

# Mineral Industry Surveys

**For information, contact:**

Daniel M. Flanagan, Copper Commodity Specialist  
 National Minerals Information Center  
 U.S. Geological Survey  
 989 National Center  
 Reston, VA 20192  
 Telephone: (703) 648-7726, Fax: (703) 648-7757  
 Email: dflanagan@usgs.gov

Samir Hakim (Data)  
 Telephone: (703) 648-7955  
 Fax: (703) 648-7975  
 Email: shakim@usgs.gov

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

## COPPER IN JANUARY 2018

In January 2018, domestic mine production of recoverable copper was 97,600 metric tons (t). The average daily mine production was 3,150 t, a decrease of 3% compared with that in December 2017 and 12% less than that in January 2017 (fig. 1, table 2).

Total U.S. refinery production in January 2018 was 92,800 t; data for electrolytic and electrowon output, as well as refined production from scrap, are in tables 1 and 4. The average daily total refinery production was 2,990 t, an increase of 14% compared with that in December and 8% less than that in January 2017 (fig. 1, table 4). On January 26, Rio Tinto Kennecott (South Jordan, UT) lifted a force majeure on sales of refined copper that had been in effect since October 13, 2017, owing to a fatal accident at its smelter near Magna, UT (Mughal, 2018).

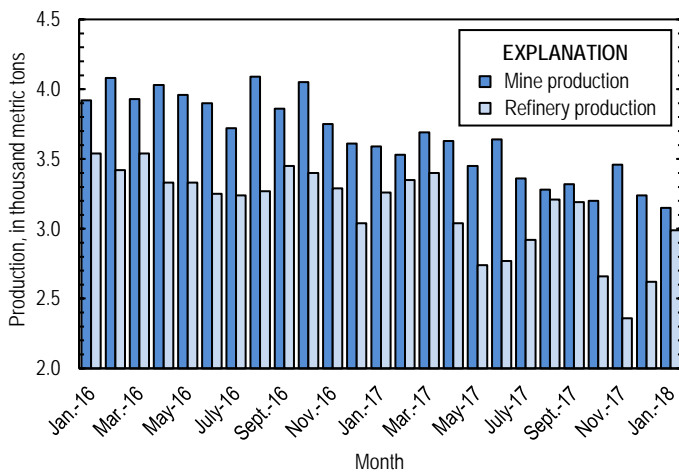


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from January 2016 through January 2018. Source: U.S. Geological Survey.

Smelter production in January 2018 was 53,900 t. The average daily smelter production was 1,740 t, 42% greater than that in December and an increase of 10% from the daily average in January 2017 (table 3). Rio Tinto announced that its smelter near Magna, UT, will draw down an excess concentrates stockpile during the first half of 2018. The inventory

accumulated as a result of a 6-week closure in October and November 2017 (Rio Tinto plc, 2018, p. 4).

**Prices**

The average January 2018 COMEX spot copper price was \$3.19 per pound, an increase of 3% from \$3.10 per pound in December and 22% greater than \$2.62 per pound in January 2017 (fig. 2, table 11). The average price of New York dealers' number 2 scrap in January 2018 was \$2.16 per pound, up from \$2.06 per pound in December and 21% higher than the average price in January 2017 (fig. 2, table 12).

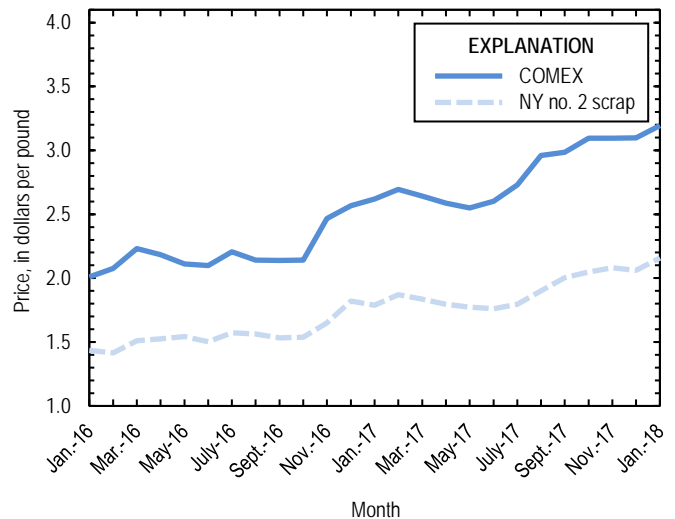


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from January 2016 through January 2018. Sources: American Metal Market, Platts Metals Week.

