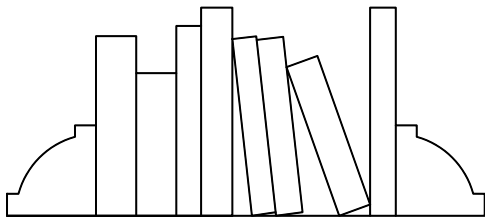


Population Issues

Lecture Outline:

3. DEALING WITH THE POPULATION PROBLEM
 - A. The 1994 World Population Conference
 - B. Population Profiles and Projections
 - C. Changing Fertility Rates
 - D. The Demographic Transition
 - E. Why Fertility Declines with Development
 - F. What is the Real Population Problem?



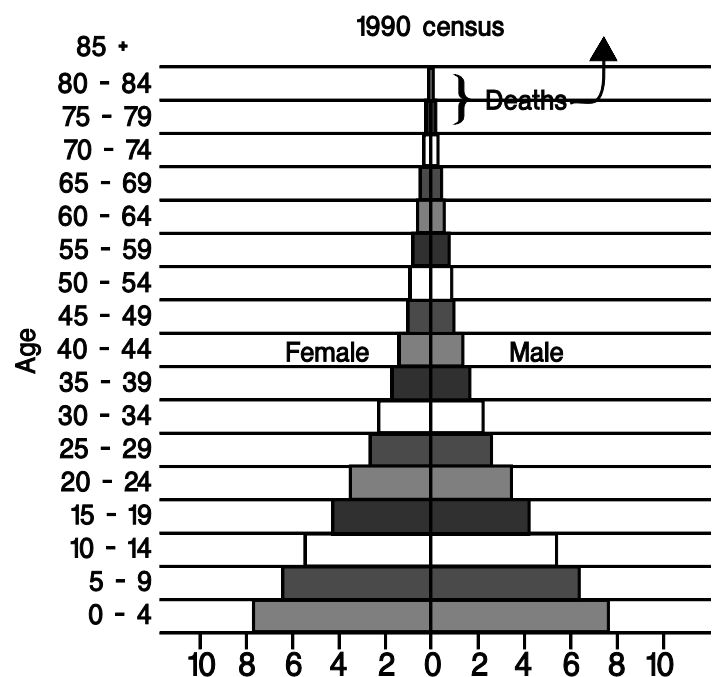
Learning Objectives:

When you are finished with this unit you should be able to:

1. Describe the outcome of the 1994 World Population Conference.
2. Describe the 6 phases of the demographic transition and contrast developed nations with less-developed nations.
3. Understand the value and use of population profiles.
4. Understand why fertility levels decrease with increasing economic development.
5. Describe the speed of fertility rate changes in HDCs, MDCs and LDCs.

Terms You Should Know:

- ❖ Demographic Transition
- ❖ Phase I, II, III, IV, V, VI
- ❖ Crude birth rate
- ❖ Crude death rate
- ❖ Replacement fertility
- ❖ Population profile
- ❖ Zero population growth
- ❖ Population momentum
- ❖ Population pyramid



Reading Assignment:

Brennan and Withgott: Chapter 8; pages 196-222.

3. DEALING WITH THE POPULATION PROBLEM

A. THE 1994 WORLD POPULATION CONFERENCE

- 180 countries attended
- Promote gender equity
-
-
- Family planning is essential

Basic goals to be achieved by 2015:

-
- Improve health care of infants, children, and pregnant women
-
- Increase access to education
-
- Reduce unsustainable patterns of production and consumption

B. POPULATION PROFILES AND PROJECTIONS

- The speed at which a population grows depends on 3 factors:
 - 1.
 - 2.
 - 3.

