

SILVER

By Robert G. Reese, Jr.

In 1995, total domestic mine production of silver increased for the first time since 1990. About 83 mines in 17 States produced silver during the year. In descending order, Nevada, Arizona, and Idaho were the largest silver-producing States, accounting for nearly three-fourths of the production. The 13 largest mines each produced more than 30 metric tons of silver and accounted for 79% of the total domestic production. The value of domestic production was \$271 million.

Commercial-grade silver is material that is at least 99.9%-pure silver. In the United States, about 20 companies produced commercial-grade silver from either primary or recycled material. Although most of these companies were headquartered in the Northeast, many had collection sites or plants in locations throughout the country. Aiding in the recycling of silver were many other companies. These companies, located throughout the country, collected the material for recycling, and some produced a semirefined product that could be converted to commercial-grade silver.

Many companies and probably thousands of artisans scattered throughout the country consumed silver in 1995. The 30 largest companies probably accounted for more than 90% of the silver consumed in arts and industry. About 50% of the commercial-grade silver consumed in the United States was used in the manufacture of photographic products; 20% in electrical and electronic products; 10% in electroplated ware, sterlingware, and jewelry; and 20% in other uses.

In World Silver Survey 1996, published by the Silver Institute, it was estimated that world fabrication demand for silver was essentially unchanged in 1995. Total world fabrication demand, including that of China and the former Soviet Union, was put at about 23,800 tons in 1995, compared with a revised estimate of 23,600 tons in 1994.¹

Production

Silver was produced from precious-metal ores at 52 lode mines and from base metal ores at 31 lode mines. In 1995, 13 mines each produced more than 30 tons of silver; their aggregated production equaled 79% of total domestic production. Probably fewer than 10 placer operations recovered silver in 1995, and the quantity recovered was less than 1% of total domestic production.

Domestic mine production data for silver were developed by the U.S. Geological Survey from three separate, voluntary surveys of U.S. operations. Typical of these surveys was the lode mine production survey of copper, gold, lead, silver, and zinc. Of the 83 silver-producing lode mines to which a survey form was sent, 78 responded, accounting for an estimated 94% of the total U.S. mine production shown in tables 1 and 2.

Idaho.—Production increased at the Black Pine Mine, owing primarily to improvements made in 1994, and to the mining of higher grade reserves. For 1995, Pegasus Gold Inc. mined 7.8 million tons of ore at Black Pine and recovered approximately 3 tons of gold and nearly 2 tons of silver.²

The Lucky Friday Mine resumed full production in early 1995 following a 4-month closure due to an accident in late August 1994. The accident damaged the mine's main hoisting shaft and headframe. During 1995, Hecla Mining Co. milled more than 144,000 tons of ore at Lucky Friday and recovered 26 kilograms (kg) of gold, 15,400 tons of lead, 52 tons of silver, and 2,720 tons of zinc. In 1994, workers at the mine had processed 113,000 tons of ore and recovered 19 kg of gold, 12,000 tons of lead, nearly 41 tons of silver, and 2,200 tons of zinc.³

Production at the Sunshine Mine declined for the fifth consecutive year. Company officials attributed the lower production to the extensive exploration undertaken during the year, which reduced mill head grades, adverse mining conditions in some stopes, and to earlier than expected mineout in other stopes. For the year, the Sunshine Mine processed 91,600 tons of ore and recovered nearly 54 tons of silver and 278 tons of copper.⁴ During the first quarter, citing low throughput, the company temporarily suspended operations at its silver refinery located adjacent to the mine.

Montana.—Although gold production at the Beal Mountain Mine remained essentially unchanged, silver production increased. For 1995, company officials reported that the mine produced 1,860 kg of gold and 317 kg of silver.⁵ Comparable data for 1994 were 1,904 kg of gold and 271 kg of silver.

