

## Reviewing Population Pyramids.

On the next slide there are 6 population pyramids. In each set, there is a description of one of the pyramids (labelled A, B, C, D, E, F).

See if you can match the description to the right pyramid before you look at the answer slide! Remember, to think about the general shape of the pyramid (think of the “outline” of the pyramid rather than focusing on all of the individual parts).

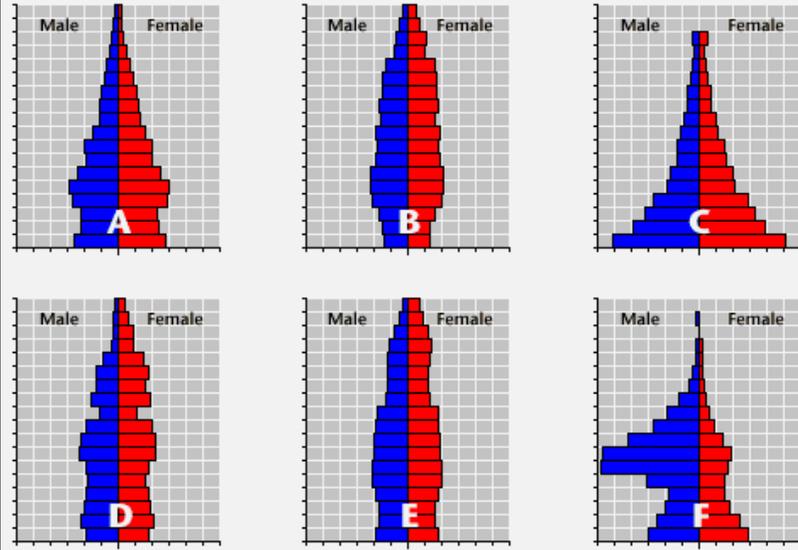
Note: This does not count as a graded assignment. This is for you to review how population pyramids – also called age-sex diagrams – tell us something about the structure of the population at a given time.

If you create a series of population pyramids for different times (such as making several for the US for a number of different censuses), you can see how the structure of the population changes over time.

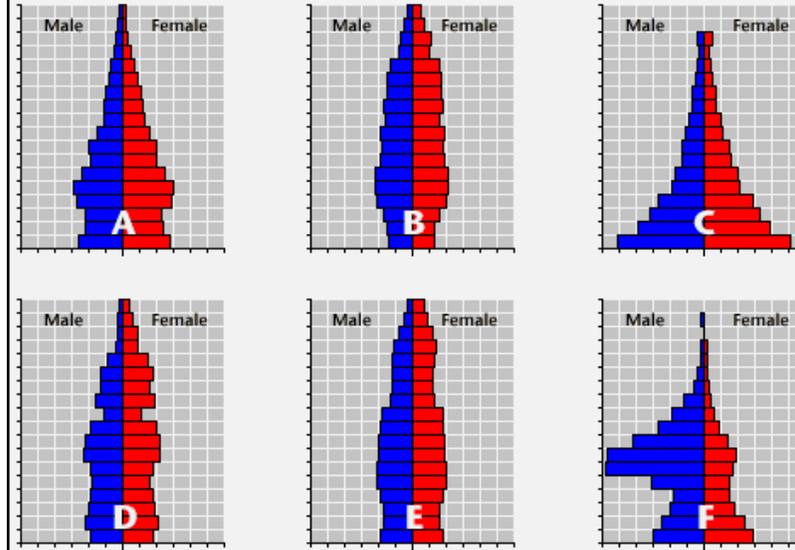
- For this review, try to match the right population pyramid to the description above each panel (for example, in the first panel, “A country with rapid population growth” is population pyramid **C**).
- Each population pyramid is used only once.

After you’ve matched all of the descriptions to one of the population pyramids, check your answers on slide 3!

