Mineral Industry Surveys

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IRON AND STEEL SCRAP IN OCTOBER 2023

In October 2023, purchased steel scrap receipts decreased slightly, recirculating scrap production was essentially unchanged, and iron and steel scrap consumption decreased slightly compared with those in September. Stocks of purchased and home scrap were essentially unchanged from those at the end of September. In October 2023, pig iron production was essentially unchanged and consumption was unchanged from that in September. Direct-reduced iron receipts increased 9% and consumption decreased by 19% from that in September (table 1, fig. 1).

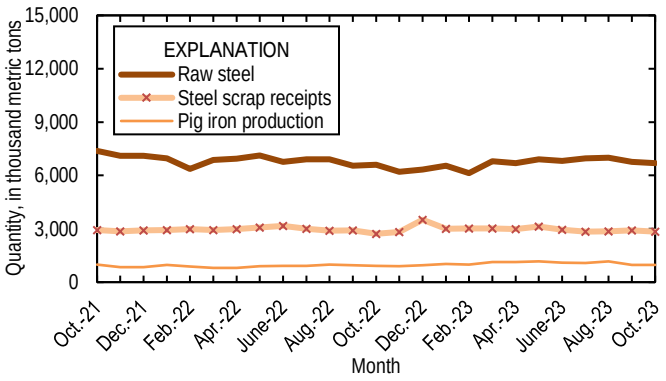

Figure 1. Monthly domestic production of raw steel, receipts of iron and steel scrap, and production of pig iron from October 2021 through October 2023. Sources: U.S. Geological Survey and American Iron and Steel Institute.

Exports of iron and steel scrap in October 2023 increased by 23% from those in September (fig. 2, table 4). In October 2023, Turkey was the leading destination for exports, accounting for 35% of the total tonnage, followed by India (24%) and Mexico (11%) (table 4). New York City, NY, was the leading U.S. Customs districts by tonnage of exports, accounting for 18% of the total, followed by Los Angeles, CA, (12%), and Boston, MA, and San Francisco, CA, (9% each) (table 5).

Imports of iron and steel scrap in October 2023 increased by 18% compared with those in September (fig. 2, table 7). Canada was the leading country of origin, accounting for 61% of the total tonnage of imports, followed by Mexico (21%) and Sweden (8%) (table 7). Detroit, MI, was the leading U.S. Customs district by tonnage of imports, accounting for 36% of the total, followed by Charleston, SC, (17%), and Laredo, TX, and Seattle, WA, (13% each) (table 8).

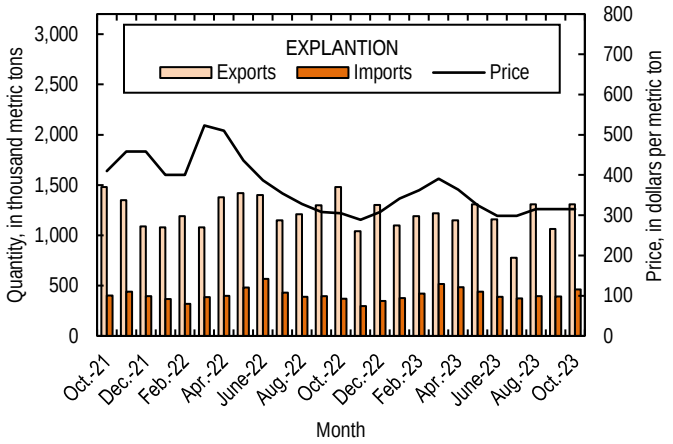

Figure 2. Monthly domestic imports and exports of iron and steel scrap and price for No. 1 heavy melting steel scrap from October 2021 through October 2023. Sources: U.S. Census Bureau and Fastmarkets AMM.

The daily average domestic raw steel production for October, as calculated from the American Iron and Steel Institute's monthly production data, was 216,000 metric tons, a 4% decrease from that in September and essentially unchanged from October 2022. Raw steel production capability utilization was 72.4% in October 2023, down from 76.4% in September 2023 and 73.7% in October 2022 (table 10).

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TABLE 1
IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS FOR STEEL PRODUCERS, IN OCTOBER 2023[1, 2]

(Thousand metric tons)

	October	January–October[3]
Scrap:		
Receipts:		
From outside sources	2,850	29,500
From other own company plants	200	1,880
Production:		
Recirculating scrap	380	3,410
Obsolete scrap	2	28
Consumption (by type of furnace):		
Blast furnace	139	1,270
Basic oxygen process	263	2,710
Electric furnace	2,960	30,200
Other	--	110
Total consumption	3,360	34,300
Shipments	23	232
Stocks, end of period	3,820	3,820
Pig iron (includes hot metal):		
Receipts	149	1,480
Production	976	10,700
Consumption	1,130	12,200
Stocks, end of period	540	540
Direct-reduced iron:[4]		
Receipts	241	2,210
Consumption	188	2,090
Stocks, end of period	450	450

-- Zero.

