

# Population Dilemmas in Europe

## 15.1 Introduction

You are driving in the south of Italy on a hot summer day. As you wind your way through dry, brown hills, you decide to stop for a cold drink. You park your car in the tiny village of Cersosimo. As you begin to walk through the old narrow streets, you notice something strange. Cersosimo is filled with elderly people! In fact, for every three faces you see, two of them are over 65 years old. Looking in at the village school, you see that children of all ages are studying together in just one small class.

Finally you find a shop where you can buy your cold drink. You ask the shopkeeper why there are so many old people and so few children in Cersosimo. He replies that families here just aren't having babies these days. A few years ago, the village tried to change this. They offered to pay mothers a "birth bonus" for every baby born in Cersosimo. But this did not seem to change anything.

The story of Cersosimo is the story of Italy. Scientists who do research in **demography** say that it is also the story of Europe. Demography is the study of human populations. Demographers look at **birth rates** and **death rates** and migration of people. They study how populations change over time. They also track population trends, or movements. In Europe, for example, they are tracking a trend toward smaller families.

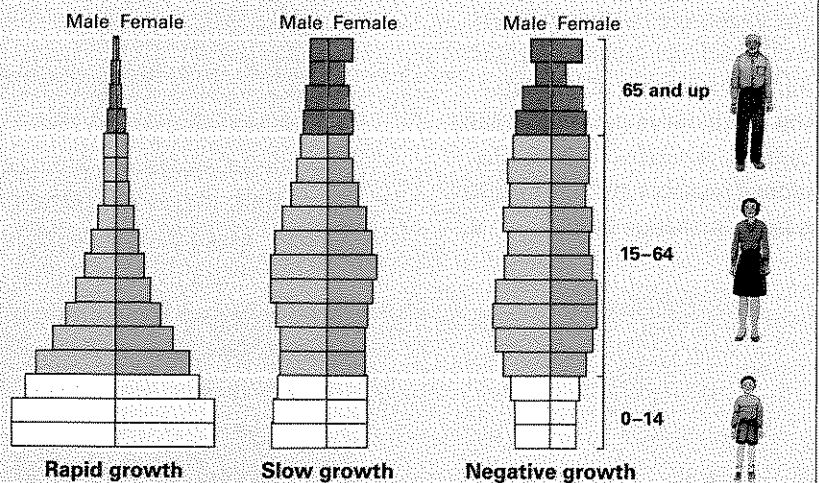
In this chapter, you will learn about population trends in Europe. You will see some of the problems created by shrinking family sizes. And you will see how European countries are trying to address those problems.

### Essential Question

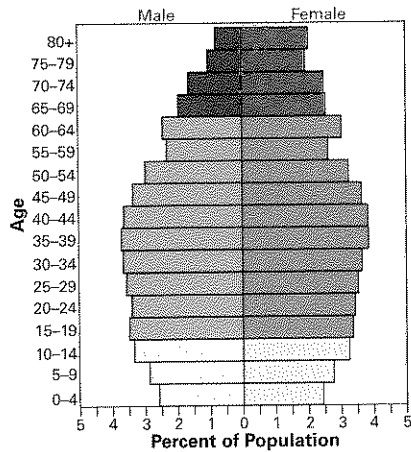
#### How do population trends affect a country's future?

These diagrams are called **population pyramids**. They show the makeup of a country's population by sex and age groups. Geographers use such diagrams to study population trends in a country. Notice how each pyramid has a different shape. Keep these pyramids in mind as you try to answer the Essential Question.

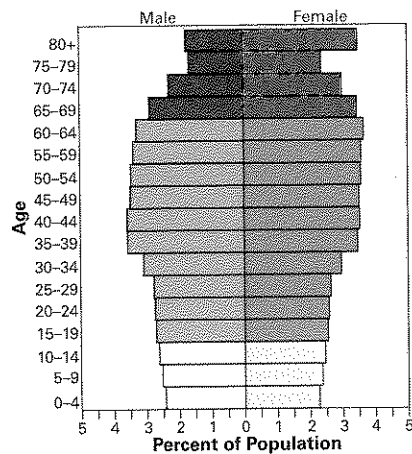
### Graphic Organizer



## Europe, 2000



## Europe, 2025 (Estimated)



Source for population pyramid data: *United Nations Population Division*, "World Population Prospects: The 2004 Revision Population Database," [esa.un.org/unpp/](http://esa.un.org/unpp/).

### Population Trends in Europe

A population pyramid is made up of two back-to-back bar graphs. One shows the number of males in different age groups. The other shows the number of females. The first of these pyramids graphs Europe's population in 2000. The second reveals how that makeup is likely to change by 2025.

