Activity One: The World Population Data Sheet at a Glance

Instructions

Find answers to the following questions using the current *World Population Data Sheet*. Locate, shade, and label the countries identified in the questions that follow on your World Map.

1. What is the current population of the world?

2. Rank, in descending order, the 10 countries with the largest population.

Rates are often used, instead of absolute numbers, to determine how frequently a population or demographic event is occurring—rates show how common an event is. Rates also make it possible to compare countries that vary greatly in terms of population size.

The **crude birth rate** (CBR) is the annual number of births per 1,000 population.

3. Which country has the highest CBR? Which country has the lowest?

The **crude death rate** (CDR) is the annual number of deaths per 1,000 population.

4. Which country has the highest CDR? Which country has the lowest?

The **infant mortality rate** measures the number of deaths each year to infants under 1 year of age per 1,000 live births.

5. Which country has the highest infant mortality rate and what is that rate? Which country has the lowest and what is that rate

The **total fertility rate** (TFR) is the average number of children a woman would have if she maintained today's level of childbearing throughout her reproductive years.

6. Which countries share the highest TFR and what is it? Which countries share the lowest TFR. What is it?

The **age and sex structure** of a population refers to the number or proportion of males and females who are in each age category. Age-sex structure tells us about a population's past trends in fertility, mortality, and migration. It also provides information about the population's potential for future growth. The greater the proportion of people in the younger-adult age groups, the greater the potential for more births and population growth.

7. Which country has the "youngest" population, that is, the highest proportion of population under age 15? Which country has the "oldest" population, that is, the highest proportion of population over age 64?

8. In which country are people expected to live the longest? Which country has the lowest life expectancy?

9. Which African country has the highest proportion of people living in urban areas? In Asia? In Latin America? In Europe? In Oceania?

Gross national income in **purchasing power parity per capita** (GNI PPP/capita) converts income into "international dollars" and indicates the amount of goods and services one could buy in the United States with a given amount of money.

10. Which country is the wealthiest in terms of GNI PPP/capita? Which is the second wealthiest? Which are the poorest two countries?

A population grows because there are more births than deaths or more people are moving in than moving out. The difference between births and deaths is expressed as a percentage called the **rate of natural increase**.

11. Which *major region* is growing the fastest through natural increase? Which *major region* is growing at the slowest rate? Within the major regions identified, which subregions are growing fastest? … slowest?

12. Which *country* is growing the fastest through natural increase? Which country is growing at the slowest rate?

A **population projection** is a computation of future changes in population numbers based on assumptions about future trends in fertility, mortality, and migration.

13. Rank the 10 countries with the largest projected populations for both 2025 and 2050 (in descending order).

    o   Which country (ies) is projected to drop out of the top 10 by 2050? Which country (ies) is projected to be added to the top 10?

14. Rank the major regions according to population size (in descending order) for the present, for 2025, and for 2050. What trend can be observed in terms of population change?

Activity Two: Working With Demographic Data

Instructions

Use the current *World Population Data Sheet* to answer the following questions:

1. China and India have the largest populations in the world. Which of these two countries adds more people to its population annually? [*Calculate the numbers added by applying the rate of natural increase to the population of each country. Hint: the rate is a percent*]

2. What proportion of the world's people live in Africa? In Asia? In North America? In Latin America? In Europe? In Oceania? What are the projected proportions by 2025 and 2050?

Construct a bar chart showing the regional distributions of the world's population for the current year, 2025, and 2050.

What trends are reflected in the bar chart?

3. What proportion of the world's people live in less developed countries (LDCs) in the current year? In more developed countries (MDCs)?

What proportion of the world's people is projected to live in LDCs in 2025? In 2050? What proportion is projected to live in MDCs in 2025? In 2050?

Discuss as a class the economic and social implications of the changing proportions of the world's people in LDCs and MDCs.

4. Examine the crude birth rate, crude death rate, and rate of natural increase of any three countries listed on the *World Population Data Sheet*. Discuss as a class the mathematical relationship among these three rates.

The **age-dependency ratio** is the ratio of persons in the "dependent" ages (under 15 and over 64 years) to those in the "economically productive" ages (15-64 years) in a population. The age-dependency ratio is often used as an indicator of the economic burden the productive portion of a population must carry—even though some persons defined as "dependent" are producers and some persons in the "productive" age range are economically dependent.

The formula for this ratio:

$$\frac{\text{\% of population under age 15} + \text{\% of 65 and over}}{\text{\% of population ages 15-64}} \quad \text{X 100}$$

[*Hint: The three percents will equal 100%.*]

The age-dependency ratio in the United States in 2004 was:

$$\frac{21\% + 12\%}{67\%} \quad X \quad 100$$

This means that there were 49 people in the dependent ages for every 100 people of working age.

5. Select 2 LDCs and 2 MDCs from the data sheet and compute the age-dependency ratios for each. Discuss student responses in class.

> o What factors do you think contribute to a high age-dependency ratio?
> o What are some economic and social consequences of a high age-dependency ratio?