



# 2015 Minerals Yearbook

---

**SILVER [ADVANCE RELEASE]**

---

# SILVER

By Shawna M. Bennett

**Domestic survey data and tables were prepared by Robin C. Kaiser, statistical assistant, and the world production table was prepared by Glenn J. Wallace, international data coordinator.**

In 2015, the United States produced 1,090 metric tons (t) of silver, which was 8% less than that of 2014 (table 1). Silver was produced in 11 States in 2015, and Alaska remained the leading silver-producing State, followed by Nevada and Idaho. Approximately 99% of domestic silver was produced from base-metal ores at 11 mines and from precious-metal ores at 15 mines (table 3).

The Handy & Harman price of silver averaged \$15.72 per troy ounce in 2015, an 18% decrease compared with the 2014 average price of \$19.07 per troy ounce (table 1). The average price of silver fell for the fourth year in a row. Analysts attributed the price drop in 2015 to the combination of a weakening Chinese economy and expected United States interest rate increases (Silver Institute, The, 2016, p. 8, 12).

Traditional use categories for silver included coin and medal fabrication; industrial applications including brazing alloys and solders, electrical and electronics components, photography, and photovoltaics; jewelry; non-coin investments; and silverware. In 2015, global use of silver increased by 3% compared with that of 2014. Increases in silver consumption for jewelry, coins and bars, silverware, photovoltaics, and ethylene oxide applications more than offset decreases for electrical and electronics, brazing alloys and solders, and photography (Silver Institute, The, 2016, p. 8, 50). Most notably, ethylene oxide catalyst silver consumption rose by 104% and photovoltaics by 23% in 2015, largely owing to China's growing demand (Silver Institute, The, 2016, p. 8, 51). In 2015, apparent consumption of silver in the United States was 8,000 t, 16% more than that of revised 2014 consumption.

In 2015, silver was mined in approximately 70 countries. Production was 27,600 t, a slight increase from 27,000 t in 2014 (table 8). Mexico was the leading producer, followed by Peru, China, Russia, and Australia. These five countries accounted for 60% of the global production of silver. The United States ranked ninth in world silver mine production in 2015.

## Legislation and Government Programs

On September 30, 2015, the amount and value of Deep Storage and Working Stock custodial silver reserves held by the U.S. Mint were 498 t with a total market value of \$234 million at \$14.65 per fine troy ounce and a statutory value of \$20.7 million. As custodian, the U.S. Mint is responsible for safeguarding much of the Nation's gold and silver. In accordance with 31 U.S. Code section 5117(b) and 31 U.S. Code section 5116(b)(2), a statutory rate of no less than \$1.292929292 per fine troy ounce was used to value the custodial silver held by the U.S. Mint (U.S. Mint, 2016, p. 41).

In 2015, global physical silver investment (bars, coins, and medals) reached a historical high of 9,090 t, 24% more than that of 2014 and significantly more than any other year recorded.

Coin and medal consumption rose by 24% to 4,170 t in 2015 from that of 2014, largely owing to low silver prices. The U.S. Mint temporarily stopped sales of its American Eagle silver coin from July 7 to July 27 because of a supply shortage as a result of the increased demand. The shortage lasted until September and was reportedly seen at various mints throughout the international community. Bar sales increased by 24% to 4,920 t as demand in the coin market spilled over into the bar market (Silver Institute, The, 2016, p. 17, 24).

## Production

Domestic lode mine production data for silver were compiled by the U.S. Geological Survey from two separate voluntary monthly surveys of U.S. mining operations and from publicly available sources and represented 100% of U.S. mine production listed in table 1. Domestic mine production of silver decreased by 8% in 2015 to 1,090 t as a result of significant production decreases in Idaho and Nevada. Silver in the United States was mainly produced as a byproduct from gold and base-metal ores, although silver was produced as a principal product at the Galena, Lucky Friday, and Rochester Mines, with mine production of about 4%, 7%, and 13%, respectively, of 2015 U.S. silver production.

Hecla Mining Co.'s (Coeur d'Alene, ID) Lucky Friday Mine, an underground silver-lead-zinc mine in the Coeur d'Alene mining district in northern Idaho, produced 6.5% less silver in 2015 than in 2014, partly as a result of the temporary closure of a high-grade production stope during most of the third quarter while Hecla installed new ventilation equipment. During 2015, Hecla continued constructing a new mine shaft, the #4 Shaft, at Lucky Friday, and commissioning was projected to take place at the beginning of the fourth quarter in 2016. The project was expected to increase production and extend the life of the mine (Hecla Mining Co., 2016, p. 31, 39). Silver production at Hecla's Greens Creek Mine on Admiralty Island near Juneau, AK, increased by 8% to 263 t from 243 t in 2014, owing to higher throughput and the processing of higher silver ore grades (Hecla Mining Co., 2016, p. 37–38, 48).

Coeur Mining, Inc.'s (Chicago, IL) Rochester Mine, near Lovelock, NV, produced 144 t of silver in 2015, 11% more than 2014 production. The production gains resulted from the increase in the amount of ore processed as well as higher silver ore grades and silver recovery rates (Coeur Mining, Inc., 2016, p. 23, 40).

Allied Nevada Gold Corp. (Reno, NV) finalized a Chapter 11 financial restructuring in October, and during the process the company changed its name to Hycroft Mining Corp. (Reno, NV). The Hycroft Mine, near Winnemucca, NV, maintained operations throughout the bankruptcy proceedings. However, it is unclear as to how much silver was produced during this time (Hycroft Mining Corp., 2015, p. 2, 3).

## Consumption

Fabrication demand for silver in the United States was 7,510 t in 2015, an 8% increase from that of the 2014 (revised). A large increase in silver used in jewelry more than offset decreases in silver used in photography and industrial products (Silver Institute, The, 2016, p. 54, 69, 84).

**Coin and Medal Fabrication.**—Approximately 1,510 t of silver was consumed for coins and medals in the United States in 2015, a 7% increase from 1,420 t in 2014. In fiscal year 2015, the U.S. Mint sold 1,490 t (reported as 47.9 million troy ounces) of American Eagle silver bullion coins, the highest amount that has been sold since 1986 when sales of the coin began, and 27 t (reported as 857,000 troy ounces) of America the Beautiful silver bullion coins. These two coins generated \$891 million in revenue for the U.S. Mint. Globally, silver coins and medals fabrication increased by 24% in 2015 compared with that in 2014 owing to increased demand by investors in precious metals during a time of declining silver prices (Silver Institute, The, 2016, p. 24–25; U.S. Mint, 2016, p. 12–13).