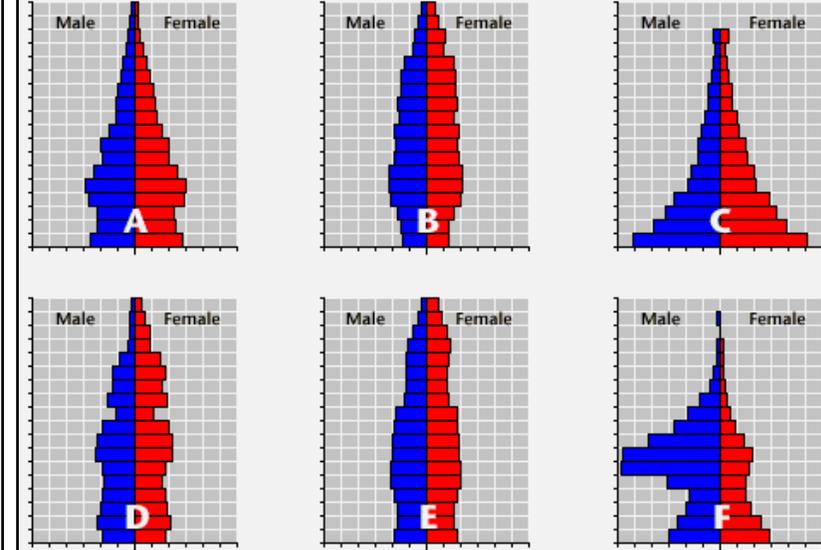
A country with rapid population growth



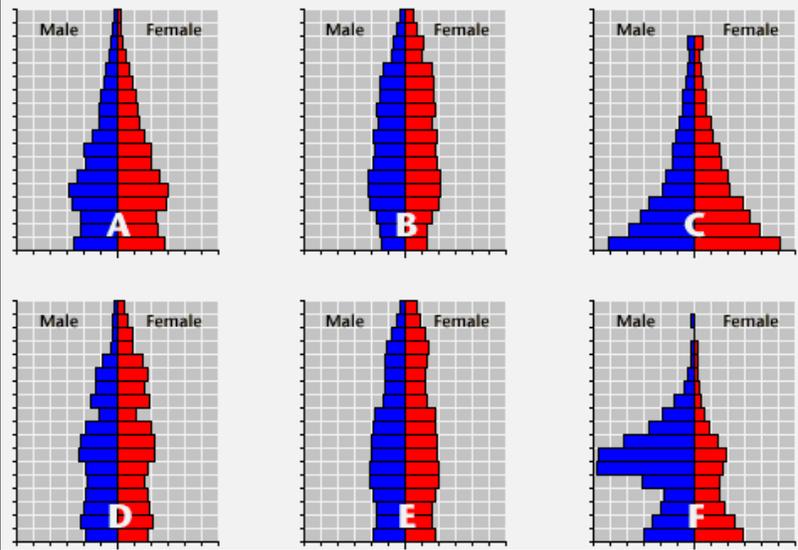
A country that shows the demographic effects of World War II



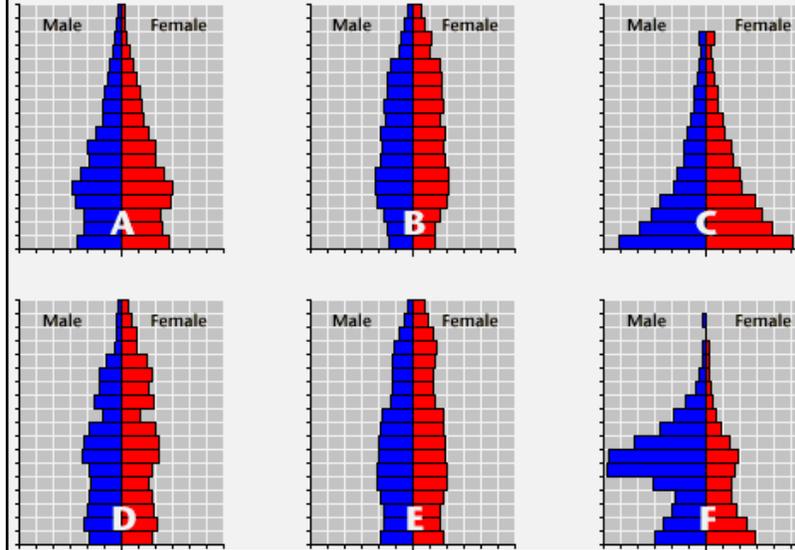
A country at close to ZPG (zero population growth)



