

The Changes in American Lifestyle

1776 vs. 2005

The Minerals We Use In Our Everyday Lives

From the Mineral Information Institute

An Affiliate of the Society for Mining, Metallurgy and Exploration Foundation

Sources: U.S. Bureau of Mines, U.S. Geological Survey, Statistical Abstracts of the USA

In 1776

Average Life span was about 33 years
Population was 2.8 million



At the time of the Revolutionary War, about 1,200 pounds of minerals were needed each year, for every person in the United States.

— 1975, U.S. Bureau of Mines

Cement (lime)	12	Sand, gravel & stone	1,000
Clay	100	Lead	2
Coal	40	Potash	1
Copper	1	Sulfur	1
Pig Iron	20	Zinc	0.5
Salt	4		

43,200 lbs. in a Lifetime

By 1850, life had improved (a little)

	<u>1776</u>	<u>1850</u>
Population (millions):	2.8	23
Lifespan (years):	33	43
Annual consumption mined material (lbs.):	1,200 (est.)	unknown
Houses (millions):	unknown	3.4



Lifestyle in 1850:

In Charleston, 62% died by the age of 40 — 25% by the age of 5

Boston averaged 8.6 people per house

Energy consumption was 10 times that of 1776— 90% from wood, 10% from coal

In 1800: Boston to New York took 3 days by stage coach

At the turn of the century, we were an emerging world power

	<u>1776</u>	<u>1850</u>	<u>1900</u>
Population (millions):	2.8	23	76
Lifespan (years):	33	43	47.3
Annual consumption mined material (lbs.):	1,200 (est.)	unknown	7,714
Houses (millions):	unknown	3.4	16
Motor Vehicles	--	--	8,000

Lifestyle in 1900:

1.5 million telephone instruments

Avg. per capita consumption of liquors
was 17.68 gallons

Dozen eggs cost 14¢



2.8 million miles of Public Road (1923)

The Glorious 50s

	1776	1850	1900	1950
Population (millions):	2.8	23	76	152
Lifespan (years):	33	43	47.3	68.2
Annual consumption mined material (lbs.):	1,200 (est.)	unknown	7,714	25,938
Houses (millions):	unknown	3.4	16	42.5
Motor Vehicles	--	--	8,000	149 million



Lifestyle in 1950:

Houses: 983 sq. ft., averaged 4.6 rooms 5% had no electricity
 71% had inside toilet — 15% had no kitchen sink
 96% had a radio — 12% had a TV
 50% had central heating — 1/2 with coal, 1/4 each fuel oil or gas
 53% no garage/carport
 Average Value= \$10,800 Avg. Monthly Rent= \$46
 Average Income was \$2,992 Bread cost 14¢ a loaf

1776 vs. 2005

	<u>1776</u>	<u>1850</u>	<u>1900</u>	<u>1950</u>	<u>2005</u>
Population (millions):	2.8	23	76	152	295
Lifespan (years):	33	43	47.3	68.2	77.8
Annual consumption mined material (lbs.):	1,200 (est.)	unknown	7,714	25,938	47,502
Houses (millions):		3.4	16	42.5	112
Motor Vehicles	--	--	8,000	149 million	237 million

Lifestyle in 2005:

