

Mineral Industry Surveys

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IRON AND STEEL SCRAP IN SEPTEMBER 2021

In September 2021, purchased steel scrap receipts increased slightly and recirculating scrap production and iron and steel scrap consumption were nearly unchanged compared with those in August. Stocks of purchased and home scrap were nearly unchanged from those at the end of August. In September, pig iron production increased by 16% and consumption decreased slightly from those in August (table 1, fig. 1). Direct-reduced iron receipts decreased by 32% and consumption increased by 4%.

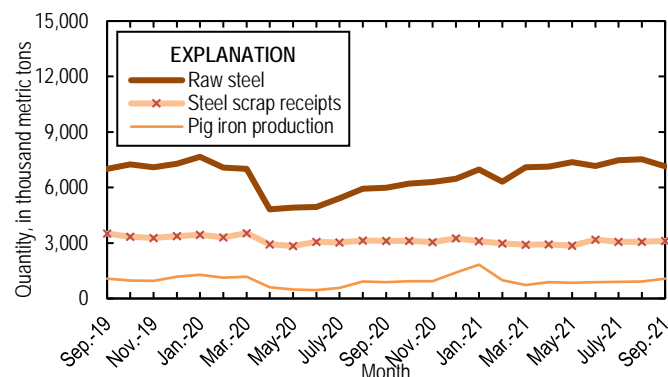


Figure 1. Monthly domestic production of raw steel, receipts of iron and steel scrap, and production of pig iron from September 2019 through September 2021. Sources: U.S. Geological Survey and American Iron and Steel Institute.

Exports of iron and steel scrap in September decreased by 34% from those in August (fig. 2, table 4). Turkey was the leading destination for exports, accounting for 27% of the total tonnage, followed by Mexico (21%) and Bangladesh (10%) (table 4). New York, NY, was the leading U.S. Customs district by tonnage of exports, accounting for 18% of the total, followed by Los Angeles, CA, (15%) and Laredo, TX (13%) (table 5).

Imports of iron and steel scrap increased slightly in September from those in August (fig. 2, table 7). Canada was the leading country of origin, accounting for 77% of the total tonnage of imports, followed by Mexico (12%) and the United Kingdom (9%) (table 7). Detroit, MI, was the leading U.S. Customs district by tonnage of imports, accounting for 39% of

the total, followed by Seattle, WA, (18%) and New Orleans, LA, (9%) (table 8).

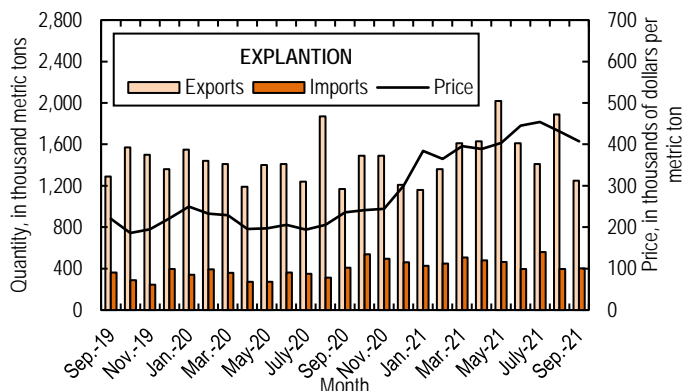


Figure 2. Monthly domestic imports and exports of iron and steel scrap and price for No. 1 heavy melting steel scrap from September 2019 through September 2021. Sources: U.S. Census Bureau and Fastmarkets AMM.

The daily average domestic raw steel production for September, as calculated from the American Iron and Steel Institute’s monthly production data, was 238,000 metric tons, a 5% decrease from that in August 2021 and a 20% increase from that in September 2020. Raw steel production capability utilization was 83.3% in September, down from 84.8% in August and up from 68.6% in September 2020 (table 10). Increases in capability utilization and steel production were attributed to the industry’s recovery from the effects of the global COVID-19 pandemic that caused lower rates of iron and steel consumption in mid-2020.

