

# Mineral Industry Surveys

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## COPPER IN AUGUST 2018

In August 2018, domestic mine production of recoverable copper was 105,000 metric tons (t). The average daily mine production was 3,400 t, essentially unchanged from that in July and an increase of 4% from that in August 2017 (fig. 1). Year-to-date recoverable mine production through August 2018 was 809,000 t, a decline of 5% relative to the same period in 2017 (table 2).

Total refinery production in the United States was 97,100 t in August 2018; data for electrolytic and electrowon output, as well as refined production from scrap, are in table 4. The average daily total refinery production was 3,130 t, a slight increase compared with that in July and slightly less than that in August 2017 (fig. 1). Year-to-date refinery production through August 2018 was 740,000 t, a slight decrease relative to the same period in 2017 (table 4).

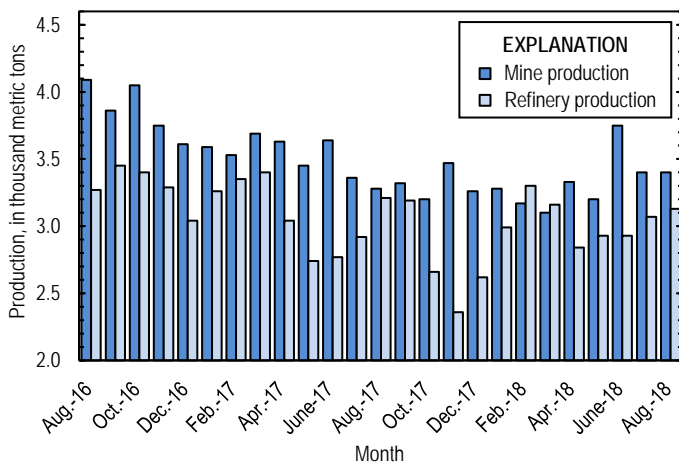


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from August 2016 through August 2018.

Smelter production in August 2018 was 46,100 t. The average daily smelter output was 1,490 t, 3% lower than that in July and a slight decline compared with the daily average in August

2017. Year-to-date smelter production through August 2018 was 361,000 t, 6% greater than that through August 2017 (table 3).

**Prices**

The average August 2018 COMEX spot copper price was \$2.69 per pound, a decrease of 3% from \$2.79 per pound in July and 9% lower than \$2.96 per pound in August 2017 (fig. 2, table 11). The average price of New York dealers’ number 2 scrap in August 2018 was \$1.88 per pound, a decline of 6% from \$1.99 per pound in July and slightly less than \$1.90 per pound in August 2017 (fig. 2, table 12).

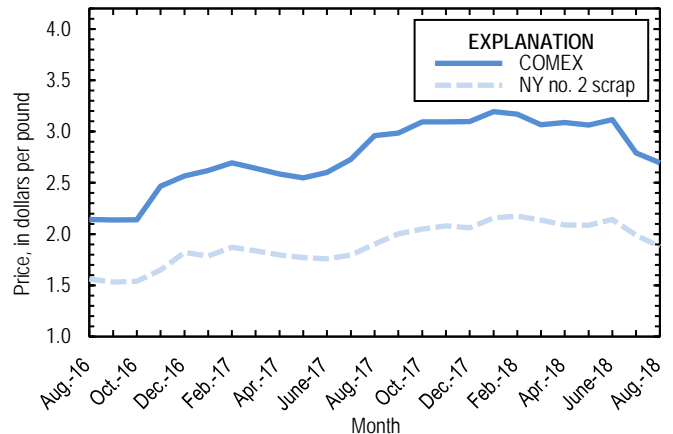


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from August 2016 through August 2018. Sources: American Metal Market, Platts Metals Week.

**Stocks**

Refined copper stocks in the United States totaled 347,000 t at the end of August 2018, a decrease of 3% from those in July and 41% more than those in August 2017. COMEX stocks fell by 7%, stocks at wire-rod mills declined by 22%, and London Metal Exchange Ltd. stocks in U.S. warehouses were 8% higher compared with those at the end of July (fig. 3, table 10).

