

SILVER

By Robert G. Reese Jr.

Domestic silver mine production declined for the fourth consecutive year, owing primarily to a decline in byproduct silver production. About 120 mines in 20 States produced silver during the year. Nevada, Arizona, and Idaho were the largest silver-producing States, accounting for nearly three-fourths of the production. The largest 13 mines each produced more than 30 tons of silver and accounted for more than 77% of the total domestic production. The value of domestic production was \$252 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 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 1994. 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 1995*, published by the Silver Institute, it was estimated that world fabrication demand for silver had decreased in 1994, owing primarily to a decline in demand in India and Thailand.¹ Total world fabrication demand, including China and the former Soviet Union, was put at about 23,300 tons in 1994, compared with nearly 23,700 tons in 1993.

Legislation and Government Programs

On September 29, the President signed Public Law 103-328, the Riegle-Neal Interstate Banking And Branching Efficiency Act of 1994. Section 204 of P.L. 103-328 authorized the minting of not more than 800,000 coins to commemorate the 1995 Special Olympics

World Games. Added to the price of each coin was a \$10 surcharge. Surcharge revenues were to go to the 1995 Special Olympics World Games Organizing Committee, Inc. to stage and promote the 1995 Special Olympics World Games.

Production

Silver was produced from precious-metal ores at 64 lode mines and from base metal ores at 44 lode mines. In 1994, 13 mines each produced more than 30 tons of silver; their aggregated production equaled 77% of total domestic production. Probably fewer than 10 placer operations recovered silver in 1994, and the quantity recovered was less than 1% of total domestic production.

Domestic mine production data for silver were developed by the U.S. Bureau of Mines 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 108 silver-producing lode mines to which a survey form was sent, 98 responded, accounting for an estimated 91% of the total U.S. mine production shown in tables 1 and 2.

Idaho.—In 1994, under its first full year of ownership by Kinross Gold Corp., the DeLamar Mine recorded the highest tonnage of ore mined and milled during its 18 years of operation. For the year, 1.2 millions tons of ore were mined. From the 1.1 millions tons of ore milled, workers at DeLamar produced about 1,121 kilograms (kg) of gold and nearly 53 tons of silver.²

Hecla Mining Co. began commercial production at the Grouse Creek Mine in December, utilizing both surface and underground mining methods. A 5,400-ton-per-day mill located onsite processed the ore to produce a gold-silver doré. Hecla shipped the doré to a commercial refiner for upgrading. In February 1994, Hecla had sold a 20% interest in the mine to Great Lakes Minerals Inc., a Canadian company. Hecla expected the mine to achieve full production during the second quarter of 1995. During December, Grouse Creek produced 81 kg of gold and 341 kg of silver.³

After nearly 55 years of operation, cumulative silver production at the Lucky

Friday Mine reached 3,110 tons (100,000,000 troy ounces) in March. In late August, an accident damaged the mine's main hoisting shaft and headframe, necessitating closure of the mine. Following repair of the shaft and headframe, production resumed in early December. During 1994, Hecla milled more than 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.⁴

Production at the Sunshine Mine declined for the fourth consecutive year. Company officials attributed the continued decline to the corporate decision to produce exclusively from the central portion of the mine during the past 4 1/2 years. As a result, mining had begun to affect the accessibility of reserves in this area. The eastern portion of the Sunshine Mine was expected to remain closed until silver prices improved. For the year, the Sunshine Mine processed 97,000 tons of ore and recovered nearly 65 tons of silver, 327 tons of copper, and 215 tons of antimony.⁵

Montana.—Gold and silver production at the Beal Mountain Mine remained essentially unchanged. For 1994, company officials reported that the mine produced 1,904 kg of gold and 271 kg of silver.⁶ Comparable data for 1993 were 1,844 kg of gold and 267 kg of silver.

At the Black Pine Mine, Pegasus Gold Corp. upgraded the solution distribution system and increased the tonnage mined in the fourth quarter in part to counteract the effects of mining lower grade ore during most of the year. For 1994, Pegasus mined 5.8 million tons of ore at Black Pine and recovered approximately 2 tons of gold and 1 ton of silver.⁷

At its Kendall Mine, Canyon Resources Corp. mined 1.4 million tons of ore and extracted about 1,500 kg of gold and 700 kg of silver during 1994.⁸ Although the company finished mining at the site in January 1995, leaching was expected to continue over the next 2 to 3 years.