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TABLE 1
 IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS
 FOR STEEL PRODUCERS, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons)

	September	January–September ³
Scrap:		
Receipts:		
From outside sources	3,120	27,000
From other own company plants	185	1,740
Production:		
Recirculating scrap	305	2,760
Obsolete scrap	12	98
Consumption (by type of furnace):		
Blast furnace	123	1,100
Basic oxygen process	304	2,800
Electric furnace	2,990	26,200
Other	108	759
Total consumption	3,530	30,900
Shipments	37	399
Stocks, end of period	3,880	3,880
Pig iron (includes hot metal):		
Receipts	135	1,970
Production	1,070	8,250
Consumption	1,290	10,000
Stocks, end of period	534	534
Direct-reduced iron: ⁴		
Receipts	171	2,140
Consumption	258	2,120
Stocks, end of period	222	222

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

²Includes manufacturers of raw steel that also produce steel castings. September 2021 data are based on surveys, representing 54% of scrap consumption during this month, and estimates for nonrespondents of this survey.

³May include revisions to previously published data.

⁴Includes direct-reduced iron, hot-briquetted iron, and iron carbide. Domestic production data are included in "Receipts."

TABLE 2
 RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, CONSUMPTION, AND STOCKS OF IRON AND STEEL SCRAP, BY GRADE, FOR STEEL PRODUCERS, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons)

Item	September				January–September ³		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴	Ending stocks	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴
Carbon steel:							
Low-phosphorus plate and punchings	14	W	15	W	124	W	136
Cut structural and plate	265	W	292	302	2,290	305	2,640
No. 1 heavy melting steel	257	40	296	162	2,160	340	2,520
No. 2 heavy melting steel	329	21	382	251	2,990	184	3,400
No. 1 and electric furnace bundles	116	--	118	139	1,000	--	999
No. 2 and all other bundles	65	W	72	30	616	W	626
Electric furnace 1 foot and under (not bundles)	3	W	W	W	W	W	W
Railroad rails	18	7	18	96	148	W	151
Turnings and borings	145	W	149	198	1,310	W	1,350
Slag scrap	26	22	53	76	267	278	486
Shredded and fragmentized	1,010	W	1,060	1,560	8,510	W	9,120
No. 1 busheling	373	W	402	367	3,220	W	3,360
Steel cans (post consumer)	W	W	W	W	W	W	W
All other carbon steel scrap	214	99	331	188	1,820	913	2,860
Stainless steel scrap	54	27	82	38	490	240	741
Alloy steel scrap	24	8	32	55	214	72	289
Ingot mold and stool scrap	W	W	3	2	W	W	28
Machinery and cupola cast iron	2	--	2	W	W	--	W
Cast iron borings	12	W	12	5	106	W	110
Motor blocks	W	--	W	--	W	--	W
Other iron scrap	62	15	62	85	487	116	524
Other mixed scrap	121	W	134	20	1,170	31	1,420
Total	3,120	305	3,530	3,880	27,000	2,760	30,900

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

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

²Includes manufacturers of raw steel that also produce steel castings.

³May include revisions to previously published data.

⁴Includes recirculating scrap and home-generated obsolete scrap.

TABLE 3
RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, AND CONSUMPTION OF IRON AND STEEL SCRAP,
BY REGION AND STATE, FOR STEEL PRODUCERS, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons)

Region and State	September			January–September ³		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴
Mid-Atlantic and New England:						
New Jersey, New York, Pennsylvania	236	40	282	2,120	360	2,540
North Central:						
Illinois and Indiana	411	74	510	3,490	667	4,380
Iowa, Minnesota, Nebraska, Wisconsin	215	7	232	1,950	64	2,090
Michigan	38	4	44	482	152	544
Ohio	406	77	462	3,440	667	4,040
Total	1,070	161	1,250	9,360	1,550	11,000
South Atlantic:						
Georgia, North Carolina, South Carolina	290	W	310	2,510	W	2,660
Virginia, West Virginia	105	W	117	910	W	1,070
Total	395	19	427	3,420	143	3,730
South Central:						
Alabama, Kentucky, Mississippi, Tennessee	659	41	768	5,490	313	6,230
Arkansas and Texas	486	28	528	4,150	249	4,700
Total	1,150	70	1,300	9,640	562	10,900
Mountain and Pacific:						
California, Colorado, Oregon, Utah, Washington	269	15	275	2,480	140	2,650
Grand total	3,120	305	3,530	27,000	2,760	30,900

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 manufacturers of raw steel that also produce steel castings.

³May include revisions to previously published data.

⁴Includes recirculating scrap and home-generated obsolete scrap.

