



2015 Minerals Yearbook

IRON AND STEEL SCRAP [ADVANCE RELEASE]

IRON AND STEEL SCRAP

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Iron and steel scrap is a vital raw material for 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 from the recovery of obsolete products. The steel industry has been recycling steel scrap for more than 150 years using electric arc furnaces (EAFs), which accounted for about 62.7% of the total raw steel produced in 2015 (American Iron and Steel Institute, 2016, p. 71).

Steel scrap recycling conserves energy, landfill space, and raw materials. In 2014, the latest year for which data were available, the domestic steel industry recycled, or exported for recycling, nearly 55 million metric tons (Mt) of appliances, automobiles, cans, construction materials, and other steel products. This resulted in an overall recycling rate of about 81%. The remelting of scrap requires much less energy than the production of iron and steel products from iron ore. Each year, steel recycling saves the energy equivalent of the electrical power needed for 1 year by approximately one-fifth of the houses in the United States (about 20 million houses). Consumption of iron and steel scrap by remelting reduces the burden on landfill disposal facilities and prevents the accumulation of abandoned steel products in the environment (James Woods, Senior Director, Steel Recycling Institute, unpub. data, January 8, 2016).

In the United States, the primary source of obsolete steel is recycled automobiles. By weight, the typical car consists of about 60% iron and steel. The steel used in the outer shell of car bodies is made of about 25% recycled steel. Each year, the steel industry recycles more than 18 Mt of steel from cars that are no longer fit for the road. This is equivalent to nearly 18 million new cars. When comparing the amount of steel recycled from automobiles each year to the amount of steel used to produce new automobiles that same year, automobiles maintain a recycling rate of nearly 100%. About 7,000 vehicle dismantlers in North America resold parts processed through an estimated 300 car shredders (James Woods, Senior Director, Steel Recycling Institute, unpub. data, January 8, 2016).

The annual average recycling rate of obsolete appliance scrap increased to 89% in 2014 from 82% in 2013, the latest years for which data were available. During 2014, almost 2.1 Mt of steel was recovered from recycled appliances, 16% less than in 2013. The typical appliance consists of about 60% steel, and the steel used in appliances is made with a minimum of 25% recycled steel. The recycling rate of steel containers increased to 70% in 2013 and 2014 from 15% in 1983. More than 1.1 Mt of steel containers was recycled. The estimated rate of recycling of structural beams and plates from 2004 through 2015 was about 98%, an increase from 85% in 1997. Recycling rates for reinforcement bar and other materials increased to 72% in 2013 from 40% in 1997, and decreased slightly to 71% in 2015 (James Woods, Senior Director, Steel Recycling Institute, unpub. data, 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 minimills increased to 62.7 Mt in 2015, a 10% increase from that in 2014 (American Iron and Steel Institute, 2016, p. 70–71). DRI production was 1.10 Mt, a 15% decrease from 1.30 Mt in 2014 (Midrex Technologies, Inc., 2015, p. 8).

Consumption

Domestic data for ferrous scrap were derived by the U.S. Geological Survey from voluntary monthly or annual surveys of U.S. scrap-consuming operations. About 64% of the known manufacturers of pig iron and raw steel responded to the surveys. Their responses represented about 32% of the 46.1 Mt of ferrous scrap consumed by this class of consumers (table 1). The remaining 68% of scrap consumption was estimated based on previously published reports. Of the iron foundries, manufacturers of steel castings, and miscellaneous users, about 48% of the surveyed establishments responded to the annual survey, which represented about 51% of scrap consumed by this class of consumers. Total consumption for these two classes of consumers included estimates based on statistical methods and prior reports plus actual survey responses. Survey data accounted for about 51% of total ferrous scrap consumption by all classes of scrap consumers.

In 2015, brokers, dealers, and other outside sources supplied domestic consumers with 46.4 Mt of all types of ferrous scrap at an estimated delivered value of \$9.9 billion and exported 12.8 Mt (excluding used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) valued at \$2.7 billion (tables 1, 8, 11). Raw steel production declined 11% to 78.8 Mt in 2015 compared with 88.2 Mt in 2014 (American Iron and Steel Institute, 2016, p. 71). The shares of raw steel produced by EAFs and basic oxygen furnaces were 63% and 37%, respectively. In 2015, continuous cast steel production represented 99% of total raw steel production, the same as that of 2014. Raw steel production capability decreased slightly to 112 Mt in 2015 from 114 Mt in 2014 (American Iron and Steel Institute, 2016, p. 73). The capability utilization index decreased to 70.1% in 2015 from 77.5% in 2014.

Steel mills accounted for 89% of all scrap received from brokers, dealers, and other outside sources; iron foundries received 7%; and steel foundries received 4% (table 1). Apparent total domestic consumption of ferrous scrap was 44.1 Mt as measured by net receipts (total external receipts minus shipments) and 6.1 Mt of home scrap production (table 2). Stocks of ferrous scrap at consumer plants increased slightly to 4.4 Mt in 2015 (table 1). Total domestic consumption was 52.5 Mt, down 10% from that of 2014 (table 1). The total

market for U.S.-produced scrap (net receipts plus exports minus imports) was 55.7 Mt in 2015, down 11% from 62.7 Mt in 2014 (table 1). Feedstock used in electric furnaces by all iron and steel product manufacturers consisted of scrap, 91%; pig iron, 5%; and DRI, 4% (table 4). Total consumption of DRI was 4.1 Mt, 14% less than that of 2014 (table 1). Net shipments of all grades of steel mill products were about 78.5 Mt, a 12% decrease from the 89.1 Mt shipped in 2014 (American Iron and Steel Institute, 2016, p. 23).