Despite a higher mill throughput, silver production at the Montana Tunnels Mine declined in 1994 owing in part to lower silver content of the ore. For the year, Montana Tunnels milled nearly 4.9 million tons of ore and recovered 2.5 tons of gold, nearly 34 tons of silver, 8,500 tons of lead, and 18,000 tons of zinc.⁹ In 1994 the pit at Montana Tunnels

reached its maximum extent, and future mining was expected to take place in the core of the pit.

Although gold production at the Zortman/Landusky Mine was essentially unchanged in 1994, silver production declined for the third consecutive year. Production for 1994 was 3.4 tons of gold and 14 tons of silver compared with 1993's production of 3.4 tons and nearly 17 tons of gold and silver respectively.¹⁰ Among the more notable projects completed at Zortman/Landusky during the year were construction of a 2,500-gallon-per-minute Merrill Crowe plant and construction of a water treatment plant.

Nevada.—Heap leaching of ore from the Reona deposit at Battle Mountain Gold Corp.'s Battle Mountain complex began in the third quarter. However, owing primarily to the slow startup of the Reona heap-leach facility, total gold and silver production at the Battle Mountain complex declined in 1994. For the year, Battle Mountain added nearly 2.6 million tons to the leach pads, and recovered 1,493 kg of gold and nearly 3 tons of silver. For 1993, the complex produced 1,897 kg and more than 3.5 tons of gold and silver respectively.¹¹

In its first full year of operation since 1990, the Candelaria Mine mined and processed 2.7 million tons of ore to produce nearly 100 tons of silver and 393 kg of gold.¹² During the year, work began on developing the Northern Belle deposit, which along with the Mount Diablo Pit are expected to be the major sources of ore in 1995. The Georgine Pit, a deposit mined previously, was fully reclaimed by September 1994.

At its Denton-Rawhide Mine Kinross mined 15.1 million tons, and produced 3.7 tons and more than 30 tons of gold and silver respectively.¹³

Production at the Florida Canyon Mine declined slightly owing in part to the higher clay content of the ore mined. Toward yearend, Pegasus increased leach solution application rates on the heap to speed up gold and silver recovery, but the results were not expected to be evident until 1995. For 1994, workers at Florida Canyon produced 2.9 tons of gold and 787 kg of silver.¹⁴

Silver production at the McCoy/Cove Mine decreased for the first time in 4 years, owing primarily to a decline in the quantity of silver recovered by heap leaching. Heap leaching is most economical for processing lower-grade oxide ore. With the depletion of most of McCoy/Cove's oxide ore during the first quarter, output depended on processing sulfide ore using the mine's 6,800-ton-per-day mill. For 1994, the mine heap leached 7.2 million tons of ore and recovered 2,072 kg of gold and 29,258 kg of silver. Milling 6.6 million tons of

ore produced an additional 9,105 kg of gold and 295,561 kg of silver.¹⁵ Corresponding data for 1993 were heap leaching, 8.1 million tons yielding 3,115 kg and 74,864 kg of gold and silver respectively, and milling of 7 million tons yielding 9,190 kg of gold and nearly 313 tons of silver.

Residual gold and silver recovery continued at the depleted Paradise Peak Mine. According to FMC Gold, continued heap leaching recovered about 1,200 kg of gold and 4 tons of silver.¹⁶ Ongoing reclamation of the mine site was expected to continue into 1997.

Coeur d'Alene Mines Corp. completed construction of a new leach pad and a conveyor system at its Rochester Mine in September. The new conveyor, which transports ore over 1.5 kilometers to the new pad, lowers the mine's operating costs by eliminating the need to truck ore to the pad. Gold and silver production at Rochester remained essentially unchanged from the previous year. In 1994, workers at Rochester mined over 7.1 million tons of ore, and produced nearly 2 tons of gold and 185 tons of silver.¹⁷

Other States.—At the San Luis Mine in Colorado, Battle Mountain reported the production of 2,271 kg of gold and 591 kg of silver, about the same as in 1993.¹⁸

In October, Hecla announced that it would close its Republic Mine in northeast Washington following depletion of known reserves. For the year, the Republic Mine processed 109,000 tons of ore, and recovered more than 1 ton of gold, and nearly 9 tons of silver.¹⁹ Although Hecla's exploration for additional reserves over the past 5 years had proved unsuccessful, the company was considering additional exploration activities at the mine during 1995. At yearend 1994, the Republic Mine employed 85 people.