Despite mining and processing a record amount of ore, silver production at the Montana Tunnels Mine remained essentially unchanged in 1995. For the year, Montana Tunnels milled more than 5 million tons of ore and recovered nearly 3 tons of gold, 33 tons of silver, 7,400 tons of lead, and 21,600 tons of zinc.⁶

Gold and silver production at the Zortman-Landusky Mine remained essentially unchanged in 1995. Production for 1995 was 3 tons of gold and 16 tons of silver compared with 1994 production of 3 tons and nearly 14 tons of gold and silver respectively.⁷

Nevada.—With its first full year of heap leaching from the Reona deposit, gold and silver production increased at Battle Mountain Gold Corp.'s Battle Mountain complex. For the year, Battle Mountain added nearly 6 million tons to the leach pads and recovered 2,330 kg of gold and 6 tons of silver. For 1994, the complex produced 1,490 kg and nearly 3 tons of gold and silver, respectively.⁸

Silver production at the McCoy and Cove Mine increased, owing primarily to improved silver recovery from sulfide ores.

For 1995, the mine heap leached 4 million tons of ore and recovered 1,860 kg of gold and 27 tons of silver. Milling 2.4 million tons of ore produced an additional 7,780 kg of gold and 343 tons of silver.⁹ Corresponding data for 1994 were the heap leaching of 7 million tons yielding 2,070 kg and 29 tons of gold and silver, respectively, and the milling of 7 million tons yielding 9,100 kg of gold and 296 tons of silver.

Gold and silver production at the Rochester Mine remained essentially unchanged during 1995; workers mined 7.5 million tons of ore and produced nearly 2 tons of gold and 202 tons of silver. Corresponding data for 1994 included the mining of more than 7.1 million tons of ore and the production of nearly 2 tons and 185 tons of gold and silver, respectively.¹⁰

World Review

Estimated world silver production increased in 1995, a reversal of the continually lower production reported for the previous 4 years. Analysts attributed the higher production primarily to the opening of several new gold and copper mines that recovered byproduct silver. Another factor in the improved world silver output was the reopening of some mines. Over the past few years, a number of silver producing operations closed in response to the weak silver price. Subsequent efforts by labor and management have reduced operating costs, and allowed some of these mines to reopen during the year.

Gold Fields Mineral Services Ltd. estimated that world fabrication demand for silver, at nearly 23,800 metric tons, was essentially unchanged in 1995. For 1994, Gold Fields had estimated world fabrication demand at nearly 23,600 tons.

Australia.—Australia continued to be a major silver producer in 1995, ranking among the world's top five producers. Almost all production was a byproduct of copper-gold, gold, or lead-zinc mining. MIM Holdings Ltd.'s 70%-owned McArthur River underground lead-zinc-silver mine in eastern Northern Territory began commercial production of silver in midyear. Upon reaching its full capacity in mid-1996, the operation is scheduled to produce almost 50 metric tons per year (t/yr) of silver, about 5% of Australia's annual production. East Coast Minerals NL was planning development of its Elizabeth Hill primary silver deposit, believed to be one of the country's richest, in the Munni Munni region of the Pilbara in Western Australia (WA). Archaean Gold NL announced a high-grade silver, low-grade gold discovery at Boorara, near Kalgoorlie in WA, that reportedly could produce up to 450 tons of silver per year.¹¹

Canada.—Mine output of silver in concentrate jumped sharply upward in 1995 to 1,195 tons, a 62% increase over production in the previous year. This was the highest turnout since 1991, when production was 1,339 tons, and reflected new mines coming on-stream more than any lasting price incentives in world markets.

Canadian silver production has been largely a coproduct of base metal mining or gold mining, subject to whatever mining incentive applies to the major product, whether, gold, copper, or lead-zinc. Accordingly, silver output suffers when mines close

or go on suspension for reasons involving supply, demand, and pricing for other major mineral commodities. A significant addition to production occurred in 1995 when the Eskay Creek gold mine in British Columbia came on-stream as the largest producer of silver in Canada, with an expected annual production of 340 tons. At yearend, United Keno Hill Mines Ltd. announced plans to reopen the Belle-Keno and Silver King mines in the Yukon Territory, which were shut down in 1989. Total cost would be almost \$9 million, but together the mines were thought capable of producing 125 to 155 tons per year for about 5 years.

