone imported from Mexico into Florida was counted in the total of crushed stone sold or used in Florida (table 4). This accounting practice was the same practice used for large quantities of crushed stone transported from one State to another. For example, crushed stone mined in Kentucky and shipped down the Mississippi River for use in Louisiana was included in the total of crushed stone sold or used in Louisiana.

Exports.—Exports of crushed stone decreased by 18% to 275,000 t compared with 335,000 t in 2018, and the value decreased to \$60.7 million (table 1). Based on the detailed export data from the U.S. Census Bureau, total exports of crushed stone to Canada decreased by 19% to 231,000 t from 285,000 t in 2018. The combined crushed stone exports to The Bahamas and Mexico decreased by 79%, whereas exports to Guadeloupe increased by 25% compared with those in 2018. In 2019, exports of crushed limestone for cement manufacturing had an average unit value of \$401 per metric ton compared with \$329 per metric ton in 2018 (table 17).

Imports.—Imports of crushed stone increased by 15% to 24.2 Mt compared with those in 2018, and the value increased by 12% to \$225 million (table 1, 18). Of the imported crushed stone, 65% was limestone used as construction aggregate, flux stone, and in cement manufacturing (table 18). Based on detailed import data from the U.S. Census Bureau, imports of limestone from Mexico increased by 19% to 14.0 Mt from 11.8 Mt in 2018. During the same period, imports of limestone from The Bahamas increased by 6% to 2.7 Mt and imports of limestone from Canada increased by 14% to 6.3 Mt.

Outlook

The crushed stone industry is cyclical, reacting to the levels of activity in public infrastructure projects, commercial and residential construction markets, and other types of construction. The residential construction slowdown in the United States that began in 2006 led to decreased consumption of crushed stone. After 4 years of decline, residential construction leveled off in late 2010, and crushed stone production has increased every year since 2012 (fig. 1). Crushed stone production is estimated to decrease slightly in 2020 (Willett, 2021).

References Cited

- Apodaca, L.E., 2022, Lime: U.S. Geological Survey Mineral Commodity Summaries 2022, p. 98–99.
- Hatfield, A.K., 2022, Cement: U.S. Geological Survey Mineral Commodity Summaries 2022, p. 44–45.
- U.S. Census Bureau, 2022, Annual value of construction put in place 2012–2021: U.S. Census Bureau, March 30. (Accessed May 3, 2022, via http://www.census.gov/construction/c30/historical_data.html.)
- Willett, J.C., 2021, Crushed stone and sand and gravel in the fourth quarter 2020: U.S. Geological Survey Mineral Industry Surveys, March, 14 p. (Accessed May 2, 2022, at <https://prd-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/atoms/files/mis-2020q4-conagg.pdf>.)
- Williams, B.A., Willis, J.R., and Shacat, J., 2020, Asphalt pavement industry survey on recycled materials and warm-mix asphalt usage—2019: Greenbelt, MD, National Asphalt Pavement Association, September, 151 p. (Accessed December 23, 2020, at https://www.co-asphalt.com/assets/IS138-2019_RAP-RAS-WMA_Survey.pdf.)

GENERAL SOURCES OF INFORMATION

U.S. Geological Survey Publications

- Construction Stone. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
- Historical Statistics for Mineral and Material Commodities in the United States. Data Series 140, 2005.

- Limestone and Dolomite. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
- Natural Aggregate—Building America's Future. Circular 1110, 1993.
- Natural Aggregates—Foundation of America's Future. Fact Sheet 144–97, 1997.
- Natural Aggregates of the Conterminous United States. Bulletin 1594, 1988.
- Sand and Gravel, Construction. Ch. in Minerals Yearbook, annual.

Other

- Aggregate Handbook. National Stone Association, 1991.
- Aggregates—Sand, Gravel, & Crushed Rock Aggregates for Construction Purposes. The Geological Society, 1985.
- Calcium Carbonate—From the Cretaceous Period into the 21st Century. Birkhäuser Verlag, 2001.
- Concrete Manual, A Water Resources Technical Publication. U.S. Department of the Interior, Bureau of Reclamation, 1975.
- Construction Aggregates. Mining Engineering, annual review of industrial mineral commodities.
- Crushed Stone. Ch. in Mineral Facts and Problems, U.S. Bureau of Mines Bulletin 675, 1985.
- Geology of Nonmetallics. Metal Bulletin Inc., 1984.
- Handbook of Concrete Aggregates. Noyes Publications, 1983.
- Industrial Minerals.
- Lime and Limestone—Chemistry and Technology, Production and Uses. Wiley-VCH, 1998.
- National Stone, Sand and Gravel Association.
- Pit & Quarry.
- Rock Products.
- Stone, Crushed. Ch. in Industrial Minerals and Rocks (7th ed.), Society for Mining, Metallurgy, and Exploration, Inc., 2006.

TABLE 1
SALIENT CRUSHED STONE STATISTICS¹

(Thousand metric tons and thousand dollars)

	2015	2016	2017	2018	2019
<u>Sold or used by producers:²</u>					
Quantity	1,340,000	1,360,000	1,370,000	1,390,000	1,450,000
Value	14,000,000 ^r	15,000,000 ^r	15,600,000	16,200,000	17,900,000
<u>Recycled:</u>					
Quantity	46,500 ^r	47,200 ^r	42,600	30,000 ^r	30,700
Value	367,000 ^r	381,000 ^r	356,000	271,000 ^r	265,000
<u>Exports:</u>					
Quantity	427	530	634	335	275
Value	44,200	47,100	53,300	61,000	60,700
<u>Imports for consumption:³</u>					
Quantity	19,900	19,700	18,500	21,000	24,200
Value	229,000 ^r	210,000 ^r	185,000 ^r	201,000 ^r	225,000
Employment ⁴	67,100	68,100	68,600	68,500	69,000

^rRevised.

¹Table includes data available through May 2, 2022. Data 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.

⁴Average number of employees including office staff. Source: Mine Safety and Health Administration.

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

Type	2018 ³				2019			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone ⁴	1,962	918,000	\$9,750,000	\$10.62	1,923	961,000	\$10,800,000	\$11.21
Dolomite	109	58,100	632,000	10.87	113	57,300	665,000	11.62
Marble	18	3,930	85,600	21.81	19	3,660	76,600	20.94
Calcareous marl	3	2,210	8,250	3.73	4	2,180	9,840	4.51
Shell	6	849	12,400	14.60	6	924	13,900	15.10
Granite	390	201,000	3,040,000	15.13	384	214,000	3,420,000	15.97
Traprock	265	86,500	1,310,000	15.20	262	90,500	1,480,000	16.35
Sandstone and quartzite ⁵	190	44,300	524,000	11.82	185	44,800	549,000	12.25
Slate	17	1,320	18,200	13.78	18	1,380	19,500	14.17
Volcanic cinder and scoria	35	5,780	28,500	4.93	36	5,120	30,100	5.88
Miscellaneous stone	449	71,300	769,000	10.79	425	73,900	826,000	11.18
Total or average	3,444	1,390,000	16,200,000	11.62	3,375	1,450,000	17,900,000	12.28

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except "Number of quarries" and "Unit value"; may not add to totals shown.

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

³Estimated quantities have been recalculated.

⁴Includes limestone-dolomite reported with no distinction between the two kinds of stone.

⁵Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3
CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY GEOGRAPHIC DIVISION^{1,2}

(Thousand metric tons and thousand dollars)

Region and division	2018 ³		2019	
	Quantity	Value	Quantity	Value
Northeast:				
New England	39,000	491,000	40,700	508,000
Middle Atlantic	145,000	1,860,000	151,000	2,080,000
Total	184,000	2,360,000	192,000	2,590,000
Midwest:				
East North Central	228,000	2,160,000	234,000	2,290,000
West North Central	146,000	1,340,000	151,000	1,370,000
Total	374,000	3,510,000	385,000	3,660,000
South:				
South Atlantic	304,000	4,530,000	321,000	5,180,000
East South Central	136,000	1,570,000	148,000	1,930,000
West South Central	243,000	2,710,000	255,000	2,880,000
Total	683,000	8,800,000	723,000	9,990,000
West:				
Mountain	69,400	597,000	72,800	656,000
Pacific	84,000	923,000	81,500	960,000
Total	153,000	1,520,000	154,000	1,620,000
Grand total	1,390,000	16,200,000	1,450,000	17,900,000

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits; may not add to totals shown.

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

³Estimated quantities have been recalculated.