**Industrial Applications.**—Silver consumed in domestic industrial applications increased for the first time in 4 years. Approximately 3,940 t of silver was used in the United States in 2015 for industrial applications, a slight increase from 3,850 t in 2014 (Silver Institute, The, 2016, p. 52, 54).

The principal components of industrial demand for silver were brazing alloys and solders, catalysts, electrical, electronics, photography, photovoltaics, and other applications. Adding silver to solder or brazing alloys helps produce smooth, leak-tight, and corrosion-resistant joints. Silver brazing alloys were used widely in a variety of applications including air conditioning and refrigeration and electric power distribution. They also were important in the automobile and aerospace industries. In 2015, about 187 t of silver was used domestically in brazing alloys and solders, slightly more than in 2014 (Silver Institute, The, 2016, p. 88).

As a catalyst, silver can be used in the form of mesh screens or crystals to produce ethylene oxide and formaldehyde, both of which are essential ingredients in plastics. Approximately 90% of the silver used as an industrial catalyst was for the production of ethylene oxide from ethylene. Aside from plastics, ethylene oxide was also used for antifreeze, detergents, and polyester fiber. Ethylene oxide catalyst use in the United States increased by more than 300% in 2015 to 13 t from 3 t owing to the commissioning of new plants (Silver Institute, The, 2016, p. 60, 89).

In 2015, the domestic use of silver for the electronic and electrical applications totaled 1,680 t, a slight increase from 1,670 t in 2014 (Silver Institute, The, 2016, p. 55, 88). One of silver's electrical applications is in batteries. The most common silver-oxide battery was the small button-cell battery used in calculators, cameras, hearing aids, toys, and watches, which contains about 35% silver by weight. Because of environmental and safety concerns, silver-oxide batteries also were beginning to replace lithium-ion batteries in mobile phones and laptop computers. Silver-zinc batteries feature a water-based chemistry and contain no lithium or flammable liquids. Some larger silver-oxide and silver-zinc batteries were used in military

applications. Silver also was used in conductors, contacts, fuses, switches, and timers (Silver Institute, The, undated).

Silver membrane switches were used in buttons on electronics, such as computer keyboards, microwave ovens, telephones, televisions, and toys. Silver-based inks and films were applied to composite boards to create electrical pathways in printed circuit boards. Silver-based inks also were used in radio frequency identification (RFID) tags used in hundreds of millions of products to prevent theft and allow easy inventory control. Silver paste was used in 90% of all crystalline silicon photovoltaic cells, the most common type of solar cell; this has been a growth market in the United States for the past several years (Silver Institute, The, undated).

Silver was one of the essential materials used in the manufacture of films and photographic papers. The decline in the use of silver for photography began in 2000 in response to the growth in digital camera technology and the decline in the production of color film and paper. The use of silver in film and paper for consumer applications declined more rapidly than its use in motion picture film because of the slower adoption of digital formats in motion picture production. Other broad photographic-use categories for silver-containing film and paper included commercial photography, dental and industrial x-ray film, graphic arts, and medical x-ray film. In 2015, domestic use of silver for photographic applications was 459 t, a 4% decrease from 476 t in 2014 (Silver Institute, The, 2016, p. 63–64, 89).

Dental amalgam, although in declining use because of its mercury content, still may contain silver (U.S. Food and Drug Administration, 2015). Owing to silver's antibacterial properties, silver also was used in such products as clothing, laundry machines, shoes, and toothbrushes. Silver embedded in locker room surfaces was used to reduce staph infections, and silver-based disinfectants have been introduced as a low-cost, environmentally sensitive option for use in care centers and food-processing facilities (Silver Institute, The, undated).

**Jewelry and Silverware.**—In 2015, U.S. consumption of silver for jewelry and silverware was 446 t, a 6% increase compared with the 420 t used in 2014. Silver consumption for jewelry increased by 7% from 2014 to 425 t, and consumption for silverware was unchanged at 21 t (Silver Institute, The, 2016, p. 90, 92, 96).

## Prices and Stocks

The daily average Handy & Harman silver base price began the year at \$15.93 per troy ounce and declined to \$13.86 per troy ounce by yearend. The highest price of the year was in late January at \$18.41 per troy ounce. The monthly average price generally trended downward through the year. The 2015 average price was \$15.72 per troy ounce, 18% less than the 2014 average of \$19.07 per troy ounce and 55% less than the record high annual price in 2011 of \$35.26 per troy ounce (table 1). The combination of slowing economic growth in China, a stronger United States dollar, and a decrease in industrial demand led to the drop in silver prices (Silver Institute, The, 2016, p. 8, 12).

Global silver inventories in various Exchange Traded Funds (ETFs), including iShares Silver Trust and ETF Securities, decreased by 3% to approximately 19,200 t at yearend 2015 from 19,800 t at yearend 2014 (Silver Institute, The, 2016, p. 19).

## Foreign Trade

U.S. exports of silver bullion and dore increased by 118% to 815 t in 2015 from 374 t in 2014. Principal destinations were Canada (53%), India (35%), and Australia (3%) (table 4). U.S. imports for consumption of bullion and dore increased by 19% to 5,930 t in 2015 from 5,000 t in 2014. The principal import sources of bullion and dore were Mexico (48%), Canada (32%), and Peru (5%) (table 6).

## World Review

World mine production of silver increased for the fourth consecutive year to 27,600 t in 2015, a slight increase from 27,000 t in 2014. Mexico continued to be the leading producer of silver, accounting for 21% of world production. Mexico was followed by Peru (15%); China (12%); Australia and Russia (6% each); Bolivia, Chile, and Poland (5% each); Argentina and the United States (4% each); Guatemala, (3%); and Kazakhstan and Sweden (2% each). These 13 countries accounted for about 90% of the global silver production. Silver production increased most significantly in Peru (by 409 t), Argentina (by 174 t), Russia (by 136 t), India (by 113 t), Mexico (by 105 t), Sweden (by 98 t), and Indonesia (by 64 t). Partially offsetting these increases were notable decreases in Canada (113 t), China (109 t), Australia (105 t), the United States (90 t), and Chile (64 t) (table 8).

According to the Silver Institute, about 30% of global silver production was from silver ores, 34% was from lead and zinc ores, 22% from copper ores, 13% from gold ores, and less than 1% was from other types of mining operations (Silver Institute, The, 2016, p. 34).