Chile.—Production of silver in Chile in 1995 was 1,032 tons, compared with 983 tons in 1994; a 9.1% increase. The largest producer of silver in Chile in 1995 was La Coipa Mine, owned by Dayton Development Corp., Placer Dome Inc., and TVX Gold Inc. of Canada. La Coipa's silver output, a byproduct of gold production, was about 430 tons in 1995, or about 42% of the country's total output. The next largest producer of silver was CODELCO, the state-owned copper producer.

Kazakhstan.—Silver was produced in Kazakhstan primarily as a byproduct of nonferrous ores. In 1995, production of silver in Kazakhstan had fallen to less than one-half of its peak level in the mid-1980's when Kazakhstan produced approximately one-half of the silver in the former Soviet Union.

Mexico.—Continuing as the leading producer of silver, with 16% of world production, Mexico lifted ore containing 2,400 tons of silver from its mines in 1995. This represented an increase of 3% over the output of the previous year.

About 85% of Mexico's silver came from six States: Chihuahua, Durango, Guanajuato, Hidalgo, Sonora, and Zacatecas. The leading producers in 1995 were Industrias Peñoles S.A. de C.V., 937 tons; Corporación Industrial Sanluis S.A. de C.V., 155 tons; Empresas Frisco S. A. de C. V., 332 tons, of which 262 tons came from Real de Angeles Mine; and Grupo Mexico S.A. de C.V., 667 tons. In addition, byproduct silver from Mexicana de Cobre S.A. amounted to 77 tons, and byproduct silver from Mexicana de Cananea S. A. was 17 tons. The Fresnillo Mine in Fresnillo, Zacatecas, owned and operated by Peñoles, yielded about 631 tons of silver in 1995, sustaining its leadership as the largest single producer of silver in the world.

Most Mexican refined silver came from facilities that also refined lead and zinc. The Peñoles facility at Torreón, Coahuila, and the Grupo Mexico plant, in Chihuahua, refined lead concentrates and produced large quantities of silver in the process. Silver was also produced from zinc concentrates at both of these facilities. The Cobre de Mexico refineries in Mexico City and Celaya, Guanajuato, extracted silver electrolytically from copper anodes. Real del Monte, in Pachuca, has a precious metal refinery that processed silver and gold from the mine's own concentrates as well as from concentrates of other mines.

Peru.—Silver production increased about 9.5%, to 1,908 metric tons in 1995, making Peru the world's second largest producer after Mexico. The state-owned corporation, Empresa

Minera del Centro del Peru (CENTROMIN), led Peruvian silver producers in output, with 613 tons. Cía. de Minas Buenaventura S.A., and its subsidiary, Orcopampa, dominated the medium-sized silver-mining sector with 202 tons.

Russia.—Most Russian silver was produced as a coproduct of gold mining or as a byproduct of the mining of nonferrous metals.

Russia had one major hard rock silver mining operation, the Dukat Mine in Magadan oblast in the Russian Far East, that produced both silver and gold. The Dukat silver mine, which contains more than 60% of Russia's silver reserves, experienced serious financial difficulties in 1995. Discussions were held concerning the sale of the mine or its possible bankruptcy. In 1995, silver concentrate from Dukat was sent to Canada's Cominco Ltd., in British Columbia, where it was processed to crude metal and then sent to Japan for refining. The Dukat Mine had planned to send 30,000 tons of concentrate to Cominco in 1995, but sent only about 12,000 tons. Cominco received an additional 1,500 tons of silver concentrate for processing from the Karamken mining complex, also in Magadan oblast.

Outlook

Byproduct silver from the processing of other nonferrous metals such as copper, gold, lead, and zinc remains the dominant component of domestic and world silver supply. As a result, the quantity of silver produced is in many instances more dependent on the price of the principal metal mined than on the price of silver. Although domestic silver production will continue to respond to price movements for other nonferrous metals, it is believed that domestic production of silver will increase slightly in the near term, but remain in the range of 1,400 to 2,000 tons. Worldwide, mine production of silver should remain at about 15,000 tons.

During the next few years, the domestic demand for silver will likely follow the general economy, either upward or downward, but remain at approximately 3,700 tons. Similarly, local economic conditions are expected to be the major determinant of silver demand in other countries, although demand could increase slightly as new markets in less-developed countries are gradually developed.

