

Mineral Industry Surveys

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CHROMIUM IN JUNE 2020

Reported consumption of chromium, on a gross weight basis, in June 2020 was essentially unchanged compared with reported consumption of chromium in May 2020, and decreased by 17% compared with reported consumption in June 2019. Consumer stocks were essentially unchanged compared with those of the previous month and decreased by 30% compared with those of June 2019 (tables 1, 2).

Stainless steel production decreased by 5% in June 2020 compared with production in May 2020, and decreased by 30% compared with production in June 2019 (table 1). Government stockpile inventories for chromium metal have remained essentially unchanged since February 2017. Government stockpile inventories of ferroalloys were

essentially unchanged compared with those in May 2020 and decreased by 7% compared with those of June 2019 (table 3).

Imports of chromite ore, chromium ferroalloys, chromium metal, and stainless steel commonly fluctuate from month to month (table 1). In June 2020, imports of all grades of chromium ferroalloys increased by 28% and 10% compared with imports of chromium ferroalloys in May 2020 and June 2019, respectively. Stainless steel imports in June 2020 increased by 9% compared with imports in May 2020 and decreased by 17% compared with those in June 2019 (fig. 1, table 1).

Exports of chromite ore, chromium ferroalloys, chromium metal, and stainless steel also frequently fluctuate from month

