



2014 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 62.6% of the total raw steel produced in 2014 (American Iron and Steel Institute, 2015, p. 71).

Steel scrap recycling conserves energy, landfill space, and raw materials. In 2014, 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 does 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 the automobile. 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. 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 2014 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 2014 (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 in the minimill industry increased to 62.6 Mt in 2014, a 3% increase from that in 2013 (American Iron and Steel Institute, 2015, p. 71). DRI production was 1.3 Mt, an increase from zero in 2013 (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 63% of the known manufacturers of pig iron and raw steel responded to the surveys. Their responses represented about 30% of the 51.9 Mt of ferrous scrap consumed by this class of consumers (table 1). The remaining 70% of scrap consumption was estimated based on previously published reports. Of the iron foundries, manufacturers of steel castings, and miscellaneous users, about 47% of the surveyed establishments responded to the annual survey, which represented about 37% 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 37% of total ferrous scrap consumption by all classes of scrap consumers.

In 2014, brokers, dealers, and other outside sources supplied domestic consumers with 51.7 Mt of all types of ferrous scrap at an estimated delivered value of \$18.5 billion and exported 15.3 Mt (excluding used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) valued at \$6.2 billion (tables 1, 8, 11). Raw steel production was 88.2 Mt in 2014 compared with 86.9 Mt in 2013 (American Iron and Steel Institute, 2015, p. 71). The shares of raw steel produced by EAFs and basic oxygen furnaces were 63% and 37%, respectively. In 2014, continuous cast steel production represented 99% of total raw steel production, the same as that of 2013. Raw steel production capability increased slightly to 114 Mt in 2014 from 113 Mt in 2013 (American Iron and Steel Institute, 2015, p. 73). The capability utilization index increased to 77.5% in 2014 from 76.7% in 2013.

Steel mills accounted for 90% of all scrap received from brokers, dealers, and other outside sources; iron foundries received 8%; and steel foundries received 2% (table 1). Apparent total domestic consumption of ferrous scrap was 49.1 Mt as measured by net receipts (total external receipts minus shipments) and 7.1 Mt of home scrap production (table 2). Stocks of ferrous scrap at consumer plants increased by 4.6% to 4.4 Mt in 2014 (table 1). Total domestic consumption

was 58.6 Mt, down slightly from that of 2013 (table 1). The total market for U.S.-produced scrap (net receipts plus exports minus imports) was 62.7 Mt in 2014, down 4% from 65.0 Mt in 2013 (table 1). Feedstock used in electric furnaces by all iron and steel product manufacturers comprised scrap, 89%; pig iron, 8%; and DRI, 3% (table 4). Total consumption of DRI was 4.8 Mt, 6.7% more than that of 2013 (table 1). Net shipments of all grades of steel mill products were about 89.1 Mt, a slight increase from the 86.6 Mt shipped in 2013 (American Iron and Steel Institute, 2015, p. 23).

Prices

The average composite delivered price of No. 1 heavy-melting steel scrap in 2014, calculated from prices per long ton published monthly by American Metal Market, was \$357.87 per metric ton. The price ranged from a high of \$390.00 per metric ton in January to a low of \$308.62 per metric ton in December (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 \$352.05 per metric ton; the price ranged from a high of \$388.93 per metric ton in January to a low of \$306.25 per metric ton in December (Metal Bulletin Holdings LLC, 2014).

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 2014 was about \$1,696 per gross ton, a 12% increase compared with that of 2013 (Metal Bulletin Holdings LLC, 2014).

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 slightly to about \$402 per metric ton compared with that of 2013 (table 11). The unit value of total imports increased by 7% to about \$405 per metric ton compared with that of 2013 (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 2014, 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 11.0 Mt valued at about \$4.4 billion (tables 11, 14). This represented a decrease of 24% in quantity and a decrease of 27% in value compared with the 2013 surplus of 14.5 Mt valued at \$6.1 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 are generally the main exporters of scrap to lesser developed steelmaking countries.

The United States exported more iron and steel scrap in 2014 than any other country (15.3 Mt) followed by, in decreasing order of export tonnage, Germany (8.4 Mt), Japan (7.4 Mt), the United Kingdom (7.0 Mt), and France (6.2 Mt). The leading

importing nations were, in decreasing order of import tonnage, Turkey (19.1 Mt), the Republic of Korea (8.0 Mt), India (5.7 Mt), Italy (5.1 Mt), and Germany (5.0 Mt) (World Steel Association, 2015b, 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 2015, 2016, and 2017 was 2.8%, 3.3%, and 3.2%, respectively, after 2.6% in 2014 (World Bank, The, 2015). The U.S. Federal Reserve's projections for the U.S. GDP rate of growth was 2.3% for 2016, 2.2% for 2017, and 2.0% for 2018 (Board of Governors of the Federal Reserve System, 2015). The GDP rate of growth for China in 2014 is an estimated 7.4% and is projected to be 7.1% in 2015 and 7.0% in 2016. The GDP rate of growth for India is forecast to be 7.5%, 7.9%, and 8.0% for 2015, 2016, and 2017, respectively (World Bank, The, 2015).

