NIOBIUM (COLUMBIUM) STATISTICS[1]
U.S. GEOLOGICAL SURVEY
[All values are in metric tons (t) niobium content unless otherwise noted]
Last modification: October 5, 2012

Year	Mine production	Primary production	Producer shipments	Government shipments	Imports	Exports	Stocks	Consumption	Apparent consumption	Unit value ($/t)	Unit value (98$/t)	World mine production
1964	0	372	NA	310	1,260	80	1,010	727	1,650	2,680	14,100	2,480
1965	0	889	NA	320	1,420	2	1,760	1,010	1,760	2,680	13,900	3,120
1966	NA	1,660	NA	305	2,630	3	2,770	1,270	1,930	3,500	17,600	5,060
1967	NA	889	453	399	2,720	3	3,970	1,500	1,910	3,060	14,900	5,150
1968	NA	1,080	984	671	1,420	3	3,170	1,420	2,890	2,900	13,600	4,950
1969	NA	1,160	801	734	1,800	19	3,620	1,590	2,070	3,310	14,700	6,610
1970	0	649	598	409	1,950	21	3,570	1,290	2,400	3,530	14,800	8,460
1971	0	463	439	17	1,150	9	2,830	1,520	1,890	3,280	13,200	3,740
1972	0	669	494	353	1,650	7	2,640	1,770	2,190	4,070	15,900	5,950
1973	0	679	617	1,060	2,120	22	2,970	1,960	2,820	4,480	16,400	14,700
1974	0	870	766	1,240	2,300	8	3,360	2,200	3,150	5,170	17,100	9,340
1975	0	447	483	210	1,330	12	2,930	1,580	1,950	5,390	16,300	7,860
1976	0	710	424	32	2,140	15	2,370	1,670	2,720	8,480	24,300	9,470
1977	0	660	489	0	2,320	17	2,500	1,990	2,170	8,700	23,400	8,800
1978	0	710	838	1	2,980	22	2,480	2,580	2,990	9,560	23,900	9,670
1979	0	440	917	0	3,780	23	3,010	2,870	3,230	21,400	48,100	14,400
1980	NA	920	649	0	4,410	78	3,890	2,950	3,450	20,500	40,600	15,100
1981	NA	519	414	0	3,610	41	3,780	2,830	3,680	19,300	34,600	14,800
1982	NA	NA	430	-12	1,970	40	2,710	1,670	2,990	14,600	24,700	10,600
1983	0	NA	678	0	1,480	35	NA	1,960	2,610	14,600	23,900	8,580
1984	0	NA	668	0	2,790	36	NA	2,450	3,480	11,800	18,500	13,900
1985	0	NA	705	-97	2,720	35	NA	2,710	3,420	11,800	17,900	14,800
1986	0	NA	554	0	2,160	33	NA	2,270	3,200	8,670	12,900	14,600
1987	0	NA	597	0	2,750	39	NA	2,350	3,310	7,660	11,000	9,360
1988	0	NA	642	0	2,730	45	NA	2,670	3,580	7,660	10,600	16,900
1989	NA	NA	662	0	3,640	104	NA	2,440	3,400	10,300	13,500	14,100
1990	NA	NA	NA	0	3,030	227	NA	2,590	3,360	10,300	12,800	15,300
1991	NA	NA	NA	0	3,290	270	NA	2,410	3,310	8,930	10,700	15,700
1992	NA	NA	NA	0	3,680	350	NA	2,460	3,500	8,930	10,400	15,300
1993	0	NA	NA	0	3,510	300	NA	2,470	3,500	8,200	9,250	12,400
1994	0	NA	NA	0	4,240	320	NA	2,750	3,700	8,200	9,020	15,700
1995	0	NA	NA	0	4,450	370	NA	2,860	3,800	9,460	10,100	15,600
1996	0	NA	NA	30	4,210	190	NA	3,380	3,830	9,460	9,830	16,200
1997	0	NA	NA	126	6,120	70	NA	3,770	4,030	9,460	9,610	20,500
1998	0	NA	NA	145	6,520	50	NA	3,640	4,150	9,460	9,460	26,200
1999	0	NA	NA	280	6,260	160	NA	3,460	4,100	9,460	9,260	24,600
2000	0	NA	NA	217	6,500	100	NA	4,090	4,300	19,700	18,700	24,800