Silver scrap recycling declined by 12.5% in 2015 from that of 2014 to 4,545 t owing primarily to low silver prices. In the United States, the quantity of silver recycled from scrap decreased for the fourth consecutive year to 1,100 t; low silver prices deterred coin and jewelry recycling, and the amount of silver recovered from electronic waste decreased as a result of an overall decline in the silver content of the scrap processed (Silver Institute, The, 2016, p. 41–44).

Global silver consumption increased by 3% to 36,410 t in 2015 from 35,200 t in 2014. Industrial applications, accounting for 50% of the total global consumption, were the leading end uses of silver, followed by bars, coins and medals (25%); jewelry (19%); and silverware (5%). The greatest increases in silver use were for coins and bars, ethylene oxide catalyst applications, and photovoltaic applications. Consumption of silver for jewelry and silverware increased slightly, whereas consumption for brazing alloys and solders, electrical and electronics, photography, and other industrial applications decreased (Silver Institute, 2016, p. 8, 11, 79).

**Argentina.**—In 2015, silver mine production in Argentina increased by 19% (174 t) from that of 2014 to 1,080 t mostly owing to increased output at Goldcorp Inc.'s (Canada) Cerro Negro gold-silver mine. Cerro Negro commenced production in July 2014 and, in 2015, produced 190 t of silver, up from 67 t in 2014. The country's leading silver-producing mines were the Pirquitas Mine [a wholly owned operation of Silver Standard Resources Inc. (Canada)] and the San Jose Mine [a joint venture

between Hochschild Mining Plc (United Kingdom, 51%) and McEwen Mining Inc. (Canada, 49%)], which accounted for about 45% of the country's silver production in 2015 (Goldcorp Inc., 2016, p. 36; McEwen Mining Inc., 2016; Silver Standard Resources Inc., 2016, p. 12).

**Bolivia.**—In 2015, silver production at Coeur Mining's San Bartolomé open-pit silver mine in Potosi decreased by 7% to 169 t owing to reductions in mill throughput, average silver grade, and average recovery rate. San Bartolomé's production accounted for about 13% of Bolivia's total silver mine output in 2015 (Coeur Mining Inc., 2016, p. 25, 29, 83).

**Canada.**—In 2015, silver production was 380 t compared with 493 t in 2014. Depletion of reserves was a concern in Canada during the past few years as some commodity prices were in decline and junior exploration companies faced difficulty raising capital to finance operations (Mining Association of Canada, 2016, p. 1). Silver production at Agnico Eagle Mines Ltd.'s LaRonde Mine decreased by 28% to 28 t owing to transitioning ore sources with lower byproduct metal content (Agnico Eagle Mines Ltd., 2016, p. 9, 11, 51, 54, 57).

**Mexico.**—In 2015, Mexico was the world's leading producer of silver, accounting for about 20% of global production. Mexico's leading silver producers included Fresnillo plc, Goldcorp Inc. (Canada), Grupo Mexico S.A.B. de C.V., Industrias Peñoles, S.A.B. de C.V., and Pan American Silver Corp. (Canada). In 2015, Fresnillo's silver production rose by 7% primarily as a result of a significant increase in production at its Saucito Mine as the company continued to ramp up the Saucito II expansion project, which included an underground mine and a beneficiation plant. The company also continued developing its San Julian silver-gold project located in the San Julian District on the border between the States of Chihuahua and Durango. Fresnillo expected the commissioning of the San Julian leaching plant (phase 1) in the second quarter of 2016 and the flotation plant (phase 2) in the fourth quarter of 2016. Once at full capacity, San Julian was expected to produce about 320 metric tons per year of silver (Fresnillo plc, 2016, p. 20, 52, 230).

**Peru.**—In 2015, Peru had the largest year-on-year increase in silver mine production (by 409 t from that of 2014) mostly owing to increased byproduct silver production at the Antamina copper-zinc mine, which achieved a record-high mill throughput rate in 2015 as a result of debottlenecking activities. Leading silver producers in Peru were Compañía Minera Antamina S.A. and Compañía de Minas Buenaventura S.A.A., each of which produced about 14% of the country's total silver production in 2015, followed by Volcan Compañía Minera S.A.A. (10%) and Compañía Minera Ares (8%). The Junin Region was the top silver-producing region in Peru and accounted for about 20% of the country's total silver production, followed by the Lima and Ancash (17% each) and Pasco (16%) Regions (Ministerio de Energía y Minas, 2015, p. 3, 5; 2016, p. 49, 65; Teck Resources Ltd., 2016, p. 15).

**Russia.**—Silver production in Russia increased by 10% in 2015 primarily owing to a 15% increase in production at Polymetal International plc's (United Kingdom) Dukat Mine, Russia's largest primary silver mine, where the amount of ore processed and the average silver ore grade increased. Polymetal's total silver production increased by 12% in 2015 to 998 t from 893 t in 2014.

Dukat accounted for 88% of the company's silver production in 2015 (Polymetal International plc, 2016, p. 3, 22, 26).

## Outlook

World production of silver is expected to remain flat in 2016 because anticipated increases in production from expanding base-metal producers are expected to be offset by production decreases at more mature mines.

The use of silver in photographic applications is expected to continue to decrease. As hospitals convert their x-ray equipment to digital systems, silver use in photographic applications is expected to continue to decline until its use remains only in niche applications such as artistic photography.

The use of silver in crystalline silicon photovoltaic cells is expected to increase as production increases although, per solar cell, silver use is expected to decline owing to the relatively high cost of silver. New uses for silver include those that take advantage of its biocidal or conductive properties. Antimicrobial silver technology is expected to be used in cooking utensils, food packaging, medical products, textiles, toiletries, and water-purification devices. The use of RFIDs for tracking stocks and shipments, including silver-base high-data-capacity tags, readers, and computer systems, is expected to increase. Although already used in many products, demand for silver-oxide batteries may increase with the proliferation of laptop and tablet computers and cellular telephones with advanced computing capabilities.