World apparent steel consumption (ASC) is expected to increase by 0.7% to 1.523 billion metric tons (Gt) during 2016, after increasing by 0.7% in 2014 and decreasing by 1.7% in 2015 (World Steel Association, 2015a). China's ASC is expected to decrease by about 3.5% in 2015 to 686 Mt and then decrease by 2.0% in 2016 to 672 Mt. ASC in India is expected to increase by about 7.3% in 2015 to about 82 Mt and by 7.6% to about 88 Mt in 2016. The U.S. ASC is expected to decrease by 3.0% to 104 Mt in 2015 and increase by 1.3% to 105 Mt in 2016. The European Union's (EU's) ASC is expected to increase by 1.3% to 150 Mt in 2015 and to increase by 2.2% to 153 Mt in 2016. In Japan, the 2015 ASC is expected to decrease by 5.4% to 64 Mt and to increase by 3.1% to 66 Mt in 2016. The ASC of the Commonwealth of Independent States is expected to decrease by 11% to 50 Mt in 2015 and then to remain the same in 2016.

World capacity for DRI production in 2014 was estimated to be about 103 Mt (Midrex Technologies, Inc., 2015, p. 11). DRI production worldwide was 71.3 Mt in 2014, 6.6% less than that in 2013 (Fenton, 2016, table 9). The leading producer of DRI was India, followed by, in descending order of tonnage, Iran, Saudi Arabia, and Mexico. In 2014, additional DRI capacity of almost 16 Mt was under construction in China, Egypt, India, Iran, Russia, the United States, and Venezuela. The leading technologies were, in decreasing order of production, the Midrex process, followed by coal-based, HYL/Energiron, and other gas processes. Worldwide DRI production could surpass about 200 Mt by 2030 (Midrex Technologies, Inc., 2015, p. 4).

MEPS International Ltd. forecast total world steel production in 2015 to be 1.62 Gt, down slightly from that in 2014, and then a slight increase in 2016 (worldsteelnews.com, 2016). MEPS International Ltd. also forecast changes in steel production during 2015 in China (0.9% decrease), the EU (1.6% increase), and North America and South America (4.3% decrease) (worldsteelnews.com, 2015).

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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)

	2010	2011	2012	2013	2014
Manufacturers of pig iron and raw steel and castings:²					
Ferrous scrap consumption	53,500	56,400	55,800	52,100	51,900
Pig iron consumption	34,100	34,900	35,400	31,800	25,900
Direct-reduced iron consumption	1,550	1,620	3,580	4,490	4,790
Net receipts of ferrous scrap ³	46,100	48,400	48,200	45,200	46,700
Home scrap production ⁴	7,710	8,010	7,790	6,780	5,420
Ending stocks of ferrous scrap, December 31	3,030	3,650	3,770	3,620	3,800
Manufacturers of steel castings:⁵					
Ferrous scrap consumption	536	613	639	1,180	1,190
Pig iron consumption	10	10	9	63	80
Direct-reduced iron consumption	--	--	--	1	--
Net receipts of ferrous scrap ³	413	464	472	1,100	1,020
Home scrap production ⁴	148	168	189	142	215
Ending stocks of ferrous scrap, December 31	83	87	89	277	321
Iron foundries and miscellaneous users:⁵					
Ferrous scrap consumption	5,670	5,760	6,710	5,660	5,560
Pig iron consumption	1,940	1,980	1,980	2,260	2,100
Direct-reduced iron consumption	3	3	3	3	3
Net receipts of ferrous scrap ³	3,890	3,980	4,580	4,100	3,960
Home scrap production ⁴	1,820	1,830	2,180	1,540	1,620
Ending stocks of ferrous scrap, December 31	213	245	302	282 ^r	256
Total, all manufacturing types:					
Ferrous scrap consumption	59,700	62,800	63,100	59,000	58,600
Pig iron consumption	36,100	36,900	37,400	34,100	28,100
Direct-reduced iron consumption	1,550	1,620	3,580	4,490	4,800
Net receipts of ferrous scrap ³	50,400	52,900	53,300	50,400	51,700
Home scrap production ⁴	9,680	10,000	10,100	8,460	7,260
Ending stocks, December 31:					
Ferrous scrap at consumer plants	3,330	3,980	4,170	4,180 ^r	4,370
Pig iron at consumer and supplier plants	418	423	405	444 ^r	469
Direct-reduced iron at consumer plants	161	126	147	107	217
Exports:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	20,500	24,300	21,400	18,500	15,300
Value	8,380,000	11,400,000	9,430,000	7,570,000	6,160,000
Pig iron, all grades:					
Quantity	68	51	21	18	7 ⁸
Value	26,500	27,000	8,110	4,440	2,290
Direct-reduced iron, steelmaking grade:					
Quantity	1	4	(9)	(9)	1
Value	115	448	56	29	132
Imports for consumption:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	3,780	4,010	3,720	3,930	4,260
Value	1,420,000	1,650,000	1,590,000	1,470,000	1,720,000
Pig iron, all grades:					
Quantity	3,780	4,190	4,270	4,120	4,600
Value	1,540,000	2,120,000	1,900,000	1,640,000	1,850,000
Direct-reduced iron, steelmaking grade:					
Quantity	1,640	1,800	2,470	2,240	2,390
Value	607,000	775,000	921,000	775,000	854,000

^rRevised. -- 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.