Prices

The average composite delivered price of No. 1 heavy-melting steel scrap in 2015, calculated from prices per long ton published monthly by American Metal Market, was \$213.46 per metric ton. The price ranged from a high of \$315.64 per metric ton in January to a low of \$139.57 per metric ton in November (table 8).

The average composite delivered price of No. 1 heavy-melting steel scrap, calculated from prices per long ton published weekly in the Iron Age Scrap Price Bulletin, was \$217.94 per metric ton; the price ranged from a high of \$319.05 per metric ton in January to a low of \$144.26 per metric ton in November. Based on weekly quotations by Iron Age Scrap Price Bulletin for 18–8 (18% chromium, 8% nickel) stainless steel scrap (bundles and solids) delivered to consumers in the Pittsburgh, PA, area, the average price in 2015 was about \$1,295 per gross ton, a 24% decrease compared with that of 2014 (Metal Bulletin Holdings LLC, 2015).

The unit value of total ferrous scrap exports (excluding used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) decreased by 22% to about \$314 per metric ton compared with that of 2014 (table 11). The unit value of total imports decreased by 33% to about \$272 per metric ton compared with that of 2014 (table 14).

Foreign Trade

Foreign trade valuation continued to be reported on a free-alongside-ship basis for exports and on a customs-value basis for imports. In 2015, the U.S. trade surplus for all classes of ferrous scrap (including used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) was 9.2 Mt valued at about \$3.1 billion (tables 11, 14). This represented a decrease of 17% in quantity and a decrease of 31% in value compared with the 2014 surplus of 11.1 Mt valued at \$4.4 billion.

World Review

Iron and steel scrap is an important 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, the relatively mature industrialized economies were generally the main exporters of scrap to lesser developed steelmaking countries.

The United States exported more iron and steel scrap in 2015 than any other country (13.0 Mt) followed by, in decreasing order of export tonnage, Japan (7.8 Mt), Germany (7.5 Mt), the United Kingdom (7.3 Mt), Russia (5.9 Mt), and France (5.4 Mt). The leading importing nations were, in decreasing order of

import tonnage, Turkey (16.3 Mt), India (6.7 Mt), the Republic of Korea (5.6 Mt), Italy (4.6 Mt), and Belgium and Germany (4.2 Mt each) (World Steel Association, 2016b, p. 106–109).

Outlook

Because of the close interdependence of the steelmaking and ferrous scrap industries, forecasts of the global steel industry in the context of the global economy serve as the bellwether of the scrap industry.

The World Bank forecast of global gross domestic product (GDP) growth for 2016, 2017, and 2018 was 2.4%, 2.8%, and 3.0%, respectively, after 2.4% in 2015 (World Bank, The, 2016, p. 4). The U.S. Federal Reserve's June 2016 projections for the U.S. GDP rate of growth was 2.0% for 2016, 2017, and 2018 (Board of Governors of the Federal Reserve System, 2016). The GDP rate of growth for China in 2015 was an estimated 6.9% and is projected to be 6.7% in 2016 and 6.5% in 2017. The GDP rate of growth for India was 7.6% in 2015 and is forecast to be 7.6% and 7.7% in 2016 and 2017, respectively (World Bank, The, 2016, p. 4).

World apparent steel consumption (ASC) is forecast to be 1,501 Mt in 2016 and 1,510 Mt in 2017, respectively, after consumption in 2015 was 1,499 Mt (World Steel Association, 2016a).

World capacity, operating, under construction, and under contract, for DRI production in 2015 was estimated to be about 125 million metric tons per year (Mt/yr) including about 16 Mt/yr of idled capacity (Midrex Technologies Inc., 2016, p. 11). DRI production worldwide was estimated to have decreased by 6.6% to 64.4 Mt in 2015 from 70.1 Mt in 2014. The leading producer of DRI was India (16.2 Mt), followed by, in descending order of tonnage, Iran (14.5 Mt), Saudi Arabia (5.80 Mt), Mexico (5.50 Mt), and Russia (5.44 Mt). In 2015, additional DRI capacity of almost 21 Mt/yr was under construction in Algeria, India, Iran, Russia, the United States, and Venezuela. The leading technology was, according to declining order of production, the Midrex process, followed by coal-based, and HYL/Energiron (Midrex Technologies Inc., 2016, p. 11–14). Worldwide DRI production could surpass about 200 Mt by 2030 (Midrex Technologies Inc., 2015, p. 4).

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

(Thousand metric tons and thousand dollars)