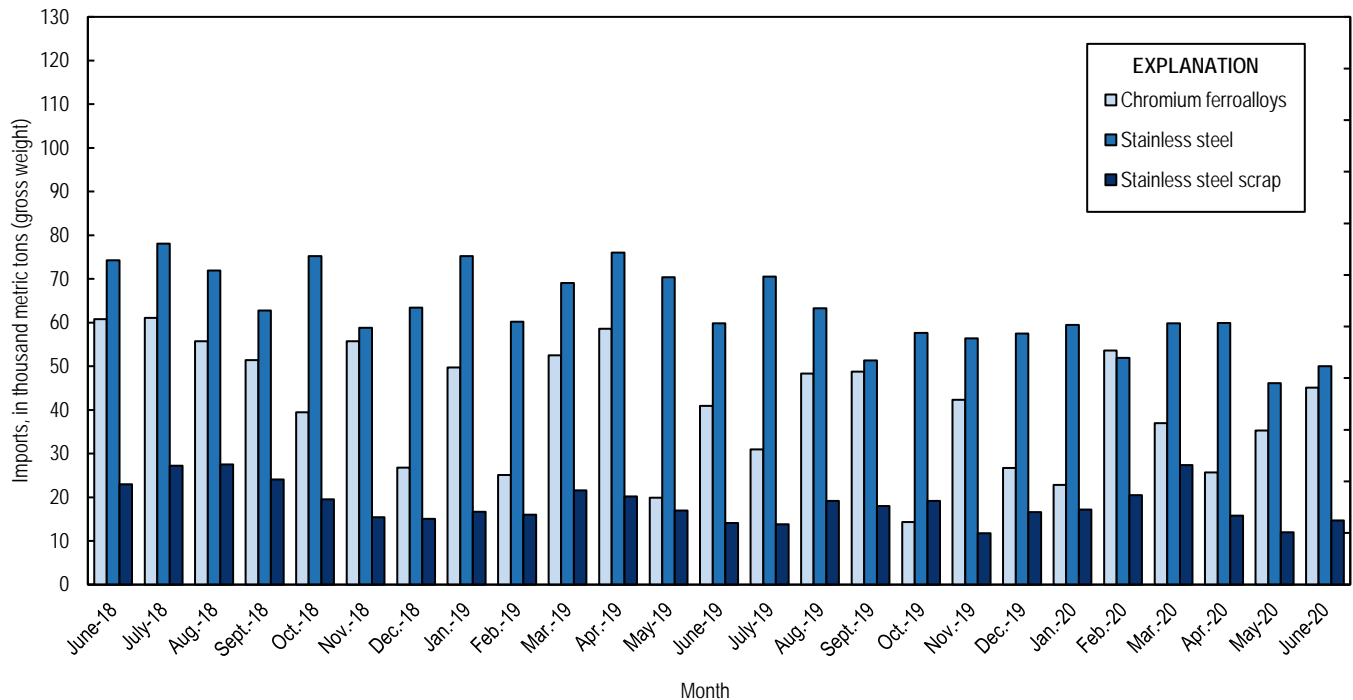


Figure 1. Chromium ferroalloys and stainless steel imports from June 2018 through June 2020. Source: U.S. Census Bureau.

to month (table 1, table 4). Exports of chromium ferroalloys decreased by 34% in June 2020 compared with exports in May 2020 and decreased by 37% compared with exports in June 2019. Stainless steel exports in June 2020 decreased by 11% compared with exports in May 2020 (table 1) and decreased by 41% compared with those of June 2019.

In June 2020, the leading import sources for ferrochromium (FeCr) into the United States were, in descending order of quantity by gross weight, South Africa, Zimbabwe, and Kazakhstan (table 6), whereas the leading import sources for chromium metal were Russia, the United Kingdom, and France (table 7).

The U.S. chromium metal (99% Cr) average price was \$3.350 per pound in June 2020, unchanged from the average price in May 2020, and a 21% decrease compared with the average price in June 2019 (CRU Group, 2020). The U.S. high-carbon FeCr (62%–70% chromium) average price was 90.056 cents per pound of contained chromium in June 2020, essentially unchanged from the average price in May 2020, and a 24% decrease from the average price in June 2019 (fig. 2) (CRU Group, 2020).

Industry News

Tata Steel Mining Ltd. (India) was awarded a 50-year mining lease for the Kamarda Chromite Mine and the Saruabil Chromite Mine in the Jaipur district of Odisha in June. The

leases were auctioned by state government of Odisha following the expiration of their commercial leases in late March 2020. Tata Steel Mining Ltd. finished all preliminary steps to obtain the leases, including initial payments and completion of a mine development and production agreement, before receiving word that it was the successful bidder (Tata Steel Mining Ltd., 2020).

References Cited

CRU Group, 2020, CRU prices_chrome_historical data_01-july-2020-june-avg: CRU Group, July 1. (Accessed July 17, 2020, via <http://www.crugroup.com/>)
 Tata Steel Mining Ltd., 2020, Tata Steel Mining Limited completes mining lease execution for Kamarda Chromite Mine and Saruabil Chromite Mine in Odisha: Bhubaneswar, India, Tata Steel Mining Ltd. press release, June 30. (Accessed August 27, 2020, at <https://www.tatasteel.com/media/newsroom/press-releases/india/2020/tata-steel-mining-limited-completes-mining-lease-execution-for-kamarda-chromite-mine-and-saruabil-chromite-mine-in-odisha/>.)