TABLE 4
U.S. EXPORTS OF IRON AND STEEL SCRAP BY SELECTED REGION AND COUNTRY
OR LOCALITY, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Region and country or locality	September		January–September ³	
	Quantity	Value	Quantity	Value
Bangladesh	131	59,900	1,120	483,000
Belgium	1	1,280	6	5,580
Brazil	(4)	37	98	37,500
Canada	61	23,700	668	206,000
Cayman Islands	(4)	282	2	2,230
China	22	2,610	113	45,000
Ecuador	--	--	124	55,100
Egypt	--	--	397	161,000
Germany	1	496	9	5,280
Greece	(4)	20	189	64,600
Hong Kong	3	2,630	29	32,800
India	38	38,700	458	302,000
Indonesia	(4)	116	48	19,600
Italy	(4)	21	229	105,000
Japan	4	2,910	21	19,100
Korea, Republic of	46	22,500	492	224,000
Kuwait	--	--	12	4,170
Malaysia	30	33,700	1,240	400,000
Mexico	264	77,500	2,590	904,000
Netherlands	(4)	184	5	4,040
Pakistan	65	35,200	524	288,000
Peru	121	55,500	315	144,000
Philippines	2	1,840	29	18,600
Portugal	--	--	6	2,300
Russia	(4)	20	2	1,830
Saudi Arabia	--	--	147	62,100
Singapore	--	--	2	1,370
Spain	(4)	53	3	1,700
Sweden	(4)	582	2	6,280
Switzerland	--	--	47	23,900
Taiwan	98	42,400	1,060	425,000
Thailand	15	13,800	233	156,000
Turkey	332	148,000	2,590	1,080,000
United Arab Emirates	(4)	368	11	5,500
United Kingdom	(4)	233	1	1,390
Vietnam	15	5,690	1,090	453,000
Other ⁵	(4)	897	22	12,600
Total	1,250	572,000	13,900	5,770,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

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

³May include revisions to previously published data.

⁴Less than ½ unit.

⁵Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF IRON AND STEEL SCRAP BY REGION AND
SELECTED CUSTOMS DISTRICT, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Region and customs district	September		January–September ³	
	Quantity	Value	Quantity	Value
Canada–United States border:				
Buffalo, NY	10	5,590	82	42,100
Chicago, IL	(4)	87	3	1,400
Detroit, MI	9	4,840	193	50,500
Duluth, MN	2	1,460	33	7,910
Great Falls, MT	3	1,240	23	6,610
Ogdensburg, NY	1	267	21	3,880
Pembina, ND	18	7,870	188	75,700
Other	10	1,590	92	11,200
Total	54	22,900	636	199,000
East coast:				
Baltimore, MD	11	7,070	392	193,000
Boston, MA	118	53,700	995	429,000
Charleston, SC	10	8,290	110	77,800
Miami, FL	35	15,700	327	153,000
New York City, NY	228	121,000	2,480	950,000
Norfolk, VA	34	25,600	310	196,000
Philadelphia, PA	47	21,300	818	341,000
Portland, ME	10	4,280	62	25,100
Providence, RI	34	15,500	335	138,000
Savannah, GA	15	12,600	140	97,400
St. Albans, VT	2	464	17	3,520
Wilmington, NC	(4)	100	2	1,380
Total	543	286,000	5,990	2,600,000
Gulf coast and Mexico–United States border (includes Caribbean territories):				
El Paso, TX	20	9,670	216	86,400
Houston–Galveston, TX	13	10,400	260	157,000
Laredo, TX	167	36,200	1,220	328,000
Mobile, AL	1	363	7	4,840
New Orleans, LA	1	632	99	25,500
Nogales, AZ	(4)	102	2	647
San Juan, PR	7	2,160	125	44,300
Tampa, FL	16	8,230	434	153,000
U.S. Virgin Islands	--	--	6	2,300
Total	225	67,700	2,370	802,000
West coast and Hawaii:				
Columbia–Snake, OR	33	16,700	775	354,000
Honolulu, HI, and Anchorage, AK	2	831	98	39,500
Los Angeles, CA	194	95,000	1,920	879,000
San Diego, CA	23	8,040	226	71,500
San Francisco, CA	87	40,100	1,250	531,000
Seattle, WA	91	34,400	664	288,000
Total	430	195,000	4,940	2,160,000
Grand total	1,250	572,000	13,900	5,770,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