¹The Silver Institute. World Silver Survey 1996, 64 pp; available upon request from the Silver Institute, 1112 16th St., NW, Suite 2401, Washington, DC 20036.

²Pegasus Gold Inc. 1995 Annual Report, 66 pp.

³Hecla Mining Co. 1995 Annual Report, 48 pp.

⁴Sunshine Mining Co. 1995 Annual Report, 24 pp.

⁵Work cited in footnote 2.

⁶Work cited in footnote 2.

⁷Work cited in footnote 2.

⁸Battle Mountain Gold Co. 1995 Annual Report, 72 pp.

⁹Echo Bay Mines Ltd. 1995 10K Report, 110 pp.

¹⁰Coeur d'Alene Mines Corp. 1995 10K Report, 71 pp.

¹¹Mining Journal (London). "Cannington Heads Aussie Silver Surge." V. 325, No. 8346, Sept. 29, 1995, p. 230.

OTHER SOURCES OF INFORMATION

U.S. Geological Survey Publications

Silver. Ch. in Mineral Commodity Summaries, annual.

Silver. Precious Metals Mineral Industry Surveys, monthly.

Heyl, A.V., Hall, W.E., Weissenborn, A.E., Stager, H.K., Puffett, W. P., and Reed, B.L., 1973, Silver, in Brobst, D.A., and Pratt, W.P., eds., United States Mineral Resources: U.S. Geological Survey Professional Paper 820, p. 581-603.

U.S. Bureau of Mines Publications

Silver. Ch. in Minerals Yearbook, annual.

TABLE 1
SALIENT SILVER STATISTICS 1/

		1991	1992	1993	1994	1995
United States:						
Mine production	metric tons	1,860	1,800	1,640	1,490 r/	1,640
Value	thousands	\$241,000	\$229,000	\$227,000	\$253,000 r/	\$271,000
Refinery production:						
Domestic and foreign ores and concentrates	metric tons	1,880	2,160	1,790	1,810	(2/)
Scrap (old and new)	do.	1,700	1,760	2,020	1,700	(2/)
Exports: Refined	do.	787	911	705	868	2,810
Imports for consumption: Refined	do.	2,530	2,660	2,180	2,060	2,630
Stocks, Dec. 31:						
Industry	do.	618	677	735	929	(2/)
Futures exchanges	do.	8,760	9,380	10,500	10,400	6,290
Department of the Treasury	do.	1,030	775	NA	NA	NA
Department of Defense	do.	23	29	34	15	13
National Defense Stockpile	do.	2,610	2,260	1,850	1,670	1,450
Coinage	do.	285	NA	NA	NA	NA
Price, average per troy ounce 3/		\$4.04	\$3.94	\$4.30	\$5.29	\$5.15
Employment 4/		1,900	1,600	1,100	1,000	1,200
World: Mine production	metric tons	15,600	14,600	14,200 r/	14,000 r/	14,600 e/

e/ Estimated. r/ Revised. NA Not available.

1/ Data are rounded to three significant digits, except prices.

2/ Data under review.

3/ Price data are from Platt's Metals Week Annual Handy & Harman quotation.

4/ Employment data are from Mine Safety and Health Administration.

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

(Kilograms)

State	1994	1995
Alaska	W	109,000
Arizona	198,000 r/	220,000
California	11,200	12,700
Idaho	159,000	182,000
Missouri	40,300	W
Montana	70,600	76,100
Nevada	673,000	766,000
New Mexico	22,000	19,900
Oregon	57	--
South Dakota	4,090	4,030
Washington	W	--
Other States 2/	307,000	247,000
Total	1,490,000 r/	1,640,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other States."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Colorado, Illinois, Michigan, New York, South Carolina, Tennessee, Utah, Wisconsin, and States indicated by symbol "W."

