

Mineral Industry Surveys

For information contact:

Daniel Edelstein, Copper Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4978, Fax: (703) 648-7757
E-mail: dedelste@usgs.gov

Janet Richards (Data)
E-mail: jricharl@usgs.gov
Fax: (703) 648-8975

Internet: <http://minerals.usgs.gov/minerals>

COPPER IN JUNE 2002

While mine production in June remained essentially unchanged, smelter and electrolytic refinery production declined by 10% and 8%, respectively, owing to across-the-board lower production at smelters and electrolytic refineries. The slow growth in reported consumption of refined copper during the first part of the year appeared to stall, with average daily consumption remaining flat during the second quarter of the year. This trend was essentially echoed by global consumption data. According to data compiled by the International Copper Study Group (ICSG) (2002), global recovery in average weekly refined copper use stalled in May and average weekly use declined slightly in the May-June period. The ICSG reported that fluctuating Chinese apparent demand is exerting a significant influence on the monthly calculation of the global supply and demand balance. The variation in China's copper use results from substantial month-to-month shifts in stock and import levels. China's apparent refined copper use in June was nearly 40,000 metric tons (t) less than in May.

According to ICSG data, China's apparent demand for refined copper has grown from 1.27 million metric tons (Mt) in 1997 to 2.24 Mt in 2001 and, at the prevailing rate of growth, could soon surpass that of the United States, the world's largest user of refined copper. According to some projections, China's copper use could grow by about 100,000 t in 2002, to 2.35 Mt. Growth in copper use is expected in areas such as air conditioning and personal computers, whose year-on-year production for the first 5 months of 2002 reportedly grew by 34% and 54%, respectively (Antaika Information Development Company Ltd., 2002). ICSG data for the first 6 months of 2002, however, indicate that demand growth in China may also have stalled, and at the prevailing rate of use, may not exceed that for 2001.

Copper prices, which rose during the first half of June in response to announced industry cutbacks (See Copper in May 2002), softened in the second half of June, and by the end of

July, the COMEX spot price had fallen back below \$0.68 per pound, down from \$0.78 during the first weeks of June. The price decline occurred despite the announcement by Noranda Inc. on June 19 that unionized employees at its Horne copper smelter in Rouyn-Noranda, Quebec, had walked-off the job. The Horne smelter, which produced 188,000 t of copper in 2001, continued operation at significantly reduced capacity until July 20, when Noranda announced a 3-week shutdown to allow non-unionized employees to "take vacations and a much needed break" (Noranda Inc., 2002a, b). Noranda subsequently announced that, beginning on July 28, it would close its CCR copper refinery in Montreal-East, Quebec, for 3 weeks owing to the anode supply shortage resulting from the smelter closure. Though viewed by industry as a move that would strengthen the market, the confirmed reduction in refined copper output did little to stimulate copper prices. The COMEX spot price closed the month at \$0.68 per pound of copper and averaged only \$0.72 for all of July (Platts Metals Week, 2002b).

ASARCO Incorporated announced on July 5 that it had reached a 3-year agreement with unions representing workers at its Ray mining complex and Hayden concentrator in Arizona. The previous contract expired on June 30, but negotiations continued without a work stoppage. The contract called for \$0.50-per-hour increases in the second and third years as well as potential bonus payments if certain production and cost targets were achieved (ASARCO Incorporated, 2002). Asarco also halted stripping activity at its Ray and Mission, AZ, operations at the end of June as a temporary cost-cutting measure. While not expected to immediately impact production, the curtailment resulted in the temporary layoff of 250 workers (Platts Metals Week, 2002a)

References Cited

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TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless otherwise specified)

