



2006 Minerals Yearbook

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 products that are no longer used or needed. The steel industry has been recycling steel scrap for more than 150 years. Steel Business Briefing, Ltd. (2007, p. 28) reported that 98 steel-producing plants used electric arc furnaces (EAF), which consumed ferrous scrap, and accounted for about 43% of the total raw steel produced in 2006. Consistent with international usage and Federal Government policy, the U.S. Geological Survey (USGS) reports all data on iron and steel in metric units, unless otherwise noted.

Steel scrap recycling conserves energy, landfill space, and raw materials. In 2006, the domestic steel industry recycled or exported for recycling almost 73 million metric tons (Mt) of appliances, automobiles, cans, construction materials, and other steel products (Bill Heenan, President, Steel Recycling Institute, unpub. data, December 18, 2007). This resulted in an overall recycling rate of nearly 69% (Steel Recycling Institute, 2007c). 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 18 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.

In the United States, the primary source of obsolete steel is the automobile (Rich Tavoletti, Marketing Manager, American Iron and Steel Institute, unpub. data, July 2002). By weight, the typical car consists of about 65% iron and steel. The steel used in car bodies is made of about 25% recycled steel (Steel Recycling Institute, 2007a). The steel industry recovered and recycled more than 14 Mt of iron and steel automobile scrap in 2005. The recycling rate of automobile scrap steel was 104% in 2006, an increase of almost 2% since 2005. A recycling rate greater than 100% is a result of the steel industry recycling more steel from automobiles than was used in the production of new vehicles.

The recycling rate of obsolete appliance scrap had increased to a high of 90% in 2005 and 2006 from 20% in 1988 (Steel Recycling Institute, 2007b). The most recently available data show that during 2005, about 2.75 Mt of steel was recovered from recycled appliances, an increase of nearly 6% compared with that of 2004 (Bill Heenan, President, Steel Recycling Institute, unpub. data, May 6, 2006). The typical appliance consists of about 75% steel, and the steel used in appliances is made with a minimum of 25% recycled steel (Steel Recycling Institute, 2007b). The recycling rate of steel cans increased

to 63% in 2005 and 2006 from 16% in 1988 (Steel Recycling Institute, 2007c). The estimated rate of recycling of structural beams and plates in 2004, 2005, and 2006 was almost 98%, an increase from 96% in 2003. Reinforcement bar and other materials increased to 65% in 2005 and 2006 from 63% in 2004 (Steel Recycling Institute, 2007c). Currently, about 2% of homes being built in the United States use 100% steel framing, whereas 10% use some steel framing.

Minimills, in which EAFs are used, consumed greater quantities of 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 often used a feed mix that has equal proportions of DRI, pig iron, and scrap. Raw steel production in the U.S. steel industry increased by 3.5% during 2006, and DRI production increased by 9% (American Iron and Steel Institute, 2006, p. 75; Midrex Technologies, 2007).

Environment

Almost 68 million mercury-bearing switches are in vehicles in the United States, which when shredded and recycled in electric arc furnaces would release mercury into the atmosphere if the switches were not removed prior to melting. Steelmakers and vehicle makers agreed to remove 4 million switches during the next 3 years from vehicles before they are scrapped to recover the contained mercury (Eilperin, 2006). The program is expected to reduce the country's annual mercury pollution by at least 5% during the next 15 years. Prior to this agreement, 10 States—Arkansas, Illinois, Iowa, Maine, Massachusetts, New Jersey, North Carolina, Rhode Island, South Carolina, and Utah—had adopted programs to remove these switches.

Consumption

Domestic data for ferrous scrap were derived from voluntary monthly or annual surveys of U.S. scrap-consuming operations by the USGS. About 34% of the known manufacturers of pig iron and raw steel responded to the surveys. Their responses represented about 55% of estimated total scrap consumption by this class of consumers. The remaining 45% of scrap consumption was estimated based on prior reports. Of the iron foundries, manufacturers of steel castings, and miscellaneous users, about 43% of the surveyed establishments responded to the annual survey, which represented about 28% of estimated scrap consumption by this class of consumers. Total consumption for these two classes of consumers was estimated using statistical methods and prior reports. Actual survey data accounted for about 28% of total estimated scrap consumption by all classes of scrap consumers.

In 2006, brokers, dealers, and other outside sources supplied domestic consumers with 53.2 Mt of all types of ferrous scrap at an estimated delivered value of \$11.6 billion, and exported 14.9 Mt (excluding used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) valued at \$4.2 billion (tables 1, 8, 11). In 2005, domestic consumers received 50.8 Mt of scrap steel at an estimated delivered value of more than \$9.8 billion; exports totaled 13.0 Mt, valued at \$3.4 billion. Raw steel production was 98.2 Mt in 2006 compared with 94.9 Mt in 2005 (American Iron and Steel Institute, 2006, p. 73). The share of raw steel produced by electric furnaces was 43% and by the basic oxygen furnaces was 57%. In 2006, continuous cast steel production represented 97% of total raw steel production; this was about the same as that of 2005. Raw steel production capability increased to 124 Mt, up from 120 Mt in 2005.