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

[2]Includes manufacturers of raw steel that also produce steel castings.

[3]May include revisions to previously published data.

[4]Includes direct-reduced iron, hot-briquetted iron, and iron carbide. Domestic production data are included in “Receipts.”

TABLE 2

RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, CONSUMPTION, AND STOCKS OF IRON AND STEEL SCRAP, BY GRADE, FOR STEEL PRODUCERS, IN OCTOBER 2023[1, 2]

(Thousand metric tons)

Item	October				January–October[3]		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption[4]	Ending stocks	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption[4]
Carbon steel:							
Low-phosphorus plate and punchings	13	W	16	W	137	W	159
Cut structural and plate	250	26	287	332	2,560	271	2,890
No. 1 heavy melting steel	268	50	327	179	2,900	493	3,310
No. 2 heavy melting steel	329	36	390	238	3,280	290	3,800
No. 1 and electric furnace bundles	109	--	110	118	1,120	--	1,140
No. 2 and all other bundles	53	W	W	32	620	W	647
Electric furnace 1 foot and under (not bundles)	W	--	4	W	W	--	W
Railroad rails	17	W	18	98	169	W	175
Turnings and borings	138	W	148	199	1,340	W	1,410
Slag scrap	27	25	55	50	275	250	548
Shredded and fragmentized	830	W	883	1,520	8,820	W	9,520
No. 1 busheling	339	22	359	336	3,550	229	3,790
Steel cans scrap (post consumer)	W	W	W	293	W	W	W
All other carbon steel scrap	156	113	281	225	1,650	1,080	2,850
Stainless steel scrap	42	19	62	32	417	189	631
Alloy steel scrap	23	8	31	49	234	82	313
Ingot mold and stool scrap	W	W	W	W	W	W	W
Machinery and cupola cast iron	3	--	W	W	W	--	W
Cast iron borings	11	--	12	W	115	W	119
Other iron scrap	68	15	79	45	624	114	687
Other mixed scrap	160	W	230	47	1,540	119	2,070
Total	2,850	380	3,360	3,820	29,500	3,410	34,300

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

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

[2]Includes manufacturers of raw steel that also produce steel castings.

[3]May include revisions to previously published data.

[4]Includes recirculating scrap.

TABLE 3
RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, AND CONSUMPTION OF IRON AND STEEL SCRAP,
BY REGION AND STATE, FOR STEEL PRODUCERS, IN OCTOBER 2023[1, 2]

(Thousand metric tons)

Region and State	October			January–October[3]		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption[4]	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption[4]
Mid-Atlantic and New England:						
New Jersey, New York, Pennsylvania	184	39	265	1,880	382	2,600
North Central:						
Illinois and Indiana	320	77	411	3,420	770	4,450
Iowa, Nebraska, Wisconsin	206	W	215	2,230	W	2,180
Michigan	32	W	32	315	W	318
Ohio	419	85	508	4,040	826	4,850
Total	978	168	1,170	9,990	1,660	11,800
South Atlantic:						
Georgia, North Carolina, South Carolina	240	W	262	2,680	W	2,840
Virginia, West Virginia	111	W	175	996	W	1,350
Total	352	W	436	3,670	W	4,180
South Central:						
Alabama, Kentucky, Mississippi, Tennessee	609	44	679	6,460	443	7,150
Arkansas and Texas	432	38	478	4,570	386	5,240
Total	1,040	83	1,160	11,000	829	12,400
Mountain and Pacific:						
California, Colorado, Oregon, Utah, Washington	300	W	341	2,960	W	3,320
Grand total	2,850	380	3,360	29,500	3,410	34,300

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

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

[2]Includes manufacturers of raw steel that also produce steel castings.

[3]May include revisions to previously published data.

[4]Includes recirculating scrap.

