

1.5 Hour PowerPoint Presentation

# Civilization vs. the Oil Age

A MOST CRITICAL SUBJECT

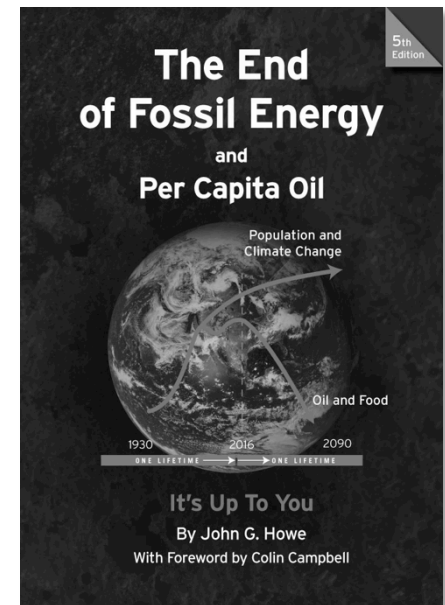
1

Excerpts from the new book

*The End of Fossil Energy and Per Capita Oil*  
(FIFTH EDITION)

Available at  
**amazon**

This book is available directly from the author:  
John Howe by email at: [howe@megalink.net](mailto:howe@megalink.net).  
And at our website [www.solarcarandtractor.com](http://www.solarcarandtractor.com)



# Oil is a Most Important Natural Resource and Absolutely Fundamental to Industrialized Civilization

2

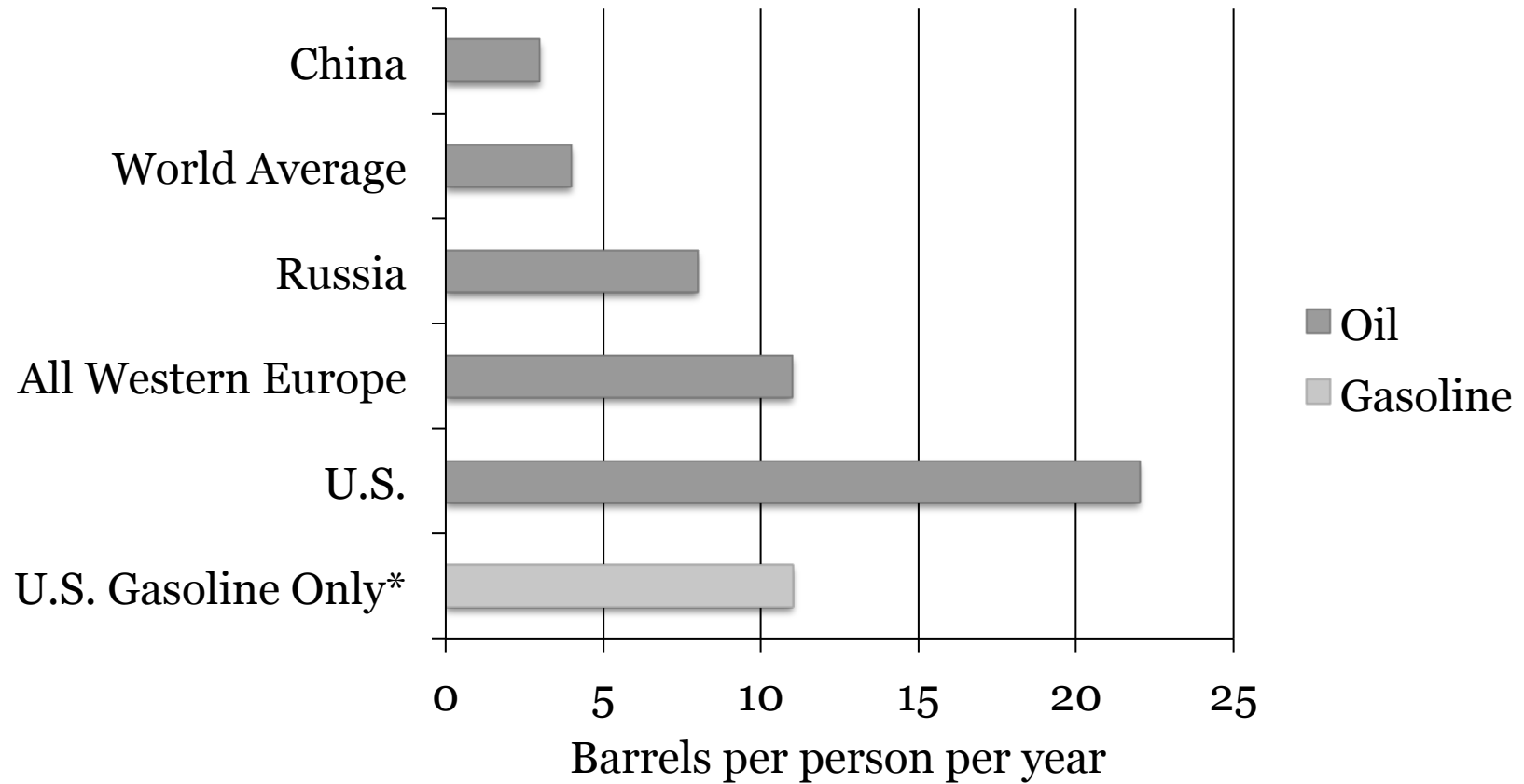
Oil is finite and non-renewable.