	2011	2012	2013	2014	2015
Manufacturers of pig iron and raw steel and castings:²					
Ferrous scrap consumption	56,400	55,800	52,100	51,800 ^r	46,100
Pig iron consumption	34,900	35,400	31,800	25,900	22,200
Direct-reduced iron consumption	1,620	3,580	4,490	4,790	4,130
Net receipts of ferrous scrap ³	48,400	48,200	45,200	46,600 ^r	41,400
Home scrap production ⁴	8,010	7,790	6,780	5,360 ^r	4,990
Ending stocks of ferrous scrap, December 31	3,650	3,770	3,620	3,760 ^r	3,900
Manufacturers of steel castings:⁵					
Ferrous scrap consumption	613	639	1,180	1,110 ^r	1,970
Pig iron consumption	10	9	63	80	72
Direct-reduced iron consumption	--	--	1	--	--
Net receipts of ferrous scrap ³	464	472	1,100	1,020	1,780
Home scrap production ⁴	168	189	142	138 ^r	1,320
Ending stocks of ferrous scrap, December 31	87	89	277	321	259
Iron foundries and miscellaneous users:⁵					
Ferrous scrap consumption	5,760	6,710	5,660	5,550 ^r	4,420
Pig iron consumption	1,980	1,980	2,260	2,100	632
Direct-reduced iron consumption	3	3	3	3	3
Net receipts of ferrous scrap ³	3,980	4,580	4,100	3,950 ^r	3,260
Home scrap production ⁴	1,830	2,180	1,540	1,620	1,160
Ending stocks of ferrous scrap, December 31	245	302	282	256	240
Total, all manufacturing types:					
Ferrous scrap consumption	62,700 ^r	63,100	58,900 ^r	58,400 ^r	52,500
Pig iron consumption	36,900	37,400	34,100	28,100	22,900
Direct-reduced iron consumption	1,620	3,580	4,490	4,800	4,130
Net receipts of ferrous scrap ³	52,900	53,200 ^r	50,400	51,600 ^r	46,400
Home scrap production ⁴	10,000	10,100	8,460	7,120 ^r	6,270
Ending stocks, December 31:					
Ferrous scrap at consumer plants	3,980	4,160 ^r	4,180	4,330 ^r	4,390
Pig iron at consumer and supplier plants	423	404 ^r	444	469	690
Direct-reduced iron at consumer plants	126	147	107	217	216
Exports:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	24,300	21,400	18,500	15,300	12,800
Value	11,400,000	9,430,000	7,570,000	6,150,000 ^r	4,010,000
Pig iron, all grades:					
Quantity	51	21	18	7 ⁸	17
Value	27,000	8,110	4,440	2,290	5,450
Direct-reduced iron, steelmaking grade:					
Quantity	4	(9)	(9)	1	20
Value	448	56	29	132	549
Imports for consumption:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	4,010	3,720	3,930	4,220 ^r	3,510
Value	1,650,000	1,590,000	1,470,000	1,710,000 ^r	955,000
Pig iron, all grades:					
Quantity	4,190	4,270	4,120	4,600	4,530
Value	2,120,000	1,900,000	1,640,000	1,850,000	1,290,000
Direct-reduced iron, steelmaking grade:					
Quantity	1,800	2,470	2,240	2,390	1,860
Value	775,000	921,000	775,000	854,000	483,000

See footnotes at end of table.

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

¹Revised. -- 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.

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.

⁸Data adjusted by the U.S. Geological Survey.

⁹Less than ½ unit.

TABLE 2
U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2015 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	613	W	25	--	644	--	137
Cut structural and plate	3,480	61	270	--	3,800	--	302
No. 1 heavy-melting steel	3,940	154	608	4	4,740	34	263
No. 2 heavy-melting steel	4,610	70	369	--	5,150	1	238
No. 1 and electric furnace bundles	1,820	W	W	--	1,810	11	190
No. 2 and all other bundles	794	--	--	W	814	W	33
Electric furnace, 1 foot and under (not bundles)	25	--	W	--	95	W	--
Railroad rails	169	W	--	--	184	W	7
Turnings and borings	2,250	3	47	--	2,270	--	136
Slag scrap	620	21	792	--	965	465	107
Shredded or fragmentized	11,100	987	207	--	12,100	6	1,310
No. 1 busheling	4,570	49	182	--	4,740	--	370
Steel cans, postconsumer	83	--	--	--	83	--	--
All other carbon steel scrap	2,250	149	1,040	W	3,240	121	333
Stainless steel scrap	907	67	322	W	1,330	4	68
Alloy steel (except stainless)	360	W	236	--	592	5	184
Ingot mold and stool scrap	8	W	47	W	77	4	7
Machinery and cupola cast iron	28	--	--	--	28	--	2
Cast-iron borings	177	W	W	--	195	W	3
Motor blocks	1	--	--	--	W	--	--
Other iron scrap	1,420	54	306	--	1,730	64	125
Other mixed scrap	658	647	351	--	1,590	55	101
Total	39,900	2,290	4,880	110	46,100	778	3,900
Manufacturers of steel castings:							
Carbon steel:							
Low-phosphorus plate and punchings	1,470	11	41	--	1,580	1	223
Cut structural and plate	27	--	4	--	32	--	--
No. 1 heavy-melting steel	8	--	--	--	9	--	1
No. 2 heavy-melting steel	10	--	W	W	33	--	1
No. 1 and electric furnace bundles	W	--	--	--	W	--	W
No. 2 and all other bundles	--	--	--	--	--	--	--
Electric furnace, 1 foot and under (not bundles)	5	--	2	--	7	--	--
Railroad rails	W	--	W	--	W	--	W
Turnings and borings	44	W	3	--	49	W	2
Slag scrap	W	--	W	--	W	W	W
Shredded or fragmentized	28	--	--	--	28	--	1
No. 1 busheling	35	--	--	--	35	--	1
Steel cans, postconsumer	--	--	--	--	--	--	--
All other carbon steel scrap	6	--	12	--	19	--	--
Stainless steel scrap	108	1	8	W	119	1	28
Alloy steel (except stainless)	22	2	21	W	46	1	1
Ingot mold and stool scrap	W	--	W	--	W	--	W
Machinery and cupola cast iron	--	--	--	--	--	--	--
Cast-iron borings	--	--	--	--	--	--	--
Motor blocks	--	--	--	--	--	--	--
Other iron scrap	--	--	--	--	1	--	--
Other mixed scrap	--	--	--	--	--	--	--
Total	1,770	15	118	5	1,970	4	259
Iron foundries and miscellaneous users:							
Carbon steel:							
Low-phosphorus plate and punchings	191	1	8	--	200	--	5
Cut structural and plate	584	2	66	9	667	1	24
No. 1 heavy-melting steel	78	W	W	--	129	--	1
No. 2 heavy-melting steel	104	--	W	--	137	--	5

See footnotes at end of table.