TABLE 4
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE AND TERRITORY¹

State	2018 ²			2019		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	37,600	\$420,000	\$11.16	41,700	\$485,000	\$11.62
Alaska	1,400	27,800	19.88	1,470	26,600	18.05
Arizona	11,800	111,000	9.42	10,900	121,000	11.05
Arkansas	28,800	273,000	9.47	29,400	281,000	9.54
California	41,100	388,000	9.44	40,100	430,000	10.71
Colorado	14,700	149,000	10.13	16,500	166,000	10.04
Connecticut	9,270	143,000	15.45	10,000	132,000	13.18
Delaware ³	W	W	W	W	W	W
Florida	77,700	1,000,000	12.88	78,200	1,160,000	14.79
Georgia	53,300	879,000	16.50	57,200	1,020,000	17.84
Hawaii	4,680	107,000	22.81	4,600	115,000	24.99
Idaho	4,360	29,900	6.85	3,990	27,600	6.92
Illinois	48,600	506,000	10.42	50,300	526,000	10.46
Indiana	50,300	461,000	9.17	51,700	561,000	10.83
Iowa	38,000	427,000	11.24	40,000	444,000	11.08
Kansas	14,900	127,000	8.50	14,400	120,000	8.38
Kentucky	51,400	484,000	9.43	53,700	547,000	10.19
Louisiana ³	W	W	W	W	W	W
Maine	4,000	36,300	9.06	4,460	41,000	9.19
Maryland	22,500	275,000	12.19	25,700	322,000	12.57
Massachusetts	13,800	191,000	13.79	13,600	197,000	14.48
Michigan	36,600	253,000	6.92	36,300	273,000	7.51
Minnesota	7,820	106,000	13.59	8,110	115,000	14.22
Mississippi ³	1,990	62,000	31.23	2,010	69,000	34.36
Missouri	71,100	534,000	7.51	73,500	526,000	7.16
Montana	2,750	23,200	8.45	2,890	24,400	8.44
Nebraska	W	W	W	W	W	W
Nevada	12,600	116,000	9.20	13,200	131,000	9.94
New Hampshire	5,250	53,200	10.12	5,620	62,100	11.05
New Jersey	17,800	192,000	10.81	18,400	206,000	11.20
New Mexico	4,010	37,900	9.46	3,840	35,300	9.21
New York	39,700	514,000	12.94	38,400	496,000	12.92
North Carolina	55,300	993,000	17.96	59,800	1,110,000	18.61
North Dakota	326	2,310	7.10	337	2,200	6.52
Ohio	65,800	728,000	11.06	67,600	749,000	11.07
Oklahoma	36,700	338,000	9.22	38,100	347,000	9.11
Oregon	21,900	187,000	8.52	21,000	185,000	8.81
Pennsylvania	87,200	1,160,000	13.28	94,600	1,380,000	14.57
Rhode Island	1,800	19,500	10.82	1,930	21,500	11.13
South Carolina	27,500	366,000	13.30	29,100	410,000	14.12
South Dakota	6,520	51,200	7.85	6,940	48,200	6.95
Tennessee	45,100	604,000	13.41	50,200	827,000	16.47
Texas	176,000	2,040,000	11.64	185,000	2,200,000	11.88
Utah	9,880	76,500	7.74	10,500	85,100	8.06
Vermont	4,850	48,700	10.05	5,050	53,900	10.68
Virginia	51,000	823,000	16.14	53,300	954,000	17.90
Washington	14,900	214,000	14.34	14,300	204,000	14.23
West Virginia	15,500	174,000	11.18	16,800	188,000	11.20
Wisconsin	26,500	215,000	8.13	27,700	185,000	6.66
Wyoming	9,330	52,900	5.67	10,900	65,100	5.98
Other	10,100	165,000	16.36	10,700	181,000	16.95
U.S. total or average	1,390,000	16,200,000	11.62	1,450,000	17,900,000	12.28
Territory						
American Samoa ⁴	(5)	(5)	(5)	(5)	(5)	(5)
Guam	(5)	(5)	(5)	(5)	(5)	(5)
Puerto Rico	5,070	54,500	10.74	4,570	51,400	11.24
U.S. Virgin Islands	(5)	(5)	(5)	(5)	(5)	(5)
Grand total or average	1,400,000	16,300,000	11.62	1,460,000	17,900,000	12.28

See footnotes at end of table.

TABLE 4—Continued
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE AND TERRITORY¹

W Withheld to avoid disclosing company proprietary data; included with “Other.”

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except “Unit value”; may not add to totals shown.

²Estimated quantities have been recalculated.

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

⁴Includes Tutuila Island and dependencies.

⁵Withheld to avoid disclosing company proprietary data; included in “Grand total or average.”

TABLE 5A
CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY SIZE OF OPERATION^{1,2}

Size range (metric tons)	2018 ³				2019			
	Number of operations	Percent of total	Quantity (thousand metric tons)	Percent of total	Number of operations	Percent of total	Quantity (thousand metric tons)	Percent of total
Less than 25,000	512	15.4	4,710	0.3	475	14.7	4,270	0.3
25,000 to 49,999	291	8.8	10,800	0.8	261	8.1	9,560	0.7
50,000 to 99,999	404	12.2	29,800	2.1	374	11.5	27,800	1.9
100,000 to 199,999	498	15.0	73,100	5.2	478	14.8	68,900	4.7
200,000 to 299,999	363	10.9	89,700	6.4	356	11.0	87,600	6.0
300,000 to 399,999	271	8.2	95,000	6.8	245	7.6	84,600	5.8
400,000 to 499,999	171	5.2	76,700	5.5	186	5.7	83,500	5.7
500,000 to 599,999	143	4.3	78,200	5.6	147	4.5	80,700	5.6
600,000 to 699,999	122	3.7	78,800	5.7	121	3.7	78,400	5.4
700,000 to 799,999	68	2.0	50,900	3.7	93	2.9	69,000	4.7
800,000 to 899,999	76	2.3	64,200	4.6	66	2.0	55,800	3.8
900,000 to 999,999	53	1.6	50,300	3.6	52	1.6	49,400	3.4
1,000,000 to 1,499,999	167	5.0	204,000	14.6	197	6.1	242,000	16.6
1,500,000 to 1,999,999	89	2.7	154,000	11.1	91	2.8	156,000	10.7
2,000,000 to 2,499,999	27	0.8	58,700	4.2	29	0.9	63,600	4.4
2,500,000 to 4,999,999	44	1.3	142,000	10.2	50	1.5	164,000	11.2
5,000,000 and more	19	0.6	133,000	9.6	18	0.6	130,000	8.9
Total	3,318	100	1,390,000	100	3,239	100	1,450,000	100

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except “Number of operations”; may not add to totals shown.

²Does not include recycling plants.

³Estimated quantities have been recalculated.

TABLE 5B
CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2019, BY REGION AND SIZE OF OPERATION^{1,2}

Size range (metric tons)	Northeast				Midwest			
	Number of operations	Percent of total	Quantity (thousand metric tons)	Percent of total	Number of operations	Percent of total	Quantity (thousand metric tons)	Percent of total
Less than 25,000	78	15.1	732	0.4	147	15.6	1,400	0.4
25,000 to 49,999	44	8.5	1,530	0.8	78	8.3	2,910	0.8
50,000 to 99,999	47	9.1	3,570	1.9	113	12.0	8,550	2.2
100,000 to 199,999	75	14.5	10,800	5.6	165	17.5	23,400	6.1
200,000 to 299,999	62	12.0	15,500	8.1	119	12.6	29,200	7.6
300,000 to 399,999	36	6.9	12,200	6.3	65	6.9	22,700	5.9
400,000 to 499,999	42	8.1	19,000	9.9	46	4.9	20,400	5.3
500,000 to 599,999	30	5.8	16,400	8.6	34	3.6	18,800	4.9
600,000 to 699,999	28	5.4	18,300	9.5	28	3.0	18,100	4.7
700,000 to 799,999	18	3.5	13,400	7.0	20	2.1	14,800	3.8
800,000 to 899,999	8	1.5	6,830	3.6	18	1.9	15,200	4.0
900,000 to 999,999	7	1.4	6,590	3.4	17	1.8	16,300	4.2
1,000,000 to 1,499,999	29	5.6	35,600	18.5	38	4.0	46,700	12.1
1,500,000 to 1,999,999	9	1.7	15,500	8.1	27	2.9	46,300	12.0
2,000,000 to 2,499,999	1	0.2	2,380	1.2	8	0.8	17,800	4.6
2,500,000 and more	4	0.8	13,800	7.2	21	2.2	82,200	21.4
Total	518	100	192,000	100	944	100	385,000	100

Size range (metric tons)	South				West			
	Number of operations	Percent of total	Quantity (thousand metric tons)	Percent of total	Number of operations	Percent of total	Quantity (thousand metric tons)	Percent of total
Less than 25,000	125	10.2	1,080	0.1	125	22.8	1,050	0.7
25,000 to 49,999	69	5.6	2,560	0.4	70	12.8	2,560	1.7
50,000 to 99,999	104	8.5	7,830	1.1	110	20.0	7,830	5.1
100,000 to 199,999	160	13.0	23,600	3.3	78	14.2	11,100	7.2
200,000 to 299,999	142	11.6	34,800	4.8	33	6.0	8,190	5.3
300,000 to 399,999	105	8.6	36,200	5.0	39	7.1	13,500	8.7
400,000 to 499,999	83	6.8	37,400	5.2	15	2.7	6,740	4.4
500,000 to 599,999	70	5.7	38,400	5.3	13	2.4	7,090	4.6
600,000 to 699,999	58	4.7	37,500	5.2	7	1.3	4,510	2.9
700,000 to 799,999	48	3.9	35,600	4.9	7	1.3	5,190	3.4
800,000 to 899,999	35	2.9	29,500	4.1	5	0.9	4,240	2.8
900,000 to 999,999	24	2.0	22,700	3.1	4	0.7	3,780	2.5
1,000,000 to 1,499,999	108	8.8	133,000	18.3	22	4.0	26,600	17.2
1,500,000 to 1,999,999	45	3.7	77,000	10.6	10	1.8	17,200	11.2
2,000,000 to 2,499,999	16	1.3	35,100	4.9	4	0.7	8,380	5.4
2,500,000 and more	36	2.9	171,000	23.7	7	1.3	26,300	17.1
Total	1,228	100	723,000	100	549	100	154,000	100

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except "Number of operations"; may not add to totals shown.

