

# Lesson

# 6

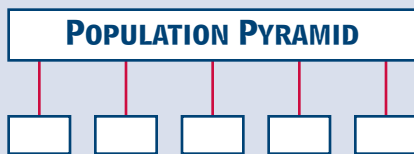
# Reading Population Pyramids

## WHAT YOU WILL LEARN

To gain information about population patterns from population pyramids

## READING STRATEGY

Create a diagram like the one below. In each square list an example of the type of information shown on a population pyramid.



## TERMS TO KNOW

population pyramid, population bulge

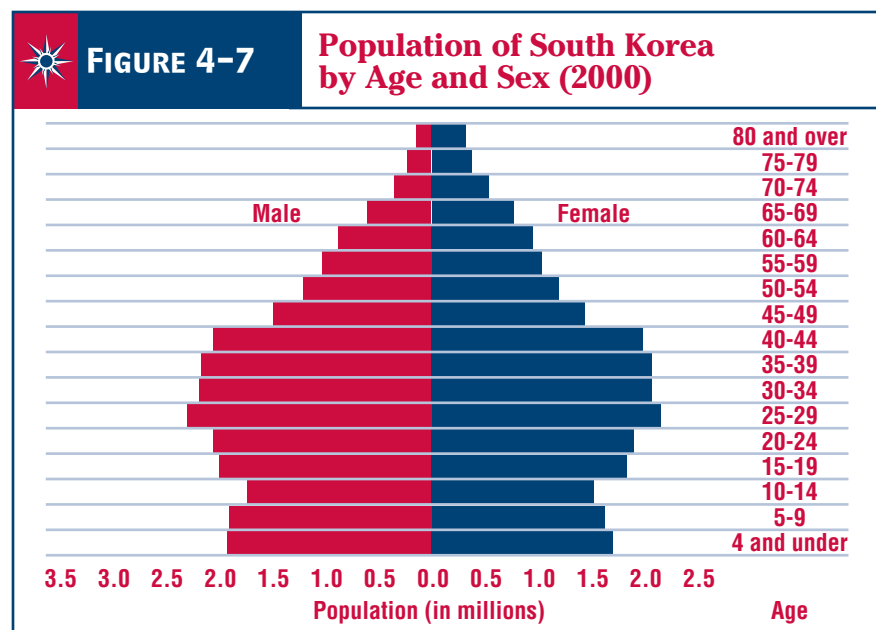
Have you ever been to a place where there was no one else around the same age as you? Were most of the people younger than you? Were most of the people older?

The age structure of a country's population is very important. For example, if a country has a population made up mostly of very young people and very old people, there will be few people of working age. If there are not enough people to work in agriculture or manufacturing, this can cause food shortages as well as other issues, such as the need to import more goods. If a country has a great many young children, there may be a need for more schools and teachers when those children reach school age.

## Population Pyramids

People who study population have developed a special kind of bar graph to show how the population of an area is divided by age and by sex. This kind of graph is called a **population pyramid**.

The term *pyramid* describes the graph's shape for many countries in the 1800s, when the population pyramid graph was created. At that time many countries had large numbers of young people and small numbers of older people. Some countries today still fit this description, or are currently moving away from it. Look at **Figure 4-7**, the population pyramid for South Korea.



Source: U.S. Census Bureau, International Data Base, 2000.

The vertical scale on the graph tells you what age group each bar represents. For example, the bottom bar on the graph stands for people between the ages of 0 and 4 years. The pyramid is made up of horizontal bars. Each bar is divided into two parts by a line down the center of the graph. The left side of the bar represents males in the population. The right side of the bar represents females.

At the bottom of the pyramid is a scale marked in percent (%). Notice that the scale begins in the middle of the graph at 0 percent. To read the percent of males, you must read from the center outward *to the left*. To read the percent of females, you must read from the center outward *to the right*. To find the total percent of the population in a particular age group, you must *add* the figures for males and females.

## Reading Population Pyramids

Practice reading the population pyramid for South Korea. For what year are figures shown? In what age group are the largest number of males? Females? Add the figures for males and females in the 10 to 14 age group. What percent of the population is between the ages of 10 and 14 years? About what percent of the females in South Korea are between the ages of 40 and 44?