## 15.2 The Geographic Setting

Europe is one of the smallest continents in area. But about an eighth of the world's people live there. This may not be true much longer for two reasons. First, Europe has the oldest population of any continent. Second, it has the lowest birth rate, or number of births per 1,000 people. As a result, its population is shrinking.

**Population Change: Births, Deaths, and Migration** The study of population trends focuses on births, deaths, and migration. Whether a population grows or shrinks depends on these three factors.

Children are born every day in Europe. But the average number of babies born to each woman is low. This average number of births is called the **total fertility rate**, or TFR. In 2000, for example, the TFR in Italy was just over one baby per woman.

If the TFR remains this low, Italy's population will continue to shrink. To stop this trend, the TFR will need to rise to the **replacement rate**. This will happen when enough babies are born to replace the people who die each year. In Italy, the replacement rate is just over two babies per woman.

People also die every day in Europe. But they don't die as young as they used to. Over the past century, **life expectancy** has increased there. Life expectancy is the number of years a person can expect to live. In 2004, the average person in France could expect to live about 80 years. A century earlier, life expectancy in France was only 50 years.

People move into and out of Europe every day as well. In the past, most of the movement was out of Europe. Today more people are moving into Europe than are leaving it. But not enough are coming in to keep the population stable.

**Population Pyramids Show Growth Trends** Geographers use graphs shaped like pyramids to study population. These graphs show the ages and sexes in a population. The youngest ages are at the bottom. The oldest are at the top.

The shape of a population pyramid shows how a country's population is growing. A pyramid that is wide at the bottom shows rapid population growth. More babies are being born each year than the number of people who die. A pyramid with straight sides shows slow population growth. Births and deaths are nearly equal in that country. A pyramid that is narrow at the bottom shows negative population growth. More people are dying each year than are being born.

Population growth affects a country's **dependency ratio**. This ratio compares the number of people too young or old to work with a country's working-age population. Most young people under the age of 16 in Europe don't work. And most people over the age of 64 are retired. Both groups depend on other people to support them. A low dependency ratio means that workers have few dependents to support. A high dependency ratio means just the opposite. There are a lot of young or old people for workers to support.

## ► Geotermms

**demography** the study of human populations, including how they change due to births, deaths, aging, and migration

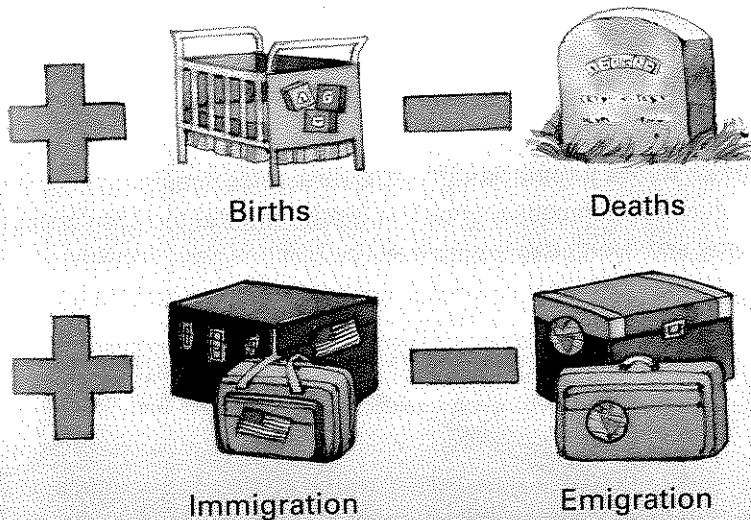
**dependency ratio** the number of old and young dependents who don't work compared with the working-age population. The higher the ratio, the more young and old people the workers have to support.

**life expectancy** the average age that a person in a given population can expect to live to. Life expectancy varies from one country to another.

**replacement rate** the total fertility rate needed for a population to replace itself. This number varies by country, but is about 2.1 in most developed countries.

**total fertility rate (TFR)** the average number of children a woman in a given population will have in her lifetime. This number is different in different countries.

# Population in One Year



Population in the Next Year

### Factors That Cause Population Change

This diagram shows the factors that cause population change. Births and immigration cause growth. Deaths and emigration cause a population to shrink.

## GEOTERMS 15

Read Sections 15.1 and 15.2. Then create an illustrated dictionary of the Geoterms by completing these tasks:

- Create a symbol or an illustration to represent each term.
- Write a definition of each term in your own words.
- Write a sentence that includes the term and the word *Europe*.

<b>Geoterm and Symbol</b>	<b>Definition</b>	<b>Sentence</b>
demography		
dependency ratio		
life expectancy		
replacement rate		
total fertility rate		