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

⁶Data from U.S. Census Bureau and U.S. International Trade Commission. 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 2014 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	681	W	22	--	712	--	143
Cut structural and plate	3,930	56	345	--	4,310	--	302
No. 1 heavy-melting steel	4,460	159	629	1	5,200	31	351
No. 2 heavy-melting steel	5,370	79	368	--	5,780	2	338
No. 1 and electric furnace bundles	1,920	W	W	--	1,910	24	183
No. 2 and all other bundles	870	--	--	W	889	--	33
Electric furnace, 1 foot and under (not bundles)	28	--	W	--	108	W	--
Railroad rails	200	W	--	--	201	W	18
Turnings and borings	2,380	13	56	--	2,420	--	143
Slag scrap	672	40	804	--	1,050	473	106
Shredded or fragmentized	13,300	1,100	176	--	14,500	7	1,140
No. 1 busheling	4,870	42	191	--	5,130	--	314
Steel cans, postconsumer	89	--	--	--	89	--	--
All other carbon steel scrap	2,360	147	1,270	W	3,540	242	191
Stainless steel scrap	921	63	324	W	1,320	4	120
Alloy steel (except stainless)	474	W	249	--	710	5	175
Ingot mold and stool scrap	3	W	63	W	82	4	7
Machinery and cupola cast iron	32	--	--	--	32	--	1
Cast-iron borings	266	W	2	--	263	W	15
Motor blocks	3	--	--	--	W	--	W
Other iron scrap	772	42	279	--	1,020	77	45
Other mixed scrap	1,500	702	443	--	2,600	20	161
Total	45,100	2,460	5,320	105	51,900	900	3,800
Manufacturers of steel castings:							
Carbon steel:							
Low-phosphorus plate and punchings	753	6	39	--	747	1	283
Cut structural and plate	37	--	4	--	41	--	1
No. 1 heavy-melting steel	9	--	--	--	9	--	1
No. 2 heavy-melting steel	20	--	W	W	29	--	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	--	8	--	--
Railroad rails	W	--	W	--	W	--	W
Turnings and borings	42	W	4	--	47	W	2
Slag scrap	W	--	W	--	W	W	W
Shredded or fragmentized	35	--	--	--	35	--	1
No. 1 busheling	36	--	--	--	36	--	1
Steel cans, postconsumer	--	--	--	--	--	--	--
All other carbon steel scrap	7	--	22	--	28	--	--
Stainless steel scrap	26	1	78	W	106	1	27
Alloy steel (except stainless)	25	2	41	W	68	--	3
Ingot mold and stool scrap	W	--	W	--	W	--	W
Machinery and cupola cast iron	--	--	--	--	--	--	--
Cast-iron borings	--	--	--	--	--	--	--
Motor blocks	--	--	--	--	--	--	--
Other iron scrap	1	--	--	--	1	--	--
Other mixed scrap	20	--	--	W	28	--	W
Total	1,020	11	202	13	1,190	4	321
Iron foundries and miscellaneous users:							
Carbon steel:							
Low-phosphorus plate and punchings	596	2	148	--	745	--	6
Cut structural and plate	641	6	47	9	693	1	35

See footnotes at end of table.

