



2007 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 products that are no longer used or needed. The steel industry has been recycling steel scrap for more than 170 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 42% of the total raw steel produced in 2007. 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 2007, the domestic steel industry recycled or exported for recycling almost 83 million metric tons (Mt) of appliances, automobiles, cans, construction materials, and other steel products. This resulted in an overall recycling rate of nearly 78% (Steel Recycling Institute, 2009c). 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. 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, 2009a). The steel industry recovered and recycled more than 14 Mt of iron and steel automobile scrap in 2007. The recycling rate of automobile scrap steel was 110% in 2006, an increase of almost 6% since 2006. 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 continued at a high of 90% in 2007, the same as that of 2006, compared with 20% in 1988 (Steel Recycling Institute, 2009b). The most recently available data show that during 2007, about 2.45 Mt of steel was recovered from recycled appliances, a decrease of nearly 10% compared with that of 2006 (Bill Heenan, President, Steel Recycling Institute, unpub. data, February 24, 2009). 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, 2009b). The recycling rate of steel cans increased to 65% in 2007 from 15% in 1983 (Steel Recycling Institute, 2009c). The estimated rate of recycling of structural beams and plates in 2004 through 2007 was almost 98%, an increase from 85% in 1997. Recycling rates for

reinforcement bar and other materials increased to 65% in 2005 through 2007 from 40% in 1997 (Steel Recycling Institute, 2009c). 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 minimill industry increased by 1.8% during 2007, and DRI production increased by 4% (American Iron and Steel Institute, 2008, p. 73; Midrex Technologies, 2008).

Consumption

Domestic data for ferrous scrap were derived from voluntary monthly or annual surveys of U.S. scrap-consuming operations by the USGS. About 41% of the known manufacturers of pig iron and raw steel responded to the surveys. Their responses represented about 50% of estimated total scrap consumption by this class of consumers. The remaining 50% of scrap consumption was estimated based on prior reports. Of the iron foundries, manufacturers of steel castings, and miscellaneous users, about 44% 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 44% of total estimated scrap consumption by all classes of scrap consumers.

In 2007, brokers, dealers, and other outside sources supplied domestic consumers with 53.7 Mt of all types of ferrous scrap at an estimated delivered value of \$13.6 billion, and exported 16.5 Mt (excluding used rails for rerolling and other uses and ships, boats, and other vessels for scrapping) valued at \$6.9 billion (tables 1, 8, 11). Raw steel production was 98.1 Mt in 2007 compared with 98.2 Mt in 2006 (American Iron and Steel Institute, 2008, p. 73, 75). The share of raw steel produced by EAF and basic oxygen furnaces was 58% and 42%, respectively. In 2007, continuous cast steel production represented 97% of total raw steel production; this was about the same as that of 2006. Raw steel production capability increased to 124 Mt, about the same as in 2006.

Steel mills accounted for 87% of all scrap received from brokers, dealers, and other outside sources; iron foundries and miscellaneous users received 11%; and steel foundries received 2% (table 1). Apparent total domestic consumption of ferrous scrap was 50.7 Mt, as measured by net receipts (total receipts minus shipments) and 12.0 Mt of home scrap (table 2). Stocks

of ferrous scrap at consumer plants decreased by 4% to 4.4 Mt (table 1). Total domestic consumption was 65 Mt, slightly less than that of 2006 (table 1). The total market for U.S.-produced scrap (net receipts plus exports minus imports) was 66.5 Mt, compared with 63.0 Mt (revised) in 2006 (table 1). Feedstock used in electric furnaces by all iron and steel product manufacturers comprised scrap, 90%; pig iron, 8%; and DRI, 2% (table 4). Total consumption of DRI was 33% more than that of 2006 (table 1). Net shipments of all grades of steel mill products were about 96.5 Mt, which was a decrease of 2.8% from the 99.3 Mt shipped in 2006 (American Iron and Steel Institute, 2008, p. 25).

Prices

The average composite delivered price of No. 1 heavy-melting steel scrap in 2007, calculated from prices per long ton published monthly by American Metal Market, was \$252.80 per metric ton. The price ranged from a low of \$221.43 per ton in January to a high of \$293.44 per ton in March (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 \$249.12 per metric ton; the price ranged from a low of \$216.92 per ton in January to a high of \$284.60 per ton in March.

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 2007 was \$2,901 per ton, an increase of 36% compared with that of 2006.

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 47% to about \$418 per ton compared with that of 2006 (table 11). The unit value of total imports, which was about \$286 per ton, was about 9% more than that of 2006 (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 2007, 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 12.9 Mt valued at \$5.9 billion (tables 11, 14). This represented an increase of about 30% in quantity and an increase of 99% in value compared with the 2006 surplus of 9.9 Mt valued at \$3.0 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 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 more iron and steel scrap in 2007 than any other country, followed by, in decreasing order of export tonnage, Russia, Japan, and Germany (International Iron and Steel Institute, 2008b, p. 95). The six leading significant importing nations were, in decreasing order of import tonnage, Turkey, Spain, Italy, Germany, the Republic of Korea, and China (International Iron and Steel Institute, 2008b, 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 serves as the bellwether of the scrap industry.

The global economy was projected to increase by 4.1% in 2008, down from an estimated 4.9% in 2007, according to the International Monetary Fund (International Monetary Fund, 2008). The U.S. gross domestic product (GDP) was projected to decrease from 7.8% in 2007 to 6.5% in 2008, according to the World Bank (World Bank, The, 2008). The economy of China was forecast to increase by 9% in 2008, after growth of 12.4% in 2007, as estimated by the World Bank.

The global steel industry was expected to continue to have strong years ahead, with apparent steel consumption rising from 1.20 billion metric tons (Gt) in 2007 to 1.28 Gt in 2008, an increase of 6.7%, according to the International Iron and Steel Institute (2008a). Brazil, Russia, India, and China (BRIC countries), which accounted for about 41% of global steel consumption in 2007, were expected to increase apparent steel use by 11% in 2008 and 10% in 2009. The BRIC countries will account for 45% of global apparent steel use in 2008 and 47% in 2009. Demand in China was expected to increase in 2008 and 2009 by 12% and 10%, respectively; in the European Union to increase by 1.6% in 2008; in India to increase in 2008 and 2009 by 14% and 12%, respectively; in Russia to increase by 10% in 2008; and in the United States to increase by 3.8% in 2008 (International Iron and Steel Institute, 2008a).

The Organisation for Economic Cooperation and Development forecast that global raw steelmaking capacity would increase from 1.56 billion metric tons per year (Gt/yr) in 2007 to 1.85 Gt/yr in 2010 (Whitehouse, 2008). China would account for about one-half of this increase.