AGE STRUCTURE—age of population (young, middle, old)

- Population profiles are good for planning:
 -
 -
 -

To replace populations at current levels without growth we need the following fertility rates:

2.03—

2.16—

- Values above 2.00 account for infant mortality rates

1. Developed Countries

- Are approaching **ZERO POPULATION GROWTH** (ZPG) which is a fertility rate of 2.03
- Example:
 - increased older populations
 -
 - not accounting for immigration
 - if immigration goes up, populations will continue to grow

2. Less Developed Countries

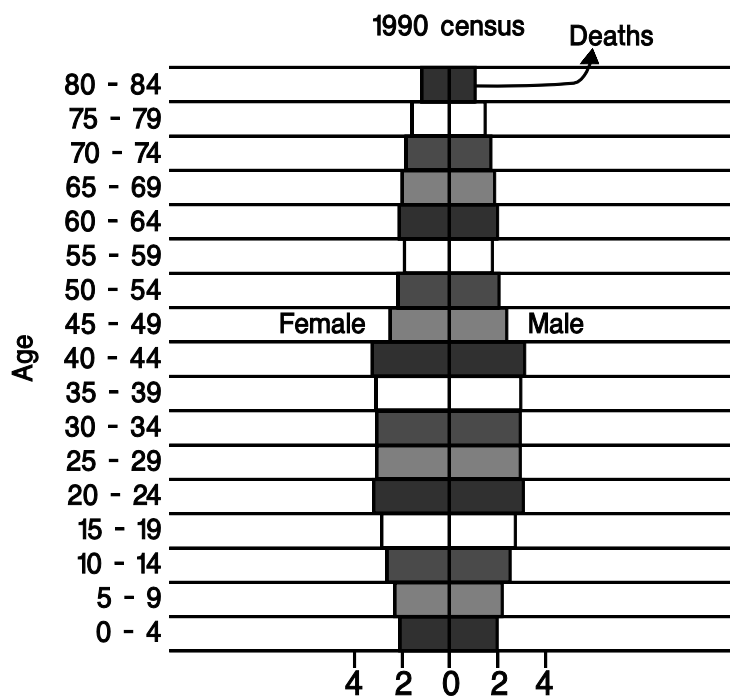
- Fertility rates:
- Example:
 -
 - 50% of population < 20 years old

3. Population Momentum

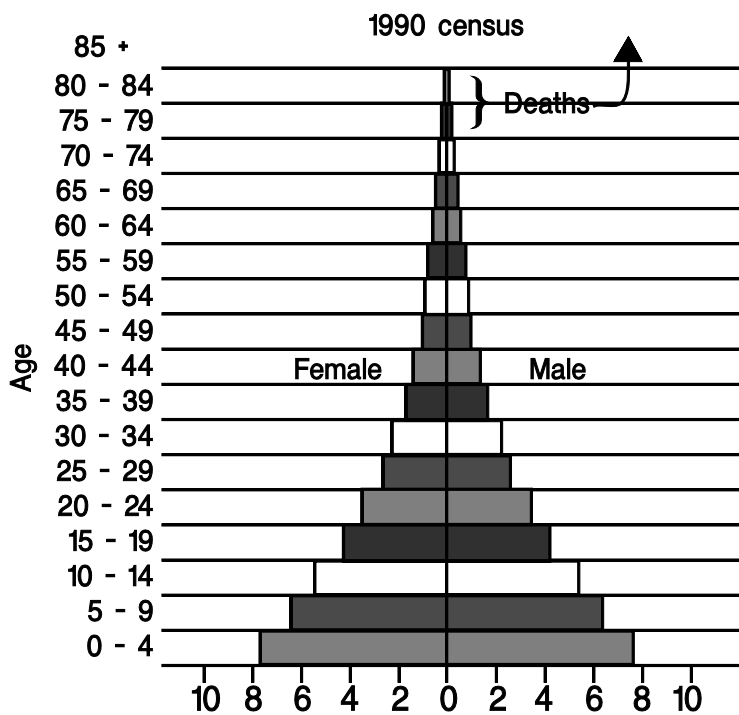
POPULATION MOMENTUM—a rapidly growing population will continue to grow for 50 to 60 years even after the total fertility rate is reduced to replacement level

Why?