**Stocks**

Refined copper stocks in the United States totaled 289,000 t at the end of January 2018, an increase of 9% from those in December and 20% more than those in January 2017. COMEX stocks rose by 5%, stocks at wire-rod mills increased by 3%, and London Metal Exchange Ltd. stocks in U.S. warehouses were 43% higher compared with those at the end of December

(fig. 3, table 10). The increased stock levels were consistent with reports of low domestic demand owing to winter weather conditions, limited spot (non-contract) cathode buying activity, and a high availability of refined copper and scrap (Barker, 2018a; CRU International Ltd., 2018, p. 5). Reported consumption of refined copper in the United States during January 2018 was 145,000 t, 5% lower than that in January of the prior year (table 7).

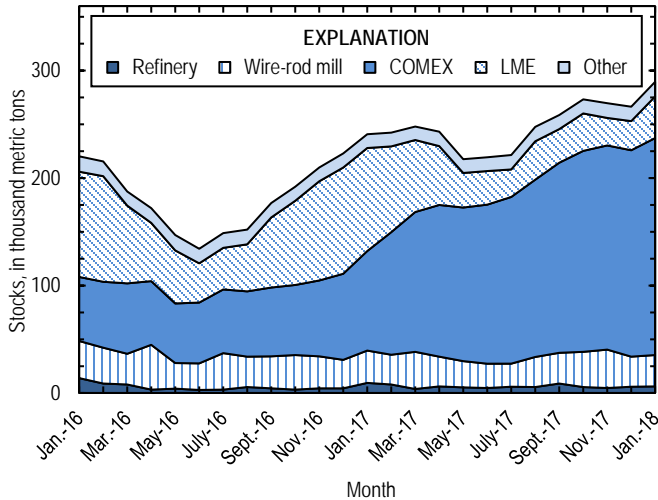


Figure 3. Monthly domestic refined copper stocks, by type, from January 2016 through January 2018. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

### Industry News

In the United States, Nevada Copper Corp. (Canada) received a \$378 million financing package to restart construction of the Pumpkin Hollow project near Reno, NV. The company expected to produce roughly 27,000 tons per year of copper beginning in 2019 (Barker, 2018b). THEMAC Resources Group Ltd. (Canada) was denied water rights for the Copper Flat project in southwestern New Mexico. The company stated that it would pursue alternate methods for securing the rights and potentially appeal the court ruling (Mir, 2018). The U.S. Environmental Protection Agency also announced that it would block the proposed Pebble Mine in southwestern Alaska because of environmental concerns, reversing a previous decision (de la Paz, 2018).

A worker strike at the Paipote smelter, owned by the Chilean mining agency Empresa Nacional de Minería (Enami), ended on January 7. The strike halted anode production for 26 days and affected the operations of Enami's five copper processing plants (Kang, 2018). The Government of China had previously announced new restrictions on copper scrap imports; beginning on March 1, 2018, all imports of scrap copper must contain no more than 1% of impurities (Allen, 2017). In January, copper scrap traders in the United States reported that they were shipping less scrap to China and more to Malaysia, Pakistan, and the Philippines (CRU International Ltd., 2018, p. 6).

### References Cited

- Allen, Lee, 2017, China notifies WTO of scrap impurity thresholds: American Metal Market, November 20. (Accessed February 2, 2018, via <http://www.amm.com/>.)
- Barker, Dalton, 2018a, High US warehousing stocks weigh on copper: American Metal Market, January 31. (Accessed February 2, 2018, via <http://www.amm.com/>.)
- Barker, Dalton, 2018b, Nevada Copper greenlights Pumpkin Hollow: American Metal Market, January 29. (Accessed February 2, 2018, via <http://www.amm.com/>.)
- CRU International Ltd., 2018, CRU copper monitor: London, United Kingdom, CRU International Ltd., January 25, 20 p. (Accessed February 2, 2018, via <http://www.crugroup.com/>.)
- de la Paz, F.D.M., 2018, US EPA keeps restrictions on Northern Dynasty's Pebble copper-gold mine: S&P Global Market Intelligence, January 29. (Accessed February 2, 2018, via <http://www.snl.com/>.)
- Kang, Kiki, 2018, Strike at Chile's Enami copper smelter ends: S&P Global Market Intelligence, January 8. (Accessed January 12, 2018, via <http://www.snl.com/>.)
- Mir, Fawad, 2018, THEMAC denied water rights for Copper Flat project: S&P Global Market Intelligence, January 4. (Accessed January 5, 2018, via <http://www.snl.com/>.)
- Mughal, Sarah, 2018, Rio Tinto lifts force majeure at Kennecott Utah smelting facility: S&P Global Market Intelligence, January 28. (Accessed February 2, 2018, via <http://www.snl.com/>.)
- Rio Tinto plc, 2018, Rio Tinto releases fourth quarter production results: London, United Kingdom, Rio Tinto plc press release, January 16, 28 p. (Accessed March 16, 2018, at [http://www.riotinto.com/documents/180116\\_Rio\\_Tinto\\_releases\\_fourth\\_quarter\\_production\\_results.pdf](http://www.riotinto.com/documents/180116_Rio_Tinto_releases_fourth_quarter_production_results.pdf).)