Global steel production may reach 1.42 Gt in 2008 and 1.6 Gt in 2011 (Milnes, 2008; Platt, 2008). 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 489 Mt in 2007, up from 419 Mt in 2006, and would be an estimated 533 Mt in 2008 (Milnes, 2008).

Because the primary source of obsolete steel is the automobile, an increasing world population and increased demand for vehicles in developing countries, especially China and India, 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 (Blanco, 2007). More vehicles are expected to be produced in the next 25 years than in the entire history of the motor vehicle 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)

| | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|--------------------|---------------------|---------------------|---------------------|-----------|
| Manufacturers of pig iron and raw steel and castings:² | | | | | |
| Ferrous scrap consumption | 55,200 | 57,100 | 55,000 | 54,500 | 54,600 |
| Pig iron consumption | 39,700 | 38,000 | 36,900 | 36,700 | 36,500 |
| Direct-reduced iron consumption | 1,790 | 1,490 | 1,740 | 1,530 | 2,040 |
| Net receipts of ferrous scrap ³ | 42,700 | 45,800 | 43,600 | 45,300 | 46,500 |
| Home scrap production ⁴ | 12,600 | 11,600 | 11,400 | 9,120 | 8,700 |
| Ending stocks of ferrous scrap, December 31 | 4,070 | 4,880 | 4,430 | 3,870 ^r | 3,700 |
| Manufacturers of steel castings:⁵ | | | | | |
| Ferrous scrap consumption | 1,110 ^r | 1,300 ^r | 1,820 ^r | 1,400 ^r | 1,380 |
| Pig iron consumption | 31 | 101 ^r | 96 ^r | 62 ^r | 50 |
| Net receipts of ferrous scrap ³ | 749 ^r | 961 ^r | 1,060 | 1,070 ^r | 1,060 |
| Home scrap production ⁴ | 353 ^r | 319 ^r | 743 | 319 | 319 |
| Ending stocks of ferrous scrap, December 31 | 87 ^r | 80 | 85 | 79 | 79 |
| Iron foundries and miscellaneous users:⁵ | | | | | |
| Ferrous scrap consumption | 8,720 | 8,140 ^r | 8,810 ^r | 9,370 | 9,080 |
| Pig iron consumption | 1,030 | 1,010 ^r | 1,090 ^r | 856 ^r | 1,290 |
| Direct-reduced iron consumption | 4 | 4 | 3 | 4 | 4 |
| Net receipts of ferrous scrap ³ | 6,300 | 6,040 ^r | 6,130 | 6,580 | 6,200 |
| Home scrap production ⁴ | 2,430 | 2,290 ^r | 2,880 ^r | 3,010 | 3,080 |
| Ending stocks of ferrous scrap, December 31 | 251 | 439 ^r | 450 ^r | 655 ^r | 634 |
| Total, all manufacturing types: | | | | | |
| Ferrous scrap consumption | 65,000 | 66,600 ^r | 65,600 ^r | 65,300 ^r | 65,000 |
| Pig iron consumption | 40,800 | 39,100 | 38,100 | 37,600 | 37,800 |
| Direct-reduced iron consumption | 1,790 | 1,500 | 1,750 | 1,540 | 2,050 |
| Net receipts of ferrous scrap ³ | 49,800 | 52,800 ^r | 50,800 | 52,900 ^r | 53,700 |
| Home scrap production ⁴ | 15,400 | 14,200 ^r | 15,000 | 12,500 | 12,100 |
| Ending stocks, December 31: | | | | | |
| Ferrous scrap at consumer plants | 4,410 | 5,400 ^r | 4,970 ^r | 4,610 ^r | 4,410 |
| Pig iron at consumer and supplier plants | 381 | 722 | 665 | 700 ^r | 784 |
| Direct-reduced iron at consumer plants | 345 | 136 | 263 | 319 ^r | 364 |
| Exports:⁶ | | | | | |
| Ferrous scrap (includes tinplate and terneplate):⁷ | | | | | |
| Quantity | 10,800 | 11,800 | 13,000 | 14,900 | 16,500 |
| Value | 1,940,000 | 2,910,000 | 3,430,000 | 4,230,000 | 6,890,000 |
| Pig iron, all grades: | | | | | |
| Quantity | 86 | 48 | 51 | 813 | 71 |
| Value | 8,850 | 6,690 | 8,110 | 8,750 | 4,610 |
| Direct-reduced iron, steelmaking grade: | | | | | |
| Quantity | 5 | 13 | (8) | (8) | (8) |
| Value | 525 | 1,360 | 16 | 11 | 23 |
| Imports for consumption:⁶ | | | | | |
| Ferrous scrap (includes tinplate and terneplate):⁷ | | | | | |
| Quantity | 3,480 | 4,660 | 3,840 | 4,820 | 3,700 |
| Value | 511,000 | 1,230,000 | 909,000 | 1,250,000 | 1,040,000 |
| Pig iron, all grades: | | | | | |
| Quantity | 3,890 | 6,400 | 6,030 | 6,730 | 5,220 |
| Value | 571,000 | 1,360,000 | 1,580,000 | 1,760,000 | 1,660,000 |
| Direct-reduced iron, steelmaking grade: | | | | | |
| Quantity | 1,940 | 2,450 | 2,170 | 2,610 | 2,330 |
| Value | 242,000 | 463,000 | 361,000 | 417,000 | 519,000 |

^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.

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

(Thousand metric tons and thousand dollars)