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 primary metal than on the price of silver. Although domestic 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 determinate 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 1995, 64 pp; available upon request from the Silver Institute, 1112 16th St., NW, Suite 2401, Washington, DC 20036.

²Kinross Gold Corp. 1994 Annual Report, 58 pp.

³Hecla Mining Co. 1994 10K Report, 95 pp.

⁴Work cited in footnote 3.

⁵Sunshine Mining Co. 1994 Annual Report, 25 pp.

⁶Pegasus Gold Inc. 1994 Annual Report, 54 pp.

⁷Work cited in footnote 6.

⁸Canyon Resources Corp. 1994 Annual Report, 56 pp.

⁹Work cited in footnote 6.

¹⁰Work cited in footnote 6.

¹¹Battle Mountain Gold Co. 1994 Annual Report, 64 pp.

¹²Work cited in footnote 2.

¹³Work cited in footnote 2.

¹⁴Work cited in footnote 6.

¹⁵Echo Bay Mines Ltd. 1994 10K Report, 112 pp.

¹⁶FMC Gold Co. 1994 Annual Report, 24 pp.

¹⁷Coeur d'Alene Mines Corp. 1994 Annual Report, 60 pp.

¹⁸Work cited in Footnote 11.

¹⁹Work cited in Footnote 3.

TABLE 1
SALIENT SILVER STATISTICS 1/

		1990	1991	1992	1993	1994
United States:						
Mine production	metric tons	2,120	1,860	1,800	1,640 r/	1,480
Value	thousands	\$329,000	\$241,000	\$229,000	\$227,000	\$545,000
Refinery production:						
Domestic and foreign ores and concentrates	metric tons	1,940	1,880	2,160	1,790 r/	1,810
Scrap (old and new) 2/	do.	1,680	1,700	1,760	2,020	1,700
Exports:						
Refined	do.	736	787	911	705	868
Imports for consumption:						
Refined	do.	2,700	2,530	2,660	2,180	2,060
Stocks, Dec 31:						
Industry	do.	583	618	677	735	929
Future exchanges	do.	8,640	8,760	9,380	10,500	10,400
Department of the Treasury	do.	840	1,030	775	NA	NA
Department of the Defense	do.	32	23	29	34	15
National Defense Stockpile	do.	2,870	2,610	2,260	1,850	1,670
Coinage		265	285	NA	NA	NA
Price, average per troy ounce 3/		\$4.82	\$4.04	\$3.94	\$4.30	\$5.29
Employment 4/		2,600	1,900	1,600	1,100	1,000
World:						
Mine production	metric tons	16,600 r/	15,600 r/	14,600 r/	14,300 r/	13,900 e/

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

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits, except prices.

2/ Not comparable with previous Silver Annual Reports, which represented old scrap only.

3/ Platt's Metals Week Annual Handy & Harman quotation.

4/ Mine Safety and Health Administration.

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

State	1993	1994
Arizona	200,000	192,000
California	14,500	11,200
Idaho	190,000	159,000
Missouri	40,300	40,300
Montana	127,000	70,600
Nevada	713,000	673,000
New Mexico	22,300	22,000
Oregon	--	57
South Dakota	4,710	4,090
Washington	14,000	W
Other States 2/	319,000	307,000
Total	1,640,000 r/	1,480,000

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

1/ Previously published and 1994 data are rounded by the U. S. Bureau of Mines to three significant digits; may not add to totals shown.