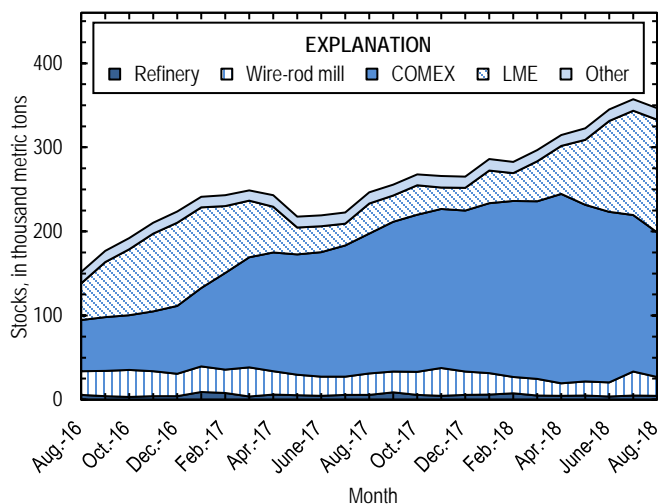


Figure 3. Monthly domestic refined copper stocks, by type, from August 2016 through August 2018. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

### Exports and Industry News

A 25% tariff on copper scrap imported into China from the United States went into effect on August 23 (CRU International Ltd., 2018). In 2017, 69% of the total U.S. copper scrap export tonnage was shipped to China (table 16). Through August 2018, domestic exports of copper scrap to China decreased by 46% compared with exports in the same period in 2017 owing to recently-implemented restrictions. Beginning on March 1, 2018, all copper scrap imported into China could have an impurity content of no more than 1% (Allen, 2017). United States exports of copper scrap to all countries through August 2018 were 11%

lower relative to those in the same period during the prior year, with significantly higher tonnages shipped to Japan, Malaysia, the Republic of Korea, Taiwan, and Thailand than through August 2017 (U.S. Census Bureau, 2019).

The Government of China also announced in August that it would impose a 25% import tariff on U.S. copper ores and concentrates, anodes, and cathodes, but the implementation date was not specified (CRU International Ltd., 2018). In contrast to those on copper scrap, these tariffs were not expected to significantly impact the copper market in the United States or China. In 2017, the United States accounted for roughly 3% of China's copper ore and concentrate imports and for less than 1% each of its anode and cathode imports (IHS Markit Inc., 2019).

### References Cited

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- CRU International Ltd., 2018, CRU copper China fortnightly: London, United Kingdom, CRU International Ltd., August 17, 6 p. (Accessed February 13, 2019, via <http://www.crugroup.com/>.)
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TABLE 1  
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES<sup>1</sup>

(Metric tons of copper content, unless otherwise specified)

	Source table <sup>2</sup>	2017 <sup>p</sup>	2018			
			June	July	August	January– August
<b>Production:</b>						
<b>Primary:</b>						
Mine, recoverable	(2)	1,260,000	113,000	105,000	105,000	809,000
Smelter, total	(3)	470,000	45,700	47,500	46,100	361,000
<b>Refinery:</b>						
Electrolytic, domestic and foreign	(4)	482,000	39,800	45,900	48,400	356,000
Electrowon	(4)	557,000	44,900	46,000	45,400	357,000
Total	(4)	1,040,000	84,600	91,900	93,900	713,000
<b>Secondary recoverable copper:<sup>3</sup></b>						
Refineries	(5)	40,100	3,400	3,390	3,220	26,300
Ingot makers <sup>4</sup>	(5)	57,600	4,800	4,800	4,800	38,400
Brass and wire-rod mills	(5)	645,000	55,400	54,700	54,800	433,000
Foundries, etc. <sup>4</sup>	(5)	46,800	3,900	3,900	3,900	31,200
<b>Consumption:</b>						
Apparent	(8)	1,870,000	130,000 <sup>r</sup>	140,000 <sup>r</sup>	149,000	1,170,000
Refined (reported)	(7)	1,800,000 <sup>r</sup>	144,000 <sup>r</sup>	145,000 <sup>r</sup>	159,000	1,200,000
Purchased copper-base scrap (gross weight)	(9)	924,000	78,700	78,100	78,000	619,000
<b>Stocks at end of period:</b>						
Total refined	(10)	265,000 <sup>r</sup>	345,000 <sup>r</sup>	357,000 <sup>r</sup>	347,000	347,000
Blister, etc.	(10)	12,600	14,300	9,670	9,010	9,010
Price, U.S. producers cathode (cents per pound) <sup>5</sup>	(11)	285.393	318.152	285.626	276.087	308.202
<b>Imports:<sup>6</sup></b>						
Ore and concentrates	(13)	14,000	4	--	--	22,900
Refined	(13)	813,000	66,200	59,500	59,700	550,000
<b>Exports:<sup>6</sup></b>						
Ore and concentrates	(14)	237,000	19,700	15,900	22,000	153,000
Refined	(14)	94,200	11,200	11,300	15,700	94,700