Oil provides the basic energy source for:

- food for seven billion people.
- most of the energy for modern transportation.
- support of other energy sources.
- raw materials for plastics and lubricants.

# World Per Capita Oil Use

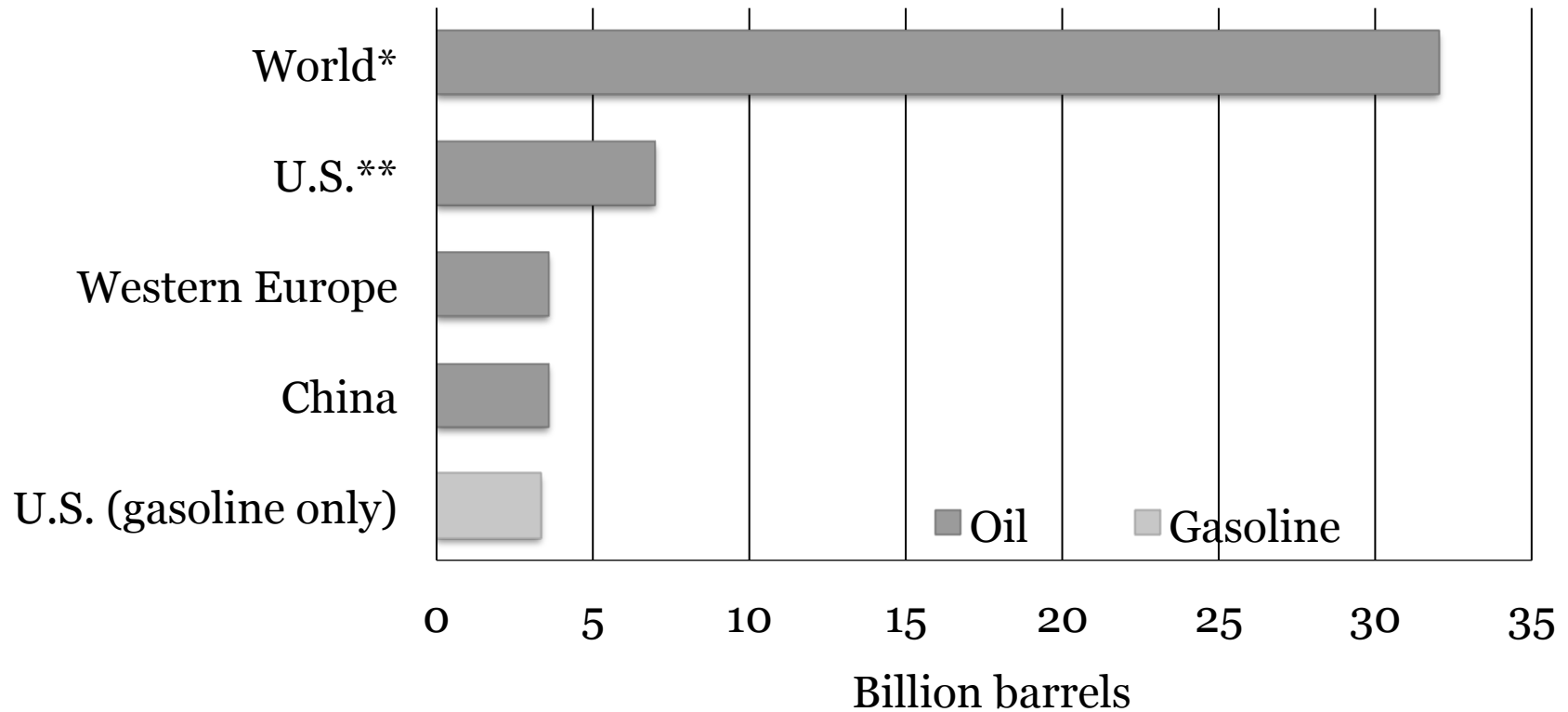
3



*\* In the U.S. we consume more gasoline (mostly for transportation) than other countries consume in total combined oil.*