TABLE 4
U.S. EXPORTS OF IRON AND STEEL SCRAP BY SELECTED REGION AND COUNTRY OR LOCALITY, IN OCTOBER 2023[1, 2]

(Thousand metric tons and thousand dollars)

Country or locality	October		January–October[3]	
	Quantity	Value	Quantity	Value
Bangladesh	69	25,000	1,110	445,000
Belgium	1	254	12	11,100
Canada	41	15,100	430	160,000
China	1	3,740	15	34,300
Ecuador	1	470	101	41,900
Greece	--	--	93	34,200
India	308	143,000	1,280	741,000
Italy	7	839	218	87,600
Korea, Republic of	8	4,960	274	128,000
Malaysia	11	9,040	119	119,000
Mexico	146	53,400	1,780	565,000
Morocco	--	--	86	32,300
Netherlands	5	7,550	18	25,800
Pakistan	38	25,400	272	195,000
Peru	40	15,200	426	169,000
Taiwan	105	40,300	922	378,000
Thailand	34	21,300	253	157,000
Turkey	455	166,000	3,230	1,250,000
Vietnam	19	7,170	701	280,000
Other[4]	19	10,600	230	97,100
Total	1,310	549,000	11,600	4,950,000

-- Zero.

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

[2]Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

[3]May include revisions to previously published data.

[4]Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF IRON AND STEEL SCRAP BY REGION AND
SELECTED CUSTOMS DISTRICT, IN OCTOBER 2023[1, 2]

(Thousand metric tons and thousand dollars)

	October		January–October[3]	
Customs district	Quantity	Value	Quantity	Value
Baltimore, MD	41	21,200	387	188,000
Boston, MA	122	46,500	836	332,000
Buffalo, NY	12	6,060	100	52,000
Charleston, SC	10	5,750	54	42,200
Columbia–Snake, OR	70	27,900	592	251,000
Dallas-Forth Worth, TX	(4)	17	(4)	21
Detroit, MI	12	5,150	146	62,000
Duluth, MN	1	954	5	4,110
El Paso, TX	(4)	29	87	1,540
Honolulu, HI, and Anchorage, AK	2	949	92	35,900
Houston–Galveston, TX	25	22,100	260	174,000
Laredo, TX	82	31,400	908	279,000
Los Angeles, CA	159	69,500	1,480	667,000
Miami, FL	40	16,700	246	118,000
Mobile, AL	1	868	7	7,090
New Orleans, LA	15	1,870	39	9,130
New York City, NY	235	96,300	1,960	897,000
Norfolk, VA	57	32,100	372	245,000
Ogdensburg, NY	3	957	16	4,740
Pembina, ND	5	1,300	166	25,300
Philadelphia, PA	3	1,240	571	217,000
Portland, ME	3	770	75	27,200
Providence, RI	99	35,000	462	173,000
San Diego, CA	24	8,330	224	68,700
San Francisco, CA	115	44,600	1,210	487,000
San Juan, PR	15	5,460	195	66,200
Savannah, GA	21	14,300	153	120,000
Seattle, WA	63	25,600	488	217,000
St. Albans, VT	3	629	21	4,850
Tampa, FL	65	25,000	343	141,000
U.S. Virgin Islands	--	--	6	2,350
Other[5]	4	946	86	27,700
Total	1,310	549,000	11,600	4,950,000

-- Zero.

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

[2]Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

[3]May include revisions to previously published data.

[4]Less than ½ unit.

[5]Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN OCTOBER 2023[1, 2]

(Thousand metric tons and thousand dollars)

Item	October		January–October[3]	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	529	208,000	4,810	1,930,000
No. 2 heavy melting steel	71	32,900	585	282,000
No. 1 bundles	19	6,430	144	32,300
No. 2 bundles	3	359	12	1,650
Shredded steel scrap	480	179,000	3,930	1,550,000
Borings, shovelings, and turnings	3	1,010	37	11,000
Cut plate and structural	52	21,600	533	223,000
Tinned iron or steel	8	1,920	79	14,200
Remelting scrap ingots	2	575	6	2,060
Cast iron	26	14,600	369	141,000
Other iron and steel	6	1,700	40	9,700
Total carbon steel and cast iron	1,200	468,000	10,500	4,190,000
Stainless steel	50	45,000	450	392,000
Other alloy steel	60	36,300	586	362,000
Total stainless and alloy steel	110	81,300	1,040	753,000
Total carbon, stainless, alloy steel, and cast iron	1,310	549,000	11,600	4,950,000
Ships, boats, and other vessels for breaking up (for scrapping)	(4)	3	3	432
Used rails	(4)	102	2	4,980
Used rails for rerolling and other uses	--	--	(4)	150
Total scrap exports	1,310	550,000	11,600	4,950,000
Exports of manufactured ferrous products,				
Pig iron < or = 0.5% phosphorus	2	1,080	20	13,400
Pig iron > or = 0.5% phosphorus	--	--	--	--
Alloy Pig Iron	(4)	7	(4)	132
Total pig iron	2	1,090	20	13,600
Direct-reduced iron (DRI)	--	--	84	12,400
Granules for abrasive cleaning and other uses	2	2,990	20	30,900
Powders of alloy steel	1	5,000	11	57,400
Other ferrous powders	4	6,280	45	72,400
Total DRI, granules, powders	7	14,300	160	173,000
Grand total	1,320	565,000	11,800	5,140,000

-- Zero.

