# LEAD STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY [All values are in metric tons lead (t) unless otherwise noted] Last modification: November 8, 2007

Last modification: November 8, 2007										
	Primary	Secondary			Government				Unit value	World
Year	•	production			shipments	Stocks	consumption	( <b>\$/t</b> )	( <b>98</b> \$/t)	production
1900	343,000		410	90,000		63,800	· · · · · · · · · · · · · · · · · · ·	100	,	749,000
1901	341,000		490	91,000		54,700		97	1,900	
1902	342,000		1,400	74,000		63,800	260,000	90	1,700	
1903	343,000		1,600	87,000		32,200	289,000	93	1,700	
1904	367,000		630	77,000		9,700	,	95	1,700	
1905	366,000		890	55,000		10,400	311,000	99	1,800	
1906	378,000		11,000	300		11,700	387,000	126	2,300	1,040,000
1907	410,000	/	8,400	59,000		4,200	390,000	119	2,100	993,000
1908	422,000		2,500			16,800	339,000	93	1,700	1,280,000
1909	426,000		3,200			15,800	378,000	95	1,700	1,060,000
1910	449,000	50,200	32,000	78,000		32,600	436,000	97	1,700	1,100,000
1911	465,000	49,200	2,400			4,070	425,000	97	1,700	1,110,000
1912	457,000		250	,		9,520		99	1,700	1,160,000
1913	455,000		38	50,000		4,820	· · · · · · · · · · · · · · · · · · ·	97	1,600	1,150,000
1914	524,000			,		6,960		86	,	
1915	544,000		410	,		11,000	492,000	104	1,680	
1916	517,000		5,100	,		11,200	499,000	152	2,270	
1917	597,000		5,300	90,000		2,440	606,000	190	2,420	
1918	611,000	88,100		95,000		428	611,000	157	1,700	
1919	452,000	,	4,600	58,000		212	510,000	128		764,000
1920	506,000		32,000	24,000		1,200	626,000	181	1,470	804,000
1921	412,000	,	28,000	33,000		315	502,000	104	945	783,000
1922	501,000	,	3,200	· · · · ·			613,000	126	,	972,000
1923	581,000	,	19,000	52,000		2,370	,	163	1,550	1,080,000
1924	657,000	,	74,000	,		4,580	840,000	183	1,740	1,220,000
1925	711,000		9,500			7,410		201	1,880	1,410,000
1926	744,000		74,000			9,720	1,000,000	186	1,710	
1927	736,000		0	,		8,590		150	1,400	1,540,000
1928	735,000		0	/		9,720	904,000	139	1,320	1,680,000
1929	724,000		0	,			939,000	151	1,440	1,610,000
1930	603,000			,		144,000	791,000	122	1,200	1,520,000
1931	419,000		9	20,000		198,000	,	94	1,010	1,260,000
1932	278,000		40	/		239,000		70		1,050,000
1933	263,000					268,000				
1934	295,000			5,400		285,000	,	85		1,200,000
1935	308,000					285,000	547,000		,	1,380,000
1936	371,000	,	,			223,000				1,470,000
1937	447,000					189,000			1,490	
1938	367,000		,	1		190,000		104	1,200	1,700,000
1939	457,000					200,000	577,000	111	1,300	1,740,000
1940	508,000			1		222,000	· · · · · · · · · · · · · · · · · · ·	114	1,330	
1941	551,000					182,000		128	1,420	
1942	558,000			,		178,000		143	1,430	
1943	481,000		222,000		67,600	234,000		143	1,350	
1944	470,000	,	202,000	14,000		201,000		143	1,320	4
1945	450,000		206,000	2,000				143		1,250,000
1946	350,000			640	,	212,000	,	179	1,490	1,030,000
1947	474,000		145,000	1,400		199,000	, ,	323	2,360	1,310,000
1948	455,000	,	224,000	370	-4,530	241,000	, ,	398	,	1,380,000
1949	515,000		250,000			271,000		339	,	1,370,000
1950	510,000		401,000			252,000		293		1,640,000
1951	434,000	401,000	162,000	1,200	1	206,000	1,050,000	386	2,410	1,600,000

## LEAD STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY [All values are in metric tons lead (t) unless otherwise noted] Last modification: November 8, 2007