# World Annual Oil Use

4

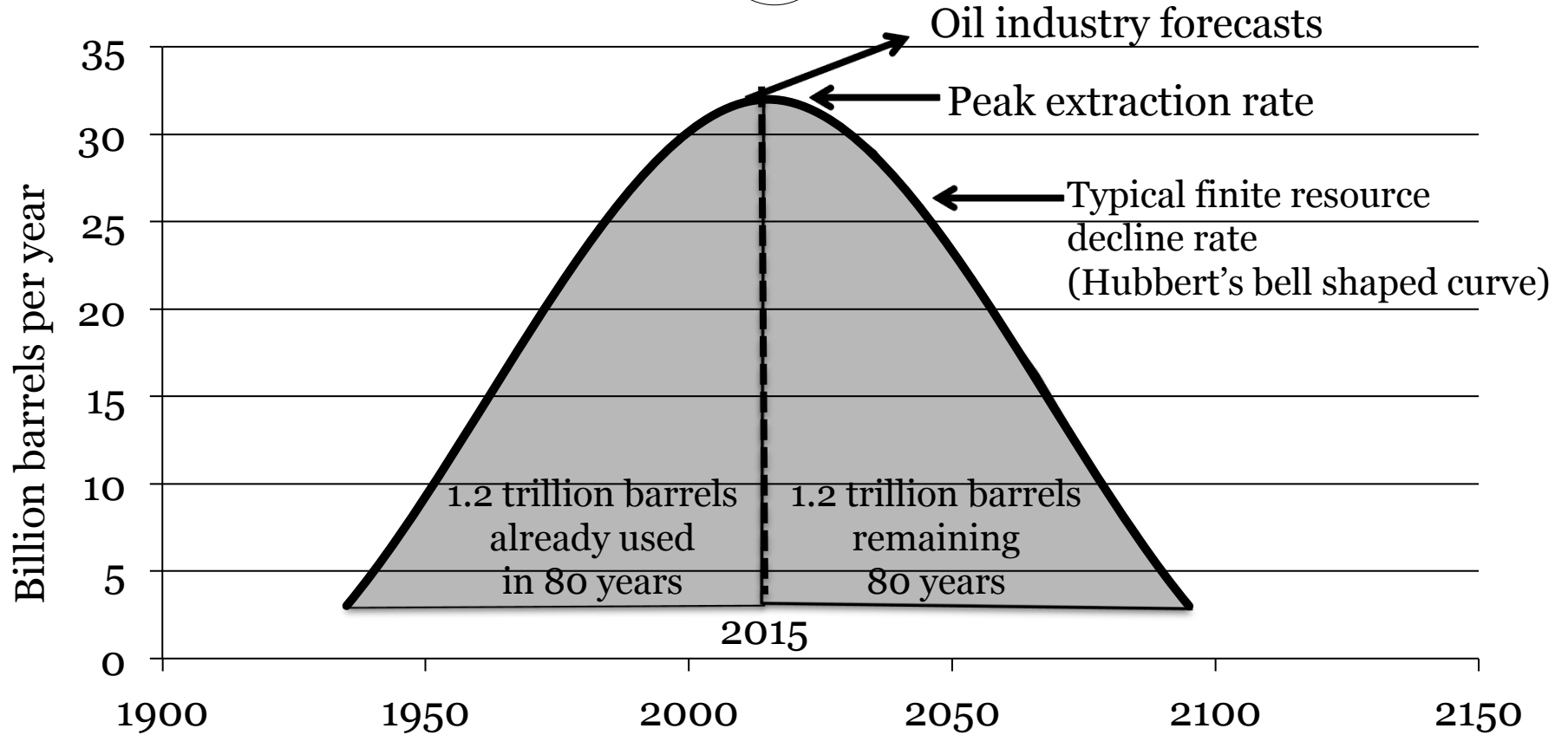


\* *The world uses one billion barrels of oil every 11 days.*

\*\* *In the U.S. we use approximately 1/4 of the world total oil consumption.*

# The World Oil Age

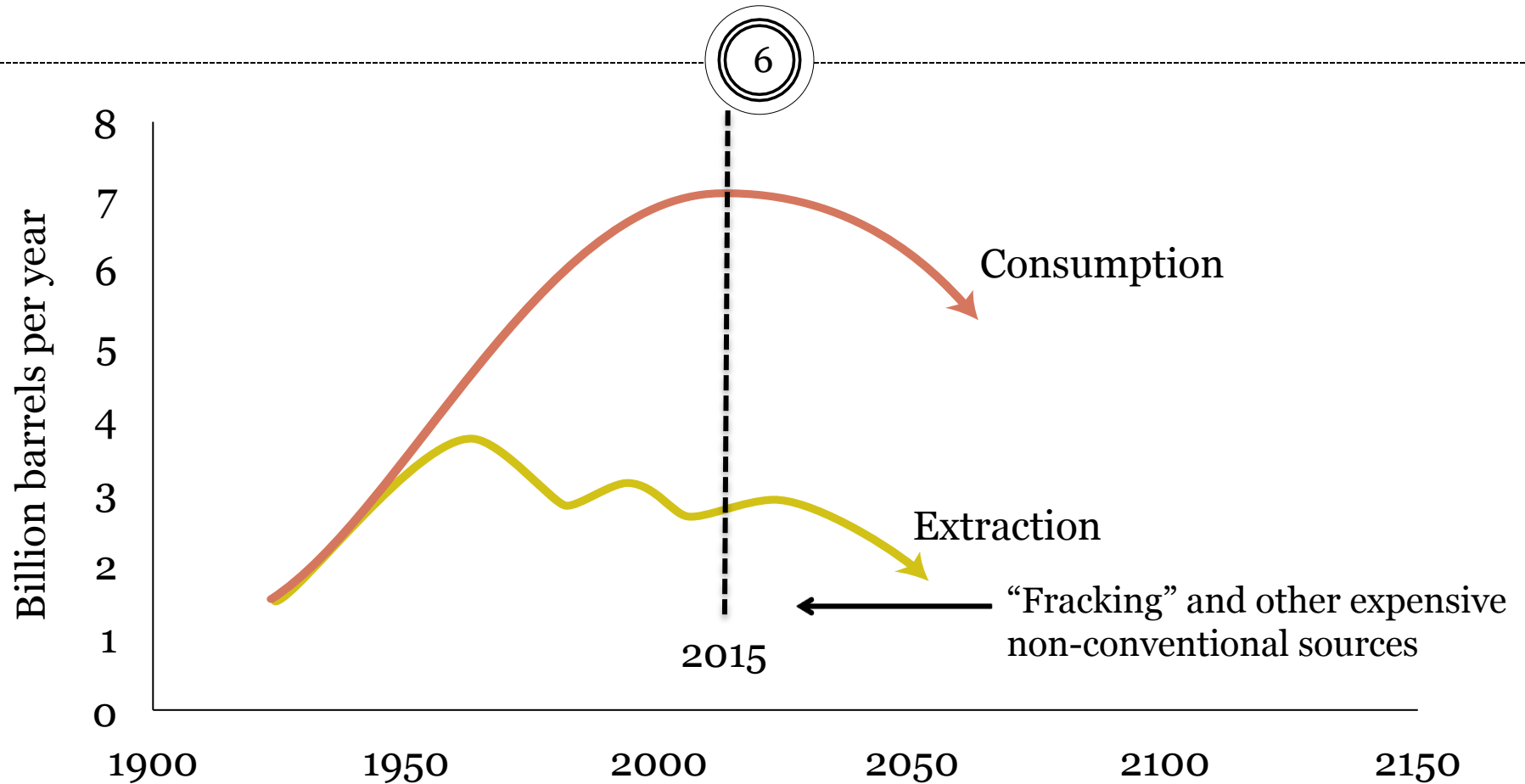
IN TWO 80 YEAR LIFETIMES