²Does not include recycling plants.

TABLE 6
LIMESTONE, DOLOMITE, CALCAREOUS MARL, AND MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES
IN 2019, BY STATE¹

(Thousand metric tons and thousand dollars)

State	Limestone		Dolomite		Marble		Calcareous marl	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	35,900 ²	407,000	787	11,100	--	--	--	--
Alaska	--	--	--	--	--	--	--	--
Arizona	3,960 ²	30,800	--	--	--	--	--	--
Arkansas	13,700 ²	115,000	537	7,290	--	--	--	--
California	17,500 ²	117,000	60	789	--	--	--	--
Colorado	1,970 ²	10,700	1,060	12,700	--	--	--	--
Connecticut	1,480 ²	20,700	(3)	(3)	379	5,010	--	--
Delaware	(4)	(4)	--	--	--	--	--	--
Florida	76,500 ²	1,120,000	(3)	(3)	--	--	--	--
Georgia	4,420	77,600	--	--	1,960	47,700	--	--
Hawaii	--	--	--	--	--	--	--	--
Idaho	(4)	(4)	--	--	--	--	--	--
Illinois	50,000 ²	523,000	(3)	(3)	--	--	--	--
Indiana	51,500 ²	558,000	(3)	(3)	--	--	--	--
Iowa	38,000 ²	424,000	2,020	20,000	--	--	--	--
Kansas	13,600 ²	114,000	--	--	--	--	--	--
Kentucky	53,700 ²	547,000	--	--	--	--	--	--
Louisiana	(4)	(4)	--	--	--	--	--	--
Maine	1,700	14,100	--	--	--	--	--	--
Maryland	16,200 ²	183,000	--	--	--	--	--	--
Massachusetts	922 ²	22,100	776	10,800	--	--	--	--
Michigan	35,600 ²	267,000	(3)	(3)	--	--	(5)	1
Minnesota	3,330 ²	42,900	(3)	(3)	--	--	--	--
Mississippi	(4)	(4)	--	--	--	--	--	--
Missouri	65,700 ²	462,000	2,080	15,600	--	--	--	--
Montana	1,950	17,700	--	--	--	--	--	--
Nebraska	(4) ²	(4)	--	--	--	--	--	--
Nevada	5,580 ²	53,300	(3)	(3)	--	--	--	--
New Hampshire	--	--	--	--	--	--	--	--
New Jersey	503	5,540	--	--	170	1,870	--	--
New Mexico	1,890	15,800	--	--	--	--	--	--
New York	23,600 ²	283,000	7,140	101,000	17	227	--	--
North Carolina	3,640 ²	67,000	323	6,050	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--
Ohio	67,300 ²	746,000	(3)	(3)	--	--	--	--
Oklahoma	31,900 ²	282,000	(3)	(3)	--	--	--	--
Oregon	1,080	4,780	--	--	--	--	--	--
Pennsylvania	56,600 ²	685,000	9,420	120,000	--	--	--	--
Rhode Island	--	--	--	--	--	--	--	--
South Carolina	4,690	40,200	--	--	(4)	(4)	(4)	(4)
South Dakota	2,730	13,900	--	--	--	--	--	--
Tennessee	48,700 ²	806,000	(3)	(3)	--	--	--	--
Texas	174,000 ²	2,060,000	(3)	(3)	(4)	(4)	57	465
Utah	3,900 ²	29,400	4,790	39,600	(4)	(4)	--	--
Vermont	2,430 ²	23,000	(3)	(3)	--	--	--	--
Virginia	18,000 ²	285,000	(3)	(3)	(4)	(4)	--	--
Washington	718 ²	13,200	(3)	(3)	22	1,910	--	--
West Virginia	15,600	175,000	--	--	--	--	--	--
Wisconsin	23,200 ²	150,000	500	4,810	73	492	--	--
Wyoming	2,630 ²	24,100	--	--	--	--	--	--
Total	976,000	10,800,000	29,500	350,000	2,620	57,200	57	466

-- Zero.

¹Table includes data available through May 2, 2022. Data 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.

³Withheld to avoid disclosing company proprietary data; included with "Limestone."

⁴Withheld to avoid disclosing company proprietary data; included with "Miscellaneous stone" on table 8.

⁵Less than ½ unit.

TABLE 7
 GRANITE, TRAPROCK, SANDSTONE AND QUARTZITE, AND SLATE SOLD OR USED BY PRODUCERS IN THE UNITED STATES
 IN 2019, BY STATE¹

(Thousand metric tons and thousand dollars)

State	Granite		Traprock		Sandstone and quartzite ²		Slate	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	3,060	40,000	--	--	1,130	14,400	(3)	(3)
Alaska	46	850	(3)	(3)	--	--	--	--
Arizona	3,910	56,600	90	1,250	455	14,900	--	--
Arkansas	6,560	66,900	--	--	6,790	74,700	(3)	(3)
California	9,540	134,000	6,740	93,500	(3)	(3)	8	100
Colorado	6,610	75,700	(3)	(3)	5,960	57,600	--	--
Connecticut	787	10,400	6,150	80,600	--	--	--	--
Delaware	--	--	(3)	(3)	--	--	--	--
Florida	740	17,200	--	--	--	--	--	--
Georgia	49,000	857,000	--	--	1,790	36,900	(3)	(3)
Hawaii	--	--	4,300	108,000	--	--	--	--
Idaho	(3)	(3)	881	4,930	70	483	--	--
Illinois	--	--	--	--	(3)	(3)	--	--
Indiana	--	--	--	--	--	--	--	--
Iowa	--	--	--	--	--	--	--	--
Kansas	--	--	--	--	809	6,920	--	--
Kentucky	--	--	--	--	--	--	--	--
Louisiana	--	--	--	--	(3)	(3)	--	--
Maine	2,140	20,500	40	299	331	3,170	--	--
Maryland	4,360	54,700	(3)	(3)	(3)	(3)	--	--
Massachusetts	4,340	61,300	5,350	73,000	--	--	--	--
Michigan	--	--	284	2,130	--	--	--	--
Minnesota	3,480	54,900	10	134	704	9,470	--	--
Mississippi	--	--	--	--	--	--	--	--
Missouri	1,770	13,700	(3)	(3)	2,260	21,000	--	--
Montana	135	1,160	314	2,840	(3)	(3)	--	--
Nebraska	--	--	--	--	--	--	--	--
Nevada	117	1,210	1,330	13,600	1	8	--	--
New Hampshire	3,100	34,200	2,000	22,200	270	2,980	--	--
New Jersey	5,250	57,800	12,500	141,000	--	--	--	--
New Mexico	(3)	(3)	--	--	168	1,550	--	--
New York	2,200	31,100	2,810	46,300	1,970	24,900	(3)	(3)
North Carolina	45,400	844,000	7,550	142,000	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--
Ohio	--	--	61	703	228	1,950	--	--
Oklahoma	(3)	(3)	--	--	323	2,910	--	--
Oregon	(3)	(3)	9,880	90,500	(3)	(3)	--	--
Pennsylvania	3,430	43,900	5,120	265,000	10,600	140,000	39	516
Rhode Island	709	7,890	1,140	12,700	--	--	--	--
South Carolina	21,800	354,000	--	--	--	--	--	--
South Dakota	50	414	--	--	3,480	28,800	7	58
Tennessee	(3)	(3)	--	--	743	11,100	--	--
Texas	233	3,300	(3)	(3)	738	8,500	--	--
Utah	--	--	--	--	(3)	(3)	--	--
Vermont	395	6,430	20	245	1,350	14,600	334	3,950
Virginia	22,800	441,000	10,300	188,000	969	18,100	(3)	(3)
Washington	1,560	22,500	5,350	66,600	(3)	(3)	--	--
West Virginia	--	--	--	--	1,160	13,700	--	--
Wisconsin	2,470	19,600	1,260	8,500	90	607	--	--
Wyoming	2,370	22,200	--	--	--	--	--	--
Total	208,000	3,360,000	83,400	1,360,000	42,400	510,000	387	4,630

-- Zero.

¹Table includes data available through May 2, 2022. Data 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.

³Withheld to avoid disclosing company proprietary data; included with "Miscellaneous stone" on table 8.

