

SILICON STATISTICS
By Thomas D. Kelly and Thomas S. Jones
 [All values in metric tons (t) unless otherwise noted]
 Last modification: August 30, 2002

Year	Production	Shipments	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1923			11,700						
1924			12,300						
1925			4,630						
1926			13,200						
1927			7,460						
1928			4,770						
1929			9,430						
1930			4,610						
1931			959						
1932			317						
1933			942						
1934			1,000						
1935			794						
1936			535						
1937			2,060						
1938			636						
1939			1,050						
1940			1,120						
1941			5,620						
1942			3,930						
1943			817						
1944			3,800						
1945			6,520						
1946			1,210						
1947			1,940						
1948			714						
1949			874						
1950			3,430						
1951			10,100						
1952			2,030						
1953			2,000						
1954	202,000		3,630			195,000			
1955	272,000		5,410			285,000			
1956	317,000		4,670			300,000			
1957	266,000		3,510			257,000			
1958	184,000		2,180			202,000			
1959	237,000		7,870			248,000			
1960	254,000		4,780			232,000			
1961	237,000	231,000	2,120			235,000			
1962	292,000	252,000	2,350			293,000			
1963	305,000	276,000	2,160			308,000			
1964	354,000	340,000	2,720	3,630	53,500	357,000			1,130,000
1965	384,000	360,000	4,540	2,720	54,400	385,000			1,160,000
1966	379,000	363,000	11,800	3,630	49,000	393,000			1,160,000
1967	452,000	356,000	13,600	7,260	77,100	430,000			1,490,000
1968	456,000	394,000	9,980	11,800	62,600	469,000			1,540,000
1969	427,000	403,000	15,400	3,630	68,900	433,000			1,590,000
1970	481,000	355,000	9,070	20,000	59,900	482,000			1,640,000
1971	406,000	348,000	11,800	11,800	57,200	409,000			1,570,000
1972	485,000	425,000	27,200	6,350	54,400	509,000			1,670,000
1973	524,000	507,000	64,400	14,500	33,600	597,000			1,780,000

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1974	534,000	440,000	90,000	6,350	104,000	610,000			1,800,000
1975	429,000	341,000	46,000	17,200	108,000	458,000			2,100,000
1976	488,000	447,000	66,200	5,440	109,000	548,000	922	2,640	2,320,000
1977	488,000	444,000	92,500	4,540	106,000	579,000	881	2,370	2,260,000
1978	493,000	459,000	110,000	9,980	103,000	596,000	892	2,230	2,550,000
1979	560,000	479,000	92,500	14,500	93,400	647,000	1,070	2,400	2,840,000
1980	438,000	381,000	61,700	25,400	92,500	475,000	1,260	2,490	2,750,000
1981	432,000	357,000	126,000	15,400	113,000	522,000	1,320	2,370	2,600,000
1982	253,000	237,000	70,800	9,070	98,900	329,000	1,070	1,810	2,410,000
1983	302,000	285,000	121,000	8,160	78,000	435,000	1,160	1,900	2,540,000
1984	412,000	371,000	110,000	18,100	81,600	500,000	1,140	1,790	2,730,000
1985	363,000	305,000	140,000	8,160	92,500	484,000	1,160	1,760	2,830,000
1986	304,000	289,000	173,000	10,000	65,000	478,000	1,320	1,960	2,740,000
1987	338,000	309,000	171,000	15,000	52,000	507,000	1,120	1,610	2,760,000
1988	420,000	373,000	192,000	24,000	45,000	595,000	1,250	1,720	2,990,000
1989	439,000	368,000	157,000	32,000	61,000	548,000	1,060	1,390	3,380,000
1990	418,000	356,000	217,000	36,000	72,000	588,000	933	1,160	4,130,000
1991	363,000	335,000	164,000	35,000	64,000	500,000	964	1,150	3,950,000
1992	370,000	349,000	193,000	38,000	57,000	532,000	919	1,070	3,470,000
1993	367,000	345,000	212,000	31,000	48,000	557,000	1,010	1,140	3,200,000
1994	390,000	355,000	255,000	32,000	45,000	616,000	1,280	1,410	3,170,000
1995	396,000	368,000	250,000	47,000	35,000	609,000	1,440	1,540	3,100,000
1996	412,000	378,000	227,000	44,000	35,000	594,000	1,700	1,770	3,200,000
1997	430,000	384,000	256,000	50,000	44,000	628,000	1,510	1,530	3,400,000
1998	429,000	380,000	241,000	47,000	50,000	616,000	1,350	1,350	3,200,000
1999	423,000	379,000	286,000	61,000	54,000	643,000	1,180	1,150	3,400,000
2000	367,000	320,000	361,000	41,000	52,000	689,000	1,140	1,080	3,500,000