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

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

<sup>2</sup>Numbers in parentheses refer to the tables where these data are located.

<sup>3</sup>Copper recovered from copper-base scrap only.

<sup>4</sup>Estimated based on the monthly average of 2016 annual data.

<sup>5</sup>Source: Platts Metals Week.

<sup>6</sup>Source: U.S. Census Bureau.

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

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total
<b>2017:<sup>P</sup></b>						
January–August	577,000	278,000	855,000	370,000	504,000	874,000
August	71,200	30,500	102,000	46,900	57,000	104,000
September	75,000	24,500	99,500	46,700	55,000	102,000
October	66,900	32,400	99,300	46,600	54,800	101,000
November	72,800	31,200	104,000	46,600	59,700	106,000
December	76,100	24,900	101,000	47,600	55,700	103,000
January–December	868,000	391,000	1,260,000	557,000	730,000	1,290,000
<b>2018:</b>						
January	68,800	32,900	102,000	46,800	56,900	104,000
February	61,000	27,700	88,600	40,600	50,000	90,500
March	68,200	27,800	96,000	44,300	53,700	98,000
April	65,400	34,600	100,000	43,200	58,800	102,000
May	69,300	29,800	99,100	46,000	55,200	101,000
June	70,600	41,900	113,000	44,900	70,100	115,000
July	66,800	38,500	105,000	46,000	61,400	107,000
August	67,100	38,300	105,000	45,400	62,200	108,000
January–August	537,000	272,000	809,000	357,000	468,000	825,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

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

TABLE 3  
COPPER PRODUCED AT SMELTERS IN  
THE UNITED STATES<sup>1,2</sup>

(Metric tons, copper content)

Period	Anode production
<b>2017:<sup>P</sup></b>	
January–August	340,000
August	47,200
September	49,000
October	29,300
November	14,500
December	37,800
January–December	<u>470,000</u>
<b>2018:</b>	
January	53,900
February	42,200
March	41,500
April	44,800
May	39,000
June	45,700
July	47,500
August	46,100
January–August	<u>361,000</u>

<sup>P</sup>Preliminary.

<sup>1</sup>Includes blister and copper anode from primary or secondary sources.

<sup>2</sup>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<sup>1</sup>

(Metric tons)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined <sup>2</sup>	Electrowon	Total		
2017: <sup>P</sup>					
January–August	352,000	370,000	722,000	27,000	749,000
August	49,200	46,900	96,100	3,340	99,400
September	45,700	46,700	92,400	3,310	95,700
October	32,500	46,600	79,100	3,280	82,400
November	21,100	46,600	67,700	3,240	70,900
December	30,400	47,600	77,900	3,250	81,200
January–December	482,000	557,000	1,040,000	40,100	1,080,000
2018:					
January	42,800	46,800	89,600	3,220	92,800
February	48,500	40,600	89,000	3,260	92,300
March	50,400	44,300	94,800	3,220	98,000
April	38,700	43,200	81,900	3,260	85,200
May	41,600	46,000	87,500	3,330	90,900
June	39,800	44,900	84,600	3,400	88,000
July	45,900	46,000	91,900	3,390	95,300
August	48,400	45,400	93,900	3,220	97,100
January–August	356,000	357,000	713,000	26,300	740,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>From domestic and foreign source materials.