*List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <http://minerals.usgs.gov/minerals/>.*

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			2018 January	
		2016 <sup>p</sup>	November	December		January– December
<b>Production:</b>						
<b>Primary:</b>						
Mine, recoverable	(2)	1,430,000	104,000	100,000 <sup>r</sup>	1,260,000	97,600
Smelter, total	(3)	563,000	14,500	37,800	470,000	53,900
<b>Refinery:</b>						
Electrolytic, domestic and foreign	(4)	561,000	21,100	30,400	482,000	42,800
Electrowon	(4)	615,000	46,600	47,600	557,000	46,800
Total	(4)	1,180,000	67,700	77,900	1,040,000	89,600
<b>Secondary recoverable copper:<sup>3</sup></b>						
Refineries	(5)	46,300	3,240	3,250	40,100	3,220
Ingot makers <sup>4</sup>	(5)	73,100	4,800 <sup>r</sup>	4,800 <sup>r</sup>	57,600 <sup>r</sup>	4,800
Brass and wire-rod mills	(5)	621,000	53,100	50,500 <sup>r</sup>	645,000 <sup>r</sup>	53,400
Foundries, etc. <sup>4</sup>	(5)	47,200	3,900 <sup>r</sup>	3,900 <sup>r</sup>	46,800 <sup>r</sup>	3,900
<b>Consumption:</b>						
Apparent	(8)	1,890,000	146,000 <sup>r</sup>	147,000 <sup>r</sup>	1,870,000 <sup>r</sup>	150,000
Refined (reported)	(7)	1,810,000	140,000	133,000 <sup>r</sup>	1,770,000 <sup>r</sup>	145,000
Purchased copper-base scrap (gross weight)	(9)	917,000	76,200 <sup>r</sup>	73,600 <sup>r</sup>	924,000 <sup>r</sup>	77,500
<b>Stocks at end of period:</b>						
Total refined	(10)	223,000	269,000 <sup>r</sup>	266,000 <sup>r</sup>	266,000 <sup>r</sup>	289,000
Blister, etc.	(10)	14,400	16,700	12,600	12,600	15,000
Price, U.S. producers cathode (cents per pound) <sup>5</sup>	(11)	224.873	314.717	314.825	285.393	324.640
<b>Imports:<sup>6</sup></b>						
Ore and concentrates	(13)	67	3,380	4	14,100	8,910
Refined	(13)	708,000	65,200	58,400	813,000	88,300
<b>Exports:<sup>6</sup></b>						
Ore and concentrates	(14)	331,000	26,000	15,800	237,000	23,500
Refined	(14)	134,000	4,400	4,810	94,200	9,550

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

<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
2017: <sup>P</sup>						
January	71,000	40,200	111,000	46,800	66,900	114,000
February	64,200	34,500	98,700	41,600	59,400	101,000
March	77,500	36,800	114,000	49,000	67,900	117,000
April	72,500	36,500	109,000	45,600	66,000	112,000
May	75,100	31,900	107,000	48,600	60,900	109,000
June	71,900	37,100	109,000	46,600	64,700	111,000
July	73,500	30,600	104,000	44,900	61,600	107,000
August	71,200	30,500	102,000	46,900	57,000	104,000
September	75,000	24,500 <sup>r</sup>	99,500 <sup>r</sup>	46,700	55,000	102,000
October	66,900	32,400 <sup>r</sup>	99,300 <sup>r</sup>	46,600	54,800	101,000
November	72,800	31,100 <sup>r</sup>	104,000	46,600	59,500	106,000
December	76,100 <sup>r</sup>	24,300 <sup>r</sup>	100,000 <sup>r</sup>	47,600	55,000 <sup>r</sup>	103,000 <sup>r</sup>
January–December	868,000 <sup>r</sup>	391,000 <sup>r</sup>	1,260,000	557,000	729,000 <sup>r</sup>	1,290,000
2018, January	71,200	26,400	97,600	46,800	52,900	99,700

