# Chapter 9: The Human Population

**Section 1: Studying Human Populations**
*Objectives*

1. ______________________________________________
   ______________________________________________
2. Define four properties that scientists use to predict population sizes.
3. Make predictions about population trends based on age structure.
4. ______________________________________________
5. Explain why different countries may be at different stages of the demographic transition.

**A. Demography**

- Is the study of populations, especially human populations
- Demographers study
  (1) Historical size and makeup of populations
  (2) Properties that affect population growth
  (3) Population trends: developed vs. developing countries

**B. The Human Population Over Time** (Fig. 1, p. 219)

- In the 1800s, the human population experienced exponential growth due to the industrial and scientific revolutions.

**C. Forecasting Population Size**

*Population predictions are often inaccurate.*

**1. Age Structure**

- Is the classification of members of a population into groups according to age, or the distribution of members of a population in terms of age groups
- Young > old = ______________________________
- Young ≈ old = ______________________________
- Plotted on a population pyramid, which is a type of double-sided bar graph (Fig. 2, p. 220)

**2. Survivorship**

- Is the percentage of newborn individuals in a population that can be expected to survive to a given age
- Plotted on survivorship curves (Fig. 3, p. 220)
- Type I: ______________________________
- Type II: ______________________________
- Type III: ______________________________
- Type I and III = slow/no growth

**3. Fertility Rates**

- Is the number of babies born each year per 1,000 women
- ______________________________: average number of children one woman gives birth to in her lifetime

- ________________________________________: average number of children each parent must have in order to “replace” themselves
- Historical fertility rates for U.S.: Fig. 4, p. 221

4. **Migration**
   - ____________________: movement into an area
   - ____________________: movement out of an area
   - Immigration > emigration = ____________________ in population
   - Immigration < emigration = ____________________ in population

**D. Declining Death Rates**

- Deaths < births = ___________________________________
- ___________________________________ (Fig. 7, p. 222)
  - Is the average length of time that an individual is expected to live
  - Is most affected by ___________________________________ (or the death rates of infants < 1 year old)
  - Worldwide average = ____________________
  - Developed countries’ average ≈ ____________________

**E. The Demographic Transition**

- Is the general pattern of demographic change from high birth and death rates to low birth and death rates, and observed in the history of more-developed countries
- Theory: Industrial development causes economic and social progress, which, in turn, affects population growth rates.
- In developed countries, takes 1-3 generations

1. **Stages of the Transition** (Fig. 8, p. 223)
   - 1st stage: preindustrial; population size is stable (births = deaths)
   - ________________________________________________________
   - 3rd stage: population growth slows (births ≤ deaths)
   - ________________________________________________________

2. **Women and Fertility**
   - Decline in births related to increased education and economic independence
   - Developed countries’ TFR = ________ children/woman
   - Developing countries’ TFR = ________ children/woman

**Section 2: Changing Population Trends**

*Objectives*

1. ________________________________________________________
2. ________________________________________________________

3. Analyze strategies countries may use to reduce their population growth.
4. Describe worldwide population projections into the next century.

**A. Problems of Rapid Growth**

1. **A Shortage of Fuel Wood**
   - Wood is the main fuel source in many poor countries
2. **Unsafe Water**
   - ______________________________________________
     ______________________________________________
3. **Impacts on Land**
   - Competing land uses: agriculture, housing, natural habitats
   - ________________: more people in cities
   - ________________________: work in the city but live in suburbs → traffic jams, inadequate infrastructure, reduction of land, increased housing costs in city

**B. A Demographically Diverse World** (Fig. 14, p. 229)

- Not all countries' populations are progressing through each stage of the demographic transition
- Least developed countries: identified by U.N… may be given priority for foreign aid and development programs

**C. Managing Development and Population Growth**

- ______________________________________________
  ______________________________________________
- 1994: U.N.'s International Conference on Population and Development (ICPD) Goals (Table 1, p. 230)

**D. Growth is Slowing**

- Current world population: ________________
- Predictions:
  - Population growth will be slower this century than last century.
  - If trends continue, most countries will have RLF rates by 2050.
  - Population growth will eventually stop.