

Annual Data 2020

Copper Supply & Consumption — 1999–2019



Preface

Statistical data on the supply and consumption of copper and copper alloys in the United States are available from many governmental and private sources. In this report, original data from these sources are brought together and rationalized by CDA and Global Market Consultants, Inc. (GMC) to provide a set of data on U.S. copper supply and consumption that is both consistent and accurate in all aspects from mine to end-use market.

The main sources of information assembled here are the U.S. Geological Survey in the U.S. Department of the Interior, the Bureau of the Census in the U.S. Department of Commerce, and Copper Development Association Inc. Where data from different sources are conflicting, and where original data appear to be in error, the best judgment has been applied. General sources are shown in the tables throughout the report. Those interested to know the specific sources of any of the data should contact CDA.

The statistics are arranged in a logical sequence to trace the flow of copper in the U.S. economy from mining and scrap collection through smelting, refining and ingot making to the wire rod and wire mills, brass mills, and foundries and then on to the final end-use markets. This flow is shown schematically on pages 4 and 5. On this schematic flow sheet the major statistics of copper supply and consumption in the United States for 2019 appear. Along with each major statistic on the chart, a reference is shown. This reference identifies the table in the report where details on that item, from 1999 through 2019, will be found. Most data for 2019 are preliminary.

There are four major tables in the report. **Table 1** covers the supply of primary copper. **Table 2** presents data on the supply of copper from secondary sources. In **Table 3**, statistics on the consumption of primary and secondary metals by mills, foundries and other industries are summarized. These three tables are provided by GMC.

Finally, **Table 4** details the supply of mill, foundry and powder products and their consumption in the five end-use market areas. In each of these tables, additions to the flow (such as net imports) are indicated as positive numbers, while subtractions from the flow (such as melting losses or net additions to stocks) are shown in parentheses.

The arrangement of the data in the report can be illustrated with an example. Consider Mine Production, the upper left-hand box in the flow sheet on **page 4**. As shown in the box, mine production of copper in the United States totaled 1,412 thousand short tons in 2019. Beneath this figure a number appears referring to **Table 1**, abbreviated 1 (1). This means that in **Table 1**, on Line (1), mine production is shown for the full period 1999 through 2019. In **Table 1**, on Line (1), a further reference will be found after the item heading Mine Production, directing the reader elsewhere on page 6. In fact, on page 6, a table entitled **Table 1, Item 1** presents the data on mine production by state for 1999 through 2019. In this way all the data on supply and consumption appear in logical sequence proceeding through the report, eliminating the need for explanatory text.

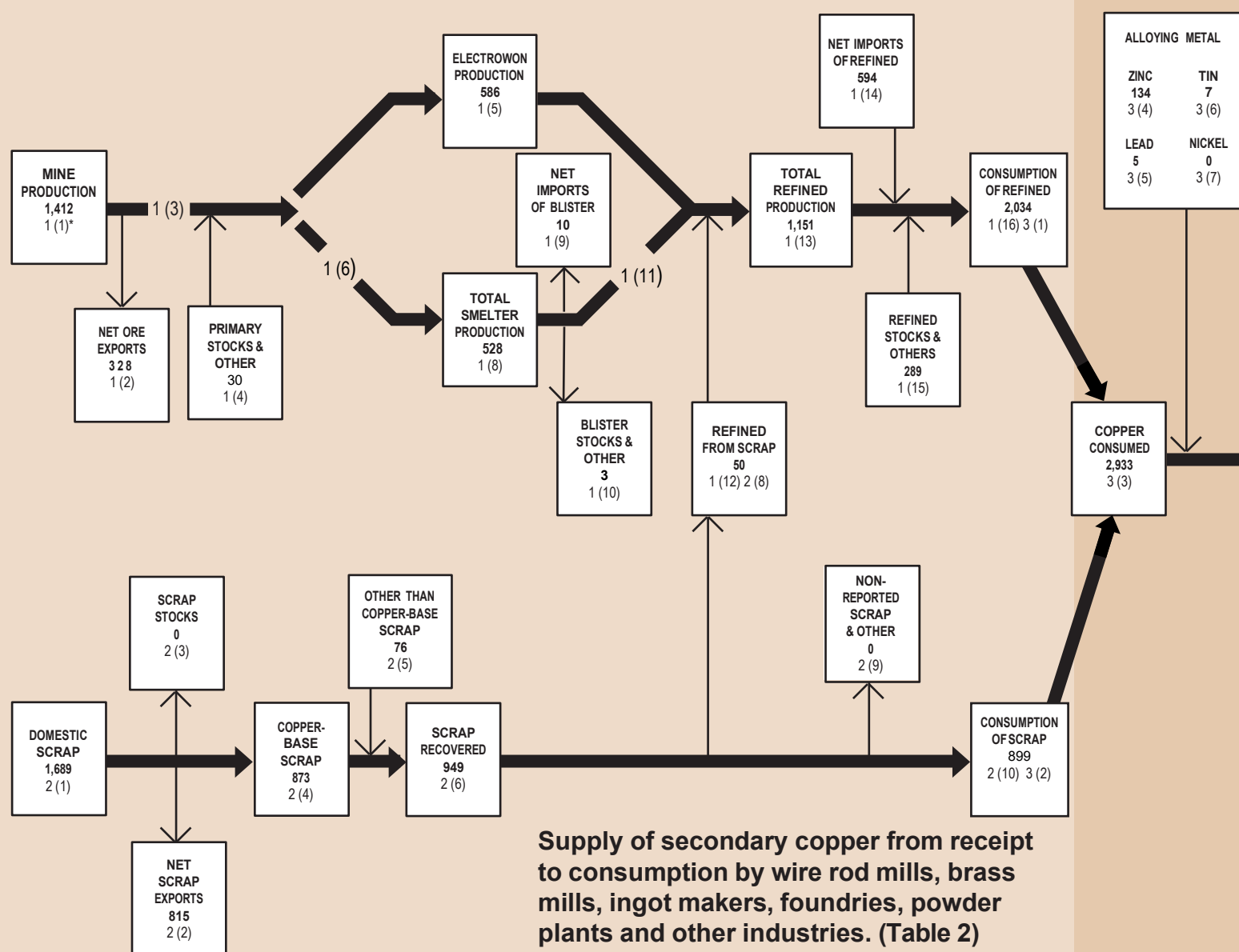
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Copper supply and consumption in the United States – 2019

Supply of primary copper from mine to consumption by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries. (Table 1)

COPPER CONTENT, thousands of short tons



Supply of secondary copper from receipt to consumption by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries. (Table 2)