## References Cited

- Agnico Eagle Mines Ltd., 2016, 2015 annual report: Toronto, Ontario, Canada, Agnico Eagle Mines Ltd., March 25, 163 p. (Accessed May 18, 2017, at [https://s21.q4cdn.com/374334112/files/doc\\_financials/annual/2015/2015-Annual-Report.pdf](https://s21.q4cdn.com/374334112/files/doc_financials/annual/2015/2015-Annual-Report.pdf).)
- Coeur Mining, Inc., 2016, 2015 annual report: Chicago, IL, Coeur Mining, Inc., 112 p. (Accessed January 4, 2017, at [http://investors.coeur.com/interactive/lookandfeel/4349317/Coeur\\_2015\\_AR.pdf](http://investors.coeur.com/interactive/lookandfeel/4349317/Coeur_2015_AR.pdf).)
- Fresnillo plc, 2016, Annual report 2015: London, United Kingdom, Fresnillo plc, 232 p. (Accessed May 18, 2017, at <http://www.fresnilloplc.com/media/208706/fresnilloara15web.pdf>.)
- Goldcorp Inc., 2016, Form 40-F—2015: U.S. Securities and Exchange Commission, 66 p. (Accessed May 10, 2017, via <http://www.goldcorp.com/English/Investor-Resources/Reports-and-Filings/SEC-Filings/default.aspx>.)
- Hecla Mining Co., 2016, 2015 annual report: Coeur d'Alene, ID, Hecla Mining Co., 116 p. (Accessed January 4, 2017, at <http://216.139.227.101/interactive/hl2015/>.)
- Hycroft Mining Corp., 2015, Hycroft Mining Corporation completes financial restructuring process and emerges from chapter 11 with \$221.7 million in financing: Reno, NV, Hycroft Mining Corp. press release, October 22, 3 p. (Accessed January 4, 2017, at <http://www.alliednevada.com/wp-content/uploads/10-22-15-HMC-Emerges-From-CH-11.pdf>.)
- McEwen Mining Inc., 2016, San Jose Mine—Argentina (49% ownership): Toronto, Ontario, Canada, McEwen Mining Inc. (Accessed March 4, 2017, at <http://www.mcewenmining.com/Operations/San-Jose-Mine/Production/default.aspx>.)
- Mining Association of Canada, 2016, Facts & figures of the Canadian mining industry 2015: Ottawa, Ontario, Canada, Mining Association of Canada, February 3, 110 p. (Accessed May 18, 2017, at <http://mining.ca/sites/default/files/documents/Facts-and-Figures-2015.pdf>.)
- Ministerio de Energía y Minas, 2015, Boletín estadístico del subsector minero—Diciembre [Statistical Bulletin of the mining subsector—December]: Lima, Peru, Ministerio de Energía y Minas, December, 25 p.
- Ministerio de Energía y Minas, 2016, Anuario minero 2015 [2015 annual mining report]: Lima, Peru, Ministerio de Energía y Minas, April, 159 p. (Accessed May 25, 2016, at [http://www.minem.gob.pe/\\_publicacion.php?idSector=1&idPublicacion=524](http://www.minem.gob.pe/_publicacion.php?idSector=1&idPublicacion=524).)

- Polymetal International plc, 2016, Annual report 2015: St. Helier, Jersey [United Kingdom], Polymetal International plc, March 30, 93 p. (Accessed May 18, 2017, at [http://www.polymetalinternational.com/~media/Files/P/Polymetal/Annual%20Reports/2015\\_Annual\\_report\\_eng.pdf](http://www.polymetalinternational.com/~media/Files/P/Polymetal/Annual%20Reports/2015_Annual_report_eng.pdf).)
- Silver Institute, The, 2016, World silver survey 2016: Washington, DC, The Silver Institute, May, 104 p. (Accessed May 30, 2017, at <https://www.silverinstitute.org/WorldSilverSurvey2016.pdf>.)
- Silver Institute, The, [undated], Silver in industry: Washington, DC, The Silver Institute. (Accessed January 4, 2017, via <https://www.silverinstitute.org/site/silver-in-industry>.)
- Silver Standard Resources Inc., 2016, Management's discussion and analysis of the financial position and results of operations for the year ended December 31, 2015: Vancouver, British Columbia, Canada, Silver Standard Resources Inc., 44 p. (Accessed May 10, 2017, via <http://ir.silverstandard.com/>.)
- Teck Resources Ltd., 2016, 2015 annual report: Vancouver, British Columbia, Canada, Teck Resources Ltd., 109 p. (Accessed May 10, 2017, at <http://www.teck.com/media/2015-Teck-Annual-Report.pdf>.)
- U.S. Food and Drug Administration, 2015, About dental amalgam fillings: Silver Spring, MD, U.S. Food and Drug Administration, February 10. (Accessed April 21, 2015, at <http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DentalProducts/DentalAmalgam/ucm171094.htm>.)
- U.S. Mint, 2016, 2015 annual report: Washington, DC, U.S. Mint, 64 p. (Accessed November 28, 2016, at <https://www.usmint.gov/wordpress/wp-content/uploads/2016/06/2015AnnualReport.pdf>.)

## GENERAL SOURCES OF INFORMATION

### U.S. Geological Survey Publications

- 1998 Assessment of Undiscovered Deposits of Gold, Silver, Copper, Lead, and Zinc in the United States. Circular 1178, 2000.
- Historical Statistics for Mineral and Material Commodities in the United States. Data Series 140.
- Precious Metals. Mineral Industry Surveys, monthly (through December 2003).
- Silver. Ch. in Mineral Commodity Summaries, annual.
- Silver. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
- Silver. Mineral Industry Surveys, monthly (since January 2004).
- Silver (Ag). Ch. in Metal Prices in the United States Through 2010, Scientific Investigations Report 2012–5188, 2013.

### Other

- Silver. Ch. in Mineral Facts and Problems, U.S. Bureau of Mines Bulletin 675, 1985.

TABLE 1  
SALIENT SILVER STATISTICS<sup>1</sup>

		2011	2012	2013	2014	2015
United States:						
Mine production:						
Quantity	metric tons	1,120	1,060	1,050 <sup>r</sup>	1,180	1,090
Value	thousands	\$1,270,000	\$1,060,000	\$801,000 <sup>r</sup>	\$737,000	\$551,000
Refinery production:						
Domestic and foreign ores and concentrates	metric tons	790	796	800	800	800
Scrap (old and new)	do.	1,710	1,660	1,700	1,400	1,200
Exports:						
Ore and concentrate	do.	172	42	14	6	2
Bullion and dore	do.	732	905	395	374 <sup>r</sup>	815
Imports for consumption:						
Ore and concentrate <sup>2</sup>	do.	84	83	57	(3)	(3)
Bullion and dore	do.	6,320	5,060	5,020	5,000 <sup>r</sup>	5,930
Stocks, December 31:						
Industry	do.	150	109	110	120	130
COMEX	do.	3,650	4,610	5,350	5,610	5,000
Price, average <sup>4</sup>	dollars per troy ounce	35.26 <sup>r</sup>	31.21 <sup>r</sup>	23.86 <sup>r</sup>	19.07 <sup>r</sup>	15.72
Employment, mine and mill workers <sup>5</sup>		632	709	819	792	750
World, mine production	metric tons	23,600 <sup>r</sup>	24,600 <sup>r</sup>	25,600 <sup>r</sup>	27,000 <sup>r</sup>	27,600 <sup>e</sup>

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices.