Steel mills accounted for 85% of all scrap received from brokers, dealers, and other outside sources; iron foundries and miscellaneous users received 12%; and steel foundries received 2% (table 1). Apparent total domestic consumption of ferrous scrap was 50.6 Mt of net receipts (total receipts minus shipments) and 12.2 Mt of home scrap (table 2). Stocks of ferrous scrap at consumer plants decreased by 7% to 4.7 Mt (table 1). Total domestic consumption was almost 66 Mt, about the same as that of 2005 (table 1). The total market for U.S.-produced scrap (net receipts plus exports minus imports) was 63.3 Mt, compared with 60.0 (revised) in 2005 (table 1). Feedstock used in electric furnaces by all iron and steel product manufacturers comprised scrap, 92%; pig iron, 6%; and DRI, 2% (table 4). Total consumption of DRI was 12% less than that of 2005 (table 1). Net shipments of all grades of steel mill products were about 99.3 Mt, which was an increase of 4.3% from the 95.2 Mt shipped in 2005 (American Iron and Steel Institute, 2006, p. 25).

Prices

The average composite delivered price of No. 1 heavy-melting steel scrap, calculated from prices per long ton published monthly by American Metal Market, was \$218.91 per metric ton. The price ranged from a low of \$194.13 per ton in August to a high of \$243.47 per ton in June (table 8). The average composite delivered price of No. 1 heavy-melting steel scrap, calculated from prices per long ton published weekly in Iron Age Scrap Price Bulletin, was \$214.02 per metric ton; the price ranged from a low of \$192.24 per ton in August to a high of \$238.47 per ton in June.

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 was \$2,124 per ton, an increase of 43% more than that of 2005.

The 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 7.4% to about \$285 per ton compared with that of 2005 (table 11). The unit value of total imports, which was about \$262 per ton, was about 8% more than that of 2005 (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 2006, 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 9.9 Mt valued at \$2.96 billion (tables 11, 14). This represented an increase of 10% in quantity and an increase of 19% in value compared with the 2005 surplus of 9.0 Mt valued at \$2.49 billion.

Total U.S. exports of carbon steel and cast-iron scrap (excluding alloy steel; ships, boats, and other vessels for scrapping; stainless steel; and used rails for rerolling and other uses) went to 75 countries (3 more than in 2005) and totaled 11.2 Mt (a 4% increase) valued at \$2.66 billion (a 15% increase) for an average of \$237 per ton (an 11% increase) (U.S. Census Bureau, unpub. data, 2006). The largest tonnages went to Turkey, 2.5 Mt; China, 2.0 Mt; Mexico, 1.1 Mt; Canada, 1.0 Mt; and Malaysia, 1.0 Mt. These five countries received 67% of the total quantity, valued at \$1.9 billion, which accounted for 72% of the total value.

Total U.S. exports of stainless steel scrap went to 52 countries (3 less than in 2005) and consisted of 506,307 metric tons (t) (16% less than in 2005) valued at \$716 million (a 3% increase) for an average of \$1,415 per ton (22% more than in 2005) (U.S. Census Bureau, unpub. data, 2006). The largest tonnages went to China, 184,438 t; Taiwan, 94,009 t; Finland, 49,872 t; and Canada, 32,127 t. These countries received 71% of the total quantity valued at \$457 million, which was 64% of the total value.

U.S. exports of alloy steel scrap (excluding stainless steel) were shipped to 53 countries (10 more than in 2005) and consisted of 2.4 Mt (a 50% increase) valued at \$874 million (a 90% increase) for an average of \$371 per ton (a 27% increase) (U.S. Census Bureau, unpub. data, 2006). The largest tonnages went to China, 1.28 Mt, and Canada, 0.5 Mt. These countries received 74% of the total quantity, valued at \$722 million, which accounted for 82% of the total value.

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 and 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 the most iron and steel scrap in 2005, followed by Russia, Japan, and Germany (International Iron and Steel Institute, 2006, p. 95). The six leading significant importing nations were, in decreasing order of import tonnage, Turkey, China, Spain, Republic of Korea, Italy, and Germany (International Iron and Steel Institute, 2006, p. 98).

Outlook

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

The global economy was projected to grow by 5.2% in 2007 and 4.8% in 2008, according to the International Monetary Fund (IMF) (International Monetary Fund, 2007). The U.S. gross domestic product (GDP) was projected to increase 2.1% in 2007 and 3.0% in 2008, according to the World Bank (World Bank, The, 2007); although the IMF expected the U.S. GDP to grow by only 1.9% in 2008 (International Monetary Fund, 2007). The IMF expected the economy of China to grow by 10% in 2008, after growth of 10.4% in 2007, as estimated by the World Bank.

The global steel industry was expected to continue to have strong years ahead, with apparent steel use rising 6.8% during 2007 and 2008, according to the International Iron and Steel Institute (2007). Brazil, Russia, India, and China (BRIC countries), which accounted for about 41% of global steel consumption in 2006, were expected to increase apparent steel use by 12.8% in 2007 and 11.1% in 2008. The BRIC countries will account for 77% of global apparent steel use in 2007 and 71% in 2008.

The Organisation for Economic Cooperation and Development forecast that global raw steelmaking capacity would increase to more than 1.44 billion metric tons per year (Gt/yr) in 2007 from 1.40 Gt/yr in 2005 (Organisation for Economic Cooperation and Development, 2005). China accounted for most of this increase—449 Mt in 2007 from 431 Mt in 2006.

Global steel production may reach 1.44 Gt in 2008 (International Iron and Steel Institute, 2007). Economic activity in China, the world's leading steel producer, continued to be an important influence on the world economy and steel markets. China's steel production was 419 Mt in 2006, up from 353 Mt in 2005, and would be an estimated 482 Mt in 2007, according to an optimistic International Iron and Steel Institute.