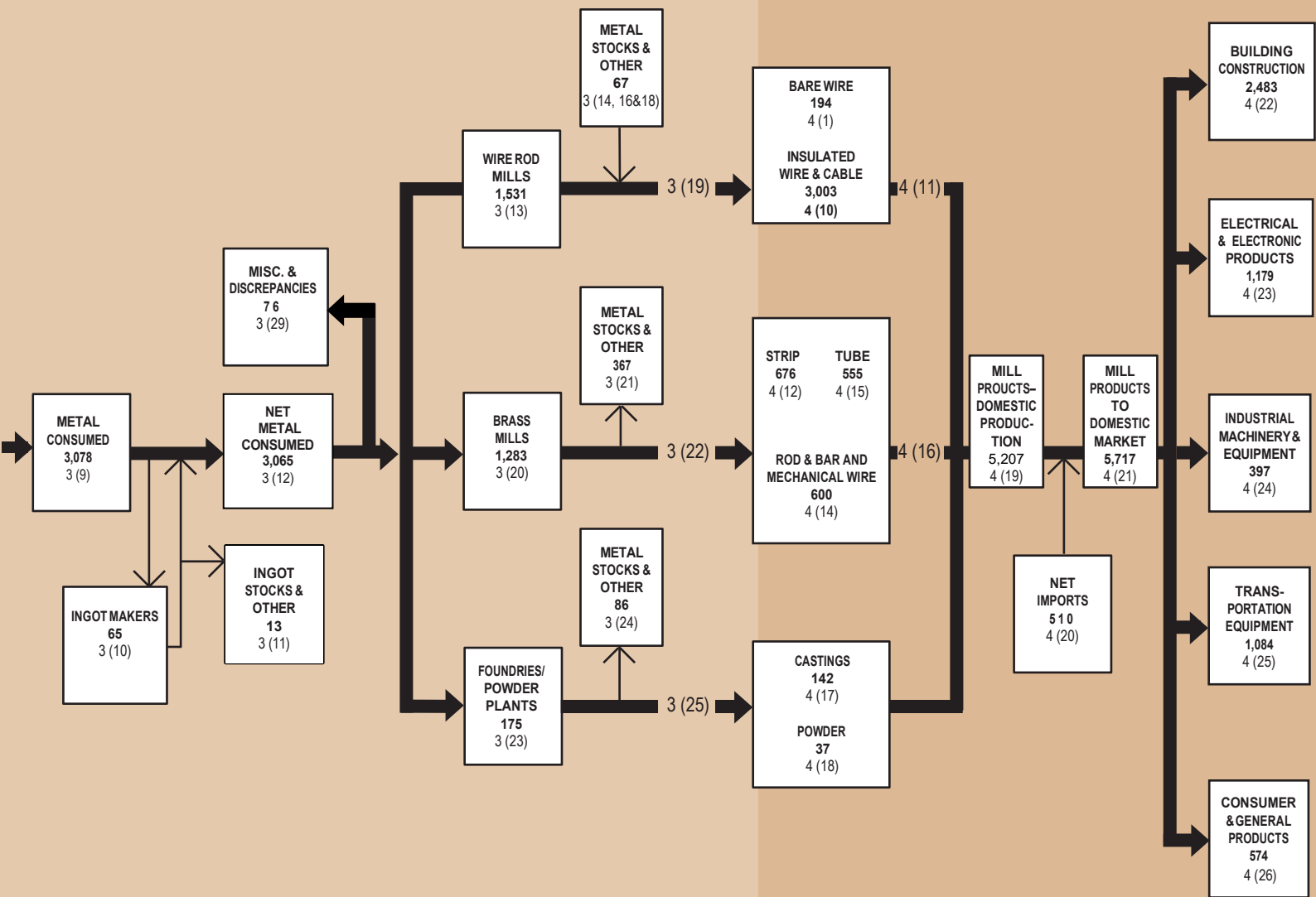
COPPER CONTENT, thousands of short tons

*1 (1) Refers to table and item in report where data for 1999 through 2019 appear.

Note: Numbers may not sum due to rounding.

Consumption of metals by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries. (Table 3)

METAL CONTENT, thousands of short tons



Supply of wire mill, brass mill, foundry and powder products and their consumption in the end-use markets. (Table 4)

METAL CONTENT, millions of pounds

Table 1.
Supply of primary copper from mine to consumption by wire rod mills,
brass mills, ingot makers, foundries, powder plants and other industries

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
(1) Mine Production (page 6).....	1,763	1,598	1,477	1,256	1,230	1,275	1,257	1,319	1,287	1,444	1,302	1,224	1,227	1,290	1,376	1,490	1,551	1,576	1,388	1,347	1,412
(2) Net Ore/Conc./Matte Imports (page 8) ^(a)	50	(225)	(24)	36	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(261)	(325)	(379)	(452)	(432)	(365)	(246)	(243)	(328)
(3) Total Primary.....	1,813	1,373	1,453	1,292	1,234	1,251	1,062	1,097	1,074	1,063	1,136	1,074	966	965	997	1,038	1,119	1,212	1,142	1,104	1,084
(4) Primary Stocks and Other.....	35	185	164	123	12	(10)	126	39	162	127	46	62	120	89	96	104	110	87	(10)	74	30
(5) Electrowon Production.....	646	613	692	662	652	644	611	584	556	560	525	474	493	519	524	567	648	678	614	586	586
(6) Smelter Production from Primary.....	1,202	945	925	753	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	528
(7) Smelter Production from Scrap.....	226	157	88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(8) Total Smelter Production (page 8).....	1,428	1,102	1,013	753	594	597	577	552	680	630	658	663	593	535	569	575	581	621	518	591	528
(9) Net Imports of Blister/Anode (page 8).....	179	178	270	127	144	115	100	167	152	110	49	10	(15)	(15)	(11)	(12)	(11)	(10)	(10)	(10)	(10)
(10) Blister/Anode Stocks and Other (page 9)...	5	(3)	(87)	48	(9)	27	45	24	23	51	(9)	22	23	21	14	28	(16)	12	24	12	(3)
(11) Refined Production from Blister/Anode.....	1,612	1,277	1,196	928	729	740	721	744	855	791	699	694	601	541	571	591	553	623	532	593	515
(12) Refined Production from Scrap.....	81	87	72	77	59	56	52	49	51	60	51	42	41	44	52	51	54	51	44	45	50
(13) Total Refined Production (page 9).....	2,339	1,977	1,960	1,667	1,440	1,439	1,384	1,378	1,462	1,411	1,275	1,210	1,135	1,104	1,146	1,208	1,255	1,352	1,191	1,225	1,151
(14) Net Imports of Refined (page 9).....	981	1,019	1,295	1,136	622	636	1,023	1,117	861	776	643	581	734	519	685	543	661	633	792	648	594
(15) Refined Stocks and Other (page 10).....	(29)	339	(368)	(197)	462	587	99	(168)	33	41	(101)	157	68	317	182	181	66	12	2	123	289
(16) Consumption of Refined (page 10).....	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	2,034

Source: U.S. Department of the Interior, U.S. Geological Survey
p - preliminary, r - revised
(a) - Included with domestic ore.
Numbers may not sum due to rounding.

Table 1, Item 1.
Copper content of mine production in the United States¹

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Arizona.....	1,157	1,024	969	845	817	797	761	785	806	923	784	775	828	843	876	980	1,086	1,068	957	883	955
Other States ^(a)	606	574	508	411	413	478	496	535	482	521	518	448	399	446	499	510	465	508	431	464	458
TOTAL.....	1,763	1,598	1,477	1,256	1,230	1,275	1,257	1,319	1,287	1,444	1,302	1,224	1,227	1,290	1,376	1,490	1,551	1,576	1,388	1,347	1,412

Source: U.S. Department of the Interior, U.S. Geological Survey
p - preliminary, r - revised
(a) - Includes California, Colorado, Idaho, Illinois, Kentucky, Maine, Michigan, Missouri, Montana, Nevada, New Mexico, Oregon, Pennsylvania, Tennessee, Utah and Washington.
(1) Copper content of concentrates, precipitates, or electrowon.
Numbers may not sum due to rounding.

Table 1, Item 1a.