-
- Small old population—low death rate
-



Population Profile – Denmark



Population Profile – Kenya

- If TODAY every young woman on Earth stopped at replacement level, the planet's population would still grow to 8,000,000,000.
- In USA we are below replacement level today, but **POPULATION MOMENTUM** and **IMMIGRATION** keep population growing

C. CHANGING FERTILITY RATES

-

DEMOGRAPHIC TRANSITION—shift from primitive to modern condition

CBR—crude birth rate per 1,000 people/year

CDR—

CBR - CDR = increase per 1,000 people/year if we divide by 10 = per 100, or in percent

CBR - CDR =

If CBR - CDR = 0

So, annual increase in population:

Annual rate of
natural population =
change (%)

Example: USA

CBR =

CDR =

Annual rate of population change:

$$\frac{\text{CBR} - \text{CDR}}{10}$$

Worldwide, annual rate of change

Range:

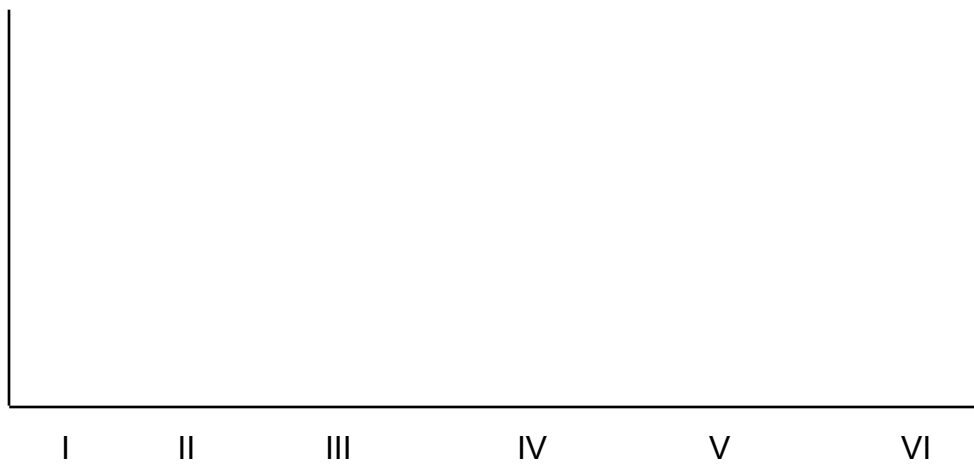
World =

HDCs =

Africa =

D. THE DEMOGRAPHIC TRANSITION

Six phases of a demographic transition:



Phase I

-

Phase II

- Declining CDR due to reduced infant and childhood mortality
-

Phase III

-

Phase IV

- Modern stability (at least in the developed world)
- Developed nations are in Phase IV; however, LDC's are in Phase III
-

Phase V

-

-

Phase VI

- Stable, sustainable growth at what population level?
-

E. WHY FERTILITY DECLINES WITH DEVELOPMENT

- The number of children a couple has depends on two factors:
 - 1.
 - 2.

- Agrarian society favors
- Industrial society favors

FACTORS:

1. Children: economic assets or liability?

HDC's →

LDC's →

2. Old-age Security

HDC's →

LDC's →

3. Status of Women

HDC's →

LDC's →

4. Religious Beliefs

HDC's →

LDC's →

5. Infant and Childhood Mortality

Increased childhood mortality is linked to increased fertility rates

6. Availability of Contraceptives

If not available, →

Remember:

- North America and Europe had several generations of time to reduce fertility
 -
- Third World has much less time to industrialize and undergo demographic changes
 -

F. WHAT IS THE REAL POPULATION PROBLEM?

- Future population projections have been downgraded over the past 10 years from 13,000,000,000 to 8,900,000,000 people by the year 2050.
-
-
- So, what's the problem?
 -
 -
 - The USA with 5% of the world's population currently consumes 25% of its resources
 -
 - How many people can the Earth sustainably support with our current living standard?
 - ✓
 - ✓
 - ✓
 - ✓