TABLE 2—Continued

U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2014 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 heavy-melting steel	39	W	W	--	104	--	1
No. 2 heavy-melting steel	110	--	W	--	143	--	6
No. 1 and electric furnace bundles	82	--	--	--	82	--	2
No. 2 and all other bundles	78	--	W	--	75	W	6
Electric furnace, 1 foot and under (not bundles)	79	--	--	--	79	--	1
Railroad rails	44	--	--	--	44	--	2
Turnings and borings	51	--	1	--	51	1	17
Slag scrap	--	--	W	--	W	W	W
Shredded or fragmentized	792	--	19	W	803	--	44
No. 1 busheling	386	--	6	--	390	2	11
Steel cans, postconsumer	7	--	--	--	7	--	--
All other carbon steel scrap	57	--	57	--	113	1	4
Stainless steel scrap	2	--	--	--	3	--	1
Alloy steel (except stainless)	6	--	1	--	7	W	1
Ingot mold and stool scrap	W	W	W	--	W	W	W
Machinery and cupola cast iron	362	W	220	W	603	5	31
Cast-iron borings	66	6	8	--	81	--	--
Motor blocks	194	W	431	--	625	--	2
Other iron scrap	268	28	508	--	790	17	72
Other mixed scrap	62	7	30	--	92	5	5
Total	3,940	57	1,580	38	5,560	37	256
Grand total, all manufacturing types:							
Carbon steel:							
Low-phosphorus plate and punchings	2,030	14	209	--	2,200	1	432
Cut structural and plate	4,610	62	395	9	5,040	2	337
No. 1 heavy-melting steel	4,510	160	692	1	5,320	31	352
No. 2 heavy-melting steel	5,500	79	410	W	5,950	2	345
No. 1 and electric furnace bundles	2,000	W	W	--	1,990	24	185
No. 2 and all other bundles	948	--	1	24	963	3	39
Electric furnace, 1 foot and under (not bundles)	112	--	91	--	195	9	1
Railroad rails	245	W	--	--	245	W	20
Turnings and borings	2,480	14	60	--	2,520	2	163
Slag scrap	676	40	816	--	1,070	476	107
Shredded or fragmentized	14,100	1,100	195	W	15,400	7	1,190
No. 1 busheling	5,290	42	197	--	5,560	2	325
Steel cans, postconsumer	96	--	--	--	97	--	1
All other carbon steel scrap	2,420	147	1,350	14	3,680	243	196
Stainless steel scrap	950	63	402	49	1,430	5	147
Alloy steel (except stainless)	505	5	292	W	784	5	179
Ingot mold and stool scrap	19	5	63	21	103	6	14
Machinery and cupola cast iron	394	--	220	W	634	5	33
Cast-iron borings	332	7	11	--	344	1	21
Motor blocks	197	--	431	--	626	--	6
Other iron scrap	1,040	70	787	--	1,810	94	117
Other mixed scrap	1,590	709	473	8	2,720	25	167
Total	50,100	2,520	7,100	156	58,600	941	4,370

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 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 2014¹

(Thousand metric tons)

	Receipts	Production	Consumption	Shipments	Stocks, December 31
Manufacturers of pig iron, raw steel, and castings:					
Pig iron	5,780 ²	20,300	25,900	14	406
Direct-reduced iron (DRI)	2,600 ³	W	4,790	22	217
Manufacturers of steel castings:					
Pig iron	91	(4)	80	(4)	27
DRI	(4)	--	--	--	(4)
Iron foundries and miscellaneous users:					
Pig iron	2,130	1	2,100	26	36
DRI	3	--	3	--	(4)
Total, all manufacturing types:					
Pig iron	7,990	20,300	28,100	40	469
DRI	2,600	W	4,800	22	217

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 1.44 million metric tons purchased by electric furnace steel producers.

³Includes 281,000 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 2014,
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	2,800	--	2,680	--	--	--	--	--	--	2,800	--	2,680
Basic oxygen process	5,920	23,800	--	--	--	--	--	--	--	5,920	23,800	--
Electric furnace	43,100	2,190	2,110	1,180	80	--	4,590	1,950	3	48,900	4,230	2,110
Cupola furnace	64	--	--	--	--	--	969	148	--	1,030	148	--
Other ³	--	--	--	3	--	--	--	--	--	3	--	--
Direct castings ⁴	--	--	--	--	--	--	--	--	--	--	--	--
Total	51,900	25,900	4,790	1,190	80	--	5,560	2,100	3	58,600	28,100	4,800

-- 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 2014, 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	--	82	(5)	W	100
New Jersey and New York	1,820	--	103	1	W	1,890
Pennsylvania	3,860	72	850	66	31	4,810
Total	5,700	72	1,040	67	68	6,800
North Central:						
Illinois	1,770	(5)	150	35	8	1,950
Indiana	3,970	300	475	--	(5)	4,740
Iowa, Nebraska, South Dakota	2,070	57	211	(5)	(5)	2,340
Kansas and Missouri	19	5	19	--	(5)	43
Michigan	2,150	136	1,130	(5)	552	2,860
Minnesota	345	22	137	--	(5)	503
Ohio	6,740	220	1,070	14	174	7,880
Wisconsin	1,420	2	976	4	6	2,400
Total	18,500	742	4,180	54	740	22,700
South Atlantic:						
Delaware and Maryland	W	W	W	--	W	368
Florida and Georgia	W	--	W	--	W	764
North Carolina and South Carolina	3,370	W	290	W	W	3,670
Virginia and West Virginia	1,010	W	128	(5)	W	1,430
Total	5,490	296	442	(5)	5	6,220
South Central:						
Alabama and Mississippi	6,330	W	263	W	W	6,610
Arkansas, Louisiana, Oklahoma	4,050	W	378	W	--	4,600
Kentucky and Tennessee	3,470	256	258	--	W	3,980
Texas	3,040	402	238	W	70	3,610
Total	16,900	820	1,140	37	79	18,800
Mountain and Pacific:						
Arizona, Colorado, Idaho, Montana, Utah	2,010	W	176	W	W	2,230
California, Oregon, Washington	1,510	W	138	W	W	2,150
Total	3,520	593	314	1	49	4,380
Grand total	50,100	2,520	7,100	156	941	58,900

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, etc.