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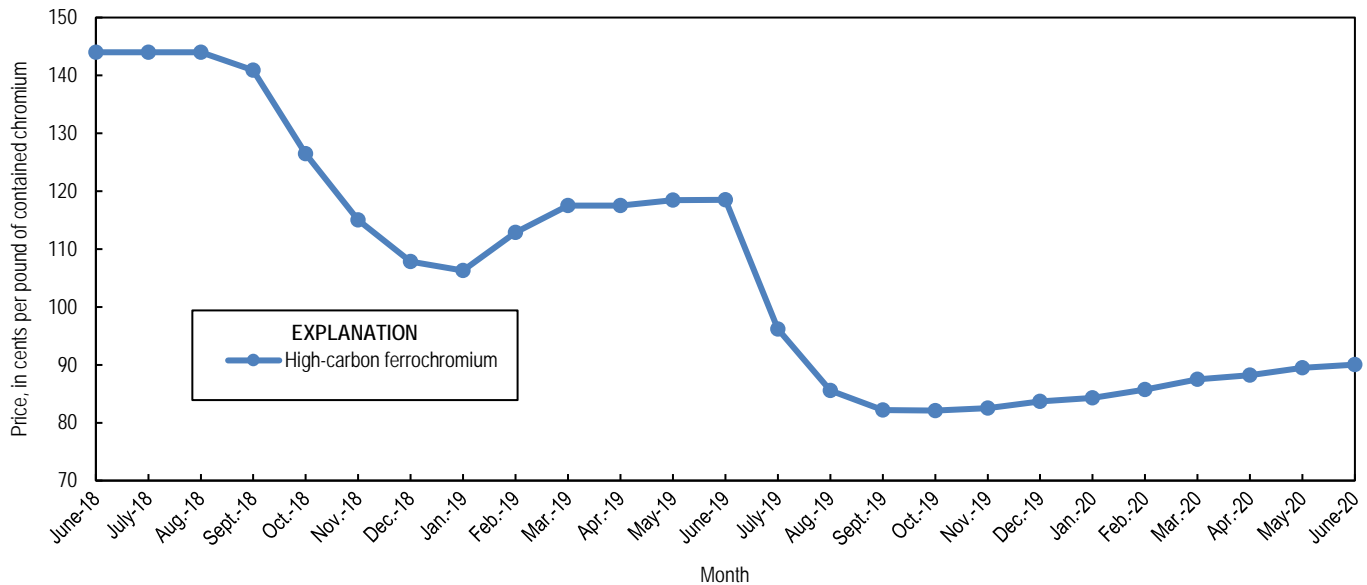


Figure 2. Average monthly prices for U.S. high-carbon ferrochromium from June 2018 through June 2020. Source: CRU Group.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2019	2020			
	January– December ^b	April	May	June	January– June ²
Production, stainless steel ³	2,590,000	148,000	155,000	147,000	1,080,000
Components of U.S. supply:					
Stainless steel scrap receipts	810,000	59,700	58,800	58,000 ^e	380,000 ^e
Stainless steel scrap consumption	1,240,000	88,200	87,100	86,000 ^e	570,000 ^e
Imports for consumption:					
Chromite ore	152,000	1,370	36,300	3,320	52,200
Ferrochromium:					
More than 4% carbon	393,000	15,500	32,900	40,500	184,000
More than 3% but not more than 4% carbon	1,210	37	--	126	174
More than 0.5% but not more than 3% carbon	2,090	311	--	324	2,060
Not more than 0.5% carbon	44,300	8,730	2,410	1,150	22,500
Ferrochromium silicon	17,600	1,050	--	3,030	10,600
Total ferroalloy imports	458,000	25,700	35,300	45,100	220,000
Chromium metal ⁴	14,400	2,190	1,820	994	8,960
Stainless steel	767,000	59,900	46,100	50,000	327,000
Stainless steel scrap	204,000	15,800	12,000	14,700	108,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	389,000	26,900	26,900	26,900	180,000
Exports:					
Chromite ore	2,300	115	155	186	919
Chromium ferroalloys:					
High-carbon ferrochromium	1,300	40	40	33	245
Low-carbon ferrochromium	437	38	2	23	169
Ferrochromium silicon	22	40	42	--	82
Total ferroalloy exports	1,760	118	85	56	496
Chromium metal	431	31	35	33	195
Stainless steel	436,000	25,200	22,100	19,600	161,000
Stainless steel scrap	469,000	15,700	13,100	21,500	160,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	7,530	7,270 ^r	7,270 ^r	7,280	7,280
Government stockpile:					
Chromium ferroalloys	66,100	63,700	62,800	62,500	62,500
Chromium metal	3,850	3,850	3,850	3,840	3,840

^eEstimated. ^bPreliminary. ^rRevised. -- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Data on stainless steel production reported by American Iron and Steel Institute; monthly, quarterly, and year-to-date production of stainless and heat-resisting raw steel.