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Year	Mine production	Primary production	Producer shipments	Government shipments	Imports	Exports	Stocks	Consumption	Apparent consumption	Unit value ($/t)	Unit value (98$/t)	World mine production
2001	0	NA	NA	-4	7,170	140	NA	4,230	7,140	NA	NA	31,100
2002	0	NA	NA	9	5,630	130	NA	3,150	5,520	NA	NA	33,300
2003	0	NA	NA	223	5,590	170	NA	3,670	5,640	NA	NA	40,400
2004	0	NA	NA	90	6,910	276	NA	4,220	6,730	NA	NA	27,600
2005	0	NA	NA	152	7,610	337	NA	4,600	7,430	NA	NA	43,100
2006	0	NA	NA	156	10,500	561	NA	5,050	10,100	NA	NA	52,800
2007	0	NA	NA	0	10,100	1,100	NA	6,510	9,020	NA	NA	62,200
2008	0	NA	NA	0	9,230	781	NA	5,380	8,450	NA	NA	63,000
2009	0	NA	NA	0	4,400	195	NA	4,350	4,200	NA	NA	63,000
2010	0	NA	NA	0	8,490	281	NA	5,590	8,210	NA	NA	63,200
2011	0	NA	NA	0	9,520	363	NA	7,210	9,160	NA	NA	63,400

NA Not available.

[1]Compiled by D.A. Buckingham (retired), L.D. Cunningham (retired), M.J. Magyar, and J.F. Papp.
Data are calculated, estimated, or reported. See notes for more information.

Niobium (Columbium) Worksheet Notes

Data Sources
The sources of data for the niobium (columbium) worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB), Mineral Commodity Summaries (MCS), Mineral Facts and Problems (MFP), Mineral Commodity Profiles (MCP), and Metal Prices in the United States through 1998 (MP98). The years of publication and corresponding years of data coverage are listed in the References section below. Niobium data prior to 1964 were not included in the niobium statistics worksheet because they were either recorded in gross weight, combined with tantalum data, ambiguous in detail, or were not available.

Mine Production
Mine production data represent the niobium content in niobium-bearing ores and mineral concentrates that were mined within the United States. A small, unreported quantity of niobium contained in niobium-bearing concentrates was produced in 1980–82 and 1989–92. For the years in which a zero is reported, no niobium-bearing ores and mineral concentrates were reported mined within the United States. Data are from the MYB.

Primary Production
Primary production data represent the niobium content in ferroniobium that was produced in the United States. Data for 1964–81 are from the MYB. For 1982 to the most recent year, data were not available.

Producer Shipments
Producer shipments data represent the niobium content of niobium metal, compounds, alloys, and other niobium materials that were shipped by domestic producers. For 1967–89 shipments data are from the MYB and the MFP. For 1964–66 and 1990 to the most recent year, data were not available.

Government Shipments
Government shipments data are shipments or releases of niobium-bearing materials from the National Defense Stockpile (NDS). Negative numbers for 1982, 1985, and 2001 indicate an increase in the NDS inventory. Shipments data were from the MFP and the MYB. Starting in 2002, government shipments were from the MCS.

Imports
Import data represent the niobium content of U.S. imports for consumption of niobium, tantalum, and synthetic minerals, niobium oxide, ferroniobium, and niobium metal (unwrought, alloys, and powder). Data for before 1969 included the niobium content of tin slag and were from the MFP. Starting in 2003, data were from the MCS.

Exports
Export data represent the niobium content of various niobium materials that were exported from the United States. Data for 1964–71 were from the MFP; 1972–2002, from the MYB; and 2003 to the most recent year, from the MCS.

Stocks
Stock data represent the niobium content of various niobium materials that were held in domestic inventories. Data for 1964–72 are from the MFP and the MCP; 1973–82, from the MFP and the MCS; and 1983 to the most recent year are not available.

Consumption
Consumption data for 1964–76 represent the niobium content of niobium metal, ferroniobium, nickel niobium, and various niobium materials including small quantities of tantalum contained in some niobium materials, that were consumed in the United States. Data for 1977 to the most recent year represent the niobium content of ferroniobium and nickel niobium that were consumed in the United States. Data for 1964–2002 were from the MYB; 2003 to the most recent year, from the MCS.

Apparent Consumption
Apparent consumption data represent the niobium content of various niobium-bearing materials that were consumed in the United States. Data for 1964–75 were from the MFP and the MCP, and data for 1976 to the most recent year were from the MCS.

Unit Value ($/t)
Unit value is defined as the value of 1 metric ton (t) of niobium apparent consumption. The 1964–2000 unit value was estimated using a yearend average price of niobium pentoxide contained in niobium concentrates as reported in the MP98 and the MYB. The price was converted to unit price ($/t) of niobium in niobium pentoxide. Price data for 2001 to the most recent year were not available, because trade journal prices were discontinued in 2000.

Unit Value (98$/t)
The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production

Mine production data represent the niobium content of niobium-bearing ores and mineral concentrates that were produced from mines throughout the world. Data for 1964–68 were from the MFP and the MCP, and for 1969 to the most recent year were from the MYB.

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