*In the span of two lifetimes we will have consumed almost all of the oil reserves in the world.*

# The U.S. Oil Age

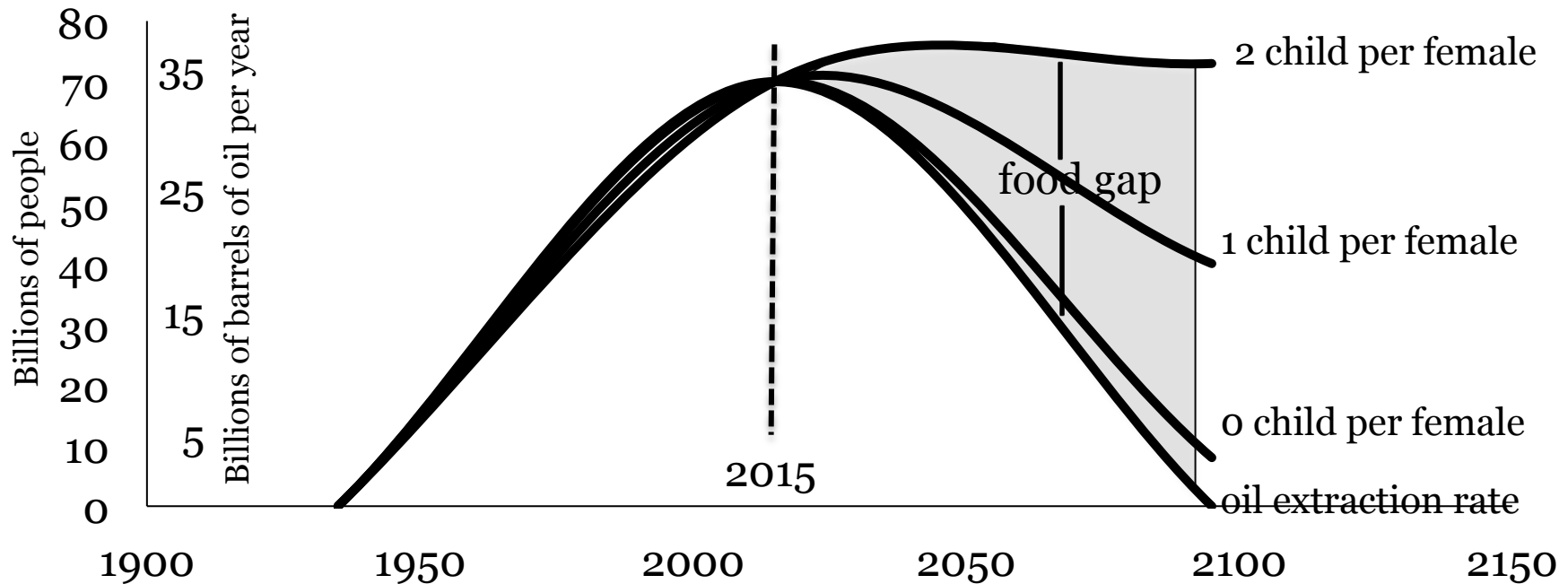
IN TWO 80 YEAR LIFETIMES



*U.S. consumption rate grew while our extraction rates (including fracking and nonconventional) remained relatively the same.*