Look at the bars for people in South Korea between the ages of 25 to 29 and 30 to 34. These bars are longer than any of the others. This means that there are more people in South Korea between the ages of 25 and 34 than any other age group. Between 2000 and 2005, this age group will get five years older—they will be in the 30 to 39 age group. By 2010, these people will be in the 35 to 44 age group. Do you see what will happen to the shape of South Korea’s population pyramid as these people grow older? The wide bars will move steadily toward the top of the pyramid.

Population pyramids change over time. The shape of a population pyramid is determined by a country’s age structure and sex ratio. It may also be influenced by migration into and out of the country. The traditional pyramid shape is characteristic of a country with high birthrates and high

death rates. Remember from Lesson 2 that countries with high birthrates and high death rates are in Stage 1 of the demographic transition. Some African countries have population pyramids with this shape. Another type of population pyramid has a narrow top, a wide base, and sides that curve inward. This shape represents a falling death rate and a high birthrate. Countries with these population characteristics are in Stage 2 of the demographic transition. A beehive shape characterizes a third type of population pyramid. Countries with low birthrates, low death rates, and a high average age have population pyramids with this shape. Some European countries such as England and Wales have population pyramids like this. These countries are in Stage 3 of the demographic transition. The fourth type of population pyramid has a tapered base that widens slightly as you move to the top. This shape represents a rapid decrease in birthrates.

## Understanding Population Bulges

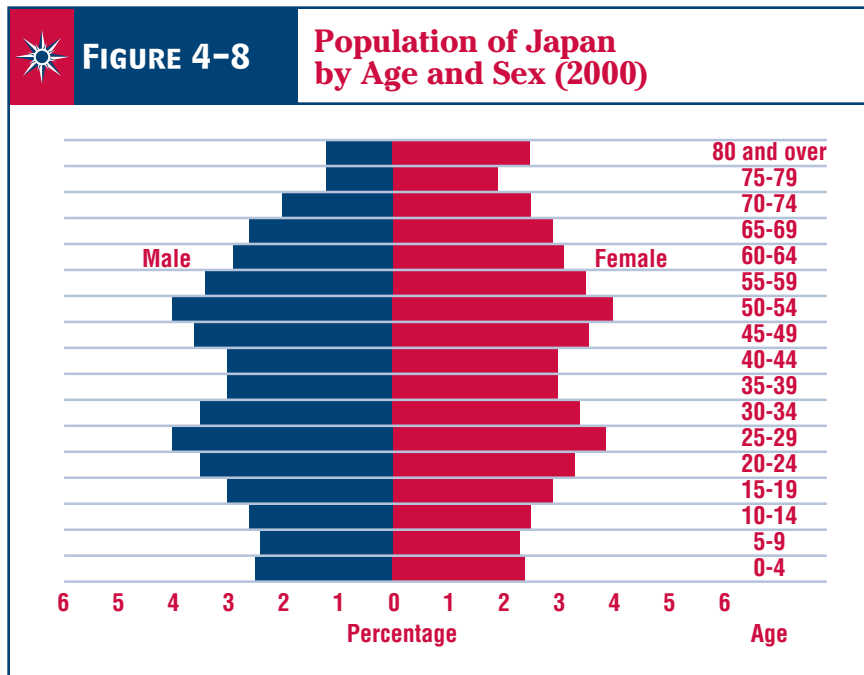
Large numbers of people in one or two age groups in the population are called a **population bulge**. The name comes from the long bars moving up the pyramid, as in the case of South Korea’s 25 to 34 age group. The United States has such a population bulge. It was created by a high birthrate following World War II. This “baby boom” meant that a much higher number of babies than usual were born between 1946 and 1964. As these people become older, there will be a need for more doctors, hospitals, and services for the elderly.

It is possible to make some predictions about future population growth in a country based on population pyramids. For example, a country with a large population bulge at the bottom of its pyramid now will have a large number of people at the age to have children in a few years. That country may have faster population growth in the future. A country with very little bulge anywhere on its population pyramid may have slow population growth. A country with a bulge at the middle or top of its population pyramid may actually lose population in the future.

# Using Your Skills

## A USING GRAPHICS

Use **Figure 4-8** below to answer these questions.

