



2018 Minerals Yearbook

IRON AND STEEL SCRAP [ADVANCE RELEASE]

IRON AND STEEL SCRAP

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In 2018, domestic consumers had net receipts, defined as gross receipts minus shipments, of all types of ferrous scrap from brokers, dealers, and other outside sources of 46.6 million metric tons (Mt) at an estimated value of \$15.1 billion, a 3% increase from 45.1 Mt at an estimated value of \$12.0 billion in 2017 (tables 1, 8). Exports of iron and steel scrap reached 17.2 Mt in 2018, with a value of \$5.92 billion, a 15% increase from 15.0 Mt in 2017, with a value of \$4.87 billion (table 11). The U.S. steel industry has been commercially recycling steel scrap since 1906 using electric arc furnaces (EAFs) (Desy, 1980, p. 456). Production from EAFs accounted for 68.0% of the total raw steel produced in 2018, down from 68.4% in 2017 and down for the first time since 2012. U.S. raw steel production increased by 6% to 86.6 Mt in 2018 compared with 81.6 Mt in 2017 (American Iron and Steel Institute, 2019, p. 7).

Iron and steel scrap is a vital raw material in the production of new steel and cast-iron products. The steelmaking and foundry industries in the United States are highly dependent upon the ready availability of scrap from manufacturing operations and the recovery of obsolete products. On average, basic oxygen furnaces consume scrap as approximately 25% of their raw materials and EAFs consume scrap as approximately 90% of their raw materials. Iron foundries use steel mixtures containing an average of 75% steel scrap. Steel scrap recycling conserves energy, landfill space, and raw materials; each ton of steel recycled conserves 2,500 pounds of iron ore, 1,400 pounds of coal, and 120 pounds of limestone. Steel is the most recycled material in the world, by tonnage, outpacing recycling of aluminum, glass, paper, and plastic (Steel Recycling Institute, undated).

In the United States, the primary source of obsolete steel for recycling is automobiles. Historically, the U.S. automotive recycling industry recycled an estimated 18 Mt of steel from end-of-life vehicles (the equivalent of 13 million automobiles) using more than 275 car shredders. By weight, the typical car consists of approximately 60% iron and steel (James Woods, Senior Director, Steel Recycling Institute, written commun., January 8, 2016).

Minimills, in which EAFs are used, consumed direct-reduced iron (DRI) to improve steel quality, and integrated steelmakers continued to use small quantities of DRI in blast furnaces as a process coolant. Minimills commonly use a feed mix that has various proportions of DRI, pig iron, and scrap. Raw steel production by U.S. minimills increased to 58.9 Mt in 2018, 6% higher than the production of 55.8 Mt in 2017 (American Iron and Steel Institute, 2019, p. 7). Production of DRI in the United States increased to 3.35 Mt in 2018 from 2.99 Mt in 2017 and 1.81 Mt in 2016 (Midrex Technologies, Inc., 2019, p. 9).

Legislation and Government Programs

In March 2018, the President of the United States issued Proclamations 9704 and 9705 on Adjusting Imports of Steel

and Aluminum into the United States. These proclamations were issued after concluding investigations launched in April 2017 conducted by the U.S. Department of Commerce (DOC) into whether dependence on steel imports constituted a national security threat through the presidential authority under section 232 of the Trade Expansion Act of 1962. The DOC determined that steel imports were a national security threat and recommended imposing trade actions, such as quotas or tariffs, to modify import levels. The initial Presidential proclamations were announced in the Federal Register (83 FR 13355 and 83 FR 13361) and instituted a 25% ad valorem tariff on certain steel mill articles imported from all countries (Executive Office of the President, 2018; U.S. Department of Homeland Security, undated). Throughout the year, modifications and changes were made to the list of countries subject to the tariffs; for some countries, quotas were established in place of additional duties, and exemptions for certain products were granted. At yearend 2018, the additional import duty for steel articles remained at 25% for most countries of origin and was 50% for Turkey. The only countries that did not have an import duty for steel were Argentina, Brazil, and the Republic of Korea, all of which had import quotas in place instead, and Australia.

Consumption

The U.S. Geological Survey derived domestic data on ferrous scrap, pig iron, and DRI from voluntary monthly and (or) annual surveys of U.S. scrap-consuming operations. Total consumption estimates for these consumers were derived from actual survey responses and statistical estimates based on prior years' reports.

In 2018, total domestic consumption of ferrous scrap, based on reported and estimated data, was 51.8 Mt, slightly higher than the 50.4 Mt consumed in 2017 (table 1). Apparent consumption of domestically produced scrap (net receipts plus exports minus imports) was 58.8 Mt in 2018, a 6% increase from 55.4 Mt in 2017. Consumption of pig iron decreased by 15% to 17.4 Mt in 2018 from 20.5 Mt in 2017. Consumption of DRI increased by 26% to 2.37 Mt from 1.89 Mt in 2017. Manufacturers of pig iron, raw steel, and castings accounted for the largest share (91%) of total ferrous scrap consumption, followed by iron foundries and miscellaneous users (8%), and manufacturers of steel castings (1%). Ferrous scrap accounted for the largest share (72%) of ferrous materials consumed in steel making, followed by pig iron (24%) and DRI (3%).

In 2018, continuous cast steel production represented 99.7% of total raw steel production. Raw steel production capability increased slightly to 111 Mt in 2018 from 110 Mt in 2017. The capacity utilization increased to 78.2% in 2018 from 74.0% in 2017. Net shipments of all grades of steel mill products increased by 5% to 86.4 Mt from 82.5 Mt in 2017 (American Iron and Steel Institute, 2019, p. 23).

Prices

The average composite delivered price of No. 1 heavy-melting steel scrap in 2018, calculated from prices per long ton published monthly by American Metal Market, was \$322.99 per metric ton, up from \$265.83 in 2017 (table 8). The average monthly price ranged from a low of \$299.40 per metric ton in September to a high of \$344.94 per metric ton in April, increasing from an annual average low of \$251.68 in February 2017 and annual average high of \$282.14 in September 2017. The average unit value of total ferrous scrap exports (excluding used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) increased by 6% to \$343.98 per metric ton from \$325.42 per metric ton in 2017 (table 11). The average unit value of total exports of pig iron increased by 25% to \$441.86 per metric ton from \$352.37 per metric ton in 2017 (table 14).