	Source table 2/	2001 p/	2002		January - June
			May	June	
Production:					
Primary:					
Mine, recoverable	(2)	1,340,000	94,000 r/	93,400	568,000
Refinery:					
Electrolytic:					
Domestic	(4)	808,000 r/	76,100 r/	70,000	428,000
Foreign	(4)	192,000 r/	W	W	W
Electrowon	(4)	628,000	49,900	49,400	300,000
Total	(4)	1,630,000 r/	126,000 r/	119,000	728,000
Secondary recoverable copper:					
Refineries	(5)	172,000	8,180 r/	8,050	45,500
Ingot makers 3/	(5)	121,000	10,100	10,100	60,300
Brass and wire-rod mills	(5)	727,000	66,500 r/	71,800	397,000
Foundries, etc. 3/	(5)	67,100	5,590	5,590	33,500
Smelter, total	(3)	919,000 r/	62,300 r/	56,100	355,000
Consumption:					
Apparent	(8)	2,500,000	231,000	NA	NA
Refined (reported)	(7)	2,610,000	218,000 r/	212,000	1,230,000
Purchased copper-base scrap	(9)	1,370,000 r/	113,000 r/	119,000	669,000
Stocks at end of period:					
Total refined	(11)	952,000 r/	1,050,000	1,030,000	XX
Blister, etc.	(11)	98,000	92,700 r/	90,600	XX
Prices:					
U.S. producer cathode (cents per pound) 4/	(12)	76.854	77.378	80.386	77.290
Imports: 5/					
Ores and concentrates 6/	(14)	122,000	33,300	NA	NA
Refined	(14)	991,000	59,900	NA	NA
Exports: 5/					
Ores and concentrates 6/	(15)	45,300	2,110	NA	NA
Refined	(15)	22,500	814	NA	NA

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.
XX Not applicable.

1/ Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

2/ Numbers in parentheses refer to the detailed tables where these data are located.

3/ Monthly data and 2001 cumulative data estimated based on 2000 monthly average.

4/ Source: Platts Metals Week.

5/ Source: U.S. Census Bureau.

6/ Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES 1/

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others 2/	Total	Electrowon	Concentrates 3/	Total
2001: p/						
January - June	440,000 r/	249,000	689,000 r/	301,000	397,000	699,000
June	75,800	39,500	115,000	55,200	61,700	117,000
July	72,900	37,000	110,000	54,500	56,300	111,000
August	73,600	35,900	109,000	55,500	55,500	111,000
September	73,000	33,600	107,000	53,800	54,200	108,000
October	76,800	36,600	113,000	55,000	60,000	115,000
November	73,000	29,000	102,000	54,100	49,300	103,000
December	75,900	35,800	112,000	54,200	59,100	113,000
Year	885,000	457,000	1,340,000	628,000	732,000	1,360,000
2002:						
January	65,500 r/	28,600	94,100 r/	52,800	42,500	95,300
February	59,800	31,000	90,800	46,200	45,900	92,000
March	65,500	35,200	101,000	50,800	51,200	102,000
April	62,100 r/	32,800	94,900 r/	50,600	45,500 r/	96,000 r/
May	64,100 r/	29,900	94,000 r/	49,900	45,300 r/	95,300 r/
June	63,600	29,800	93,400	49,400	45,300	94,700
January - June	381,000	187,000	568,000	300,000	276,000	575,000

p/ Preliminary. r/ Revised.

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

2/ Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

3/ Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN THE
UNITED STATES, BY SOURCE 1/ 2/

(Metric tons, copper content)

Period	Domestic and foreign ores	Scrap	Total
2001: p/			
January - June	W	W	480,000 r/
June	W	W	79,300 r/
July	W	W	62,400 r/
August	W	W	70,300 r/
September	W	W	71,100 r/
October	W	W	80,500 r/
November	W	W	75,600 r/
December	W	W	79,600 r/
Year	W	W	919,000 r/
2002:			
January	W	W	64,300 r/
February	W	W	50,300 r/
March	W	W	61,900 r/
April	W	W	60,400 r/
May	W	W	62,300 r/
June	W	W	56,100
January - June	W	W	355,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data included in "Total."

1/ Includes blister, anode and black copper from primary or secondary sources.