New Houses averaged: 2,400 sq. ft., 88% with 3 or more bedrooms

95% with more than 2 bathrooms

76% had central air conditioning

Average Value= \$258,000

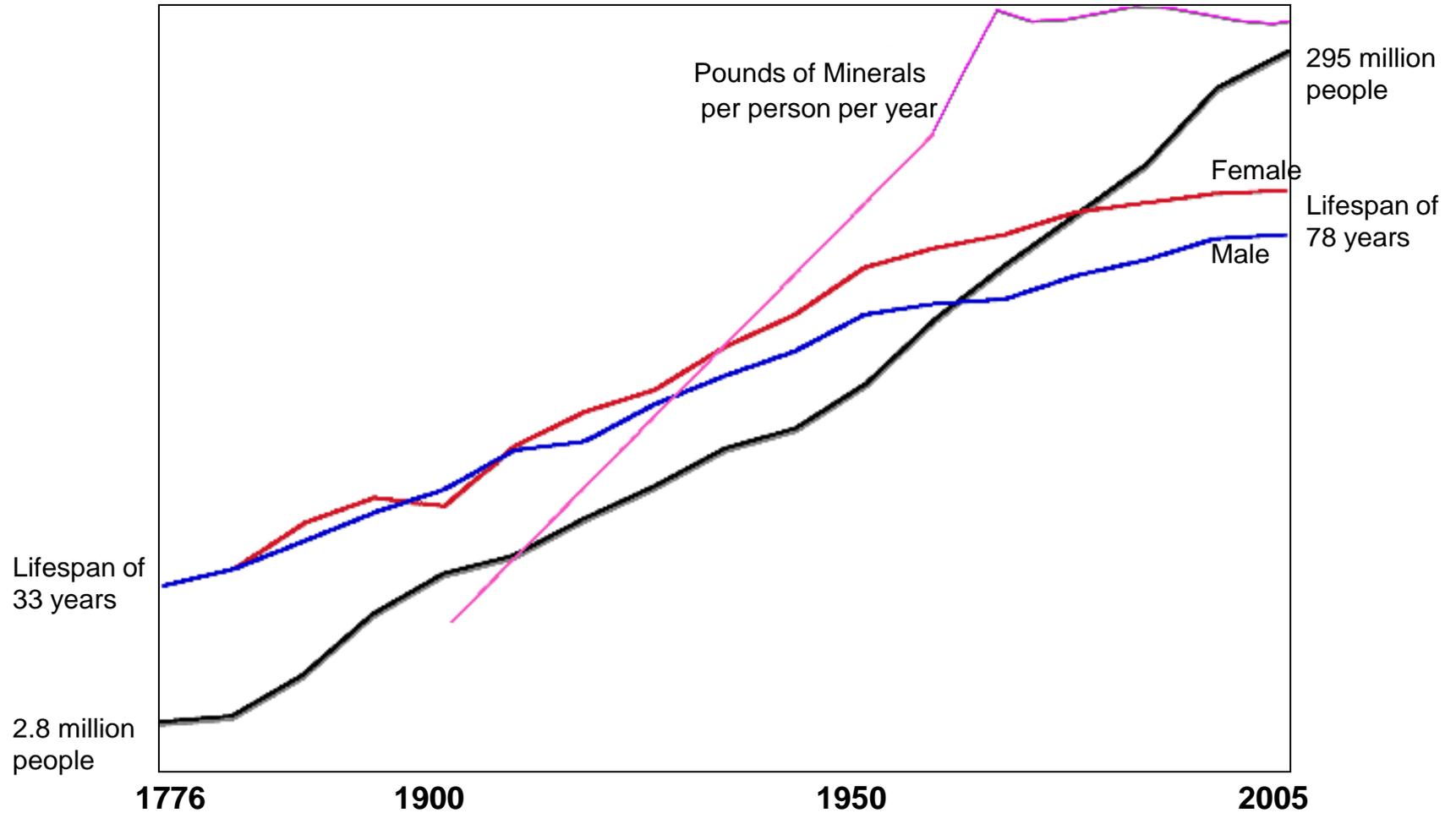
2 million new units were built

Nearly 240 million motor vehicles and 4 million miles of roads (2.6 million hard-surfaced).