Foreign Trade

In 2018, U.S. net exports for all classes of ferrous scrap (including used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) increased to 12.2 Mt with a net value of \$4.09 billion, from 10.3 Mt with a net value of \$3.37 billion in 2017 (table 1), representing an 18% increase in quantity and a 21% increase in value.

World Review

Iron and steel scrap is an essential raw material for the steel and foundry industries. Because scrap comes from such sources as discarded cars, consumer durables, industrial machinery, manufacturing operations, and old buildings, industrialized economies are generally the leading exporters of scrap.

The United States exported more iron and steel scrap in 2018 than any other country (17.3 Mt), followed by, in decreasing order of export tonnage, the United Kingdom (8.7 Mt), Germany (8.1 Mt), Japan (7.4 Mt), France (6.4 Mt), the Netherlands (6.2 Mt), Russia (5.5 Mt), and Canada (5.1 Mt). The leading importing nations were, in decreasing order of import tonnage, Turkey (20.7 Mt), the Republic of Korea (6.4 Mt), Italy (5.6 Mt), the United States (5.0 Mt), and Belgium (4.5 Mt) (World Steel Association, 2019a, p. 22).

World capacity (operating, under construction, and under contract) for DRI production in 2018 was estimated to be approximately 136 million metric tons per year (Mt/yr), including 13 Mt/yr of idled capacity. In 2018, collective DRI capacity of about 13 Mt/yr was under construction in Algeria, Bolivia, Iran, the United States, and Venezuela. DRI production worldwide was estimated to have increased by 15% to 100.5 Mt in 2018 from 87.1 Mt in 2017. The leading producer of DRI was India (28.1 Mt), followed by Iran (25.8 Mt), Russia (7.9 Mt), Mexico (6.0 Mt), Saudi Arabia (6.0 Mt), and Egypt (5.2 Mt). The primary methods of producing DRI were, in order of production capacity, the Midrex process (92.7 Mt/yr), HYL/Energiron (22.7 Mt/yr), Rotary Kiln (14.1 Mt/yr), other technologies (6.3 Mt/yr) (Midrex Technologies, Inc., 2019, p. 2–9, 12–15).

In 2018, Cleveland-Cliffs Inc. began construction of a 1.9-Mt/yr hot-briquetted iron plant at a brownfield site in Toledo, OH. The feedstock for the plant would be sourced from Cleveland-Cliffs' mines, and products were expected to be sold to

EAF partners throughout the Great Lakes region. The project was expected to be completed by midyear 2020 (Cleveland-Cliffs Inc., 2019, p. 1, 4, 6).

Outlook

World apparent steel consumption (ASC) was reported to be 1,712 Mt in 2018 and forecast to increase slightly to 1,735 Mt in 2019 and 1,752 Mt in 2020. China's ASC is expected to increase to 843.3 Mt in 2019 and decrease to 834.9 Mt in 2020, from 835.0 Mt in 2018. The ASC in India is expected to increase to 102.8 Mt in 2019 and 110.2 Mt in 2020, from 96.0 Mt in 2018. Increases in ASC are also anticipated in the Commonwealth of Independent States (to 57.0 Mt in 2019 from 56.2 Mt in 2018), the European Union (to 170.2 Mt from 169.7 Mt), and the United States (to 101.4 Mt from 100.2 Mt). Japan's ASC is expected to decrease to 64.7 Mt in 2019 from 65.4 Mt in 2018 (World Steel Association, 2019a, p. 16; 2019b).

References Cited

- American Iron and Steel Institute, 2019, Annual statistical report 2018: Washington, DC, American Iron and Steel Institute, 115 p.
- Cleveland-Cliffs Inc., 2019, 2018 annual report: Cleveland, OH, Cleveland-Cliffs Inc., 176 p. (Accessed September 1, 2019, at http://s1.q4cdn.com/345331386/files/doc_financials/annual/CLF_2018_AnnualReport.pdf.)
- Desy, D.H., 1980, Iron and steel, in Knoerr, A.W., ed., Mineral facts and problems—1980 edition: U.S. Bureau of Mines Bulletin 671, p. 455–480.
- Executive Office of the President, 2018, Adjusting imports of steel into the United States—Proclamation 9711 of March 22, 2018: Federal Register, v. 83, no. 60, March 28, p. 13361–13365. (Accessed November 1, 2019, at <https://www.federalregister.gov/documents/2018/03/28/2018-06425/adjusting-imports-of-steel-into-the-united-states>.)
- Midrex Technologies, Inc., 2019, 2018 world direct reduction statistics: Charlotte, NC, Midrex Technologies, Inc., August 5, 16 p. (Accessed September 15, 2019, at https://www.midrex.com/wp-content/uploads/Midrex_STATSbookprint_2018Final-1.pdf.)
- Steel Recycling Institute, [undated], Buy recycled with recyclable steel: Pittsburgh, PA, Steel Recycling Institute, 2 p. (Accessed September 15, 2019, at <https://www.steelsustainability.org/-/media/recycling-resources/buy-recycled-recyclable-steel.ashx>.)
- U.S. Department of Homeland Security, [undated], U.S. Customs and Border Protection—Section 232 tariffs on aluminum and steel: U.S. Department of Homeland Security website. (Accessed November 1, 2019, at <https://www.cbp.gov/trade/remedies/232-tariffs-aluminum-and-steel>.)
- World Steel Association, 2019a, World steel in figures 2019: Brussels, Belgium, World Steel Association press release, June 3, 30 p. (Accessed September 15, 2019, at <https://www.worldsteel.org/en/dam/jcr:96d7a585-e6b2-4d63-b943-4cd9ab621a91/World%2520Steel%2520in%2520Figures%25202019.pdf>.)
- World Steel Association, 2019b, World steel short range outlook April 2019: Brussels, Belgium, World Steel Association press release, April 16. (Accessed September 15, 2019, at <https://www.worldsteel.org/media-centre/press-releases/2019/worldsteel-short-range-outlook-april-2019.html>.)