Copper content of world mine production

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Australasia																					
Australia.....	792	914	960	968	915	941	1,010	947	960	974	941	959	1,058	1,015	1,100	1,070	1,062	1,045	948	1,079	1,034
Papua New Guinea.....	207	224	225	233	216	191	213	214	187	176	184	176	144	138	116	84	53	88	116	106	116
Total Australasia.....	999	1,138	1,185	1,201	1,131	1,133	1,223	1,161	1,147	1,150	1,125	1,135	1,202	1,153	1,217	1,153	1,115	1,134	1,064	1,185	1,150
Americas																					
Argentina.....	220	160	211	225	219	194	206	199	199	173	158	155	129	150	121	113	68	90	37	19	0
Brazil.....	32	34	33	34	30	109	144	158	227	243	228	236	238	244	299	324	382	369	424	425	398
Canada.....	684	699	698	665	615	620	656	665	657	669	540	579	624	638	697	767	769	780	668	598	631
Chile.....	4,840	5,073	5,224	5,049	5,406	5,966	5,865	5,909	6,125	5,873	5,941	5,973	5,801	5,990	6,367	6,338	6,363	6,121	6,067	6,428	6,380
Mexico.....	420	402	409	363	394	447	473	368	372	272	263	298	485	551	531	568	655	845	818	828	847
Peru.....	591	611	796	931	929	1,142	1,113	1,156	1,312	1,398	1,407	1,375	1,362	1,431	1,516	1,521	1,875	2,595	2,696	2,686	2,707
United States.....	1,763	1,598	1,477	1,256	1,230	1,275	1,257	1,319	1,288	1,444	1,302	1,224	1,227	1,290	1,376	1,488	1,551	1,576	1,576	1,389	1,412
Total Americas.....	8,550	8,577	8,848	8,523	8,823	9,754	9,715	9,774	10,180	10,072	9,838	9,839	9,866	10,294	10,907	11,118	11,662	12,377	12,285	12,374	12,375
Europe																					
Bulgaria.....	107	103	107	105	103	104	104	122	121	116	116	116	126	119	121	121	121	121	121	121	121
Poland.....	511	501	522	554	546	585	564	548	498	473	484	469	470	471	473	464	469	468	462	442	440
Portugal.....	110	84	91	85	85	105	99	87	99	99	96	82	88	81	84	83	90	84	75	54	46
Scandinavia.....	89	99	95	95	108	108	112	110	84	78	76	101	107	119	134	135	129	139	174	169	151
Serbia.....	57	51	30	34	23	13	14	13	18	21	21	0	—	—	—	—	—	—	48	50	51
Total Europe.....	873	838	845	873	865	916	893	880	821	786	793	767	791	790	812	803	810	813	880	836	808
Asia																					
Russian Federation.....	590	584	595	730	694	694	705	744	761	777	745	775	799	794	799	816	769	755	796	852	871
Armenia.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	56	91	113	124	84	116
China.....	737	795	802	780	816	977	998	1,126	1,043	1,205	1,171	1,300	1,402	1,642	1,891	1,963	1,881	2,095	1,881	1,754	1,795
India.....	38	37	38	34	32	33	25	32	36	31	33	36	40	33	43	32	33	34	35	38	31
Indonesia.....	866	1,107	1,155	1,282	1,106	929	1,174	900	870	717	1,098	962	599	439	561	418	638	802	686	718	398
Iran.....	143	143	146	146	162	161	181	238	269	273	289	283	334	271	246	239	272	319	333	349	344
Kazakhstan ⁽³⁾	412	474	518	522	535	509	443	479	448	465	448	419	479	460	493	484	489	535	535	699	767
Laos ⁽⁴⁾	—	—	—	—	—	—	—	—	—	—	—	—	—	—	171	176	185	185	169	167	156
Mongolia ⁽⁵⁾	—	—	—	—	—	—	—	—	146	143	142	139	137	137	219	295	366	387	343	336	322
Philippines.....	41	35	26	21	22	18	18	19	24	24	52	65	70	72	102	99	93	92	75	72	78
Turkey.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	134	119	110	91	88	81
Total Asia.....	2,827	3,175	3,280	3,515	3,367	3,322	3,544	3,538	3,598	3,634	3,976	3,979	3,859	3,848	4,525	4,711	4,937	5,426	5,067	5,157	4,958
Africa																					
Congo.....	34	36	42	42	70	82	111	141	157	236	332	401	529	619	925	1,008	1,002	1,084	1,169	1,370	1,415
Namibia.....	—	6	17	20	18	15	12	7	11	10	—	—	4	6	5	6	15	18	17	7	17
South Africa.....	177	179	123	100	99	96	98	99	107	120	119	113	127	89	84	87	85	72	72	53	58
Zambia.....	309	275	349	376	384	443	477	523	561	612	614	756	864	766	838	776	791	841	875	941	879
Total Africa.....	520	496	531	538	571	636	697	769	836	977	1,065	1,270	1,524	1,480	1,852	1,877	1,893	2,015	2,134	2,371	2,369
Other ⁽⁶⁾	333	339	331	320	320	520	548	600	476	509	741	686	720	856	828	716	673	675	881	813	995
TOTAL WORLD.....	14,103	14,563	15,020	14,970	15,077	16,281	16,620	16,721	17,057	17,127	17,539	17,676	17,962	18,421	20,141	20,380	21,090	22,439	22,309	22,736	22,655

Sources: International Copper Study Group

p - preliminary r -revised

(1) Copper content of concentrates, precipitates, or electrowon.

(2) Included in "Other" starting in 1995.

(3) Kazakhstan reported separately from the Russian Federation starting in 1992; included with Russian Federation for 1986-1991.

(4) Laos no longer included with Other starting in 2013.

(5) Mongolia no longer included with China starting in 2007.

(6) Includes countries from various continents, making the continent totals somewhat low.

Numbers may not sum due to rounding.

Table 1, Item 2.

Imports and exports of copper ore, concentrates, matte, ash and precipitates in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Imports (Ore, Concentrate, Matte, Ash).....	160	2	52	80	32	27	2	2	3	2	0	2	17	7	5	0	0	0	16	35	36
Exports (Ore, Concentrate, Matte, Ash).....	(110)	(227)	(76)	(44)	(28)	(51)	(197)	(224)	(217)	(383)	(166)	(151)	(278)	(332)	(384)	(452)	(432)	(365)	(261)	(279)	(364)
Net Imports (Ore, Concentrate, Matte, Ash) ^(a)	50	(225)	(24)	36	4	(24)	(195)	(222)	(214)	(381)	(166)	(150)	(261)	(325)	(379)	(452)	(432)	(365)	(246)	(243)	(328)

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - () sign denotes net exports.

Numbers may not sum due to rounding.

Table 1, Item 8.

Smelter production of copper in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Smelter Production - Domestic Ore (Table 1, Item 6).....	1,202	945	925	753	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	528
Smelter Production - Foreign Ore	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Smelter Production - Scrap (Table 1, Item 7)	226	157	88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL SMELTER PRODUCTION.....	1,428	1,102	1,013	753	594	597	577	552	680	630	658	662	593	535	569	575	581	621	518	591	528

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - Included with domestic ore.

Numbers may not sum due to rounding.

Table 1, Item 9.

Imports and exports of blister and anode copper in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Imports of Blister/Anode Copper.....	213	204	299	163	173	166	146	188	169	136	75	29	1	1	1	1	0	0	1	0	0
Exports of Blister/Anode Copper.....	(34)	(26)	(29)	(36)	(29)	(51)	(46)	(21)	(17)	(26)	(26)	(19)	(16)	(15)	(12)	(13)	(12)	(10)	(11)	(10)	(10)
Net Imports of Blister/Anode Copper.....	179	178	270	127	144	115	100	167	152	110	49	10	(15)	(15)	(11)	(12)	(11)	(10)	(10)	(10)	(10)

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

Numbers may not sum due to rounding.

Table 1, Item 10.

Blister and anode stocks and other

Copper Content, thousands of short tons																						
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p	
End-of-Year Blister/Anode Copper Stocks.....	152	134	108	49	63	57	49	21	29	27	17	29	14	14	14	11	15	16	14	10	r	29
Net Change ^(a)	(24)	(18)	(26)	(59)	14	(6)	(8)	(28)	8	(2)	(10)	12	(15)	(1)	0	(3)	4	1	(2)	(4)	r	19
Apparent Change ^(b)	(5)	3	87	(48)	9	(27)	(45)	(24)	(23)	(51)	9	(22)	(23)	(21)	(14)	(28)	16	(12)	(24)	(12)		3

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - Net Change - the year-to-year increase (+) or decrease ()

(b) - Apparent Change - the difference between Line 11 and the sum of Lines 8 & 9 in Table 1, required to rationalize the CDA flow sheet. Factors other than changes in stocks are included in the apparent change.

The sign of the data + or () is opposite that shown in Table 1.

Numbers may not sum due to rounding.

Table 1, Item 13.

Production of refined copper in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Refined Production - Primary Sources (Table 1, Items 1,2,4,9 and 10).....	2,032	1,733	1,800	1,590	1,381	1,383	1,332	1,328	1,411	1,351	1,224	1,168	1,093	1,060	1,095	1,157	1,202	1,301	1,146	1,179	1,101
Refined Production - Scrap at Smelters (Table 1, Item 7).....	226	157	88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refined Production - Scrap at Refiners (Table 1, Item 12).....	81	87	72	77	59	56	52	49	51	60	51	42	41	44	52	51	54	51	44	45	50
TOTAL REFINED PRODUCTION.....	2,339	1,977	1,960	1,667	1,440	1,439	1,384	1,378	1,462	1,411	1,275	1,210	1,135	1,104	1,146	1,208	1,255	1,352	1,191	1,225	1,151

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

Numbers may not sum due to rounding.

Table 1, Item 14.

Imports and exports of refined copper in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
General Imports of Refined Copper ¹	1,009	1,126	1,321	1,168	758	776	1,077	1,184	917	798	732	667	739	694	809	683	756	780	896	858	737
Total Exports of Refined Copper.....	(28)	(107)	(26)	(32)	(136)	(140)	(54)	(67)	(56)	(22)	(89)	(86)	(5)	(175)	(125)	(140)	(95)	(148)	(104)	(209)	(143)
Net Imports of Refined Copper.....	981	1,019	1,295	1,136	622	636	1,023	1,117	861	776	643	581	734	519	685	543	661	633	792	648	594

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

¹ General Imports measure the total physical arrivals of merchandise from foreign countries, whether such merchandise enters consumption channels immediately or is entered into bonded warehouses or Foreign Trade Zones under Customs custody.