Global consumption of finished steel products was estimated to increase 6.8% to 1,279 Mt in 2008 from 1,198 Mt in 2007. Demand in the United States was expected to increase in 2007 by 6.0%, and increase in 2008 by 3.8%; in the European Union to increase 3.9% and 1.5%, respectively; in Russia and Ukraine to increase 25% and 17%, and 9.3% and 9.0%, respectively; and in India to increase 14% and 12%, respectively. China's steel-product consumption was expected to be 398 Mt, 33% of world demand in 2007 (International Iron and Steel Institute, 2007).

Because the primary source of obsolete steel is the automobile, a growing world population and increased demand for vehicles in developing countries are expected to contribute to a dramatic rise in the amount of vehicle scrap created in the next 25 years, according to the Oxford Brookes University in the United Kingdom (Blogtoplist, 2007). More vehicles will be produced in the next 25 years than in the entire history of the motor industry.

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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)

	2002	2003	2004	2005	2006
Manufacturers of pig iron and raw steel and castings:²					
Ferrous scrap consumption	56,400	55,200	57,100	55,000 ^r	54,500
Pig iron consumption	42,500	39,700	38,000	36,900	36,700
Direct-reduced iron consumption	2,230	1,790	1,490	1,740	1,530
Net receipts of ferrous scrap ³	43,600	42,700	45,800 ^r	43,600 ^r	45,300
Home scrap production ⁴	12,700	12,600	11,600	11,400 ^r	9,120
Ending stocks of ferrous scrap, December 31	4,360	4,070	4,880	4,430 ^r	3,880
Manufacturers of steel castings:⁵					
Ferrous scrap consumption	1,900	1,130	1,310	1,810	1,640
Pig iron consumption	34	31	94	89	56
Net receipts of ferrous scrap ³	1,160	761	972	1,060	1,320
Home scrap production ⁴	717	361	326	743	319
Ending stocks of ferrous scrap, December 31	173	88	80	85	79
Iron foundries and miscellaneous users:⁵					
Ferrous scrap consumption	11,200	8,720	8,490	8,670 ^r	9,370
Pig iron consumption	1,280	1,030	1,020	1,080 ^r	857
Direct-reduced iron consumption	13	4	4	3	4
Net receipts of ferrous scrap ³	7,270	6,300	6,320	6,130 ^r	6,580
Home scrap production ⁴	3,760	2,430	2,370	2,870 ^r	3,010
Ending stocks of ferrous scrap, December 31	401	251	459	585 ^r	784
Total, all manufacturing types:					
Ferrous scrap consumption	69,500	65,000	66,900	65,500 ^r	65,600
Pig iron consumption	43,800	40,800	39,100	38,100 ^r	37,600
Direct-reduced iron consumption	2,250	1,790	1,500	1,750	1,540
Net receipts of ferrous scrap ³	52,100	49,800	53,100	50,800 ^r	53,200
Home scrap production ⁴	17,200	15,400	14,300	15,000 ^r	12,500
Ending stocks, December 31:					
Ferrous scrap at consumer plants	4,930	4,410	5,420	5,100 ^r	4,740
Pig iron at consumer and supplier plants	754	381	722	665	701
Direct-reduced iron at consumer plants	269	345	136	263	320
Exports:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	8,950	10,800	11,800	13,000	14,900
Value	1,290,000	1,940,000	2,910,000	3,430,000	4,230,000
Pig iron, all grades:					
Quantity	34	86	48	51	813
Value	4,910	8,850	6,690	8,110	8,750
Direct-reduced iron, steelmaking grade:					
Quantity	1	5	13	(8)	(8)
Value	100	525	1,360	16	11
Imports for consumption:⁶					
Ferrous scrap (includes tinplate and terneplate):⁷					
Quantity	3,130	3,480	4,660	3,840	4,820
Value	376,000	511,000	1,230,000	909,000	1,250,000
Pig iron, all grades:					
Quantity	4,620	3,890	6,400	6,030	6,730
Value	527,000	571,000	1,360,000	1,580,000	1,760,000
Direct-reduced iron, steelmaking grade:					
Quantity	2,010	1,940	2,450	2,170	2,610
Value	195,000	242,000	463,000	361,000	417,000

^rRevised.

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.

⁴Home scrap production includes 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.

⁸Less than ½ unit.