GENERAL SOURCES OF INFORMATION

U.S. Geological Survey Publications

- Historical Statistics for Mineral and Material Commodities in the United States. Data Series 140.
- Iron. Ch. in United States Mineral Resources, Professional Paper 820, 1973.
- Iron and Steel. Ch. in Mineral Commodity Summaries, annual.
- Iron and Steel. Ch. in Minerals Yearbook, annual.
- Iron and Steel Scrap. Ch. in Mineral Commodity Summaries, annual.

Iron and Steel Scrap. Mineral Industry Surveys, monthly.
Iron and Steel Slag. Ch. in Mineral Commodity Summaries,
annual.
Slag—Iron and Steel. Ch. in Minerals Yearbook, annual.

Other

American Metal Market, daily.
Annual Statistical Report. American Iron and Steel Institute.
Direct from Midrex. Midrex Direct Reduction Corporation,
quarterly.
Directory of Iron and Steel Plants. Association of Iron and Steel
Engineers.

Iron and Steel. Ch. in Mineral Facts and Problems, U.S. Bureau
of Mines Bulletin 675, 1985.
Iron and Steel Technology. American Institute of Mining,
Metallurgical, and Petroleum Engineers—Association for Iron
and Steel Technology.
Making, Shaping, and Treating of Steel. Association of Iron and
Steel Engineers.
Metal Bulletin, daily.
Steel Manufacturers Association.
Steel Statistical Yearbook. International Iron and Steel Institute.
Steel Times International.

TABLE 1
SALIENT U.S. IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS¹

(Thousand metric tons and thousand dollars)

	2014	2015	2016	2017	2018
Manufacturers of pig iron and raw steel and castings:²					
Ferrous scrap consumption	51,800	46,100	44,900	45,900 ^r	47,200
Pig iron consumption	25,900	22,200	20,700	19,800	16,700
Direct-reduced iron consumption	4,790	4,130	4,780	1,890	2,370
Net receipts of ferrous scrap ³	46,600	41,400	40,400	41,700 ^r	42,700
Home scrap production ⁴	5,360	4,990	4,820	4,430 ^r	4,940
Ending stocks of ferrous scrap, December 31	3,760	3,890	4,040	4,150 ^r	4,600
Manufacturers of steel castings:⁵					
Ferrous scrap consumption	541	468	406	406 ^r	682
Pig iron consumption	9	9	8	8	26
Direct-reduced iron consumption	--	--	1	1 ^r	--
Net receipts of ferrous scrap ³	406	350	300	300	564
Home scrap production ⁴	138	125	109	107 ^r	119
Ending stocks of ferrous scrap, December 31	62	68	65	68	83
Iron foundries and miscellaneous users:⁵					
Ferrous scrap consumption	5,560	4,440 ^r	4,190 ^r	4,080 ^r	3,890
Pig iron consumption	2,100	634 ^r	617 ^r	634	654
Direct-reduced iron consumption	3	3	3	3	3
Net receipts of ferrous scrap ³	3,960	3,280	3,180 ^r	3,080 ^r	3,290
Home scrap production ⁴	1,620	1,160	1,000 ^r	1,070 ^r	719
Ending stocks of ferrous scrap, December 31	256	240	234	313 ^r	410
Total, all manufacturing types:					
Ferrous scrap consumption	57,900	51,100	49,500	50,400 ^r	51,800
Pig iron consumption	28,000	22,800	21,300	20,500	17,400
Direct-reduced iron consumption	4,800	4,130	4,780	1,890	2,370
Net receipts of ferrous scrap ³	51,000	45,000	43,900	45,100 ^r	46,600
Home scrap production ⁴	7,120	6,270	5,930 ^r	5,600 ^r	5,780
Ending stocks, December 31:					
Ferrous scrap at consumer plants	4,070	4,200	4,340	4,530 ^r	5,110
Pig iron at consumer and supplier plants	442	672	440	453 ^r	631
Direct-reduced iron at consumer plants	217	216	237	265	334
Exports:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	15,300	12,800	12,600	15,000	17,200
Value	6,150,000	4,010,000	3,550,000	4,860,000	5,900,000
Pig iron, all grades:					
Quantity	7	17	16	34 ^r	14
Value	2,290	5,450	4,120	12,000 ^r	6,330
Direct-reduced iron, steelmaking grade:					
Quantity	1	20	178	640	551
Value	132	548	21,600	155,000	168,000
Imports for consumption:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	4,220	3,510	3,860	4,630	5,030
Value	1,710,000	955,000	949,000	1,490,000	1,810,000
Pig iron, all grades:					
Quantity	4,600	4,530	3,870	5,130	6,020
Value	1,850,000	1,290,000	948,000	1,770,000	2,360,000
Direct-reduced iron, steelmaking grade:					
Quantity	2,390	1,860	1,600	1,790	1,750
Value	854,000	483,000	334,000	563,000	639,000

^rRevised. -- Zero.

¹Table includes data available through May 28, 2020. Data 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.

³Net receipts of scrap is defined as receipts from brokers, dealers, and other outside sources plus receipts from other company-owned plants minus shipments.

⁴Includes recirculating scrap that results from current operations and obsolete home scrap.

⁵Some consumers in the "Manufacturers of steel castings" category also produce iron castings; some consumers in the "Iron foundries and miscellaneous users" category also produce steel castings.

⁶Data from U.S. Census Bureau. Export valuation is free alongside ship and import valuation is customs value.

⁷Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping.