TABLE 8
SHELL, VOLCANIC CINDER AND SCORIA, AND MISCELLANEOUS STONE SOLD OR USED
BY PRODUCERS IN THE UNITED STATES IN 2019, BY STATE¹

(Thousand metric tons and thousand dollars)

State	Shell		Volcanic cinder and scoria		Miscellaneous stone	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	--	--	--	--	866	12,900
Alaska	--	--	--	--	1,430	25,800
Arizona	--	--	322	3,410	2,190	13,700
Arkansas	--	--	--	--	1,850	16,900
California	--	--	150	2,450	6,150	82,100
Colorado	--	--	162	1,610	778	7,670
Connecticut	--	--	--	--	1,240	15,400
Delaware	--	--	--	--	W	W
Florida	(2)	(2)	--	--	913	13,600
Georgia	--	--	--	--	44	1,530
Hawaii	--	--	28	650	275	6,450
Idaho	--	--	(2)	(2)	3,040	22,200
Illinois	--	--	--	--	274	2,850
Indiana	--	--	--	--	249	2,690
Iowa	--	--	--	--	--	--
Kansas	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--
Louisiana	(2)	(2)	--	--	W	W
Maine	--	--	--	--	246	2,910
Maryland	--	--	--	--	5,050	84,500
Massachusetts	--	--	--	--	2,210	29,800
Michigan	--	--	--	--	425	3,180
Minnesota	--	--	--	--	595	7,990
Mississippi	--	--	--	--	2,010	69,000
Missouri	--	--	--	--	1,670	13,900
Montana	--	--	--	--	492	2,700
Nebraska	--	--	--	--	W	W
Nevada	--	--	(2)	(2)	6,200	63,300
New Hampshire	--	--	--	--	244	2,670
New Jersey	--	--	--	--	--	--
New Mexico	--	--	295	2,910	1,480	15,000
New York	--	--	--	--	647	10,100
North Carolina	--	--	--	--	2,920	54,500
North Dakota	--	--	109	796	228	1,400
Ohio	--	--	--	--	21	224
Oklahoma	--	--	--	--	5,880	61,600
Oregon	--	--	45	51	9,970	89,500
Pennsylvania	--	--	--	--	9,400	124,000
Rhode Island	--	--	--	--	84	935
South Carolina	--	--	--	--	2,600	16,000
South Dakota	--	--	--	--	666	5,080
Tennessee	--	--	--	--	789	10,200
Texas	--	--	--	--	9,940	122,000
Utah	--	--	--	--	1,860	16,100
Vermont	--	--	--	--	518	5,720
Virginia	--	--	--	--	1,290	21,300
Washington	--	--	55	753	6,630	99,100
West Virginia	--	--	--	--	--	--
Wisconsin	--	--	--	--	157	1,070
Wyoming	--	--	3,670	13,900	2,210	4,820
Other	--	--	--	--	10,700	181,000
Total	--	--	4,830	26,600	106,000	1,340,000

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

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits; may not add to totals shown.

²Withheld to avoid disclosing company proprietary data; included with "Miscellaneous stone."

TABLE 9
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY USE¹

Use	2018 ²			2019		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Macadam	526	\$5,540	\$10.53	932	\$12,700	\$13.62
Riprap and jetty stone	6,610	83,100	12.58	7,520	97,000	12.91
Filter stone	2,070	23,800	11.46	1,950	24,000	12.31
Unspecified coarse aggregate	22,600	408,000	18.03	13,900	228,000	16.41
Coarse aggregate, graded:						
Concrete aggregate, coarse	21,900	253,000	11.56	35,600	449,000	12.59
Bituminous aggregate, coarse	13,600	172,000	12.67	11,800	160,000	13.53
Bituminous surface-treatment aggregate	2,720	39,000	14.31	2,450	36,600	14.95
Railroad ballast	5,370	67,600	12.60	5,230	66,700	12.76
Unspecified graded coarse aggregate	110,000	1,880,000	17.13	116,000	2,100,000	18.11
Fine aggregate (-¾ inch):						
Stone sand, concrete	2,710	33,600	12.41	6,760	101,000	14.91
Stone sand, bituminous mix or seal	3,910	54,100	13.84	5,020	67,300	13.40
Screening, undesignated	4,540	41,200	9.08	5,600	47,900	8.56
Unspecified fine aggregate	32,800	453,000	13.79	34,000	491,000	14.43
Coarse and fine aggregates:						
Graded road base or subbase	39,800	336,000	8.45	49,100	400,000	8.15
Unpaved road surfacing	5,990	51,500	8.60	5,100	48,500	9.51
Terrazzo and exposed aggregates	1,300	31,100	23.98	818	25,300	30.89
Crusher run or fill or waste	14,600	128,000	8.77	15,400	140,000	9.14
Roofing granules	W	W	40.11	W	W	51.04
Unspecified coarse and fine aggregates	115,000	1,340,000	11.57	123,000	1,620,000	13.11
Unspecified and other construction materials	12,000	122,000	10.20	1,800	18,800	10.43
Agricultural:						
Agricultural limestone	4,850	55,800	11.51	4,760	57,600	12.12
Poultry grit and mineral food	920	14,800	16.04	671	14,200	21.14
Unspecified and other agricultural uses	318	18,800	59.11	468	20,300	43.34
Chemical and metallurgical:						
Cement manufacture	110,000	528,000	4.81	114,000	564,000	4.93
Lime manufacture	48,900	360,000	7.38	37,100	276,000	7.45
Dead-burned dolomite manufacture	W	W	17.42	W	W	17.82
Flux stone	W	W	13.04	W	W	9.80
Chemical stone	W	W	13.16	W	W	6.34
Glass manufacture	W	W	23.70	W	W	28.75
Sulfur oxide removal	2,360	36,200	15.34	3,440	40,400	11.75
Special:						
Mine dusting or acid water treatment	769	16,500	21.50	340	6,470	18.99
Asphalt fillers or extenders	733	16,800	22.97	781	18,000	23.07
Whiting or whiting substitute	W	W	42.66	W	W	31.61
Other fillers or extenders	2,970	105,000	35.40	1,460	52,600	36.10
Other miscellaneous uses and specified uses not listed	2,180	48,400	22.15	5,410	102,000	18.79
Unspecified:³						
Reported	448,000	5,410,000	12.08	484,000	6,300,000	13.02
Estimated	348,000	3,860,000	11.09	349,000	3,970,000	11.37
Total or average	1,390,000	16,200,000	11.62	1,450,000	17,900,000	12.28

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

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except "Unit value"; may not add to totals shown.

²Estimated quantities have been recalculated.

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

TABLE 10
LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2019, BY USE¹

(Thousand metric tons and thousand dollars)

Use	Limestone ²			Dolomite		
	Quantity	Value	Unit value	Quantity	Value	Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Macadam	710	10,200	\$14.36	26	324	\$12.60
Riprap and jetty stone	5,680	62,900	11.08	261	3,580	13.73
Filter stone	1,470	15,500	10.54	57	928	16.25
Unspecified coarse aggregate	9,170	128,000	13.93	W	W	25.75
Coarse aggregate, graded:						
Concrete aggregate, coarse	25,300	311,000	12.28	W	W	10.99
Bituminous aggregate, coarse	5,270	70,300	13.34	1,640	24,100	14.67
Bituminous surface-treatment aggregate	1,470	21,800	14.88	505	7,750	15.35
Railroad ballast	1,200	15,500	12.89	186	2,470	13.33
Unspecified graded coarse aggregate	73,100	1,250,000	17.11	4,150	52,300	12.60
Fine aggregate (-¾ inch):						
Stone sand, concrete	4,290	63,400	14.78	W	W	15.48
Stone sand, bituminous mix or seal	2,310	26,900	11.66	936	15,200	16.25
Screening, undesignated	4,180	35,400	8.46	220	1,760	8.00
Unspecified fine aggregate	18,300	260,000	14.18	601	6,660	11.09
Coarse and fine aggregates:						
Graded road base or subbase	38,900	302,000	7.76	2,750	21,500	7.81
Unpaved road surfacing	3,330	32,600	9.80	264	2,730	10.37
Terrazzo and exposed aggregates	156	1,720	11.05	W	W	13.58
Crusher run or fill or waste	9,410	81,500	8.66	1,450	14,000	9.65
Roofing granules	W	W	4.79	--	--	--
Unspecified coarse and fine aggregates	87,000	1,150,000	13.18	3,990	39,800	9.99
Unspecified and other construction materials	374	4,150	11.09	W	W	10.18
Agricultural:						
Agricultural limestone	4,200	47,200	11.26	550	10,300	18.64
Poultry grit and mineral food	671	14,200	21.14	--	--	--
Unspecified and other agricultural uses	427	12,600	29.62	W	W	183.95
Chemical and metallurgical:						
Cement manufacture	109,000	538,000	4.94	--	--	--
Lime manufacture	36,400	271,000	7.46	W	W	7.05
Dead-burned dolomite manufacture	W	W	16.53	W	W	17.93
Flux stone	W	W	9.76	W	W	9.82
Chemical stone	W	W	6.34	--	--	--
Glass manufacture	W	W	28.75	--	--	--
Sulfur oxide removal	3,440	40,400	11.75	--	--	--
Special:						
Mine dusting or acid water treatment	W	W	18.00	--	--	--
Asphalt fillers or extenders	750	15,300	20.44	--	--	--
Whiting or whiting substitute	2	21	9.92	W	W	42.99
Other fillers or extenders	647	22,800	35.24	15	337	22.35
Other miscellaneous uses and specified uses not listed	2,770	52,900	19.07	213	2,450	11.49
Unspecified:³						
Reported	290,000	3,550,000	12.23	24,400	280,000	11.45
Estimated	217,000	2,330,000	10.71	6,420	68,200	10.63
Total or average	961,000	10,800,000	11.21	57,300	665,000	11.62

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

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except "Unit value"; may not add to totals shown.