TABLE 2

U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2006, 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	354	W	517	--	698	71	131
Cut structural and plate	3,430	150	588	--	4,040	51	247
No. 1 heavy-melting steel	4,870	113	1,840	20	6,730	203	490
No. 2 heavy-melting steel	5,710	56	350	W	6,030	24	516
No. 1 and electric furnace bundles	3,940	57	W	--	4,530	117	280
No. 2 and all other bundles	867	W	W	--	889	(3)	37
Electric furnace, 1 foot and under (not bundles)	W	--	W	--	W	W	W
Railroad rails	211	W	W	--	273	W	11
Turnings and borings	1,980	88	59	W	2,190	7	81
Slag scrap	811	106	1,140	--	1,610	477	111
Shredded or fragmented	10,200	1,350	W	W	12,300	--	611
No. 1 busheling	4,790	52	217	--	5,010	5	347
Steel cans, post consumer	135	--	--	--	149	W	4
All other carbon steel scrap	2,770	238	1,530	W	4,380	160	366
Stainless steel scrap	1,050	65	351	--	1,500	2	56
Alloy steel (except stainless)	122	10	431	--	549	19	19
Ingot mold and stool scrap	1	--	W	83	61	88	13
Machinery and cupola cast iron	6	--	W	W	5	W	W
Cast-iron borings	343	--	W	--	327	4	24
Motor blocks	14	--	--	--	16	--	W
Other iron scrap	875	70	262	--	1,130	90	382
Other mixed scrap	1,710	55	272	--	2,030	21	144
Total	44,300	2,440	8,930	195	54,500	1,410	3,880
Manufacturers of steel castings:							
Carbon steel:							
Low-phosphorus plate and punchings	562	W	68	(3)	629	(3)	30
Cut structural and plate	163	W	8	W	174	W	3
No. 1 heavy-melting steel	33	--	W	--	38	--	3
No. 2 heavy-melting steel	W	--	--	--	W	--	W
No. 1 and electric furnace bundles	W	--	--	--	W	--	W
No. 2 and all other bundles	--	--	--	--	--	--	--
Electric furnace, 1 foot and under (not bundles)	6	--	3	--	8	--	(3)
Railroad rails	W	--	W	--	W	--	W
Turnings and borings	30	--	7	W	38	W	1
Slag scrap	W	--	W	--	185	--	(3)
Shredded or fragmented	89	--	--	--	89	--	1
No. 1 busheling	38	--	--	--	38	W	1
Steel cans, post consumer	--	--	--	W	--	W	--
All other carbon steel scrap	47	--	99	--	145	W	4
Stainless steel scrap	23	W	24	W	48	--	24
Alloy steel (except stainless)	36	W	32	W	70	--	6
Ingot mold and stool scrap	W	--	W	--	W	W	W
Machinery and cupola cast iron	--	--	--	--	--	--	--
Cast-iron borings	W	--	W	--	W	--	W
Motor blocks	W	--	--	--	W	--	--
Other iron scrap	1	--	1	--	2	--	--
Other mixed scrap	35	--	W	14	50	1	W
Total	1,310	5	305	14	1,640	2	79

See footnotes at end of table.

TABLE 2—Continued

U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF IRON AND STEEL SCRAP IN 2006, 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	696	2	180	3	856	23	114
Cut structural and plate	915	31	44	W	995	2	27
No. 1 heavy-melting steel	147	2	W	--	164	--	56
No. 2 heavy-melting steel	281	--	W	--	314	--	2
No. 1 and electric furnace bundles	92	--	--	--	59	--	37
No. 2 and all other bundles	61	--	W	--	58	W	W
Electric furnace, 1 foot and under (not bundles)	93	--	(3)	--	94	--	1
Railroad rails	54	W	34	W	83	5	3
Turnings and borings	122	--	(3)	--	121	1	3
Slag scrap	W	--	13	--	W	W	W
Shredded or fragmented	1,110	--	W	--	1,090	--	50
No. 1 busheling	510	W	18	(3)	494	1	44
Steel cans, post consumer	W	--	(3)	--	W	--	(3)
All other carbon steel scrap	52	--	57	W	109	(3)	3
Stainless steel scrap	2	--	--	W	2	--	--
Alloy steel (except stainless)	1,290	--	319	--	1,610	11	(3)
Ingot mold and stool scrap	53	W	15	--	68	W	9
Machinery and cupola cast iron	507	W	172	W	655	34	217
Cast-iron borings	47	37	11	W	93	2	1
Motor blocks	264	W	565	--	835	W	6
Other iron scrap	135	23	1,470	3	1,470	13	201
Other mixed scrap	115	W	46	W	178	1	6
Total	6,550	124	2,990	16	9,370	102	784
Grand total, all manufacturing types:							
Carbon steel:							
Low-phosphorus plate and punchings	1,610	5	765	3	2,180	95	275
Cut structural and plate	4,510	183	640	W	5,210	53	278
No. 1 heavy-melting steel	5,050	115	1,860	20	6,940	203	548
No. 2 heavy-melting steel	6,010	56	382	W	6,360	24	519
No. 1 and electric furnace bundles	4,030	57	W	--	4,590	117	317
No. 2 and all other bundles	928	W	2	--	948	3	40
Electric furnace, 1 foot and under (not bundles)	180	--	103	--	219	W	4
Railroad rails	283	W	130	W	428	5	16
Turnings and borings	2,130	88	67	W	2,350	8	84
Slag scrap	1,000	106	1,150	--	1,810	479	112
Shredded or fragmented	11,400	1,350	332	W	13,500	(3)	662
No. 1 busheling	5,340	52	234	(3)	5,540	6	392
Steel cans, post consumer	137	--	(3)	W	152	W	4
All other carbon steel scrap	2,870	238	1,680	3	4,630	161	373
Stainless steel scrap	1,080	65	376	W	1,550	3	81
Alloy steel (except stainless)	1,450	12	782	W	2,230	30	25
Ingot mold and stool scrap	54	W	93	83	129	88	22
Machinery and cupola cast iron	513	W	174	9	660	35	220
Cast-iron borings	397	37	11	W	426	6	25
Motor blocks	305	W	565	--	877	W	8
Other iron scrap	1,010	93	1,730	3	2,610	103	583
Other mixed scrap	1,860	75	320	14	2,260	23	153
Total	52,100	2,570	12,200	225	65,600	1,510	4,740

W Withheld to avoid disclosing company proprietary data. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.²Obsolete home scrap includes ingot molds, stools, and scrap from old equipment and buildings.³Less than ½ unit.