Numbers may not sum due to rounding.

Table 1, Item 15.

Refined stocks and other

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
End-of year Refined Copper Stocks at:																					
Refineries.....	11	16	32	13	13	11	9	31	24	17	26	11	9	14	17	11	13	5	6	4	12
Wire Rod Mills.....	37	44	41	25	33	22	22	24	23	25	28	22	26	31	36	46	40	29	31	24	19
Brass Mills.....	26	26	28	32	22	24	27	38	11	9	8	7	8	7	7	7	8	8	9	9	7
Other Processors.....	4	5	5	5	5	4	6	6	6	4	5	5	5	5	5	5	8	8	6	6	6
Government.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Commodity Exchange.....	92	65	269	399	281	48	7	34	15	36	99	65	88	71	17	27	70	88	211	110	37
London Metal Exchange ¹	454	225	680	662	369	39	1	83	67	117	312	313	315	132	204	112	92	109	30	115	47
End-of Year Total.....	624	381	1,055	1,136	723	148	73	216	146	207	478	423	451	260	285	208	232	248	292	268	127
Net Change ^(a)	37	(243)	674	81	(413)	(575)	(75)	144	(70)	61	271	(56)	29	(191)	25	(77)	24	14	46	(24)	(141)
Apparent Change ^(b)	29	(339)	368	197	(462)	(587)	(99)	168	(33)	(41)	101	(157)	(68)	(317)	(182)	(181)	(66)	(12)	(2)	(123) r	(289)

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - Net Change - the year-to-year increase (+) or decrease () of refined copper stocks as reported.

(b) - Apparent Change - the difference between Line 16 and the sum of Lines 13 and 14 in Table 1, required to rationalize the CDA flow sheet. Factors other than changes in stocks are included in the apparent change. The sign of the data (+) or () is opposite that shown in Table 1.

¹ Prior to 1995 there were no LME warehouses in the USA.

Numbers may not sum due to rounding.

Table 1, Item 16.

Consumption of refined copper in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Consumption of Refined Copper by:																					
Wire Rod Mills.....	2,458	2,469	2,138	1,885	1,809	1,962	1,852	1,731	1,775	1,642	1,257	1,378	1,400	1,411	1,444	1,400	1,455	1,455	1,455	1,466	1,508
Brass Mills.....	762	797	687	654	647	632	582	540	525	528	500	506	474	467	504	467	465	464	463	462	458
Ingot Makers.....	5	5	5	5	5	5	5	5	5	3	0	0	0	0	0	0	0	0	0	0	0
Foundries and Other Industries ^(a)	66	64	57	62	63	63	67	51	51	55	60	63	62	62	65	65	62	77	67	68	68
Powder Plants ^(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Other Industries.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL REFINED CONSUMPTION....	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	2,034

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - Starting with 1995 Powder Plants data are included with Foundries. Starting in 2008 Ingot Makers data are also included with Foundries.

Numbers may not sum due to rounding.

Table 2.

Supply of secondary copper from receipt to consumption by brass mills, ingot makers, foundries, powder plants and other industries

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
(1) Receipts of Domestic Scrap.....	1,542	1,667	1,570	1,423	1,511	1,557	1,511	1,623	1,570	1,755	1,648	1,810	2,064	2,023	1,978	1,857	1,730	1,824	1,809	1,699 r	1,689
(2) Net Scrap Imports (page 12) ^(a)	(157)	(312)	(384)	(359)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,246)	(1,202)	(1,158)	(1,024)	(930)	(901)	(925)	(832)	(815)
(3) Scrap Stocks (page 12).....	(5)	9	11	3	3	(11)	(9)	(2)	20	0	5	31	0	0	1	(2)	0	(54)	(15)	0 r	0
(4) Recovery from Copper-Base Scrap (page 13)	1,380	1,364	1,198	1,067	977	996	990	992	937	873	803	808	818	821	821	830	800	868	870	868 r	873
(5) Recovery from Other Scrap (page 13)	86	82	69	68	64	68	61	77	83	67	51	57	67	70	71	76	74	74	76	76 r	76
(6) Total Scrap Recovery (page 13).....	1,466	1,446	1,267	1,135	1,041	1,064	1,051	1,069	1,020	940	854	865	885	891	892	906	873	943	946	944 r	949
(7) Smelter Production from Scrap.....	(226)	(157)	(88)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(8) Refined Production from Scrap.....	(81)	(87)	(72)	(77)	(59)	(56)	(52)	(49)	(51)	(60)	(51)	(42)	(41)	(44)	(52)	(51)	(54)	(51)	(44)	(45)	(50)
(9) Non-Reported Scrap & Other.....	55	15	(31)	(2)	8	8	8	8	9	10	9	0	0	0	0	1	1	1	(5)	(0) r	0
(10) Consumption of Scrap (page 13).....	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898 r	899

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - () sign denotes net exports.

Numbers may not sum due to rounding.

Table 2, Item 2.

Imports and exports of copper-base scrap in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Imports of Copper-Base Scrap.....	119	124	100	89	78	88	100	101	124	117	79	106	121	115	117	129	123	138	182	174	159
Exports of Copper-Base Scrap.....	(276)	(436)	(484)	(448)	(616)	(637)	(612)	(729)	(777)	(1,000)	(929)	(1,139)	(1,367)	(1,317)	(1,275)	(1,153)	(1,053)	(1,039)	(1,107)	(1,005)	(974)
Net Imports of Copper-Base Scrap ^(a)	(157)	(312)	(384)	(359)	(538)	(549)	(512)	(628)	(653)	(883)	(850)	(1,033)	(1,246)	(1,202)	(1,158)	(1,024)	(930)	(901)	(925)	(832)	(815)

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - The () sign for each year is used to be consistent with the convention used in Tables 1, 2 and 4, namely that imports are **additions** to the domestic flow, and therefore (+), while exports are **subtractions** from the flow, and therefore ().

Numbers may not sum due to rounding.

Table 2, Item 3.

Copper-base scrap stocks

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Scrap Copper-Base Stocks at:																					
Brass Mills.....	50	50	43	42	40	51	56	58	40	40	36	1	1	2	4	5	5	2	2	2	2
Secondary Smelters & Primary Producers...	23	14	10	8	7	7	12	12	10	11	8	12	10	11	9	9	9	66	81	81 r	81
Foundries.....	5	5	5	5	5	4	4	4	4	3	5	5	7	5	5	5	5	5	5	5	5
Other Processors.....																					
End-of Year Total.....	78	69	58	55	52	63	72	74	54	54	49	18	18	18	17	19	19	73	88	88 r	88
Net Change ^(a)	5	(9)	(11)	(3)	(3)	11	9	2	(20)	(0)	(5)	(31)	(0)	(0)	(1)	2	0	54	15	0 r	0

Source: U.S. Department of the Interior, U.S. Geological Survey.

p - preliminary, r - revised

(a) - Net Change - the year-to-year increase (+) or decrease () of stocks as reported. The sign of the data (+) or () is opposite that shown in Table 2.

Numbers may not sum due to rounding.

Table 2, Item 6.

Recovery of copper from scrap

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Copper Recovered from Copper-Base Scrap.....																					
New Scrap.....	995	1,002	876	885	773	810	805	851	797	726	670	675	681	669	657	685	662	725	743	741 r	739
Old Scrap.....	385	362	322	182	204	186	185	141	140	147	132	133	137	152	164	145	138	143	127	127 r	134
Total (Table 2, Item 4).....	1,380	1,364	1,198	1,067	977	996	990	992	937	873	803	808	818	821	821	830	800	868	870	868 r	873
Copper Recovered from Scrap other than Copper-Base																					
New Scrap.....	51	50	42	41	40	43	44	52	50	42	32	33	35	36	37	40	40	41	42	42 r	42
Old Scrap.....	35	32	27	27	24	25	17	25	33	26	19	24	32	34	34	36	33	33	34	34	34
Total (Table 2, Item 5).....	86	82	69	68	64	68	61	77	83	67	51	57	67	70	71	76	74	74	76	76 r	76
Copper Recovered from All Scrap																					
New Scrap.....	1,046	1,052	918	926	813	853	848	902	846	768	703	708	716	706	694	726	702	766	786	783 r	782
Old Scrap.....	420	394	349	209	228	211	202	166	173	172	151	158	169	186	198	181	171	176	161	161 r	168
Total Copper Recovered (Table 2, Item 6).....	1,466	1,446	1,267	1,135	1,041	1,064	1,051	1,069	1,020	940	854	865	885	891	892	906	873	943	946	944 r	949

Source: U.S. Department of the Interior, U.S. Geological Survey
p - preliminary, r - revised
Numbers may not sum due to rounding.