TABLE 2

U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2018, BY GRADE¹

(Thousand metric tons)

Grade	Receipts of scrap		Production of home scrap		Consumption of purchased and home scrap	Shipments of scrap	Ending stocks, December 31
	From brokers, dealers, and other outside sources	From other company-owned plants	Recirculating scrap from current operations	Obsolete scrap ²			
Manufacturers of pig iron and raw steel and castings:							
Carbon steel:							
Low-phosphorus plate and punchings	164	--	W	--	189	--	24
Cut structural and plate	3,580	147	427	--	4,110	--	374
No. 1 heavy-melting steel	3,200	175	512	W	3,800	W	234
No. 2 heavy-melting steel	4,060	219	339	--	4,580	W	230
No. 1 and electric furnace bundles	2,030	22	W	--	2,070	7	170
No. 2 and all other bundles	875	W	W	--	921	--	29
Electric furnace, 1 foot and under (not bundles)	W	--	W	--	W	W	W
Railroad rails	200	W	--	--	204	--	11
Turnings and borings	2,140	54	20	--	2,170	W	211
Slag scrap	406	15	803	W	800	427	90
Shredded or fragmentized	13,000	1,160	W	--	14,000	W	1,970
No. 1 busheling	4,610	49	241	--	4,870	--	366
Steel cans, postconsumer	68	--	W	--	104	--	W
All other carbon steel scrap	2,420	325	1,350	W	3,940	131	458
Stainless steel scrap	818	72	361	--	1,230	4	70
Alloy steel (except stainless)	316	W	195	--	522	W	172
Ingot mold and stool scrap	W	W	W	W	35	W	2
Machinery and cupola cast iron	33	W	--	--	35	--	W
Cast-iron borings	135	W	W	--	139	W	3
Motor blocks	W	--	--	--	W	W	W
Other iron scrap	1,520	110	247	W	1,810	61	87
Other mixed scrap	736	639	88	--	1,390	63	88
Total	40,500	3,010	4,900	35	47,200	747	4,610
Manufacturers of steel castings:							
Carbon steel:							
Low-phosphorus plate and punchings	123	W	30	--	159	--	31
Cut structural and plate	25	--	7	--	31	--	2
No. 1 heavy-melting steel	7	--	--	--	7	--	2
No. 2 heavy-melting steel	W	--	W	W	W	W	1
No. 1 and electric furnace bundles	--	--	--	--	--	--	--
No. 2 and all other bundles	25	--	--	--	26	--	--
Electric furnace, 1 foot and under (not bundles)	4	--	2	--	6	--	W
Railroad rails	27	--	--	--	27	--	1
Turnings and borings	27	2	W	--	32	--	2
Slag scrap	W	--	9	--	10	1	W
Shredded or fragmentized	81	--	--	--	81	--	5
No. 1 busheling	165	--	--	--	165	--	5
Steel cans, postconsumer	--	--	--	--	--	--	--
All other carbon steel scrap	6	--	28	--	34	W	1
Stainless steel scrap	24	W	10	W	37	2	28
Alloy steel (except stainless)	27	2	13	--	42	--	3
Ingot mold and stool scrap	W	--	--	--	W	--	W
Machinery and cupola cast iron	--	--	--	--	--	--	--
Cast-iron borings	W	--	--	--	W	--	--
Motor blocks	--	--	--	--	--	--	--
Other iron scrap	--	--	--	--	1	--	--
Other mixed scrap	W	--	--	--	W	--	--
Total	556	12	113	5	682	4	83

See footnotes at end of table.

TABLE 2—Continued

U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2018, BY GRADE¹

(Thousand metric tons)

Grade	Receipts of scrap		Production of home scrap		Consumption of purchased and home scrap	Shipments of scrap	Ending stocks, December 31
	From brokers, dealers, and other outside sources	From other company-owned plants	Recirculating scrap from current operations	Obsolete scrap ²			
Iron foundries and miscellaneous users:							
Carbon steel:							
Low-phosphorus plate and punchings	212	1	7	--	218	1	4
Cut structural and plate	511	23	65	9	605	1	21
No. 1 heavy-melting steel	29	51	W	--	127	--	1
No. 2 heavy-melting steel	76	--	W	--	76	--	4
No. 1 and electric furnace bundles	52	--	--	--	52	--	1
No. 2 and all other bundles	36	--	1	--	34	3	2
Electric furnace, 1 foot and under (not bundles)	80	--	--	--	80	--	1
Railroad rails	41	--	W	--	41	--	2
Turnings and borings	W	--	12	W	48	7	16
Slag scrap	--	--	W	W	10	W	1
Shredded or fragmentized	684	--	W	W	699	--	36
No. 1 busheling	348	--	4	--	352	--	12
Steel cans, postconsumer	5	--	--	--	5	--	--
All other carbon steel scrap	54	--	68	1	122	1	3
Stainless steel scrap	3	--	--	W	2	--	2
Alloy steel (except stainless)	5	--	1	--	6	--	1
Ingot mold and stool scrap	W	W	W	--	22	W	W
Machinery and cupola cast iron	331	--	96	30	464	8	31
Cast-iron borings	103	21	8	--	131	--	W
Motor blocks	137	--	W	--	158	W	1
Other iron scrap	402	24	278	--	557	10	256
Other mixed scrap	31	W	43	W	79	1	7
Total	3,200	132	672	47	3,890	34	410

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

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.²Includes ingot molds, stools, and scrap from old equipment and buildings.

TABLE 3
U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF PIG IRON
AND DIRECT-REDUCED IRON IN 2018¹

(Thousand metric tons)

	Receipts	Production	Consumption	Shipments	Stocks, December 31
Manufacturers of pig iron, raw steel, and castings:					
Pig iron	2,740 ²	14,100	16,700	W	544
Direct-reduced iron (DRI)	W	--	2,370	W	332
Manufacturers of steel castings:					
Pig iron	26	44	26	W	3
DRI	W	1	--	W	W
Iron foundries and miscellaneous users:					
Pig iron	700	1	654	1	83
DRI	W	--	3	W	W
Total, all manufacturing types:					
Pig iron	3,470	14,200	17,400	48	631
DRI	2,470	1	2,370	26	334

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

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes 1.342 million metric tons purchased by electric furnace steel producers.

