Population Composition & Structure

Population Composition & Structure

- If
  - Sex ratio > 100, there are more males than females
  - Sex ratio < 100, there are more females than males
  - Sex ratio = 100, there are equal #s of both sexes

Population Composition & Structure

- The most basic elements of population composition are
  - Sex structure
  - Age structure

Population Composition & Structure

- Sex structure
  - The most basic measurement is the sex ratio
    - The number of males per 100 females

$$\text{Sex ratio} = \frac{\#\text{ of males}}{\#\text{of females}} \times 100$$

Population Composition & Structu

- Important factors that affect the sex ratio are:
  - The differences in death rates between males and fema
  - The differences in net migration by gender
  - The sex ratio of newborn infants

Population Composition & Structu

- Sex ratios at birth, 2008
  - World = 107
  - US = 105
  - China = 111
  - Mexico = 105
  - France = 105
  - Mozambique = 104

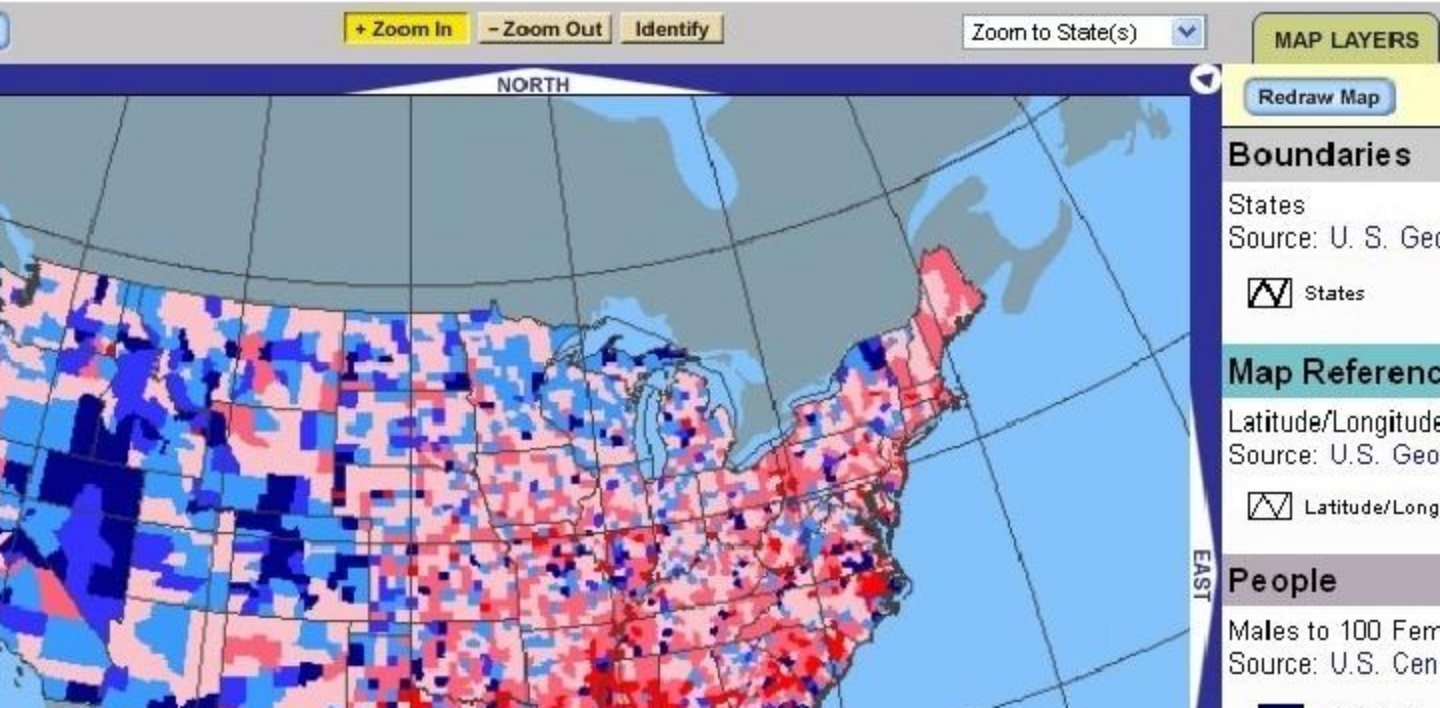
Population Composition & Structu

- Sex ratios change as age progresses
  - Migration is a very significant factor

Population Composition & Structu

- Figures in the text, pp. 56-59
  - "Frontier"
    - Early factor
  - Immigration magnets
    - More recent

Sex Ratios by County, 2000



Population Composition & Structu

- Age Structure
  - Affects economic and social behavior
  - Primary determinant
    - Birth rate
  - Analysis of age structure
    - Population pyramids