Table 2, Item 10.

Consumption of copper scrap in the United States

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Consumption of Copper Scrap by:																					
Wire Rod Mills.....	34	35	30	30	28	29	29	30	28	26	24	25	25	20	20	21	20	22	23	23	23
Brass Mills.....	880	896	771	779	717	748	739	763	710	651	605	608	615	611	604	647	608	663	688	697	697
Ingot Makers.....	143	130	135	109	101	99	104	91	100	87	83	84	86	84	83	62	62	80	63	63 r	63
Foundries.....	83	87	80	79	80	72	74	66	57	59	49	50	51	63	62	50	54	52	52	40 r	40
Powder Plants ^(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Chemical Plants ^(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Non-copper based scrap.....	86	82	69	68	64	68	61	77	83	67	51	57	67	70	72	77	72	72	76	76 r	76
Miscellaneous Adjustments...	(12)	(13)	(9)	(9)	—	—	—	—	—	—	—	—	—	—	—	—	3	3	(4)	0	0
TOTAL COPPER CONSUMED.....	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898 r	899

Source: U.S. Department of the Interior, U.S. Geological Survey
p - preliminary, r - revised
(a) - Starting with 1995 Powder Plants data are included with Foundries.
(b) - Chemical Plants data included with Foundries.
Numbers may not sum due to rounding.

Table 3.

Consumption of metals by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries

Copper Content, thousands of short tons																							
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p	
(1)	Consumption of Refined Copper (Table 1, Item 16)	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996	r	2,034
(2)	Consumption of Copper in Scrap (Table 2, Item 10)	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	820	893	897	898	r	899
(3)	Total Copper Consumed (page 15)	4,505	4,552	3,963	3,662	3,514	3,678	3,512	3,354	3,334	3,118	2,628	2,771	2,780	2,788	2,854	2,789	2,802	2,889	2,882	2,894	r	2,933
(4)	Consumption of Zinc.....	312	329	283	296	266	284	273	268	253	226	238	236	186	196	166	162	145	134	134	134	r	134
(5)	Consumption of Lead.....	19	19	17	15	13	14	11	11	11	13	12	11	13	10	10	12	11	10	7	7	r	7
(6)	Consumption of Tin.....	9	11	11	10	8	8	9	9	9	8	8	7	11	9	8	7	6	6	5	5	r	5
(7)	Consumption of Nickel.....	11	11	8	6	6	7	7	6	6	5	5	5	2	1	1	2	1	1	0	0	r	0
(8)	Total Alloying Metal Consumed (page 16)	351	370	319	327	293	314	300	295	278	252	263	259	212	217	186	183	164	151	145	145	r	145
(9)	Total Metal Consumed	4,856	4,922	4,282	3,989	3,807	3,992	3,812	3,649	3,611	3,371	2,891	3,030	2,991	3,004	3,040	2,972	2,966	3,040	3,027	3,039	r	3,078
(10)	Ingot Consumed (page 17) ^(a)	139	137	126	122	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65		65
(11)	Ingot Stocks & Other ^(a,b)	(40)	(32)	(45)	(16)	(14)	(17)	(27)	(20)	(38)	(30)	(28)	(23)	(41)	(40)	(38)	(17)	(18)	(32)	(14)	(13)	r	(13)
(12)	Net Metal Consumed (page 17).....	4,816	4,890	4,237	3,972	3,793	3,974	3,785	3,629	3,573	3,341	2,863	3,007	2,950	2,965	3,002	2,956	2,948	3,008	3,013	3,027	r	3,065
(13)	Wire Rod Mills - Net Metal Consumed (p 17)	2,492	2,504	2,168	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,403	1,425	1,431	1,464	1,421	1,475	1,477	1,478	1,489		1,531
(14)	Wire Rod Mills - Metal Stocks & Other...	(154)	(148)	(114)	32	(29)	(30)	(201)	(13)	(40)	7	(24)	(36)	(47)	(20)	(9)	1	(31)	(44)	(23)	(32)		(36)
(15)	Wire Rod Mills - Shipments.....	2,338	2,356	2,054	1,947	1,808	1,961	1,680	1,747	1,763	1,676	1,257	1,367	1,378	1,411	1,455	1,422	1,444	1,433	1,455	1,466		1,495
(16)	Wire Rod - Net Imports.....	197	237	351	339	241	208	486	446	159	77	1	(43)	36	(5)	15	10	(19)	(20)	(52)	32		84
(17)	Wire Mills - Net Metal Consumed.....	2,535	2,593	2,405	2,286	2,049	2,169	2,166	2,193	1,922	1,753	1,257	1,324	1,414	1,406	1,470	1,432	1,425	1,413	1,403	1,498		1,578
(18)	Wire Mills - Metal Stocks & Other.....	(351)	(422)	(439)	(540)	(197)	(151)	(109)	(304)	(181)	(207)	151	77	(134)	16	(15)	(10)	30	72	115	72		20
(19)	Wire Mills - Metal Contained in Products Supplied (Table 4, Item 11)	2,184	2,172	1,966	1,747	1,852	2,018	2,057	1,889	1,741	1,546	1,408	1,401	1,280	1,422	1,455	1,422	1,456	1,486	1,518	1,571		1,598
(20)	Brass Mills - Net Metal Consumed (p 17)	1,934	1,998	1,717	1,712	1,609	1,637	1,571	1,547	1,455	1,368	1,285	1,298	1,272	1,260	1,297	1,273	1,215	1,258	1,279	1,286	r	1,283
(21)	Brass Mills - Metal Stocks & Other...	52	18	(53)	(46)	(21)	82	128	74	(7)	(94)	(344)	(260)	(261)	(276)	(252)	(224)	(232)	(263)	(299)	(284)	r	(367)
(22)	Brass Mills - Metal Contained in Products Supplied (Table 4, Item 17).....	1,986	2,016	1,664	1,666	1,588	1,720	1,699	1,621	1,448	1,274	941	1,038	1,011	983	1,018	1,049	983	995	980	1,003		916
(23)	Foundries - Net Metal Consumed (page 17)	303	307	283	278	274	270	264	238	223	230	242	250	186	204	196	184	182	198	185	175	r	175
(24)	Foundries - Metal Stocks & Other...	(86)	(90)	(113)	(121)	(127)	(130)	(127)	(108)	(103)	(123)	(149)	(159)	(96)	(117)	(109)	(98)	(99)	(112)	(98)	(85)	r	(86)
(25)	Foundries - Metal Contained in Products Supplied	217	218	171	158	148	140	138	130	120	108	93	91	90	87	87	87	83	86	87	91		90
(26)	Powder Plants - Net Metal Consumed ^(c) ...	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)		(c)
(27)	Powder Plants - Metal Stocks & Other ^(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)		(c)
(28)	Powder Plants - Metal Contained in Products Supplied ^(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)		(c)
(29)	Other Industries - Net Metal Consumed...																						
	Miscellaneous and Discrepancies	87	81	69	67	73	77	70	86	84	67	51	57	67	70	72	77	75	75	71	76	r	76

Sources: U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised, NA - not available

(a) - Direct consumption only; not including consumption of copper in ingots from ingot makers.

(b) - Ingot makers consume refined copper, scrap copper and alloying metal and ship to foundries, brass mills, powder plants and other industries.

(c) - Starting with 1995 Powder Plants are combined with "Foundries."

Numbers may not sum due to rounding.

Table 3, Item 3.