# World Population Growth

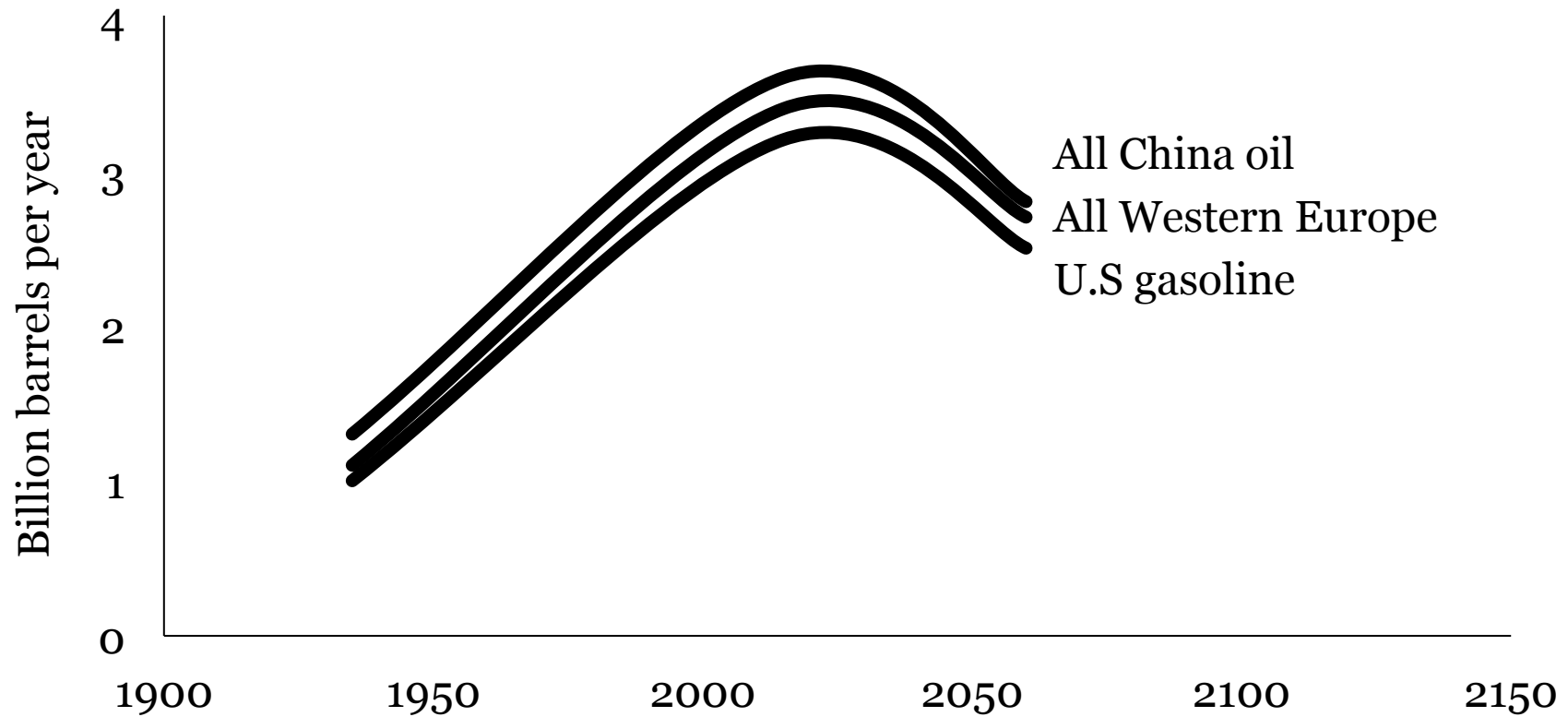
IN TWO 80 YEAR LIFETIMES



*The present world population growth rate is 1.8 children per female. Even if we reduce the growth rate to 1 child per female we still have a food gap between the global availability of oil and the number of people who need it to survive.*