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

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap	Total refined
	Electrolytic 2/		Electrowon	Total		
	Domestic 3/	Foreign				
2001: p/						
January - June r/	426,000	84,800	301,000	812,000	102,000	913,000
June	70,900 r/	15,300 r/	55,200	141,000 r/	15,400 r/	157,000 r/
July	63,100 r/	14,100 r/	54,500	132,000 r/	14,400 r/	146,000 r/
August	50,000 r/	20,700 r/	55,500	126,000	16,700 r/	143,000 r/
September	61,200 r/	18,200 r/	53,800	133,000 r/	14,600 r/	148,000
October	60,500 r/	21,300 r/	55,000	137,000 r/	11,800 r/	149,000 r/
November	72,300 r/	18,500 r/	54,100	145,000 r/	7,220 r/	152,000 r/
December	74,700 r/	14,800 r/	54,100	144,000 r/	5,980 r/	150,000 r/
Year	808,000 r/	192,000 r/	628,000	1,630,000 r/	172,000 r/	1,800,000 r/
2002:						
January	66,100 r/	10,600 r/	52,800	129,000 r/	6,920 r/	136,000 r/
February	57,900 r/	8,410 r/	46,200	113,000 r/	7,630 r/	120,000 r/
March	55,900 r/	10,700 r/	50,800	117,000 r/	7,090 r/	124,000 r/
April	62,300 r/	10,300 r/	50,600	123,000 r/	7,630	131,000 r/
May	76,100 r/	W	49,900	126,000 r/	8,180	134,000 r/
June	70,000	W	49,400	119,000	8,060	127,000
January - June	428,000	W	300,000	728,000	45,500	773,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

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

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, copper content)

Period	Refineries 2/		Ingot makers 3/		Brass and wire-rod mills		Foundries, etc. 3/		Total 4/
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2001: p/									
January - June	17,100 r/	84,600 r/	15,000 r/	45,400 r/	363,000 r/	10,600	7,360 r/	26,200 r/	569,000 r/
June	2,730	12,600 r/	2,490	7,560	57,300	1,060	1,230	4,360	89,400 r/
July	3,470	11,000 r/	2,490	7,560	52,000	969	1,230	4,360	83,100 r/
August	4,340	12,300 r/	2,490	7,560	57,300	1,790	1,230	4,360	91,500 r/
September	3,130	11,400 r/	2,490	7,560	56,100	1,140	1,230	4,360	87,500 r/
October	3,720	8,090 r/	2,490	7,560	62,500	1,790	1,230	4,360	91,800 r/
November	2,230	4,990 r/	2,490	7,560	57,800	1,640	1,230	4,360	82,300 r/
December	1,840	4,140 r/	2,490	7,560	58,500	1,880	1,230	4,360	82,000
Year	35,800	137,000 r/	29,900	90,700	707,000	19,800	14,700	52,400	1,090,000 r/
2002:									
January	3,110	3,810 r/	2,490	7,560	60,500	1,790	1,230	4,360	84,800 r/
February	3,350	4,270 r/	2,490	7,560	62,600	1,820	1,230	4,360	87,700 r/
March	2,910	4,180 r/	2,490	7,560	65,400	1,770	1,230	4,360	89,900 r/
April	3,300	4,320 r/	2,490	7,560	64,000	904	1,230	4,360	88,100
May	3,710	4,470	2,490	7,560	64,700 r/	1,840	1,230	4,360	90,400 r/
June	3,610	4,450	2,490	7,560	70,000	1,780	1,230	4,360	95,500
January - June	20,000	25,500	15,000	45,400	387,000	9,890	7,360	26,200	536,000

p/ Preliminary. r/ Revised.

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

2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.

3/ Monthly data and 2001 cumulative data estimated based on 2000 annual data.

4/ Does not include an estimate, based on reported 2000 data, of 3,790 tons per month from new scrap and 2,380 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2001: p/						
January - June	757,000 r/	945,000 r/	759,000 r/	944,000 r/	XX	XX
June	123,000	150,000	127,000	150,000	50,200	30,300
July	107,000	158,000	107,000	156,000	50,100	30,100
August	128,000	163,000	128,000	163,000	49,700	30,000
September	122,000	158,000	121,000	159,000	50,800	28,800
October	124,000	164,000	123,000	165,000	52,000	25,700
November	116,000	157,000	117,000	155,000	52,300	27,700
December	113,000	139,000	111,000	140,000	54,200 r/	25,800
Year	1,470,000	1,880,000	1,470,000	1,880,000	XX	XX
2002:						
January	123,000	143,000	125,000	143,000	49,500	25,600
February	122,000	139,000	123,000	135,000	48,500	28,900
March	131,000	148,000	130,000	147,000	48,900	29,200
April	130,000	155,000	130,000	158,000 r/	48,800	26,500
May	131,000 r/	154,000	132,000 r/	156,000 r/	48,200 r/	24,100 r/
June	134,000	150,000	133,000	149,000	51,900	25,100
January - June	770,000	888,000	774,000	889,000	XX	XX

p/ Preliminary. r/ Revised. XX Not applicable.