<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 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
2017: <sup>P</sup>	
January	48,900
February	47,800
March	52,200
April	40,700
May	20,100
June	37,100
July	45,800
August	47,200
September	49,000
October	29,300
November	14,500
December	37,800
January–December	470,000
2018, January	53,900

<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	51,100	46,800	97,900	3,240	101,000
February	48,200	41,600	89,800	4,090	93,900
March	53,200	49,000	102,000	3,240	105,000
April	42,300	45,600	87,800	3,230	91,000
May	32,800	48,600	81,400	3,390	84,800
June	33,100	46,600	79,800	3,280	83,000
July	42,400	44,900	87,300	3,220	90,600
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

<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	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2017: <sup>P</sup>									
January	1,680	1,560	800 <sup>r</sup>	4,000 <sup>r</sup>	49,500	3,360	3,060 <sup>r</sup>	845 <sup>r</sup>	64,800 <sup>r</sup>
February	1,680	2,420	800 <sup>r</sup>	4,000 <sup>r</sup>	50,100	2,940	3,060 <sup>r</sup>	845 <sup>r</sup>	65,800 <sup>r</sup>
March	1,680	1,560	800 <sup>r</sup>	4,000 <sup>r</sup>	52,000	3,110	3,060 <sup>r</sup>	845 <sup>r</sup>	67,100 <sup>r</sup>
April	1,680	1,550	800 <sup>r</sup>	4,000 <sup>r</sup>	51,300	3,110	3,060 <sup>r</sup>	845 <sup>r</sup>	66,300 <sup>r</sup>
May	1,680	1,710	800 <sup>r</sup>	4,000 <sup>r</sup>	52,000	3,140	3,060 <sup>r</sup>	845 <sup>r</sup>	67,200 <sup>r</sup>
June	1,680	1,600	800 <sup>r</sup>	4,000 <sup>r</sup>	51,300	3,070	3,060 <sup>r</sup>	845 <sup>r</sup>	66,400 <sup>r</sup>
July	1,680	1,540	800 <sup>r</sup>	4,000 <sup>r</sup>	50,700	3,010	3,060 <sup>r</sup>	845 <sup>r</sup>	65,700 <sup>r</sup>
August	1,680	1,660	800 <sup>r</sup>	4,000 <sup>r</sup>	52,100	3,360	3,060 <sup>r</sup>	845 <sup>r</sup>	67,500 <sup>r</sup>
September	1,680	1,630	800 <sup>r</sup>	4,000 <sup>r</sup>	49,200	2,870	3,060 <sup>r</sup>	845 <sup>r</sup>	64,100 <sup>r</sup>
October	1,680	1,600	800 <sup>r</sup>	4,000 <sup>r</sup>	52,200	3,350	3,060 <sup>r</sup>	845 <sup>r</sup>	67,600 <sup>r</sup>
November	1,680	1,560	800 <sup>r</sup>	4,000 <sup>r</sup>	49,900	3,110	3,060 <sup>r</sup>	845 <sup>r</sup>	65,000 <sup>r</sup>
December	1,680	1,570	800 <sup>r</sup>	4,000 <sup>r</sup>	48,000 <sup>r</sup>	2,500	3,060 <sup>r</sup>	845 <sup>r</sup>	62,400 <sup>r</sup>
January–December	20,100	20,000	9,600 <sup>r</sup>	48,000 <sup>r</sup>	608,000 <sup>r</sup>	36,900	36,700 <sup>r</sup>	10,100 <sup>r</sup>	790,000 <sup>r</sup>
2018, January	1,680	1,540	800	4,000	50,100	3,300	3,060	845	65,300