TABLE 3
U.S. CONSUMER RECEIPTS, PRODUCTION, CONSUMPTION, SHIPMENTS, AND STOCKS OF PIG IRON
AND DIRECT-REDUCED IRON IN 2006¹

(Thousand metric tons)

	Receipts	Production	Consumption	Shipments	Stocks, December 31
Manufacturers of pig iron, raw steel, and castings:					
Pig iron	5,650 ²	31,100	36,700	458	652
Direct-reduced iron (DRI)	1,320 ³	W	1,530	13	319
Manufacturers of steel castings:					
Pig iron	55	(4)	56	(4)	2
DRI	W	--	W	--	W
Iron foundries and miscellaneous users:					
Pig iron	928	2	857	71	49
DRI	W	W	4	--	1
Total, all manufacturing types:					
Pig iron	6,630	31,100	37,600	529	701
DRI	1,330	W	1,540	13	320

W Withheld to avoid disclosing company proprietary data. -- Zero.

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

²Includes 1.49 million metric tons (Mt) purchased by electric furnace steel producers.

³Includes 1.29 Mt 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 2006, 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	2,510	--	308	--	--	--	3	--	--	2,510	--	308
Basic oxygen process	10,000	33,700	348	--	--	--	--	2	--	10,000	33,800	348
Electric furnace	41,800	2,910	875	1,520	37	--	4,540	434	2	47,800	3,380	877
Cupola furnace	92	--	--	117	19	--	4,820	416	3	5,030	435	3
Other ³	W	--	--	--	--	--	W	W	--	W	W	--
Direct castings ⁴	--	36	--	--	--	--	--	--	--	--	36	--
Total	54,500	36,700	1,530	1,640	56	--	9,370	857	5	65,600	37,600	1,540

W Withheld to avoid disclosing company proprietary data. -- 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 2006, BY REGION AND STATE^{1,2}

(Thousand metric tons)

Region and State	Receipts of scrap		Production of home scrap		Shipments of scrap ⁴	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		
New England and Middle Atlantic:						
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	28	--	9	(5)	(5)	37
New Jersey and New York	1,810	--	115	1	--	1,920
Pennsylvania	3,670	235	1,750	63	34	5,680
Total	5,500	235	1,870	64	34	7,640
North Central:						
Illinois	2,000	72	205	--	(5)	2,290
Indiana	3,520	4	2,420	(5)	426	5,530
Iowa, Nebraska, South Dakota	1,190	12	162	104	W	1,450
Kansas and Missouri	71	5	55	(5)	(5)	131
Michigan	4,260	11	1,480	10	550	5,210
Minnesota	394	128	25	--	W	541
Ohio	6,720	255	1,820	22	199	8,620
Wisconsin	1,790	3	1,020	1	8	2,810
Total	20,000	490	7,190	137	1,200	26,600
South Atlantic:						
Delaware and Maryland	962	14	385	--	61	1,300
Florida and Georgia	1,080	--	35	--	(5)	1,120
North Carolina and South Carolina	2,580	W	200	--	W	3,170
Virginia and West Virginia	2,120	W	313	--	W	2,850
Total	6,740	728	933	--	W	8,440
South Central:						
Alabama and Mississippi	4,550	W	316	W	62	4,810
Arkansas, Louisiana, Oklahoma	5,140	W	312	W	W	5,590
Kentucky and Tennessee	2,880	88	360	--	W	3,310
Texas	3,360	826	497	5	26	4,660
Total	15,900	1,060	1,490	15	118	18,400
Mountain and Pacific:						
Arizona, Colorado, Idaho, Utah	1,680	54	455	W	W	2,190
California, Oregon, Washington	2,340	2	293	(5)	W	2,450
Total	4,020	56	748	9	194	4,640
Grand total	52,100	2,570	12,200	225	1,550	65,700

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.

³Obsolete scrap includes 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 2006, 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	W	W	W	--	229	W	2,020	26
Pennsylvania	5,380	2,710	174	W	253	28	5,810	2,740
Total	7,160	2,730	182	1	491	36	7,830	2,770
North Central:								
Illinois	1,770	W	63	W	458	14	2,290	1,950
Indiana	4,570	13,100	73	1	888	84	5,530	13,100
Iowa, Kansas, Minnesota, Missouri, Nebraska, South Dakota, Wisconsin	W	W	639	52	2,070	390	4,680	529
Michigan	2,410	W	26	--	2,800	64	5,230	4,690
Ohio	7,710	5,640	184	W	590	132	8,490	5,770
Total	18,400	25,300	985	55	6,800	685	26,200	26,100
South Atlantic:								
Delaware, Maryland, Virginia, West Virginia	W	W	W	W	306	15	4,130	1,600
Florida, Georgia, North Carolina, South Carolina	1,590	W	--	--	158	W	4,250	266
Total	7,910	1,850	2	W	465	17	8,380	1,860
South Central:								
Alabama, Kentucky, Mississippi, Tennessee	6,710	2,380	93	W	1,110	87	7,950	4,550
Arkansas, Louisiana, Oklahoma	5,630	W	W	--	5	1	5,660	761
Texas	4,520	W	24	-4	211	23	4,750	75
Total	16,900	5,270	128	-4	1,380	113	18,400	5,380
Mountain and Pacific:								
Arizona, Colorado, Idaho, Utah	W	W	W	W	94	W	2,270	1,510
California, Oregon, Washington	W	--	334	--	147	3	2,510	4
Total	4,190	1,510	340	(4)	241	5	4,770	1,520
Grand total	54,500	36,700	1,640	56	9,380	856	65,600	37,600