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

TABLE 7
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants 2/	Total
2001: p/				
January - June	1,000,000	343,000 r/	31,300 r/	1,380,000 r/
June	157,000	54,900	5,220	217,000
July	161,000	44,900	5,220	211,000
August	160,000	53,100	5,220	218,000
September	155,000	47,400	5,220	208,000
October	164,000	46,600	5,220	216,000
November	151,000	45,700	5,220	202,000
December	135,000	41,800	5,220	182,000
Year	1,930,000	623,000	62,600	2,610,000
2002:				
January	140,000	46,600	5,220	192,000
February	138,000	47,500	5,220	191,000
March	147,000	51,400	5,220	204,000
April	156,000	51,400	5,220	213,000
May	155,000 r/	58,600 r/	5,220	218,000 r/
June:				
Cathodes	151,000	41,300	1,210	194,000
Wire bars	--	--	W	W
Ingots and ingot bars	--	1,520	1,760	3,280
Cakes and slabs	857	W	W	857
Billets and other	--	12,200	2,250	14,500
Total	152,000	55,000	5,220	212,000
January - June	888,000	311,000	31,300	1,230,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Billets and other." -- Zero.

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

2/ Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2000 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Refined general imports 3/	Refined exports 3/	Stock change during period	Apparent consumption
2001: p/						
January - May	670,000 r/	143,000 r/	492,000	9,040	183,000 r/	1,110,000 r/
May	143,000	25,400	72,400	1,020	13,400	226,000
June	141,000 r/	28,200	89,000	815	45,100 r/	213,000 r/
July	132,000 r/	26,500	95,800	1,650	109,000	143,000 r/
August	126,000 r/	28,700	80,900	2,590	30,400 r/	203,000
September	133,000 r/	27,100	114,000	1,190	89,500 r/	184,000 r/
October	137,000 r/	24,400	78,600	4,630	34,900 r/	200,000 r/
November	145,000 r/	21,200	148,000	5,290	68,500	240,000 r/
December	144,000	20,600	101,000	571	56,200	208,000
Year	1,630,000 r/	312,000	1,200,000	25,800	618,000	2,500,000
2002:						
January	129,000 r/	20,100 r/	134,000	393	49,300 r/	234,000 r/
February	113,000 r/	20,600 r/	113,000	699	29,200 r/	216,000 r/
March	117,000 r/	20,500 r/	64,300	3,150	22,900	176,000 r/
April	123,000 r/	19,800	105,000	652	15,600 r/	232,000 r/
May	126,000 r/	20,900 r/	70,200	814	(15,100)r/	231,000
June	119,000	20,800	NA	NA	(24,500)	NA
January - May	608,000	102,000	487,000	5,710	102,000	1,090,000

p/ Preliminary. r/ Revised. NA Not available.

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

2/ Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2000 data.

3/ Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers 2/		Brass and wire-rod mills 3/		Foundries, etc. 2/		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2001: p/									
January - June	31,800 r/	84,300 r/	22,000 r/	62,500 r/	462,000 r/	11,000	13,100 r/	28,400 r/	715,000 r/
June	3,400	14,800 r/	3,670	10,400	73,300	1,120	2,180	4,740	114,000 r/
July	3,590	15,000 r/	3,670	10,400	65,700	1,010	2,180	4,740	106,000 r/
August	4,270	16,600 r/	3,670	10,400	73,000	1,840	2,180	4,740	117,000 r/
September	3,730	14,800 r/	3,670	10,400	71,200	1,190	2,180	4,740	112,000 r/
October	3,990	4,800 r/	3,670	10,400	79,200	1,840	2,180	4,740	111,000 r/
November	3,660	3,460 r/	3,670	10,400	73,100	1,660	2,180	4,740	103,000 r/
December	3,610	2,240 r/	3,670	10,400	73,900 r/	1,930	2,180	4,740	103,000 r/
Year	54,600	141,000 r/	44,000	125,000	898,000 r/	20,400	26,200	56,800	1,370,000 r/
2002:									
January	3,530	2,500 r/	3,670	10,400	76,600	1,840	2,180	4,740	105,000 r/
February	4,120	3,410 r/	3,670	10,400	79,100	1,880	2,180	4,740	110,000 r/
March	3,940	3,030 r/	3,670	10,400	82,700	1,830	2,180	4,740	112,000 r/
April	4,160	3,340 r/	3,670	10,400	80,600	951	2,180	4,740	110,000 r/
May	4,290	3,780 r/	3,670	10,400	81,500 r/	1,900	2,180	4,740	113,000 r/
June	4,290	3,650	3,670	10,400	88,300	1,840	2,180	4,740	119,000
January - June	24,300	19,700	22,000	62,500	489,000	10,200	13,100	28,400	669,000

