

Reading Essentials and Study Guide

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Chapter 12: Evaluating the Economy

Lesson 2 Population Growth and Trends

ESSENTIAL QUESTION

How do we determine the economic and social well-being of the United States?

Reading HELPDESK

Academic Vocabulary

residence the place where a person lives

Content Vocabulary

census complete count of population, including place of residence

urban population those people living in incorporated cities, towns, and villages with 2,500 or more inhabitants

rural population those people not living in urban areas, including sparsely populated areas along the fringes of cities

center of population point where the country would balance if it were flat and everyone weighed the same

infrastructure the highways, levees, mass transit, communications, power, water, sewerage, and other public goods needed to support a population

baby boom historically high birthrate years in the United States from 1946 to 1964

population pyramid diagram showing the breakdown of population by age and gender

dependency ratio ratio of the population aged under 15 and over 65 to the population aged 15 to 65

demographers people who study growth, density, and other characteristics of the population

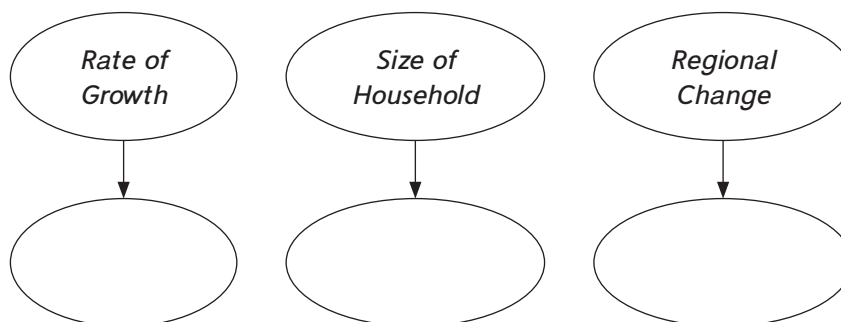
fertility rate number of births that 1,000 women are expected to undergo in their lifetime

life expectancy average remaining life span in years of a person who has reached a specified age

net immigration net population change after accounting for those who leave as well as enter a country

TAKING NOTES: *Key Ideas and Details*

Use a graphic organizer like the one below to identify the listed changes in the United States.



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Population in the United States

Guiding Question *What changes has the United States population experienced since 1790?*

Population is important for several reasons. First, a country's population is the source of its labor, and labor is one of the four factors of production. Second, the population is the main consumer of a country's output. So the population directly affects how much a country produces. For these reasons, the population's size, composition, and rate of growth all affect the larger economy.

The Constitution of the United States requires the government to take a **census**. A census is an official count of all the people living in the United States, including their place of **residence**. The census happens every 10 years, so it is called the *decennial census*.

The original use of the census was to figure out how many representatives each state can elect to Congress. But the census also gives us a large amount of other data about our nation. We even use it to make projections about the future.

Counting the Population

The federal government completed the first census in 1790. In the 1800s, the government created temporary organizations each decade to do the counting. But in 1902, Congress established the U.S. Census Bureau. Today, the work of the Census Bureau also includes activities like monthly surveys about the size and other characteristics of the population.

When the Census Bureau conducted the last decennial census, it used the household as its main survey unit. The Bureau sent a "short form," which took just a few minutes to fill out, to about five in every six households. The other households received a "long form," which had more questions. This additional data helped the Bureau to create a more detailed profile of the population. The Bureau used different methods to count special groups, such as homeless persons, who do not normally fit into the household survey unit.

The Census Bureau organizes and presents its data in different ways. One way shows the size of the **urban population**—people living in incorporated cities, villages, or towns with 2,500 or more people. The **rural population** makes up the rest, including people who live in sparsely populated areas located beyond the edges of cities.

Growth and Regional Change

The population of the United States has grown greatly since colonial times. But the rate of growth has slowly declined. Between 1790 and 1860, the population grew at a compounded rate of about 3.0 percent a year. From the beginning of the Civil War until 1900, the average growth rate fell to 2.2 percent. From 1900 to the beginning of World War II, the rate dropped to 1.4 percent. After a brief rise at the end of World War II, the rate of increase continued to decline, and today the rate of population growth is less than 1.0 percent annually.

The census also shows a steady trend toward smaller households. During colonial times, the average household size was about 5.8 people. By 1960, the average was 3.3, and today it is about 2.6 people. The figures reflect a global trend toward smaller families in industrialized countries. The figures also show that more people are living alone today than ever before.

An important population shift began in the 1970s. Many people migrated to the western and southern parts of the United States. People left the crowded, industrial northeast to move to warmer, more spacious parts of the country. This migration caused steady population growth in the southern and western states. Most of the older industrial areas in the north and east have grown more slowly or even lost population.

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Another way to see population shifts is by figuring out a country's **center of population**. This is the imaginary point where the country would balance if it were flat and everyone weighed the same. In 1790, the center was 23 miles east of Baltimore, Maryland. As you can see in **Figure 12.3**, it has since moved farther west. By the 2010 decennial census, the center of population was near Plato, Missouri.