TABLE 4
U.S. CONSUMPTION OF IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON (DRI) IN 2018,
BY TYPE OF FURNACE¹

(Thousand metric tons)

	Manufacturers of pig iron and raw steel and castings			Manufacturers of steel castings			Iron foundries and miscellaneous users			Total, all manufacturing types		
	Scrap	Pig iron	DRI	Scrap	Pig iron	DRI	Scrap	Pig iron	DRI	Scrap	Pig iron	DRI
Blast furnace	1,660	--	4	--	--	--	--	--	--	1,660	--	4
Basic oxygen process	4,840	14,400	--	--	--	--	21	1	--	4,860	14,400	--
Electric furnace	40,600	2,280	2,360	682	26	--	2,890	480	3	44,200	2,790	2,370
Cupola furnace	90	9	--	--	--	--	978	173	--	1,070	182	--
Total	47,200	16,700	2,370	682	26	--	3,890	654	3	51,800	17,400	2,370

-- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 5
IRON AND STEEL SCRAP SUPPLY AVAILABLE FOR CONSUMPTION IN 2018, BY REGION AND STATE^{1,2}

(Thousand metric tons)

Region and State	Receipts of scrap		Production of home scrap			Supply available for consumption
	From brokers, dealers, and other outside sources	From other company-owned plants	Recirculating scrap resulting from current operations	Obsolete scrap ³	Shipments of scrap ⁴	
New England and Middle Atlantic:						
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	17	--	6	(5)	(5)	22
New Jersey and New York	843	1	31	W	W	871
Pennsylvania	3,440	119	658	W	W	4,200
Total	4,300	120	695	3	26	5,090
North Central:						
Illinois	1,540	51	94	35	13	1,700
Indiana	3,970	410	1,010	W	W	5,340
Iowa and Nebraska	2,170	47	77	W	W	2,300
Kansas and Missouri	15	5	17	--	--	37
Michigan	2,100	17	852	(5)	480	2,490
Minnesota	67	95	130	--	(5)	292
Ohio	5,660	242	1,150	21	113	6,950
Wisconsin	872	(5)	119	5	5	991
Total	16,400	869	3,450	70	680	20,100
South Atlantic:						
Florida and Georgia	699	--	22	--	(5)	722
Maryland	(5)	--	(5)	--	--	1
North Carolina and South Carolina	2,840	18	228	--	--	3,090
Virginia and West Virginia	1,470	140	17	(5)	5	1,620
Total	5,010	158	267	(5)	5	5,430
South Central:						
Alabama and Mississippi	5,290	485	351	W	W	6,110
Arkansas, Louisiana, Oklahoma	4,030	W	393	W	--	4,600
Kentucky and Tennessee	2,670	316	237	W	W	3,220
Texas	3,070	W	110	W	W	3,570
Total	15,100	1,370	1,090	14	31	17,500
Mountain and Pacific:						
Arizona, Colorado, Idaho, Montana, Utah	1,930	W	W	--	W	2,120
California, Oregon, Washington	1,540	W	W	(5)	W	2,140
Total	3,480	637	188	(5)	44	4,260
Grand total	44,200	3,150	5,690	87	786	52,400

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

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Supply available for consumption is a net figure calculated by adding production to receipts and deducting scrap shipped during the year. The difference in stock levels at the beginning and end of the year is not taken into consideration.

³Includes ingot molds, stools, and scrap from old equipment, buildings, and so forth.

⁴Includes scrap shipped, transferred, or otherwise disposed of during the year.

⁵Less than ½ unit.

TABLE 6
U.S. CONSUMPTION OF IRON AND STEEL SCRAP AND PIG IRON IN 2018, BY REGION AND STATE^{1, 2, 3}

(Thousand metric tons)

Region and State	Manufacturers of pig iron and raw steel and castings		Manufacturers of steel castings		Iron foundries and miscellaneous users		Total, all manufacturing types	
	Scrap	Pig iron	Scrap	Pig iron	Scrap	Pig iron	Scrap	Pig iron
New England and Middle Atlantic:								
Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont	774	(4)	1	--	101	5	878	5
Pennsylvania	3,900	2,110	145	(4)	175	18	4,220	2,130
Total	4,670	2,110	146	(4)	276	23	5,090	2,130
North Central:								
Illinois	1,450	810	5	--	234	55	1,690	865
Indiana	5,020	5,160	23	(4)	263	56	5,300	5,220
Iowa, Kansas, Minnesota, Missouri, Nebraska, Wisconsin	2,990	34	35	(4)	586	209	3,610	244
Michigan	1,930	3,830	27	--	512	14	2,470	3,840
Ohio	6,120	3,050	337	19	469	54	6,920	3,120
Total	17,500	12,900	428	19	2,060	388	20,000	13,300
South Atlantic:								
Maryland, Virginia, West Virginia	W	--	1	(4)	W	1	1,590	1
Florida, Georgia, North Carolina, South Carolina	W	285	(4)	--	W	170	3,830	455
Total	4,960	285	1	(4)	460	171	5,420	456
South Central:								
Alabama, Kentucky, Mississippi, Tennessee	W	W	W	(4)	W	W	9,090	965
Arkansas, Louisiana, Oklahoma	W	W	W	--	W	W	4,530	505
Texas	3,220	W	38	7	112	12	3,370	42
Total	16,100	1,430	75	7	844	69	17,000	1,510
Mountain and Pacific:								
Arizona, Colorado, Idaho, Montana, Utah	W	W	W	(4)	W	W	2,110	14
California, Oregon, Washington	W	W	W	(4)	W	W	2,130	3
Total	3,970	14	32	(4)	246	3	4,250	17
Grand total	47,200	16,700	682	26	3,890	654	51,800	17,400

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

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes recirculating scrap resulting from current operations and home-generated obsolete scrap.

³Includes molten pig iron used for ingot molds and direct castings.

⁴Less than ½ unit.