Population Composition & Structu

- Population pyramids
  - 5 year age groups or cohorts
  - A cohort is a group of people who share a *temporal* (ti
    experience
    - Youth
    - Middle aged
    - Old aged
    - Baby Boomers
    - Gen Xers

st WWII US Baby Boom

- Born between 1946-1964
- 79 million babies were born
- 1930s to early 1940s
  - new births in the US averaged 2.3 - 2.8 million/year
- 1946
  - 3.47 million births in the US
- Peak in 1957 & 1961
  - 4.3 million births each year

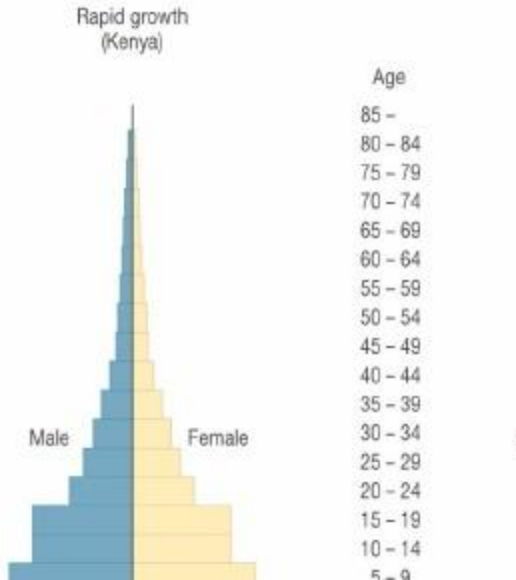
mber of Births in the US, 1934 to 200

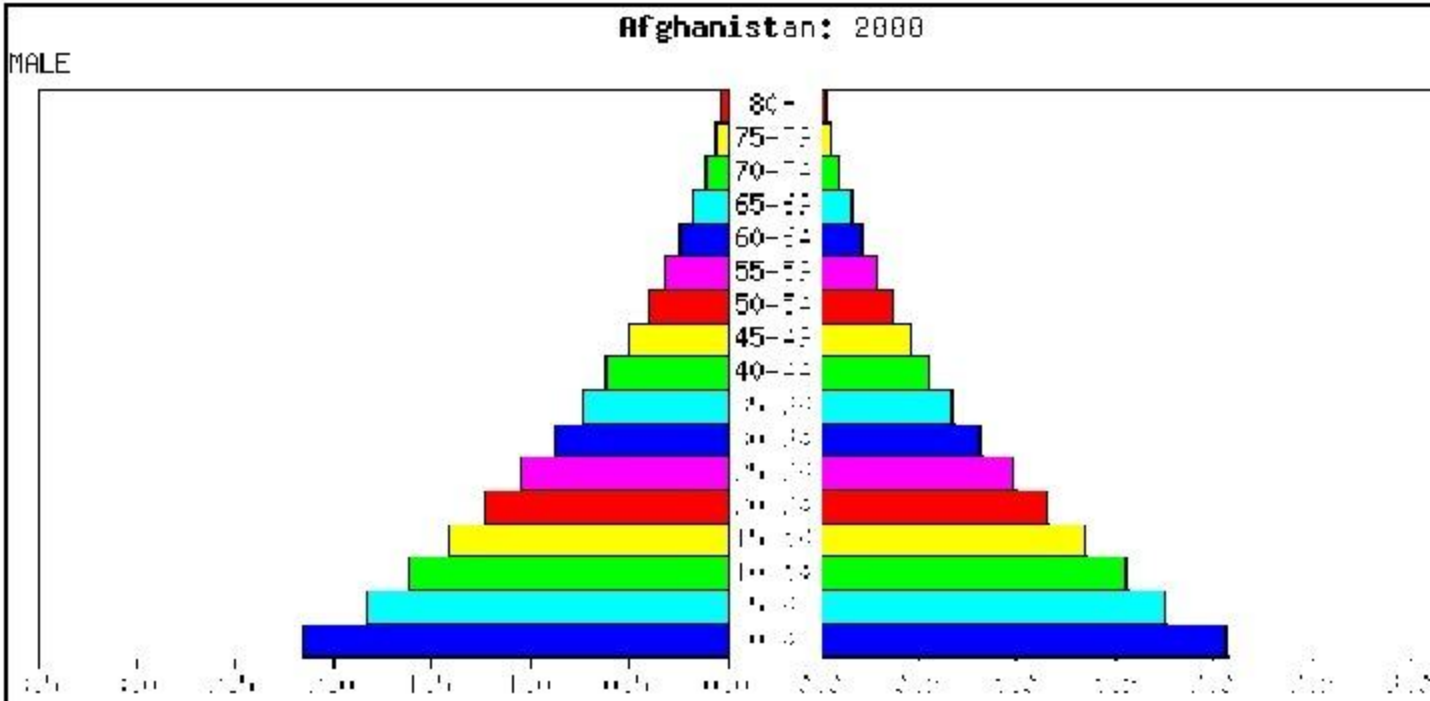
Population Pyramids of Rapid, Sl
and Zero Population Growth, 199