TABLE 3
 TWENTY-FIVE LEADING SILVER-PRODUCING MINES IN THE UNITED STATES IN 1995, IN ORDER OF OUTPUT

Rank	Mine	County and State	Operator	Source of silver
1	McCoy and Cove	Lander, NV	Echo Bay Mines	Gold ore.
2	Rochester	Pershing, NV	Coeur Rochester Inc.	Do.
3	Bingham Canyon	Salt Lake, UT	Kennecott-Utah Copper Co.	Copper ore.
4	Red Dog	NW Arctic, AK	Cominco Alaska Inc.	Lead-zinc ore.
5	Candelaria	Mineral, NV	Kinross Delamar Mining Co.	Gold ore.
6	Mission Unit 1/	Pima, AZ	ASARCO Incorporated	Copper ore.
7	Kinross-Delamar	Owyhee, ID	Kinross Delamar Mining Co.	Gold ore.
8	Sunshine	Shoshone, ID	Sunshine Mining Co.	Silver ore.
9	Lucky Friday	Shoshone, ID	Hecla Mining Co.	Lead-zinc ore.
10	Montana Tunnels	Jefferson, MT	Pegasus Gold Inc.	Zinc ore.
11	Sierrita	Pima, AZ	Cyprus Minerals Co.	Copper ore.
12	Denton-Rawhide	Mineral, NV	Kennecott Rawhide Mining Co.	Gold ore.
13	White Pine	Ontonagon, MI	Copper Range Co.	Copper ore.
14	Morenci	Greenlee, AZ	Phelps Dodge Corp.	Do.
15	Flambeau	Rusk, WI	Kennecott Corp.	Do.
16	Ray Unit	Pinal, AZ	ASARCO Incorporated	Do.
17	Grouse	Custer, ID	Hecla Mining Co.	Gold ore.
18	Continental	Silver Bow, MT	Montana Resources Inc.	Copper ore.
19	Bagdad	Yavapai, AZ	Cyprus Minerals Co.	Do.
20	Zortman-Landusky	Phillips, MT	Pegasus Gold Inc.	Gold ore.
21	San Manuel	Pinal, AZ	Magma Copper Co.	Copper ore.
22	Pinto Valley	Gila, AZ	do.	Do.
23	Chino	Grant, NM	Phelps Dodge Corp.	Do.
24	Crofoot Lewis	Humboldt, NV	Hycroft Resources & Development	Gold ore.
25	Bullfrog	Nye, NV	Barrick Gold Corp.	Do.

1/ Includes Eisenhower, Mission, Pima, and San Xavier Mines.

TABLE 4
U.S. EXPORTS OF SILVER, BY COUNTRY 1/ 2/

Year and country	Ore and concentrates 3/		Dore and precipitates		Refined bullion		Total		Waste and scrap	
	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, gross weight)	Value (thousands)
1994	196	\$41	99,100	\$17,500	868,000	\$155,000	967,000	\$172,000	1,210,000	\$211,000
1995:										
Belgium	--	--	--	--	--	--	--	--	101,000	20,000
Brazil	--	--	--	--	8,500	1,650	8,500	1,650	--	--
Canada	--	--	--	--	51,800	8,250	51,800	8,250	480,000	66,000
China	--	--	--	--	--	--	--	--	77,100	10,200
France	100	18	38,200	16,400	13,400	3,240	51,700	19,600	32,600	5,850
Germany	13	4	39	30	--	--	52	34	78,600	19,000
Hong Kong	--	--	--	--	--	--	--	--	1,180	241
India	--	--	--	--	83	15	83	15	349	59
Italy	--	--	--	--	--	--	--	--	4,020	653
Japan	387	91	16,200	2,960	181,000	32,200	198,000	35,300	111,000	17,900
Korea, Republic of	--	--	--	--	91,200	16,800	91,200	16,800	785	96
Netherlands	--	--	--	--	--	--	--	--	31	4
Saudi Arabia	--	--	--	--	--	--	--	--	856	389
Singapore	--	--	--	--	88,700	16,000	88,700	16,000	125	16
Sweden	--	--	--	--	--	--	--	--	59,000	11,000
Switzerland	--	--	3,110	561	36,600	6,710	39,800	7,270	6,890	890
Taiwan	--	--	865	173	1,810	346	2,670	519	5	4
Thailand	--	--	--	--	1,210	234	1,210	234	--	--
United Arab Emirates	--	--	--	--	320,000	53,600	320,000	53,600	--	--
United Kingdom	--	--	6,110	2,010	1,990,000	352,000	1,990,000	354,000	619,000	151,000
Uruguay	--	--	7,210	1,220	29,200	6,440	36,400	7,650	191	25
Other	241	120	341	148	171	38	753	306	2,000	1,010
Total	741	233	72,100	23,500	2,810,000	497,000	2,890,000	521,000	1,580,000	304,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary silver excluded.