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 2014, 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	1,800	22	78	--	92	9	1,970	31
Pennsylvania	4,430	2,010	193	(4)	192	18	4,810	2,020
Total	6,220	2,030	271	(4)	284	27	6,780	2,050
North Central:								
Illinois	1,580	1,970	26	1	352	63	1,960	2,030
Indiana	4,400	8,480	21	(4)	282	57	4,700	8,540
Iowa, Kansas, Minnesota, Missouri, Nebraska, South Dakota, Wisconsin	3,130	64	52	(4)	2,110	1,650	5,290	1,720
Michigan	2,270	3,790	28	(4)	549	25	2,850	3,820
Ohio	7,290	4,920	84	(4)	466	66	7,840	4,990
Total	18,700	19,200	211	2	3,760	1,860	22,600	21,100
South Atlantic:								
Delaware, Maryland, Virginia, West Virginia	W	W	(4)	(4)	W	W	1,810	1
Florida, Georgia, North Carolina, South Carolina	W	W	(4)	--	W	W	4,460	291
Total	5,840	149	1	(4)	431	144	6,270	292
South Central:								
Alabama, Kentucky, Mississippi, Tennessee	9,280	4,140	W	W	746	45	10,600	W
Arkansas, Louisiana, Oklahoma	4,520	W	W	--	8	3	4,540	W
Texas	3,270	W	47	W	125	17	3,440	46
Total	17,100	4,540	652	78	879	65	18,600	4,690
Mountain and Pacific:								
Arizona, Colorado, Idaho, Montana, Utah	W	7	1	(4)	58	(4)	2,170	7
California, Oregon, Washington	W	--	50	(4)	146	4	2,170	5
Total	4,080	7	51	(4)	204	4	4,330	12
Grand total	51,900	25,900	1,190	80	5,560	2,100	58,600	28,100

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 ½ unit.

TABLE 7

U.S. CONSUMER STOCKS OF IRON AND STEEL SCRAP AND PIG IRON, DECEMBER 31, 2014, BY REGION AND STATE¹

(Thousand metric tons)

Region and State	Carbon steel ²	Stainless steel	Alloy steel ³	Cast iron ⁴	Other grades of scrap	Total scrap	Pig iron
New England and Middle Atlantic:							
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	(5)	W	--	(5)	(5)	(5)	(5)
New Jersey and New York	61	W	--	(5)	(5)	61	(5)
Pennsylvania	137	14	24	17	2	194	2
Total	198	14	24	18	3	255	3
North Central:							
Illinois	80	(5)	W	5	W	88	12
Indiana	449	3	4	13	W	472	147
Iowa, Kansas, Missouri, Nebraska, South Dakota	84	W	--	8	--	94	4
Michigan	111	W	2	7	17	137	4
Minnesota and Wisconsin	38	3	1	9	1	52	6
Ohio	376	31	25	77	W	508	50
Total	1,140	37	32	119	23	1,350	223
South Atlantic:							
Delaware, Maryland, Virginia, West Virginia	57	--	(5)	W	3	W	W
Florida, Georgia, North Carolina, South Carolina	264	(5)	(5)	W	10	W	W
Total	321	(5)	1	22	13	357	41
South Central:							
Alabama, Kentucky, Mississippi, Tennessee	622	W	--	W	5	666	140
Arkansas, Louisiana, Oklahoma	776	W	121	W	--	898	48
Texas	506	73	(5)	7	--	586	10
Total	1,900	95	121	24	5	2,150	198
Mountain and Pacific:							
Arizona, Colorado, Idaho, Montana, Utah	(5)	(5)	(5)	(5)	W	90	W
California, Oregon, Washington	128	(5)	1	8	W	171	W
Total	128	(5)	1	8	123	261	4
Grand total	3,690	147	179	191	167	4,370	469

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
2013, average ^f	369.63	349.18	374.96	364.59
2014:				
January	408.45	363.17	394.67	388.76
February	389.75	350.23	378.92	372.97
March	372.13	329.71	374.00	358.61
April	377.58	333.56	391.00	367.38
May	367.77	334.63	378.68	360.36
June	357.17	334.63	366.03	352.61
July	356.82	334.63	361.87	351.11
August	357.27	334.63	361.20	351.03
September	358.95	338.85	361.20	353.00
October	344.60	327.36	344.94	338.97
November	317.02	296.08	318.56	310.55
December	312.42	286.35	311.99	303.59
Average	359.99	330.32	361.92	350.75