<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>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
2017: <sup>p</sup>						
January	73,500	114,000	72,900	117,000	29,100	22,200
February	72,800	105,000	73,100	98,000	28,900	29,000
March	74,200	117,000	74,400	120,000	28,600	25,300
April	72,200	112,000	72,800	104,000	28,000	33,000
May	74,700	112,000	74,500	117,000	28,300	28,500
June	73,300	115,000	73,000	117,000	28,600	26,400
July	73,000	97,200	73,200	97,400	28,400	26,700
August	75,000	111,000	74,200	112,000	29,300	25,800
September	74,000	108,000	73,600	103,000	29,700	30,300
October	74,100	107,000	74,100	109,000	29,700	28,500
November	72,500	100,000	72,800	100,000	29,300	28,300
December	72,100 <sup>r</sup>	93,400 <sup>r</sup>	72,000 <sup>r</sup>	91,100 <sup>r</sup>	29,500 <sup>r</sup>	30,600 <sup>r</sup>
January–December	882,000	1,290,000	881,000 <sup>r</sup>	1,290,000	29,500 <sup>r</sup>	30,600 <sup>r</sup>
2018, January	73,600	105,000	73,500	105,000	29,500	30,800

<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
2017: <sup>p</sup>				
January	34,600	113,000	5,620 <sup>r</sup>	153,000 <sup>r</sup>
February	34,800	114,000	5,620 <sup>r</sup>	154,000
March	35,300	116,000	5,620 <sup>r</sup>	157,000
April	34,200	112,000	5,620 <sup>r</sup>	152,000
May	35,300	113,000	5,620 <sup>r</sup>	154,000
June	34,700	114,000	5,620 <sup>r</sup>	155,000
July	35,000	96,300	5,620 <sup>r</sup>	137,000
August	35,300	98,600	5,620 <sup>r</sup>	140,000
September	35,200	108,000	5,620 <sup>r</sup>	148,000 <sup>r</sup>
October	35,400	107,000	5,620 <sup>r</sup>	148,000 <sup>r</sup>
November	34,700	99,900	5,620 <sup>r</sup>	140,000
December	34,900	92,700 <sup>r</sup>	5,620 <sup>r</sup>	133,000 <sup>r</sup>
January–December	420,000	1,280,000 <sup>r</sup>	67,400 <sup>r</sup>	1,770,000 <sup>r</sup>
2018, January	34,600	105,000	5,620	145,000

<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	97,900	12,300 <sup>r</sup>	72,400	12,300	17,800	152,000 <sup>r</sup>
February	89,800	12,700 <sup>r</sup>	53,500	9,100	1,420	145,000 <sup>r</sup>
March	102,000	12,000 <sup>r</sup>	73,800	9,760	5,800	172,000 <sup>r</sup>
April	87,800	12,000 <sup>r</sup>	51,400	12,200	-5,100	144,000 <sup>r</sup>
May	81,400	12,200 <sup>r</sup>	63,200	9,230	-25,200	173,000 <sup>r</sup>
June	79,800	12,000 <sup>r</sup>	79,500	6,140	1,300	164,000 <sup>r</sup>
July	87,300	11,900 <sup>r</sup>	91,800	7,140	2,900	181,000 <sup>r</sup>
August	96,100	12,400 <sup>r</sup>	54,300	6,680	25,600	130,000 <sup>r</sup>
September	92,400	11,800 <sup>r</sup>	85,400	7,190	11,400	171,000 <sup>r</sup>
October	79,100	12,300 <sup>r</sup>	69,600	5,210	14,200	142,000 <sup>r</sup>
November	67,700	12,000 <sup>r</sup>	66,500	4,400	-3,740	146,000 <sup>r</sup>
December	77,900	11,400 <sup>r</sup>	58,900	4,810	-3,450 <sup>r</sup>	147,000 <sup>r</sup>
January–December	1,040,000	145,000 <sup>r</sup>	820,000	94,200	42,900 <sup>r</sup>	1,870,000 <sup>r</sup>
2018, January	89,600	12,200	81,100	9,550	23,300	150,000