Last modification: November 8, 2007										
	Primary	Secondary			Government			Unit value		World
	-	production	-	_	shipments	Stocks	consumption	( <b>\$/t</b> )	( <b>98</b> \$/t)	production
1952	478,000	,	463,000	1,600		247,000	1,290,000	363	2,230	1,810,000
1953	477,000	,	349,000	730			1,460,000	297	1,810	1,870,000
1954	493,000		251,000	540		237,000	901,000	310	1,880	2,000,000
1955	490,000	408,000	240,000	370			1,390,000	334	2,040	2,010,000
1956	504,000	404,000	238,000	4,200	96,400	201,000	1,060,000	353	2,110	2,400,000
1957	502,000	392,000	294,000	4,500	141,000	248,000	1,280,000	323	1,880	2,380,000
1958	441,000	311,000	334,000	2,800	-37,800	324,000	975,000	267	1,510	2,350,000
1959	321,000	356,000	239,000	3,600	-40,800	270,000	937,000	269	1,500	2,320,000
1960	210,000	370,000	187,000	5,400		315,000	720,000	263	1,450	2,390,000
1961	430,000	354,000	233,000	11,000		328,000	1,000,000	240	1,310	2,390,000
1962	366,000	357,000	233,000	6,400		263,000	1,030,000	212	1,150	2,510,000
1963	366,000	424,000	206,000	3,600	4,000	218,000	1,040,000	246	1,310	2,560,000
1964	408,000	426,000	189,000	21,000	36,000	179,000	997,000	300	1,580	2,530,000
1965	385,000	450,000	202,000	11,000	49,000	176,000	1,000,000	353	1,830	2,700,000
1966	410,000	440,000	259,000	5,400	58,000	187,000	1,100,000	333	1,670	2,850,000
1967	386,000	433,000	330,000	5,900	25,000	196,000	1,130,000	309	1,510	2,870,000
1968	487,000		307,000	8,200	26,000	186,000	1,200,000	291	1,370	3,010,000
1969	594,000	,	253,000	6,400	20,000	,	1,320,000	329	1,460	3,240,000
1970	626,000	,	222,000	11,000	11,000	296,000	1,360,000	346	1,450	3,390,000
1971	604,000	,	177,000	21,000	9,000	_, .,	1,210,000	306	1,230	3,490,000
1972	617,000	· · · · · · · · · · · · · · · · · · ·	220,000	40,000	41,000	240,000	1,260,000	331	1,290	3,450,000
1973	624,000		170,000	110,000	191,000	194,000	1,420,000	359	1,320	3,490,000
1974	620,000	,	107,000	56,000	241,000	174,000	1,430,000	496	1,640	3,490,000
1975	579,000	,	90,000	19,000	6,000	189,000	1,040,000	474	1,810	3,440,000
1976	596,000	,	129,000	5,000	0,000	150,000	1,280,000	509	1,460	3,690,000
1977	552,000	,	230,000	9,000		127,000	1,180,000	677	1,820	3,410,000
1978	568,000	,	230,000	8,000		134,000	1,220,000	743	1,860	3,460,000
1979	578,000	,	190,000	11,000		191,000	1,130,000	1,160	2,600	3,510,000
1980	548,000		85,000	,		172,000	906,000	937	1,850	3,520,000
1981	498,000	578,000	100,000	23,300		195,000	977,000	805	1,440	3,350,000
1982	512,000		95,000	55,600		171,000	1,110,000	562	949	3,450,000
1983	515,000		180,000	24,400		159,000	1,140,000	478	782	3,350,000
1984	396,000		162,000	16,600		142,000	1,140,000	564	885	3,200,000
1985	487,000		/			178,000		421	638	/ /
1986	366,000					104,000	1,150,000	485	721	3,240,000
1987	374,000			,		110,000	1,200,000	791	1,140	3,430,000
1987	392,000		190,000	10,000		105,000	1,200,000	818	1,140	3,430,000
1989	392,000		120,000	34,000		98,000	1,230,000	869	1,130	3,420,000
1989	404,000		90,900	64,000		112,000	1,300,000	1,010	1,140	
1990	404,000 346,000	/	90,900	/		80,800	1,300,000	739	1,260	3,370,000
1991				70,000						
	305,000	,	191,000	/	10.000	103,000	1,270,000	774	899 789	3,200,000
1993	335,000		196,000	58,500	19,000	94,800	1,340,000	699 820	788	2,900,000
1994	351,000		231,000		67,100	76,700	1,490,000	820	902	2,800,000
1995	374,000		264,000		34,000	93,800	1,570,000	933	998	2,710,000
1996	326,000		268,000	61,000	39,000	79,900	1,630,000	1,080	1,120	2,920,000
1997	343,000		265,000	53,000	26,000	101,000	1,610,000	1,030	1,050	3,100,000
1998	337,000		310,000	40,000	50,000	89,000	1,690,000	999	999	3,060,000
1999	350,000		323,000		61,000	91,000	1,760,000	963	942	3,080,000
2000	341,000		365,000	48,600	32,000	125,000		961	910	3,200,000
2001	290,000		284,000	38,100		100,000	1,690,000	962	886	3,120,000
2002	262,000		218,000	43,400	6,000	111,000	1,530,000	961	871	2,850,000
2003	245,000	1,140,000	183,000	123,000	60,000	84,600	1,530,000	965	855	3,150,000

