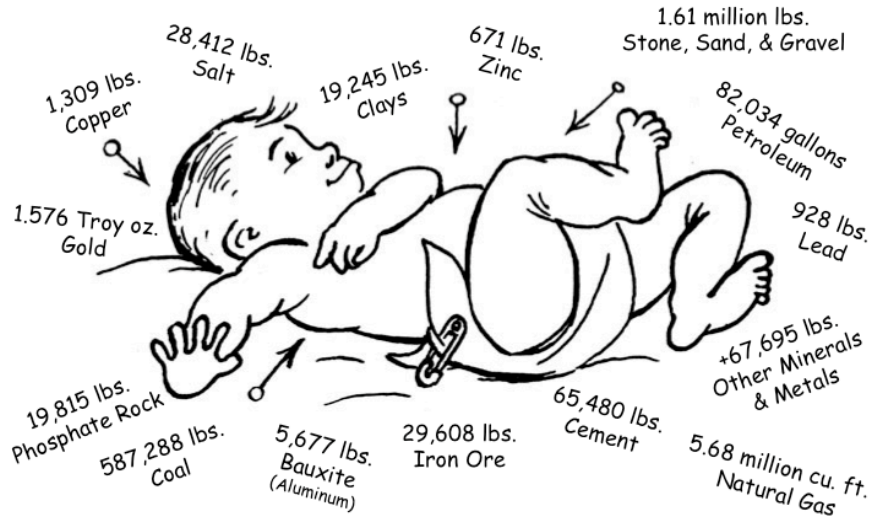


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Every American Born Will Need . . .



3.6 million pounds of minerals, metals, and fuels in their lifetime

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46,279 Pounds of Minerals for Every American Last Year

Last year, every person in the United States needed more than 23 tons of minerals and energy fuels to maintain their standard of living, according to the Mineral Information Institute, a Denver-based nonprofit educational group.

“With the life expectancy in the U.S. now averaging 77.9 years, this means that the average American will need to have 3.6 million pounds of resources to be mined to provide the products and materials they will depend upon in their lifetime,” says Institute President Nelson Fugate. “The population of the U.S. is 302 million people, so this means that last year, nearly 7 billions tons of different rocks and minerals had to be mined somewhere, to make the things we use in everyday living.”

Decreases in construction projects in 2007 caused a reduction of nearly 1,500 pounds per person in the consumption of mineral and energy resources, the majority of it in the aggregates and cement used to build houses and maintain nearly four million miles of roads. In 2006, more than 47,769 pounds of mined materials were needed to maintain the American lifestyle.

Nearly half (22,600 pounds) of the country’s mineral needs are for the energy fuels needed for transportation and to heat, cool and light our homes and businesses. Energy fuels include coal, petroleum, natural gas, and uranium.

During the last 15 years, the per person consumption of minerals has fluctuated from 45,500 lbs./person/yr. (2003) to 48,427 lbs./person/yr. (1999), but there are 32 million more people in the country and their life expectancy has increase from 76.7 years to 77.9 years. This required the mining of 400 million more tons of resources than the estimated 6.6 billion tons provided in 1999 and nearly three times the amount of mineral and energy resources required to maintain the U.S. standard of living in 1950.

Each year the Institute uses information provided by the U.S. Geological Survey and the National Mining Association to calculate the tons of different rocks and minerals mined to make the things we all use.

Process for Calculating the *mii Minerals Baby*

Per Capita Annual Consumption

To annually update the *mii Minerals Baby*, statistics from the U.S. Geological Survey Mineral Commodity Summaries (annual reports available on-line at minerals.usgs.gov/minerals/pubs/commodity/) and the Energy Information Administration (<http://www.eia.doe.gov/>) provide the amounts of various minerals and energy fuels that are consumed in the United States. Both sources provide annual “apparent consumption” data that is used, rather than production statistics.

Leslie Coleman with the Statistic Services group of the National Mining Association provides the analysis to generate the per capita mineral usage, by converting these statistics from (in most cases) metric tonnes to pounds and dividing by the most current U.S. population estimate (which increases a little more than 1% each year). This provides the U.S. Annual Mineral Use Per Person statistic. To provide a weight statistic, the petroleum and natural gas numbers are converted from volume to weight measurements.

To create the lifetime statistic—

This annual per capita consumption (which varies between 46,000 lbs. and 48,000 lbs.) is multiplied by the average life expectancy for newborns in the U.S., provided by the Center for Disease Control. This estimate is usually two to three years out of date. The life expectancy statistic between men and women is averaged. 77.9 years (from the United Nations) were used in calculating this year’s *mii Baby*.