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, 2006, 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	W	W	--	W	W	W	W
New Jersey and New York	46	1	1	W	W	48	W
Pennsylvania	264	14	12	12	3	306	5
Total	310	15	13	13	4	354	5
North Central:							
Illinois	113	(5)	(5)	81	W	196	21
Indiana	370	5	1	16	W	401	165
Iowa, Kansas, Missouri, Nebraska, South Dakota	134	W	W	5	--	139	5
Michigan	90	(5)	W	21	W	114	8
Minnesota and Wisconsin	127	2	3	149	W	281	4
Ohio	640	36	W	182	--	861	91
Total	1,470	43	9	453	13	1,990	294
South Atlantic:							
Delaware, Maryland, Virginia, West Virginia	176	W	W	86	W	285	55
Florida, Georgia, North Carolina, South Carolina	262	W	W	W	W	283	39
Total	438	(5)	(5)	99	30	568	94
South Central:							
Alabama, Kentucky, Mississippi, Tennessee	543	W	W	263	3	839	141
Arkansas, Louisiana, Oklahoma	493	W	W	W	--	498	129
Texas	236	-5	W	6	W	245	30
Total	1,270	22	1	275	11	1,580	300
Mountain and Pacific:							
Arizona, Colorado, Idaho, Utah	92	(5)	(5)	5	W	151	7
California, Oregon, Washington	36	W	2	13	W	95	2
Total	128	1	2	18	96	246	9
Grand total	3,620	81	25	858	154	4,740	702

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.

²Excludes rerolling rails.

³Excludes 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
2005, average	193.96	186.95	196.40	192.44
2006:				
January	220.02	187.00	217.51	207.42
February	232.84	206.68	239.49	228.09
March	233.12	209.26	241.13	227.91
April	240.69	221.79	245.81	236.53
May	244.86	232.22	246.05	241.21
June	245.24	238.99	246.05	243.47
July	241.62	238.82	237.69	239.08
August	203.09	203.95	181.39	194.13
September	203.73	216.67	189.78	204.05
October	199.62	210.18	191.92	200.28
November	194.82	209.74	191.92	198.86
December	199.84	217.82	200.21	206.42
Average	221.62	216.09	219.07	218.91

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	2005		2006	
	Quantity	Value	Quantity	Value
Bahamas, The	2	462	10	2,210
Bangladesh	28	7,320	246	19,200
Belgium	13	3,710	4	4,230
Brazil	10	2,410	6	1,270
Canada	2,160	264,000	1,500	285,000
Chile	1	177	(3)	333
China	3,530	1,260,000	3,420	1,600,000
Colombia	51	11,900	67	15,600
Dominican Republic	1	192	5	1,560
Egypt	208	52,500	392	98,600
Finland	65	97,900	50	76,900
France	4	4,610	37	7,560
Germany	7	3,260	3	3,890
Greece	23	4,310	227	51,900
Guatemala	(3)	202	(3)	103
Hong Kong	49	31,200	137	64,100
India	806	221,000	618	168,000
Indonesia	188	46,200	115	33,400
Ireland	1	549	1	574
Italy	137	36,900	102	46,000
Japan	41	28,700	51	51,800
Kenya	71	12,800	24	15,000
Korea, Republic of	1,130	316,000	1,350	191,000
Malaysia	457	109,000	907	202,000
Mexico	1,500	287,000	1,110	247,000
Netherlands	21	18,300	12	19,000
Pakistan	39	10,300	70	18,000
Panama	(3)	43	1	220
Peru	44	10,000	64	15,500
Portugal	21	4,120	23	4,970
Qatar	31	6,560	--	--
Saudi Arabia	32	7,220	36	6,980
Singapore	75	2,130	54	4,810
Spain	18	15,100	32	26,800
Sweden	7	5,640	(3)	660
Switzerland	(3)	283	1	481
Taiwan	283	153,000	716	244,000
Thailand	337	77,500	461	109,000
Turkey	1,500	299,000	2,470	566,000
Turks and Caicos Islands	2	176	(3)	38
United Arab Emirates	3	688	1	403
United Kingdom	9	6,080	23	6,020
Venezuela	6	1,540	2	551
Vietnam	26	7,570	462	13,600
Other	17	5,670	58	8,580
Total	13,000	3,430,000	14,900	4,230,000

-- 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 82 countries in 2005 and 83 countries in 2006.

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	2005		2006	
	Quantity	Value	Quantity	Value
Baltimore, MD	37	18,900	20	19,000
Boston, MA	682	154,000	600	151,000
Buffalo, NY	114	33,200	122	50,500
Charleston, SC	53	32,500	189	69,400
Charlotte, NC	28	8,970	41	15,800
Chicago, IL	3	1,800	4	1,960
Cleveland, OH	1	366	(3)	426
Columbia-Snake River, OR/WA	325	78,700	537	162,000
Detroit, MI	411	78,000	368	76,900
Duluth, MN	52	6,530	31	7,030
El Paso, TX	6	1,390	11	2,190
Great Falls, MT	28	4,650	29	5,550
Honolulu, HI	147	35,900	158	33,100
Houston-Galveston, TX	101	48,500	218	78,600
Laredo, TX	898	162,000	419	86,300
Los Angeles, CA	2,820	934,000	4,210	1,260,000
Miami, FL	50	41,100	123	97,400
Mobile, AL	24	9,730	25	6,210
New Orleans, LA	304	125,000	305	121,000
New York, NY	1,920	545,000	2,150	730,000
Nogales, AZ	1	217	16	3,300
Norfolk, VA	116	61,200	228	81,000
Ogdensburg, NY	69	14,900	82	19,400
Pembina, ND	596	93,600	473	92,100
Philadelphia, PA	592	124,000	540	130,000
Portland, ME	185	42,300	216	56,000
Providence, RI	215	44,500	353	83,400
San Diego, CA	114	16,400	69	11,300
San Francisco, CA	1,110	326,000	1,530	315,000
San Juan, PR	55	11,700	146	31,500
Savannah, GA	83	47,100	174	91,800
Seattle, WA	712	237,000	801	224,000
St. Albans, VT	59	12,300	81	18,600
Tampa, FL	222	46,600	287	71,300
Other	817	33,600	314	26,800
Total	13,000	3,430,000	14,900	4,230,000

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.