TABLE 7
U.S. CONSUMER STOCKS OF IRON AND STEEL SCRAP AND PIG IRON, DECEMBER 31, 2018, BY REGION AND STATE¹

(Thousand metric tons)

Region and State	Scrap					Total scrap	Pig iron
	Carbon steel ²	Stainless steel	Alloy steel	Cast iron ³	Other grades of scrap		
New England and Middle Atlantic:							
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	(4)	(4)	--	(4)	(4)	(4)	(4)
New Jersey and New York	66	(4)	--	2	(4)	68	1
Pennsylvania	188	13	14	W	7	222	2
Total	255	13	14	W	7	289	3
North Central:							
Illinois	100	(4)	W	2	W	105	13
Indiana	331	3	W	8	W	355	147
Iowa, Kansas, Missouri, Nebraska	72	(4)	W	63	W	137	5
Michigan	71	(4)	W	4	W	94	1
Minnesota and Wisconsin	34	4	W	5	W	46	2
Ohio	347	53	W	62	W	491	59
Total	956	60	39	144	28	1,230	227
South Atlantic:							
Maryland, Virginia, West Virginia	81	--	(4)	W	W	102	W
Florida, Georgia, North Carolina, South Carolina	412	(4)	(4)	W	W	435	W
Total	495	(4)	(4)	18	24	537	42
South Central:							
Alabama, Kentucky, Mississippi, Tennessee	503	W	--	157	W	688	250
Arkansas, Louisiana, Oklahoma	812	W	121	(4)	W	934	96
Texas	1,170	W	(4)	13	W	1,190	9
Total	2,490	27	122	170	7	2,810	356
Mountain and Pacific:							
Arizona, Colorado, Idaho, Montana, Utah	58	(4)	(4)	W	W	112	W
California, Oregon, Washington	84	1	2	W	W	130	W
Total	142	1	2	69	29	243	3
Grand total	4,330	101	176	402	94	5,110	631

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

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Does not include rerolling rails.

³Includes borings.

⁴Less than ½ unit.

TABLE 8
 U.S. AVERAGE MONTHLY PRICE AND COMPOSITE PRICE FOR NO. 1
 HEAVY-MELTING STEEL, WITH ANNUAL AVERAGES¹

(Dollars per metric ton)

Period	Chicago, IL	Philadelphia, PA	Pittsburgh, PA	Composite price
2017, average ^f	256.01	280.66	260.82	265.83
2018:				
January	284.72	315.08	330.41	310.07
February	290.34	316.19	334.63	313.72
March	314.50	327.69	347.38	329.86
April	335.80	337.68	361.34	344.94
May	331.50	325.10	355.65	337.42
June	329.71	308.11	350.09	329.30
July	334.63	321.97	349.39	335.33
August	316.66	308.53	331.42	318.87
September	295.52	289.53	313.14	299.40
October	298.47	301.68	318.15	306.10
November	318.88	321.84	337.58	326.10
December	319.87	316.42	337.88	324.72
Average	314.22	315.82	338.92	322.99

^fRevised.

¹Table includes data available through May 28, 2020. Calculated from prices published in long tons in American Metal Market.

TABLE 9
U.S. EXPORTS OF IRON AND STEEL SCRAP, BY COUNTRY OR LOCALITY^{1,2}

(Thousand metric tons and thousand dollars)

Country or locality	2017		2018	
	Quantity	Value	Quantity	Value
Argentina	(3)	133	(3)	182
Australia	(3)	98	(3)	126
Austria	2	1,550	2	1,980
Bangladesh	648	180,000	840	285,000
Belgium	68	5,020	24	11,100
Brazil	(3)	8	97	32,000
British Indian Ocean Territories	1	555	(3)	145
Canada	916	200,000 [†]	1,300	224,000
China	1,010	803,000	731	286,000
Dominican Republic	(3)	230	1	271
Ecuador	151	42,100	140	47,400
Egypt	400	118,000	805	263,000
Finland	1	390	1	728
France	(3)	336	(3)	50
Germany	28	4,420	23	11,500
Greece	182	52,200	125	40,900
Guatemala	27	8,480	(3)	25
Hong Kong	66	45,500	123	99,700
India	724	262,000	945	423,000
Indonesia	138	46,000	467	164,000
Italy	110	33,700	6	5,420
Japan	87	45,600 [†]	136	64,000
Korea, Republic of	534	173,000	902	313,000
Kuwait	426	124,000	387	135,000
Malaysia	230	64,100	508	221,000
Mexico	1,660	412,000	1,820	551,000
Morocco	12	2,620	--	--
Netherlands	56	6,510	13	9,220
Oman	4	103	(3)	114
Pakistan	693	260,000	416	200,000
Panama	1	17	1	759
Peru	444	125,000	379	128,000
Philippines	10	6,880	28	19,700
Portugal	7	1,170	--	--
Russia	(3)	126	2	1,450
Saudi Arabia	43	13,400	44	14,900
South Africa	(3)	37	1	231
Singapore	2	947	2	1,690
Spain	28	8,590	1	841
Suriname	1	240	(3)	204
Sweden	2	1,510	2	2,140
Switzerland	1	221	(3)	36
Taiwan	1,370	434,000	1,960	714,000
Thailand	539	152,000	508	196,000
Tunisia	12	4,410	(3)	14
Turkey	3,640	1,020,000	3,390	1,080,000
United Arab Emirates	21	6,930	24	9,120
United Kingdom	2	2,030	4	1,690
Vietnam	658	184,000	1,030	338,000
Other	3	1,430 [†]	5	2,890
Total ⁴	15,000	4,860,000	17,200	5,900,000

[†]Revised. -- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is free alongside ship.

³Less than ½ unit.

⁴The United States exported scrap to 90 countries and (or) localities in 2017 and to 88 countries and (or) localities in 2018.

Source: U.S. Census Bureau.

TABLE 10
U.S. EXPORTS OF IRON AND STEEL SCRAP,
BY CUSTOMS DISTRICT^{1,2}

(Thousand metric tons and thousand dollars)