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

TABLE 3
 TWENTY-FIVE LEADING SILVER-PRODUCING MINES IN THE UNITED STATES IN 1994, IN ORDER OF OUTPUT

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

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	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	(kilograms)	(thousands)	(kilograms)	(thousands)	(kilograms)	(thousands)	(kilograms)	(thousands)	(kilograms)	(thousands)
1993	2,270	\$395	103,000	\$16,000	705,000	\$100,000	811,000	\$117,000	892,000	\$142,000
1994:										
Belgium	--	--	--	--	--	--	--	--	143,000	21,500
Brazil	--	--	--	--	4,980	904	4,980	904	--	--
Canada	--	--	--	--	97,600	17,700	97,600	17,700	453,000	65,500
Chile	--	--	--	--	1,210	283	1,210	283	--	--
China	--	--	--	--	13,900	2,580	13,900	2,580	24,300	3,260
France	--	--	61,100	10,800	--	--	61,100	10,800	10,800	1,760
Germany	--	--	27	4	256	21	283	25	176,000	30,500
Hong Kong	--	--	--	--	12,200	2,300	12,200	2,300	1,420	180
India	--	--	--	--	1,320	226	1,320	226	324	42
Italy	78	16	--	--	--	--	78	16	3,100	573
Japan	98	20	4,520	775	323,000	59,600	328,000	60,400	122,000	23,200
Korea, Republic of	--	--	--	--	84,000	14,600	84,000	14,600	63	44
Netherlands	--	--	--	--	--	--	--	--	4,190	448
Singapore	--	--	--	--	500	90	500	90	5	8
South Africa, Republic of	--	--	--	--	--	--	--	--	1,370	178
Sweden	--	--	--	--	--	--	--	--	28,100	5,260
Switzerland	--	--	591	98	446	76	1,040	174	9,450	1,970
United Arab Emirates	--	--	--	--	150,000	24,700	150,000	24,700	--	--
United Kingdom	--	--	22,100	3,770	131,000	21,400	153,000	25,200	230,000	56,300
Uruguay	--	--	10,800	2,020	46,600	10,000	57,400	12,000	--	--
Other	20	5	--	--	444	94	464	99	1,670	222
Total	196	41	99,100	17,500	868,000	155,000	967,000	172,000	1,210,000	211,000

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines 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)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
1993	35,700	\$6,410	281,000	\$78,600	2,180,000	\$297,000	2,500,000	\$382,000	1,270,000	\$46,000
1994:										
Argentina	--	--	--	--	--	--	--	--	514	6,790
Brazil	--	--	--	--	1,820	296	1,820	296	--	--
Bulgaria	--	--	710	125	--	--	710	125	--	--
Canada	12,300	2,220	57,800	10,200	903,000	151,000	973,000	163,000	116,000	8,040
Chile	3,300	693	290,000	93,600	58,500	10,400	352,000	105,000	4,630	686
Costa Rica	--	--	--	--	455	67	455	67	40,700	109
Dominican Republic	--	--	40,300	16,200	20,200	2,620	60,500	18,800	270	305
Estonia	--	--	--	--	--	--	--	--	78,200	2,300
France	--	--	--	--	--	--	--	--	16,200	144
Germany	82	108	--	--	(4/)	1	82	109	264,000	4,370
Ireland	--	--	--	--	--	--	--	--	691	776
Malaysia	--	--	--	--	--	--	--	--	233,000	13,400
Mexico	117,000	21,100	18,600	3,230	711,000	122,000	847,000	146,000	11,500	6,710
Namibia	--	--	2,510	476	--	--	2,510	476	2,260	3
Netherlands	--	--	--	--	--	--	--	--	31,500	675
Peru	--	--	3,310	573	362,000	61,100	365,000	61,700	1,040	144
Philippines	--	--	--	--	--	--	--	--	26,900	407
Russia	--	--	--	--	--	--	--	--	77,400	2,160
Sweden	--	--	--	--	--	--	--	--	2,780	36
United Kingdom	75	6	--	--	61	10	136	16	163,000	6,530
Other	--	--	134	81	457	80	591	161	1,010	1,500
Total	133,000	24,100	413,000	124,000	2,060,000	347,000	2,600,000	495,000	1,070,000	55,100