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 2007, 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 | 460 | W | W | -- | 719 | W | 128 |
| Cut structural and plate | 3,470 | 113 | 625 | -- | 4,270 | W | 220 |
| No. 1 heavy-melting steel | 4,390 | 240 | 1,860 | 5 | 6,220 | 220 | 429 |
| No. 2 heavy-melting steel | 6,200 | 67 | 280 | W | 6,570 | 12 | 554 |
| No. 1 and electric furnace bundles | 3,490 | 155 | W | -- | 4,230 | 106 | 357 |
| No. 2 and all other bundles | 818 | W | W | -- | 839 | W | 29 |
| Electric furnace, 1 foot and under (not bundles) | 3 | -- | W | -- | 14 | W | W |
| Railroad rails | 193 | W | W | -- | 260 | -- | 14 |
| Turnings and borings | 1,790 | 207 | 58 | W | 2,020 | 2 | 111 |
| Slag scrap | 854 | 107 | 910 | -- | 1,420 | 335 | 154 |
| Shredded or fragmentized | 11,100 | 1,300 | 333 | W | 12,400 | 22 | 786 |
| No. 1 busheling | 4,950 | 54 | 206 | W | 5,170 | W | 341 |
| Steel cans, post consumer | 129 | -- | -- | -- | 129 | -- | 3 |
| All other carbon steel scrap | 2,820 | 349 | 1,460 | 9 | 4,560 | 130 | 208 |
| Stainless steel scrap | 953 | 104 | 383 | -- | 1,430 | W | 58 |
| Alloy steel (except stainless) | 78 | 60 | 460 | -- | 584 | 17 | 36 |
| Ingot mold and stool scrap | W | -- | W | 73 | 52 | 103 | 13 |
| Machinery and cupola cast iron | 18 | -- | W | W | 18 | W | 4 |
| Cast-iron borings | 268 | -- | W | -- | 277 | W | 14 |
| Motor blocks | W | -- | -- | -- | W | -- | -- |
| Other iron scrap | 928 | W | 229 | W | 1,120 | 85 | 136 |
| Other mixed scrap | 1,840 | 110 | 367 | -- | 2,300 | 41 | 107 |
| Total | 44,700 | 2,950 | 8,610 | 86 | 54,600 | 1,220 | 3,700 |
| Manufacturers of steel castings: | | | | | | | |
| Carbon steel: | | | | | | | |
| Low-phosphorus plate and punchings | 303 | W | 69 | (3) | 375 | (3) | 27 |
| Cut structural and plate | 123 | -- | 6 | W | 129 | W | 3 |
| No. 1 heavy-melting steel | 32 | -- | W | W | 37 | W | 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 | -- | 10 | -- | (3) |
| Railroad rails | W | -- | W | -- | W | -- | W |
| Turnings and borings | 28 | -- | 8 | W | 34 | W | 3 |
| Slag scrap | W | -- | W | -- | 7 | -- | (3) |
| Shredded or fragmentized | 86 | -- | -- | -- | 86 | -- | 1 |
| No. 1 busheling | 49 | -- | -- | -- | 49 | -- | 1 |
| Steel cans, post consumer | -- | -- | -- | W | -- | W | -- |
| All other carbon steel scrap | 275 | -- | 97 | -- | 371 | W | 4 |
| Stainless steel scrap | 19 | W | 28 | W | 44 | 1 | 25 |
| Alloy steel (except stainless) | 43 | 2 | 31 | W | 76 | (3) | 5 |
| Ingot mold and stool scrap | -- | -- | W | -- | W | W | W |
| Machinery and cupola cast iron | 22 | -- | -- | -- | 22 | -- | -- |
| Cast-iron borings | 3 | -- | W | -- | W | -- | W |
| Motor blocks | -- | -- | -- | -- | -- | -- | -- |
| Other iron scrap | 1 | -- | 1 | -- | 2 | -- | (3) |
| Other mixed scrap | W | -- | W | 14 | 45 | 1 | 3 |
| Total | 1,060 | 2 | 305 | 14 | 1,380 | 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 2007, 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 | 983 | W | 177 | 3 | 1,160 | 23 | 112 |
| Cut structural and plate | 802 | 24 | 45 | -- | 871 | -- | 32 |
| No. 1 heavy-melting steel | 113 | 2 | W | -- | 145 | -- | 3 |
| No. 2 heavy-melting steel | 279 | -- | W | -- | 311 | -- | 3 |
| No. 1 and electric furnace bundles | 67 | -- | -- | -- | 44 | -- | 24 |
| No. 2 and all other bundles | 61 | -- | W | -- | 58 | W | W |
| Electric furnace, 1 foot and under (not bundles) | 108 | -- | -- | -- | 108 | -- | 1 |
| Railroad rails | 492 | W | W | -- | 492 | W | 2 |
| Turnings and borings | 113 | W | -- | -- | 113 | W | W |
| Slag scrap | W | W | W | -- | W | W | W |
| Shredded or fragmentized | 1,080 | -- | W | -- | 1,050 | -- | 70 |
| No. 1 busheling | 951 | -- | 15 | 2 | 926 | 1 | 54 |
| Steel cans, post consumer | W | -- | W | -- | W | -- | W |
| All other carbon steel scrap | 54 | -- | 57 | W | 111 | 1 | 3 |
| Stainless steel scrap | 2 | -- | -- | W | 2 | -- | -- |
| Alloy steel (except stainless) | W | -- | 1 | -- | 1 | W | -- |
| Ingot mold and stool scrap | W | -- | W | -- | 24 | W | W |
| Machinery and cupola cast iron | 519 | 1 | 169 | W | 667 | 34 | 158 |
| Cast-iron borings | 47 | 34 | 24 | W | 91 | 15 | 1 |
| Motor blocks | 269 | W | 536 | -- | 800 | W | 7 |
| Other iron scrap | 144 | 5 | 1,890 | 3 | 1,920 | 13 | 151 |
| Other mixed scrap | 110 | W | 45 | W | 173 | 2 | 25 |
| Total | 6,210 | 93 | 3,060 | 20 | 9,080 | 106 | 634 |
| Grand total, all manufacturing types: | | | | | | | |
| Carbon steel: | | | | | | | |
| Low-phosphorus plate and punchings | 1,750 | 7 | 631 | 3 | 2,260 | 77 | 267 |
| Cut structural and plate | 4,390 | 137 | 676 | W | 5,270 | 2 | 255 |
| No. 1 heavy-melting steel | 4,530 | 241 | 1,900 | 5 | 6,400 | 220 | 435 |
| No. 2 heavy-melting steel | 6,490 | 67 | 312 | W | 6,890 | 12 | 557 |
| No. 1 and electric furnace bundles | 3,560 | 155 | W | -- | 4,270 | 106 | 381 |
| No. 2 and all other bundles | 879 | W | 9 | -- | 898 | 6 | 32 |
| Electric furnace, 1 foot and under (not bundles) | 117 | -- | 105 | -- | 132 | W | 1 |
| Railroad rails | 703 | 23 | 100 | -- | 825 | W | 18 |
| Turnings and borings | 1,930 | 207 | 67 | W | 2,160 | 3 | 116 |
| Slag scrap | 862 | 107 | 924 | -- | 1,440 | 335 | 155 |
| Shredded or fragmentized | 12,200 | 1,300 | 336 | W | 13,500 | 22 | 859 |
| No. 1 busheling | 5,950 | 54 | 221 | 2 | 6,140 | W | 396 |
| Steel cans, post consumer | 132 | -- | W | W | 132 | W | 3 |
| All other carbon steel scrap | 3,150 | 349 | 1,610 | 9 | 5,040 | 131 | 214 |
| Stainless steel scrap | 973 | 104 | 411 | -- | 1,480 | 2 | 83 |
| Alloy steel (except stainless) | 121 | 61 | 492 | W | 661 | 17 | 41 |
| Ingot mold and stool scrap | 15 | W | 91 | 73 | 77 | 105 | 14 |
| Machinery and cupola cast iron | 558 | 1 | 171 | W | 707 | 36 | 161 |
| Cast-iron borings | 318 | 34 | 24 | W | 371 | 15 | 15 |
| Motor blocks | 269 | W | 536 | -- | 800 | W | 7 |
| Other iron scrap | 1,070 | 56 | 2,130 | 2 | 3,040 | 98 | 287 |
| Other mixed scrap | 1,980 | 128 | 412 | 19 | 2,520 | 44 | 117 |
| Total | 52,000 | 3,050 | 12,000 | 121 | 65,000 | 1,330 | 4,410 |