# Focus on U.S. Gasoline Consumption

8

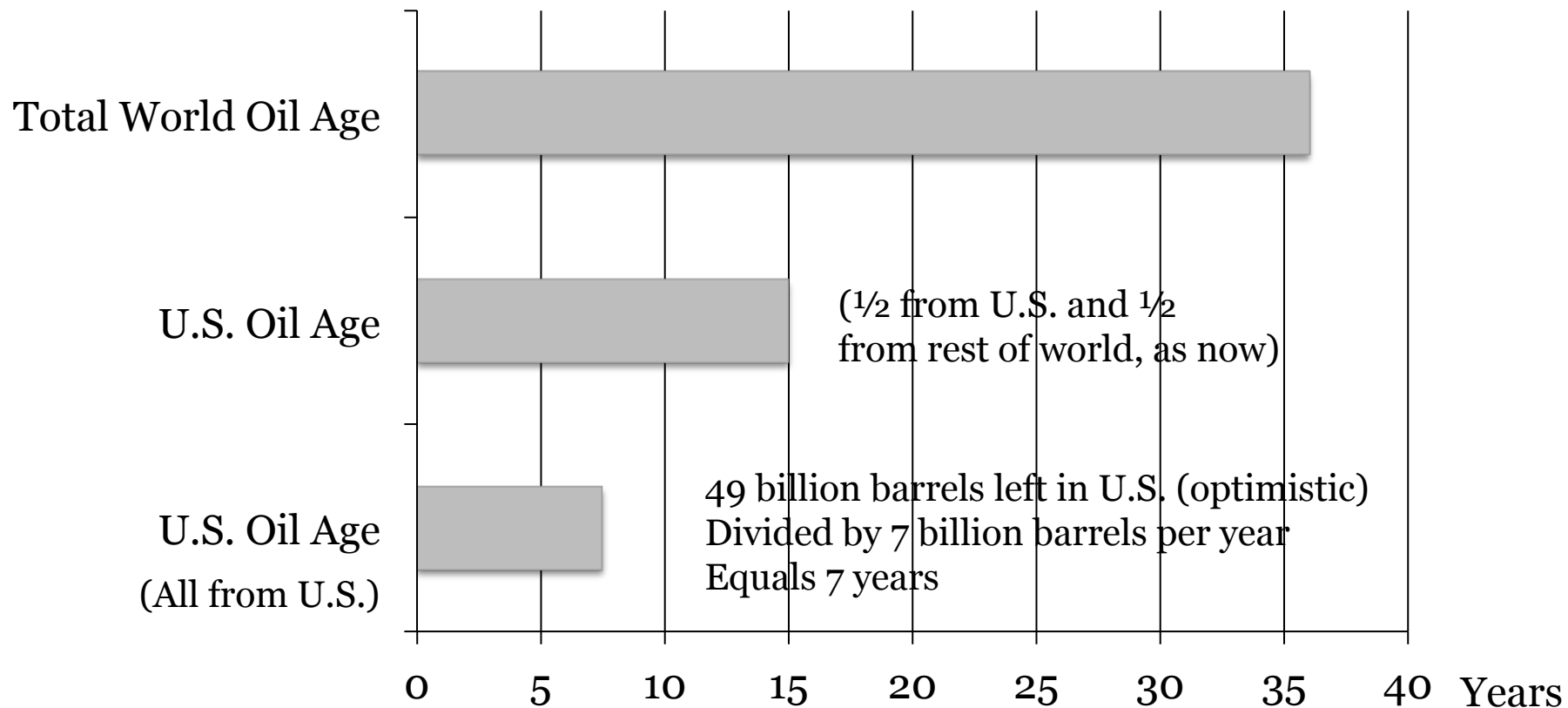


*In the U.S. we consume as much gasoline as China's total oil consumption.*



# Time Remaining in the Oil Age

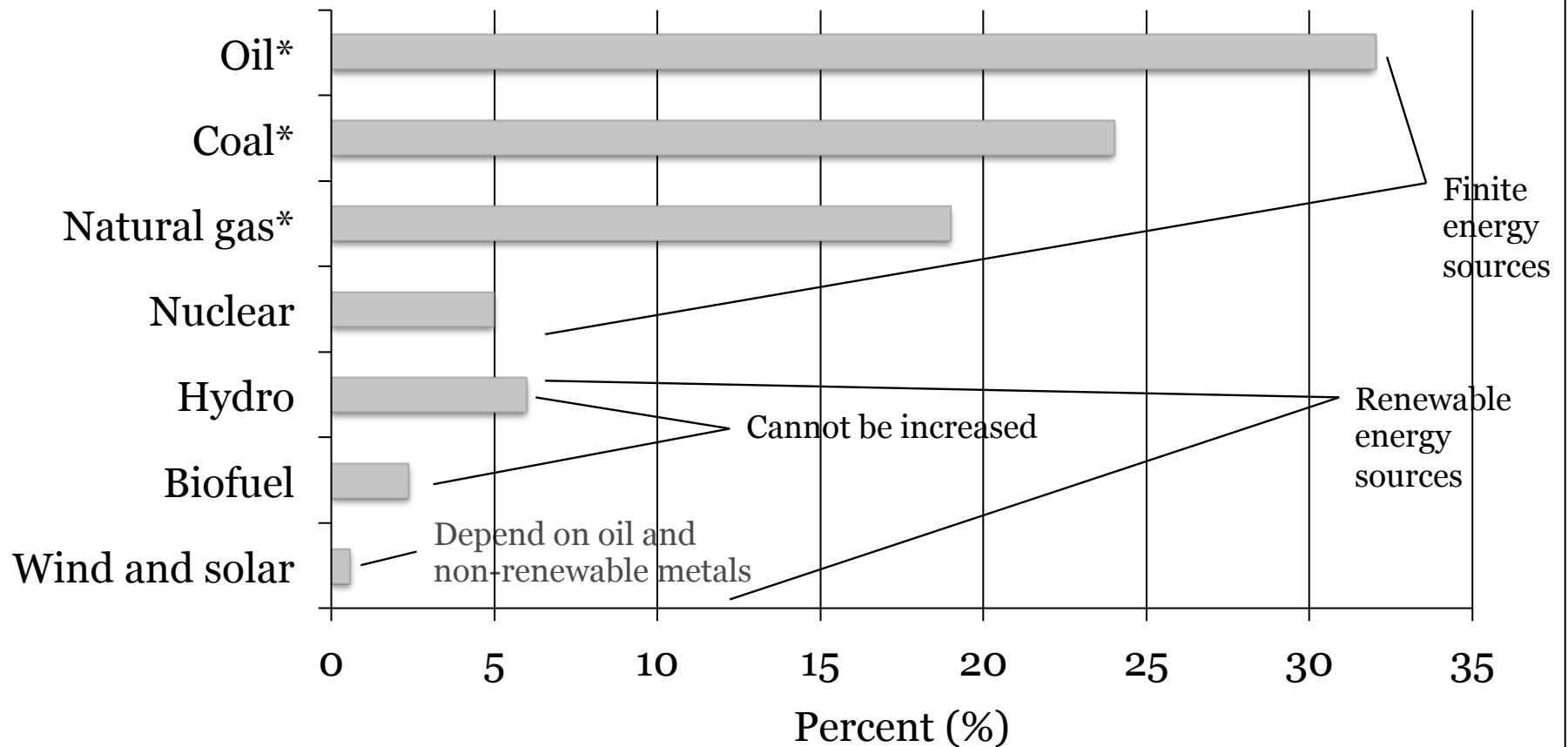