3/ Includes base metals ores, concentrates, and matte imported for refining.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF SILVER, BY COUNTRY 1/ 2/

Year and country	Ore and concentrates 3/		Dore and precipitates		Refined bullion		Total		Waste and scrap	
	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, contained silver)	Value (thousands)	Quantity (kilograms, gross weight)	Value (thousands)
1994	133,000	\$24,100	413,000	\$124,000	2,060,000	\$347,000	2,600,000	\$495,000	1,070,000	\$55,100
1995:										
Argentina	--	--	2,070	413	--	--	2,070	413	7	66
Brazil	--	--	--	--	3,510	606	3,510	606	--	--
Canada	10,500	1,910	121,000	20,300	860,000	144,000	991,000	167,000	158,000	10,700
Chile	1,820	317	263,000	99,300	62,300	10,900	327,000	110,000	5,020	735
Costa Rica	--	--	42	7	157	28	199	35	123	158
Denmark	--	--	--	--	--	--	--	--	20,100	63
Dominican Republic	--	--	1,320	2,940	280,000	36,400	281,000	39,300	676	276
El Salvador	--	--	--	--	--	--	--	--	2,020	436
Estonia	--	--	--	--	--	--	--	--	2,000	1,060
Germany	--	--	--	--	--	--	--	--	582,000	2,760
Israel	--	--	--	--	--	--	--	--	10,200	384
Malaysia	--	--	--	--	--	--	--	--	297,000	17,500
Mexico	207,000	34,300	4,880	859	994,000	165,000	1,210,000	200,000	14,400	7,840
Netherlands	--	--	--	--	--	--	--	--	40,100	201
Peru	5,740	791	492	84	427,000	70,700	433,000	71,500	2,400	447
Philippines	--	--	--	--	--	--	--	--	36,100	158
Russia	--	--	--	--	292	47	292	47	773,000	6,390
South Africa	--	--	--	--	88	16	88	16	1,050	667
Switzerland	--	--	--	--	625	107	625	107	557	106
Thailand	--	--	--	--	(4/)	8	(4/)	8	1,070	987
United Kingdom	--	--	--	--	589	45	589	45	197,000	1,800
Other	--	--	2,020	331	798	104	2,820	435	2,980	2,290
Total	225,000	37,400	395,000	124,000	2,630,000	428,000	3,250,000	590,000	2,140,000	55,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Bullion also moves in both directions between U.S. markets and foreign stocks on deposits in the Federal Reserve Bank. Monetary silver excluded.

3/ Includes base metals ores, concentrates, and matte imported for refining.

4/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 6
SILVER: WORLD MINE PRODUCTION, BY COUNTRY 1/ 2/

(Metric tons)