TABLE 2—Continued
U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2015 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—Continued:							
Carbon steel—Continued:							
No. 1 and electric furnace bundles	75	--	--	--	75	--	2
No. 2 and all other bundles	71	--	W	--	70	W	4
Electric furnace, 1 foot and under (not bundles)	77	--	--	--	77	--	1
Railroad rails	38	--	W	--	38	W	2
Turnings and borings	43	--	10	--	47	6	17
Slag scrap	--	--	W	--	W	W	W
Shredded or fragmentized	727	--	21	--	745	--	46
No. 1 busheling	389	--	5	--	394	2	11
Steel cans, postconsumer	6	--	--	--	6	--	--
All other carbon steel scrap	48	--	57	--	105	1	4
Stainless steel scrap	2	--	1	--	2	--	1
Alloy steel (except stainless)	5	--	1	--	6	W	1
Ingot mold and stool scrap	W	W	W	--	W	W	W
Machinery and cupola cast iron	310	W	113	W	444	4	26
Cast-iron borings	80	6	8	--	94	--	1
Motor blocks	132	W	209	--	341	--	2
Other iron scrap	250	28	500	--	754	21	72
Other mixed scrap	33	7	26	--	62	1	7
Total	3,260	51	1,120	37	4,420	42	240
Grand total, all manufacturing types:							
Carbon steel:							
Low-phosphorus plate and punchings	2,280	19	73	--	2,430	1	365
Cut structural and plate	4,090	64	340	9	4,500	1	302
No. 1 heavy-melting steel	4,020	156	659	4	4,880	34	265
No. 2 heavy-melting steel	4,730	70	426	W	5,320	1	244
No. 1 and electric furnace bundles	1,900	W	8	W	1,890	11	192
No. 2 and all other bundles	865	--	1	23	884	4	37
Electric furnace, 1 foot and under (not bundles)	107	--	79	--	180	6	1
Railroad rails	207	W	--	--	223	W	19
Turnings and borings	2,330	5	60	--	2,370	6	155
Slag scrap	623	21	803	--	978	467	108
Shredded or fragmentized	11,800	987	228	--	12,900	6	1,360
No. 1 busheling	4,990	49	188	--	5,170	2	381
Steel cans, postconsumer	89	--	--	--	89	--	1
All other carbon steel scrap	2,310	149	1,100	13	3,360	122	337
Stainless steel scrap	1,020	68	331	49	1,450	5	97
Alloy steel (except stainless)	387	8	258	W	644	5	186
Ingot mold and stool scrap	22	5	47	25	94	5	15
Machinery and cupola cast iron	337	--	113	W	472	4	28
Cast-iron borings	256	9	8	--	289	--	4
Motor blocks	133	--	209	--	345	--	2
Other iron scrap	1,670	82	806	--	2,480	84	197
Other mixed scrap	691	653	377	--	1,650	56	108
Total	44,900	2,350	6,120	152	52,500	824	4,390

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

TABLE 3
U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF PIG IRON
AND DIRECT-REDUCED IRON IN 2015¹

(Thousand metric tons)

	Receipts	Production	Consumption	Shipments	Stocks, December 31
Manufacturers of pig iron, raw steel, and castings:					
Pig iron	5,160 ²	17,200	22,200	4	631
Direct-reduced iron (DRI)	1,910 ³	W	4,130	9	216
Manufacturers of steel castings:					
Pig iron	65	2	72	(4)	21
DRI	(4)	--	(4)	--	(4)
Iron foundries and miscellaneous users:					
Pig iron	660	1	632	25	37
DRI	(4)	--	--	--	(4)
Total, all manufacturing types:					
Pig iron	5,890	17,200	22,900	29	690
DRI	1,910	W	4,130	9	216

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 1.20 million metric tons purchased by electric furnace steel producers.

³Includes 1,333,531 metric tons purchased by integrated steel producers.

⁴Less than ½ unit.

TABLE 4
U.S. CONSUMPTION OF IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON IN 2015,
BY TYPE OF FURNACE OR OTHER USE¹

(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 ²	Scrap	Pig iron	DRI ²	Scrap	Pig iron	DRI ²	Scrap	Pig iron	DRI ²
Blast furnace	2,380	--	1,410	--	--	--	--	--	--	2,380	--	1,410
Basic oxygen process	4,530	20,300	992	--	--	--	--	--	--	4,530	20,300	992
Electric furnace	39,200	1,800	1,730	1,960	72	--	2,870	480	3	44,000	2,350	1,730
Cupola furnace	75	--	--	--	--	--	1,550	152	--	1,620	152	--
Other ³	--	--	--	2	--	--	--	--	--	2	--	2
Direct castings ⁴	--	--	--	--	--	--	--	--	--	--	--	--
Total	46,100	22,200	4,130	1,970	72	--	4,420	632	3	52,500	22,900	4,130

-- Zero.

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

²Direct-reduced iron.

³Includes air furnaces.

⁴Includes ingot molds and stools.