Customs district	2017		2018	
	Quantity	Value	Quantity	Value
Baltimore, MD	290	114,000	432	169,000
Boston, MA	999	277,000	906	305,000
Buffalo, NY	178	48,000 ^r	279	42,200
Charleston, SC	147	69,200	115	63,700
Chicago, IL	3	1,850	3	1,980
Cleveland, OH	1	615	1	468
Columbia-Snake, OR	574	165,000	845	290,000
Detroit, MI	267	55,400 ^r	253	54,900
Duluth, MN	15	5,750	249	6,620
El Paso, TX	105	28,400	123	40,300
Great Falls, MT	19	5,130	20	5,970
Honolulu, HI	124	32,700	142	48,400
Houston-Galveston, TX	439	171,000	421	171,000
Laredo, TX	748	198,000	889	272,000
Los Angeles, CA	2,630	1,030,000	3,030	1,190,000
Miami, FL	367	130,000	491	182,000
Mobile, AL	4	2,950	6	5,360
New Orleans, LA	107	36,300	6	2,910
New York, NY	2,310	821,000	2,620	988,000
Nogales, AZ	1	230	2	611
Norfolk, VA	237	132,000	260	135,000
Ogdensburg, NY	28 ^r	7,130 ^r	42	10,200
Pembina, ND	192	49,200	245	74,300
Philadelphia, PA	929	249,000	1,060	321,000
Portland, ME	108	26,300	91	25,200
Providence, RI	662	185,000	788	251,000
San Diego, CA	364	66,400	255	56,200
San Francisco, CA	1,570	470,000	1,730	602,000
San Juan, PR	99	26,400	181	55,300
Savannah, GA	262	89,200 ^r	199	93,100
Seattle, WA	725	246,000	884	319,000
St. Albans, VT	46	11,200 ^r	81	15,400
Tampa, FL	279	94,000	235	89,300
Wilmington, NC	3	4,080	2	1,760
Other	119	11,400	314	11,000
Total	15,000	4,860,000	17,200	5,900,000

^rRevised.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is free alongside ship.

Source: U.S. Census Bureau.

TABLE 11
U.S. EXPORTS OF IRON AND STEEL SCRAP, BY GRADE^{1,2}

(Thousand metric tons and thousand dollars)

Grade	2017		2018	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	4,350	1,190,000	5,290	1,710,000
No. 2 heavy-melting scrap	683	184,000	772	250,000
No. 1 bundles	224	26,200	24	7,300
No. 2 bundles	2	309	4	753
Shredded steel scrap	5,330	1,530,000	5,700	1,910,000
Borings, shovelings, and turnings	11 ^r	2,380 ^r	12	3,700
Cut plate and structural	517	147,000	534	181,000
Tinned iron or steel	76	24,200	64	16,800
Remelting scrap ingots	4	2,310	3	2,550
Stainless steel scrap	486 ^r	424,000 ^r	653	323,000
Other alloy steel scrap	705 ^r	336,000 ^r	889	279,000
Other steel scrap ³	1,990	724,000	2,450	841,000
Iron scrap	581	263,000	798	383,000
Ships, boats, and other vessels for scrapping	3	403	3	521
Used rails for rerolling and other uses ⁴	9 ^r	12,800	13	16,200
Total	15,000	4,870,000	17,200	5,920,000

^rRevised.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Export valuation is free alongside ship.

³Includes tinplate and terneplate.

⁴Includes mixed (used plus new) rails.

Source: U.S. Census Bureau.

TABLE 12
U.S. EXPORTS OF USED RAILS FOR REROLLING AND OTHER USES,
BY COUNTRY OR LOCALITY^{1,2}

Country or locality	2017		2018	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Argentina	9	\$13	11	\$16
Australia	2,140	2,860	341	526
Bahamas, The	5	13	20	36
British Virgin Islands	--	--	5	19
Chile	416	404	41	184
Colombia	381	396	20	41
Dominican Republic	455	595	8	101
Germany	(³)	3	100	46
India	20	26	10	18
Jamaica	127	168	28	40
Japan	10	130	31	126
Malaysia	1	6	222	157
Mexico	4,220	5,610	12,000	14,100
Panama	1	8	7	39
Saudi Arabia	--	--	5	7
South Africa	--	--	30	43
Spain	--	--	5	13
Taiwan	239	93	218	91
Other ⁴	405 ^r	2,440 ^r	36	583
Total	8,430	12,800	13,100	16,200

^rRevised. -- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Export valuation is free alongside ship.

³Less than ½ unit.

⁴All countries and (or) localities receiving less than 5,000 metric tons of exports from the United States in 2018 are included in "Other."

Source: U.S. Census Bureau.

TABLE 13
U.S. EXPORTS OF DIRECT-REDUCED IRON, BY COUNTRY OR LOCALITY¹

Country or locality	2017		2018	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Algeria	--	--	118,000	\$41,500
Austria	204,000	\$54,400	80,000	23,200
Bermuda	--	--	60	4
Canada	173	14	13,500	1,150
China	27,500	41	9,000	12
Ecuador	--	--	31	3
Italy	58	7	--	--
Mexico	229,000	55,000	112,000	32,300
Russia	23	3	--	--
Slovenia	163,000	41,800	152,000	47,300
Spain	--	--	66,000	22,400
Uruguay	16,700	4,150	--	--
Total	640,000	155,000	551,000	168,000

-- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

Sources: U.S. Census Bureau.

TABLE 14
U.S. EXPORTS OF PIG IRON, BY COUNTRY OR LOCALITY^{1,2}

Country or locality	2017		2018	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Bangladesh	--	--	76	\$33
Belgium	52	\$11	--	--
Canada	21,200	8,320	1,470	482
China	582	232 ^r	456	201
Colombia	76	42	--	--
Costa Rica	--	--	118	69
Germany	147	55	104	77
India	4,330	1,040	7,930	3,940
Mexico	4,920	1,790	2,430	1,010
Pakistan	1,270	170	547	321
South Africa	55	20	--	--
Trinidad and Tobago	398	149	--	--
United Arab Emirates	715	63	1,050	59
United Kingdom	208	75	16	6
Uruguay	52	17	--	--
Other ³	78 ^r	31 ^r	133	137
Total	34,100 ^r	12,000 ^r	14,300	6,330

^rRevised. -- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes the following grades of pig iron: less than or equal to 0.5% phosphorus content, greater than 0.5% phosphorus content, and alloy grade. Export valuation is free alongside ship value.

³All countries and (or) localities with less than 50 metric tons of exports in both 2017 and 2018 are included in "Other."

Source: U.S. Census Bureau.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP,
BY COUNTRY OR LOCALITY^{1,2}

(Thousand metric tons and thousand dollars)

Country or locality	2017		2018	
	Quantity	Value	Quantity	Value
Bahamas, The	7	774	6	660
Belgium	(3)	37	20	6,210
Canada	3,170	967,000	3,560	1,190,000
France	1	346	27	10,100
Mexico	399	176,000	589	245,000
Netherlands	212	60,600	249	129,000
Russia	2	3,490	9	14,900
South Africa	--	--	41	5,900
Spain	16	4,910	47	17,000
Sweden	207	62,800	188	71,100
United Kingdom	510	161,000	258	98,800
Other ⁴	108 ^r	49,800 ^r	36	24,900
Total ⁵	4,630	1,490,000	5,030	1,810,000

^rRevised. -- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is customs values.