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

(Metric tons, copper content)

Period	Refineries <sup>2</sup>		Ingot makers <sup>3</sup>		Brass and wire-rod mills		Foundries, etc. <sup>3</sup>		Total <sup>4</sup>
	New scrap <sup>6</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2017: <sup>p</sup>									
January–August	13,400	13,600	6,400	32,000	409,000	25,100	24,500	6,760	531,000
August	1,680	1,660	800	4,000	52,100	3,360	3,060	845	67,500
September	1,680	1,630	800	4,000	49,200	2,870	3,060	845	64,100
October	1,680	1,600	800	4,000	52,200	3,350	3,060	845	67,600
November	1,680	1,560	800	4,000	49,900	3,110	3,060	845	65,000
December	1,680	1,570	800	4,000	48,000	2,500	3,060	845	62,400
January–December	20,100	20,000	9,600	48,000	608,000	36,900	36,700	10,100	790,000
2018:									
January	1,680	1,540	800	4,000	51,100	3,300	3,060	845	66,300
February	1,680	1,580	800	4,000	50,000	2,940	3,060	845	64,900
March	1,680	1,540	800	4,000	46,800	3,350	3,060	845	62,100
April	1,680	1,580	800	4,000	50,800	3,270	3,060	845	66,100
May	1,680	1,650	800	4,000	53,000	3,180	3,060	845	68,200
June	1,680	1,720	800	4,000	52,400	2,960	3,060	845	67,500
July	1,680	1,710	800	4,000	51,600	3,060	3,060	845	66,800
August	1,680	1,540	800	4,000	51,600	3,220	3,060	845	66,700
January–August	13,400	12,900	6,400	32,000	407,000	25,300	24,500	6,760	528,000

<sup>6</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>2</sup>Electrolytically refined and fire refined from scrap based on source of material at smelter or refinery level.

<sup>3</sup>Monthly data estimated based on the monthly average of 2016 annual data.

<sup>4</sup>Does not include an estimate, based on reported 2016 annual data, of 3,120 tons per month from new scrap and 2,490 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 SEMIFABRICATES<sup>1</sup>

(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
<b>2017:<sup>P</sup></b>						
January–August	589,000	891,000 <sup>r</sup>	588,000	895,000 <sup>r</sup>	29,300	20,900 <sup>r</sup>
August	75,000	119,000 <sup>r</sup>	74,200	125,000 <sup>r</sup>	29,300	20,900 <sup>r</sup>
September	74,000	115,000 <sup>r</sup>	73,600	109,000 <sup>r</sup>	29,700	27,800 <sup>r</sup>
October	74,100	117,000 <sup>r</sup>	74,100	118,000 <sup>r</sup>	29,700	26,700 <sup>r</sup>
November	72,500	106,000 <sup>r</sup>	72,800	108,000 <sup>r</sup>	29,300	24,100 <sup>r</sup>
December	72,100	92,500 <sup>r</sup>	72,000	89,800 <sup>r</sup>	29,500	26,800 <sup>r</sup>
January–December	882,000	1,320,000 <sup>r</sup>	881,000	1,320,000 <sup>r</sup>	29,500	26,800 <sup>r</sup>
<b>2018:</b>						
January	73,600	114,000 <sup>r</sup>	73,500	114,000 <sup>r</sup>	29,500	26,700 <sup>r</sup>
February	72,700	107,000 <sup>r</sup>	73,400	107,000 <sup>r</sup>	28,800	26,400 <sup>r</sup>
March	74,300	115,000 <sup>r</sup>	74,000	117,000 <sup>r</sup>	29,200	24,200 <sup>r</sup>
April	73,600	103,000 <sup>r</sup>	73,600	111,000 <sup>r</sup>	29,200	16,400 <sup>r</sup>
May	73,600	115,000 <sup>r</sup>	74,000	113,000 <sup>r</sup>	28,800	18,400 <sup>r</sup>
June	73,900	117,000 <sup>r</sup>	73,800	114,000 <sup>r</sup>	28,900	21,300 <sup>r</sup>
July	73,400	102,000 <sup>r</sup>	73,700	104,000 <sup>r</sup>	28,700	19,500 <sup>r</sup>
August	73,800	123,000	74,200	119,000	28,300	23,100
January–August	589,000	897,000	590,000	900,000	28,300	23,100

<sup>P</sup>Preliminary. <sup>r</sup>Revised.