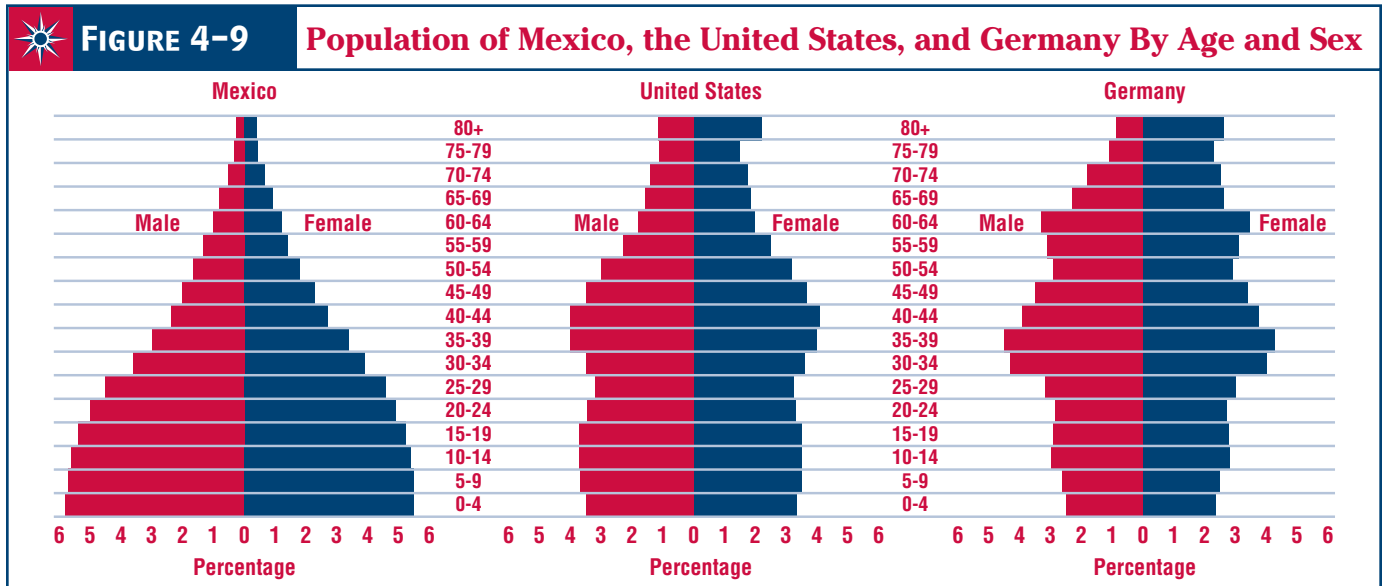


Source: U.S. Census Bureau, International Data Base, 2000.

1. What age group in Japan has the largest number of people? \_\_\_\_\_
2. What age group in Japan has the second-largest number of people? \_\_\_\_\_
3. What age group in Japan has the smallest number of people? \_\_\_\_\_
4. The population pyramid of Japan shows two bulges. What age groups make up those bulges?  
\_\_\_\_\_  
\_\_\_\_\_
5. What is the total percentage of the population in the 80 and over age group? \_\_\_\_\_
6. Does the population pyramid show that men or women tend to live longer in Japan? How do you know?  
\_\_\_\_\_  
\_\_\_\_\_

## B USING GRAPHICS

Use the population pyramids in **Figure 4-9** to answer the questions.



Source: U.S. Census Bureau, International Data Base, 2000.

- Which country has the highest percentage of people between the ages of 0 and 9? \_\_\_\_\_
- In what age groups does the United States have a large population bulge? \_\_\_\_\_
- Which country has the smallest percentage of people between the ages of 0 and 9? \_\_\_\_\_
- Which country has the greatest percentage of people at ages 40 and above? \_\_\_\_\_
- What could happen in Mexico when the people now in the age groups of 0 to 4, 5 to 9, and 10 to 14 reach the age to start having children of their own? \_\_\_\_\_  
\_\_\_\_\_
- Will the population of Germany most likely grow faster or slower when the people now in the age groups 0 to 4 and 5 to 9 reach the age to have children? Why? \_\_\_\_\_  
\_\_\_\_\_
- Based on its population pyramid, do you think the population of the United States will grow quickly or slowly? Why? \_\_\_\_\_  
\_\_\_\_\_