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	2005		2006	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	3,180	617,000	2,760	656,000
No. 2 heavy-melting scrap	325	65,900	260	53,700
No. 1 bundles	330	35,500	204	23,900
No. 2 bundles	91	21,300	44	9,060
Shredded steel scrap	3,800	834,000	3,390	792,000
Borings, shovelings, and turnings	241	27,200	143	23,100
Cut plate and structural	387	87,700	312	72,400
Tinned iron or steel	77	24,900	73	30,100
Remelting scrap ingots	10	8,900	8	8,980
Stainless steel scrap	585	670,000	1,350	716,000
Other alloy steel scrap	1,570	455,000	2,350	862,000
Other steel scrap ³	1,240	328,000	1,850	572,000
Iron scrap	1,120	255,000	2,130	413,000
Total	13,000	3,430,000	14,900	4,230,000
Ships, boats, and other vessels for scrapping	3	476	5	509
Used rails for rerolling and other uses ⁴	55	25,600	51	36,400
Grand total	13,000	3,460,000	14,900	4,270,000

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	2005		2006	
	Quantity	Value	Quantity	Value
Argentina	(3)	201	(3)	155
Bahamas, The	3	351	5	676
Belgium	36	9,780	61	15,700
Brazil	1	774	(3)	172
Canada	2,750	570,000	3,140	766,000
China	2	978	4	796
Colombia	1	118	2	1,060
Denmark	--	--	137	36,700
Dominican Republic	31	6,900	28	6,310
Ecuador	(3)	102	(3)	76
Egypt	1	732	3	2,280
Estonia	--	--	10	3,040
Finland	1	93	(3)	13
France	(3)	358	--	--
Germany	2	148	4	1,050
Italy	(3)	72	(3)	200
Japan	1	1,540	3	1,920
Malaysia	2	264	(3)	93
Mexico	145	61,000	236	95,000
Netherlands	222	72,300	243	62,000
Russia	35	10,500	(3)	67
South Africa	4	35	--	--
Spain	(3) ^r	8 ^r	2	657
Sweden	261	71,500	266	67,700
Taiwan	1	396	1	470
Trinidad and Tobago	1	647	10	2,580
United Arab Emirates	(3)	170	1	728
United Kingdom	338	97,200	650	178,000
Venezuela	1	1,560	--	147
Other	2	1,690 ^r	7	2,130
Total	3,840	909,000	4,820	1,250,000

^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 value. The United States imported scrap from 43 countries in 2005 and 53 countries in 2006.

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	2005		2006	
	Quantity	Value	Quantity	Value
Baltimore, MD	(3)	213	1,187	198
Buffalo, NY	423	152,000	529	231,000
Charleston, SC	869	253,000	907	239,000
Charlotte, NC	--	--	21	4,410
Chicago, IL	20	1,880	3	2,520
Cleveland, OH	11	665	56	4,220
Detroit, MI	1,450	280,000	1,600	354,000
Duluth, MN	39	8,640	48	13,700
El Paso, TX	32	6,970	40	11,300
Great Falls, MT	12	2,120	19	5,150
Houston-Galveston, TX	18	17,900	21	25,000
Laredo, TX	34	23,600	42	35,300
Los Angeles, CA	2	1,580	2	1,550
Miami, FL	(3)	112	4	989
Mobile, AL	56	12,000	196	48,300
New Orleans, LA	95	23,300	346	92,500
New York, NY	3	552	37	12,800
Nogales, AZ	11	3,640	8	2,750
Ogdensburg, NY	16	9,520	12	8,380
Pembina, ND	72	20,700	102	35,500
Philadelphia, PA	1	348	3	602
Portland, ME	(3)	11	(3)	104
San Diego, CA	55	13,200	134	25,200
Savannah, GA	1	322	(3)	498
Seattle, WA	618	75,700	677	89,300
Tampa, FL	3	324	5	650
Other	2	1,280	(3)	488
Total	3,840	909,000	4,820	1,250,000

-- 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 value.

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	2005		2006	
	Quantity	Value	Quantity	Value
No. 1 heavy-melting scrap	55	7,010	105	19,400
No. 2 heavy-melting scrap	46	7,160	93	15,500
No. 1 bundles	879	228,000	1,280	333,000
No. 2 bundles	10	3,340	7	1,090
Shredded steel scrap	841	187,000	1,180	264,000
Borings, shovelings, and turnings	95	8,340	78	8,590
Cut plate and structural	193	35,300	173	31,900
Tinned iron or steel	17	3,160	10	2,530
Remelting scrap ingots	2	1,080	1	413
Stainless steel scrap	111	124,000	179	209,000
Other alloy steel scrap	425	81,200	524	109,000
Other steel scrap ³	780	161,000	785	179,000
Iron scrap	385	62,700	411	73,000
Total	3,840	909,000	4,820	1,250,000
Ships, boats, and other vessels for scrapping	(4)	208	(4)	49
Used rails for rerolling and other uses ⁵	164	62,800	185	65,600
Grand total	4,000	972,000	5,000	1,310,000

