

CAPT Practice: Human Population Dynamics Library Activity

(25 points)

25-20 = Exceeds, 19-15 = Meets, 14-10 = Approaching, 9-0 = Below

The human population has existed for a little more than 500,000 years. About 10,000 years ago, the total human population was about 3 million people, most of them hunters and gatherers. The development of early agriculture provided a stable supply of food and as a result the human population increased rapidly and reached 1 billion in 1840. The development of technology and medicine in the 20th century reduced the death rate and increased the growth rate even further. Despite these advances, human population growth differs dramatically country by country.

I. INTERPRETING POPULATION DATA

A. GENERAL QUESTIONS ABOUT POULATION PYRAMIDS (3 points)

1. Look at the United States 2000 chart. What is the **purpose** of this chart? ____/1
2. What **data** (dependent variables = y-axis and independent variables = x-axis) are presented in the chart? ____/1
3. What **type** of chart (line, bar, pie, etc) is used to present the data? Why is this the best type of chart to present this data? ____/1

B. TRENDS (GENERALIZATIONS) ABOUT THE HUMAN POULATION OF THE US AND PAKISTAN FROM THE PYRAMIDS (13 points)

GENERALIZATIONS:

***A generalization is a broad statement relating facts to each other, trying to state what is true**

***A generalization can be backed up/supported with details, facts, statistics, photographs, graphs, examples, etc.**

***A trend is a rate change in a large population over time.**

1. Look at United States 2000 chart. This is a chart of all the people living in the more developed country in 2000. Why are there more babies (0-4) than old people (65+)?
____/1

2. In the United States 2000 chart, which age group has the most people? ____/1

- a. 0-29 b. 30-54 c. 55-85+

3. In the Pakistan 2000 chart, which age group has the most people? ____/1

- a. 0-29 b. 30-54 c. 55-85+

4. Look at the United States 2000 chart, and decide whether there are more males or more females in the population 60-85+. State a generalization in population dynamics about gender in US in 2000. ____/1

5. Look at the number of male babies (0-4) in Pakistan 2000. Look at the number of males age 40-44 in Pakistan 2000. Describe a trend in population for males in Pakistan from 2000. ____/1

6. Look at the definition below for life expectancy. Looking at the shapes of the two graphs, the United States 2000 and Pakistan 2000, and the answers to the above questions, what can you infer about life expectancy in the two countries? ____/1

Life Expectancy. *This measurement refers to how long a person can expect to live from birth if mortality patterns remain unchanged. Someone born today may be expected to live 80 years if living in some European countries but only 55 years if living in parts of Africa. However, since mortality patterns do change throughout a person's lifetime, the statistic is really a better reflection of how long an adult who is currently living can expect to live. This statistic, like infant mortality, helps the reader understand the overall health of a population and whether the people have access to nutritious food, clean water, health care, and proper sanitation (CultureGrams Glossary).*

7. Determine at what age we start to see the population of United States in 2000 decrease and at what age do we start to see the population of Pakistan in 2000 decrease. What does this data tell you about the probability of not surviving to age 40 in each country? ____/1

8. Look at the difference between US 2000 and US 2025 graphs. Generalize about changes from 2000 to 2025 in amount, age and gender of the population of the United States. ____/3

Amount of people

Age

Gender

9. Look at the difference between Pakistan 2000 and Pakistan 2025 graphs. Generalize about changes from 2000 to 2025 in amount, age and gender of Pakistan. ____/3

Amount of people

Age

Gender

C. TRENDS (GENERALIZATIONS) ABOUT THE HUMAN POULATION OF THE US AND PAKISTAN FROM THE COMPARISON TABLES (1 point)

1. Look at the table that shows you some of the existing technology (Internet users, cell phones, landlines, electricity consumption) in Pakistan and the U.S. Which country has more technology? Explain. ____/1

II. FACTORS AFFECTING POPULATION CHANGES (8 points)

A. Use SIRS Researcher (Virtual Library → Databases SHS) or Google Books to research and list **three factors** that affect **changes in the human population** of the countries you studied (the United States and Pakistan). You will cite your sources in part D below. ____/3

- 1.
- 2.
- 3.

B. Dig deeper and research/explain how **one technological advance** might affect the **change in the human population** from 2010 to 2025 in either the United States or Pakistan. You will cite this source in part D below. ____/1

C. Based on the information in the article that you found for part B, is the **advancement of technology a positive or negative influence** on population dynamics in your country? Elaborate (What is your evidence?). ____/1

D. Cite all articles that you found during your research in SIRS Researcher. Cut and paste the citations here: ____/2