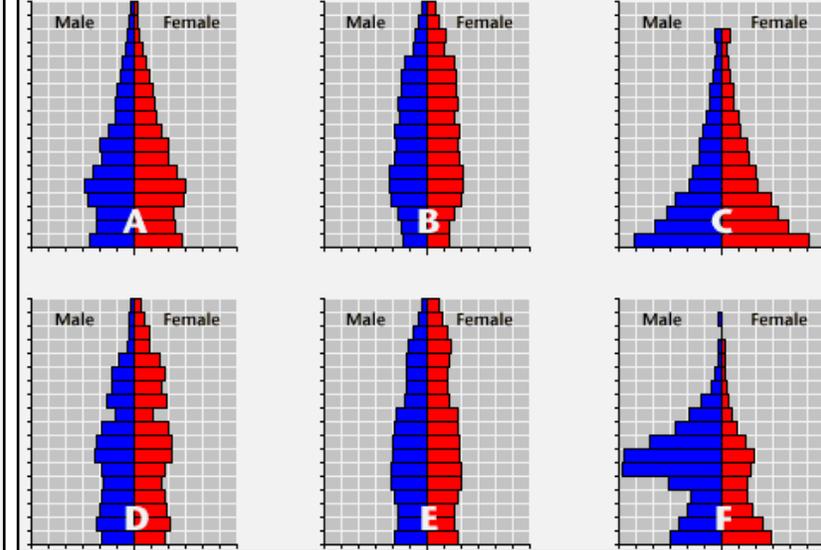
A country that has undergone a recent shift from high to low fertility



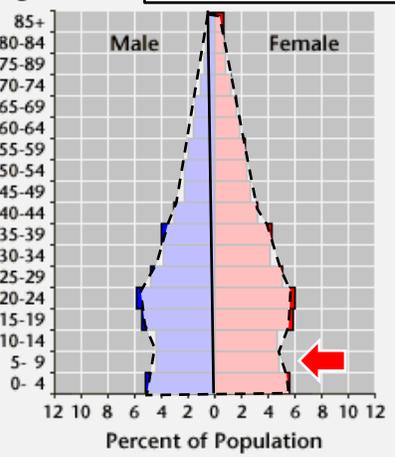
A country with many temporary immigrant workers



A country with a declining population



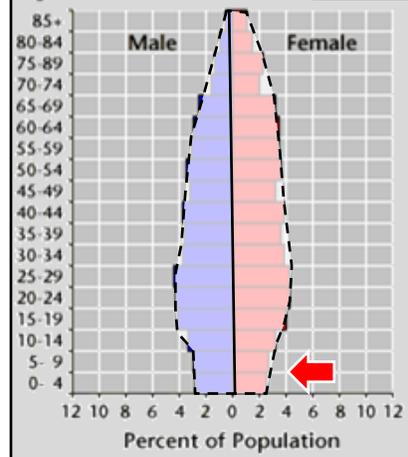
**A** A country that has undergone a recent shift from high to low fertility



Even though China had a fertility rate of 2.4 in 1990 (1.6 in 2005), it was growing at the time of this pyramid by 1.4% (still 0.5% in 2005) because of the large numbers of persons in prime reproductive years and the small number of elderly persons with a high probability of death. Fifteen years after this pyramid, the population continues to grow by 0.5%, despite a fertility rate drop to 1.6.

In recent years, China has also relaxed strict enforcement of the one-child per family rule due the decline in the number of people in the younger generations – thus, a decline in the number in the workforce. Note the “kink” near the bottom – after several generations of decline, the birth rates tick up.

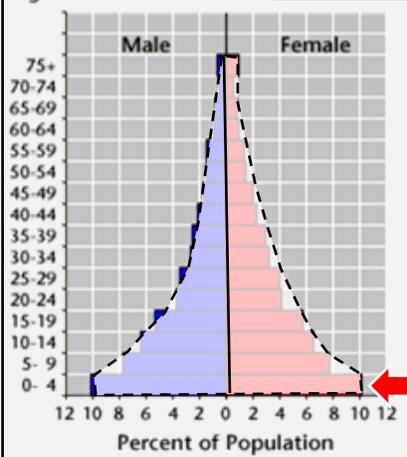
**B** A country with a declining population



This is Italy in 1991. This predominantly Roman Catholic population has one of the lowest fertility rates in the world. Future generations of Italians will be considerably smaller than their parents' generations. Italians worry about a shrinking labor force and a growing elderly population. Think about the social security implications of Italy's demographic future.