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

[2]Export valuation is on a free-alongside-ship basis.

[3]May include revisions to previously published data.

[4]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED COUNTRY OR LOCALITY, IN OCTOBER 2023[1, 2]

(Thousand metric tons and thousand dollars)

	October		January–October[3]	
Country or locality	Quantity	Value	Quantity	Value
Canada	283	115,000	2,960	1,270,000
Cayman Islands	(4)	81	6	975
Colombia	--	--	1	709
Germany	14	5,710	120	49,400
Japan	1	65	17	553
Mexico	96	36,300	623	296,000
Netherlands	30	11,600	131	56,300
New Zealand	--	--	27	12,100
Portugal	--	--	14	5,610
Spain	--	--	12	4,990
Sweden	36	14,700	216	95,900
United Kingdom	--	--	69	33,900
Other[5]	1	1,300	54	28,400
Total	463	184,000	4,250	1,860,000

-- Zero.

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

[2]Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is on a Customs basis.

[3]May include revisions to previously published data.

[4]Less than ½ unit.

[5]Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED CUSTOMS DISTRICT, IN OCTOBER 2023[1, 2]

(Thousand metric tons and thousand dollars)

	October		January–October[3]	
Customs district	Quantity	Value	Quantity	Value
Baltimore, MD	(4)	319	1	1,230
Buffalo, NY	16	8,480	180	101,000
Charleston, SC	79	31,100	393	165,000
Chicago, IL	(4)	60	21	5,490
Cleveland, OH	(4)	176	1	1,140
Detroit, MI	168	72,200	1,830	844,000
Duluth, MN	20	7,160	113	42,800
El Paso, TX	20	3,070	66	21,700
Great Falls, MT	(4)	508	21	8,120
Houston-Galveston, TX	(4)	141	1	2,050
Laredo, TX	60	26,900	420	214,000
Miami, FL	1	166	14	3,260
Mobile, AL	4	2,750	85	51,500
New Orleans, LA	2	34	184	76,300
New York City, NY	(4)	8	8	2,300
Nogales, AZ	6	2,110	44	18,000
Ogdensburg, NY	2	1,700	15	16,900
Pembina, ND	17	6,530	173	68,300
San Diego, CA	8	2,340	70	21,500
Seattle, WA	60	17,800	598	184,000
St. Albans, VT	1	239	10	2,970
Other[5]	(4)	391	10	6,390
Total	463	184,000	4,250	1,860,000

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Import valuation is on a Customs basis.
[3]May include revisions to previously published data.
[4]Less than ½ unit.
[5]Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN OCTOBER 2023[1, 2]

(Thousand metric tons and thousand dollars)

Item	October		January–October[3]	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	10	3,050	120	39,000
No. 2 heavy melting steel	12	4,180	105	38,000
No. 1 bundles	123	50,500	1,120	518,000
No. 2 bundles	6	2,090	72	26,800
Shredded steel scrap	90	36,300	796	344,000
Borings, shovelings, and turnings	5	1,030	47	12,100
Cut plate and structural	15	4,800	178	55,200
Tinned iron or steel	20	7,340	221	87,800
Remelting scrap ingots	(4)	168	2	2,730
Cast iron	9	2,920	141	48,500
Other iron and steel	53	17,600	648	239,000
Total carbon steel and cast iron	343	130,000	3,450	1,410,000
Stainless steel	17	20,500	173	202,000
Other alloy steel	103	33,800	626	245,000
Total stainless and alloy steel	120	54,300	800	447,000
Total carbon, stainless, alloy steel, and cast iron	463	184,000	4,250	1,860,000
Ships, boats, and other vessels for breaking up (for scrapping)	--	--	(4)	11
Used rails	1	205	4	978
Used rails, nonalloyed	--	--	(4)	17
Used rails other	(4)	3	(4)	749
Total scrap imports	464	184,000	4,260	1,860,000
Imports of manufactured ferrous products:				
Pig iron < or = 0.5% phosphorus	--	--	(4)	8
Pig iron > or = 0.5% phosphorus	352	151,000	3,570	1,810,000
Alloy pig iron	--	--	(4)	23
Total pig iron	352	151,000	3,570	1,810,000
Direct-reduced iron (DRI)	87	23,000	2,650	845,000
Spongy iron products, not DRI	(4)	726	1	3,790
Granules for abrasive cleaning and other uses	2	2,740	15	27,800
Powders of alloy steel	5	11,600	48	116,000
Other ferrous powders	3	7,070	33	76,200
Total DRI, granules, powders	97	45,200	2,750	1,070,000
Grand total	913	381,000	10,600	4,740,000