p/ Preliminary. r/ Revised.

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

2/ Monthly data and 2001 cumulative data estimated from 2000 annual data.

3/ Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/ 2/

(Metric tons, gross weight)

Scrap type and processor	2001 p/		2002			
	January - June	Year	April	May	June	January - June
No. 1 wire and heavy:						
Smelters and refiners	36,600 t/	73,200 t/	5,900	6,210	6,240	33,800
Brass and wire-rod mills	203,000 t/	395,000	35,000	36,400 t/	39,000	216,000
No. 2 mixed heavy and light:						
Smelters and refiners	60,200 t/	103,000 t/	4,700 t/	4,960 t/	4,800	28,800
Brass and wire-rod mills	3,170	5,340	312	312	332	1,720
Total unalloyed scrap:						
Smelters and refiners	96,800 t/	176,000 t/	10,600 t/	11,200 t/	11,000	62,600
Brass and wire-rod mills	206,000 t/	400,000	35,300	36,700 t/	39,300	218,000
Red brass: 3/						
All plants	29,800 t/	57,400 t/	4,680	4,860	4,660	27,300
Leaded yellow brass:						
All plants	184,000 t/	353,000	30,000	31,100	31,300	183,000
Yellow and low brass:						
All plants	54,400 t/	109,000 t/	9,350	9,190	10,600	56,800
Cartridge cases and brass:						
Smelters and refiners	W	W	W	W	W	W
Brass mills	17,600 t/	35,500	4,120	3,840	6,920	26,900
Auto radiators:						
Smelters and refiners	23,500 t/	45,700 t/	3,490	3,490	3,490	20,900
Bronzes:						
Smelters and refiners	5,470 t/	10,900 t/	912	912	912	5,470
Brass mills	3,950 t/	8,300	941	933	943	5,660
Nickel-copper alloys:						
All plants	10,800 t/	18,600 t/	1,590	1,280 t/	931	8,680
Low grade and residues:						
Smelters and refiners	31,100 t/	50,000	1,110	1,110	1,110	6,670
Other alloy scrap: 4/						
Smelters and refiners 5/	5,650 t/	8,890 t/	138	138	138	828
Brass mills	2,740 t/	5,570	550	550	565	3,320
Total alloyed scrap:						
Smelters and refiners	102,000 t/	185,000 t/	10,700	10,700	10,700	64,200
Brass mills	267,000 t/	518,000	46,200	46,700	50,800	281,000
Total scrap:						
Smelters and refiners	199,000 t/	361,000 t/	21,300 t/	21,900 t/	21,700	127,000
Brass and wire-rod mills	473,000 t/	919,000	81,500	83,400 t/	90,200	499,000

p/ Preliminary. t/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

1/ Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,920 tons of scrap per month in 2000; monthly data include estimates of about 15,500 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

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

3/ Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

4/ Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

5/ Includes items indicated by symbol W.

TABLE 11
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper				Comex 5/	LME 6/	Total refined
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/			
2001: p/								
June	93,900 r/	26,300 r/	30,200	20,200	4,680	150,000	333,000	564,000
July	89,500	19,700 r/	30,800	22,700	4,680	160,000	435,000	673,000
August	93,100	17,800 r/	28,900	23,100	4,680	170,000	459,000	703,000 r/
September	88,100	17,700	28,200	21,100	4,680	181,000	540,000	793,000
October	105,000	19,300 r/	25,700	20,100	4,680	191,000	566,000	828,000
November	88,500	24,300 r/	26,600	24,700	4,680	215,000	601,000	896,000
December	98,000	28,600 r/	32,900	25,500	4,680	244,000	617,000	952,000 r/
2002:								
January	99,200 r/	26,500 r/	33,100	25,000	4,680	258,000	654,000	1,000,000
February	89,200 r/	28,700	14,100	25,100	4,680	275,000	683,000	1,030,000
March	96,000 r/	22,100	15,100	23,700	4,680	284,000	704,000	1,050,000
April	91,000 r/	19,400 r/	20,300	22,300	4,680	296,000	707,000	1,070,000
May	92,700 r/	14,600	19,000 r/	21,000 r/	4,680	304,000	691,000	1,050,000
June	90,600	18,700	18,200	19,700	4,680	322,000	646,000	1,030,000