¹Data 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. 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	2005		2006	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Antigua and Barbuda	1	\$8	95	\$21
Argentina	1	3	--	--
Aruba	3	47	46	194
Australia	470	1,040	829	1,400
Austria	8	35	53	104
Bahamas, The	268	202	112	321
Barbados	--	--	45	42
Bolivia	--	--	25	36
Brazil	679	531	25	15
British Virgin Islands	--	--	73	63
Canada	20,200	9,100	13,600	10,700
Cayman Islands	102	120	84	299
Chile	21	43	27	68
China	612	205	500	271
Colombia	264	76	2,790	3,040
Costa Rica	2	8	15	64
Dominican Republic	519	573	156	259
Egypt	2,120	1,020	--	--
El Salvador	1	11	6	9
France	42	19	--	--
Germany	50	10	96	93
Guatemala	93	34	26	36
Guyana	--	--	14	28
Honduras	--	--	23	29
Hong Kong	16	297	40	46
India	--	--	11	382
Indonesia	--	--	36	27
Ireland	1	119	12	37
Israel	--	--	21	45
Italy	1	24	21	81
Jamaica	--	--	2,540	2,640
Japan	11	167	1	28
Korea, Republic of	65	148	118	146
Lebanon	--	--	597	499
Malaysia	--	--	84	113
Mexico	26,900	10,100	26,500	13,400
Netherlands	1	8	1	14
Netherland Antilles	3	13	83	195
New Zealand	44	120	--	--
Nicaragua	--	--	23	67
Peru	228	170	24	8
Philippines	2	3	9	15
Saudi Arabia	1	24	5	11
Singapore	5	27	19	117
Slovakia	17	5	--	--
Spain	54	11	--	--
St. Lucia	--	--	66	88
Suriname	14	8	--	--
Taiwan	2,420	978	1,290	563
Thailand	9	17	11	19
Trinidad and Tobago	1	3	56	59
Turks and Caicos Islands	21	157	29	33
United Kingdom	33	30	58	85
Venezuela	22	87	374	540
Other	5 ^r	42 ^r	16	32
Total	55,300	25,600	50,700	36,400

^rRevised. -- Zero.

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

²Exports contain mixed (used plus new) rails totaling 21,500 metric tons (t) valued at \$15,600,000 in 2005 and 29,200 t valued at \$26,500,000 in 2006. Export valuation is free alongside ship value.

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	2005		2006	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Australia	--	--	6	\$14
Austria	447	\$500	16	19
Canada	29,000	8,700	47,000	13,400
China	--	--	22	30
Columbia	--	--	(3)	4
Czech Republic	6	12	--	--
France	--	--	39	25
Germany	531	837	418	599
Italy	2	6	5	12
Japan	72	15	8	17
Korea, Republic of	110	74	119	79
Mexico	619	410	1,180	844
Russia	109,000	46,100	136,000	50,500
Switzerland	(3)	3	1	4
Taiwan	2	5	3	11
Ukraine	23,700	6,190	--	--
United Kingdom	21	34	--	--
Total	164,000	62,800	185,000	65,600

-- Zero.

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.

Source: U.S. Census Bureau.

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

Country	2005		2006	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	--	--	44	\$5
Mexico	87	\$9	58	6
Spain	68	7	--	--
Total	155	16	102	11

-- 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	2005		2006	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Brazil	238,000	\$17,900	331,000	\$30,100
Canada	532,000	50,300	642,000	48,900
China	425	53	--	--
Mexico	--	--	14,200	1,500
South Africa	--	--	10,000	2,600
Trinidad and Tobago	92,100	20,300	156,000	39,300
Venezuela	1,310,000	272,000	1,430,000	289,000
Vietnam	--	--	31,300	5,660
Total	2,170,000	361,000	2,610,000	417,000

-- 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	2005		2006	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Australia	--	--	1	\$26
Belgium	--	--	30	14
Brazil	13	\$6	--	--
Canada	9,010	1,430	4,080	1,260
Cayman Islands	907	80	--	--
China	5	9	15,500	467
Colombia	21,000	1,850	55	18
Costa Rica	472	42	--	--
Dominican Republic	154	65	179	76
France	1,660	151	11	5
Germany	31	14	78	21
Israel	--	--	162	34
Italy	--	--	2	3
Japan	--	--	6	7
Korea, Republic of	895	94	13,600	119
Malaysia	322	28	--	--
Mexico	13,900	4,100	755,000	754
Netherlands	14	7	9	4
Singapore	--	--	4,050	719
Spain	--	--	11	12
Taiwan	956	84	52	56
Trinidad and Tobago	271	24	124	41
Turkey	--	--	18,200	4,900
United Arab Emirates	948	83	798	70
United Kingdom	59	31	1,380	144
Venezuela	19	9	--	--
Total	50,700	8,110	813,000	8,750

-- 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	2005		2006	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Argentina	27,200	\$7,210	--	--
Australia	204	214	36,000	\$8,640
Brazil	4,460,000	1,180,000	4,210,000	1,100,000
Canada	105,000	34,000	101,000	30,000
China	57,200	13,900	20	17
Colombia	238	147	--	--
Germany	10	3	3	7
Hong Kong	3	5	--	--
Italy	498	236	--	--
Mexico	27	15	--	--
Russia	918,000	218,000	1,910,000	504,000
South Africa	141,000	44,000	147,000	39,800
Trinidad and Tobago	26,200	816	142,000	29,100
Ukraine	274,000	76,700	188,000	48,400
Venezuela	22,400	988	2,600	794
Total	6,030,000	1,580,000	6,730,000	1,760,000

-- 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.