-- Zero.

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

[2]Import valuation is on a Customs basis.

[3]May include revisions to previously published data.

[4]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. RAW STEEL PRODUCTION, RAW STEEL CAPABILITY UTILIZATION,
AND CONTINUOUS CAST STEEL PRODUCTION[1]

Period	Raw steel production, thousand metric tons		Raw steel capability utilization, percent		Continuous cast steel production, percent	
	Monthly	Year to date[2]	Monthly	Year to date[2]	Monthly	Year to date[2]
2022:						
October	6,610	68,000	73.7	78.8	99.7	99.7
November	6,200	74,200	71.5	78.1	99.6	99.7
December	6,330	80,500	70.6	77.5	99.7	99.7
2023:						
January	6,550	6,550	73.0	73.0	99.6	99.6
February	6,120	12,700	75.5	74.2	99.7	99.7
March	6,800	19,500	75.7	74.7	99.7	99.7
April	6,690	26,200	76.5	75.1	99.7	99.7
May	6,900	33,100	76.3	75.4	99.7	99.7
June	6,820	39,900	77.9	75.8	99.7	99.7
July	6,970	46,900	76.2	75.9	99.7	99.7
August	7,000	53,800	76.6	76.0	99.7	99.7
September	6,760	60,600	76.4	76.0	99.7	99.7
October	6,690	67,300	72.4	75.6	99.7	99.7

[1]Data are rounded to no more than three significant digits.
[2]May include revisions to previously published data.

Source: American Iron and Steel Institute.

TABLE 11
COMPOSITE PRICES FOR STEEL SCRAP AND PIG IRON

Period	Steel Scrap[1]		Pig Iron[2]	
	$/lt	$/t	$/lt	$/t
2022:				
October	310.00	305.11	924.99	910.38
November	293.33	288.70	511.23	503.16
December	313.33	308.38	662.89	652.42
Average, January–December	385.28	379.19	665.66	655.15
2023:				
January	346.67	341.20	560.18	551.33
February	368.33	362.51	439.42	432.48
March	396.67	390.41	600.00	590.53
April	370.00	364.16	492.25	484.48
May	330.00	324.79	510.73	502.67
June	303.33	298.54	518.60	510.41
July	303.33	298.54	509.23	501.19
August	320.00	314.95	438.33	431.41
September	320.00	314.95	423.42	430.21
October	320.00	314.95	420.48	413.84

[1]Prices are for No. 1 heavy melting steel scrap. Source: Fastmarkets-AMM.
[2]Prices are Brazilian basic pig iron, free on board, New Orleans, LA. Source: U.S. Census Bureau.

Note: Long tons = lt; metric tons = t.

TABLE 12
U.S. IRON AND STEEL SCRAP RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION OF PIG IRON, AND DIRECT-REDUCED IRON (DRI) CONSUMPTION[1]

(Thousand metric tons)

Period[2]	Receipts of scrap from outside sources		Pig iron production		DRI consumption	
	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
2022:						
October	2,120	28,100	918	9,180	107	2,270
November	2,220	30,400	898	10,100	176	2,450
December	2,340	32,700	1,030	11,100	187	2,630
2023:						
January	2,960	2,960	1,030	1,030	211	211
February	3,020	5,980	986	2,020	205	416
March	3,020	9,000	1,140	3,160	206	622
April	2,990	12,000	1,140	4,290	198	821
May	3,130	15,100	1,170	5,460	202	1,020
June	2,950	18,100	1,090	6,550	248	1,270
July	2,840	20,900	1,070	7,620	198	1,470
August	2,860	23,800	1,160	8,770	209	1,680
September	2,910	26,700	969	9,740	228 [r]	1,910
October	2,850	29,500	976	10,700	188	2,090

[r]Revised.
[1]Data are rounded to no more than three significant digits.
[2]May include revisions to previously published data.