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.²Obsolete home scrap includes 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 2007¹

(Thousand metric tons)

| | Receipts | Production | Consumption | Shipments | Stocks, December 31 |
|---|---------------------|------------|-------------|-----------|------------------------|
| Manufacturers of pig iron, raw steel, and castings: | | | | | |
| Pig iron | 10,400 ² | 27,010 | 36,500 | 372 | 723 |
| Direct-reduced iron (DRI) | 2,230 ³ | (4) | 2,040 | 51 | 363 |
| Manufacturers of steel castings: | | | | | |
| Pig iron | 51 | (4) | 50 | (4) | (4) |
| DRI | W | -- | W | -- | W |
| Iron foundries and miscellaneous users: | | | | | |
| Pig iron | 1,380 | 2 | 1,290 | 78 | 61 |
| DRI | 4 | -- | 4 | -- | W |
| Total, all manufacturing types: | | | | | |
| Pig iron | 11,800 | 27,000 | 37,800 | 450 | 784 |
| DRI | 2,240 | (4) | 2,050 | 51 | 364 |

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 1.72 million metric tons (Mt) purchased by electric furnace steel producers.

³Includes 1.47 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 2007, 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 | 2,780 | -- | 391 | -- | -- | -- | 3 | -- | -- | 2,780 | -- | 391 |
| Basic oxygen process | 9,140 | 33,400 | 341 | -- | -- | -- | -- | 2 | -- | 9,140 | 33,400 | 341 |
| Electric furnace | 42,500 | 3,050 | 1,310 | 1,300 | 36 | -- | 4,570 | 891 | 2 | 48,400 | 3,980 | 1,310 |
| Cupola furnace | 140 | -- | -- | 78 | 14 | -- | 4,510 | 387 | 2 | 4,730 | 401 | 2 |
| Other ³ | 4 | -- | -- | 1 | -- | -- | 4 | 8 | -- | 9 | 8 | -- |
| Direct castings ⁴ | -- | 36 | -- | -- | -- | -- | -- | -- | -- | -- | 36 | -- |
| Total | 54,600 | 36,500 | 2,040 | 1,380 | 50 | -- | 9,080 | 1,290 | 4 | 65,000 | 37,800 | 2,050 |

-- 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 2007, 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 | 27 | -- | 13 | W | W | 40 |
| New Jersey and New York | 1,870 | -- | 116 | W | -- | 1,990 |
| Pennsylvania | 3,700 | 701 | 1,770 | 63 | 45 | 6,190 |
| Total | 5,600 | 701 | 1,900 | 69 | 45 | 8,230 |
| North Central: | | | | | | |
| Illinois | 2,000 | 44 | 192 | -- | (5) | 2,350 |
| Indiana | 3,300 | 4 | 2,300 | (5) | 380 | 5,190 |
| Iowa, Nebraska, South Dakota | 1,280 | 12 | 170 | -- | W | 1,450 |
| Kansas and Missouri | 66 | 5 | 55 | (5) | (5) | 126 |
| Michigan | 2,480 | 11 | 819 | -- | 437 | 2,860 |
| Minnesota | 389 | 142 | 19 | -- | W | 529 |
| Ohio | 7,550 | 369 | 1,920 | 31 | 140 | 9,700 |
| Wisconsin | 1,830 | 2 | 967 | 1 | 6 | 2,800 |
| Total | 18,900 | 589 | 6,440 | 33 | 963 | 25,000 |
| South Atlantic: | | | | | | |
| Delaware and Maryland | 962 | W | W | -- | W | 1,300 |
| Florida and Georgia | 931 | -- | W | -- | (5) | 937 |
| North Carolina and South Carolina | 2,730 | 272 | 214 | -- | W | 3,210 |
| Virginia and West Virginia | 2,150 | W | 364 | W | W | 2,780 |
| Total | 6,770 | 563 | 969 | W | 77 | 8,220 |
| South Central: | | | | | | |
| Alabama and Mississippi | 4,510 | W | 206 | W | 9 | 4,710 |
| Arkansas, Louisiana, Oklahoma | 5,130 | W | 303 | W | W | 5,590 |
| Kentucky and Tennessee | 3,150 | 77 | 399 | -- | W | 3,620 |
| Texas | 3,330 | 814 | 478 | 9 | 8 | 4,620 |
| Total | 16,100 | 1,050 | 1,390 | 9 | 17 | 18,500 |
| Mountain and Pacific: | | | | | | |
| Arizona, Colorado, Idaho, Utah | 2,610 | W | 992 | 9 | 40 | 3,660 |
| California, Oregon, Washington | 2,010 | 56 | 293 | (5) | 186 | 2,180 |
| Total | 4,620 | 148 | 1,290 | 10 | 226 | 5,840 |
| Grand total | 52,000 | 3,050 | 12,000 | 121 | 1,330 | 65,800 |