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



TABLE 7  
CONSUMPTION OF REFINED COPPER<sup>1</sup>

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants <sup>2</sup>	Total
<b>2017:<sup>p</sup></b>				
January–August	279,000	885,000 <sup>r</sup>	40,500 <sup>r</sup>	1,200,000 <sup>r</sup>
August	35,300	106,000 <sup>r</sup>	5,070 <sup>r</sup>	147,000 <sup>r</sup>
September	35,200	115,000 <sup>r</sup>	5,070 <sup>r</sup>	156,000 <sup>r</sup>
October	35,400	118,000 <sup>r</sup>	5,070 <sup>r</sup>	159,000 <sup>r</sup>
November	34,700	106,000 <sup>r</sup>	5,070 <sup>r</sup>	145,000 <sup>r</sup>
December	34,900	91,800 <sup>r</sup>	5,070 <sup>r</sup>	132,000 <sup>r</sup>
January–December	420,000	1,320,000 <sup>r</sup>	60,800 <sup>r</sup>	1,800,000 <sup>r</sup>
<b>2018:</b>				
January	34,600	114,000 <sup>r</sup>	5,070 <sup>r</sup>	154,000 <sup>r</sup>
February	35,100	107,000 <sup>r</sup>	5,070 <sup>r</sup>	147,000 <sup>r</sup>
March	34,900	115,000 <sup>r</sup>	5,070 <sup>r</sup>	155,000 <sup>r</sup>
April	35,100	105,000 <sup>r</sup>	5,070 <sup>r</sup>	145,000 <sup>r</sup>
May	34,900	115,000 <sup>r</sup>	5,070 <sup>r</sup>	155,000 <sup>r</sup>
June	34,900	104,000 <sup>r</sup>	5,070 <sup>r</sup>	144,000 <sup>r</sup>
July	34,800	105,000 <sup>r</sup>	5,070 <sup>r</sup>	145,000 <sup>r</sup>
August	35,100	119,000	5,070	159,000
January–August	279,000	883,000	40,500	1,200,000

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Monthly consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers are estimated based on the monthly average of 2016 annual data.

TABLE 8  
U.S. APPARENT CONSUMPTION OF COPPER<sup>1</sup>

(Metric tons)

Period	Refined copper production <sup>2</sup>	Copper in old scrap <sup>3</sup>	Refined general imports <sup>4</sup>	Refined exports <sup>4</sup>	Stock change during period	Apparent consumption
2017: <sup>P</sup>						
January–August	722,000	97,400	540,000	72,600	23,000 <sup>r</sup>	1,260,000
August	96,100	12,400	54,200	6,680	23,900 <sup>r</sup>	132,000 <sup>r</sup>
September	92,400	11,800	84,400	7,170	9,220 <sup>r</sup>	172,000 <sup>r</sup>
October	79,100	12,300	70,600	5,210	12,300 <sup>r</sup>	144,000 <sup>r</sup>
November	67,700	12,000	66,500	4,400	-1,620 <sup>r</sup>	143,000 <sup>r</sup>
December	77,900	11,400	58,900	4,810	-728 <sup>r</sup>	144,000 <sup>r</sup>
January–December	1,040,000	145,000	820,000	94,200	42,100 <sup>r</sup>	1,870,000 <sup>r</sup>
2018:						
January	89,600	12,200	81,100	9,550	20,300 <sup>r</sup>	153,000 <sup>r</sup>
February	89,000	11,900	77,500	7,270	-2,750 <sup>r</sup>	174,000 <sup>r</sup>
March	94,800	12,200	75,200	12,100	14,000 <sup>r</sup>	156,000 <sup>r</sup>
April	81,900	12,200	62,400	13,700	17,700 <sup>r</sup>	125,000 <sup>r</sup>
May	87,500	12,200	64,600	13,800	8,150 <sup>r</sup>	142,000 <sup>r</sup>
June	84,600	12,000	66,200	11,200	21,800 <sup>r</sup>	130,000 <sup>r</sup>
July	91,900	12,100	59,500	11,300	12,600 <sup>r</sup>	140,000 <sup>r</sup>
August	93,900	12,100	48,300	15,700	-10,300	149,000
January–August	713,000	96,800	535,000	94,700	81,400	1,170,000

<sup>P</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Includes electrowon production and electrolytically-refined copper from primary materials. All refined copper consumed in scrap form is included in "Copper in old scrap."