TABLE 5
IRON AND STEEL SCRAP SUPPLY AVAILABLE FOR CONSUMPTION IN 2015, BY REGION AND STATE^{1,2}

(Thousand metric tons)

Region and State	Receipts of scrap		Production of home scrap			New 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	--	5	(5)	W	22
New Jersey and New York	1,660	(5)	75	W	W	1,740
Pennsylvania	3,220	60	759	W	23	4,070
Total	4,900	60	839	62	28	5,830
North Central:						
Illinois	1,430	4	156	36	13	1,620
Indiana	3,570	182	394	--	(5)	4,140
Iowa, Nebraska, South Dakota	1,880	54	206	(5)	(5)	2,140
Kansas and Missouri	844	5	19	--	(5)	869
Michigan	2,030	135	1,050	(5)	520	2,690
Minnesota	263	11	130	--	(5)	401
Ohio	6,140	213	1,090	13	182	7,270
Wisconsin	956	2	453	4	5	1,410
Total	17,100	606	3,490	54	723	20,500
South Atlantic:						
Delaware and Maryland						
	W	W	W	--	W	1
Florida and Georgia						
	W	--	W	--	W	682
North Carolina and South Carolina						
	2,840	W	257	W	W	3,090
Virginia and West Virginia						
	1,060	W	210	(5)	W	1,560
Total	4,550	300	490	(5)	5	5,340
South Central:						
Alabama and Mississippi						
	5,550	W	236	W	W	5,810
Arkansas, Louisiana, Oklahoma						
	3,170	W	271	W	--	4,160
Kentucky and Tennessee						
	3,610	204	375	W	W	3,650
Texas						
	2,900	402	180	W	18	3,460
Total	15,200	778	1,060	37	27	17,100
Mountain and Pacific:						
Arizona, Colorado, Idaho, Montana, Utah						
	1,610	W	144	W	W	1,790
California, Oregon, Washington						
	1,510	W	96	W	W	2,140
Total	3,120	606	240	1	41	3,930
Grand total	44,900	2,350	6,120	152	824	52,700

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

¹Supply available for consumption is a net figure computed 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.

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

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 2015, 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	1,650	(4)	1	--	94	9	1,740	8
Pennsylvania	3,730	1,800	156	(4)	177	23	4,070	1,820
Total	5,380	1,800	157	(4)	271	32	5,810	1,830
North Central:								
Illinois	1,310	1,070	26	1	270	31	1,610	1,100
Indiana	3,930	7,910	13	(4)	271	56	4,210	7,960
Iowa, Kansas, Minnesota, Missouri, Nebraska, South Dakota, Wisconsin	2,850	40	874	(4)	1,120	230	4,840	270
Michigan	2,070	3,670	27	--	544	22	2,640	3,690
Ohio	6,720	4,500	67	(4)	438	47	7,220	4,550
Total	16,900	17,200	1,010	2	2,650	386	20,500	17,600
South Atlantic:								
Maryland, Virginia, West Virginia	W	W	(4)	(4)	W	W	1,550	1
Florida, Georgia, North Carolina, South Carolina	W	W	(4)	--	W	W	3,750	261
Total	4,860	120	1	(4)	429	143	5,290	262
South Central:								
Alabama, Kentucky, Mississippi, Tennessee	8,020	2,720	W	W	750	52	9,460	W
Arkansas, Louisiana, Oklahoma	4,160	W	W	--	6	2	4,180	W
Texas	3,140	W	52	W	112	14	3,310	43
Total	15,300	3,040	758	70	868	68	16,900	3,170
Mountain and Pacific:								
Arizona, Colorado, Idaho, Montana, Utah	W	11	1	(4)	60	(4)	1,810	11
California, Oregon, Washington	W	--	42	(4)	146	4	2,160	4
Total	3,720	11	43	(4)	206	4	3,970	15
Grand total	46,100	22,200	1,970	72	4,420	632	52,500	22,900

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

¹Includes recirculating scrap resulting from current operations and home-generated obsolete scrap.

²Includes molten pig iron used for ingot molds and direct castings.

³Data are rounded to no more than three significant digits; may not add to totals shown.

⁴Less than 1/2 unit.

TABLE 7

U.S. CONSUMER STOCKS OF IRON AND STEEL SCRAP AND PIG IRON, DECEMBER 31, 2015, BY REGION AND STATE¹

(Thousand metric tons)

Region and State	Scrap					Total scrap	Pig iron
	Carbon steel ²	Stainless steel	Alloy steel ³	Cast iron ⁴	Other grades		
New England and Middle Atlantic:							
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	(5)	W	--	(5)	(5)	(5)	(5)
New Jersey and New York	68	W	--	(5)	(5)	69	1
Pennsylvania	121	15	23	10	1	170	1
Total	189	15	23	10	1	239	2
North Central:							
Illinois	89	(5)	W	2	W	94	19
Indiana	344	3	9	9	W	367	148
Iowa, Kansas, Missouri, Nebraska, South Dakota	60	W	--	4	--	63	4
Michigan	84	W	1	26	44	156	5
Minnesota and Wisconsin	33	3	2	4	7	49	3
Ohio	432	39	29	55	W	555	85
Total	1,040	45	40	100	56	1,280	264
South Atlantic:							
Maryland, Virginia, West Virginia	36	--	(5)	W	5	W	W
Florida, Georgia, North Carolina, South Carolina	292	(5)	(5)	W	12	W	W
Total	328	(5)	(5)	23	17	369	71
South Central:							
Alabama, Kentucky, Mississippi, Tennessee	602	W	--	W	5	649	244
Arkansas, Louisiana, Oklahoma	761	W	121	W	--	884	95
Texas	710	14	(5)	8	W	732	10
Total	2,070	36	121	28	5	2,270	349
Mountain and Pacific:							
Arizona, Colorado, Idaho, Montana, Utah	40	(5)	(5)	(5)	W	116	W
California, Oregon, Washington	83	(5)	1	8	W	122	W
Total	123	1	1	85	28	238	4
Grand total	3,760	97	186	247	108	4,390	690

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

¹Data are rounded to no more than three significant digits; may not add to totals shown.²Does not include rerolling rails.³Does not include stainless steel.⁴Includes borings.⁵Less 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
2014, average ^f	360.13	330.53	362.23	350.96
2015:				
January	318.49	309.04	319.38	315.64
February	246.05	233.37	250.35	243.26
March	222.34	215.63	231.29	223.09
April	221.45	224.13	231.29	225.62
May	225.38	226.37	231.29	227.68
June	242.47	240.86	243.36	242.23
July	238.44	234.78	234.64	235.95
August	219.34	201.76	211.89	211.00
September	208.09	184.18	200.22	197.50
October	168.65	151.66	160.78	160.36
November	134.17	142.71	141.83	139.57
December	127.62	151.66	139.76	139.68
Average	214.37	209.68	216.34	213.46

^fRevised.

