

SAND AND GRAVEL (CONSTRUCTION) STATISTICS¹
U.S. GEOLOGICAL SURVEY
[All values in metric tons (t) sand and gravel unless otherwise noted]
Last modification: November 29, 2007

Year	Primary production	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900							
1901							
1902	452,000			452,000	0.71	13.30	
1903	747,000			747,000	0.80	14.50	
1904	5,280,000			5,280,000	0.47	8.50	
1905	16,400,000			16,400,000	0.45	8.14	
1906	24,400,000			24,400,000	0.35	6.33	
1907	32,100,000			32,100,000	0.31	5.41	
1908	30,000,000			30,000,000	0.34	6.15	
1909	49,000,000			49,000,000	0.30	5.42	
1910	56,900,000			56,900,000	0.29	5.06	
1911	53,700,000			53,700,000	0.30	5.24	
1912	53,800,000			53,800,000	0.33	5.56	
1913	65,100,000			65,100,000	0.29	4.77	
1914	65,500,000			65,500,000	0.29	4.71	
1915	61,800,000			61,800,000	0.30	4.82	
1916	71,800,000			71,800,000	0.32	4.78	
1917	60,400,000			60,400,000	0.42	5.34	
1918	47,000,000	503,000		47,500,000	0.54	5.84	
1919	56,300,000	542,000		56,900,000	0.62	5.84	
1920	64,800,000	1,110,000		65,900,000	0.76	6.18	
1921	67,300,000	823,000		68,100,000	0.73	6.65	
1922	78,100,000	409,000	162,000	78,300,000	0.68	6.61	
1923	117,000,000	431,000	250,000	117,000,000	0.65	6.21	
1924	132,000,000	630,000	142,000	133,000,000	0.64	6.10	
1925	145,000,000	481,000	193,000	146,000,000	0.65	6.05	
1926	155,000,000	852,000	193,000	156,000,000	0.63	5.81	
1927	169,000,000	658,000	191,000	169,000,000	0.61	5.73	
1928	179,000,000	675,000	334,000	180,000,000	0.58	5.52	
1929	190,000,000	1,510,000	221,000	191,000,000	0.62	5.90	
1930	171,000,000	1,640,000	147,000	173,000,000	0.62	6.05	
1931	134,000,000	350,000	98,800	134,000,000	0.60	6.42	
1932	105,000,000	169,000	43,600	105,000,000	0.51	6.09	
1933	93,000,000	85,500	37,400	93,100,000	0.51	6.42	
1934	100,000,000	100,000	15,200	100,000,000	0.54	6.58	
1935	106,000,000	114,000	17,000	106,000,000	0.50	5.94	
1936	153,000,000	295,000	22,600	154,000,000	0.52	6.12	
1937	162,000,000	438,000	30,500	163,000,000	0.52	5.90	
1938	159,000,000	605,000	16,100	159,000,000	0.50	5.79	
1939	197,000,000	229,000	12,600	197,000,000	0.49	5.75	
1940	207,000,000	399,000		207,000,000	0.47	5.47	
1941	249,000,000	388,000		249,000,000	0.52	5.76	
1942	262,000,000	503,000		262,000,000	0.64	6.41	
1943	197,000,000	348,000		197,000,000	0.66	6.22	
1944	161,000,000	251,000		161,000,000	0.63	5.84	
1945	163,000,000	253,000		163,000,000	0.66	5.98	
1946	216,000,000	314,000		216,000,000	0.68	5.68	
1947	245,000,000	431,000		245,000,000	0.77	5.62	
1948	274,000,000	385,000		275,000,000	0.82	5.55	
1949	277,000,000	383,000		277,000,000	0.80	5.47	
1950	320,000,000	396,000		321,000,000	0.82	5.55	
1951	346,000,000	426,000		347,000,000	0.85	5.34	