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines 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/	1990	1991	1992	1993	1994 e/
Algeria e/	3	3	4	4	4
Argentina	83 r/	70	45 r/	43 r/	43
Australia	1,170	1,180	1,220 r/	1,090 r/	1,060
Austria	-- r/	-- r/	-- r/	-- r/	--
Bolivia	311	376	282	333 r/	350
Brazil 4/	171	154	162 r/	165 r/	170
Bulgaria e/	54	37	35	35	30
Burma	6	5	5	2 r/	4
Canada (shipments)	1,500	1,340	1,220 r/	896 r/	758 5/
Chile	655	678	1,030	970 r/	980
China e/	130	150	170	200	210
Colombia 6/	7	8	8	7 r/	7
Costa Rica e/	(7/)	(7/)	(7/)	(7/)	(7/)
Croatia	XX	XX	1	1	1
Czech Republic e/	XX	XX	XX	1 r/	1
Czechoslovakia e/ 8/	16	9	6	XX	XX
Dominican Republic	22	22	15	13 e/	10
Ecuador e/	(7/)	(7/)	(7/)	(7/)	(7/)
Fiji	1 r/	(7/)	1	1	1
Finland 9/	29	30 r/	27	29 r/	26
France	26	29	16	13 r/	12
Germany:					
Eastern states	35	XX	XX	XX	XX
Western states	6	XX	XX	XX	XX
Total	41	4	1	--	--
Ghana e/	1	1	2	2	2
Greece	63	70	62 r/	59 r/	55
Greenland	9	--	--	--	--
Honduras	31 r/	39	43 r/	24 r/	25 5/
India	33	32	47 r/	51 r/	52
Indonesia	67	80	100	90 r/	100
Iran e/	38	40	50	60	60
Ireland	8 e/	11	13	13 r/	12
Italy 10/ 11/	14 r/	14 r/	12 r/	5 r/	5
Japan	150	171	178	137 r/	133 5/
Kazakhstan e/ 6/	XX	XX	900	900	800
Korea, North e/	50	50	50	50	50
Korea, Republic of 6/	238	265	333	330 e/	340
Macedonia e/	XX	XX	10	10	10
Malaysia	13	13	15	14 r/	13 5/
Mali e/	(7/)	(7/)	(7/)	(7/)	(7/)
Mexico	2,420	2,300	2,100	2,420 r/	2,330 5/
Morocco	241	296	213	309 r/	309
Namibia	92	91	89	72	62 5/
New Zealand	5	11	22 r/	26 r/	30
Nicaragua	1	1	2	2	2
Papua New Guinea	115 r/	125	95	96 r/	78
Peru	1,930 r/	1,930 r/	1,610 r/	1,630 r/	1,700
Philippines	47	38	31	33	30
Poland	832	899	798	767 r/	770
Portugal	42	43 e/	38	35 e/	32
Romania e/	80	80	73	70	70 5/
Russia e/	XX	XX	800	800	800
Saudi Arabia	16	16	16	18	18
Serbia and Montenegro	XX	XX	66	25 r/	18
Slovenia e/	XX	XX	(7/)	--	--
Solomon Islands	(7/)	(7/)	(7/)	(7/)	--
South Africa, Republic of	161	171	183	192 r/	196 5/
Spain	500 e/	208 e/	160	159 r/	160
Sweden	243	239	210 r/	255 r/	276 5/
Taiwan	4	--	--	--	--
Tunisia e/	1 5/	1	1	1	1
Turkey e/	53	64	103	103 r/	105

See footnotes at end of table.

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

(Metric tons)

Country 3/	1990	1991	1992	1993	1994 e/
U.S.S.R. e/ 6/ 12/	2,500	2,200	XX	XX	XX
United States	2,120	1,860	1,800	1,640 r/	1,480 5/
Yugoslavia 6/ 13/	105	84	XX	XX	XX
Zaire e/	84	80	60	50 r/	60
Zambia 14/	17	14	21	16 r/	14
Zimbabwe	21	19	17	12 r/	14
Total	16,600 r/	15,600 r/	14,600 r/	14,300 r/	13,900

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

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines 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 June 12, 1995.

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/ Of total production, the following quantities, in kilograms, are identified as placer silver (the balance being silver content of other ores and concentrates): 1990--52,000; 1991--40,000; 1992--42,000; 1993--43,000 (revised); and 1994--45,000 (estimated).

5/ Reported figure.

6/ Smelter and/or refinery production.

7/ Less than 1/2 unit.

8/ Dissolved Dec. 31, 1992. All production from 1990-92 came from the Czech Republic.

9/ Metal content.

10/ Includes production from imported ores.

11/ Series revised to reflect mine production; previous series numbers were refined metal production.

12/ Dissolved in Dec. 1991.

13/ Dissolved in Apr. 1992.

14/ Year beginning Apr. 1 of that stated.