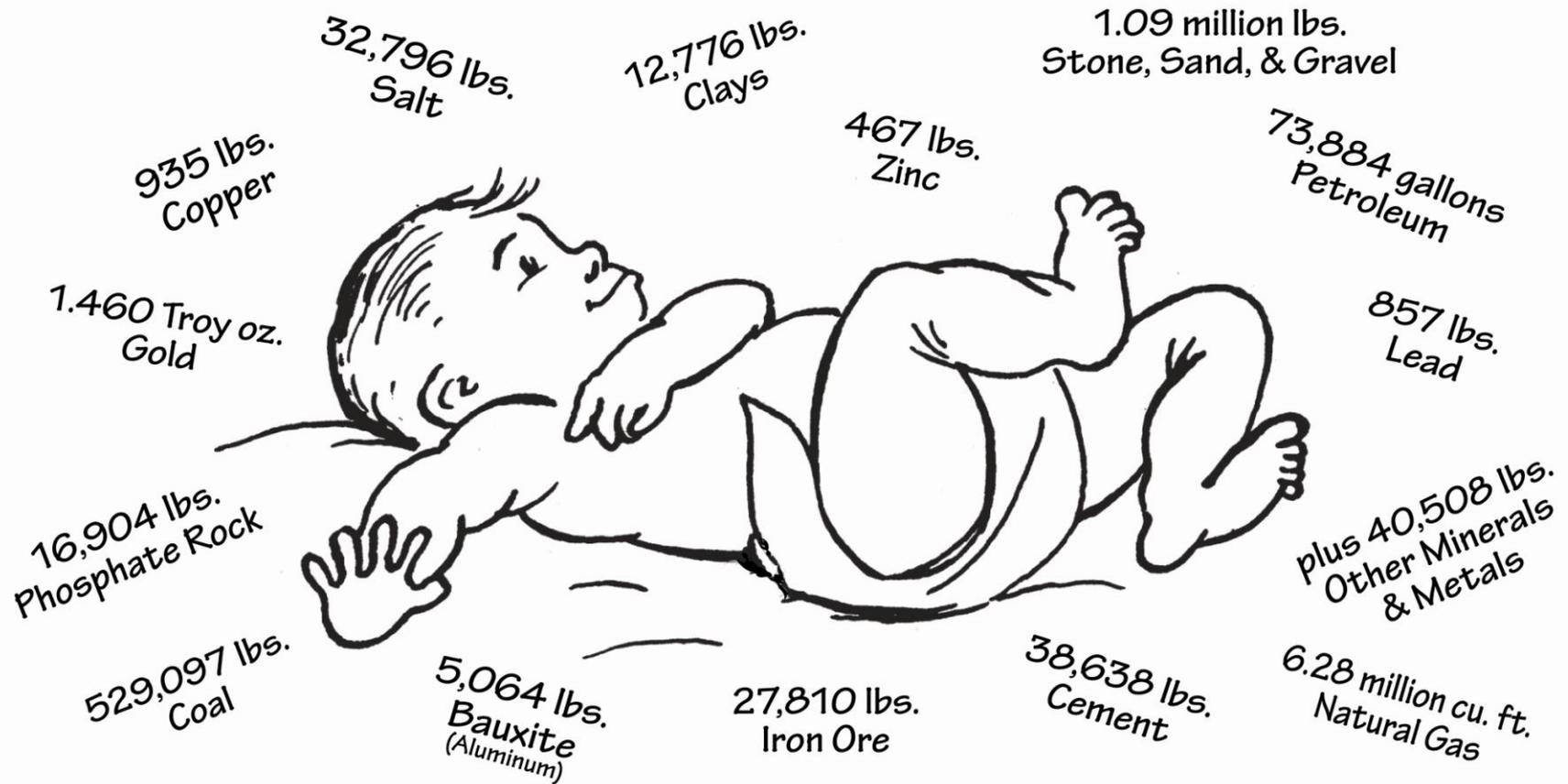
18,500 airports, serving 281,000 non-military airplanes, flying 5.5 billion miles in 8 million trips for 550 million passengers.

62% of homes owned a computer — the Internet and computers used up to 2 percent of total U.S. electricity consumption. Ordering a book on-line burned an ounce of coal.

The American Lifestyle Depends on Minerals



Every American Born Will Need...



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

©2011 Mineral Information Institute, SME Foundation

Learn more at www.mii.org

Every Year— 38,052 pounds of new minerals must be provided for every person in the United States to make the things we use every day



8,509 lbs. **Stone** used to make roads, buildings, bridges, landscaping, and for numerous chemical and construction uses



5,599 lbs. **Sand & Gravel** used to make concrete, asphalt, roads, blocks and bricks



496 lbs. **Cement** used to make roads, sidewalks, bridges, buildings, schools and houses



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



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



217 lbs. **Phosphate Rock** used to make fertilizers to grow food; and as animal feed supplements



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



65 lbs. **Aluminum (Bauxite)** used to make buildings, beverage containers, autos, and airplanes



12 lbs. **Copper** used in buildings; electrical and electronic parts; plumbing; transportation



11 lbs. **Lead** 87% used for batteries for transportation; also used in electrical, communications and TV screens



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



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



5 lbs. **Manganese** used to make almost all steels for construction, machinery and transportation



332 lbs. **Other Nonmetals** have numerous uses: glass, chemicals, soaps, paper, computers, cell phones



24 lbs. **Other Metals** have the same uses as nonmetals but also electronics, TV and video equipment, recreation equipment, and more

Including These Energy Fuels

• 951 gallons of **Petroleum** • 6,792 lbs. of **Coal** • 80,905 cu. ft. of **Natural Gas** • 1/4 lb. of **Uranium**

To generate the energy each person uses in one year—

© 2011, Mineral Information Institute, SME Foundation