<sup>2</sup>Includes silver content of ash and residues.

<sup>3</sup>Less than ½ unit.

<sup>4</sup>Price data are the annual Handy & Harman quotations published in Platts Metals Week.

<sup>5</sup>Employment data are from the U.S. Department of Labor, Mine Safety and Health Administration, for mines classified as (active and temporarily idle) silver mines, by the U.S. Geological Survey.

TABLE 2  
MINE PRODUCTION OF SILVER IN THE UNITED STATES, BY STATE<sup>1</sup>

(Kilograms)

State	2013	2014	2015
Nevada	255,000	326,000	290,000
Other <sup>2</sup>	791,000 <sup>r</sup>	858,000	800,000
Total	1,050,000 <sup>r</sup>	1,180,000	1,090,000

<sup>r</sup>Revised.

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

<sup>2</sup>Includes Alaska, Arizona, California, Colorado, Idaho, Missouri, Montana, New Mexico, South Dakota, and Utah.

TABLE 3  
LEADING SILVER-PRODUCING MINES IN THE UNITED STATES IN 2015, IN ORDER OF OUTPUT<sup>1</sup>

Rank	Mine	County and State <sup>2</sup>	Operator	Source of silver
1	Greens Creek	Southeastern Region, AK	Hecla Mining Co.	Zinc-silver ore.
2	Red Dog	Northern Region, AK	Teck Alaska Inc.	Zinc-lead ore.
3	Rochester	Pershing, NV	Coeur Mining, Inc.	Silver ore.
4	Lucky Friday	Shoshone, ID	Hecla Mining Co.	Do.
5	Bingham Canyon	Salt Lake, UT	Kennecott Utah Copper Corp. <sup>3</sup>	Copper-molybdenum ore.
6	Hycroft	Humboldt and Pershing, NV	Hycroft Mining Corp.	Gold ore.
7	Galena Complex	Shoshone, ID	Scorpio Mining Corp.	Silver ore.
8	Phoenix	Lander, NV	Newmont Mining Corp.	Gold-copper ore.
9	Midas <sup>4</sup>	Elko and Lander, NV	Klondex Mines Ltd.	Gold ore.
10	Mission Complex	Pima, AZ	ASARCO LLC <sup>5</sup>	Copper-molybdenum ore.
11	Bagdad	Yavapai, AZ	Freeport-McMoRan Copper & Gold Inc.	Do.
12	Continental Pit	Silver Bow, MT	Montana Resources Inc.	Do.
13	Smoky Valley Common Operation	Nye, NV	Kinross Gold Corp. (50%), Barrick Gold Corp. (50%)	Gold ore.
14	Morenci	Greenlee, AZ	Freeport-McMoRan Copper & Gold Inc.	Copper-molybdenum ore.
15	Mineral Park	Mohave, AZ	Mercator Minerals Ltd.	Do.
16	Carlin Mines Operations <sup>6</sup>	Elko, Eureka, and Humboldt, NV	Newmont Mining Corp.	Gold ore.
17	Wharf	Lawrence, SD	Goldcorp Inc.	Do.
18	Denton-Rawhide	Mineral, NV	Rawhide Mining, LLC	Do.
19	Ray	Pinal, AZ	ASARCO LLC <sup>5</sup>	Copper ore.
20	Cripple Creek	Teller, CO	AngloGold Ashanti Ltd.	Gold ore.
21	Pinto Valley	Gila, AZ	Capstone Mining Corp.	Copper-molybdenum ore.
22	Florida Canyon	Pershing, NV	Jipangu Inc.	Gold ore.
23	Chino	Grant, NM	Freeport-McMoRan Copper & Gold Inc.	Copper-molybdenum ore.
24	Golden Sunlight	Jefferson, MT	Klondex Mines Ltd.	Gold ore.
25	Ruby Hill	Eureka, NV	Barrick Gold Corp.	Do.
26	Goldstrike	Elko and Eureka, NV	do.	Do.

Do., do. Ditto.

<sup>1</sup>The mines on this list accounted for more than 99% of U.S. mine production in 2015.

<sup>2</sup>For Alaska, mines are located by geographic region, as delineated by the Alaska Division of Geological & Geophysical Surveys in its Special Report 67, Alaska's mineral industry 2011—Exploration activity.

<sup>3</sup>Wholly owned subsidiary of Rio Tinto plc.

<sup>4</sup>Klondex Mines Ltd. acquired 100% interest on February 1, 2014, from Newmont Mining Corp.

<sup>5</sup>Wholly owned subsidiary of Grupo México, S.A.B. de C.V.

<sup>6</sup>Includes nine open pit operations (Emigrant, Genesis, Gold Quarry, Lantern, Lone Tree, Midas, Pay Raise, Twin Creeks, and Widge Mines) and six underground operations (Carlin East, Chukar, Exodus, Leesville, Pete Bajo, and Vista Mines).