Consumption of copper by wire rod mills, brass mills, ingot makers, foundries, powder plants and other industries

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Consumption of Copper by:																					
Wire Rod Mills																					
Refined.....	2,458	2,469	2,138	1,885	1,809	1,962	1,852	1,731	1,775	1,642	1,257	1,378	1,400	1,411	1,444	1,400	1,455	1,455	1,455	1,466	1,508
Scrap.....	34	35	30	30	28	29	29	30	28	26	24	25	25	20	20	21	20	22	23	23	23
Total.....	2,492	2,504	2,168	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,403	1,425	1,431	1,464	1,421	1,475	1,477	1,478	1,489	1,531
Brass Mills ^(a)																					
Refined.....	762	797	687	654	647	632	582	540	525	528	500	506	474	467	504	467	465	464	463	462	458
Scrap.....	880	896	771	779	717	748	739	763	710	651	605	608	615	611	604	647	608	663	688	697	697
Total.....	1,642	1,693	1,458	1,433	1,364	1,380	1,321	1,303	1,235	1,179	1,105	1,114	1,089	1,078	1,108	1,114	1,073	1,127	1,151	1,158	1,155
Ingot Makers ^(b)																					
Refined.....	5	5	5	5	5	5	5	5	5	3	0	0	0	0	0	0	0	0	0	0	0
Scrap.....	143	130	135	109	101	99	104	91	100	87	83	84	86	84	83	62	62	80	64	63 r	63
Total.....	148	135	140	114	106	104	109	96	105	90	83	84	86	84	83	62	62	80	64	63 r	63
Foundries and Other Industries ^(a,c)																					
Refined.....	66	64	57	62	63	63	67	51	51	55	60	63	62	62	65	65	62	77	67	68 r	68
Scrap.....	70	75	71	70	71	63	65	57	51	52	44	50	51	63	62	50	54	52	52	40 r	40
Total.....	136	139	128	132	134	127	132	109	103	107	104	113	113	125	127	115	116	129	119	109 r	108
Powder Plants ^(c)																					
Refined.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Scrap.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Total.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Miscellaneous ^(d)																					
Refined.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scrap.....	87	81	69	68	73	77	70	86	89	74	56	57	67	70	72	77	78	75	71	76 r	76
Total.....	87	81	69	68	73	77	70	86	89	74	56	57	67	70	72	77	78	75	71	76 r	76
All Industries																					
Refined (Table 1, Item 16)	3,291	3,335	2,887	2,606	2,524	2,662	2,506	2,327	2,356	2,228	1,817	1,947	1,936	1,940	2,013	1,933	1,982	1,996	1,985	1,996 r	2,034
Scrap (Table 2, Item 10).....	1,214	1,217	1,076	1,056	990	1,016	1,006	1,027	978	890	812	823	843	848	841	856	823	893	897	898 r	899
TOTAL COPPER CONSUMED (Table 3, Item 3)...	4,505	4,552	3,963	3,662	3,514	3,678	3,512	3,354	3,334	3,118	2,628	2,771	2,780	2,788	2,854	2,789	2,805	2,889	2,882	2,894 r	2,933

Sources: U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised

(a) - Direct consumption only; not including consumption of copper in ingots from ingot makers.

(b) - Ingot makers consume refined copper, scrap copper and alloying metal and ship to foundries, brass mills, powder plants and other industries.

(c) - Starting with 1995 Powder Plants and Other Industries data are included with "Foundries and Other Industries."

(d) - Miscellaneous - reconciles discrepancies between USGS reports.

Numbers may not sum due to rounding.

Table 3, Item 8.

Consumption of alloying metal by brass mills, ingot makers, foundries and powder plants

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Consumption of Alloying Metal by:																					
Brass Mills ^(a)																					
Zinc:Unalloyed & in Secondary Copper Alloys	269	501	241	263	231	241	236	230	209	179	170	176	173	174	154	150	134	125	125	125	125
Lead:Unalloyed & in Secondary Copper Alloys	9	8	7	7	6	7	4	4	3	3	3	3	4	4	4	6	5	4	2	2	2
Tin:Unalloyed & in Secondary Copper Alloys...	3	4	3	3	2	2	3	4	3	2	2	2	5	3	2	2	1	1	1	1	r 1
Nickel:Unalloyed & in Secondary Copper Alloys	11	11	8	6	6	7	7	6	5	5	5	3	1	1	1	1	1	1	-	-	-
Total	292	305	259	279	245	256	250	243	221	189	180	184	183	182	162	159	141	131	128	128	r 128
Ingot Makers																					
Zinc:Unalloyed & in Secondary Copper Alloys	17	18	16	12	10	12	10	10	12	10	17	10	10	13	10	10	9	8	8	8	r 8
Lead:Unalloyed & in Secondary Copper Alloys	9	10	9	7	6	6	6	6	7	9	9	7	8	6	6	6	5	5	4	4	r 4
Tin:Unalloyed & in Secondary Copper Alloys	5	6	6	5	4	4	4	4	5	5	4	4	5	4	4	4	4	4	3	3	r 3
Nickel:Unalloyed	—	—	—	—	—	0	0	0	—	0	0	1	0	0	0	0	0	0	0	-	r -
Total	31	34	31	24	20	22	20	20	24	24	30	22	23	23	20	20	18	16	15	15	r 15
Foundries and Other Industries ^(a)																					
Zinc:Unalloyed & in Secondary Copper Alloys	26	29	26	21	25	32	27	28	32	37	51	50	2	9	2	2	2	2	1	1	r 1
Lead:Unalloyed & in Secondary Copper Alloys	1	1	1	1	2	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	r 0
Tin:Unalloyed & in Secondary Copper Alloys	1	1	2	2	2	2	2	2	1	1	1	1	2	2	2	1	1	1	0	0	r 0
Nickel:Unalloyed	—	—	—	—	—	0	0	0	—	0	0	1	0	0	0	0	0	0	0	0	0
Total	28	31	29	24	29	35	30	31	33	39	54	53	5	12	4	4	4	4	2	2	r 2
Powder Plants ^(a)																					
Zinc-Slab																					
Zinc in Scrap																					
Tin-Refined	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Total																					
All Industries																					
Zinc: Unalloyed & in Secondary Copper Alloys	312	329	283	296	266	284	273	268	253	226	238	236	186	196	166	162	145	134	134	134	r 134
Lead: Unalloyed & in Secondary Copper Alloys	19	19	17	15	13	14	11	11	11	13	12	11	13	10	10	12	11	10	7	7	r 7
Tin: Unalloyed & in Secondary Copper Alloys	9	11	11	10	8	8	9	9	9	8	8	7	11	9	8	7	6	6	4	5	r 5
Nickel: Unalloyed & in Secondary Copper Alloys	11	11	8	6	6	7	7	6	5	5	5	5	2	1	1	2	1	1	0	0	r 0
TOTAL ALLOYING METAL CONSUMED (Table 3, Item 8)																					
	351	370	319	327	293	314	300	295	278	252	263	259	212	217	186	183	164	151	145	145	r 145

Sources: U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised

(a) - Direct consumption only; not including consumption of alloying metal in ingots from ingot makers.

(b) - Starting with 1995 Powder Plants data are included with "Foundries and Other Industries."

Numbers may not sum due to rounding.

Table 3, Item 12.

Net consumption of metals by wire rod mills, brass mills, foundries, powder plants and other industries

Copper Content, thousands of short tons																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Net Metal Consumed by:																					
Wire Rod Mills - Copper (Table 3, Item 13).....	2,492	2,504	2,168	1,915	1,837	1,991	1,881	1,760	1,802	1,668	1,281	1,403	1,425	1,431	1,464	1,421	1,475	1,477	1,478	1,489	1,531
Brass Mills																					
Copper.....	1,642	1,693	1,458	1,433	1,364	1,380	1,321	1,303	1,235	1,179	1,105	1,114	1,089	1,078	1,108	1,114	1,073	1,127	1,151	1,158	1,155
Alloy.....	292	305	259	279	245	256	250	243	221	189	180	184	183	182	162	159	141	131	128	128	128
Ingot.....						2															
Total (Table 3, Item 20).....	1,934	1,998	1,717	1,712	1,609	1,637	1,571	1,547	1,455	1,368	1,285	1,298	1,272	1,260	1,270	1,273	1,215	1,258	1,279	1,286	1,283
Foundries ^(a)																					
Copper.....	136	139	128	132	134	128	132	110	108	107	104	113	113	125	127	115	116	129	119	109	108
Alloy.....	28	31	29	24	28	35	30	31	33	39	54	53	5	12	4	4	4	4	2	2	2
Ingot.....	139	137	126	122	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65
Total (Table 3, Item 23).....	303	307	283	278	274	272	264	238	232	230	242	250	186	204	196	184	183	198	185	175	175
Powder Plants ^(a)																					
Copper.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Alloy.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Ingot.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Other Industries ^(a)																					
Copper.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Ingot.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total (Table 3, Item 29)...	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Misc. and Discrepancies																					
Copper (Table 3, Item 29)...	87	81	69	67	73	77	70	86	84	74	56	57	67	70	72	77	75	75	71	76	76
Ingot.....																					
All Industries																					
Copper.....	4,357	4,417	3,823	3,547	3,408	3,575	3,403	3,258	3,229	3,029	2,545	2,687	2,694	2,703	2,771	2,727	2,740	2,808	2,819	2,832	2,871
Alloy.....	320	336	288	303	273	291	280	274	254	228	233	237	188	193	166	163	146	135	130	130	130
Ingot (Table 3, Item 10) ^(b)	139	137	126	122	112	109	102	97	90	84	85	83	68	68	65	65	62	65	65	65	65
NET METAL CONSUMED																					
(Table 3, Item 12).....	4,816	4,890	4,237	3,972	3,793	3,974	3,785	3,629	3,573	3,341	2,863	3,007	2,950	2,965	3,002	2,956	2,948	3,008	3,013	3,027	3,065