9



*7 years left at the present consumption rate*

# Percent of All World Energy

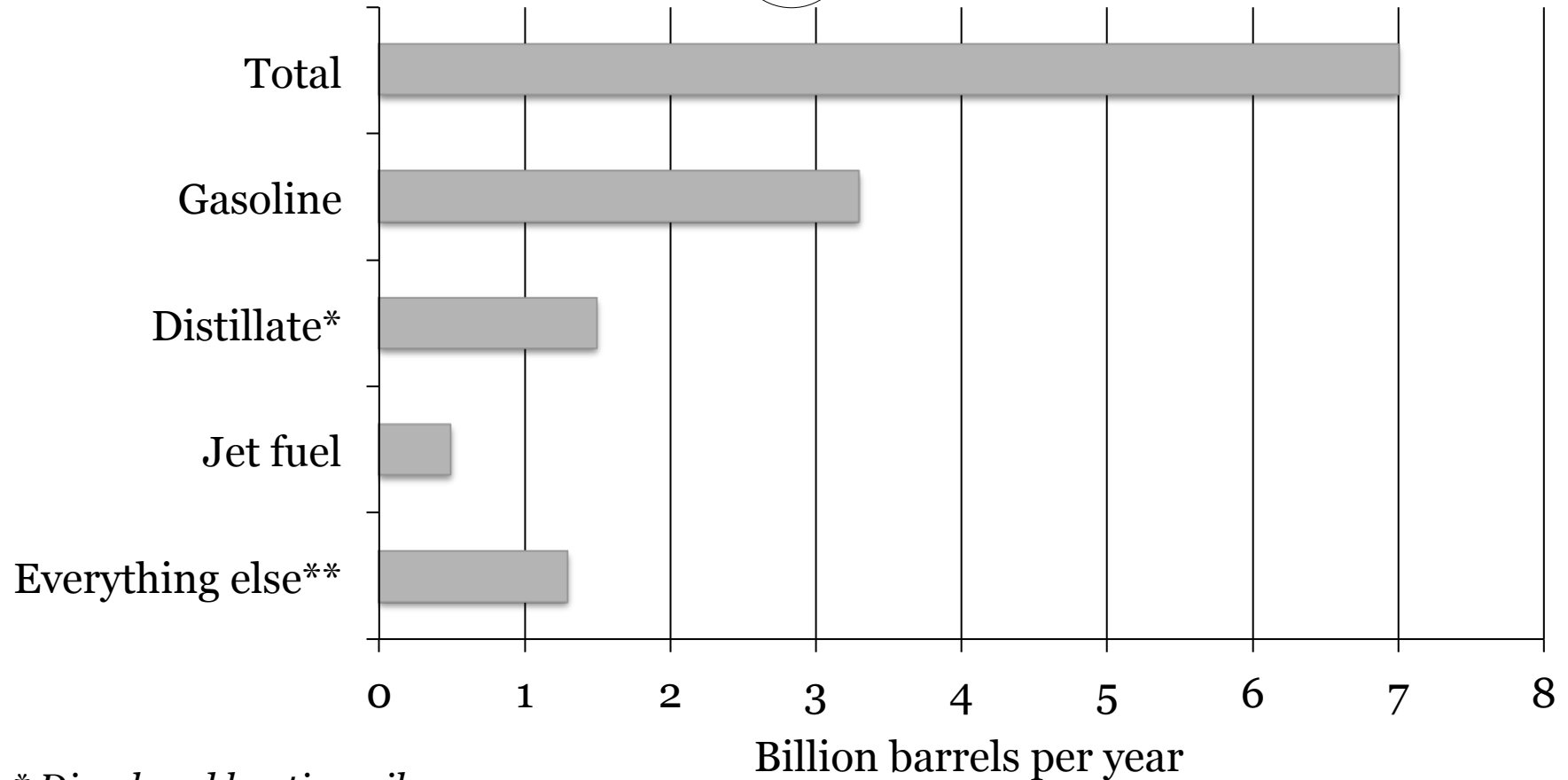
10



\* Oil, coal, and natural gas are finite and contribute to elevated levels of greenhouse gas.