The most current *mii Baby* can be downloaded from www.mii.org

Historical Calculations

Year	Annual Lbs Per Capita	Lifetime Lbs Per Capita	Life Expectancy Rate Used	Annual Tons Consumed	USA Population
1995	47,769	3,620,898	75.5	6,276,023,781	262,765,000
1996	45,931	3,495,368	75.7	6,092,389,897	265,283,000
1997	46,216	3,535,524	75.8	6,190,656,308	267,901,000
1998	47,338	3,630,825	76.1	6,390,630,000	270,000,000
1999	48,427	3,714,351	76.5	6,605,927,070	272,820,000
2000	48,148	3,707,396	76.7	6,774,423,600	281,400,000
2001	47,122	3,637,818	76.7	6,710,102,117	284,797,000
2002	46,010	3,551,972	77	6,625,440,000	288,000,000
2003	45,524	3,519,005	77.2	6,623,742,000	291,000,000
2004	46,414	3,587,802	77.3	6,815,895,900	293,700,000
2005	47,502	3,686,155	77.5	7,010,345,160	295,160,000
2006	47,769	3,716,428	77.8	7,150,971,531	299,398,000
2007	46,279	3,605,134	77.9	6,979,057,509	301,621,000

A few examples of how those minerals and metals are used.

- The average American house contains slightly more than a quarter of a million pounds of minerals and metals, and there were 126 million housing units in the country. Each of them requires heating, cooling, and lighting.
- There were an estimated 247,421,120 registered passenger vehicles in the United States, weighing an average of nearly 3,000 pounds each. They are driven nearly 12,000 miles a year and consume an average of 550 gallons of gasoline, each.
- There are 3.9 million miles of roads and bridges in the country that require maintenance and repair. 85,000 tons of aggregates are required for each mile of Interstate highway.
- More than 100 billion aluminum beverage cans are shipped each year; about 60% are recycled. Coca Cola proudly claims to providing more than 1.5 billion beverage servings every day.
- More than 1.7 billion cinema tickets are sold each year, requiring energy fuels to heat and cool the audience and operate the projector at the 38,000 theater screens in the U.S., and to provide the snacks.
- 285 million new computers are expected to be built and shipped by Dell and HP in 2008.
- The average American uses about 120 pounds of newsprint each year -- the equivalent of one tree -- and more than 500 pounds per year of other types of paper.
- Each day in the U.S. more than 60 million plastic water bottles are thrown away.

- Ninety percent of the electricity used in the U.S. is generated by fuels obtained by mining: 49% from coal; 20% from natural gas; 19% from nuclear power; and 2% from petroleum. Only 10% of our electricity is generated by hydro and renewable sources.
- 51% of the televisions purchased in the U.S. in 2006 were HDTVs, and fifteen percent of those HDTV purchases were the second HDTV in a home. It is estimated that 30 million televisions (of all types) were purchased in 2006.
- There were 1.1 billion cell phones sold worldwide in 2007, each containing about \$1 worth of gold plus 42 other minerals and metals.

Every year — 46,279 pounds of new minerals must be provided for every person in the United States to make the things we use, every day



11,779 lbs. **Stone** used to make roads; buildings; bridges; landscaping; numerous chemical and construction uses



8,857 lbs. **Sand & Gravel** used to make concrete; asphalt; roads; blocks & bricks



841 lbs. **Cement** used to make roads; sidewalks; bridges; buildings; schools; houses



380 lbs. **Iron Ore** used to make steel— buildings; cars, trucks, planes, & trains; other construction; containers



365 lbs. **Salt** used in various chemicals; highway deicing; food & agriculture



254 lbs. **Phosphate Rock** used to make fertilizers to grow food; animal feed supplements



247 lbs. **Clays** used to make floor & wall tile; dinnerware; kitty litter; bricks & cement; paper



73 lbs. **Aluminum (Bauxite)** used to make buildings; beverage containers; autos; airplanes



17 lbs. **Copper** used in buildings; electrical & electronic parts; plumbing; transportation



12 lbs. **Lead** 75% used for transportation— batteries; electrical; communications; TV screens



9 lbs. **Zinc** used to make metals rust resistant; various metals & alloys; paint; rubber; skin creams; health care; and nutrition



45 lbs. **Soda Ash** used to make all kinds of glass, in powdered detergents, medicines, as a food additive, photography, water treatment.



7 lbs. **Manganese** used to make almost all steels for: construction; machinery; transportation



704 lbs. **Other Nonmetals** numerous uses glass; chemicals; soaps; paper; computers; cell phones; etc.



28 lbs. **Other Metals** numerous uses same as nonmetals, but also electronics; TV & video equipment; recreation equipment; etc.

Plus These Energy Fuels

• 1,055 gallons of **Petroleum** • 7,539 lbs. of **Coal** • 72,979 cu. ft. of **Natural Gas** • 1/3 lb. of **Uranium**

To generate the energy each person uses in one year — equivalent to 300 people working around the clock for each of us.