¹Calculated by the U.S. Geological Survey from prices published in American Metal Market.

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

(Thousand metric tons and thousand dollars)

Country	2014		2015	
	Quantity	Value	Quantity	Value
Argentina	(3)	604	2	906
Austria	2	5,950	3	4,590
Bahrain	16	174	8	107
Bangladesh	14 ^r	5,820 ^r	126	33,700
Belgium	8	13,300	8	14,000
Brazil	1	642	(3)	341
Canada	974 ^r	321,000	674	168,000
Chile	1	676	1	1,990
China	795 ^r	763,000 ^r	699	655,000
Colombia	(3)	103	22	5,910
Dominican Republic	4	863	7	1,350
Ecuador	141	41,900	104	19,000
Egypt	841	286,000 ^r	190	49,800
Finland	(3)	7	8	7,720
France	1	1,080	(3)	811
Germany	5	3,390 ^r	4	2,580
Greece	(3)	14	82	18,500
Hong Kong	46 ^r	40,700 ^r	64	56,900
India	559	247,000 ^r	1,110	359,000
Indonesia	340 ^r	121,000 ^r	25	8,660
Italy	76	28,200	36	10,700
Japan	81	92,200	45	48,600
Korea, Republic of	1,740 ^r	648,000 ^r	1,090	312,000
Kuwait	455	160,000	192	43,800
Malaysia	449 ^r	157,000 ^r	35	11,200
Mexico	760 ^r	260,000	1,150	283,000
Morocco	50	18,600	72	14,700
Netherlands	3	4,090	5	5,140
Pakistan	312	165,000	357	147,000
Peru	216	79,100	335	84,700
Philippines	1	840	1	428
Portugal	6	991	--	--
Qatar	44	14,500	(3)	6
Saudi Arabia	250 ^r	83,300 ^r	177	49,500
Singapore	(3)	771	31	8,170
Spain	1	1,300	18	24,600
Sweden	3	8,500	4	5,460
Taiwan	2,620 ^r	991,000 ^r	1,410	445,000
Thailand	487 ^r	176,000 ^r	378	96,800
Tunisia	(3)	11	12	2,500
Turkey	3,620	1,270,000	3,960	923,000
Uganda	--	--	7	1,190
United Arab Emirates	47	18,500 ^r	13	5,040
United Kingdom	2	3,360	3	2,750
Vietnam	325 ^r	112,000 ^r	290	68,900
Other	11 ^r	4,510 ^r	7	3,620
Total	15,300	6,150,000 ^r	12,800	4,010,000

^rRevised. -- Zero.

¹Data 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. The United States exported scrap to 87 countries in 2014 and to 84 countries in 2015.

³Less than ½ unit.

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	2014		2015	
	Quantity	Value	Quantity	Value
Baltimore, MD	288 ^r	109,000	231	81,400
Boston, MA	713	254,000 ^r	696	164,000
Buffalo, NY	190	79,700	108	36,300
Charleston, SC	64	63,500 ^r	65	56,600
Chicago, IL	1	1,290	1	1,020
Cleveland, OH	1	353	1	473
Columbia-Snake, OR	623	222,000	519	121,000
Detroit, MI	340	103,000 ^r	209	55,000
Duluth, MN	29	11,800	13	3,980
El Paso, TX	41 ^r	14,200 ^r	41	9,660
Great Falls, MT	16 ^r	3,340	7	1,450
Honolulu, HI	142 ^r	47,300 ^r	109	24,300
Houston-Galveston, TX	511 ^r	228,000	605	215,000
Laredo, TX	329	113,000	426	118,000
Los Angeles, CA	3,380 ^r	1,550,000 ^r	2,270	915,000
Miami, FL	333 ^r	135,000 ^r	285	101,000
Mobile, AL	185	71,300	141	45,900
New Orleans, LA	38	18,300 ^r	32	25,800
New York, NY	2,280	894,000	2,210	665,000
Nogales, AZ	(3)	43	(3)	20
Norfolk, VA	180	125,000	216	113,000
Ogdensburg, NY	15	5,690	11	3,570
Pembina, ND	270 ^r	92,200	173	41,600
Philadelphia, PA	778	272,000	714	174,000
Portland, ME	194	67,900	76	15,000
Providence, RI	829	288,000 ^r	584	138,000
San Diego, CA	70	16,200	137	29,800
San Francisco, CA	1,840 ^r	719,000 ^r	1,620	452,000
San Juan, PR	286	86,700 ^r	152	35,200
Savannah, GA	126 ^r	82,000 ^r	113	66,300
Seattle, WA	852 ^r	330,000 ^r	613	187,000
St. Albans, VT	29	9,010 ^r	20	4,810
Tampa, FL	275 ^r	111,000 ^r	292	88,300
Wilmington, NC	11	17,700	7	9,060
Other	50 ^r	8,610 ^r	59	9,410
Total	15,300	6,150,000 ^r	12,800	4,010,000

^rRevised.

¹Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is free alongside ship.

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

³Less than ½ unit.