<sup>3</sup>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 2016 annual data.

<sup>4</sup>Source: U.S. Census Bureau.

TABLE 9  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP<sup>1</sup>

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers <sup>2</sup>		Brass and wire-rod mills <sup>3</sup>		Foundries, etc. <sup>2</sup>		Total scrap used
	New scrap <sup>e</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2017: <sup>p</sup>									
January–August	13,800	12,800	16,500	41,100	473,000	25,900	29,300	7,650	620,000
August	1,730	1,590	2,060	5,130	60,100	3,450	3,660	956	78,700
September	1,730	1,690	2,060	5,130	57,100	2,920	3,660	956	75,200
October	1,730	1,650	2,060	5,130	60,200	3,460	3,660	956	78,900
November	1,730	1,610	2,060	5,130	57,900	3,180	3,660	956	76,200
December	1,730	1,620	2,060	5,130	55,900	2,560	3,660	956	73,600
January–December	20,800	19,300	24,700	61,600	704,000	38,000	43,900	11,500	924,000
2018:									
January	1,730	1,590	2,060	5,130	59,000	3,380	3,660	956	77,500
February	1,730	1,630	2,060	5,130	57,900	3,010	3,660	956	76,100
March	1,730	1,590	2,060	5,130	54,700	3,450	3,660	956	73,300
April	1,730	1,630	2,060	5,130	58,800	3,380	3,660	956	77,400
May	1,730	1,700	2,060	5,130	61,000	3,270	3,660	956	79,500
June	1,730	1,770	2,060	5,130	60,400	3,030	3,660	956	78,700
July	1,730	1,770	2,060	5,130	59,600	3,110	3,660	956	78,100
August	1,730	1,590	2,060	5,130	59,600	3,320	3,660	956	78,000
January–August	13,800	13,300	16,500	41,100	471,000	25,900	29,300	7,650	619,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>2</sup>Monthly data estimated based on the monthly average of 2016 annual data.

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

TABLE 10  
COPPER STOCKS AT END OF PERIOD<sup>1</sup>

(Metric tons)

Period	Crude copper <sup>2</sup>	Refined copper					Total refined	
		Refineries <sup>3</sup>	Wire-rod mills <sup>3</sup>	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex		LME <sup>5</sup>
2017: <sup>p</sup>								
August	7,350	5,610	25,700 <sup>r</sup>	7,740	5,470	166,000	35,900	246,000 <sup>r</sup>
September	12,100	8,740	24,600 <sup>r</sup>	7,440	5,470	178,000	31,300	256,000 <sup>r</sup>
October	13,600	5,620	27,400 <sup>r</sup>	7,650	5,470	187,000	34,800	268,000 <sup>r</sup>
November	16,700	4,700	32,900 <sup>r</sup>	8,190	5,470	189,000	25,600	266,000 <sup>r</sup>
December	12,600	5,840	27,800 <sup>r</sup>	7,870	5,470	191,000	27,100	265,000 <sup>r</sup>
2018:								
January	15,000	6,190	25,500 <sup>r</sup>	8,040	5,470	202,000	38,800	286,000 <sup>r</sup>
February	14,600	7,690	19,400 <sup>r</sup>	7,880	5,470	209,000	33,200	283,000 <sup>r</sup>
March	9,010	4,790	19,900 <sup>r</sup>	8,000	5,470	211,000	47,600	297,000 <sup>r</sup>
April	9,880	4,500	15,000 <sup>r</sup>	7,870	5,470	225,000	57,000	315,000 <sup>r</sup>
May	8,130	4,960	16,800 <sup>r</sup>	8,190	5,470	210,000	77,200	323,000 <sup>r</sup>
June	14,300	3,590	16,900 <sup>r</sup>	7,980	5,470	203,000	108,000	345,000 <sup>r</sup>
July	9,670	4,980	28,600 <sup>r</sup>	8,180	5,470	186,000	124,000	357,000 <sup>r</sup>
August	9,010	4,600	22,400	7,890	5,470	172,000	134,000	347,000

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Copper content of blister and anode.