There are a number of countries experiencing “negative growth” (Sweden, Japan) and several that would be if not for immigration (France, Germany). The key to reading this pyramid is the smaller age groups at the bottom.

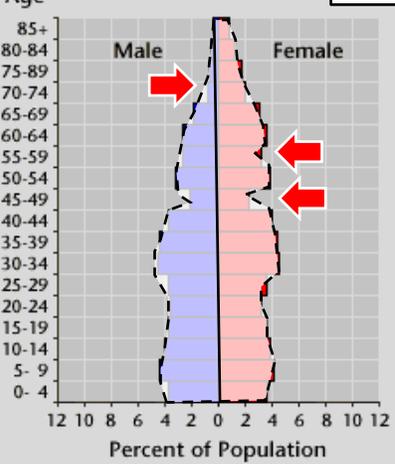
**C** A country with rapid population growth



This country is Tanzania (in 1985). Tanzania's population grew from 22 million in 1985 to 29 million in 1996 – average rate of about three percent per year. A large proportion of Tanzania's population is young as evidenced by the large base of this age-sex structure. Notice that the size of the base is larger than the size of the reproducing population in their 20s. This means that each generation of Tanzanians is getting progressively larger.

All of the high growth countries are in Africa. The country with the highest current growth rate is Niger, in north central Africa, with a total fertility rate of 7. Many of these countries are resource-poor agriculturally, but have immense metal and mineral wealth... but unstable political systems.

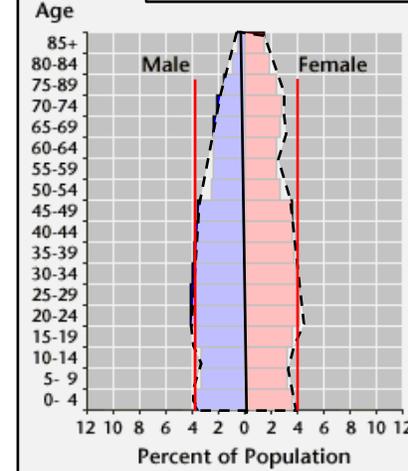
**D** A country that shows the demographic effects of World War II



This is Russia in 1992. Note the indentation for persons between 45 and 49 years of age who were born between 1943 and 1947. This is called a birth deficit because it represents people who were not born during World War II and its aftermath. Births often decline dramatically during war years because young men of prime reproductive age are away from home fighting the war and because of the uncertainties that accompany wartime.

This same effect can also be seen in Germany, which also suffered great losses in both World War I and World War II. Disrupted pyramids can also be seen when other significant losses occurred, such as the genocide in Rwanda in the 1990s.

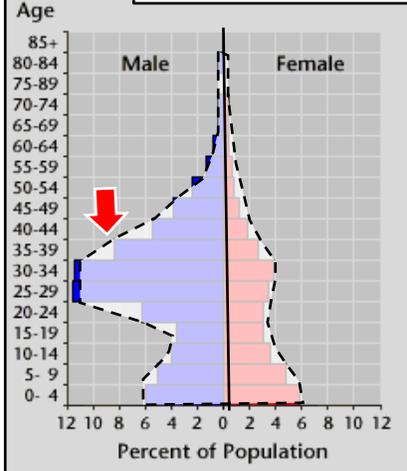
**E** A country at close to ZPG (zero population growth)



This is Norway in 1992. Note the cylindrical shape of this pyramid. Each generation gives birth to another generation about the same size as itself. The top of the pyramid tapers off gradually which is indicative of long life expectancies and a large elderly population.

ZPG has been described as the “must achieve” global population goal as researchers looking at resources (especially food and water) believe that overpopulation will lead to dire consequences.

**F** A country with many temporary immigrant workers



This is Qatar in 1986. Qatar like Saudi Arabia, Kuwait, and the United Arab Emirates, does not have enough domestic workers to run its oil industry. It thus imports labor from surrounding Arab countries and South Asia to run its petroleum industry. Such a large gender imbalance among young adults can lead to many social problems.

Many of the oil producing countries that allow guest works in have strict rules: you cannot bring your family (thus, the male imbalance in the 20-45 ages), and workers typically cannot stay more that 3-5 years and then are forced to go home.