²Includes a minor amount of limestone-dolomite reported with no distinction between the two types of stone.

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

TABLE 11
LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2019, BY STATE AND USE¹

(Thousand metric tons and thousand dollars)

State	Concrete aggregate		Bituminous aggregate		Roadstone and coverings		Riprap and railroad ballast		Other construction uses	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	2,490	29,200	W	W	2,050	26,500	193	3,000	8,690	113,000
Alaska	--	--	--	--	--	--	--	--	--	--
Arizona	--	--	W	W	--	--	--	--	W	W
Arkansas	87	639	300	3,540	407	2,930	W	W	1,560	12,900
California	--	--	--	--	--	--	--	--	W	W
Colorado	--	--	--	--	--	--	--	--	1	1
Connecticut	W	W	--	--	W	W	--	--	470	5,800
Delaware	--	--	--	--	--	--	--	--	--	--
Florida	16,200	241,000	W	W	5,590	51,200	273	6,460	8,180	103,000
Georgia	W	W	W	W	W	W	--	--	514	7,850
Hawaii	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	W	W	--	--	--	--	--	--
Illinois	3,120	27,200	W	W	2,470	20,300	326	4,930	4,540	39,200
Indiana	1,690	20,300	5,550	67,700	3,500	30,200	479	5,390	W	W
Iowa	372	5,770	254	2,910	2,220	20,000	80	1,730	W	W
Kansas	W	W	W	W	W	W	W	W	336	2,810
Kentucky	1,840	23,000	3,940	49,400	2,720	30,900	290	3,640	W	W
Louisiana	W	W	W	W	W	W	--	--	W	W
Maine	73	380	--	--	69	498	--	--	--	--
Maryland	W	W	W	W	W	W	W	W	592	5,350
Massachusetts	W	W	155	1,960	W	W	--	--	306	5,870
Michigan	W	W	W	W	W	W	W	W	1,790	10,100
Minnesota	16	202	W	W	W	W	32	88	80	801
Mississippi ²	W	W	W	W	W	W	W	W	408	13,500
Missouri	1,710	15,200	974	10,700	2,800	17,500	W	W	W	W
Montana	--	--	W	W	W	W	--	--	5	22
Nebraska	--	--	--	--	--	--	W	W	1,550	16,700
Nevada	139	1,360	286	3,410	288	1,940	46	1,040	995	4,650
New Hampshire	--	--	--	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--	--
New Mexico	W	W	W	W	W	W	W	W	47	423
New York	846	11,700	1,680	30,900	284	3,810	65	1,290	W	W
North Carolina	--	--	--	--	--	--	--	--	--	--
North Dakota	--	--	--	--	--	--	--	--	--	--
Ohio	1,530	11,100	4,090	54,000	3,510	28,200	334	4,080	13,400	124,000
Oklahoma	1,430	14,700	1,610	15,300	1,600	12,200	147	2,290	2,120	17,000
Oregon	--	--	--	--	--	--	--	--	--	--
Pennsylvania	2,700	38,000	7,490	110,000	4,320	53,600	W	W	8,120	77,600
Rhode Island	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	W	W	--	--	W	W
South Dakota	--	--	--	--	--	--	--	--	--	--
Tennessee	4,110	72,100	9,710	173,000	3,000	38,900	106	1,800	20,800	378,000
Texas	12,400	151,000	W	W	14,700	123,000	807	7,560	W	W
Utah	W	W	W	W	--	--	--	--	1	10
Vermont	W	W	W	W	842	5,770	W	W	398	3,420
Virginia	492	7,940	1,250	19,000	983	12,900	143	2,950	1,500	19,100
Washington	--	--	--	--	W	W	--	--	16	877
West Virginia	--	--	132	1,890	69	862	10	164	--	--
Wisconsin	154	915	244	1,400	3,150	13,400	62	303	1,650	13,500
Wyoming	--	--	--	--	--	--	--	--	--	--
Total	51,400	671,000	37,700	545,000	54,500	495,000	3,390	46,700	78,000	976,000
Total withheld	1,630	23,300	52,500	940,000	1,110	14,900	3,930	37,700	31,900	399,000
Grand total	53,000	695,000	90,100	1,480,000	55,600	510,000	7,320	84,400	110,000	1,370,000

See footnotes at end of table.

TABLE 11—Continued
LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2019, BY STATE AND USE¹

(Thousand metric tons and thousand dollars)

State	Cement manufacture		Agricultural uses		Lime manufacture		Other uses		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	4,490	20,000	W	W	7,840	74,700	3,980	53,600	36,700	418,000
Alaska	--	--	--	--	--	--	--	--	--	--
Arizona	3,300	24,700	--	--	510	4,500	82	1,130	3,960	30,800
Arkansas	W	W	W	W	661	2,920	9,350	90,200	14,200	123,000
California	14,000	52,800	--	--	W	W	3,090	60,800	17,500	117,000
Colorado	1,680	5,560	--	--	--	--	1,340	17,900	3,020	23,500
Connecticut	--	--	W	W	--	--	933	12,300	1,480	20,700
Delaware	--	--	--	--	--	--	W	W	(3)	(3)
Florida	8,980	37,200	W	W	563	6,210	27,500	455,000	76,500	1,120,000
Georgia	793	6,990	--	--	--	--	1,870	37,400	4,420	77,600
Hawaii	--	--	--	--	--	--	--	--	--	--
Idaho	--	--	W	W	--	--	102	2,020	(3)	(3)
Illinois	W	W	661	5,530	--	--	30,000	304,000	50,000	523,000
Indiana	W	W	1,110	11,300	216	2,860	30,600	340,000	51,500	558,000
Iowa	W	W	280	1,210	417	4,350	33,000	381,000	40,000	444,000
Kansas	W	W	W	W	--	--	9,410	83,700	13,600	114,000
Kentucky	3,480	16,500	414	3,950	W	W	32,000	338,000	53,700	547,000
Louisiana	--	--	W	W	--	--	W	W	(3)	(3)
Maine	501	3,040	--	--	--	--	1,060	10,200	1,700	14,100
Maryland	3,810	17,800	W	W	--	--	10,000	131,000	16,200	183,000
Massachusetts	--	--	W	W	W	W	873	19,100	1,700	32,800
Michigan	2640	11600	W	W	W	W	21,700	169,000	35,600	267,000
Minnesota	--	--	W	W	--	--	3,030	40,700	3,330	42,900
Mississippi ²	--	--	W	W	--	--	672	23,000	(3)	(3)
Missouri	11,500	48,400	325	1,980	7,600	36,800	38,200	313,000	67,800	478,000
Montana	W	W	--	--	W	W	1,070	9,710	1,950	17,700
Nebraska	W	W	W	W	--	--	5,480	83,400	(3)	(3)
Nevada	989	11,600	W	W	W	W	499	4,680	5,580	53,300
New Hampshire	--	--	--	--	--	--	--	--	--	--
New Jersey	--	--	--	--	--	--	503	5,540	503	5,540
New Mexico	485	4,280	--	--	--	--	928	8,610	1,890	15,800
New York	2,010	9,260	31	280	W	W	22,800	297,000	30,800	384,000
North Carolina	--	--	--	--	--	--	3,960	73,000	3,960	73,000
North Dakota	--	--	--	--	--	--	--	--	--	--
Ohio	1,420	4,710	140	896	9	65	42,900	518,000	67,300	746,000
Oklahoma	1,980	9,800	W	W	W	W	22,400	208,000	31,900	282,000
Oregon	1,080	4,780	--	--	--	--	--	--	1,080	4,780
Pennsylvania	4,680	17,800	412	8,700	W	W	33,300	438,000	66,000	805,000
Rhode Island	--	--	--	--	--	--	--	--	--	--
South Carolina	2,310	7,620	--	--	--	--	2,360	32,200	4,690	40,200
South Dakota	878	2,900	--	--	1,130	4,970	726	6,000	2,730	13,900
Tennessee	W	W	109	1,680	W	W	9,000	131,000	48,700	806,000
Texas	18,200	99,200	478	8,480	2,050	11,100	93,200	1,100,000	174,000	2,060,000
Utah	W	W	W	W	W	W	5,470	47,300	8,690	69,000
Vermont	--	--	W	W	--	--	874	9,450	2,430	23,000
Virginia	1,520	6,680	396	12,000	571	2,560	11,100	202,000	18,000	285,000
Washington	617	8,160	W	W	9	93	49	656	718	13,200
West Virginia	1,740	6,730	--	--	--	--	13,700	165,000	15,600	174,000
Wisconsin	--	--	303	4,690	82	598	18,000	120,000	23,700	154,000
Wyoming	742	6,130	--	--	--	--	1,890	18,000	2,630	24,100
Total	93,700	444,000	4,660	60,700	21,700	152,000	549,000	6,360,000	XX	XX
Total withheld	15,200	93,300	1,220	31,300	15,900	133,000	353	8,070	XX	XX
Grand total	109,000	538,000	5,880	92,000	37,600	285,000	549,000	6,370,000	1,020,000	11,400,000

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

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits; may not add to totals shown.