^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	2013		2014	
	Quantity	Value	Quantity	Value
Argentina	(3)	384	(3)	604
Austria	1	1,590	2	5,950
Bangladesh	66	27,100	15	5,920
Belgium	8	7,330	8	13,300
Brazil	(3)	932	1	642
Canada	911	298,000	970	321,000
Chile	1	482	1	676
China	1,830	1,170,000	789	761,000
Colombia	1	348	(3)	103
Dominican Republic	2	588	4	863
Ecuador	81	26,600	141	41,900
Egypt	872	310,000	841	287,000
Finland	(3)	14	(3)	7
France	1	2,220	1	1,080
Germany	6	3,850	5	3,350
Greece	(3)	41	(3)	14
Guatemala	(3)	26	(3)	52
Hong Kong	60	46,600	45	39,700
India	540	263,000	559	248,000
Indonesia	521	198,000	343	122,000
Israel	1	246	(3)	93
Italy	121	45,000	76	28,200
Jamaica	(3)	125	2	290
Japan	96	91,700	81	92,200
Korea, Republic of	2,540	957,000	1,700	633,000
Kuwait	44	15,800	455	160,000
Malaysia	527	196,000	426	149,000
Mexico	695	249,000	759	260,000
Morocco	75	27,900	50	18,600
Netherlands	11	13,300	3	4,090
Pakistan	219	149,000	312	165,000
Peru	340	121,000	216	79,100
Philippines	8	3,590	1	840
Portugal	39	13,300	6	991
Qatar	--	--	44	14,500
Saudi Arabia	1	261	296	96,400
Singapore	2	4,030	(3)	771
Spain	10	8,860	1	1,300
Sri Lanka	(3)	630	(3)	149
Sweden	3	7,520	3	8,500
Switzerland	(3)	152	(3)	391
Taiwan	3,020	1,190,000	2,680	1,020,000
Thailand	86	31,000	477	173,000
Trinidad and Tobago	(3)	79	1	329
Tunisia	30	10,100	(3)	11
Turkey	5,230	1,880,000	3,620	1,270,000
United Arab Emirates	5	2,400	47	18,500
United Kingdom	7	6,940	2	3,360
Venezuela	1	1,490	(3)	210
Vietnam	470	171,000	315	109,000
Other	6	5,200 ^r	23	3,150
Total	18,500	7,570,000	15,300	6,160,000

^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 86 countries in 2013 and to 87 countries in 2014.

³Less than ½ unit.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

(Thousand metric tons and thousand dollars)

Customs district	2013		2014	
	Quantity	Value	Quantity	Value
Baltimore, MD	367	143,000	287	109,000
Boston, MA	1,140	419,000	713	256,000
Buffalo, NY	196	68,800	190	79,700
Charleston, SC	84	50,100	64	63,200
Charlotte, NC	6	8,420	11	17,600
Chicago, IL	2	1,190	1	1,290
Cleveland, OH	1	548	1	353
Columbia-Snake, OR	925	343,000	623	222,000
Detroit, MI	234	75,300	340	104,000
Duluth, MN	52	20,200	29	11,800
El Paso, TX	34	11,700	38	13,400
Great Falls, MT	12	3,260	15	3,340
Honolulu, HI	136	48,000	139	46,300
Houston-Galveston, TX	948	437,000	510	228,000
Laredo, TX	398	151,000	329	113,000
Los Angeles, CA	3,930	1,830,000	3,450	1,580,000
Miami, FL	452	181,000	337	136,000
Mobile, AL	257	92,400	185	71,300
New Orleans, LA	220	79,000	38	17,500
New York, NY	2,840	1,160,000	2,280	894,000
Nogales, AZ	(3)	30	(3)	43
Norfolk, VA	335	161,000	180	125,000
Ogdensburg, NY	7	2,530	15	5,690
Pembina, ND	325	119,000	269	92,200
Philadelphia, PA	919	330,000	778	272,000
Portland, ME	149	55,600	194	67,900
Providence, RI	597	212,000	829	287,000
San Diego, CA	69	18,100	70	16,200
San Francisco, CA	1,900	757,000	1,810	703,000
San Juan, PR	257	77,200	286	86,600
Savannah, GA	230	140,000	125	81,600
Seattle, WA	954	389,000	834	325,000
St. Albans, VT	35	10,100	29	8,950
Tampa, FL	422	167,000	277	113,000
Other	54	7,990	48	8,040
Total	18,500	7,570,000	15,300	6,160,000

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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

(Thousand metric tons and thousand dollars)