Silicon Worksheet Notes

Data Sources

Sources of data for the silicon worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS); and Mineral Facts and Problems (MFP). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data are not available.

Production

Production data for the years 1954–68 were recorded from the MFP. Production data for the years 1969–2000 were recorded from the CDS and the MCS. Production data for the years 1954–2000 represent the total gross production, by silicon content, of various grades of ferrosilicon and silicon metal that were produced annually within the United States.

Shipments

Shipment data for the years 1961–2000 were recorded from the MYB. Shipment data for the years 1961–2000 represent the total silicon content in 48% ferrosilicon, 63% ferrosilicon, 76% ferrosilicon, 85% ferrosilicon, 88% ferrosilicon, 90% ferrosilicon, 98% silicon metal, 45% ferrosilicon briquets, and other miscellaneous silicon-containing alloys that were shipped annually to domestic recipients.

Imports

Import data for the years 1923–63 were recorded from the MR and MYB. Import data for the years 1964–78 were recorded from the MFP. Import data for the years 1979–2000 were recorded from the MCS. Import data for the years 1923–2000 represent the total silicon content in all silicon-containing materials that were imported into the United States for consumption purposes.

Exports

Export data for the years 1964–78 were recorded from the MFP. Export data for the years 1979–2000 were recorded from the MCS. Export data for the years 1964–2000 represent the total silicon content in all silicon-containing materials that were exported from the United States to foreign recipients.

Stocks

Stock data for the years 1964–78 were recorded from the MFP. Stock data for the years 1979–2000 were recorded from the MCS. Stock data for the years 1964–95 represent the total silicon content in all silicon-containing materials that were held annually within industrial producer and consumer stockpiles. Stock data for the years 1996–2000 represent the total silicon content in all silicon-containing materials that were held annually within industrial producer stockpiles.

Apparent Consumption

Apparent consumption data for the years 1954–68 were recorded from the MFP. Apparent consumption data for the years 1969–2000 were recorded from the CDS and the MCS. Apparent consumption data for the years 1954–2000 represent the total silicon content in all silicon-containing materials that were consumed annually within the United States.

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of silicon apparent consumption. Unit value data for the years 1976–2000 were estimated by dividing the total value of domestically produced ferrosilicon and silicon metal materials by the total quantity of such domestically produced ferrosilicon and silicon metal materials.

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

World production data for the years 1964–78 were recorded from the MFP. World production data for the years 1979–2000 were recorded from the MCS. World production data for the years 1964–2000 represent the total silicon content in all silicon-containing materials that were produced annually throughout the world.

References

- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
- U.S. Bureau of Mines, 1962–77, Commodity Data Summaries, 1962–77.
- U.S. Bureau of Mines, 1975, Mineral Facts and Problems, 1975 ed: U.S. Bureau of Mines Bulletin 667.
- U.S. Bureau of Mines, 1978–95, Mineral Commodity Summaries, 1978–95.
- U.S. Bureau of Mines, 1980, Mineral Facts and Problems, 1980 ed: U.S. Bureau of Mines Bulletin 671.

U.S. Bureau of Mines, 1985, Mineral Facts and Problems, 1985 ed: U.S. Bureau of Mines Bulletin 675.
U.S. Geological Survey, 1901–27, Mineral Resources of the United States, 1900–23.
U.S. Geological Survey, 1997–2002, Mineral Commodity Summaries, 1997–2002.
U.S. Geological Survey, 1997–2002, Minerals Yearbook, v. I, 1995–2000.
U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

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