

GEMSTONES¹

(Data in million dollars unless otherwise noted)

Domestic Production and Use: The combined value of U.S. natural and synthetic gemstone output in 2022 was an estimated \$95 million, a 7% increase compared with that in 2021. Domestic gemstone production included agate, beryl, coral, diamond, garnet, jade, jasper, opal, pearl, quartz, sapphire, shell, topaz, tourmaline, turquoise, and many other gem materials. In descending order of production value, Arizona led the Nation in natural gemstone production, followed by Oregon and Nevada. These three States accounted for 47% of the natural gemstone production in the United States. Other top producing States, in descending order of production value, were California, Montana, Maine, Colorado, Arkansas, Utah, and Idaho. Synthetic gemstones were manufactured by eight companies in North Carolina, California, Oregon, Maryland, New York, South Carolina, Wisconsin, and Arizona, in descending order of production value. U.S. synthetic gemstone production increased by 7% compared with that in 2021. Major gemstone end uses were carvings, gem and mineral collections, and jewelry.

Salient Statistics—United States:

	2018	2019	2020	2021	2022^e
Production: ²					
Natural ³	9.47	9.22	9.82	9.48	9.5
Laboratory-created (synthetic)	64.9	94.3	55.0	79.3	85
Imports for consumption	27,700	24,400	16,300	24,600	30,000
Exports, excluding reexports	1,850	1,020	1,330	977	1,600
Consumption, apparent ⁴	25,900	23,500	15,000	23,700	28,000
Price	Variable, depending on size, type, and quality				
Employment, mine, number ^e	1,120	1,120	1,100	1,100	1,100
Net import reliance ⁵ as a percentage of apparent consumption	99	99	99	99	99

Recycling: Gemstones are often recycled by being resold as estate jewelry, reset, or recut, but this report does not account for those stones.

Import Sources (2018–21, by value): Diamond: India, 45%; Israel, 28%; Belgium, 11%; South Africa, 5%; and other, 11%. Diamond imports accounted for an average of 89% of the total value of gem imports during the period 2018 to 2021.

Tariff:	Item	Number	Normal Trade Relations 12–31–22
	Coral and similar materials, unworked	0508.00.0000	Free.
	Imitation gemstones	3926.90.4000	2.8% ad valorem.
	Imitation pearls and imitation pearl beads, not strung	7018.10.1000	4% ad valorem.
	Imitation gemstones	7018.10.2000	Free.
	Pearls, natural, graded and temporarily strung	7101.10.3000	Free.
	Pearls, natural, other	7101.10.6000	Free.
	Pearls, cultured	7101.21.0000	Free.
	Diamonds, unworked or sawn	7102.31.0000	Free.
	Diamonds, cut, 0.5 carat or less	7102.39.0010	Free.
	Diamonds, cut, more than 0.5 carat	7102.39.0050	Free.
	Other nondiamond gemstones, unworked	7103.10.2000	Free.
	Other nondiamond gemstones, uncut	7103.10.4000	10.5% ad valorem.
	Rubies, cut	7103.91.0010	Free.
	Sapphires, cut	7103.91.0020	Free.
	Emeralds, cut	7103.91.0030	Free.
	Other nondiamond gemstones, cut	7103.99.1000	Free.
	Other nondiamond gemstones, worked	7103.99.5000	10.5% ad valorem.
	Synthetic diamonds, cut but not set	7104.91.1000	Free.
	Synthetic gemstones, worked or cut but not set	7104.99.1000	Free.
	Synthetic gemstones, other	7104.99.5000	6.4% ad valorem.

Depletion Allowance: 14% (domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: In 2022, the U.S. gemstone and jewelry industries had recovered for the most part from the effects of the coronavirus disease 2019 (COVID-19) pandemic-related restrictions, lockdowns, and temporary mine and store closings.

Total world diamond production during 2022 was estimated to have increased slightly from 2021 levels. The largest production increases in 2022 were from Angola, Botswana, and Namibia. The largest production decreases in 2022 were in Canada, Congo (Kinshasa), Lesotho, and Russia. Production would need to increase by about 2% per year during the next 5 years to allow the market to fully rebalance after the COVID-19 pandemic.

Online auctions gained a higher share of rough diamond sales and offset deficits in traditional sales channels. Many jewelry stores successfully shifted sales to their websites; online diamond jewelry sales exceeded 25% of 2022 sales. Global gemstone sales are expected to increase at a steady rate over the next 5 years.

In 2022, U.S. imports for consumption of gemstones were about \$30 billion, which was a 22% increase compared with \$24.6 billion in 2021. These imports consisted of about \$26 billion in gem-quality diamonds, which was an 18% increase compared with \$21.8 billion in 2021, and about \$4.3 billion in nondiamond gemstones, which was a 49% increase compared with \$2.88 billion in 2021. The increase in U.S. gemstone production combined with the increase in U.S. gemstone imports and the increase in gemstone exports produced a 19% increase in apparent consumption to a value of \$28 billion. This apparent consumption consisted of \$24 billion in gem-quality diamond and \$4 billion in nondiamond gemstones. The United States was one of the leading global markets in terms of sales and is expected to continue to dominate global gemstone consumption.

World Gem-Quality Diamond Mine Production and Reserves:

	Mine production ⁶		Reserves ⁷
	2021	2022 ^e	
United States	—	—	World reserves of diamond-bearing deposits are substantial. No reserves data were available for other gemstones.
Angola	7,850	10,000	
Botswana	16,000	18,000	
Brazil	143	150	
Canada	17,600	16,000	
Central African Republic	73	73	
Congo (Kinshasa)	2,820	2,500	
Ghana	55	57	
Guinea	219	220	
Lesotho	339	230	
Namibia	1,760	2,300	
Russia	21,900	21,000	
Sierra Leone	671	680	
South Africa	3,890	3,900	
Zimbabwe	423	470	
Other countries	139	130	
World total (rounded)	73,900	76,000	

World Resources:⁷ Most diamond ore bodies have a diamond content that ranges from less than 1 carat to about 6 carats per ton of ore. The major diamond reserves are in southern Africa, Australia, Canada, and Russia.

Substitutes: Glass, plastics, and other materials are substituted for natural gemstones. Synthetic gemstones (manufactured materials that have the same chemical and physical properties as natural gemstones) are common substitutes. Simulants (materials that appear to be gems but differ in chemical and physical characteristics) also are frequently substituted for natural gemstones.

^eEstimated.

¹Excludes industrial diamond and industrial garnet. See also the Diamond (Industrial) and Garnet (Industrial) chapters.

²Estimated minimum production.

³Includes production of freshwater shell.

⁴Defined as production (natural and synthetic) + imports – exports (excluding reexports).

⁵Defined as imports – exports (excluding reexports).

⁶Data in thousands of carats of gem-quality diamond.

⁷See Appendix C for resource and reserve definitions and information concerning data sources.