⁴Includes waste and scrap and other.

TABLE 2
U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS^{1,2}

(Metric tons, gross weight unless otherwise noted)

	2020		
	May	June	January– June ³
Consumption by end use:			
Steel:			
Carbon steel	W	78	509
High-strength low-alloy steel	130	135	806
Stainless and heat-resisting steel	22,900	22,900	156,000
Unspecified steel ⁴	3,360	3,360	20,200
Superalloys	198 ^r	204	1,240
Other alloys and uses ⁵	W	204	1,250
Total	26,900	26,900	180,000
Total, chromium content	15,500	15,500	103,000
Consumption by material:			
Low-carbon ferrochromium	1,650 ^r	1,670	10,500
High-carbon ferrochromium	23,800	23,800	160,000
Ferrochromium silicon	W	W	W
Chromium metal	142 ^r	143	857
Chromite ore	124	124	749
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	26,900	26,900	180,000
Total, chromium content	15,500	15,500	103,000
Consumer stocks:			
Low-carbon ferrochromium	729 ^r	753	753
High-carbon ferrochromium	2,090	2,090	2,090
Ferrochromium silicon	W	W	W
Chromium metal	21 ^r	20	20
Chromium-aluminum alloy	W	W	W
Other chromium materials ⁶	4,110	4,110	4,110
Total	7,270 ^r	7,280	7,280
Total, chromium content	3,740 ^r	3,740	3,740

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

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

²Includes estimates.

³May include revised data that are not broken out by specific month(s).

⁴Includes electrical, full alloy, tool, and unspecified steel end uses.

⁵Includes cast irons, welding and alloy hard-facing rods and materials, wear- and corrosion-resistant alloys, and aluminum, copper, magnetic, nickel, and other alloys.

⁶Includes chromite ore as foundry sand

TABLE 3
U.S. GOVERNMENT STOCKPILE INVENTORY OF
CHROMIUM MATERIALS¹

(metric tons)

	Chromium ferroalloys		Chromium metal
	High-carbon ferro- chromium	Low-carbon ferro- chromium	
2019:			
June	39,900	27,400	3,850
July	39,900	27,400	3,850
August	39,900	27,400	3,850
September	39,600	27,400	3,850
October	39,600	27,400	3,850
November	38,700	27,400	3,850
December	38,700	27,400	3,850
2020:			
January	37,800	27,400	3,850
February	37,100	27,400	3,850
March	36,700	27,100	3,850
April	36,700	27,100	3,850
May	36,000	26,800	3,850
June	35,700	26,800	3,840

¹Data are rounded to no more than three significant digits.

Source: Defense Logistics Agency, DLA Strategic Materials.

TABLE 4
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND METAL¹

	Chromite ore		Chromium ferroalloys ²			Chromium metal ³	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
2019:							
June	220	\$177	90	54	\$158	37	\$844
July	269	217	95	53	160	42	971
August	382	356	38	23	78	44	1,370
September	218	152	30	18	40	25	649
October	61	56	328	184	525	39	1,340
November	141	110	179	107	319	23	889
December	120	86	83	50	107	31	718
January–December ⁴	2,300	1,940	1,760	942	2,810	431	13,100
2020:							
January	147	82	66	36	91	37	733
February	176	104	66	40	118	24	658
March	140	79	106	63	207	35	972
April	115	83	118	61	182	31	550
May	155	90	85	41	106	35	1,050
June	186	133	56	34	72	33	529
January–June ⁴	919	572	496	276	775	195	4,490

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

²Includes low- and high-carbon ferrochromium and ferrochromium silicon.

³Includes chromium metal, waste and scrap, and unwrought powders.

⁴May include revised data that are not broken out by specific month(s).

