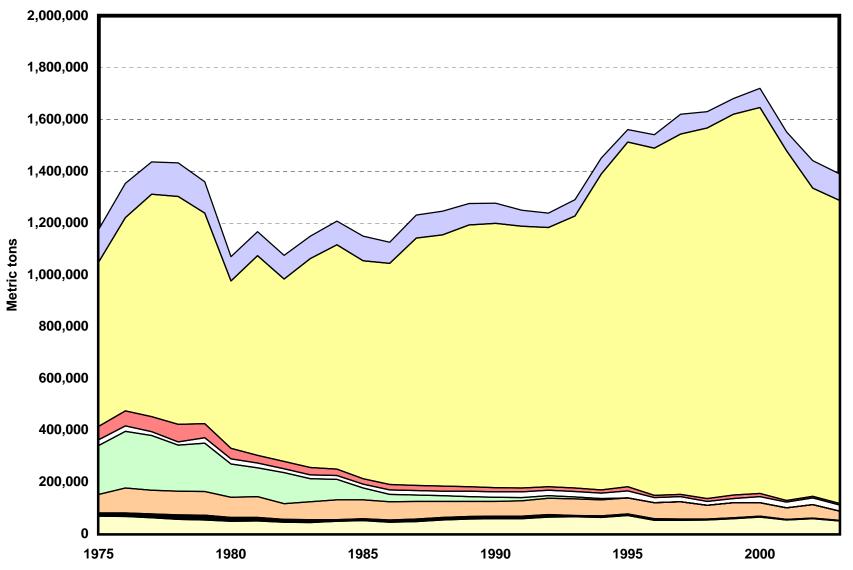
#### LEAD END-USE STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY [Metric tons] Last modification: September 1, 2005

		Brass and	Paint and glass	Gasoline						Apparent
Year	Ammunition	bronze	pigments	additives	Sheet lead	Solder	Storage batteries	Other	Undistributed	consumption
1975	68,100	12,200	71,700	189,000	22,600	52,000	635,000	126,000	-140,000	1,040,000
1976	66,700	14,200	95,800	218,000	22,200	57,400	746,000	132,000	-70,000	1,280,000
1977	62,000	15,100	90,700	211,000	15,200	58,300	858,000	125,000	-260,000	1,180,000
1978	55,800	16,500	91,600	178,000	12,600	68,400	879,000	130,000	-210,000	1,220,000
1979	53,200	18,700	90,800	187,000	20,400	54,300	814,000	120,000	-230,000	1,130,000
1980	48,700	14,000	78,400	128,000	19,800	41,400	645,000	94,800	-164,000	906,000
1981	49,500	13,300	80,200	111,000	19,400	29,700	770,000	93,500	-193,000	977,000
1982	44,200	11,400	60,900	119,000	15,200	28,500	704,000	91,700	30,000	1,110,000
1983	43,700	11,000	68,700	89,100	14,200	28,500	807,000	86,400	-10,000	1,140,000
1984	47,800	6,950	76,800	78,900	14,700	24,400	866,000	91,900	-70,000	1,140,000
1985	50,200	7,820	72,800	45,700	14,800	21,400	841,000	94,600	-20,000	1,130,000
1986	44,400	9,060	69,500	28,500	17,300	21,300	854,000	81,600	20,000	1,150,000
1987	46,800	9,870	68,100	25,000	17,400	19,800	954,000	89,800	-30,000	1,200,000
1988	52,700	9,990	62,500	22,000	17,500	19,100	970,000	91,800	-20,000	1,230,000
1989	57,300	9,610	58,000	19,000	21,000	17,000	1,010,000	83,500	50,000	1,330,000
1990	58,200	9,940	56,500	16,000	21,000	16,500	1,020,000	77,400	20,000	1,300,000
1991	58,500	8,990	59,600	13,000	22,300	14,800	1,010,000	62,100	-20,000	1,230,000
1992	64,800	9,180	63,200	10,000	21,000	13,500	1,000,000	56,600	30,000	1,270,000
1993	65,100	5,750	63,600	7,000	21,200	14,400	1,050,000	63,000	50,000	1,340,000
1994	62,400	6,320	62,700	4,000	21,500	12,200	1,220,000	60,900	40,000	1,490,000
1995	70,900	5,260	61,700		27,900	16,200	1,330,000	48,000	10,000	1,570,000
1996	52,100	5,460	62,100		19,400	9,020	1,340,000	51,900	90,000	1,630,000
1997	52,400	4,410	67,000		19,100	9,580	1,390,000	77,500	-10,000	1,610,000
1998	52,800	3,460	53,400		15,500	10,900	1,430,000	63,900	60,000	1,690,000
1999	58,300	3,940	58,200		15,400	13,100	1,470,000	61,100	80,000	1,760,000
2000	63,700	3,670	52,400		23,800	11,500	1,490,000	74,900	60,000	1,780,000
2001	53,600	2,590	43,900		22,400	6,120	1,350,000	72,400	90,000	1,640,000
2002	57,600	2,730	51,900		25,600	6,450	1,190,000	106,000	10,000	1,450,000
2003	48,800	2,810	35,700		24,200	6,310	1,170,000	102,000	50,000	1,440,000

<sup>1</sup>Compiled by G.R. Matos, G.R. Smith, and P.N. Gabby.

# **End Uses of Lead**



□ Ammunition ■ Brass and bronze □ Paint and glass pigments □ Gasoline additives □ Sheet lead □ Solder □ Storage batteries □ Other

## Lead End-Use Worksheet Notes

#### **Data Source**

The source of data for the lead end-use worksheet is the Minerals Yearbook, an annual collection, compilation, and analysis of mineral industry data, published by the U.S. Bureau of Mines and the U.S. Geological Survey.

#### End Use

End use is defined as the use of the mineral commodity in a particular industrial sector or product. For lead, end-use categories are ammunition, brass and bronze, paint and glass pigments, gasoline additives, sheet lead, solder, storage batteries, and other industrial uses. The undistributed category, the difference between apparent consumption and reported end uses, accounts for stocks not reported by end use.

From 1987 to 1995, data reported on gasoline additives depicts a progressive phaseout. The U.S. Environmental Protection Agency issued a direct final rule that prohibits the use of chemical additives in gasoline for highway vehicles, effective January 1, 1996.

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

#### References

U.S. Bureau of Mines, 1977–96, Minerals Yearbook, v. I, 1975–94.

U.S. Geological Survey, 1997–2005, Minerals Yearbook, v. I, 1995–2003.

### **Recommended Citation Format:**

(1) If taken from CD version:

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, one CD-ROM. (Also available online at http://pubs.usgs.gov/ds/2005/140/.)

(2) If taken from online version:

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].)

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