Source: U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised

(a) - Starting with 1995 Powder Plants and Other Industries data are included with "Foundries."

(b) - Total consumption of ingot shown here is less than the consumption of metal by ingot makers shown in the details of Table 3, Item 3, and Table 3, Item 8. The difference, shown as Ingot Stocks & Other in Table 3, is partially melting and other losses in the making of ingot.

Numbers may not sum due to rounding.

Table 4.

Supply of wire mill, brass mill, foundry and powder products and their consumption in the end-use markets

		Metal Content, millions of pounds																				
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
(1)	Bare Wire.....	330	340	310	290	270	260	255	225	200	175	170	165	160	166	167	150	170	180	184	190	194
(2)	Telecommunications Cable.....	628	749	599	384	395	366	375	359	292	225	177	168	160	163	163	155	156	162	171	177	178
(3)	Electronic Wire and Cable.....	246	290	232	178	238	255	256	265	290	210	155	150	145	148	151	148	147	149	154	161	170
(4)	Building Wire.....	1,562	1,358	1,329	1,270	1,425	1,664	1,700	1,533	1,426	1,259	1,177	1,059	1,005	1,020	1,035	1,031	1,052	1,073	1,100	1,131	1,179
(5)	Magnet Wire.....	778	714	615	573	561	570	532	536	493	443	400	380	360	367	380	361	370	384	405	420	421
(6)	Power Cable.....	303	333	319	288	294	300	372	315	249	326	352	335	315	326	335	328	328	307	290	294	302
(7)	Apparatus Wire and Cordage.....	235	250	216	185	193	140	140	89	86	124	102	100	95	97	98	95	96	101	106	112	113
(8)	Magnet)	442	433	387	407	411	410	403	400	398	330	283	406	443	518	540	538	554	576	589	615	599
(9)	Other Insulated Wire and Cable.....	56	69	80	80	82	85	93	119	90	54	43	40	38	39	40	38	38	38	39	40	41
(10)	Total Insulated Wire and Cable.....	4,250	4,196	3,776	3,365	3,599	3,790	3,871	3,616	3,324	2,972	2,690	2,638	2,561	2,678	2,742	2,694	2,741	2,791	2,852	2,951	3,003
(11)	Total Wire Mill Products ^(a)	4,580	4,536	4,086	3,655	3,869	4,050	4,126	3,841	3,524	3,147	2,860	2,803	2,721	2,844	2,909	2,844	2,911	2,971	3,036	3,141	3,196
(12)	Strip, Sheet, Plate and Foil.....	1,356	1,421	1,018	1,019	957	1,068	1,035	1,067	999	928.3	692	794	740	738	816	761	790	788	753	753	676
(13)	Mechanical Wire ^(b)	94	99	85	78	72	80	75	72	48	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
(14)	Rod and Bar.....	1,238	1,247	1,025	1,038	965	1,059	1,032	1,022	879	793	562	672	675	636	641	702	605	625	639	662	600
(15)	Tube and Pipe ^(c)	1,285	1,266	1,202	1,197	1,182	1,233	1,256	1,080	953	812	619	607	608	574	579	567	568	578	568	591	555
(16)	Total Brass Mill Products (page 19).....	3,973	4,033	3,329	3,332	3,177	3,439	3,397	3,241	2,879	2,533	1,873	2,073	2,023	1,948	2,035	2,030	1,963	1,991	1,961	2,005	1,831
(17)	Total Foundry Products.....	384	385	300	270	250	230	225	215	200	180	160	150	145	140	140	138	130	136	138	145	142
(18)	Total Powder Products.....	50	50	41	45	45	50	50	45	40	35	27	32	34	34	34	35	36	36	36	37	37
(19)	Domestic Products - Total.....	8,986	9,004	7,756	7,302	7,341	7,769	7,799	7,342	6,643	5,895	4,919	5,058	4,923	4,966	5,118	5,047	5,040	5,134	5,171	5,328	5,207
(20)	Net Imports of Mill Products (page 20).....	-373	540	254	225	246	297	224	295	288	261	166	118	173	226	166	280	287	331	391	445	r 510
(21)	Mill Products to Domestic Market*.....	8,613	9,544	8,011	7,527	7,587	8,066	8,022	7,637	6,931	6,156	5,085	5,176	5,096	5,191	5,284	5,326	5,327	5,465	5,562	5,773	r 5,717
(22)	Building Construction.....	3,151	3,889	3,562	3,508	3,620	4,035	4,028	3,697	3,365	3,051	2,478	2,318	2,271	2,299	2,364	2,401	2,406	2,458	2,525	2,487	r 2,483
(23)	Electrical and Electronic Products.....	2,400	2,517	2,016	1,598	1,582	1,569	1,525	1,533	1,400	1,274	1,018	1,059	1,037	1,024	966	976	953	1,033	1,038	1,156	r 1,179
(24)	Industrial Machinery and Equipment.....	1,005	965	749	729	697	682	701	682	575	494	432	430	377	358	378	383	359	351	352	395	r 397
(25)	Transportation Equipment.....	1,127	1,087	873	916	915	991	974	947	854	702	621	768	819	915	980	983	987	992	1,068	1,134	r 1,084
(26)	Consumer and General Products.....	930	1,085	810	776	773	836	794	778	737	634	536	601	592	596	597	584	622	630	580	601	r 574

Sources: Copper Development Association; Global Market Consultants, Inc.; U.S. Department of Commerce, Bureau of the Census; Metal Powder Industries Federation.

Note: Numbers may not sum due to rounding.

p - preliminary, r - revised

(a) - Copper content.

(b) - Rod and bar and mechanical wire data combined starting 2008.

(c) - Comercial tube and plumbing tube data combined.

* Markets include:

- Building Construction** - Building Wire; Plumbing & Heating; Air Conditioning & Commercial Refrigeration; Builders Hardware; Architectural
- Electrical and Electronic Products** - Power Utilites; Telecommunications; Business Electronics; Lighting & Wiring Devices
- Industrial Machinery and Equipmen** - In-Plant Equipment; Industrial Valves & Fittings; Non-Electrical Instruments; Off-Highway Vehicles; Heat Exchangers
- Transportation Equipment** - Automobile; Truck & Bus; Railroad; Marine; Aircraft & Aerospace
- Consumer and General Products** - Appliances; Cord Sets; Military & Commercial Ordnance; Consumer Electronics; Fasteners & Clsoures; Coinage; Utensils & Cultery; Miscellaneous

Table 4, Item 16.