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 2007, 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 | 1,770 | 22 | 8 | -- | 242 | 7 | 2,020 | 29 |
| Pennsylvania | 5,370 | 2,870 | 162 | 1 | 681 | 491 | 6,220 | 3,360 |
| Total | 7,140 | 2,890 | 170 | 1 | 923 | 498 | 8,240 | 3,390 |
| North Central: | | | | | | | | |
| Illinois | 1,780 | 1,980 | 64 | 1 | 414 | 13 | 2,260 | 1,990 |
| Indiana | 4,240 | 13,000 | 72 | 1 | 834 | 73 | 5,140 | 13,100 |
| Iowa, Kansas, Minnesota, Missouri, Nebraska, South Dakota, Wisconsin | 1,970 | 83 | 639 | (4) | 2,070 | 381 | 4,680 | 506 |
| Michigan | 2,040 | 4,000 | 26 | -- | 671 | 63 | 2,730 | 4,060 |
| Ohio | 8,460 | 6,080 | 186 | 40 | 874 | 124 | 9,520 | 6,200 |
| Total | 18,500 | 25,100 | 987 | 42 | 4,860 | 654 | 24,300 | 25,800 |
| South Atlantic: | | | | | | | | |
| Delaware, Maryland, Virginia, West Virginia | 3,790 | 1,580 | 1 | (4) | 305 | 15 | 4,090 | 1,600 |
| Florida, Georgia, North Carolina, South Carolina | 3,900 | 263 | -- | -- | 158 | 2 | 4,050 | 265 |
| Total | 7,680 | 1,840 | 1 | (4) | 463 | 17 | 8,150 | 1,860 |
| South Central: | | | | | | | | |
| Alabama, Kentucky, Mississippi, Tennessee | 7,090 | 4,260 | 94 | (4) | 1,110 | 80 | 8,290 | 4,340 |
| Arkansas, Louisiana, Oklahoma | 5,490 | 658 | 12 | -- | 16 | 3 | 5,520 | 661 |
| Texas | 4,450 | 43 | 31 | 7 | 176 | 25 | 4,650 | 75 |
| Total | 17,000 | 4,960 | 137 | 7 | 1,300 | 108 | 18,500 | 5,080 |
| Mountain and Pacific: | | | | | | | | |
| Arizona, Colorado, Idaho, Utah | 2,300 | 1,640 | 7 | -- | 1,360 | (4) | 3,670 | 1,640 |
| California, Oregon, Washington | 1,920 | -- | 77 | (4) | 177 | 11 | 2,170 | 11 |
| Total | 4,220 | 1,640 | 84 | (4) | 1,540 | 11 | 5,840 | 1,660 |
| Grand total | 54,600 | 36,500 | 1,380 | 50 | 9,080 | 1,290 | 65,000 | 37,800 |

-- 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, 2007, 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 | 51 | W | W | W | W | 54 | W |
| Pennsylvania | 227 | 13 | 14 | 11 | 4 | 268 | 3 |
| Total | 278 | 13 | 14 | 11 | 4 | 322 | 3 |
| North Central: | | | | | | | |
| Illinois | 79 | (5) | (6) | 4 | (6) | 83 | 25 |
| Indiana | 325 | 5 | 1 | 12 | (6) | 343 | 151 |
| Iowa, Kansas, Missouri, Nebraska, South Dakota | 87 | (6) | (6) | 5 | -- | 92 | 5 |
| Michigan | 202 | (6) | (6) | 30 | (6) | 232 | 8 |
| Minnesota and Wisconsin | 146 | 2 | 3 | 123 | (6) | 274 | 19 |
| Ohio | 622 | 38 | 20 | 155 | (5) | 835 | 127 |
| Total | 1,460 | 45 | 24 | 329 | (5) | 1,870 | 335 |
| South Atlantic: | | | | | | | |
| Delaware, Maryland, Virginia, West Virginia | 160 | W | W | 88 | W | 256 | 55 |
| Florida, Georgia, North Carolina, South Carolina | 362 | W | W | W | W | 374 | 41 |
| Total | 522 | W | W | 88 | 10 | 630 | 96 |
| South Central: | | | | | | | |
| Alabama, Kentucky, Mississippi, Tennessee | 552 | W | W | 22 | W | 606 | W |
| Arkansas, Louisiana, Oklahoma | W | W | W | W | -- | 474 | 139 |
| Texas | W | 1 | W | W | W | 246 | W |
| Total | 1,260 | 1 | W | 22 | 14 | 1,330 | 336 |
| Mountain and Pacific: | | | | | | | |
| Arizona, Colorado, Idaho, Utah | 109 | (5) | -- | W | W | 170 | W |
| California, Oregon, Washington | 62 | W | W | 10 | W | 95 | W |
| Total | 171 | W | W | 10 | 77 | 265 | 14 |
| Grand total | 3,690 | 83 | 42 | 485 | 117 | 4,410 | 784 |

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 |
|---------------|-------------|------------------|----------------|-----------------|
| 2006, average | 221.62 | 216.09 | 219.07 | 218.91 |
| 2007: | | | | |
| January | 219.54 | 228.77 | 215.97 | 221.43 |
| February | 246.87 | 245.13 | 243.32 | 245.11 |
| March | 305.10 | 285.42 | 289.79 | 293.44 |
| April | 285.42 | 268.47 | 270.66 | 277.28 |
| May | 260.41 | 251.58 | 237.85 | 243.21 |
| June | 250.65 | 246.16 | 225.55 | 240.70 |
| July | 246.60 | 250.97 | 246.05 | 248.76 |
| August | 253.93 | 250.97 | 250.97 | 248.76 |
| September | 263.77 | 259.77 | 254.80 | 259.45 |
| October | 260.81 | 257.54 | 255.89 | 258.47 |
| November | 247.53 | 243.32 | 246.05 | 246.42 |
| December | 268.86 | 257.48 | 262.18 | 261.87 |
| Average | 259.12 | 252.76 | 247.87 | 252.80 |

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 | 2006 | | 2007 | |
|--------------------|----------|-----------|----------|-----------|
| | Quantity | Value | Quantity | Value |
| Bahamas, The | 10 | 2,210 | 12 | 2,400 |
| Bangladesh | 246 | 19,200 | 120 | 39,600 |
| Belgium | 4 | 4,230 | 8 | 9,240 |
| Brazil | 6 | 1,270 | 4 | 4,470 |
| Canada | 1,500 | 285,000 | 1,410 | 350,000 |
| Chile | (3) | 333 | 29 | 8,320 |
| China | 3,420 | 1,600,000 | 2,460 | 1,880,000 |
| Colombia | 67 | 15,600 | 99 | 26,200 |
| Dominican Republic | 5 | 1,560 | 6 | 1,270 |
| Egypt | 392 | 98,600 | 504 | 144,000 |
| Finland | 50 | 76,900 | 37 | 130,000 |
| France | 37 | 7,560 | 2 | 6,370 |
| Germany | 3 | 3,890 | 3 | 1,930 |
| Greece | 227 | 51,900 | 340 | 95,500 |
| Hong Kong | 137 | 64,100 | 252 | 96,700 |
| India | 618 | 168,000 | 781 | 337,000 |
| Indonesia | 115 | 33,400 | 217 | 77,500 |
| Italy | 102 | 46,000 | 169 | 50,800 |
| Japan | 51 | 51,800 | 201 | 261,000 |
| Kenya | 24 | 15,000 | 9 | 2,150 |
| Korea, Republic of | 1,350 | 191,000 | 1,360 | 560,000 |
| Malaysia | 907 | 202,000 | 1,210 | 350,000 |
| Mexico | 1,110 | 247,000 | 865 | 221,000 |
| Netherlands | 12 | 19,000 | 12 | 27,900 |
| Pakistan | 70 | 18,000 | 217 | 64,000 |
| Peru | 64 | 15,500 | (3) | 153 |
| Portugal | 23 | 4,970 | 21 | 5,670 |
| Saudi Arabia | 36 | 6,980 | 42 | 11,700 |
| Singapore | 54 | 4,810 | 31 | 9,820 |
| Spain | 32 | 26,800 | 65 | 159,000 |
| Sweden | (3) | 660 | 5 | 14,000 |
| Taiwan | 716 | 244,000 | 1,640 | 702,000 |
| Thailand | 461 | 109,000 | 857 | 248,000 |
| Turkey | 2,470 | 566,000 | 3,260 | 906,000 |
| United Kingdom | 23 | 6,020 | 15 | 10,700 |
| Vietnam | 462 | 13,600 | 160 | 50,700 |
| Other | 64 | 10,900 | 57 | 25,200 |
| Total | 14,900 | 4,230,000 | 16,500 | 6,890,000 |