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

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Item	September		January–September ³	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	478	181,000	4,140	1,740,000
No. 2 heavy melting steel	61	28,000	543	247,000
No. 1 bundles	12	4,830	210	43,400
No. 2 bundles	3	394	22	2,750
Shredded steel scrap	372	169,000	4,290	1,880,000
Borings, shovelings and turnings	4	1,350	16	5,390
Cut plate and structural	45	20,300	472	207,000
Tinned iron or steel	8	3,330	88	33,700
Remelting scrap ingots	(4)	157	18	1,740
Cast iron	62	31,600	1,610	386,000
Other iron and steel	137	65,700	1,660	694,000
Total carbon steel and cast iron	1,180	506,000	13,100	5,240,000
Stainless steel	24	34,700	231	238,000
Other alloy steel	45	31,100	631	289,000
Total stainless and alloy steel	69	65,800	862	528,000
Total carbon, stainless, alloy steel and cast iron	1,250	572,000	13,900	5,770,000
Ships, boats, and other vessels for breaking up (for scrapping)	(4)	66	(4)	77
Used rails	(4)	46	1	2,520
Used rails for rerolling and other uses	1	372	1	439
Total scrap exports	1,250	572,000	13,900	5,770,000
Exports of manufactured ferrous products,				
Pig iron < or = 0.5% phosphorus	(4)	53	2	1,630
Pig iron > or = 0.5% phosphorus	(4)	9	(4)	42
Alloy pig iron	(4)	3	(4)	8
Total pig iron	(4)	64	3	1,680
Direct-reduced iron (DRI)	2	171	14	848
Spongy iron products, not DRI	57	30,500	405	207,000
Granules for abrasive cleaning and other uses	2	3,210	15	26,000
Powders of alloy steel	1	6,250	13	60,100
Other ferrous powders	6	8,070	63	81,000
Total DRI, granules, powders	68	48,200	510	374,000
Grand total	1,320	620,000	14,400	6,150,000

-- Zero.

¹Export valuation is on a free-alongside-ship basis.

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

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED COUNTRY OR LOCALITY, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Country or locality	September		January–September ³	
	Quantity	Value	Quantity	Value
Bahamas	(4)	21	1	207
Belgium	--	--	48	15,300
Canada	312	152,000	2,790	1,260,000
Cayman Islands	1	262	4	1,040
China	(4)	226	6	1,590
Colombia	(4)	324	2	3,400
Dominican Republic	(4)	44	1	903
Ecuador	(4)	411	1	2,020
Germany	(4)	180	62	22,600
Japan	3	58	27	745
Mexico	49	24,100	416	235,000
Netherlands	(4)	12	215	100,000
New Zealand	--	--	30	16,900
Poland	--	--	52	28,500
Russia	1	1,100	2	3,470
Singapore	--	--	3	374
Spain	--	--	28	10,800
Sweden	(4)	5	104	54,100
United Kingdom	35	21,800	273	142,000
Other ⁵	1	507	12	10,500
Total	403	201,000	4,080	1,910,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is on a Customs basis.

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

³May include revisions to previously published data.

⁴Less than ½ unit.

⁵Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED CUSTOMS DISTRICT, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Customs district	September		January–September ³	
	Quantity	Value	Quantity	Value
Baltimore, MD	--	--	2	1,990
Buffalo, NY	31	26,500	300	193,000
Charleston, SC	(4)	211	305	144,000
Chicago, IL	5	2,040	31	7,350
Cleveland, OH	(4)	186	13	2,240
Detroit, MI	159	82,700	1,450	731,000
Duluth, MN	15	6,830	132	54,000
El Paso, TX	3	1,560	36	16,600
Great Falls, MT	1	287	12	3,340
Houston–Galveston, TX	1	901	12	9,590
Laredo, TX	21	15,500	260	161,000
Miami, FL	2	505	9	3,200
Minneapolis, MN	--	--	1	191
Mobile, AL	18	3,640	124	75,600
New Orleans, LA	38	21,800	476	210,000
New York City, NY	1	1,210	2	2,960
Nogales, AZ	2	673	19	8,010
Norfolk, VA	--	--	1	598
Ogdensburg, NY	1	1,040	12	8,520
Pembina, ND	23	11,200	174	79,600
Portland, ME	(4)	3	1	780
San Diego, CA	6	2,630	45	15,800
Seattle, WA	74	20,800	650	179,000
St. Albans, VT	1	449	13	4,730
Other	(4)	97	1	806
Total	403	201,000	4,080	1,910,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Import valuation is on a Customs basis.