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND
CHROMIUM METAL¹

(Metric tons)

	2019	2020		
	January– December	May	June	January– June ²
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	973	131	52	1,030
Chromic oxide content	360	49	20	264
More than 40% but less than 46% chromic oxide:				
Gross weight	4,170	898	1,760	5,590
Chromic oxide content	1,810	387	773	2,430
46% or more chromic oxide:				
Gross weight	147,000	35,300	1,510	45,500
Chromic oxide content	90,400	34,700	695	40,900
Total, all grades:				
Gross weight	152,000	36,300	3,320	52,200
Chromic oxide content	92,500	35,200	1,490	43,500
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Gross weight	44,300	2,410	1,150	22,500
Chromium content	30,900	1,710	818	15,300
More than 0.5% but not more than 3% carbon:				
Gross weight	2,090	--	324	2,060
Chromium content	1,330	--	233	1,370
Total, low-carbon:				
Gross weight	46,400	2,410	1,480	24,600
Chromium content	32,200	1,710	1,050	16,700
Medium-carbon: ⁴				
Gross weight	1,210	--	126	174
Chromium content	802	--	68	96
High-carbon: ⁵				
Gross weight	393,000	32,900	40,500	184,000
Chromium content	215,000	17,600	20,900	101,000
Total, all grades:				
Gross weight	440,000	35,300	42,100	209,000
Chromium content	248,000	19,300	22,000	118,000
Chromium metal:				
Unwrought powders	11,500	1,650	923	7,680
Waste and scrap	221	19	3	104
Other than waste and scrap and unwrought powders	2,680	145	67	1,180
Total, all grades	14,400	1,820	994	8,960

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Ferrochromium containing not more than 3% carbon.

⁴Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁵Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2020, BY GRADE AND COUNTRY OR LOCALITY¹

Grade and country or locality	June			January–June ²		
	Gross weight (metric tons)	Chromium content (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value ³ (thousands)
High-carbon ferrochromium:⁴						
Albania	368	249	\$459	2,180	1,450	\$2,560
Brazil	400	207	244	2,170	1,180	1,560
India	167	103	104	5,190	3,130	4,250
Kazakhstan	895	620	1,110	32,400	22,500	36,200
Oman	176	89	117	968	499	630
Russia	--	--	--	13,500	8,730	14,100
South Africa	30,900	15,300	27,100	111,000	54,300	91,700
Sweden	--	--	--	210	142	274
Turkey	294	187	335	1,130	730	1,250
Zimbabwe	7,340	4,130	4,590	15,400	8,790	9,740
Total	40,500	20,900	34,100	184,000	101,000	162,000
Medium-carbon ferrochromium:⁵						
Russia	--	--	--	37	20	59
Turkey	126	68	68	126	68	68
United Kingdom	--	--	--	10	8	23
Total	126	68	68	174	96	149
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon						
Brazil	--	--	--	1,020	631	1,700
India	--	--	--	95	59	178
Kazakhstan	324	233	842	830	591	2,130
Russia	--	--	--	120	85	284
Total	324	233	842	2,060	1,370	4,300
Not more than 0.5% carbon:						
Belgium	--	--	--	1,120	666	3,290
Brazil	150	94	212	521	325	823
China	--	--	--	9	6	29
Germany	82	55	255	1,770	1,210	5,680
India	--	--	--	396	251	774
Japan	80	58	322	579	415	2,280
Kazakhstan	22	16	76	6,230	4,470	15,600
Russia	750	548	1,820	11,500	7,630	23,800
Turkey	69	48	158	455	322	1,250
Total	1,150	818	2,850	22,500	15,300	53,500
All grades:						
Albania	368	249	459	2,180	1,450	2,560
Belgium	--	--	--	1,120	666	3,290
Brazil	550	300	456	3,710	2,140	4,090
China	--	--	--	9	6	29
Germany	82	55	255	1,770	1,210	5,680
India	167	103	104	5,680	3,440	5,210
Japan	80	58	322	579	415	2,280
Kazakhstan	1,240	869	2,030	39,500	27,500	54,000
Oman	176	89	117	968	499	630
Russia	750	548	1,820	25,000	16,400	38,000
South Africa	30,900	15,300	27,100	111,000	54,300	91,700
Sweden	--	--	--	210	142	274
Turkey	489	304	561	1,710	1,120	2,570
United Kingdom	--	--	--	10	8	23
Zimbabwe	7,340	4,130	4,590	15,400	8,790	9,740
Total	42,100	22,000	37,800	209,000	118,000	220,000

(See footnotes at end of table.)