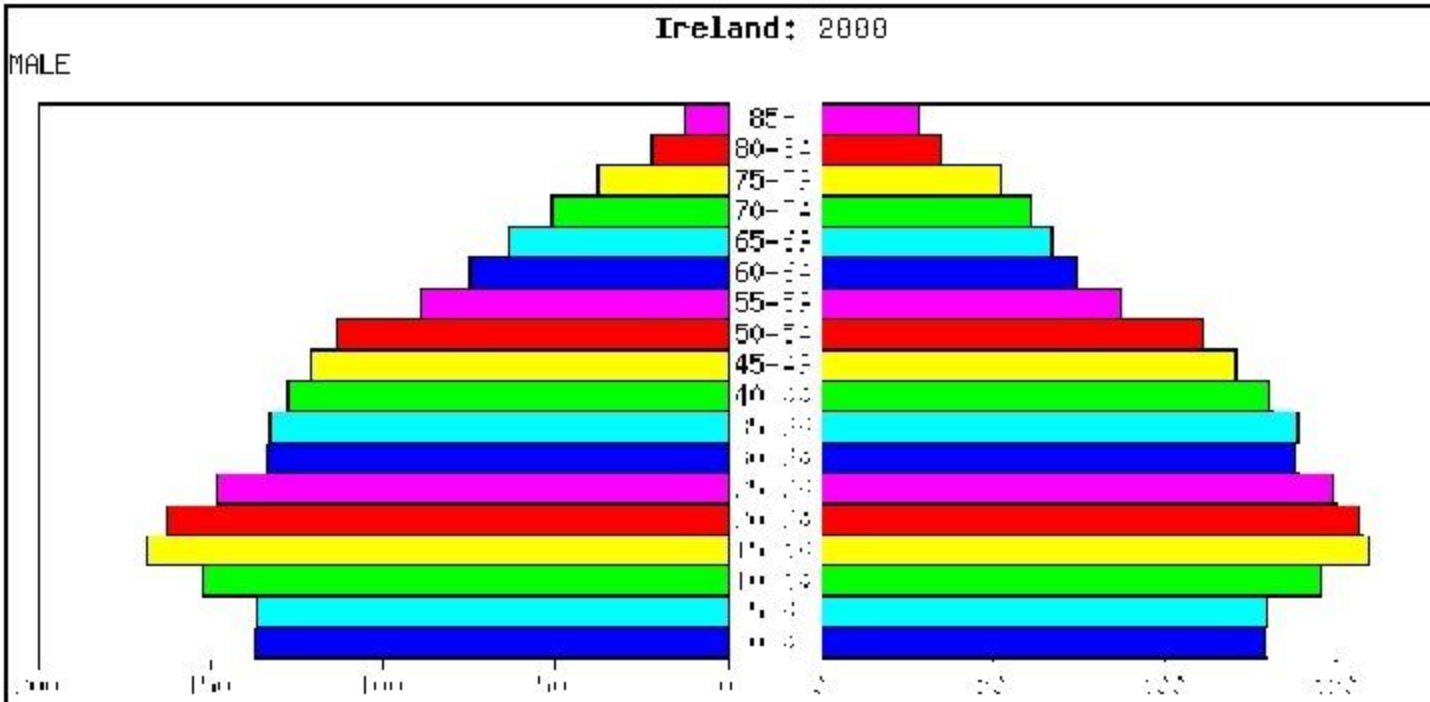
Kenya

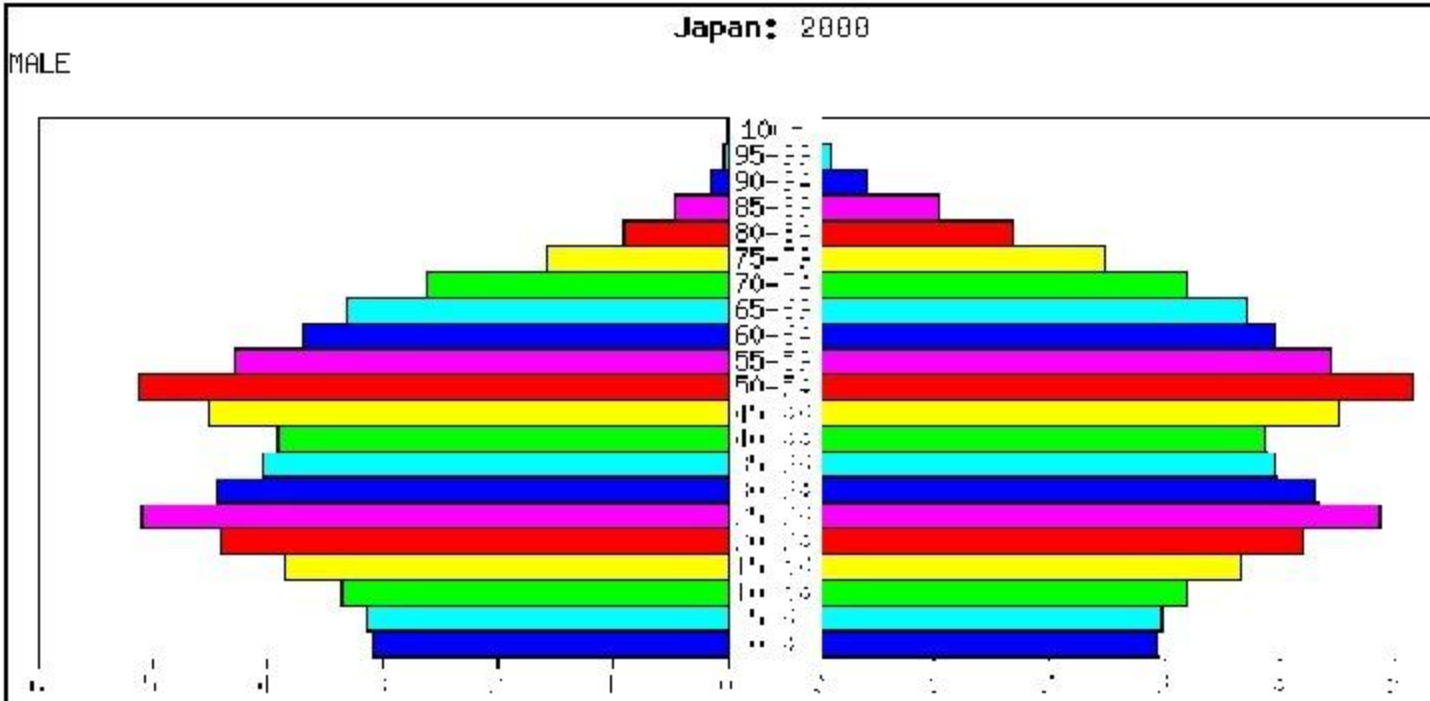
United States

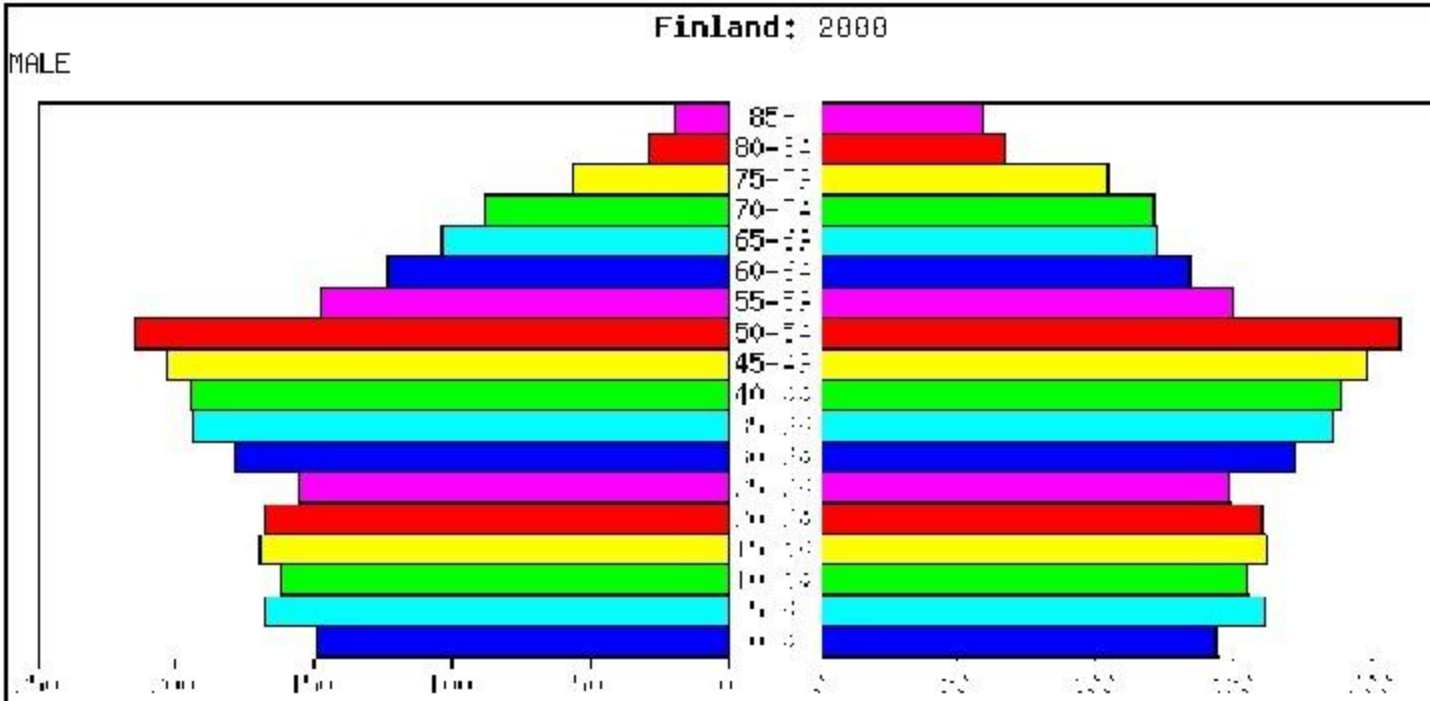
Denma

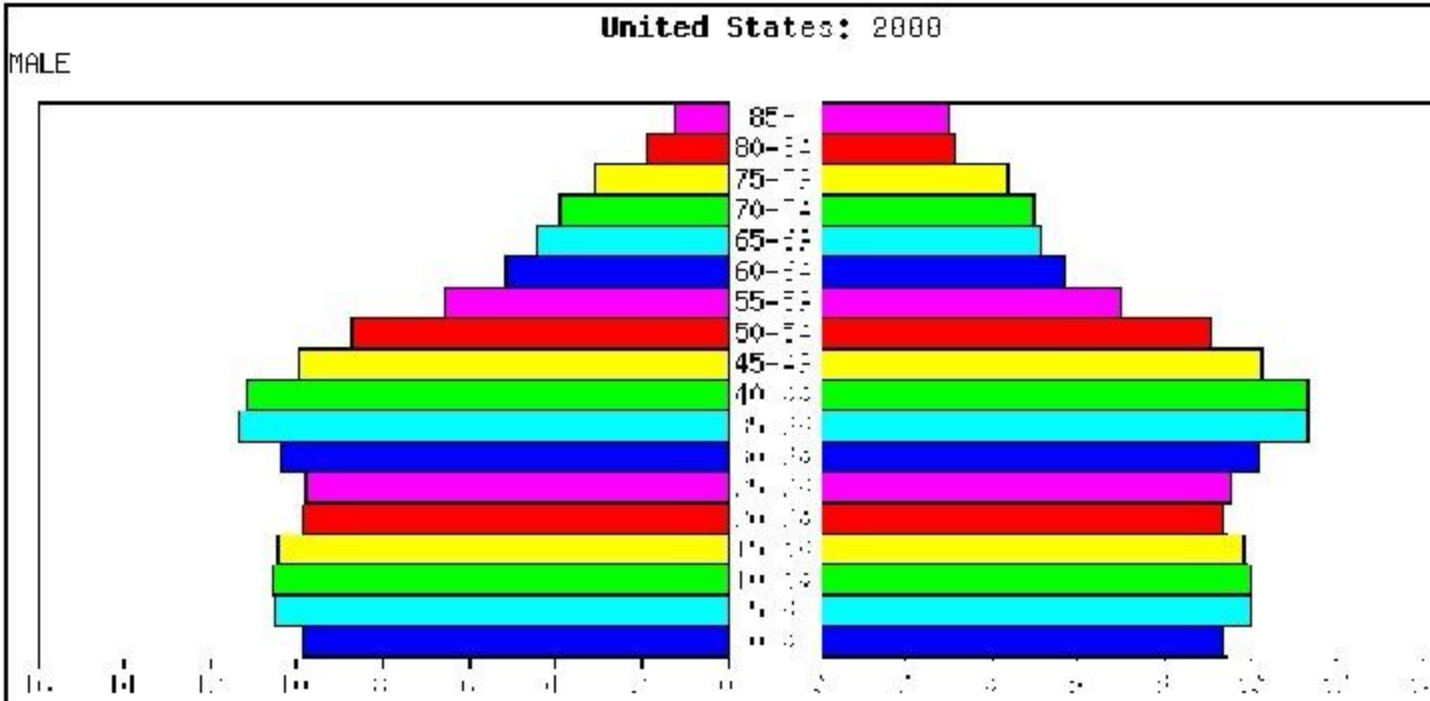


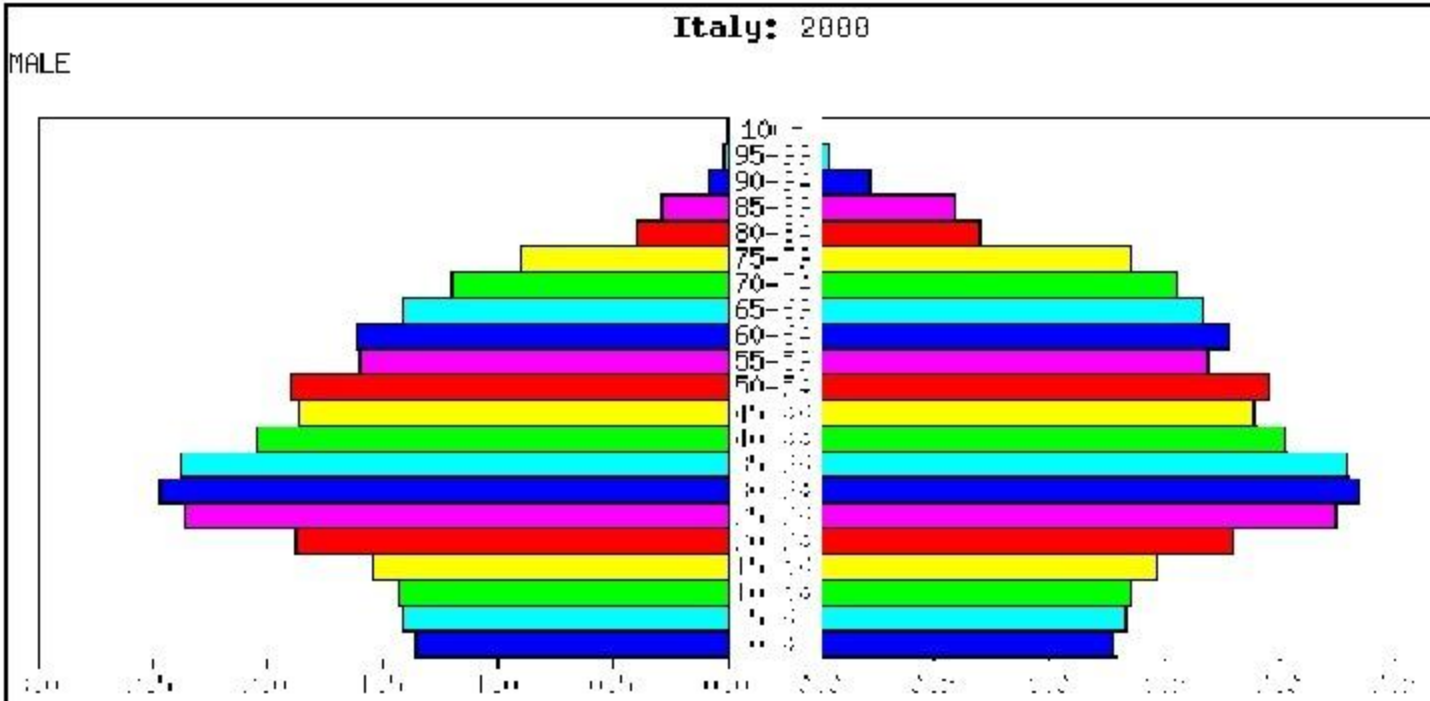