<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 electrolytic production and electrolytically-refined copper from primary materials. All refined copper produced from scrap 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	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2017: <sup>p</sup>									
January	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	57,500	3,490	3,660	956 <sup>r</sup>	76,100 <sup>r</sup>
February	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	58,000	3,040	3,660	956 <sup>r</sup>	76,200 <sup>r</sup>
March	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	60,100	3,240	3,660	956 <sup>r</sup>	78,400 <sup>r</sup>
April	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	59,300	3,190	3,660	956 <sup>r</sup>	77,600 <sup>r</sup>
May	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	60,100	3,250	3,660	956 <sup>r</sup>	78,400 <sup>r</sup>
June	1,730 <sup>r</sup>	1,650 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	59,300	3,180	3,660	956 <sup>r</sup>	77,700 <sup>r</sup>
July	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	58,700	3,070	3,660	956 <sup>r</sup>	76,900 <sup>r</sup>
August	1,730 <sup>r</sup>	1,590 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	60,100	3,450	3,660	956 <sup>r</sup>	78,700 <sup>r</sup>
September	1,730 <sup>r</sup>	1,690 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	57,100	2,920	3,660	956 <sup>r</sup>	75,200 <sup>r</sup>
October	1,730 <sup>r</sup>	1,650 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	60,200	3,460	3,660	956 <sup>r</sup>	78,900 <sup>r</sup>
November	1,730 <sup>r</sup>	1,610 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	57,900	3,180	3,660	956 <sup>r</sup>	76,200 <sup>r</sup>
December	1,730 <sup>r</sup>	1,620 <sup>r</sup>	2,060 <sup>r</sup>	5,130 <sup>r</sup>	55,900 <sup>r</sup>	2,560	3,660	956 <sup>r</sup>	73,600 <sup>r</sup>
January–December	20,800 <sup>r</sup>	19,300 <sup>r</sup>	24,700 <sup>r</sup>	61,600 <sup>r</sup>	704,000	38,000	43,900	11,500 <sup>r</sup>	924,000 <sup>r</sup>
2018, January	1,730	1,590	2,060	5,130	59,000	3,380	3,660	956	77,500

<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 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>								
January	11,700	9,250	30,300	7,430	5,470 <sup>r</sup>	92,600	95,700	241,000
February	13,200	8,010	27,700	7,330	5,470 <sup>r</sup>	114,000	79,600	242,000
March	13,500	3,860	34,400	7,050	5,470 <sup>r</sup>	130,000	67,200	248,000
April	26,100	5,980	27,900	8,030	5,470 <sup>r</sup>	141,000	54,700	243,000
May	11,000	5,280	24,400	7,410	5,470 <sup>r</sup>	143,000	31,900	218,000
June	11,000	4,670	22,700	7,430	5,470 <sup>r</sup>	148,000	31,000	219,000
July	11,000	5,810	21,500	7,920	5,470 <sup>r</sup>	155,000	25,800	222,000
August	7,350	5,610	27,800	7,740	5,470 <sup>r</sup>	165,000	35,900	247,000 <sup>r</sup>
September	12,100	8,740	28,600	7,440	5,470 <sup>r</sup>	177,000	31,300	259,000
October	13,600	5,620	32,600	7,650	5,470 <sup>r</sup>	187,000	34,800	273,000
November	16,700	4,700	35,700	8,190	5,470 <sup>r</sup>	190,000	25,600	269,000 <sup>r</sup>
December	12,600	5,840	28,000 <sup>r</sup>	7,870 <sup>r</sup>	5,470 <sup>r</sup>	192,000	27,100	266,000 <sup>r</sup>
2018, January	15,000	6,190	29,000	8,040	5,470 <sup>r</sup>	202,000	38,800	289,000

<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:			
January	266.363	261.863	260.225
February	274.051	269.426	269.484
March	269.122	264.122	264.040
April	263.626	258.626	258.428
May	259.902	254.902	253.608
June	265.143	260.193	258.506
July	277.821	272.883	271.162
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

<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	Dealers (New York)			
	Brass mills No. 1 scrap	Refiners No. 2 scrap	No. 2 scrap	Red brass
				turnings and borings
2017:				
January	254.78	228.38	178.80	144.65
February	261.50	234.00	186.97	148.00
March	256.70	228.57	183.67	146.30
April	251.10	225.95	179.50	145.00
May	249.41	225.32	177.23	144.36
June	255.59	232.27	175.95	144.00
July	267.82	243.18	179.50	146.00
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