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

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN SEPTEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Item	September		January–September ³	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	16	5,560	146	46,200
No. 2 heavy melting steel	10	3,750	91	30,600
No. 1 bundles	84	51,900	1,250	638,000
No. 2 bundles	6	2,590	67	26,500
Shredded steel scrap	65	25,400	464	166,000
Borings, shovelings and turnings	8	2,620	72	24,600
Cut plate and structural	10	4,750	160	59,000
Tinned iron or steel	24	10,800	190	83,600
Remelting scrap ingots	(4)	128	1	814
Cast iron	15	5,070	141	52,400
Other iron and steel	88	30,200	748	265,000
Total carbon steel and cast iron	326	143,000	3,330	1,390,000
Stainless steel	21	31,300	210	282,000
Other alloy steel	56	26,700	537	238,000
Total stainless and alloy steel	77	58,000	747	520,000
Total carbon, stainless, alloy steel and cast iron	403	201,000	4,080	1,910,000
Ships, boats, and other vessels for breaking up (for scrapping)	--	--	5	33,800
Used rails	(4)	36	1	309
Used rails for rerolling and other uses	--	--	1	997
Used rails other	(4)	738	1	2,040
Total scrap imports	403	202,000	4,090	1,950,000
Imports of manufactured ferrous products:				
Pig iron < or = 0.5% phosphorus	--	--	(4)	633
Pig iron > or = 0.5% phosphorus	516	318,000	4,780	2,630,000
Alloy pig iron	(4)	83	(4)	593
Total pig iron	516	318,000	4,780	2,630,000
Direct-reduced iron (DRI)	287	131,000	2,610	2,020,000
Spongy iron products, not DRI	(4)	390	2	4,180
Granules for abrasive cleaning and other uses	2	3,480	20	29,200
Powders of alloy steel	5	10,900	461	92,400
Other ferrous powders	4	7,430	33	62,800
Total DRI, granules, powders	299	153,000	3,130	2,200,000
Grand total	1,220	673,000	12,000	6,790,000

-- Zero.

¹Import valuation is on a Customs basis.

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

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. RAW STEEL PRODUCTION, RAW STEEL CAPABILITY UTILIZATION,
AND CONTINUOUS CAST STEEL PRODUCTION¹

Period	Raw steel production, thousand metric tons		Raw steel capability utilization, percent		Continuous cast steel production, percent	
	Monthly	Year to date ²	Monthly	Year to date ²	Monthly	Year to date ²
2020:						
September	5,980	53,700	68.6	66.8	99.8	99.9
October	6,220	60,000	70.1	67.1	99.8	99.8
November	6,300	66,300	73.3	67.7	99.8	99.8
December	6,480	72,700	72.9	68.1	99.8	99.8
2021:						
January	6,970	6,970	76.6	76.6	99.8	99.8
February	6,320	13,300	76.8	76.7	99.8	99.8
March	7,100	20,400	78.0	77.1	99.8	99.8
April	7,130	27,500	80.8	78.0	99.8	99.8
May	7,370	34,900	81.0	78.7	99.8	99.8
June	7,170	42,100	83.0	79.4	99.8	99.8
July	7,480	49,500	84.4	80.1	99.8	99.8
August	7,520	57,100	84.8	80.7	99.8	99.8
September	7,150	64,200	83.3	81.0	99.8	99.8

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

²May include revisions to previously published data.

Source: American Iron and Steel Institute.

TABLE 11
COMPOSITE PRICES FOR STEEL SCRAP AND PIG IRON

Period	Steel Scrap ¹		Pig Iron ²	
	\$/lt	\$/t	\$/lt	\$/t
2020:				
September	240.24	236.45	272.50	268.20
October	244.48	240.62	272.50	268.20
November	248.28	244.36	333.35	328.09
December	304.43	299.62	333.35	328.09
Average, January–December	231.28	227.62	313.73	308.78
2021:				
January	390.18	384.02	537.00	528.52
February	371.23	365.37	508.08	500.06
March	401.96	395.61	423.17	416.49
April	394.84	388.60	479.13	471.56
May	410.08	403.60	568.14	559.17
June	452.46	445.31	568.14	559.17
July	461.67	454.38	500.00	492.10
August	438.33	431.41	581.71	572.52
September	413.33	406.80	631.97	621.99

¹Prices are for No. 1 heavy melting steel scrap. Source: Fastmarkets AMM.

²Basic pig iron (HTS 7201.00.0000), average unit value, free on board, from Brazil received at New Orleans, LA. Source: U.S. Census Bureau.

Note: Long tons = lt; metric tons = t.