Power of the Pyramids

**Objective:** To develop an understanding of how to interpret age pyramids and understand the relationship between age structure and human population growth.

**Background:** Population growth is affected by age structure - the number of individuals in different age groups - as well as by the numbers of births and deaths. Age structure is usually illustrated by an age pyramid, a graph in which horizontal bars represent the percentage of the population in each age group. Males are shown on the left and females on the right. The ages (or in some cases, the years of birth) for each bar are listed along the vertical axis of the graph, usually in five-year intervals. Each age group is called a **cohort**. The longer a bar is, the greater the proportion of individuals in that age group.

Age pyramids are useful for tracing the history of a population and for projecting future population trends. An age pyramid with more long bars for the younger age groups would indicate a growing population; when these large numbers of young begin to reproduce; they will add even more offspring to the population than did the older age groups.

**Part 1**-**Procedure:**

Use the following link to answer the questions below with regards to the country you choose. This link can also be found in an Edmodo post. <http://www.census.gov/population/international/data/idb/informationGateway.php>

**Country : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Analysis: In your notebook**

1. Where is your country located, geographically?

2. Is your country considered a developing or developed nation? Cite your source.

3. What is its crude birth rate (CBR)?

4. What is its crude death rate (CDR)?

5. What is the life expectancy?

6. What is the infant mortality rate?

7. What is the total fertility rate (TFR)?

8. How has the growth rate changed since 1995?

9. What is the growth rate today?

**Part 2**-**Procedure:**

Population Age Distribution for your assigned country and year. Population data can be found at:

* http://www.census.gov/population/international/data/idb/informationGateway.php
  + Under “Select Report” Choose “population by Five Year Age Groups”
  + Select 2011 for the year
  + Scroll down to the bottom and click “Submit”
  + C**reate an age structure pyramid for your assigned country/year. Graph paper is on the front side shelf near Ms. Vasan**
* Make sure you title and label axes appropriately on your graph

**3. Answer the questions:**

1. Which gender has the higher population in the oldest age group? Can you explain this?

2. Does your country look like a pyramid? Explain.

3. What can you tell about your country's growth rate by looking at your graph?

4. If birth and death rates remain the same, what will your pyramid look like in 25 years?

5. Determine the percentage of the population that has yet to reach childbearing age. What do these

numbers say about the prospects for future growth?

6. Does your country have a baby boom in it? (a bulge somewhere in the middle) What could account for this?

7. If you had a business and you wanted to capitalize on your information about the population age

distribution, what would you sell?

8. What percentage of the population is above age 65?

9. From the information on your graph/histogram, briefly discuss whether the country is increasing in

population size, decreasing or at/close to zero population growth (ZPG).

10. From your data and graph/histogram, would you place the country in the category of developing or

developed country? Explain.