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	
	2017	2018	2017	2018	2017	2018	2017	2018
		January		January		January		January
Belgium	--	--	69	33	--	--	(4)	--
Bolivia	--	--	--	--	--	--	1,560	--
Brazil	--	--	--	--	--	--	3,580	297
Canada	25	--	284	48	--	--	209,000	16,800
Chile	--	--	--	--	--	--	486,000	62,200
China	--	--	33 <sup>r</sup>	--	--	--	48	6
Congo (Kinshasa)	--	--	--	--	--	--	9,190	1,070
Finland	--	--	--	--	359	18	4	--
Germany	--	--	7	--	(4)	(4)	2,310	36
India	--	--	--	--	--	--	224	--
Japan	--	--	76	--	2	(4)	4,630	205
Malaysia	--	--	--	--	126	18	--	--
Mexico	14,000	8,910	588 <sup>r</sup>	138	--	--	75,200	5,650
Netherlands	--	--	166	52	3	--	3	--
Peru	--	--	--	--	--	--	18,000	999
South Africa	--	--	--	--	--	--	1,510	--
Other	9	--	700 <sup>r</sup>	17	14 <sup>r</sup>	1	1,230 <sup>r</sup>	1,050
Total	14,100	8,910	1,920 <sup>r</sup>	288	504	37	813,000	88,300

<sup>r</sup>Revised. -- 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	January	2017	January	2017	January	2017	January
Belgium	--	--	4,860 <sup>r</sup>	214	447	11	(4)	--
Canada	23,500	1,610	17,200 <sup>r</sup>	3,610	3,290	489	18,300	895
China	70,800	6,470	392 <sup>r</sup>	75	249	20	10,100	1
Germany	--	--	576 <sup>r</sup>	3	215	--	14	2
Hong Kong	--	--	--	--	1,110	40	1	--
India	1	--	(4)	--	730	46	15	--
Italy	--	--	73 <sup>r</sup>	7	325	--	14	11
Japan	1,540	--	189 <sup>r</sup>	--	80	(4)	16	1
Korea, Republic of	99	--	397 <sup>r</sup>	54	1,780	96	2,460	--
Mexico	141,000	15,400	99 <sup>r</sup>	--	102	1	62,600	8,620
Singapore	--	--	--	--	40	(4)	5	(4)
Spain	--	--	124	--	121	--	1	--
Switzerland	--	--	--	--	31	--	5	--
Taiwan	--	--	146 <sup>r</sup>	--	122	--	19	--
Vietnam	--	--	--	--	--	--	503	--
Other	138	4	1,090 <sup>r</sup>	40	1,040	59	142 <sup>r</sup>	29
Total	237,000	23,500	25,100 <sup>r</sup>	4,000	9,690	763	94,200	9,550

<sup>r</sup>Revised. -- 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	January	2017	January
Canada	18,900	1,570	81,900	6,460
Chile	57	--	301	18
Colombia	598	41	1,360	58
Costa Rica	636	43	1,060	51
Guatemala	36	1	446	26
Honduras	61	--	352	41
Mexico	10,400	898	35,300	2,500
Nicaragua	38	--	321	73
Pakistan	694	151	--	--
Panama	1,440	153	790	117
Venezuela	958	509	1,870	--
Other	1,700 <sup>r</sup>	173	6,120 <sup>f</sup>	541
Total	35,500 <sup>r</sup>	3,540	130,000	9,880

<sup>r</sup>Revised -- 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		
	2017	2018			2017	2018	
		No. 1 January	No. 2 January	Other January		Segregated January	Unsegregated January
Belgium	7,870	213	58	243	8,560	38	314
Canada	43,700	--	--	4,070	49,200	--	2,690
China	351,000	7,530	8,250	8,860	335,000	5,850	7,420
Germany	19,700	1,210	194	45	10,900	228	789
Hong Kong	6,950	207	24	103	31,800	1,100	1,770
India	4,710	90	61	94	20,000	988	147
Japan	11,800	133	589	381	9,300	68	1,330
Korea, Republic of	17,000	1,090	138	455	14,400	527	575
Mexico	3,500	411	--	--	507	2	52
Netherlands	7,260	180	20	448	1,120	40	79
Pakistan	2,340	4	19	--	5,780	--	304
Spain	1,220	107	107	20	6,280	157	736
Taiwan	5,600	475	42	277	2,900	59	254
Thailand	204	46	87	161	472	39	436
Other	9,580 <sup>r</sup>	727	416	839	13,600 <sup>r</sup>	605	2,350
Total	492,000	12,400	10,000	16,000	510,000	9,700	19,200

<sup>r</sup>Revised. -- 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.