### LEAD STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY [All values are in metric tons lead (t) unless otherwise noted] Last modification: November 8, 2007

	Last mountcation. November 0, 2007										
	Primary	Secondary			Government		Apparent	Unit value	Unit value	World	
Year	production	production	Imports	Exports	shipments	Stocks	consumption	( <b>\$/t</b> )	( <b>98</b> \$/t)	production	
2004	148,000	1,130,000	208,000	82,600	52,600	59,000	1,480,000	1,220	1,050	3,150,000	
2005	143,000	1,150,000	310,000	64,600	29,000	47,000	1,580,000	1,350	1,130	3,440,000	
2006	153,000	1,160,000	343,000	68,500	24,000	54,000	1,600,000	1,710	1,380	3,470,000	

<sup>1</sup>Compiled by C.A. DiFrancesco (retired), G.R. Smith (retired), and P.N. Gabby.

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

# Lead Worksheet Notes

#### **Data Sources**

The sources of data for the lead 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 the Statistical Compendium (SC). 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**

Primary U.S. lead production data report the amount of refined lead. Data were from the MYB and MR for 1900–73 and the MCS for the years 1974–2006. Antimonial lead was included when available as well as desilverized lead and soft lead for the years 1900–05.

#### **Secondary Production**

U.S. secondary production was equated to old lead scrap (scrap including—but not limited to—metal articles that have been discarded after serving a useful purpose such as auto batteries.). New scrap statistics were not included because they are often included as part of primary smelter statistics. Undifferentiated scrap numbers were used from 1907–38. Data were from the MYB and MR for the years 1907–73 and the MYB for 1974–2006. Blank cells in the worksheet indicate that data were not available for the years 1900–06.

#### Imports

Import data report the amounts of refined lead imported into the United States in various shapes and forms. Import data exclude all manufactured lead products. Data were from the MYB and MR for the years 1900–73 and the MCS for the years 1974–2006.

#### **Exports**

Export data report the amounts of refined lead exported from the United States in various shapes and forms. Export data exclude all manufactured lead products. Data were from the MYB and MR for the years 1900–73 and the MYB for the years 1974–2006.

#### **Government Shipments**

Government shipment data were for shipments from the government stockpile. Negative numbers for government shipments indicate U.S. Government purchases for refined lead. Data for the years 1943–48, and 1956–59 were from the MYB and MR. Data for the years 1963–73 were from the SC. Data for the years 1974–75 and 1993–2006 were from the MCS. Blank cells in the worksheet indicate that data were not available for the years 1900–42, 1949–55, 1960–62, and 1976–92.

#### Stocks

Stocks for the years 1900–05 include ore and bullion. Stocks for 1956 and before usually include stocks in transit and in process. Beginning in 1956, consumer stocks of scrap were added to secondary smelter stock and scrap, and secondary smelter metal stocks were included with consumer metal stock. Primary lead stocks were withheld for the years 2000–06, but included in consumer and secondary smelter statistics. Data were from the MYB and MR for the years 1900–73 and the MCS for the years 1974–99, and the MYB for the years 2000–06. Blank cells in the worksheet indicate that data were not available for the years 1922, 1929, 1953, 1955, 1969, and 1971.

#### **Apparent Consumption**

Data for consumption for refined lead were taken from the MYB for the years 1974–2006. Apparent consumption data for the years 1900–73 was estimated using the formula:

# $\label{eq:apparent} \begin{aligned} \text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS} \pm \text{CHANGES IN STOCKS} \pm \text{GOVERNMENT} \\ \text{SHIPMENTS}. \end{aligned}$

#### Unit Value (\$/t)

Unit value is the value in dollars of 1 metric ton (t) of lead apparent consumption. Lead unit value (\$/t) was estimated in actual dollars from prices for domestic refined lead from the MYB and MR for the years 1900–73 and the MCS for the years 1974–2006.

#### 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 were for contained lead in world smelter production for the years 1900–54 and for world mine production for the years 1955–98. Data were from the MYB and MR for the years 1900–73 and the MCS for the years 1974–2006. World production data were for contained lead in world smelter production originating from ores and may include secondary lead when inseparable. Blank cells in the worksheet indicate that data were not available for the years 1901–05, 1914–18, 1926, 1937, and 1940–44.

#### References

- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933–78, Minerals Yearbook, 1932–73.
- U.S. Bureau of Mines, 1978–95, Mineral Commodity Summaries, 1978–95.
- U.S. Bureau of Mines, 1993, Statistical Compendium.
- U.S. Geological Survey, 1901–27, Mineral Resources of the United States, 1900–23.
- U.S. Geological Survey, 1997–2007, Mineral Commodity Summaries, 1997–2007.
- U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

## **Recommended Citation Format:**

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, available online at http://pubs.usgs.gov/ds/2005/140/. (Accessed [date].)

#### For more information, please contact:

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