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

³Withheld to avoid disclosing company proprietary data; included in "Grand total."

TABLE 12
GRANITE, TRAPROCK, SANDSTONE AND QUARTZITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2019, BY USE¹

(Thousand metric tons and thousand dollars)

Use	Granite		Traprock		Sandstone and quartzite ²	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch):						
Macadam	--	--	193	2,130	--	--
Riprap and jetty stone	412	6,840	611	13,500	193	3,070
Filter stone	34	823	272	4,560	W	W
Unspecified coarse aggregate	2,410	54,700	995	21,500	228	2,720
Coarse aggregate, graded:						
Concrete aggregate, coarse	966	11,600	3,920	65,600	W	W
Bituminous aggregate, coarse	3,200	42,900	563	7,710	W	W
Bituminous surface-treatment aggregate	228	3,450	203	2,640	W	W
Railroad ballast	3,150	38,900	250	3,560	--	--
Unspecified graded coarse aggregate	29,900	640,000	4,770	97,200	1,710	23,600
Fine aggregate (-¾ inch):						
Stone sand, concrete	331	4,650	492	8,770	W	W
Stone sand, bituminous mix or seal	1,180	15,900	313	5,270	74	955
Screening, undesignated	505	4,320	244	1,790	W	W
Unspecified fine aggregate	11,100	167,000	1,640	22,700	1,210	19,500
Coarse and fine aggregates:						
Graded road base or subbase	1,240	12,300	2,780	33,800	791	9,170
Unpaved road surfacing	W	W	1,270	10,900	W	W
Terrazzo and exposed aggregates	195	5,930	W	W	W	W
Crusher run or fill or waste	1,710	21,500	614	6,440	638	5,790
Roofing granules	W	W	1,320	219,000	W	W
Unspecified coarse and fine aggregates	22,300	305,000	5,020	79,500	1,500	14,000
Unspecified and other construction materials	68	150	42	278	83	1,240
Agricultural:						
Agricultural limestone	--	--	--	--	--	--
Poultry grit and mineral food	--	--	--	--	--	--
Unspecified and other agricultural uses	2	90	--	--	--	--
Chemical and metallurgical:						
Cement manufacture	--	--	W	W	W	W
Lime manufacture	--	--	--	--	--	--
Dead-burned dolomite manufacture	--	--	--	--	--	--
Flux stone	--	--	--	--	W	W
Chemical stone	--	--	--	--	--	--
Glass manufacture	--	--	--	--	--	--
Sulfur oxide removal	--	--	--	--	--	--
Special:						
Mine dusting or acid water treatment	--	--	--	--	--	--
Asphalt fillers or extenders	W	W	--	--	--	--
Whiting or whiting substitute	--	--	--	--	--	--
Other fillers or extenders	--	--	--	--	85	2,530
Other miscellaneous uses and specified uses not listed	346	6,170	--	--	1,100	23,700
Unspecified:³						
Reported	93,200	1,540,000	36,600	516,000	21,900	278,000
Estimated	38,300	510,000	28,400	356,000	11,600	128,000
Total	214,000	3,420,000	90,500	1,480,000	44,800	549,000

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

¹Table includes data available through May 2, 2022. Data 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.

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

TABLE 13
MARBLE, VOLCANIC CINDER AND SCORIA, AND MISCELLANEOUS STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES
IN 2019, BY USE¹

(Thousand metric tons and thousand dollars)

Use	Marble		Volcanic cinder and scoria		Miscellaneous stone	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch):						
Macadam	--	--	--	--	3	42
Riprap and jetty stone	W	W	--	--	339	6,520
Filter stone	--	--	W	W	14	129
Unspecified coarse aggregate	25	517	--	--	534	7,470
Coarse aggregate, graded:						
Concrete aggregate, coarse	W	W	W	W	1,510	16,400
Bituminous aggregate, coarse	W	W	--	--	559	6,020
Bituminous surface-treatment aggregate	W	W	--	--	16	268
Railroad ballast	--	--	--	--	443	6,290
Unspecified graded coarse aggregate	249	4,070	46	369	1,780	26,300
Fine aggregate (-¾ inch):						
Stone sand, concrete	--	--	W	W	591	7,570
Stone sand, bituminous mix or seal	W	W	--	--	190	2,680
Screening, undesignated	181	1,600	W	W	187	2,210
Unspecified fine aggregate	46	480	60	506	1,040	13,100
Coarse and fine aggregates:						
Graded road base or subbase	W	W	--	--	2,540	20,200
Unpaved road surfacing	--	--	W	W	98	998
Terrazzo and exposed aggregates	W	W	--	--	27	205
Crusher run or fill or waste	W	W	71	506	1,260	7,650
Roofing granules	--	--	--	--	--	--
Unspecified coarse and fine aggregates	184	2,260	22	279	3,420	30,500
Unspecified and other construction materials	--	--	60	542	287	3,390
Agricultural:						
Agricultural limestone	--	--	--	--	9	53
Poultry grit and mineral food	--	--	--	--	--	--
Unspecified and other agricultural uses	--	--	--	--	--	--
Chemical and metallurgical:						
Cement manufacture	--	--	W	W	904	5,650
Lime manufacture	--	--	--	--	--	--
Dead-burned dolomite manufacture	--	--	--	--	--	--
Flux stone	--	--	--	--	--	--
Chemical stone	--	--	--	--	--	--
Glass manufacture	--	--	--	--	--	--
Sulfur oxide removal	--	--	--	--	--	--
Special:						
Mine dusting or acid water treatment	W	W	--	--	--	--
Asphalt fillers or extenders	--	--	--	--	--	--
Whiting or whiting substitute	--	--	--	--	--	--
Other fillers or extenders	709	26,700	--	--	1	204
Other miscellaneous uses and specified uses not listed	4	103	211	3,030	694	12,200
Unspecified:²						
Reported	45	800	3,740	14,600	14,300	129,000
Estimated	1,670	27,500	856	9,330	43,100	521,000
Total	3,660	76,600	5,120	30,100	73,900	826,000

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

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits; may not add to totals shown.

²Reported and estimated production without a breakdown by end use.

TABLE 14
 RECYCLED ASPHALT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE¹

State	2018 ²			2019		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	159	\$1,760	\$11.04	159	\$1,760	\$11.04
Alaska	77	907	11.81	92	1,020	11.09
Arizona	22	176	8.07	32	286	8.81
Arkansas	83	921	11.13	77	845	11.02
California	1,850	18,300	9.88	1,450	12,900	8.94
Colorado	347	2,370	6.83	327	2,350	7.20
Connecticut	521	3,530	6.78	564	3,660	6.50
Delaware	91	600	6.61	91	600	6.61
Florida	346	3,520	10.17	345	3,470	10.05
Georgia	281	3,080	10.93	281	3,080	10.93
Hawaii	--	--	--	--	--	--
Idaho	15	116	7.58	81	675	8.29
Illinois	1,640	9,910	6.04	1,690	10,200	6.02
Indiana	64	457	7.09	97	775	8.01
Iowa	205	893	4.35	227	1,030	4.55
Kansas	554	1,550	2.79	551	3,780	6.87
Kentucky	123	732	5.93	147	917	6.23
Louisiana	34	290	8.43	34	292	8.46
Maine	41	594	14.60	56	776	13.91
Maryland	214	1,180	5.54	170	1,010	5.93
Massachusetts	241	1,880	7.80	286	2,370	8.28
Michigan	668	4,120	6.16	846	5,440	6.43
Minnesota	1,110	8,270	7.42	1,010	7,280	7.23
Mississippi	4	43	12.25	4	45	12.68
Missouri	216	1,650	7.67	297	2,240	7.55
Montana	46	496	10.69	56	630	11.26
Nebraska	40	624	15.69	47	761	16.11
Nevada	98	791	8.07	414	3,370	8.13
New Hampshire	187	1,710	9.17	182	1,760	9.68
New Jersey	150	736	4.90	131	664	5.09
New Mexico	99	1,110	11.22	115	1,470	12.75
New York	360	4,600	12.78	595	5,770	9.69
North Carolina	1,040	15,300	14.73	986	15,800	16.01
North Dakota	11	245	21.44	23	326	14.30
Ohio	138	5,320	38.53	109	784	7.17
Oklahoma	33	415	12.52	34	416	12.34
Oregon	44	291	6.67	382	3,100	8.11
Pennsylvania	247	3,000	12.14	564	6,680	11.85
Rhode Island	52	850	16.32	1	10	7.94
South Carolina	212	5,560	26.19	209	5,880	28.11
South Dakota	79	805	10.17	73	748	10.22
Tennessee	698	19,300	27.60	204	2,020	9.94
Texas	578	4,880	8.44	305	2,940	9.61
Utah	34	286	8.42	131	1,000	7.66
Vermont	85	1,590	18.66	149	1,910	12.83
Virginia	299	3,380	11.31	280	2,900	10.34
Washington	80	896	11.21	57	710	12.52
West Virginia	--	--	--	--	--	--
Wisconsin	314	2,180	6.93	300	1,830	6.11
Wyoming	5	31	6.26	46	336	7.24
Total or average	13,800	141,000	10.20	14,300	129,000	8.99

-- Zero.