Afghanistan: 2000
MALE

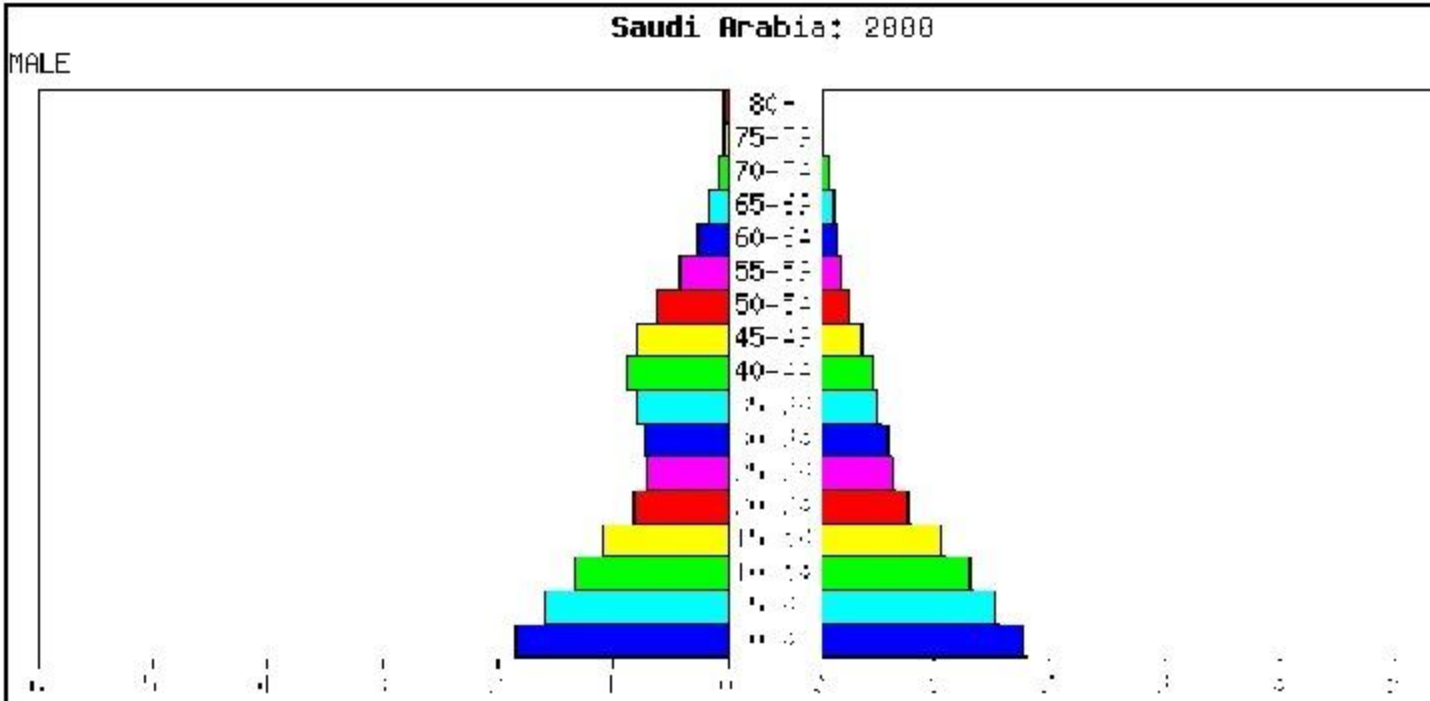

Ireland: 2000
MALE

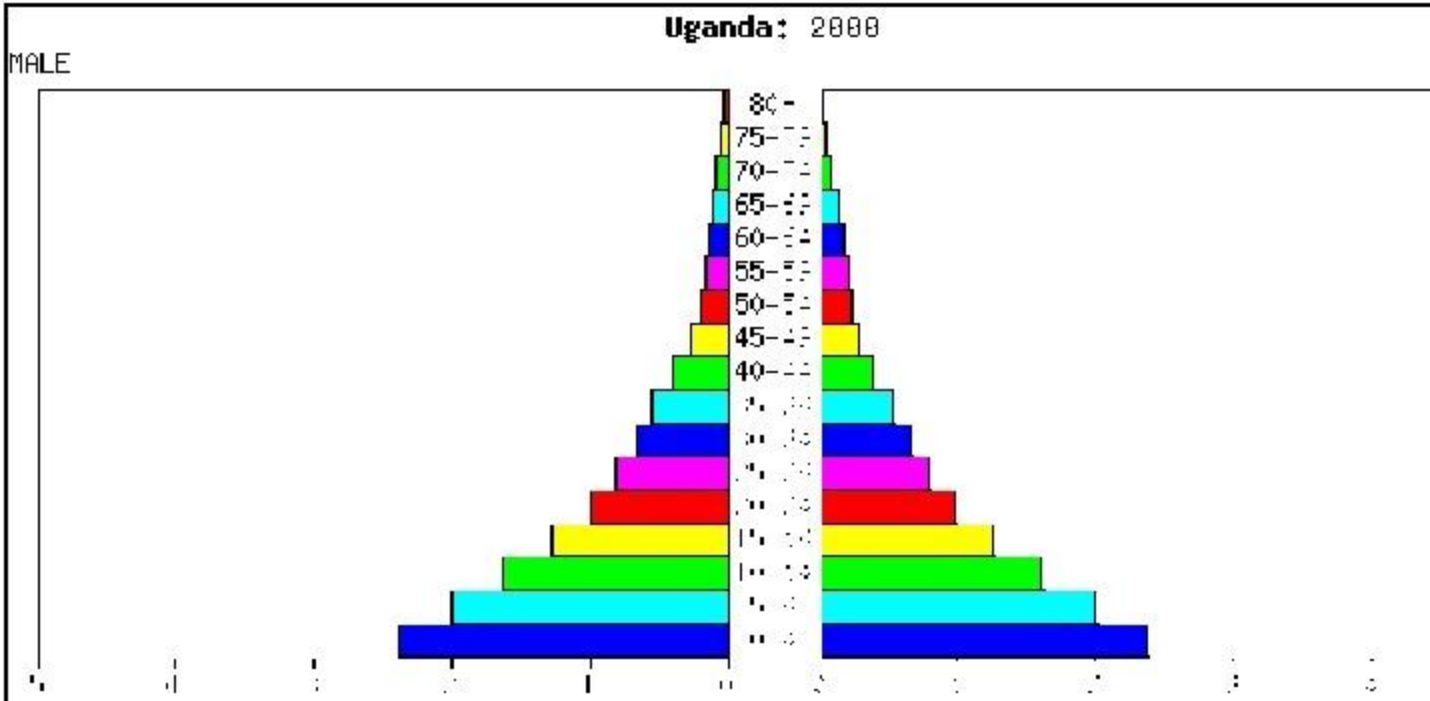

Japan: 2000
MALE

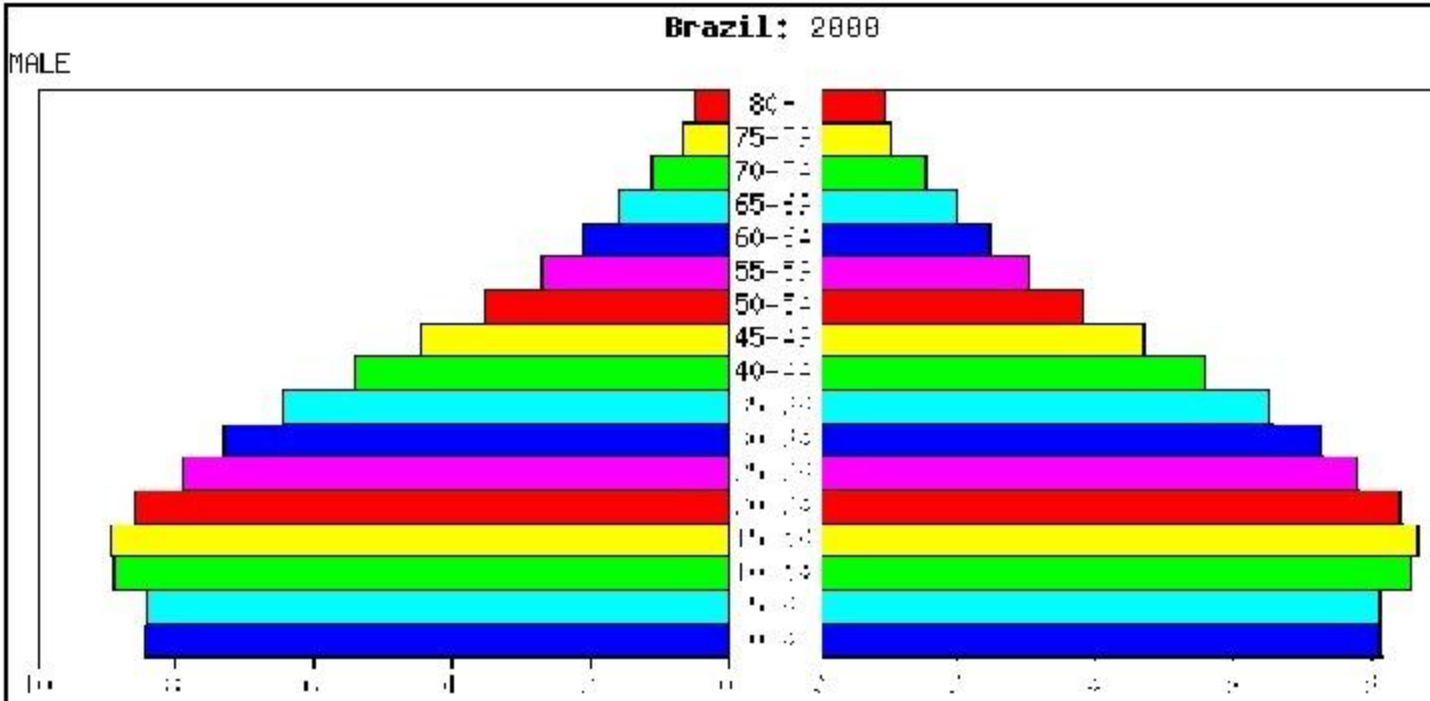

Finland: 2000
MALE
85-
80-
75-
70-
65-
60-
55-
50-
45-
40-


United States: 2000
MALE


Italy: 2000
MALE
100+
95-
90-
85-
80-
75-
70-
65-
60-
55-
50-


Saudi Arabia: 2000
MALE


Uganda: 2000
MALE


Brazil: 2000
MALE

Population Composition & Structu

- Analysis of population structure is important becaus
  - Future patterns of population growth
  - Amongst which age cohorts
  - Structure of dependent population relative to the wor productive population
    - Dependency ratio

Dependency Ratio

- Ratio of the dependent-age population (the young an old) to the working age population

- The purpose of the dependency ratio is to measure th dependents that each 100 people in the productive y must support

Dependency Ratio

$$\text{ndency Ratio} = \frac{(\%\text{under } 15)+(\%\text{over } 65}{\%\text{between } 15 \text{ and } 64}$$

$$\text{endency Ratio} = \frac{(41)+(4)}{55} \times 100$$

$$= \frac{45}{55} \times 100$$

$$= 81.8$$

$$\frac{(23)+(}{}$$