p/ Preliminary. r/ Revised.

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

2/ Copper content of blister and other materials in transit and in process of refining.

3/ Stocks of refined copper as reported; no estimates are made for nonrespondents.

4/ Monthly estimates based on reported and 2000 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND
ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode 1/	Comex first position 2/	LME cash price Grade A
2001:			
June	75.501	72.573	72.943
July	72.261	69.438	69.166
August	71.559	67.341	66.407
September	69.628	65.428	64.682
October	67.422	63.204	62.460
November	70.560	66.093	64.747
December	72.050	67.832	66.740
Year	76.854	72.567	71.574
2002:			
January	73.944	69.786	68.202
February	76.384	72.226	70.831
March	78.683	74.525	72.779
April	76.966	73.107	72.118
May	77.378	73.220	72.362
June	80.386	76.228	74.715
January - June	77.290	73.182	71.835

1/ Listed as "U.S. producer cathode."

2/ Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Dealers (New York)			
	Brass mills No. 1 scrap	Refiners No. 2 scrap	No. 2 scrap	Red brass turnings and borings
2001:				
June	68.29	57.99	51.52	42.00
July	66.46	57.50	50.00	42.00
August	64.33	55.37	46.00	39.00
September	63.39	54.46	46.00	40.00
October	61.39	52.78	44.48	38.39
November	63.45	53.82	40.09	37.09
December	65.87	54.47	41.47	37.00
Year	69.62	58.96	48.76	40.63
2002:				
January	67.36	55.62	41.19	38.10
February	69.42	57.29	43.00	37.00
March	72.24	59.76	43.00	39.00
April	71.82	54.00	44.00	38.91
May	71.98	60.39	44.00	37.00
June	74.78	63.15	44.00	37.00
January - June	71.27	58.37	43.20	37.84

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	2001	January - May	May	2001	January - May	May	2001	January - May	May	2001	January - May	May
Brazil	--	--	--	--	--	--	--	--	--	12,000	1,330	18,400
Canada	7,210	3,210	7,530	43	--	75	79,700	8,420	35,800	270,000	20,700	131,000
Chile	51,800	30,100	67,900	--	--	--	87,700	5,170	13,200	174,000	12,100	76,100
Indonesia	20,000	--	--	--	--	--	--	--	--	--	--	--
Italy	--	--	--	--	--	--	12,200	--	--	--	--	--
Japan	--	--	--	(2/)	--	--	--	--	--	8,660	474	3,050
Kazakhstan	--	--	--	--	--	--	--	--	--	82,400	--	2,060
Mexico	2,550	--	--	317	--	--	48,900	1,130	4,160	131,000	4,830	25,100
Namibia	--	--	--	--	--	--	6,840	--	2,850	--	--	--
Peru	40,200	--	10,400	--	--	--	22,600	--	4,730	280,000	18,200	110,000
Philippines	--	--	--	--	--	--	4,990	--	--	999	--	--
Russia	--	--	--	--	--	--	115	--	--	22,800	1,640	3,870
Spain	--	--	--	--	--	--	4,420	--	--	--	--	--
Taiwan	--	--	--	560	35	220	--	--	--	34	--	--
Turkey	--	--	10,000	--	--	--	--	--	--	--	--	--
Other	--	--	2	25	--	2	3,510	(2/)	1	8,790	694	6,710
Total	122,000	33,300	95,900	945	35	297	271,000	14,700	60,800	991,000	59,900	376,000

-- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	2001	January - May	May	2001	January - May	May	2001	January - May	May	2001	January - May	May
Belgium	18	--	21	--	(2/)	(2/)	1,550	--	179	30	--	--
Canada	30,300	1,960	8,120	6,860	255	1,100	13,800	1,320	7,830	6,520	614	1,860
China	2,310	54	605	3	43	44	87	40	86	8,520	--	6
Egypt	--	--	--	--	--	--	2	--	--	2,160	--	2,200
France	1	--	--	64	--	--	2,130	--	40	62	5	33
Germany	443	21	28	50	--	35	982	--	40	169	1	24
Hong Kong	87	3	11	2	--	103	2,470	178	1,070	2,330	--	31
India	8	--	--	261	--	152	125	17	37	--	121	353
Israel	836	--	--	18	--	--	65	--	8	6	11	14
Italy	20	--	--	--	--	--	376	--	90	27	--	--
Japan	19	--	16	8	101	1,280	216	--	20	460	--	2
Korea, Republic of	699	--	187	1,090	--	5	1,320	33	259	78	33	365
Mexico	9,130	65	2,290	15,300	274	4,740	22	4	21	821	15	63
Singapore	159	--	60	(2/)	--	(2/)	407	20	179	14	--	--
Taiwan	347	--	4	50	22	64	1,130	69	468	146	7	29
Thailand	22	--	3	--	--	--	264	18	88	--	--	--
United Kingdom	280	--	(2/)	49	--	--	451	20	165	457	--	438
Venezuela	501	--	--	--	--	--	5	--	6	140	--	205
Vietnam	--	--	--	--	--	--	120	--	--	--	--	--
Other	143	10	59	144	3	20	524	71	282	576	7	96
Total	45,300	2,110	11,400	23,900	699	7,540	26,000	1,790	10,900	22,500	814	5,710

-- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2002			2002			2002			2002		
	2001	January -		2001	January -		2001	January -		2001	January -	
	May	May		May	May		May	May		May	May	
Belgium	--	--	--	388	--	--	1,260	143	742	1,470	350	2,440
Canada	10,600	1,850	6,310	45,800	3,930	16,100	38,700	1,520	7,920	33,100	1,890	11,000
China	41	--	--	15	--	239	156,000	10,300	47,900	136,000	15,400	56,300
Colombia	--	--	--	899	323	457	--	--	--	18	--	2
Costa Rica	868	70	443	635	35	187	--	--	--	3	--	2
Dominican Republic	1,550	117	650	1,570	105	447	--	--	--	--	--	--
France	--	--	--	188	17	67	11	--	823	59	64	279
Germany	27	--	--	62	--	17	6,500	1,120	7,280	9,480	1,710	7,930
Guatemala	499	33	249	1,990	107	497	--	--	--	--	--	--
Honduras	484	42	85	656	27	105	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	4,300	986	3,920	5,440	721	3,140
India	--	--	--	--	--	--	2,770	226	1,520	33,400	3,480	20,300
Italy	309	19	97	--	--	--	117	6	30	143	--	19
Jamaica	283	34	170	470	--	163	--	--	--	--	--	--
Japan	169	10	34	--	--	13	13,800	1,140	4,690	13,200	652	3,660
Korea, Republic of	--	--	19	20	19	40	24,400	940	6,400	17,800	1,680	9,100
Mexico	13,500	1,230	4,100	24,000	1,480	7,410	2,760	167	856	4,370	7	74
Netherlands	--	--	--	20	--	354	109	--	--	963	6	293
Nicaragua	276	21	193	54	5	24	--	--	--	--	--	--
Panama	161	23	132	804	91	422	--	--	--	--	--	79
Peru	347	--	--	112	--	--	--	--	--	--	--	--
Spain	--	--	--	47	--	(2/)	549	18	37	2,710	229	1,660
Switzerland	--	--	--	45	--	--	596	--	20	3,720	90	967
Taiwan	--	--	15	554	34	186	9,120	560	4,040	5,870	877	3,220
United Kingdom	64	18	45	919	205	726	36	--	--	570	228	368
Venezuela	42	3	42	874	747	1,190	--	--	--	--	--	--
Other	992	57	287	4,250	185	917	868	261	868	3,500	104	950
Total	30,300	3,520	12,900	84,400	7,310	29,600	262,000	17,400	87,100	272,000	27,400	122,000

-- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.