TABLE 4  
U.S. EXPORTS OF REFINED SILVER, BY COUNTRY<sup>1</sup>

Year and country	Ores and concentrates		Bullion		Dore		Total	
	Silver content (kilograms)	Value (thousands)	Silver content (kilograms)	Value (thousands)	Silver content (kilograms)	Value (thousands)	Silver content (kilograms)	Value (thousands)
2014	5,740	\$17,900	342,000 <sup>r</sup>	\$248,000 <sup>r</sup>	31,700 <sup>r</sup>	\$19,700 <sup>r</sup>	380,000 <sup>r</sup>	\$286,000 <sup>r</sup>
2015:								
Argentina	--	--	--	--	321	321	321	321
Australia	92	97	24,000	13,300	--	--	24,100	13,400
Canada	--	--	430,000	375,000	--	--	430,000	375,000
Cayman Island	--	--	705	431	--	--	705	431
China	200	1,150	--	--	156	412	356	1,560
Germany	107	78	8,720	2,860	3,060	1,490	11,900	4,430
Hong Kong	84	53	2,720	1,350	--	--	2,810	1,400
India	--	--	284,000	144,000	2,840	1,630	287,000	145,000
Israel	--	--	--	--	371	204	371	204
Italy	--	--	5,880	2,540	--	--	5,880	2,540
Korea, Republic of	1,910	6,850	--	--	--	--	1,910	6,850
Malaysia	--	--	1,300	613	--	--	1,300	613
Mexico	--	--	8,650	8,470	6,790	3,980	15,400	12,500
New Zealand	--	--	676	368	2,850	1,290	3,520	1,650
Norway	--	--	--	--	2,050	1,230	2,050	1,230
Panama	--	--	714	411	--	--	714	411
Singapore	47	165	6,560	3,840	8,540	4,510	15,100	8,510
Switzerland	--	--	1,700	841	3,880	1,770	5,580	2,610
Turkey	--	--	--	--	596	288	596	288
United Kingdom	3	17	2,690	1,500	1,590	900	4,280	2,420
Other	57	67	2,180	1,370	1,360	257	3,600	1,690
Total	2,500	8,480	781,000	557,000	34,400	18,300	818,000	583,000

<sup>r</sup>Revised. -- Zero.

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

Source: U.S. Census Bureau.



TABLE 5  
U.S. EXPORTS OF SILVER, BY COUNTRY<sup>1</sup>

Year and country	Other unwrought silver		Metal powder		Silver nitrate		Semimanufactured forms <sup>2</sup>		Waste and scrap	
	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)
2014	102,000	\$99,900	731,000	\$511,000	33,000	\$3,770	510,000 <sup>r</sup>	\$344,000 <sup>r</sup>	15,600,000 <sup>r</sup>	\$1,570,000
2015:										
Belgium	--	--	4,220	3,900	--	--	--	--	1,920,000	89,800
Brazil	--	--	1,480	1,280	--	--	437	295	--	--
Canada	64,500	65,100	10,900	10,000	21,400	1,390	51,500	28,400	2,270,000	311,000
China	2,120	1,160	58,300	37,700	68	34	10,300	5,670	36,900	23,600
El Salvador	--	--	--	--	--	--	--	--	1,130	32
France	889	516	60,300	34,400	--	--	3,130	1,790	--	--
Germany	944	475	16,900	10,000	--	--	3,050	1,700	2,890,000	207,000
Hong Kong	3,170	1,820	51,700	29,600	--	--	3,950	2,090	10,700	16,300
India	32,000	12,500	618	357	544	101	6,850	3,840	20,300	504
Ireland	--	--	--	--	--	--	25,700	11,900	--	--
Israel	347	101	146	91	--	--	--	--	6,440	1,640
Italy	104	299	17,500	8,750	--	--	2,160	1,170	1,660,000	430,000
Japan	--	--	46,000	29,800	--	--	394	221	2,350,000	123,000
Korea, Republic of	2,770	20,900	64,200	38,000	177	63	13,300	8,030	57,600	14,900
Luxembourg	1,700	509	--	--	--	--	--	--	460	11,500
Malaysia	171	92	3,240	2,410	232	117	2,000	1,220	429	29
Mexico	6,090	8,230	15,100	9,690	1,730	466	74,600	38,900	209,000	32,000
Netherlands	--	--	15,200	8,800	--	--	--	--	363	4,340
Norway	--	--	--	--	--	--	--	--	27,600	1,070
Philippines	--	--	--	--	123	48	3,500	1,870	--	--
Romania	--	--	2,220	1,590	--	--	--	--	--	--
Singapore	--	--	48,900	30,500	442	152	20,600	10,300	267	32
South Africa	--	--	--	--	(3)	15	50	26	38,900	925
Spain	--	--	--	--	--	--	7,540	3,780	--	--
Sweden	--	--	--	--	(3)	30	2,050	1,120	2,640,000	67,700
Switzerland	186	370	--	--	--	--	601	306	24,800	26,700
Taiwan	562	325	179,000	103,000	(3)	3	866	509	--	--
Thailand	3,940	2,550	2,350	1,630	--	--	3,980	1,960	--	--
United Arab Emirates	321	104	--	--	--	--	2,910	1,470	--	--
United Kingdom	405	218	16,900	11,800	--	--	11,200	6,020	529,000	62,600
Vietnam	1,120	341	--	--	--	--	447	257	--	--
Other	4,810	2,890	1,820	1,320	4,140	749	13,500	7,110	2,360	2,500
Total	126,000	118,000	617,000	375,000	28,900	3,170	265,000	140,000	14,700,000	1,430,000

<sup>1</sup>Revised. -- Zero.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Containing 99.5% or more by weight of silver.

<sup>4</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF REFINED SILVER, BY COUNTRY<sup>1</sup>

Year and country	Ash and residues, ores and concentrates		Bullion		Dore		Total	
	Silver content (kilograms)	Value (thousands)	Silver content (kilograms)	Value (thousands)	Silver content (kilograms)	Value (thousands)	Silver content (kilograms)	Value (thousands)
2014	59	\$12	3,940,000 <sup>†</sup>	\$2,440,000 <sup>†</sup>	1,070,000	\$960,000 <sup>†</sup>	4,960,000	\$3,380,000
2015:								
Argentina	--	--	12,900	15,700	90,400	94,100	103,000	110,000
Australia	--	--	3,280	1,820	--	--	3,280	1,820
Belgium	--	--	41,400	19,900	--	--	41,400	19,900
Bolivia	--	--	169,000	85,900	--	--	169,000	85,900
Canada	--	--	1,920,000	1,000,000	19	9	1,920,000	1,000,000
Colombia	--	--	523	261	1,080	538	1,600	799
Dominican Republic	--	--	--	--	247	180	247	180
Germany	--	--	36,200	18,900	--	--	36,200	18,900
Guatemala	--	--	--	--	60,100	67,500	60,100	67,500
Italy	--	--	--	--	12,400	6,520	12,400	6,520
Japan	--	--	255	130	--	--	255	130
Korea, Republic of	--	--	159,000	84,300	--	--	159,000	84,300
Malaysia	253	61	--	--	--	--	253	61
Mongolia	--	--	--	--	1,260	692	1,260	692
Mexico	--	--	1,980,000	1,000,000	873,000	651,000	2,850,000	1,650,000
Nicaragua	--	--	--	--	3,350	1,700	3,350	1,700
Panama	--	--	313	152	42	22	355	174
Peru	--	--	90,300	45,500	195,000	140,000	285,000	185,000
Poland	--	--	234,000	124,000	--	--	234,000	124,000
Russia	--	--	545	280	--	--	545	280
South Africa	--	--	--	--	13,600	18,700	13,600	18,700
Switzerland	--	--	4,170	2,840	22,300	12,300	26,500	15,200
Taiwan	--	--	1,780	1,650	--	--	1,780	1,650
United Kingdom	--	--	3,000	1,670	49	35	3,050	1,700
Other	--	--	82	57	161	83	243	140
Total	253	61	4,660,000	2,410,000	1,270,000	993,000	5,930,000	3,400,000

<sup>†</sup>Revised. -- Zero.

