



**In 1900, a newborn joined a community of 1.7 billion.**  
The Earth provided from her low-hanging fruit.

**In 2000, a newborn joined a community of 6 billion.**  
The Earth struggles to provide from her farthest branches.

**In 2050, a newborn will join a community of 9 billion.**

Imagine a hospital staging area in which society pre-delivered to each newborn, all these lifetime energy resources shown below. Is it rational to believe that each one of us has our names on all these trucks?

5th grade math skills are required for the calculations shown below.



**Average Miles Driven per Year: 15,000 miles**  
**Typical Sedan Combined MPG: 25 mpg**  
**Fuel Burnt per Year:  $15,000 / 25 \text{ mpg} = 600 \text{ gal/yr}$**   
**Fuel Burnt per Lifetime of Driving (60 yrs) = 36,000 gal**

**Number of Tankers per Lifetime: 4**



**Average Miles Driven per Year: 15,000 miles**  
**Typical Pickup Combined MPG: 15 mpg**  
**Fuel Burnt per Year:  $15,000 / 15 \text{ mpg} = 1000 \text{ gal/yr}$**   
**Fuel Burnt per Lifetime of Driving (60 yrs) = 60,000 gal**

**Number of Tankers per Lifetime: 6.7**

**Tankers per 2 car Household - Lifetime: 10.7**



**Typical Electric Use: 10,950 kWh/yr**  
**Coal burnt per kWh: .94 lbs**  
**Coal burnt per year:  $10,950 \times .94 = 5.15 \text{ Tons}$**   
**Coal Burnt per Adult Lifetime (60 yrs): 309 Tons**

**Quad Axle Dump Truck Loads: 12 +**

Home heating is typically Natural Gas. Because gas is piped and thus, cannot be visualized, it's energy equivalent in coal is being used for this exercise.



**Typical Natural Gas Use: 100 Mcf/yr**  
**Conversion: 1Mcf gas = 83.33 lbs of Coal**  
**Coal Equivalent Burnt/yr:  $83.33 \times 100 = 4.17 \text{ Tons}$**   
**Burnt per Adult Lifetime (60 yrs): 250 Tons**

**Quad Axle Dump Truck Loads: 10**



**Commercial Flights - United States : 28,000/Day 10 Million/Yr**  
**Commercial Flights - Worldwide: 93,000/Day 34 Million/Yr**

**Average miles flown per flight assumed at: 1000 miles**  
**Boeing 757 miles per gallon: 0.33 mpg**  
**Fuel consumed per typical 1000 mile flight:  $1000 \text{ miles} \times .33 \text{ mpg} = 330 \text{ gallons}$**

**United States Jet Fuel Burnt per Day:  $28,000 \text{ flights} \times 330 \text{ gal} = 9.2 \text{ million gal.}$**   
**United States Jet Fuel Burnt per Year:  $10 \text{ million flights} \times 330 \text{ gal} = 3.3 \text{ billion gal.}$**   
**Worldwide Jet Fuel Burnt per Day:  $93,000 \text{ flights} \times 330 \text{ gal} = 30.7 \text{ million gallons}$**   
**Worldwide Jet Fuel Burnt per Year:  $34 \text{ million flights} \times 330 \text{ gal} = 11.2 \text{ billion gal.}$**   
**CO2 created by injecting 11.2 billion gal/yr into atmosphere: 224 billion lbs.**

**Worldwide Jet Fuel Burnt per Adult Lifetimes (60 yrs): 672 Billion Gallons**

These figures are just for commercial flights transporting people. In addition, every day in the U.S. there are 27,000 general aviation, 25,000 air taxi, 5,300 military and 2,100 cargo. On any given day, 87,000 flights are in U.S. skies, with 5000 flights in the air at any given moment.