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	2014		2015	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	4,890 ^r	1,680,000 ^r	3,630	868,000
No. 2 heavy-melting scrap	879 ^r	291,000 ^r	656	157,000
No. 1 bundles	255 ^r	91,000 ^r	242	68,800
No. 2 bundles	21 ^r	4,810 ^r	7	1,160
Shredded steel scrap	4,660	1,650,000	4,240	1,030,000
Borings, shovelings, and turnings	47	14,800	8	2,080
Cut plate and structural	761 ^r	272,000 ^r	818	222,000
Tinned iron or steel	117 ^r	48,400 ^r	80	23,200
Remelting scrap ingots	15	11,100	10	8,070
Stainless steel scrap	548	674,000	514	638,000
Other alloy steel scrap	527	359,000	548	271,000
Other steel scrap ³	2,290 ^r	941,000 ^r	1,840	660,000
Iron scrap	300	112,000	165	62,700
Total	15,300	6,150,000 ^r	12,800	4,010,000
Ships, boats, and other vessels for scrapping	7	1,300	4	641
Used rails for rerolling and other uses ⁴	41	38,100	35	45,300
Grand total	15,400	6,190,000 ^r	12,800	4,050,000

^rRevised.

¹Data 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. More information can be found in table 15.

Source: U.S. Census Bureau.

TABLE 12
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP,
BY COUNTRY^{1,2}

(Thousand metric tons and thousand dollars)

Country	2014		2015	
	Quantity	Value	Quantity	Value
Bahamas, The	4	555 ^r	2	216
Belgium	12	4,680	(3)	11
Brazil	12 ^r	21,000 ^r	4	3,340
Canada	3,370	1,250,000	2,790	703,000
Cayman Islands	7	1,790	1	110
Chile	(3)	667	4	1,980
China	4 ^r	1,790 ^r	2	1,130
Colombia	2	3,550	1	835
Dominican Republic	7	1,240	(3)	78
Ecuador	1	1,110	(3)	146
Egypt	1	745	1	651
Germany	1 ^r	273 ^r	2	311
Honduras	1	930	(3)	162
Hong Kong	2	526	(3)	63
Israel	3	1,120	(3)	43
Italy	1	585 ^r	(3)	27
Japan	2 ^r	1,370 ^r	1	661
Korea, Republic of	(3)	296 ^r	4	1,090
Malaysia	(3)	408	(3)	234
Mexico	349	198,000	234	101,000
Netherlands	133	93,600 ^r	109	29,700
Panama	(3)	298	1	216
Peru	1	240 ^r	(3)	177
Russia	1	356	2	458
Singapore	(3) ^r	545 ^r	(3)	46
Sweden	186 ^r	71,800 ^r	173	48,300
Taiwan	1	2,450	(3)	377
Turkey	(3)	1,080	(3)	396
United Kingdom	107	43,100	184	57,700
Other	4	3,740 ^r	1	2,560
Total	4,220 ^r	1,710,000 ^r	3,510	955,000

^rRevised.

¹Data 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. The United States imported scrap from 34 countries in 2014 and 34 countries in 2015.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 13
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP,
BY CUSTOMS DISTRICT^{1,2}

(Thousand metric tons and thousand dollars)

Customs district	2014		2015	
	Quantity	Value	Quantity	Value
Baltimore, MD	2	1,460	(3)	110
Buffalo, NY	688	375,000	475	174,000
Charleston, SC	178 ^r	67,800 ^r	200	56,200
Chicago, IL	56	7,640	21	1,730
Cleveland, OH	(3)	210 ^r	(3)	258
Detroit, MI	1,320	474,000	1,330	335,000
Duluth, MN	137	43,400	76	16,400
El Paso, TX	39	19,600	27	13,900
Great Falls, MT	89	26,900	32	7,670
Houston-Galveston, TX	20	31,600	5	5,100
Laredo, TX	261	156,000 ^r	139	60,900
Los Angeles, CA	8	6,240	5	2,410
Miami, FL	5	1,110	2	641
Mobile, AL	144 ^r	102,000 ^r	122	39,600
New Orleans, LA	130 ^r	50,900 ^r	177	55,700
New York, NY	8	3,650	3	2,030
Nogales, AZ	10	3,260	10	3,290
Ogdensburg, NY	43	29,000	37	12,900
Pembina, ND	138	51,300	110	28,200
Philadelphia, PA	1	582	1	293
Portland, ME	4	3,010	2	1,170
San Diego, CA	23	8,740	29	9,180
San Juan, PR	7	417	--	--
Savannah, GA	(3)	501	3	1,340
Seattle, WA	853	229,000	676	120,000
St. Albans, VT	46	14,500	27	6,360
Tampa, FL	3	1,160	(3)	128
Other	1 ^r	106 ^r	3	335
Total	4,220 ^r	1,710,000 ^r	3,510	955,000

^rRevised. -- Zero.

¹Data 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.

Source: U.S. Census Bureau.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP, BY CLASS^{1,2}

(Thousand metric tons and thousand dollars)

Class	2014		2015	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	311	105,000	187	40,600
No. 2 heavy-melting scrap	243	65,300	137	29,600
No. 1 bundles	980	381,000	867	228,000
No. 2 bundles	37	11,200	67	16,000
Shredded steel scrap	582	157,000	476	102,000
Borings, shovelings, and turnings	70	18,200	56	10,100
Cut plate and structural	252	78,200	177	40,400
Tinned iron or steel	79	24,500	69	15,100
Remelting scrap ingots	(3)	79	(3)	154
Stainless steel scrap	329	426,000	192	164,000
Other alloy steel scrap	513 ^r	186,000 ^r	613	156,000
Other steel scrap ⁴	596 ^r	196,000 ^r	535	123,000
Iron scrap	224 ^r	60,900 ^r	135	29,300
Total	4,220 ^r	1,710,000 ^r	3,510	955,000
Ships, boats, and other vessels for scrapping	(3)	451	(3)	256
Used rails for rerolling and other uses ⁵	73	33,300	103	29,900
Grand total	4,290 ^r	1,740,000 ^r	3,620	985,000

^rRevised.