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 83 countries in 2006 and 99 countries in 2007.

³Less than ½ unit.

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

(Thousand metric tons and thousand dollars)

| Customs district | 2006 | | 2007 | |
|-----------------------------|----------|-----------|----------|-----------|
| | Quantity | Value | Quantity | Value |
| Baltimore, MD | 20 | 19,000 | 57 | 85,300 |
| Boston, MA | 600 | 151,000 | 1,100 | 318,000 |
| Buffalo, NY | 122 | 50,500 | 178 | 73,200 |
| Charleston, SC | 189 | 69,400 | 220 | 99,200 |
| Charlotte, NC | 41 | 15,800 | 62 | 25,800 |
| Chicago, IL | 4 | 1,960 | 8 | 5,530 |
| Cleveland, OH | (3) | 426 | 2 | 496 |
| Columbia-Snake River, OR/WA | 537 | 162,000 | 854 | 283,000 |
| Detroit, MI | 368 | 76,900 | 334 | 86,100 |
| Duluth, MN | 31 | 7,030 | 47 | 12,100 |
| El Paso, TX | 11 | 2,190 | 47 | 2,800 |
| Great Falls, MT | 29 | 5,550 | 23 | 5,330 |
| Honolulu, HI | 158 | 33,100 | 178 | 46,600 |
| Houston-Galveston, TX | 218 | 78,600 | 192 | 145,000 |
| Laredo, TX | 419 | 86,300 | 298 | 75,300 |
| Los Angeles, CA | 4,210 | 1,260,000 | 3,880 | 2,220,000 |
| Miami, FL | 123 | 97,400 | 244 | 103,000 |
| Mobile, AL | 25 | 6,210 | 77 | 32,800 |
| New Orleans, LA | 305 | 121,000 | 270 | 201,000 |
| New York, NY | 2,150 | 730,000 | 2,670 | 1,180,000 |
| Nogales, AZ | 16 | 3,300 | 33 | 9,080 |
| Norfolk, VA | 228 | 81,000 | 260 | 111,000 |
| Ogdensburg, NY | 82 | 19,400 | 81 | 26,800 |
| Pembina, ND | 473 | 92,100 | 501 | 122,000 |
| Philadelphia, PA | 540 | 130,000 | 1,040 | 303,000 |
| Portland, ME | 216 | 56,000 | 142 | 50,400 |
| Providence, RI | 353 | 83,400 | 522 | 143,000 |
| San Diego, CA | 69 | 11,300 | 56 | 12,200 |
| San Francisco, CA | 1,530 | 315,000 | 1,170 | 395,000 |
| San Juan, PR | 146 | 31,500 | 165 | 50,100 |
| Savannah, GA | 174 | 91,800 | 216 | 140,000 |
| Seattle, WA | 801 | 224,000 | 772 | 300,000 |
| St. Albans, VT | 81 | 18,600 | 92 | 26,600 |
| Tampa, FL | 287 | 71,300 | 520 | 157,000 |
| Other | 314 | 26,800 | 176 | 32,600 |
| Total | 14,900 | 4,230,000 | 16,500 | 6,890,000 |

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 | 2006 | | 2007 | |
|--|----------|-----------|----------|-----------|
| | Quantity | Value | Quantity | Value |
| No. 1 heavy-melting scrap | 2,760 | 656,000 | 3,340 | 957,000 |
| No. 2 heavy-melting scrap | 260 | 53,700 | 291 | 70,100 |
| No. 1 bundles | 204 | 23,900 | 127 | 26,800 |
| No. 2 bundles | 44 | 9,060 | 46 | 12,200 |
| Shredded steel scrap | 3,390 | 792,000 | 5,010 | 1,420,000 |
| Borings, shovelinings, and turnings | 143 | 23,100 | 64 | 11,200 |
| Cut plate and structural | 312 | 72,400 | 700 | 198,000 |
| Tinned iron or steel | 73 | 30,100 | 427 | 75,500 |
| Remelting scrap ingots | 8 | 8,980 | 46 | 70,000 |
| Stainless steel scrap | 1,350 | 716,000 | 882 | 1,620,000 |
| Other alloy steel scrap | 2,350 | 862,000 | 1,850 | 1,190,000 |
| Other steel scrap ³ | 1,850 | 572,000 | 2,580 | 861,000 |
| Iron scrap | 2,130 | 413,000 | 1,120 | 377,000 |
| Total | 14,900 | 4,230,000 | 16,500 | 6,890,000 |
| Ships, boats, and other vessels for scrapping | 5 | 509 | 143 | 23,700 |
| Used rails for rerolling and other uses ⁴ | 51 | 36,400 | 97 | 69,600 |
| Grand total | 14,900 | 4,270,000 | 16,700 | 6,980,000 |

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 | 2006 | | 2007 | |
|---------------------|----------|-----------|----------|-----------|
| | Quantity | Value | Quantity | Value |
| Argentina | (3) | 155 | (3) | 1,390 |
| Bahamas, The | 5 | 676 | 5 | 875 |
| Belgium | 61 | 15,700 | 32 | 10,300 |
| Canada | 3,140 | 766,000 | 3,000 | 749,000 |
| China | 4 | 796 | 1 | 160 |
| Colombia | 2 | 1,060 | 1 | 1,820 |
| Denmark | 137 | 36,700 | -- | -- |
| Dominican Republic | 28 | 6,310 | 11 | 3,680 |
| Egypt | 3 | 2,280 | 2 | 1,450 |
| Estonia | 10 | 3,040 | -- | -- |
| Finland | (3) | 13 | 3 | 3,490 |
| Germany | 4 | 1,050 | 2 | 841 |
| Japan | 3 | 1,920 | 1 | 1,480 |
| Malaysia | (3) | 93 | 1 | 328 |
| Mexico | 236 | 95,000 | 284 | 138,000 |
| Netherlands | 243 | 62,000 | 62 | 23,000 |
| Sweden | 266 | 67,700 | 77 | 25,500 |
| Trinidad and Tobago | 10 | 2,580 | (3) | 451 |
| United Kingdom | 650 | 178,000 | 181 | 65,400 |
| Other | 11 | 4,650 | 32 | 8,940 |
| Total | 4,820 | 1,250,000 | 3,700 | 1,040,000 |

-- 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. The United States imported scrap from 53 countries in 2006 and 50 countries in 2007.