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

<sup>4</sup>Monthly estimates based on 2016 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

<sup>5</sup>London Metal Exchange Ltd., U.S. warehouses.

TABLE 11  
 AVERAGE PRICE OF COPPER IN THE UNITED STATES  
 AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers cathode <sup>1</sup>	Comex first position <sup>2</sup>	LME cash price Grade A
2017:			
August	300.928	295.878	293.822
September	303.468	298.405	298.585
October	314.747	309.559	308.299
November	314.717	309.417	309.581
December	314.825	309.825	308.471
Year	285.393	280.425	279.518
2018:			
January	324.640	319.390	321.137
February	322.495	316.745	317.574
March	312.083	306.683	308.227
April	314.129	308.754	310.169
May	312.402	306.402	309.409
June	318.152	311.714	315.436
July	285.626	279.126	283.387
August	276.087	269.387	273.936
January–August	308.202	302.275	304.909

<sup>1</sup>Sum of "Comex high grade first position" and "NY dealer premium cathode."

<sup>2</sup>Listed as "Comex high grade first position."

Source: Platts Metals Week.

TABLE 12  
AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Period	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
2017:				
August	285.74	260.67	190.07	151.17
September	286.25	261.35	200.30	154.45
October	297.34	270.18	204.95	156.18
November	295.42	267.25	208.00	157.50
December	298.58	271.05	206.00	157.00
Year	271.69	245.68	189.25	149.55
2018:				
January	308.14	279.00	215.79	160.81
February	304.63	275.68	217.50	161.00
March	295.18	268.32	213.50	160.00
April	299.33	274.36	209.02	158.00
May	297.50	271.68	208.59	158.55
June	301.67	274.14	214.17	160.57
July	269.95	239.48	198.93	151.29
August	261.00	229.07	187.80	145.43
January–August	292.18	263.97	208.16	156.96

Source: American Metal Market.

TABLE 13  
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

(Metric tons, copper content)

Country or locality	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes			Refined		
	2018			2018			2018			2018		
	2017	August	January–August	2017	August	January–August	2017	August	January–August	2017	August	January–August
Belgium	--	--	--	69	66	164	--	--	--	(4)	--	10,100
Bolivia	--	--	--	--	--	--	--	--	--	1,560	401	840
Brazil	--	--	--	--	--	--	--	--	--	3,580	--	297
Canada	6	--	40	284	13	344	--	--	(4)	209,000	14,200	120,000
Chile	--	--	--	--	--	--	--	--	--	486,000	37,500	345,000
China	--	--	8	33	2	2	--	--	--	50	8	53
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	9,190	117	3,380
Finland	--	--	--	--	--	--	359	--	186	4	--	--
Germany	--	--	--	7	--	--	(4)	--	(4)	2,310	19	702
India	--	--	--	--	--	--	--	--	--	224	--	(4)
Japan	--	--	--	76	--	--	2	1	2	4,630	236	2,610
Malaysia	--	--	--	--	--	--	126	--	54	--	--	--
Mexico	14,000	--	22,900	588	(4)	434	--	--	--	75,200	5,940	43,800
Netherlands	--	--	--	166	--	66	3	(4)	2	3	(4)	(4)
Peru	--	--	--	--	--	--	--	--	--	18,000	1,000	8,010
South Africa	--	--	--	--	--	--	--	--	--	1,510	--	963
Other	9	--	--	397	(4)	36	14	(4)	3	1,230	313	14,300
Total	14,000	--	22,900	1,620	81	1,050	504	2	247	813,000	59,700	550,000

-- Zero.

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

<sup>2</sup>Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

<sup>3</sup>Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14  
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

(Metric tons, copper content)