# U.S. Liquid Fuel Consumption

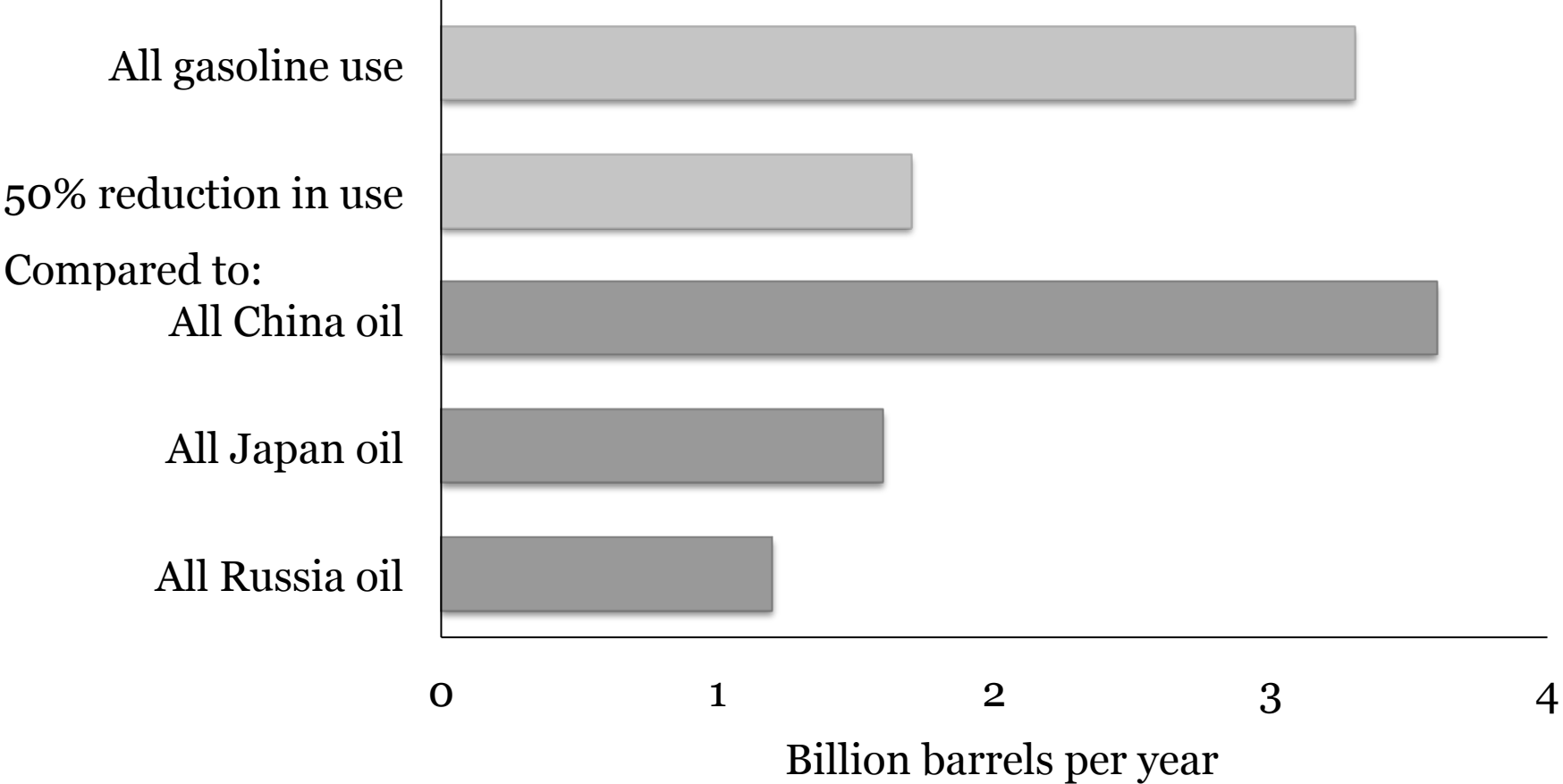
11



\* Diesel and heating oil.

\*\* Including support of other energy sources.

# The Case for 50% Gasoline Rationing



# Other Positives for Gasoline Rationing

13

- Consumption of 400 million gallons per day.  
50% reduction to 200 million gallons per day.
- 200 million gallons per day  $\times$  \$3 per gallon =  
\$600 million per day or \$0.22 trillion per year back into economy.
- Gasoline rationing would encourage mass transportation,  
electric cars, and bicycles.
- Gasoline rationing would lower the cost of oil for other needs.
- Gasoline rationing electronic swipe cards could be saved or sold.

# Gasoline Rationing vs. all CO<sub>2</sub> Sources

14

World total: 36 billion metric tons per year

1/3 from China: 10.5 billion tons

1/7 from U.S.: 5.3 billion tons

U.S. coal: 1.7 billion tons

U.S. natural gas: 1.4 billion tons

U.S. liquid fuels: 2.2 billion tons

*(including U.S. gasoline 1.1 billion tons)*

50% gas rationing reduction =  
0.5 billion metric tons per year

= 5% of all China's or 10% of all U.S. CO<sub>2</sub> emissions

# Other Directly Related Issues

15

*The following chapters refer to the book The End of Fossil Energy and Per Capita Oil*

## Chapter 3

- A call for personal involvement
- Educate yourself, see Bibliography, websites
- Join mass movements
- Get into gardening
- Have a stand-alone solar survival system

## Chapter 5

- A solar electric future, potential and limitations: cars, tractors, airplanes?? 18 wheelers??
- Battery storage, weight, recycling??
- Cost and hazards of lithium

# Other Directly Related Issues (continued)

16

## Chapter 6

- Population and immigration demographics

## Chapter 8

- Food availability on world, national, local, and personal scales

## Chapter 9

- Localization, transition, resilience movements

## Chapter 10

- The end of economic growth

## Chapter 11

- The desperate need for decisive leadership
- Autocracy vs. democracy? (Plato's "philosopher king")



# Conclusions



- Our civilization is at the tipping point.
- Seriously question the future of a child born today.
- Climate change is a longer-term and much less serious problem.
- Please help network these thoughts.

John Howe

[www.solarcarandtractor.com](http://www.solarcarandtractor.com)

[You tube.com/Howe Triple Crisis](https://www.youtube.com/HoweTripleCrisis)