³Less than ½ unit.

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 | 2006 | | 2007 | |
|-----------------------|----------------|-----------|----------|-----------|
| | Quantity | Value | Quantity | Value |
| Baltimore, MD | 1 ^r | 198 | 4 | 1,730 |
| Buffalo, NY | 529 | 231,000 | 602 | 231,000 |
| Charleston, SC | 907 | 239,000 | 214 | 75,500 |
| Charlotte, NC | 21 | 4,410 | (3) | 9 |
| Chicago, IL | 3 | 2,520 | 82 | 7,050 |
| Cleveland, OH | 56 | 4,220 | 25 | 1,720 |
| Detroit, MI | 1,600 | 354,000 | 1,270 | 322,000 |
| Duluth, MN | 48 | 13,700 | 57 | 14,400 |
| El Paso, TX | 40 | 11,300 | 40 | 12,900 |
| Great Falls, MT | 19 | 5,150 | 75 | 21,600 |
| Houston-Galveston, TX | 21 | 25,000 | 22 | 51,400 |
| Laredo, TX | 42 | 35,300 | 42 | 42,800 |
| Los Angeles, CA | 2 | 1,550 | 3 | 2,860 |
| Miami, FL | 4 | 989 | 1 | 305 |
| Mobile, AL | 196 | 48,300 | 33 | 5,420 |
| New Orleans, LA | 346 | 92,500 | 126 | 45,600 |
| New York, NY | 37 | 12,800 | (3) | 276 |
| Nogales, AZ | 8 | 2,750 | 10 | 3,860 |
| Ogdensburg, NY | 12 | 8,380 | 11 | 9,730 |
| Pembina, ND | 102 | 35,500 | 91 | 24,900 |
| Philadelphia, PA | 3 | 602 | (3) | 937 |
| Portland, ME | (3) | 104 | (3) | 221 |
| San Diego, CA | 134 | 25,200 | 180 | 37,600 |
| Savannah, GA | (3) | 498 | (3) | 10 |
| Seattle, WA | 677 | 89,300 | 776 | 115,000 |
| Tampa, FL | 5 | 650 | 4 | 854 |
| Other | (3) | 488 | 31 | 6,920 |
| Total | 4,820 | 1,250,000 | 3,700 | 1,040,000 |

^rRevised.

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

²Excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is customs 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 | 2006 | | 2007 | |
|--|----------|-----------|----------|-----------|
| | Quantity | Value | Quantity | Value |
| No. 1 heavy-melting scrap | 105 | 19,400 | 134 | 25,800 |
| No. 2 heavy-melting scrap | 93 | 15,500 | 60 | 13,300 |
| No. 1 bundles | 1,280 | 333,000 | 866 | 254,000 |
| No. 2 bundles | 7 | 1,090 | 14 | 1,810 |
| Shredded steel scrap | 1,180 | 264,000 | 512 | 114,000 |
| Borings, shovelings, and turnings | 78 | 8,590 | 98 | 14,800 |
| Cut plate and structural | 173 | 31,900 | 142 | 26,700 |
| Tinned iron or steel | 10 | 2,530 | 7 | 2,050 |
| Remelting scrap ingots | 1 | 413 | 8 | 345 |
| Stainless steel scrap | 179 | 209,000 | 118 | 198,000 |
| Other alloy steel scrap | 524 | 109,000 | 693 | 138,000 |
| Other steel scrap ³ | 785 | 179,000 | 734 | 177,000 |
| Iron scrap | 411 | 73,000 | 313 | 69,900 |
| Total | 4,820 | 1,250,000 | 3,700 | 1,040,000 |
| Ships, boats, and other vessels for scrapping | (4) | 49 | (4) | 157 |
| Used rails for rerolling and other uses ⁵ | 185 | 65,600 | 83 | 40,400 |
| Grand total | 5,000 | 1,310,000 | 3,780 | 1,080,000 |

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 | 2006 | | 2007 | |
|--------------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Anguilla | -- | -- | 11 | \$42 |
| Antigua and Barbuda | 95 | \$21 | 29 | 443 |
| Argentina | -- | -- | 9 | 16 |
| Australia | 829 | 1,400 | 1,920 | 3,390 |
| Austria | 53 | 104 | 85 | 118 |
| Bahamas, The | 112 | 321 | 121 | 171 |
| Barbados | 45 | 42 | 65 | 163 |
| Bolivia | 25 | 36 | -- | -- |
| Brazil | 25 | 15 | -- | -- |
| British Virgin Islands | 73 | 63 | 68 | 57 |
| Canada | 13,600 | 10,700 | 26,000 | 16,100 |
| Cayman Islands | 84 | 299 | 191 | 149 |
| Chile | 27 | 68 | 52 | 62 |
| China | 500 | 271 | 29 | 55 |
| Colombia | 2,790 | 3,040 | 480 | 438 |
| Costa Rica | 15 | 64 | 3 | 16 |
| Dominican Republic | 156 | 259 | 725 | 570 |
| El Salvador | 6 | 9 | -- | -- |
| France | -- | -- | 23 | 37 |
| Germany | 96 | 93 | 26 | 44 |
| Guatemala | 26 | 36 | 29 | 58 |
| Honduras | 23 | 29 | 16 | 11 |
| Hong Kong | 40 | 46 | 123 | 185 |
| Hungary | -- | -- | 36 | 30 |
| India | 11 | 382 | 221 | 721 |
| Indonesia | 36 | 27 | -- | -- |
| Ireland | 12 | 37 | 55 | 46 |
| Israel | 21 | 45 | 3 | 12 |
| Italy | 21 | 81 | -- | -- |
| Jamaica | 2,540 | 2,640 | 800 | 775 |
| Japan | 1 | 28 | 1 | 13 |
| Korea, Republic of | 118 | 146 | 242 | 261 |
| Lebanon | 597 | 499 | -- | -- |
| Malaysia | 84 | 113 | 51 | 43 |
| Mexico | 26,500 | 13,400 | 60,800 | 42,600 |
| Netherland Antilles | 83 | 195 | 150 | 215 |
| New Zealand | -- | -- | 15 | 50 |
| Nicaragua | 23 | 67 | -- | -- |
| Panama | -- | -- | 48 | 45 |
| Peru | 24 | 8 | 346 | 257 |
| Philippines | 9 | 15 | 16 | 26 |
| Singapore | 19 | 117 | 24 | 64 |
| South Africa | -- | -- | 26 | 22 |
| Spain | -- | -- | 58 | 242 |
| St. Lucia | 66 | 88 | 31 | 27 |
| Taiwan | 1,290 | 563 | 2,580 | 966 |
| Thailand | 11 | 19 | 2 | 5 |
| Trinidad and Tobago | 56 | 59 | 4 | 13 |
| Turkey | -- | -- | 685 | 573 |
| Turks and Caicos Islands | 29 | 33 | 37 | 44 |
| United Kingdom | 58 | 85 | 35 | 38 |
| Venezuela | 374 | 540 | 20 | 30 |
| Vietnam | -- | -- | 538 | 204 |
| Other | 83 | 279 | 117 | 235 |
| Total | 50,700 | 36,400 | 96,900 | 69,600 |