TABLE 6—Continued

U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2020, BY GRADE AND COUNTRY OR LOCALITY¹

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

⁴Ferrochromium containing more than 4% carbon.

⁵Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁶Ferrochromium containing not more than 3% carbon.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2020,
BY GRADE AND BY COUNTRY OR LOCALITY¹

Grade and country or locality	June		January–June ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Unwrought powders:				
Belgium	8	\$46	24	\$140
China	119	1,270	807	7,720
Estonia	--	--	10	75
France	248	2,010	1,580	13,700
Germany	9	181	253	2,080
India	--	--	57	515
Japan	--	--	(4)	21
Russia	284	1,870	3,120	20,300
Spain	--	--	71	363
Switzerland	--	--	20	149
United Kingdom	256	2,160	1,730	17,200
Total	923	7,530	7,680	62,300
Waste and scrap:				
Canada	--	--	15	43
Japan	3	12	9	67
United Kingdom	--	--	80	430
Total	3	12	104	540
Other than waste and scrap and unwrought powders:				
China	(4)	39	21	255
France	--	--	(4)	4
Germany	8	71	36	291
Japan	(4)	4	4	197
Malaysia	(4)	7	(4)	32
Russia	52	366	947	5,310
Spain	--	--	19	97
United Kingdom	7	88	149	1,470
Total	67	574	1,180	7,650
All grades:				
Belgium	8	46	24	139
Canada	--	--	15	43
China	119	1,310	829	7,970
Estonia	--	--	10	75
France	248	2,010	1,580	13,700
Germany	17	252	289	2,370
India	--	--	57	515
Japan	3	16	14	285
Malaysia	(4)	7	(4)	32
Russia	336	2,230	4,070	25,600
Spain	--	--	90	460
Switzerland	--	--	20	149
United Kingdom	263	2,240	1,960	19,100
Total	994	8,110	8,960	70,500

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2020¹

Stainless steel product	June		January–June ²	
	Gross weight (metric tons)	Value ³ (thousands)	Gross weight (metric tons)	Value ³ (thousands)
Exports:				
Ingot	835	\$5,010	6,930	\$41,600
Flat-rolled (width > 600 mm)	10,700	30,700	96,600	266,000
Flat-rolled (width < 600 mm)	3,810	21,100	26,000	147,000
Bars and rods in irregular coils	180	676	1,250	6,660
Other bars and rods	1,810	18,600	13,800	147,000
Wire	534	7,870	3,790	56,900
Tubes, pipes, hollow profiles	1,760	23,200	12,900	158,000
Total	19,600	107,000	161,000	824,000
Stainless steel scrap	21,500	21,600	160,000	114,000
Grand total	41,100	129,000	322,000	938,000
Imports:				
Ingot	10,500	31,500	55,900	215,000
Flat-rolled (width > 600 mm)	15,200	35,800	113,000	269,000
Flat-rolled (width < 600 mm)	3,070	10,700	20,900	81,300
Bars and rods in irregular coils	2,950	8,500	17,600	57,100
Other bars and rods	8,270	31,900	50,600	198,000
Wire	2,830	11,700	16,300	76,300
Tubes, pipes, hollow profiles	7,130	49,100	52,700	374,000
Total	50,000	179,000	327,000	1,270,000
Stainless steel scrap	14,700	11,600	108,000	93,600
Grand total	64,700	191,000	435,000	1,360,000

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

²May include revised data that are not broken out by specific month(s).

³Export value is free alongside ship. Import value is Customs import value, which generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.