Grade	2013		2014	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	5,980	2,140,000	4,870	1,670,000
No. 2 heavy-melting scrap	911	316,000	877	290,000
No. 1 bundles	359	124,000	257	91,500
No. 2 bundles	10	1,780	23	5,230
Shredded steel scrap	5,610	2,030,000	4,660	1,650,000
Borings, shovelings, and turnings	130	44,500	47	14,800
Cut plate and structural	1,090	399,000	765	274,000
Tinned iron or steel	140	59,600	114	48,000
Remelting scrap ingots	17	15,000	15	11,000
Stainless steel scrap	644	743,000	548	674,000
Other alloy steel scrap	522	389,000	527	359,000
Other steel scrap ³	2,720	1,160,000	2,320	955,000
Iron scrap	356	142,000	300	112,000
Total	18,500	7,570,000	15,300	6,160,000
Ships, boats, and other vessels for scrapping	7	1,030	7	1,300
Used rails for rerolling and other uses ⁴	37	34,900 ^r	41	38,100
Grand total	18,500	7,600,000	15,400	6,200,000

^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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

(Thousand metric tons and thousand dollars)

Country	2013		2014	
	Quantity	Value	Quantity	Value
Argentina	(3)	2	--	--
Bahamas, The	4	834	4	559
Belgium	(3)	42	12	4,680
Bermuda	1	161	(3)	79
Brazil	5	1,690	13	22,000
British Virgin Islands	1	203	(3)	15
Canada	3,230	1,180,000	3,370	1,250,000
Cayman Islands	1	406	7	1,790
China	9	3,890	7	4,800
Colombia	(3)	86	2	3,550
Dominican Republic	3	239	7	1,240
Ecuador	(3)	84	1	1,110
Egypt	1	713	1	745
France	--	--	(3)	38
Germany	24	9,120	26	2,100
Guatemala	(3)	78	(3)	348
Hong Kong	4	696	2	526
Israel	(3)	33	3	1,120
Italy	6	166	1	704
Japan	11	2,780	9	2,050
Korea, Republic of	(3)	42	(3)	295
Malaysia	(3)	65	(3)	408
Mexico	295	138,000	349	198,000
Netherlands	29	11,100	133	93,500
Panama	(3)	160	(3)	298
Peru	(3)	39	1	239
Russia	(3)	22	1	356
Singapore	1	212	1	811
Sweden	138	53,200	198	75,400
Taiwan	(3)	400	1	2,450
Trinidad and Tobago	(3)	57	(3)	180
Turkey	--	--	(3)	1,080
Turks and Caicos Islands	(3)	34	(3)	16
United Kingdom	161	65,900	107	43,100
Other	3	1,500 ^r	4	4,670
Total	3,930	1,470,000	4,260	1,720,000

^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. The United States imported scrap from 57 countries in 2013 and 65 countries in 2014.

³Less than ½ unit.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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	2013		2014	
	Quantity	Value	Quantity	Value
Baltimore, MD	(3)	3	2	1,460
Boston, MA	--	--	(3)	3
Buffalo, NY	732	359,000	688	375,000
Charleston, SC	217	87,000	182	69,000
Chicago, IL	54	9,270	56	7,640
Cleveland, OH	(3)	305	(3)	600
Columbia-Snake, OR	8	2,320	--	--
Detroit, MI	1,260	468,000	1,320	474,000
Duluth, MN	75	22,100	137	43,400
El Paso, TX	42	16,300	39	19,600
Great Falls, MT	127	39,100	89	26,900
Houston-Galveston, TX	4	1,940	20	31,600
Laredo, TX	188	100,000	261	157,000
Los Angeles, CA	1	1,320	8	6,240
Miami, FL	3	1,050	5	1,110
Mobile, AL	69	26,600	157	106,000
New Orleans, LA	35	11,700	158	51,700
New York, NY	1	227	8	3,650
Nogales, AZ	28	9,050	10	3,260
Norfolk, VA	1	342	--	--
Ogdensburg, NY	56	29,000	43	29,000
Pembina, ND	104	36,900	138	51,300
Philadelphia, PA	1	477	1	582
Portland, ME	10	3,490	4	3,010
San Diego, CA	43	12,800	23	8,740
San Juan, PR	4	263	7	417
Savannah, GA	(3)	8	(3)	501
Seattle, WA	778	207,000	853	229,000
St. Albans, VT	21	6,930	46	14,500
Tampa, FL	1	359	3	1,160
Wilmington, NC	57	20,800	4	4,280
Other	2 ³	129 ³	(3)	69
Total	3,930	1,470,000	4,260	1,720,000

¹Revised. -- 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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

(Thousand metric tons and thousand dollars)

Class	2013		2014	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	322	108,000	311	105,000
No. 2 heavy-melting scrap	169	45,600	243	65,300
No. 1 bundles	1,140	444,000	980	381,000
No. 2 bundles	51	15,400	37	11,200
Shredded steel scrap	470	116,000	582	157,000
Borings, shovelings, and turnings	65	14,800	70	18,200
Cut plate and structural	261	82,500	252	78,200
Tinned iron or steel	60	21,400	79	24,500
Remelting scrap ingots	(3)	56	(3)	79
Stainless steel scrap	226	211,000	329	426,000
Other alloy steel scrap	418	202,000	529	195,000
Other steel scrap ⁴	499	149,000	623	197,000
Iron scrap	240	63,600	229	62,200
Total	3,930	1,470,000	4,260	1,720,000
Ships, boats, and other vessels for scrapping	(3)	446	(3)	451
Used rails for rerolling and other uses ⁵	86	40,200 ^r	73	33,300
Grand total	4,010	1,510,000	4,340	1,750,000

