Class 5a: Population II

- Future predictions: Malthus vs. Boserup
- The demographic transition
- Urbanization and world cities (Delhi)

Future population

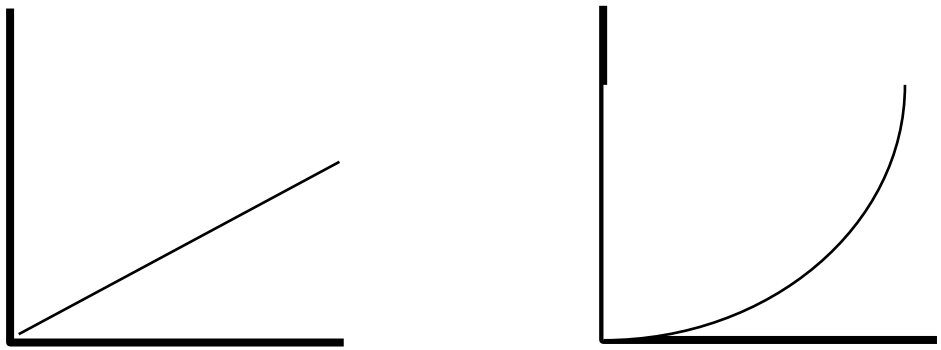
- Doubling time = 70 ÷ rate of natural increase

Future population: Thomas Malthus

- *Essay on the Principle of Population* (1798)
- Observing the Industrial Revolution
- Food is necessary for human existence
- "The passion between the sexes is necessary and constant"

Future population: Malthus

- Food production grows arithmetically, but population grows geometrically



- Therefore, the human population will self-regulate by means of famine
- Ecological view of humanity

Demographic transition

- Shift from high birth and death rates to low birth and death rates

Demographic transition

- Stage 1: pre-industrial
- High birth rate; high, fluctuating death rate

Demographic transition

- Stage 2: industrial
- Birth rate stays high
- Death rate drops with better living conditions

Demographic transition

- Stage 3: urbanized
- Birth rate drops; death rate stays low
- Growth begins to taper off

Future population: Ester Boserup

- *Conditions of Agricultural Growth* (1965)
- Technological improvements keep food production ahead of population
- "Overpopulation" actually drives agricultural improvement
- Social scientists’ view of humanity

Future population

- Increasing emphasis on quality of life
- Reproductive health care
- Women’s rights and development

Urbanization

- Just under half world population
- But most growth is in cities
- Overcrowding, food security, health

Urbanization

- Historically follows industrialization
- Industrial Revolution: Europe from 12% to 36%
- 1850-1910, North America from 16% to 40%

Urbanization

- 1950-1990, Third World from 17% to 37%
- Most rapid in history
- But without economic growth
- And without urban decentralization

Urbanization: megacities

- Population over 10 million
- Disproportionately large economic activity
- From 5 in 1970 to 26 in 2015
- Strong income disparities
- Environmental and health problems
- Lack of infrastructure