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1952	379,000,000	367,000		380,000,000	0.84	5.16	
1953	383,000,000	363,000		383,000,000	0.87	5.30	
1954	490,000,000	248,000		490,000,000	0.94	5.70	
1955	519,000,000	290,000		519,000,000	0.94	5.72	
1956	548,000,000	301,000		549,000,000	0.98	5.88	
1957	556,000,000	277,000		556,000,000	0.98	5.68	
1958	607,000,000	295,000		607,000,000	1.00	5.64	
1959	645,000,000	409,000		645,000,000	1.04	5.82	
1960	627,000,000	347,000		628,000,000	1.06	5.83	
1961	666,000,000	343,000		666,000,000	1.04	5.67	
1962	686,000,000	306,000		687,000,000	1.06	5.71	
1963	726,000,000	306,000	907,000	726,000,000	1.07	5.70	
1964	767,000,000	402,000	1,250,000	766,000,000	1.07	5.62	
1965	801,000,000	615,000	1,360,000	800,000,000	1.09	5.63	
1966	824,000,000	572,000	2,110,000	824,000,000	1.09	5.47	
1967	800,000,000	534,000	2,170,000	798,000,000	1.12	5.47	
1968	808,000,000	661,000	2,130,000	806,000,000	1.15	5.39	6,090,000,000
1969	824,000,000	776,000	1,910,000	823,000,000	1.18	5.25	6,640,000,000
1970	830,000,000	739,000	1,090,000	830,000,000	1.22	5.12	6,700,000,000
1971	811,000,000	605,000	472,000	811,000,000	1.30	5.23	6,690,000,000
1972	803,000,000	646,000	700,000	803,000,000	1.36	5.30	7,860,000,000
1973	866,000,000	682,000	815,000	866,000,000	1.44	5.28	
1974	803,000,000	315,000	1,030,000	803,000,000	1.61	5.32	6,880,000,000
1975	691,000,000	298,000	951,000	691,000,000	1.72	5.21	6,760,000,000
1976	776,000,000	265,000	1,030,000	775,000,000	2.07	5.93	
1977	815,000,000	318,000	1,120,000	814,000,000	2.23	6.00	
1978	874,000,000	525,000	1,290,000	873,000,000	2.35	5.87	
1979	858,000,000	319,000	807,000	857,000,000	2.50	5.62	
1980	692,000,000	455,000	1,160,000	692,000,000	2.89	5.72	
1981	626,000,000	302,000	1,150,000	625,000,000	3.08	5.52	
1982	539,000,000	168,000	1,020,000	538,000,000	3.11	5.25	
1983	594,000,000	112,000	1,180,000	593,000,000	3.20	5.24	
1984	702,000,000	137,000	1,670,000	701,000,000	3.20	5.02	
1985	726,000,000	223,000	1,370,000	725,000,000	3.36	5.09	
1986	801,000,000	186,000	1,060,000	800,000,000	3.43	5.10	
1987	813,000,000	257,000	1,030,000	812,000,000	3.69	5.29	
1988	838,000,000	318,000	875,000	837,000,000	3.74	5.15	
1989	814,000,000	387,000	1,020,000	813,000,000	3.99	5.25	
1990	829,000,000	1,580,000	425,000	831,000,000	3.92	4.89	
1991	708,000,000	1,330,000	1,030,000	708,000,000	3.96	4.74	
1992	834,000,000	1,310,000	1,420,000	834,000,000	4.01	4.66	
1993	869,000,000	1,320,000	1,130,000	869,000,000	4.06	4.58	
1994	891,000,000	1,500,000	1,050,000	891,000,000	4.20	4.62	
1995	907,000,000	1,120,000	1,300,000	907,000,000	4.30	4.60	
1996	914,000,000	1,260,000	1,530,000	914,000,000	4.38	4.55	
1997	952,000,000	1,610,000	1,740,000	952,000,000	4.47	4.54	
1998	1,070,000,000	1,120,000	2,340,000	1,070,000,000	4.59	4.59	
1999	1,110,000,000	1,920,000	1,650,000	1,110,000,000	4.73	4.63	
2000	1,120,000,000	2,870,000	2,410,000	1,120,000,000	4.81	4.55	
2001	1,130,000,000	3,820,000	3,060,000	1,130,000,000	5.02	4.62	
2002	1,130,000,000	4,310,000	3,240,000	1,130,000,000	5.09	4.61	
2003	1,160,000,000	4,410,000	1,770,000	1,160,000,000	5.16	4.57	

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2004	1,240,000,000	4,760,000	677,000	1,240,000,000	5.32	4.59	
2005	1,270,000,000	7,160,000	519,000	1,280,000,000	5.86	4.89	
2006	1,320,000,000	4,960,000	515,000	1,320,000,000	6.46	5.22	

¹Compiled by K.E. Porter (retired) and W.P. Bolen.

Data are calculated, estimated, or reported. See notes for more information.

Sand and Gravel (Construction) Worksheet Notes

Data Sources

The sources of data for the construction sand and gravel 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), and Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). 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 were not available.

Primary Production

U.S. production data collection and reporting did not start for construction sand and gravel until 1902. Before 1902, sand was included with stone and included only silica sand for glassmaking. Construction and industrial sand and gravel production were reported together in the salient statistics table in the MR and the MYB through 1958, and were split between “commercial” and “government” (State, county, municipalities, and Federal). Categories were split between construction and industrial according to the following guidelines: Construction sand included building, paving, railroad ballast, and other (excluding ground sand). The reporting of gravel production prior to 1959 did not indicate any industrial applications, therefore the assumption is made that all gravel production data were for construction applications. After 1958, some gravel was used for industrial applications, such as filtration, ferrosilicon, and nonmetallic flux for sulfur production. Industrial sand includes sand for glass, molding, grinding and polishing (also blast sand), fire or furnace, engine, and filter (ground sand is included in the “other” category and is separated out for inclusion with industrial). Construction and industrial sand and gravel statistics were reported separately in a combined chapter starting with the 1959 MYB and later in separate chapters starting with the 1988 MYB.

Imports

U.S. import data for construction sand and gravel were reported in tables starting with the 1922 MR and continue to be reported in the MYB and the MCS.

Exports

Export data for combined sand and gravel (construction) and sand and gravel (industrial) were reported in the foreign trade section text starting with the 1922 MR and continuing in the MYB through 1939. Construction and industrial sand and gravel export data were split 50:50 for the years 1922–39 based on the average for the years 1971–2006 when more complete export data were available. Sand and gravel (construction) export data were not available for the years 1940–62. Export data for the years 1963–2006 are from the CDS, the MCS, and the MYB.

Apparent Consumption

Apparent consumption is defined as follows:

$$\text{APPARENT CONSUMPTION} = \text{PRIMARY PRODUCTION} + \text{IMPORTS} - \text{EXPORTS}.$$

Export data are not available for the years 1940–62 and are not included for the purpose of estimating apparent consumption. Import and export data have very little effect on apparent consumption because of their relative insignificance compared to primary production. The net imports account for less than 0.2 percent of primary production for the years 1940–2006.

Unit Value (\$/t)

Unit values were estimated by summing the values for different types of sand and gravel (construction) and dividing by total primary production quantity. Imports and exports were not considered in determining unit value because quantities are insignificant compared to primary production and values were not available. Data for quantities and values from which unit values are estimated are from the MR and the MYB.

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 sand and gravel (construction) are not available for most of the period for the years 1900–2006 owing to the lack of data collection by many of the producing countries. World production data are available for the years 1969–72, 1974, and 1975 from the MCS.

References

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