Country 3/	1991	1992	1993	1994	1995 e/
Algeria e/	3	4	4	4	3
Argentina	70	45	43	43 e/	43
Australia	1,180	1,218	1,092	1,045 r/	920 4/
Austria	3 r/	2 r/	--	--	--
Bolivia	376	282	333	352 r/	410
Brazil 5/	154	162	155 r/	155 r/ e/	155
Bulgaria e/	37	35	35	30	35
Burma	5	5	2	6 r/	4
Canada (shipments)	1,339	1,220	896	740 r/	1,195 4/
Chile	678	1,029	970	983 r/	1,032 4/
China e/	150	170	200	210	250
Colombia 6/	8	8	7	6 r/	6 4/
Costa Rica e/	(7/)	(7/)	(7/)	(7/)	(7/)
Croatia e/	XX	1	1	1	--
Czech Republic e/	XX	XX	1	(7/)	-- 4/
Czechoslovakia e/ 8/	9	6	XX	XX	XX
Dominican Republic	22	15	1 r/ e/	2 r/ e/	13
Ecuador e/	(7/)	(7/)	(7/)	(7/)	(7/)
Fiji	(7/)	1	1	1	2 4/
Finland 9/	30	27	29	26	27
France	28 r/	13 r/	10 r/	1 r/	1
Germany e/	7 r/ 4/	2 r/	2 r/	1 r/	1
Ghana e/	1	2	2	2	3
Greece	70	62	59	45 r/	45
Honduras	39	43	24	25	25
India	32	47	51	50 r/	40
Indonesia	80	100	90	107 r/	112
Iran e/	40	50	60	60	60
Ireland	11	13	13	17 r/	15
Italy 10/	14	12	5	14 r/	12
Japan	171	178	137	133	100 4/
Kazakstan e/ 6/	XX	900	900	800	800
Korea, North e/	50	50	50	50	50
Korea, Republic of 6/	265	333	215 r/	258 r/	258
Macedonia e/	XX	10	10	10	10
Malaysia	13	15	14	13	11 4/
Mali e/	(7/)	(7/)	(7/)	(7/)	(7/)
Mexico	2,295	2,098	2,420	2,330	2,400
Morocco	296	213	309	328 r/	330
Namibia	91	89	72	62	66 4/
New Zealand	11	22	26	26 r/	32
Nicaragua	1	2	2	2 e/	2
Papua New Guinea	125	95	96	78	65 4/
Peru	1,927	1,614	1,631	1,742 r/	1,908 4/
Philippines	38	33 r/	28 r/	30	27 4/
Poland	899	798	767	1,064 r/	1,000
Portugal	44 r/	39 r/	36 r/	32	32
Romania e/	80	73	70	70 4/	60
Russia e/	XX	800	800	800	700
Saudi Arabia	16	16	18	17 r/	18
Serbia and Montenegro	XX	66	25	18	27
Slovenia e/	XX	(7/)	--	--	--
Solomon Islands	(7/)	(7/)	(7/)	--	--
South Africa	171	183	192	196	174 4/
Spain	182 r/	160	180 r/	132 r/ e/	135
Sweden	239	210	255	276	268
Tunisia e/	1	1	1	1	1
Turkey e/	64	103	103	65 r/	65
U.S.S.R. e/ 6/ 11/	2,200	XX	XX	XX	XX
United States	1,860	1,800	1,640	1,480	1,640 4/
Yugoslavia 6/ 12/	84	XX	XX	XX	XX
Zaire e/	80	60	50	60	10

See footnotes at end of table.

TABLE 6--Continued
SILVER: WORLD MINE PRODUCTION, BY COUNTRY 1/ 2/

(Metric tons)

Country 3/	1991	1992	1993	1994	1995 e/
Zambia 13/	14	21	16	14 e/	14
Zimbabwe	19	17	12	11 r/	10
Total	15,600	14,600	14,200 r/	14,000 r/	14,600

e/ Estimated. r/ Revised. XX Not applicable.

1/ World totals, U.S. data, and estimated data are rounded to three significant digits; may not add to totals shown.

2/ Recoverable content of ores and concentrates produced unless otherwise specified. Table includes data available through July 12, 1996.

3/ In addition to the countries listed, Botswana produces silver (probably 1 kilogram or less per year) and Thailand may produce silver, but information is inadequate to make reliable estimates of output levels.

4/ Reported figure.

5/ Of total production, the following quantities, in kilograms, are identified as placer silver (the balance being silver content of other ores and concentrates): 1991--40,000; 1992--42,000; 1993--43,000; 1994--43,000 (revised); and 1995--43,000 (estimated).

6/ Smelter and/or refinery production.

7/ Less than 1/2 unit.

8/ Dissolved Dec. 31, 1992. All production in 1991-92 came from the Czech Republic.

9/ Metal content.

10/ Includes production from imported ores.

11/ Dissolved in Dec. 1991. Information is available to estimate production only for Kazakstan and Russia of the U.S.S.R.'s successor States.

12/ Dissolved in Apr. 1992.

13/ Year beginning Apr. 1 of that stated.