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

²Import valuation is customs value.

³Less than ½ unit.

⁴Includes tinplate and terneplate.

⁵Includes mixed (used plus new) rails. More information can be found in table 16.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF USED RAILS FOR REROLLING AND OTHER USES,
BY COUNTRY^{1,2}

Country	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Argentina	150	\$118	--	--
Australia	1,810	2,670	1,300	\$1,960
Bahamas, The	127	172	64	362
Bangladesh	1,130	946	--	--
Bermuda	10	8	2	27
Brazil	7,650	6,980	6,960	5710
Cayman Islands	27	75	5	18
Chile	34	85	31	123
China	338	428	255	1,250
Colombia	33	53	24	41
Costa Rica	2	20	3	25
Dominican Republic	1,090	786	33	340
El Salvador	426	361	--	--
Germany	16	48	3	3
Hong Kong	14	47	(3)	3
Jamaica	1	5	15	197
Japan	106	170	--	--
Mexico	26,600	23,400	26,400	32,700
Netherlands	54	128	1	47
Nicaragua	81	80	--	--
Panama	50	99	13	91
Peru	44	51	--	--
Saudi Arabia	8	18	1	5
Singapore	3	98	2	62
Saint Kitts and Nevis	1	5	32	52
Taiwan	930	439	39	13
Trinidad and Tobago	216	296	110	136
United Kingdom	38	67	6	1,220
Venezuela	50	48	7	598
Other	199 ^r	397 ^r	237	369
Total	41,200	38,100	35,500	45,300

^rRevised. -- Zero.

¹Data 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.

Source: U.S. Census Bureau.

TABLE 16
U.S. IMPORTS FOR CONSUMPTION OF USED RAILS FOR REROLLING
AND OTHER USES, BY COUNTRY^{1,2}

Country	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Austria	--	--	37	\$87
Belgium	--	--	245	350
Canada	59,000	\$23,400	92,000	22,400
China	8,180	7,120	6,270	4,780
Czech Republic	41	50	--	--
Germany	16	48	142	360
Italy	10	18	--	--
Japan	1,610	570	69	97
Korea, Republic of	1	12	3	11
Luxembourg	--	--	17	57
Mexico	5	4	2	6
Netherlands	48	54	--	--
New Zealand	1	9	2	8
Russia	3,850	1,790	4,400	1,750
Taiwan	83	219	--	--
United Kingdom	3	7	2	5
Other	1	3	3	12
Total	72,900	33,300	103,000	29,900

-- Zero.

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

²Import valuation is customs value.

Source: U.S. Census Bureau.

TABLE 17
U.S. EXPORTS OF DIRECT-REDUCED IRON, BY COUNTRY^{1,2}

Country	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	32	\$3	--	--
Canada	933	114	5,190	\$471
China	27	3	--	--
El Salvador	--	--	2,000	5
Saudi Arabia	--	--	13,000	73
Sweden	116	12	--	--
Total	1,110	132	20,200	549

-- Zero.

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

²Data are for steelmaking-grade direct-reduced iron only.

Source: U.S. Census Bureau.

TABLE 18
U.S. IMPORTS FOR CONSUMPTION OF DIRECT-REDUCED IRON,
BY COUNTRY^{1,2}

Country	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	129,000	\$50,000	18,000	\$4,400
Canada	84,700	26,000	170	53
China	--	--	907	53
Russia	204,000	75,000	20,000	5,000
South Africa	10,000	3,200	51,600	6,540
Trinidad and Tobago	1,840,000	658,000	1,690,000	445,000
Ukraine	35,000	13,100	42,300	10,600
Venezuela	90,300	28,000	39,100	12,000
Total	2,390,000	854,000	1,860,000	483,000

-- Zero.

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

²Data are for steelmaking-grade direct-reduced iron only.

Source: U.S. Census Bureau.

TABLE 19
U.S. EXPORTS OF PIG IRON, BY COUNTRY^{1,2}

Country	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Canada	2,410	\$853	2,390	\$720
China	62	32	100	33
Colombia	114	50	--	--
Dominican Republic	52	17	25	13
France	34	11	373	241
Germany	90	30	313	171
Hong Kong	31	10	--	--
India	31	10	340	112
Indonesia	1	7	6	19
Italy	3	10	2,550	224
Mexico	2,620	1,050	7,780	2,960
United Arab Emirates	959	84	898	79
United Kingdom	45	15	2,160	716
Uruguay	168	56	93	31
Other	145 ^r	56 ^r	244	132
Total	6,770	2,290	17,300	5,450

^rRevised. -- Zero.

¹Data 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.

Source: U.S. Census Bureau.

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

Country	2014		2015	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	1,590,000	\$644,000	1,550,000	\$449,000
Canada	20,800	9,740	15,900	7,130
Chile	--	--	18	8
China	48	25	71	37
Denmark	--	--	39	43
Germany	1,010	502	2,040	882
Indonesia	3,400	3,090	2,990	2,810
Japan	12	27	--	--
Russia	2,100,000	835,000	2,280,000	615,000
South Africa	256,000	101,000	200,000	74,200
Switzerland	--	--	1,960	743
Taiwan	24	54	--	--
Ukraine	609,000	245,000	476,000	142,000
United Kingdom	21,300	8,710	--	--
Total	4,600,000	1,850,000	4,530,000	1,290,000

-- Zero.

¹Data 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.

Source: U.S. Census Bureau.