Consequences of Growth

Changes in population can distort some macroeconomic measures, such as GDP and GNP. So both measures are often shown on a per capita, or per person, basis. We calculate GDP per capita by dividing GDP by the population. GDP per capita is especially useful to compare GDP between countries.

Population growth can have several consequences. If a nation's population grows faster than its output, the country could have more people than it can feed. But if a nation's population grows too slowly, there may not be enough workers to keep the economy growing. A larger population also makes a bigger demand for resources.

When a growing population shifts toward certain areas, such as cities or suburbs, its demand for resources changes. For example, in Atlanta, Georgia, urban sprawl and traffic congestion have become major problems. In heavily populated areas of Arizona, Nevada, and southern California, supplies of fresh water have become major concerns.

We need to pay attention to future population trends because it takes a long time to plan and build a country's **infrastructure**. Infrastructure includes the highways, levees, mass transit, communications systems, electricity, water, sewer systems, and other public goods needed to support a population. If we neglect them, even small shifts in the population can cause huge problems in the future.



Reading Progress Check

Explaining What have been the major population changes since the first census in 1790?

Projected Population Trends

Guiding Question *What effect will the aging population have on the economy?*

Population trends are important for many different groups to know. Political leaders watch population shifts to see how voting patterns may change. Community leaders are interested because local population changes affect services such as sanitation education, and fire protection. Businesses use census data to figure out markets for products and sales territories.

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Age and Gender

People born during the **baby boom** make up a large part of the current population. These are the people who were born during the high birthrate years from 1946 to 1964. The Census Bureau uses the baby boomers to make its projections because they are a large percentage of the population. The baby boomers created a bulge in the **population pyramid**, which is a type of bar graph that shows the breakdown of population by age and gender. This is shown in **Figure 12.4**.

The bulge in the middle of the pyramid for ages 55 to 74 represents the baby boomers in the year 2020. A second, smaller bulge represents the baby boomers' children. As years pass, more births are added to the bottom of the pyramid and push earlier groups upward into higher age groups.

Soon, more and more baby boomers will retire and begin to collect pensions, Social Security, and Medicare benefits. This will put a heavy burden on the younger and smaller working population because most of these payments are transfer payments. We can see this burden clearly through changes in the **dependency ratio**—the ratio of the population under 15 and over 65 to the population aged 15 to 65. The dependency ratio was 49.4 in 2010, but according to Census Bureau projections, it will rise to 65.9 by 2030, and to 70.9 by 2090.

Finally, if you compare the left side of the population pyramid with the right, you will see that women tend to live longer than men. We can also make separate population pyramids for different groups of people.

Race and Ethnicity

The Census Bureau makes projections for racial and ethnic groups. In 2000, whites were the largest portion of the total population. African Americans came next, then Hispanic Americans, Asian Americans, and lastly Native Americans.

Racial statistics will change greatly in the future because of different fertility rates, life expectancies, and immigration rates. By 2050, we expect that the Asian and Hispanic portions of the population will almost double. The number of African Americans will also increase. White non-Hispanic people will likely number just under 50 percent of the total population.

Future Population Growth

Demographers are people who study growth, density, and other characteristics of population.

Demographers list three major factors that affect population growth. These factors are fertility, life expectancy, and net immigration levels.

- **Fertility**—The **fertility rate** is the number of births that 1,000 women are expected to have in their lifetime. For example, a fertility rate of 2,119 means 2.119 births per woman. The Census Bureau expects that this will be the most likely fertility rate for the United States. This rate is slightly above the replacement population rate, which is when the number of births equals the number of deaths. At the replacement population rate, the size of a population does not increase or decrease. It stays the same over time.
- **Life expectancy**—The second factor, **life expectancy**, is the average number of years a person is expected to live. Today life expectancy is 77.7 years, but the Census Bureau predicts that this will increase to 83.9 years by 2050.

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- **Net immigration**—The third factor is **net immigration**, which is the overall change in population caused by people moving into and out of the country. The Census Bureau recently estimated a net immigration rate of about 1.4 million per year or higher. This is based on 1,040,000 immigrants entering the country and 160,000 emigrants leaving the country in the future.

Exploring the Essential Question

Which will have a greater impact on the economy: a slowing fertility rate or an increasing life expectancy? Why do you think so?

Analysts expect the rate of population growth in the United States to continue to decline because of these three factors. The growth rate is at about 0.75 percent today, but it is likely to decrease until the year 2050. At that time, analysts expect the population of the United States to be about 440 million people.

People might think that the declining growth rate is something to worry about. But it is important to realize that increases in productivity can balance the negative effects of declining population growth. If slightly fewer people produce much more on average, then total output will continue to grow.

Future Population Challenges

The larger concern is the age of the future population. As the population gets older, a greater percentage of people will reach retirement age. This will cause an increase in the demand for medicines, medical facilities, retirement homes, and other products that the retired and the elderly need. At the same time, there may be less need for schools, playgrounds, and other facilities as the young become a smaller percentage of the population.

These changes tend to be gradual. We can also make fairly good predictions about their impact on the economy. Finally, one of the major advantages of a market economy is that it adjusts to change with the least amount of disruption of daily life.



Reading Progress Check

Summarizing Why is the rate of population growth declining?