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except "Unit value"; may not add to totals shown.

²Estimated quantities have been recalculated.

TABLE 15
 RECYCLED PORTLAND CEMENT CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE¹

State	2018 ²			2019		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	--	--	--	19	\$369	\$19.62
Alaska	14	\$164	\$11.97	36	381	10.66
Arizona	23	237	10.25	141	1,100	7.82
Arkansas	--	--	--	--	--	--
California	3,230	25,300	7.84	2,180	16,800	7.72
Colorado	693	5,080	7.33	862	6,660	7.72
Connecticut	27	242	9.09	45	281	6.23
Delaware	68	300	4.41	68	300	4.41
Florida	725	4,370	6.02	739	5,140	6.96
Georgia	90	889	9.87	158	1,820	11.50
Hawaii	2	22	14.33	2	26	14.33
Idaho	6	64	11.35	6	68	11.35
Illinois	1,580	11,500	7.26	1,580	12,000	7.57
Indiana	86	885	10.29	145	1,450	9.99
Iowa	532	2,640	4.96	609	3,090	5.08
Kansas	327	2,980	9.11	329	3,080	9.35
Kentucky	--	--	--	11	82	7.16
Louisiana	94	1,390	14.85	30	508	17.14
Maine	32	242	7.62	19	153	8.03
Maryland	442	3,410	7.71	468	3,440	7.34
Massachusetts	347	2,590	7.47	371	2,890	7.78
Michigan	956	6,580	6.88	1,010	6,120	6.07
Minnesota	938	5,880	6.27	697	4,650	6.67
Mississippi	73	647	8.82	75	718	9.57
Missouri	4	34	8.05	23	187	8.02
Montana	15	122	8.16	17	167	9.74
Nebraska	85	939	11.02	95	1,100	11.64
Nevada	51	374	7.39	210	1,700	8.10
New Hampshire	33	205	6.31	30	203	6.87
New Jersey	281	2,450	8.73	247	2,190	8.88
New Mexico	124	1,090	8.78	159	1,490	9.40
New York	159	1,300	8.17	252	2,230	8.85
North Carolina	217	2,640	12.15	365	4,780	13.11
North Dakota	9	127	14.39	29	389	13.28
Ohio	287	2,340	8.15	344	2,880	8.35
Oklahoma	389	4,280	10.98	390	4,280	10.98
Oregon	249	1,230	4.94	689	5,390	7.83
Pennsylvania	214	1,500	7.02	220	1,600	7.25
Rhode Island	--	--	--	24	195	8.06
South Carolina	156	2,030	13.03	185	2,920	15.83
South Dakota	167	1,230	7.35	170	1,210	7.12
Tennessee	15	150	9.91	28	366	13.19
Texas	1,780	17,800	9.97	1,730	18,100	10.45
Utah	307	2,120	6.92	137	1,140	8.31
Vermont	16	231	14.44	16	233	14.53
Virginia	798	7,660	9.59	878	8,450	9.63
Washington	312	2,900	9.30	196	1,810	9.23
West Virginia	--	--	--	--	--	--
Wisconsin	188	1,810	9.60	272	1,730	6.37
Wyoming	8	74	9.69	47	367	7.87
Total or average	16,100	130,000	8.05	16,400	136,000	8.33

-- Zero.

¹Table includes data available through May 2, 2022. Data are rounded to no more than three significant digits, except "Unit value"; may not add to totals shown.

²Estimated quantities have been recalculated.

TABLE 16
CRUSHED AND BROKEN STONE OPERATIONS IN THE UNITED STATES IN 2019, BY STATE¹

State	Active operations	Active quarries	Dredging operations	Processing plants				Sales yards
				Stationary	Portable	Stationary and portable	None or unspecified	
Alabama	69	65	--	60	4	--	1	4
Alaska	14	13	--	2	9	--	2	1
Arizona	47	45	--	26	16	3	--	2
Arkansas	71	68	--	34	25	7	2	3
California	134	118	--	65	27	14	8	20
Colorado	34	32	--	16	8	1	4	5
Connecticut	32	29	--	15	11	2	1	3
Delaware	3	--	--	--	--	--	--	3
Florida	109	81	2	36	29	12	2	30
Georgia	102	80	--	67	6	2	4	23
Hawaii	21	21	--	11	10	--	--	--
Idaho	32	46	--	6	17	1	8	--
Illinois	139	114	1	73	33	4	4	25
Indiana	91	86	--	78	4	--	4	5
Iowa	159	182	1	37	111	--	9	2
Kansas	68	83	--	23	38	--	3	4
Kentucky	92	90	--	66	17	5	1	3
Louisiana	13	1	--	1	--	--	--	12
Maine	28	24	--	13	8	2	1	4
Maryland	39	26	--	23	2	--	1	13
Massachusetts	41	36	--	25	6	3	2	5
Michigan	30	29	--	17	7	--	1	5
Minnesota	48	48	--	12	25	1	4	6
Mississippi	16	2	--	1	1	--	--	14
Missouri	192	200	--	99	72	12	5	4
Montana	13	13	--	7	5	--	1	--
Nebraska	15	11	--	5	5	--	1	4
Nevada	26	26	--	18	6	1	--	1
New Hampshire	24	22	--	12	9	1	--	2
New Jersey	24	18	--	14	1	3	--	6
New Mexico	34	33	--	13	16	2	1	2
New York	114	111	1	80	16	11	3	4
North Carolina	133	113	--	91	14	3	4	21
North Dakota	10	9	--	6	1	0	2	1
Ohio	126	116	--	83	19	9	4	11
Oklahoma	65	64	--	52	3	3	5	2
Oregon	137	159	--	42	86	5	2	2
Pennsylvania	254	258	--	173	48	14	12	7
Rhode Island	9	6	--	5	1	--	--	3
South Carolina	47	39	--	34	3	1	1	8
South Dakota	14	11	--	10	1	--	--	3
Tennessee	137	134	--	113	14	--	6	4
Texas	270	238	--	111	96	14	11	38
Utah	22	20	--	9	7	--	3	3
Vermont	39	39	--	14	16	6	3	--
Virginia	118	100	--	91	4	1	--	22
Washington	69	73	--	23	35	5	3	3
West Virginia	32	28	--	25	1	1	--	5
Wisconsin	135	187	--	37	78	5	8	7
Wyoming	28	28	--	20	8	--	--	--
Total	3,519	3,375	5	1,893	976	153	137	355

-- Zero.

¹Table includes data available through May 2, 2022. Includes recycling plants.

TABLE 17
U.S. EXPORTS OF CRUSHED STONE IN 2019, BY DESTINATION¹

Destination		Limestone ²	Limestone for cement manufacturing ³	Chalk, crude ⁴	Granules, chippings ⁵	Other ⁶	Total
North America:	metric tons						
Bahamas, The	do.	10	112	--	3	991	1,120
Bermuda	do.	1	9	--	--	1,120	1,130
Canada	do.	96,500	26,000	112	38,100	70,400	231,000
Guadeloupe	do.	--	--	--	--	14400	14,400
Mexico	do.	82	--	10	8,670	92	8,850
Nicaragua	do.	--	--	--	1,730	--	1,730
Trinidad and Tobago	do.	8	--	(7)	1,370	21	1,400
Other	do.	208	297	--	549	220	1,270
Total	do.	96,800	26,400	123	50,400	87,200	261,000
Africa	do.	--	--	--	2	2	4
Asia	do.	3,590	329	7	2,270	4,330	10,500
Europe	do.	268	292	9	499	234	1,300
Oceania	do.	74	49	1	118	8	250
South America	do.	92	75	4	1,650	127	1,950
Grand total:							
Quantity	do.	101,000	27,200	144	54,900	91,900	275,000
Value	thousands	\$14,800,000	\$10,900,000	\$818,000	\$12,000,000	\$22,200,000	\$60,700,000

do. Ditto. -- Zero.

¹Table includes data available through March 31, 2022. Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes Schedule B code 2517.10.0020.

³Includes Schedule B code 2521.00.0000.

⁴Includes Schedule B code 2509.00.1000.

⁵Includes Schedule B codes 2517.41.0000 and 2517.49.0000.

⁶Includes Schedule B code 2517.10.0055.

⁷Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 18
U.S. IMPORTS OF CRUSHED STONE AND CALCIUM CARBONATE FINES, BY TYPE¹

Type	2018			2019		
	Quantity (thousand metric tons)	Value, c.i.f. ² (thousands)	Unit value	Quantity (thousand metric tons)	Value, c.i.f. ² (thousands)	Unit value
Crushed stone and chips:						
Limestone ³	13,200	\$108,000 ^r	\$8.22 ^r	14,700	\$121,000	\$8.24
Limestone for flux or cement manufacturing ⁴	1,070	13,000 ^r	12.24 ^r	982	12,800	12.98
Other ⁵	6,800	77,900 ^r	11.45 ^r	8,440	89,300	10.59
Total	21,000	199,000 ^r	XX	24,200	224,000	XX
Calcium carbonate fines: ⁶						
Natural chalk ⁷	(8)	7	3,420.00 ^r	(8)	32,348	1,160.00
Calcium carbonates, other chalk ⁹	2	2,120 ^r	1,290.00 ^r	2	1,760	939.87
Total or average	2	2,130 ^r	XX	2	1,790	XX
Grand total or average	21,000	201,000 ^r	XX	24,200	225,000	XX

^rRevised. XX Not applicable.