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

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF SILVER, BY COUNTRY<sup>1</sup>

Year and country	Other unwrought silver		Metal powder		Silver nitrate		Semimanufactured forms <sup>2</sup>		Waste and scrap	
	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)	Gross weight (kilograms)	Value (thousands)
2014	211,000	\$104,000	818,000	\$334,000	2,350	\$546	895,000	\$509,000	6,280,000	\$278,000
2015:										
Argentina	--	--	--	--	--	--	--	--	878	741
Australia	--	--	--	--	--	--	977	563	3,780	1,390
Brazil	352	264	--	--	--	--	--	--	832,000	7,410
Belgium	--	--	--	--	493	20	--	--	600,000	6,440
Bolivia	--	--	--	--	--	--	--	--	1,060	325
Canada	142,000	52,800	81,500	3,600	159	21	259,000	134,000	1,350,000	80,000
China	--	--	34,300	1,310	--	--	--	--	675,000	5,730
Colombia	--	--	--	--	(3)	19	1,660	840	2,750	543
Costa Rica	--	--	--	--	--	--	--	--	4,630	1,720
Czech Republic	--	--	--	--	--	--	--	--	13,900	209
Dominican Republic	1,840	1,390	--	--	--	--	--	--	23,700	7,150
El Salvador	--	--	--	--	--	--	--	--	55,800	503
Egypt	--	--	--	--	--	--	--	--	61,000	391
France	--	--	5,330	1,760	--	--	--	--	44,600	265
Germany	258	188	11,000	4,660	902	44	1,130	700	319,000	99,200
Guatemala	--	--	--	--	--	--	--	--	14,000	183
Honduras	--	--	--	--	--	--	--	--	4,500	24
Hungary	--	--	50,200	2,340	--	--	--	--	--	--
Italy	3,280	1,670	--	--	--	--	--	--	155	195
India	--	--	--	--	--	--	361	188	4,170	182
Jamaica	--	--	--	--	--	--	377	99	4,900	244
Japan	--	--	279,000	84,300	--	--	--	--	127,000	1,910
Korea, Republic of	--	--	702	448	--	--	57,900	8,640	2,430	686
Luxembourg	--	--	--	--	--	--	--	--	351	8,540
Malaysia	--	--	--	--	--	--	--	--	221,000	1,120
Mexico	85,100	41,100	247	101	--	--	118,000	51,100	458,000	15,200
Netherlands	1,420	103	--	--	--	--	--	--	2,750	161
Paraguay	--	--	--	--	--	--	--	--	1,050	30
Poland	2,000	75	23,500	12,300	--	--	--	--	1,270	177
Romania	--	--	23,900	916	--	--	--	--	--	--
Singapore	--	--	2,290	1,030	--	--	--	--	--	--
Spain	195	96	--	--	--	--	--	--	--	--
Sweden	--	--	703	255	(3)	6	--	--	98,900	8,300
Taiwan	--	--	--	--	--	--	--	--	46,900	997
United Kingdom	287	191	701	391	--	240	--	--	7,980	251
Vietnam	--	--	--	--	--	--	--	--	1,170	6,030
Other	461	336	105	29	71	1	2,550	2,780	40,000	610
Total	237,000	98,200	514,000	113,000	2,550	351	441,000	199,000	5,400,000	293,000

<sup>1</sup>Revised. -- Zero.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Containing 99.5% or more by weight of silver.

<sup>4</sup>Less than 1/2 unit.

TABLE 8  
SILVER: WORLD MINE PRODUCTION, BY COUNTRY<sup>1,2</sup>

(Metric tons)

