

GEMSTONES¹

(Data in million dollars unless otherwise noted)

Domestic Production and Use: The combined value of U.S. natural and synthetic gemstone output in 2021 was an estimated \$95 million, a 25% increase compared with that in 2020. 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 and Oregon was second. The other top producing States were Arkansas, California, Colorado, Idaho, Maine, Montana, Nevada, New York, North Carolina, Tennessee, and Utah. These 13 States produced 96% of U.S. natural gemstones. Synthetic gemstones were manufactured by five companies in California, North Carolina, New York, Maryland, and Arizona, in decreasing order of production value. U.S. synthetic gemstone production increased by 29% compared with that in 2020. Major gemstone end uses were carvings, gem and mineral collections, and jewelry.

Salient Statistics—United States:	2017	2018	2019	2020	2021^e
Production: ²					
Natural ³	9.2	9.5	9.2	9.8	10
Laboratory-created (synthetic)	55	65	94	66	85
Imports for consumption	24,900	27,700	24,400	16,300	24,000
Exports, excluding reexports	2,440	1,850	1,020	1,320	900
Consumption, apparent ⁴	22,500	25,900	23,500	15,100	23,000
Price	Variable, depending on size, type, and quality				
Employment, mine, number ^e	1,120	1,120	1,120	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 (2017–20, by value): Diamond: India, 41%; Israel, 31%; Belgium, 12%; South Africa, 4%; and other, 12%. Diamond imports accounted for an average of 90% of the total value of gem imports.

Tariff:	Item	Number	Normal Trade Relations 12–31–21
	Coral and similar materials, unworked	0508.00.0000	Free.
	Imitation gemstones	3926.90.4000	2.8% ad valorem.
	Pearls, imitation, pearl beads, not strung	7018.10.1000	4.0% ad valorem.
	Imitation gemstones, glass beads	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, ½ carat or less	7102.39.0010	Free.
	Diamonds, cut, more than ½ 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 gemstones, cut but not set	7104.90.1000	Free.
	Synthetic gemstones, other	7104.90.5000	6.4% ad valorem.

Depletion Allowance: 14% (domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: During 2021, the U.S. and global gemstone and jewelry industries began recovering from the effects of the COVID-19 pandemic restrictions, lockdowns, and temporary mine and store closings. The largest production decreases in 2020 were from Australia, Botswana, Canada, and Russia. Total world diamond production during 2021 increased slightly from 2020 levels and was driven by the reopening of profitable mines that were suspended in 2020. Production would need to increase by up to 2% per year during the next 3 to 5 years to allow the market to fully rebalance.

New sales platforms were established during 2020 and remained in place during 2021 in the rough diamond market to overcome travel constraints and streamline the journey from the mine to the jeweler. 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. Global gemstone sales are expected to increase at a steady rate over the next 5 years.

In 2021, U.S. imports for consumption of gemstones were about \$24 billion, which was a 49% increase compared with \$16.3 billion in 2020. These imports consisted of about \$21 billion in gem-quality diamonds, which was a 49% increase compared with \$14.3 billion in 2020, and about \$2.9 billion in nondiamond gemstones, which was a 51% increase compared with \$1.9 billion in 2020. The increase in U.S. gem production combined with the growth in U.S. gem imports and the decrease in gem exports produced a 52% increase in apparent consumption to a value of \$23 billion. The United States was the leading global market in terms of sales. The United States is expected to continue to dominate global gemstone demand.

World Gem Diamond Mine Production and Reserves:

	Mine production ⁶		Reserves ⁷
	2020	2021 ^e	
United States	—	—	World reserves of diamond-bearing deposits are substantial. No reserves data are available for other gemstones.
Angola	6,960	7,100	
Australia	219	220	
Botswana	11,900	12,000	
Brazil	125	130	
Canada	13,100	13,000	
Congo (Kinshasa)	2,550	2,600	
Guinea	103	100	
Lesotho	481	490	
Namibia	1,550	1,600	
Russia	17,500	18,000	
Sierra Leone	513	520	
South Africa	6,780	6,900	
Tanzania	110	110	
Zimbabwe	267	270	
Other countries	<u>142</u>	<u>140</u>	
World total (rounded)	62,300	63,000	

World Resources:⁷ Most diamond ore bodies have a diamond content that ranges from less than 1 carat per ton 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 Diamond (Industrial) and Garnet (Industrial).

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 diamond.

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