See footnotes at end of table.

TABLE 15—Continued

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

--Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.²Export valuation is free alongside ship.³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 16

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

| Country | 2006 | | 2007 | |
|--------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Australia | 6 | \$14 | -- | -- |
| Austria | 16 | 19 | 3 | \$6 |
| Canada | 47,000 | 13,400 | 37,400 | 12,700 |
| China | 22 | 30 | -- | -- |
| Colombia | (3) | 4 | -- | -- |
| Czech Republic | -- | -- | 81 | 59 |
| France | 39 | 25 | -- | -- |
| Germany | 418 | 599 | 468 | 784 |
| Italy | 5 | 12 | 7 | 17 |
| Japan | 8 | 17 | 6 | 6 |
| Korea, Republic of | 119 | 79 | -- | -- |
| Luxembourg | -- | -- | 9 | 28 |
| Mexico | 1,180 | 844 | 92 | 67 |
| Netherlands | -- | -- | 5 | 13 |
| Russia | 136,000 | 50,500 | 42,800 | 24,300 |
| Switzerland | 1 | 4 | -- | -- |
| Taiwan | 3 | 11 | 6 | 28 |
| Ukraine | -- | -- | 2,380 | 2,340 |
| Total | 185,000 | 65,600 | 83,200 | 40,400 |

-- 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 | 2006 | | 2007 | |
|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Brazil | 44 | \$5 | -- | -- |
| Mexico | 58 | 6 | -- | -- |
| United Arab Emirates | -- | -- | 219 | \$23 |
| Total | 102 | 11 | 219 | 23 |

-- 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 | 2006 | | 2007 | |
|---------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Brazil | 331,000 | \$30,100 | 67,700 | \$5,790 |
| Canada | 642,000 | 48,900 | 5,330 | 1,440 |
| China | -- | -- | 75 | 14 |
| Mexico | 14,200 | 1,500 | -- | -- |
| South Africa | 10,000 | 2,600 | -- | -- |
| Sweden | -- | -- | 110 | 57 |
| Trinidad and Tobago | 156,000 | 39,300 | 1,410,000 | 332,000 |
| Turkey | -- | -- | 36,600 | 8,510 |
| Venezuela | 1,430,000 | 289,000 | 810,000 | 171,000 |
| Vietnam | 31,300 | 5,660 | -- | -- |
| Total | 2,610,000 | 417,000 | 2,330,000 | 519,000 |

-- 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.

³Less than ½ unit.

Source: U.S. Census Bureau.

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

| Country | 2006 | | 2007 | |
|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Australia | 1 | \$26 | 6 | \$3 |
| Belgium | 30 | 14 | -- | -- |
| Canada | 4,080 | 1,260 | 3,860 | 1,640 |
| China | 15,500 | 467 | 22 | 7 |
| Colombia | 55 | 18 | -- | -- |
| Dominican Republic | 179 | 76 | -- | -- |
| France | 11 | 5 | -- | -- |
| Germany | 78 | 21 | -- | -- |
| Guyana | -- | -- | 14,600 | 24 |
| Israel | 162 | 34 | 20 | 7 |
| Italy | 2 | 3 | -- | -- |
| Japan | 6 | 7 | 67 | 60 |
| Korea, Republic of | 13,600 | 119 | 25 | 27 |
| Malaysia | -- | -- | 585 | 177 |
| Mexico | 755,000 | 754 | 6,180 | 2,110 |
| Netherlands | 9 | 4 | -- | -- |
| Russia | -- | -- | 440 | 146 |
| Singapore | 4,050 | 719 | 44,900 | 38 |
| Spain | 11 | 12 | 65 | 21 |
| Switzerland | -- | -- | 225 | 139 |
| Taiwan | 52 | 56 | 31 | 33 |
| Trinidad and Tobago | 124 | 41 | -- | -- |
| Turkey | 18,200 | 4,900 | -- | -- |
| United Arab Emirates | 798 | 70 | 17 | 18 |
| United Kingdom | 1,380 | 144 | 141 | 151 |
| Total | 813,000 | 8,750 | 71,200 | 4,610 |

-- 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.

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

| Country | 2006 | | 2007 | |
|---------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Australia | 36,000 | \$8,640 | -- | -- |
| Austria | -- | -- | (3) | \$16 |
| Brazil | 4,210,000 | 1,100,000 | 3,510,000 | 1,120,000 |
| Canada | 101,000 | 30,000 | 114,000 | 39,800 |
| China | 20 | 17 | (3) | 8 |
| Germany | 3 | 7 | (3) | 15 |
| India | -- | -- | (3) | 4 |
| Japan | -- | -- | (3) | 12 |
| Russia | 1,910,000 | 504,000 | 1,140,000 | 354,000 |
| South Africa | 147,000 | 39,800 | 112,000 | 34,700 |
| Trinidad and Tobago | 142,000 | 29,100 | 47,100 | 11,200 |
| Ukraine | 188,000 | 48,400 | 282,000 | 96,400 |
| Venezuela | 2,600 | 794 | 15,300 | 4,250 |
| Total | 6,730,000 | 1,760,000 | 5,220,000 | 1,660,000 |

-- 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.

³Less than ½ unit.