Country	2011	2012	2013	2014	2015 <sup>c</sup>
Argentina	708 <sup>r</sup>	762 <sup>r</sup>	774 <sup>r</sup>	906 <sup>r</sup>	1,080
Armenia	74 <sup>r</sup>	90 <sup>r</sup>	105 <sup>r</sup>	115 <sup>r</sup>	117
Australia	1,725	1,727	1,840	1,675 <sup>r</sup>	1,570
Bolivia	1,214	1,206	1,281 <sup>r</sup>	1,345 <sup>r</sup>	1,310
Botswana	5 <sup>r</sup>	7 <sup>r</sup>	10 <sup>r</sup>	10 <sup>r</sup>	5
Brazil	12 <sup>r</sup>	12 <sup>r</sup>	15 <sup>r</sup>	15 <sup>r</sup>	17
Bulgaria <sup>c</sup>	17 <sup>r</sup>	19 <sup>r</sup>	19 <sup>r</sup>	18 <sup>r</sup>	19
Burkina Faso <sup>c</sup>	(3) <sup>r</sup>	1 <sup>r</sup>	1 <sup>r</sup>	13 <sup>r,4</sup>	12 <sup>4</sup>
Canada	582 <sup>r</sup>	685	640 <sup>r</sup>	493	380
Chile	1,291	1,195	1,174 <sup>r</sup>	1,574	1,510
China	3,192 <sup>r</sup>	3,401 <sup>r</sup>	3,529 <sup>r</sup>	3,499 <sup>r</sup>	3,390
Colombia	24	19	14	12	16
Congo (Kinshasa)	11 <sup>r</sup>	14 <sup>r</sup>	62 <sup>r</sup>	8 <sup>r</sup>	2
Dominican Republic	19 <sup>r</sup>	27	87 <sup>r</sup>	141 <sup>r</sup>	127
Ecuador	16 <sup>r</sup>	17 <sup>r</sup>	16 <sup>r</sup>	18 <sup>r</sup>	18
Eritrea	4	23 <sup>r</sup>	25 <sup>r</sup>	47 <sup>r</sup>	70
Ethiopia <sup>c</sup>	3 <sup>r</sup>	3 <sup>r</sup>	3 <sup>r</sup>	3 <sup>r</sup>	3
Finland	(3) <sup>r</sup>	(3) <sup>r</sup>	3 <sup>r</sup>	2 <sup>r</sup>	3
Ghana <sup>c</sup>	2 <sup>r</sup>	2 <sup>r</sup>	3	3	2
Greece	25 <sup>r</sup>	30 <sup>r</sup>	29 <sup>r</sup>	27 <sup>r</sup>	32
Guatemala	273	205	281 <sup>r</sup>	858	863
Honduras	49 <sup>r</sup>	51	51	57 <sup>r</sup>	35
India	234 <sup>r</sup>	280 <sup>r</sup>	333 <sup>r</sup>	261 <sup>r</sup>	374
Indonesia	190 <sup>r</sup>	165 <sup>r</sup>	255	240 <sup>r</sup>	304
Iran	112	110	99	98	102
Ireland	6	10 <sup>r</sup>	8	6 <sup>r,e</sup>	6
Japan	17 <sup>r</sup>	17 <sup>r</sup>	15 <sup>r</sup>	15 <sup>r</sup>	16
Kazakhstan	547 <sup>r</sup>	545 <sup>r</sup>	611 <sup>r</sup>	590 <sup>r</sup>	538
Korea, North <sup>c</sup>	27 <sup>r</sup>	27 <sup>r</sup>	28	28	26
Kyrgyzstan	10	6	11	10	12
Laos	18 <sup>r</sup>	20 <sup>r</sup>	32 <sup>r</sup>	40 <sup>r</sup>	41
Macedonia	9	10	11	10 <sup>e</sup>	11
Mali <sup>c</sup>	2	3	3	2	3
Mexico	4,778 <sup>r</sup>	5,358 <sup>r</sup>	5,513 <sup>r</sup>	5,795 <sup>r</sup>	5,900
Mongolia	33 <sup>r</sup>	33 <sup>r</sup>	49 <sup>r</sup>	64 <sup>r</sup>	82
Morocco	257 <sup>r</sup>	258 <sup>r</sup>	282 <sup>r</sup>	274 <sup>r</sup>	296
New Zealand	8 <sup>r</sup>	6	11	10 <sup>r</sup>	9
Nicaragua	8	10	14	17 <sup>r</sup>	18
Pakistan <sup>c</sup>	3	3	3	3	3
Papua New Guinea	92 <sup>r</sup>	82 <sup>r</sup>	91 <sup>r</sup>	87	71
Peru	3,473 <sup>r</sup>	3,547 <sup>r</sup>	3,754 <sup>r</sup>	3,821 <sup>r</sup>	4,230
Philippines	43 <sup>r</sup>	48 <sup>r</sup>	47 <sup>r</sup>	27 <sup>r</sup>	29
Poland	1,270 <sup>r</sup>	1,284 <sup>r</sup>	1,170 <sup>r</sup>	1,264 <sup>r</sup>	1,290
Portugal	31 <sup>r</sup>	34 <sup>r</sup>	45 <sup>r</sup>	54 <sup>r</sup>	74
Romania <sup>c</sup>	12 <sup>r,4</sup>	9 <sup>r,4</sup>	9 <sup>r</sup>	3 <sup>r,4</sup>	3
Russia	1,198 <sup>r</sup>	1,384 <sup>r</sup>	1,428	1,434 <sup>r</sup>	1,570
Saudi Arabia	9 <sup>r</sup>	11 <sup>r</sup>	19 <sup>r</sup>	22 <sup>r</sup>	23
South Africa	73	67	69	37 <sup>r</sup>	35
Spain	33 <sup>r</sup>	37 <sup>r</sup>	41 <sup>r</sup>	40 <sup>r</sup>	40
Sweden	283 <sup>r</sup>	306 <sup>r</sup>	337 <sup>r</sup>	396 <sup>r</sup>	494
Tajikistan <sup>c</sup>	2 <sup>4</sup>	2	3 <sup>r,4</sup>	3	4
Tanzania <sup>c</sup>	13 <sup>r,4</sup>	13 <sup>r</sup>	12 <sup>r,4</sup>	12 <sup>r</sup>	12
Thailand	24 <sup>r</sup>	38 <sup>r</sup>	36 <sup>r</sup>	34 <sup>r</sup>	24
Turkey	288 <sup>r</sup>	228 <sup>r</sup>	188 <sup>r</sup>	205 <sup>r</sup>	202
United States	1,120	1,060	1,050 <sup>r</sup>	1,180	1,090
Uzbekistan	59 <sup>r</sup>	59 <sup>r,e</sup>	60 <sup>r</sup>	54 <sup>r</sup>	47
Venezuela <sup>c</sup>	1	1	1	1	2

See footnotes at end of table.

TABLE 8—Continued  
 SILVER: WORLD MINE PRODUCTION, BY COUNTRY<sup>1,2</sup>

(Metric tons)

Country	2011	2012	2013	2014	2015 <sup>e</sup>
Zambia <sup>e</sup>	15 <sup>r</sup>	15 <sup>r</sup>	16 <sup>r</sup>	15 <sup>r</sup>	15
Zimbabwe <sup>e</sup>	3 <sup>r</sup>	4 <sup>r</sup>	4 <sup>r</sup>	4 <sup>r</sup>	4
Other countries <sup>5</sup>	13 <sup>r</sup>	15 <sup>r</sup>	10 <sup>r</sup>	8 <sup>r</sup>	9
Total	23,600 <sup>r</sup>	24,600 <sup>r</sup>	25,600 <sup>r</sup>	27,000 <sup>r</sup>	27,600

<sup>e</sup>Estimated. <sup>r</sup>Revised.

<sup>1</sup>Totals, U.S. data, and estimated data have been rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Recoverable content of ores and concentrates produced unless otherwise specified. Includes data available through June 28, 2017.

<sup>3</sup>Less than ½ unit.

<sup>4</sup>Reported figure.

<sup>5</sup>Includes silver production for Algeria, Azerbaijan, Côte d'Ivoire, Fiji, Georgia, Republic of Korea, Niger, Serbia, Slovakia, Solomon Islands, Sudan, and Switzerland.

Sources: U.S. Geological Survey and World Silver Survey 2016.