¹Table includes data available through March 31, 2022. Data are rounded to no more than three significant digits, except "Unit value"; may not add to totals shown.

²Cost, insurance, and freight.

³Includes Harmonized Tariff Schedule of the United States (HTS) code 2517.10.0020.

⁴Includes HTS code 2521.00.0000.

⁵Includes HTS codes 2517.10.0055, 2517.41.0000, and 2517.49.0000.

⁶Excludes precipitated calcium carbonate.

⁷Includes HTS code 2509.00.1000.

⁸Less than ½ unit.

⁹Includes HTS code 2509.00.2000.

Source: U.S. Census Bureau.

TABLE 19
THE TOP 100 PRODUCERS OF CRUSHED STONE IN THE UNITED STATES¹

2019 rank	2018 rank ^f	Company	2019 rank	2018 rank ^f	Company
1	1	Vulcan Materials Co.	51	45	Anchor Stone Co.
2	2	Martin Marietta Materials, Inc.	52	55	Haydon Materials, LLC
3	3	CRH Americas Materials, Inc. (Oldcastle Materials, Inc.)	53	46	Greer Industries, Inc.
4	4	Lehigh Hanson, Inc.	54	53	Votorantim Cement North America
5	5	LafargeHolcim Ltd	55	66	Glenn O. Hawbaker, Inc.
6	6	CEMEX S.A.B. de C.V.	56	98	Linwood Mining & Minerals Corp.
7	7	Rogers Group, Inc.	57	51	Capital Materials
8	8	Carmeuse Americas	58	47	The DePaul Group
9	9	Lhoist North America, Inc.	59	75	Bruening Rock Products, Inc.
10	10	Luck Stone Corp.	60	48	The Kraemer Co.
11	11	New Enterprise Stone & Lime Co., Inc.	61	63	B.V. Hedrick Gravel & Sand Co., Inc.
12	13	Dolese Bros. Co.	62	68	Grupo Cementos de Chihuahua, S.A.B. de C.V.
13	12	Summit Materials, LLC.	63	57	3M Co.
14	14	Vecellio & Grogan, Inc.	64	50	Warren Paving, Inc.
15	15	Buzzi Unicem USA Inc.	65	60	The Vicat Group
16	16	National Lime & Stone Co.	66	70	Capitol Aggregates, Ltd.
17	17	Eagle Materials Inc.	67	61	United States Lime and Minerals, Inc.
18	18	Titan America LLC.	68	59	Salem Stone Corp.
19	23	The H&K Group	69	84	ISP Minerals, Inc.
20	20	Eucon Corp.	70	74	Hilltop Cos.
21	22	Colorado Materials, Ltd	71	72	U.S. Forest Service
22	52	Blue Water Industries	72	91	Mathy Construction Co.
23	21	Texas Crushed Stone Co., Inc.	73	65	Mitsubishi Cement Corp.
24	19	MDU Resources Group, Inc.	74	76	Youngquist Brothers Rock Inc.
25	27	Cementos Argos S. A.	75	67	CSA Materials, Inc.
26	25	Graymont Ltd.	76	80	BoDean Co.
27	24	Fred Weber, Inc.	77	82	Weldon Materials, Inc.
28	29	The Olen Corp.	78	92	Peckham Industries, Inc.
29	28	CalPortland Co.	79	89	L. G. Everist, Inc.
30	31	The Heritage Group	80	73	Wendling Quarries Inc.
31	30	Wake Stone Corp.	81	94	Glasgow, Inc.
32	32	Tower Rock Stone Co.	82	78	Rockydale Quarries Corp.
33	33	VantaCore Partners LP	83	96	Stavola Construction Materials, Inc.
34	26	Mississippi Lime Co.	84	88	Casper Stolle Quarry/Falling Springs Quarry
35	35	Aggregate Management, Inc.	85	62	Boxley Materials Co.
36	34	Colas Inc.	86	—	Dyer Quarry, Inc.
37	36	Irving Materials, Inc.	87	81	River Products Co., Inc.
38	37	The Melvin Stone Co.	88	87	RiverStone Group, Inc.
39	42	Lannon Stone Products, Inc.	89	—	Minerals Technologies Inc.
40	56	Carolina Sunrock Corp.	90	95	U.S. Concrete, Inc.
41	38	Pine Bluff Sand & Gravel Co.	91	90	Jobe Materials L.P.
42	43	American Infrastructure	92	85	George Reed, Inc.
43	40	McGeorge Contracting Co.	93	83	Palm Beach Aggregates, Inc.
44	54	Bureau of Land Management	94	—	The Allen Co., Inc.
45	49	Albert Frei & Sons, Inc.	95	99	Pete Lien & Sons, Inc.
46	39	Graniterock Co.	96	71	Pattison Co.
47	41	Snyder Associated Cos., Inc.	97	69	Chantilly Crushed Stone, Inc.
48	44	Schildberg Construction Co., Inc.	98	93	Kerford Limestone Co.
49	58	Las Vegas Paving Corp.	99	—	James D. Morrissey, Inc.
50	64	Bjoin Limestone Inc.	100	97	S.M. Lorusso & Sons, Inc.

^fRevised. — Not in the top 100 producers of crushed stone in the United States in 2018.

¹Table includes data available through May 2, 2022. In descending order of tonnage produced.

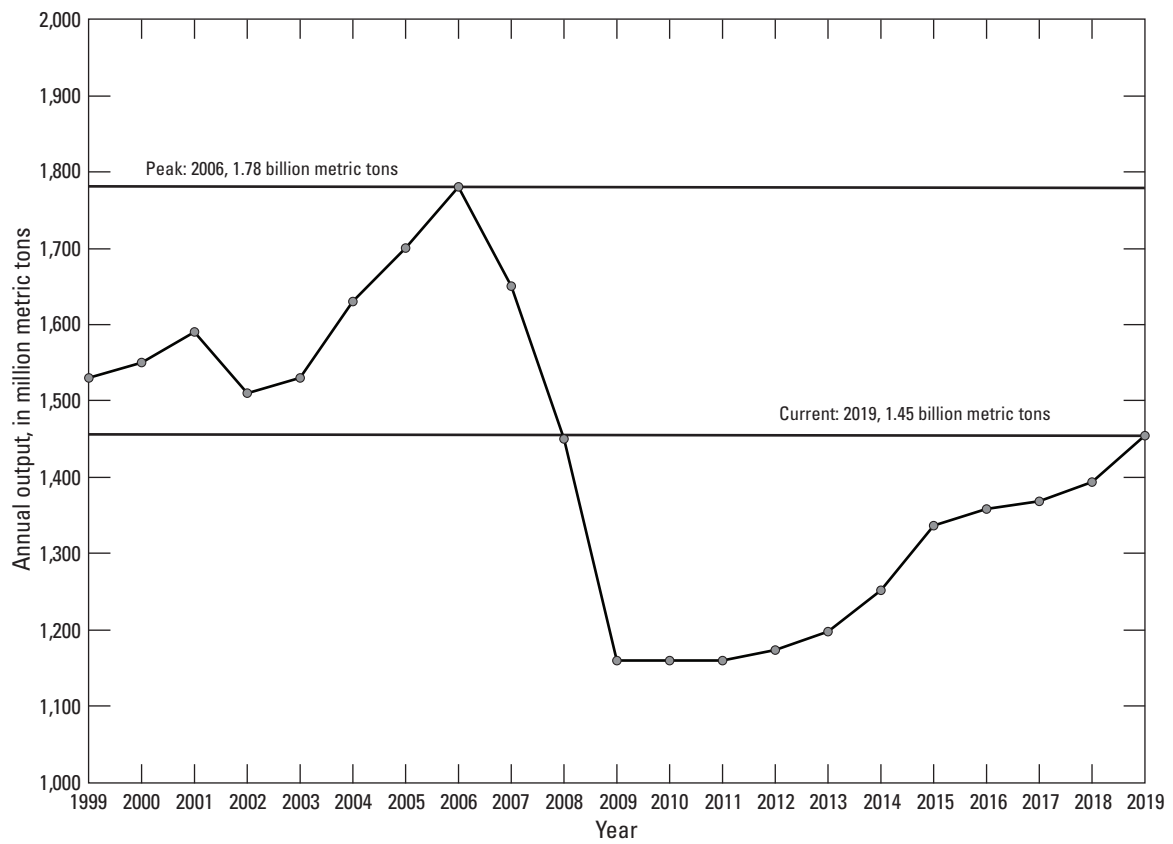


Figure 1. Annual output of crushed stone produced for consumption in the United States from 1999 through 2019. The current annual output and the record-high output in 2006 are both highlighted.