Country or locality	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes			Refined		
	2018			2018			2018			2018		
	2017	August	January– August	2017	August	January– August	2017	August	January– August	2017	August	January– August
Belgium	--	--	--	4,860	110	1,390	447	18	139	(4)	--	--
Canada	23,500	1,600	12,400	17,300	1,230	13,500	3,290	230	2,940	18,300	6,390	24,500
China	70,800	3,950	43,900	392	74	606	249	--	125	10,100	(4)	985
Germany	--	--	--	576	111	863	215	43	177	14	--	2
Hong Kong	--	--	--	--	--	--	1,110	20	379	1	--	(4)
India	1	--	--	(4)	--	25	730	21	403	15	--	6
Italy	--	--	1	73	--	10	325	41	215	14	1	21
Japan	1,540	--	48	189	19	115	80	20	36	16	--	11
Korea, Republic of	99	--	2,150	397	130	578	1,780	348	1,160	2,460	19	1,980
Mexico	141,000	15,900	94,000	99	--	4	102	1	67	62,600	9,230	66,900
Singapore	--	--	--	--	6	6	40	--	29	5	--	(4)
Spain	--	--	--	124	--	210	121	20	81	1	--	(4)
Switzerland	--	--	--	--	--	--	31	--	17	5	--	4
Taiwan	--	--	--	146	--	--	122	20	40	19	--	12
Vietnam	--	--	--	--	--	--	--	--	--	503	--	1
Other	137	543	595	1,090	240	1,050	1,040	40	480	142	55	296
Total	237,000	22,000	153,000	25,200	1,920	18,300	9,690	823	6,290	94,200	15,700	94,700

-- Zero.

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

<sup>2</sup>Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

<sup>3</sup>Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.



TABLE 15  
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP<sup>1</sup>

(Metric tons, gross weight)

Country or locality	Unalloyed			Alloyed		
	2018			2018		
	2017	August	January– August	2017	August	January– August
Canada	18,900	1,100	11,100	81,900	5,260	49,500
Chile	57	19	177	301	84	213
Colombia	598	20	327	1,360	103	712
Costa Rica	636	32	351	1,060	51	507
Guatemala	36	--	85	446	65	365
Honduras	61	1	2	352	44	308
Mexico	10,400	1,020	7,340	35,300	3,460	25,100
Nicaragua	38	--	19	321	--	225
Pakistan	694	57	548	--	--	--
Panama	1,440	61	879	790	50	461
Venezuela	958	364	2,360	1,870	91	559
Other	1,720	44	1,090	6,190	872	4,610
Total	35,500	2,710	24,300	130,000	10,100	82,600

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 16  
U.S. EXPORTS OF COPPER SCRAP<sup>1</sup>

(Metric tons, gross weight)

Country or locality	Unalloyed							Alloyed				
	2018							2018				
	2017	No. 1		No. 2		Other		2017	Segregated		Unsegregated	
		August	January– August	August	January– August	August	January– August		August	January– August	August	January– August
Belgium	7,870	761	3,600	599	4,520	360	2,160	8,560	21	347	781	5,580
Canada	43,800	--	--	--	--	5,050	35,900	49,700	--	--	5,310	23,800
China	352,000	2,080	60,400	3,130	59,300	3,960	58,400	336,000	1,710	33,500	1,490	40,300
Germany	19,700	1,710	10,800	159	2,840	173	1,060	10,900	19	2,180	948	6,970
Hong Kong	5,580	517	3,200	581	1,240	1,070	5,760	30,800	519	4,790	1,520	11,600
India	4,810	1,130	5,130	200	1,990	371	1,580	20,100	2,610	11,600	844	4,160
Japan	11,800	583	2,340	1,880	9,350	197	2,240	9,300	261	1,100	2,100	11,300
Korea, Republic of	17,200	2,470	14,400	763	3,550	1,020	5,150	14,100	891	5,190	1,380	7,190
Mexico	3,500	192	2,790	--	5	--	41	507	--	30	117	577
Netherlands	7,260	145	2,590	19	217	356	2,720	1,120	--	119	353	1,290
Pakistan	3,790	224	576	37	355	--	2	5,780	--	126	1,210	6,450
Spain	1,220	41	258	--	153	--	79	6,280	159	1,590	708	4,820
Taiwan	5,750	742	4,220	1,150	1,950	448	2,670	2,900	1,230	2,120	1,140	7,500
Thailand	204	115	1,100	--	380	46	1,480	472	20	522	389	9,650
Other	9,690	2,610	11,600	1,460	9,020	2,630	18,600	13,600	2,250	13,500	5,480	27,400
Total	494,000	13,300	123,000	9,980	94,900	15,700	138,000	510,000	9,690	76,700	23,800	169,000

-- Zero.

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

Source: U.S. Census Bureau.