³Less than ½ unit.

⁴All countries and (or) localities receiving less than 5,000 metric tons of exports from the United States in 2018 are included in "Other."

⁵The United States imported scrap from 61 countries and (or) localities in 2017 and 66 countries and (or) localities in 2018.

Source: U.S. Census Bureau.

TABLE 16
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP,
BY CUSTOMS DISTRICT^{1,2}

(Thousand metric tons and thousand dollars)

Customs district	2017		2018	
	Quantity	Value	Quantity	Value
Baltimore, MD	(3)	243	1	915
Buffalo, NY	541	236,000	544	264,000
Charleston, SC	337	95,700	328	112,000
Chicago, IL	1	435	29	5,500
Cleveland, OH	34	1,490	140	6,670
Columbia-Snake, OR	6	1,320	28	6,480
Detroit, MI	1,520	502,000	1,560	566,000
Duluth, MN	84	21,100	96	31,100
El Paso, TX	54	19,600	65	22,300
Great Falls, MT	28	6,720	21	5,640
Houston-Galveston, TX	14	15,100	16	23,200
Laredo, TX	212	97,300	357	151,000
Los Angeles, CA	1	1,370	1	2,560
Miami, FL	8	1,360	10	2,400
Mobile, AL	301	120,000	131	111,000
New Orleans, LA	526	161,000	528	190,000
New York, NY	1	881	1	626
Nogales, AZ	10	3,030	30	9,520
Ogdensburg, NY	13	7,910	10	6,650
Pembina, ND	96	27,700	207	68,600
Philadelphia, PA	2	691	5	2,860
Portland, ME	3	1,820	1	1,050
San Diego, CA	76	23,500	80	21,800
Savannah, GA	1	1,500	2	1,090
Seattle, WA	740	134,000	822	192,000
St. Albans, VT	25	5,680	14	3,840
Other	(3)	555 ^r	(3)	643
Total	4,630	1,490,000	5,030	1,810,000

^rRevised.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is customs value.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 17
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP, BY CLASS^{1,2}

(Thousand metric tons and thousand dollars)

Class	2017		2018	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	151	36,100	222	63,900
No. 2 heavy-melting scrap	113	24,800	133	33,700
No. 1 bundles	1,320	436,000	1,310	490,000
No. 2 bundles	60	14,800	96	28,100
Shredded steel scrap	848	211,000	740	231,000
Borings, shovelinings, and turnings	66	13,800	86	21,300
Cut plate and structural	193	48,700	177	52,100
Tinned iron or steel	92	27,600	115	40,600
Remelting scrap ingots	1	618	1	1,450
Stainless steel scrap	282	279,000	330	345,000
Other alloy steel scrap	626 ^r	170,000	681	220,000
Other steel scrap ³	735	193,000	852	233,000
Iron scrap	145	32,900 ^r	288	49,500
Ships, boats, and other vessels for scrapping	51	7,610	(4)	20
Used rails for rerolling and other uses ⁵	50	16,500	6	5,440
Total	4,730	1,510,000	5,040	1,820,000

^rRevised.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Import valuation is customs value.

³Includes tinplate and terneplate.

⁴Less than ½ unit.

⁵Includes mixed (used plus new) rails.

Source: U.S. Census Bureau.

TABLE 18
U.S. IMPORTS FOR CONSUMPTION OF USED RAILS FOR REROLLING
AND OTHER USES, BY COUNTRY OR LOCALITY^{1,2}

Country or locality	2017		2018	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Austria	--	--	741	\$1,110
Canada	47,300	\$14,400	1,480	1,450
China	1,880	1,480	3,480	2,210
Germany	121	235	5	68
Italy	124	106	33	68
Japan	36	36	65	43
Luxembourg	10	12	63	447
Other ³	93 ^r	229 ^r	29	48
Total	49,600	16,500	5,900	5,440

^rRevised. -- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Import valuation is customs value.

³All countries and (or) localities receiving less than 50 metric tons of exports from the United States in both 2017 and 2018 are included in "Other."

Source: U.S. Census Bureau.

TABLE 19
U.S. IMPORTS FOR CONSUMPTION OF DIRECT-REDUCED IRON,
BY COUNTRY OR LOCALITY¹

Country or locality	2017		2018	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	22,100	\$8,360	--	--
Canada	--	--	1,780	\$609
Russia	116,000	30,200	157,000	51,200
South Africa	--	--	348	181
Sweden	--	--	278	163
Trinidad and Tobago	1,560,000	501,000	1,510,000	561,000
Ukraine	23,800	6,970	--	--
Venezuela	65,000	16,200	81,300	25,200
Total	1,790,000	563,000	1,750,000	639,000

-- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 20
U.S. IMPORTS FOR CONSUMPTION OF PIG IRON, BY COUNTRY OR LOCALITY^{1,2}

Country or locality	2017		2018	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Argentina	24,600	\$9,260	--	--
Brazil	921,000	305,000	752,000	\$293,000
Canada	40,400	15,100	33,800	14,700
China	585	305	112	58
Denmark	649	750	808	920
Germany	6,030	2,590	6,070	1,670
India	72,000	25,300	--	--
Latvia	--	--	39,800	14,200
Russia	2,780,000	956,000	3,190,000	1,250,000
South Africa	134,000	48,400	174,000	71,000
Ukraine	1,140,000	403,000	1,820,000	712,000
Other ³	9	4	60	84
Total	5,130,000	1,770,000	6,020,000	2,360,000

-- Zero.

¹Table includes data available through May 28, 2020. Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes the following grades of pig iron: less than or equal to 0.5% phosphorus content, greater than 0.5% phosphorus content, and alloy grade. Import valuation is customs value.

³All countries and (or) localities receiving less than 50 metric tons of exports from the United States in both 2017 and 2018 are included in "Other."

Source: U.S. Census Bureau.