^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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

Country	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Argentina	243	\$191	150	\$118
Aruba	14	20	(3)	4
Australia	1,630	2,340	1,810	2,670
Bahamas, The	10	28	127	172
Bangladesh	--	--	1,130	946
Bermuda	22	18	10	8
Brazil	17	57	7,650	6,980
British Virgin Islands	58	48	--	--
Cayman Islands	50	42	27	75
Chile	23	32	34	85
China	2,380	1,030	338	428
Colombia	352	404	33	53
Costa Rica	72	60	2	20
Dominican Republic	476	460	1,090	786
El Salvador	346	289	426	361
Germany	--	--	16	48
Honduras	183	119	8	12
Hong Kong	25	27	14	47
Hungary	37	182	7	49
Jamaica	26	38	1	5
Japan	452	563	106	170
Korea, Republic of	288	241	--	--
Mexico	29,200	27,500	26,600	23,400
Netherlands	82	119	54	128
Nicaragua	1	8	81	80
Panama	--	--	50	99
Peru	83	119	44	51
Saudi Arabia	29	170	8	18
Singapore	18	95	3	98
Spain	4	9	3	7
Saint Kitts and Nevis	90	76	1	5
Taiwan	455	211	930	439
Trinidad and Tobago	36	39	216	296
United Arab Emirates	29	25	--	--
United Kingdom	24	20	38	67
Uruguay	11	9	3	12
Venezuela	102	128	50	48
Other	125 ^r	170 ^r	178	313
Total	37,000	34,900 ^r	41,200	38,100

^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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

Country	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Austria	24	\$29	--	--
Belgium	23	28	--	--
Brazil	1	6	1	\$3
Canada	79,900	34,400	59,000	23,400
China	6,280	5,420	8,180	7,120
Czech Republic	--	--	41	50
Germany	67 ^r	149	16	48
Italy	28	17	10	18
Japan	--	--	1,610	570
Korea, Republic of	--	--	1	12
Luxembourg	100	125	--	--
Mexico	16	18	5	4
Netherlands	7	14	48	54
New Zealand	--	--	1	9
Russia	--	--	3,850	1,790
Taiwan	1	3	83	219
United Kingdom	--	--	3	7
Total	86,400 ^r	40,200 ^r	72,900	33,300

^rRevised. -- Zero.

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

²Import valuation is customs value.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

Country	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Afghanistan	34	\$4	--	--
Brazil	--	--	32	\$3
Canada	--	--	933	114
China	--	--	27	3
France	20	3	--	--
Germany	34	4	--	--
Korea, Republic of	70	7	--	--
Mexico	107	11	--	--
Sweden	--	--	116	12
Total	265	29	1,110	132

-- 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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

Country	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	75,400	\$29,700	129,000	\$50,000
Canada	83,200	27,600	84,700	26,000
Russia	38,500	11,200	204,000	75,000
South Africa	--	--	10,000	3,200
Trinidad and Tobago	1,770,000	623,000	1,840,000	658,000
Ukraine	24,700	9,230	35,000	13,100
Venezuela	246,000	74,400	90,300	28,000
Total	2,240,000	775,000	2,390,000	854,000

-- 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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

Country	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Canada	7,310	\$2,670	2,410	\$853
China	38	13	62	32
Colombia	--	--	114	50
Dominican Republic	--	--	52	17
France	--	--	34	11
Germany	--	--	90	30
Hong Kong	--	--	31	10
India	--	--	31	10
Italy	--	--	3	10
Japan	9	4	--	--
Korea, Republic of	1,240	438	10	3
Mexico	7,650	1,100	2,620	1,050
United Arab Emirates	1,590	140	959	84
United Kingdom	2	11	45	15
Uruguay	194	65	168	56
Other	--	--	136	60
Total	18,000	4,440	6,770	2,290

-- 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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.

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

Country	2013		2014	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Argentina	20	\$113	--	--
Brazil	1,760,000	694,000	1,590,000	\$644,000
Canada	75,300	35,300	20,800	9,740
China	--	--	48	25
Germany	--	--	1,010	502
India	13	8	--	--
Indonesia	228	187	3,400	3,090
Japan	10	5	12	27
Russia	1,600,000	641,000	2,100,000	835,000
South Africa	211,000	83,100	256,000	101,000
Taiwan	11	26	24	54
Ukraine	474,000	189,000	609,000	245,000
United Kingdom	21	11	21,300	8,710
Total	4,120,000	1,640,000	4,600,000	1,850,000

-- 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.

Sources: U.S. Census Bureau and U.S. International Trade Commission.