Supply of brass mill products in the United States

Metal Content, millions of pounds																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Strip, Sheet, Plate and Foil																					
Copper.....	477	531	390	363	341	390	391	394	378	343	224	240	236	234	258	258	287	284	261	255	233
Alloy.....	879	890	628	655	616	677	644	673	621	586	468	554	504	504	558	504	504	504	493	498	443
Total.....	1,356	1,421	1,018	1,019	957	1,068	1,035	1,067	999	928	692	794	740	757	816	761	790	788	753	753	676
Mechanical Wire																					
Copper.....	22	22	18	16	16	19	18	14	11	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Alloy.....	72	77	67	62	56	61	57	58	37	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total.....	94	99	85	78	72	80	75	72	48	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Rod and Bar ^(a)																					
Copper.....	217	245	207	177	170	205	212	211	184	173	133	158	167	151	163	180	143	159	168	183	171
Alloy.....	1,021	1,003	818	861	795	854	820	812	695	620	428	515	508	485	478	522	462	466	471	479	430
Total.....	1,238	1,247	1,025	1,038	965	1,059	1,032	1,022	879	808	562	675	675	636	641	702	605	625	639	662	600
Tube and Pipe ^(b)																					
Copper.....	1,247	1,234	1,180	1,178	1,168	1,218	1,243	1,066	940	800	610	596	597	565	570	559	562	572	562	584	549
Alloy.....	38	32	22	19	14	15	13	14	13	12	9	11	11	9	8	8	7	6	6	7	6
Total.....	1,285	1,266	1,202	1,197	1,182	1,233	1,256	1,080	953	812	619	607	608	574	579	567	568	578	568	591	555
All Mill Products																					
Copper.....	1,963	2,032	1,794	1,735	1,695	1,832	1,863	1,685	1,512	1,315	968	993	1,000	951	991	997	991	1,015	991	1,021	952
Alloy.....	2,010	2,001	1,535	1,597	1,482	1,607	1,534	1,556	1,367	1,218	906	1,080	1,023	997	1,044	1,033	973	976	970	984	879
TOTAL BRASS MILL PRODUCTS	3,973	4,033	3,329	3,332	3,177	3,439	3,397	3,241	2,879	2,533	1,873	2,073	2,023	1,948	2,035	2,030	1,963	1,991	1,961	2,005	1,831

Sources: Copper Development Association; Global Market Consultants, Inc.

(a)- Copper and alloy rod and bar and mechanical wire data combined starting 2008.

(b) - Comercial tube and plumbing tube data combined.

Numbers may not sum due to rounding.

Table 4, Item 16a.

Supply of brass mill products in selected countries

	Metal Content, millions of pounds																				
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
France.....	742	461	393	369	263	227	201	498	421	382	254	274	251	251	261	263	266	270	282	287	291
Germany.....	2,324	2,620	2,464	2,412	2,328	2,561	2,510	2,585	4,096	3,909	2,982	3,650	3,597	3,306	3,391	3,526	3,590	3,753	3,765	2,882	2,417
Italy.....	1,938	2,186	2,051	1,980	1,957	1,682	1,369	2,020	1,836	1,584	862	1,137	1,106	1,124	1,378	1,368	1,381	1,393	1,335	1,491	1,499
Japan.....	2,324	2,559	2,162	2,114	2,175	2,290	2,075	2,296	2,200	1,497	1,436	1,756	1,721	1,686	1,701	1,792	1,681	1,649	1,598	1,728	1,597
Mexico.....	346	340	311	307	311	319	276	229	258	232	302	251	327	277	259	262	266	283	286	280	297
Scandinavia.....	420	444	429	445	442	469	464	478	381	437	349	383	393	391	381	408	393	395	418	438	386
Spain.....	285	291	218	250	213	166	194	185	194	198	204	225	215	258	178	217	216	216	212	219	195
Turkey.....	143	176	139	97	88	88	144	160	141	121	46	65	65	66	70	70	70	70	65	65	65
United Kingdom.....	385	403	178	162	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
United States.....	3,973	4,033	3,329	3,332	3,177	3,439	3,397	3,241	2,896	2,533	1,873	2,073	2,023	1,948	2,035	2,030	1,963	1,991	1,961	2,005	1,831

Sources: World Bureau of Metal Statistics; U.S. Department of the Interior, U.S. Geological Survey

p - preliminary, r - revised, NA - not available

Numbers may not sum due to rounding.

Table 4, Item 20.

Imports and exports of wire mill, brass mill and powder products

Metal Content, millions of pounds																					
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
Imports of:																					
Bare Wire (including Stranded).....	162	200	40	47	50	42	56	39	38	43	29	36	40	44	55	50	30	31	27	32	r 47
Insulated Wire and Cable.....	305	356	324	297	314	334	405	418	417	362	301	334	380	421	432	478	487	487	542	550	r 540
Total Wire Mill Products⁽¹⁾.....	468	555	364	344	364	376	461	457	455	405	330	370	420	464	487	529	517	517	569	582	r 587
Copper-Strip, Sheet, Plate and Foil.....	148	193	178	129	123	145	117	126	89	91	66	88	90	88	70	77	74	72	82	96	r 101
Rod and Bar.....	47	71	61	40	37	54	53	54	69	52	33	46	51	50	51	54	43	35	38	41	r 37
Tube and Pipe.....	140	172	161	162	172	202	202	281	256	260	198	167	136	135	143	161	148	150	155	159	r 161
Alloy-Strip, Sheet, Plate and Foil.....	104	155	120	116	93	119	95	92	74	61	43	65	61	65	75	81	81	83	88	96	r 76
Mechanical Wire.....	37	48	37	35	37	41	35	36	33	36	22	35	33	41	37	39	43	37	40	41	r 37
Rod and Bar.....	128	156	76	65	71	85	65	68	57	70	43	70	79	84	86	83	73	56	69	69	r 63
Tube and Pipe.....	68	102	103	115	110	131	120	123	108	104	75	92	101	93	94	103	98	99	98	113	r 108
Total Brass Mill Products.....	674	896	736	662	645	777	687	779	688	674	480	564	551	556	555	599	560	532	570	616	r 583
Total Powder Products.....	5	5	4	6	8	6	8	10	10	8	7	9	9	8	8	9	9	8	8	8	7
TOTAL IMPORTS.....	1,146	1,456	1,104	1,012	1,016	1,160	1,156	1,246	1,153	1,086	816	943	980	1,028	1,050	1,136	1,085	1,058	1,148	1,206	r 1,177
Exports of:																					
Bare Wire (including Stranded).....	18	113	93	104	82	99	107	102	103	88	66	88	90	113	157	135	114	97	94	105	r 89
Insulated Wire and Cable.....	1,058	402	417	376	368	386	401	432	382	400	336	458	444	421	434	432	408	355	373	373	r 331
Total Wire Mill Products⁽¹⁾.....	1,076	516	509	481	450	485	508	534	485	488	402	546	534	534	591	567	523	452	466	477	r 420
Copper-Strip, Sheet, Plate and Foil.....	46	65	43	32	33	38	34	36	32	32	25	37	37	37	36	38	36	38	41	41	r 36
Rod and Bar.....	53	33	16	16	9	21	33	37	40	44	26	23	31	32	29	26	26	28	27	22	r 19
Tube and Pipe.....	69	70	71	72	73	74	75	76	77	48	51	40	48	41	41	35	32	31	32	41	35
Alloy-Strip, Sheet, Plate and Foil.....	79	77	67	52	63	72	96	81	72	71	58	65	56	62	75	75	59	60	68	59	r 40
Mechanical Wire.....	39	24	19	17	16	20	21	29	34	33	23	27	25	24	24	21	25	23	21	16	r 13
Rod and Bar.....	57	71	70	71	77	88	95	95	64	50	22	27	25	23	39	41	43	44	50	52	51
Tube and Pipe.....	65	47	42	34	37	43	44	39	35	40	29	36	33	31	32	35	37	36	35	37	r 40
Total Brass Mill Products.....	406	387	328	293	307	356	397	391	355	318	233	255	255	249	275	272	258	259	274	267	r 234
Total Powder Products.....	36	14	13	14	13	21	27	26	25	19	15	24	18	18	18	18	18	16	17	16	r 13
TOTAL EXPORTS.....	1,519	917	850	787	770	862	932	951	865	825	650	825	807	802	884	857	798	727	757	761	r 667
NET IMPORTS (Table 4, Item 20)	(373)	540	254	225	246	297	224	295	288	261	166	118	173	226	166	280	287	331	391	445	r 510

Sources: U.S. Department of Commerce, Bureau of the Census

p - preliminary, r - revised

(1) - In previous additions, wire rod exports were included in the table. Starting with 1999, net wire rod imports are shown as line 16 on table 3, page 14. Appropriate adjustments have been made for all years.

Note: Changes to the trade dataset are made from time to time as the USITC adds, collapses, or sometimes stops collecting data for Harmonized Tariff codes.

Numbers may not sum due to rounding.



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