CONCEPT REVIEW

Business cycle is the series of growing and shrinking periods of economic activity, measured by increases or decreases in real gross domestic product.

CHAPTER 13 KEY CONCEPT

Unemployment has a variety of causes. Some level of unemployment is expected, even when an economy is healthy.

WHY THE CONCEPT MATTERS

As the nation’s economy goes through business cycles, it will face the twin problems of unemployment and inflation. You may find yourself unemployed at some point during your working years, if only for a short period. For some people, persistent unemployment leads to poverty. During periods of inflation, you may have a job but your wages may buy less.

Online Highlights

More at ClassZone.com

Economics Update
Go to ECONOMICS UPDATE for chapter updates and further information on inflation in the 1970s. (See Case Study, pp. 404–405.)

SMART Grapher
Go to SMART GRAPHER to complete graphing activities in this chapter.

Interactive Review
Go to INTERACTIVE REVIEW for concept review and activities.
SECTION 1

Unemployment in Today’s Economy

OBJECTIVES
In Section 1, you will
• explain how economists measure unemployment
• identify the different types of unemployment
• discuss the impact that unemployment has on the economy and on individuals

KEY TERMS
unemployment rate, p. 382
underemployed, p. 383
full employment, p. 383
frictional unemployment, p. 384
seasonal unemployment, p. 384
structural unemployment, p. 384
cyclical unemployment, p. 384

TAKING NOTES
As you read Section 1, complete a cluster diagram like the one below to record and organize what you learn about unemployment. Use the Graphic Organizer at Interactive Review @ ClassZone.com

KEY CONCEPTS
In November 2005, General Motors Corporation announced that it would close or scale back about a dozen plants and lay off about 30,000 workers. The impact of a decision like that on the towns where the factories are located can be extensive. Because the unemployed cannot buy as many goods and services as they did when they had a paycheck, other area businesses might decrease output, and they might even lay off some of their own workers. If businesses across the country decide to stop hiring or to cut back, the decreased production might reduce gross domestic product (GDP), the leading measure of a country’s economic health. Economists use unemployment figures to judge the performance of the economy. The measure they use most is the unemployment rate, the percentage of the labor force that is jobless and actively looking for work.

The Unemployment Rate
The civilian labor force, as you learned in Chapter 9, is made up of people over the age of 16 who are employed or actively looking and available for work. It does not include people in the military or those in schools, prisons, or other institutions. To determine the unemployment rate, the U.S. Bureau of Labor Statistics (BLS) surveys the labor force...
force in 60,000 households each month. Workers over the age of 16 who are not working but are able to work and who have looked for work sometime during the previous four weeks are considered unemployed. The BLS then divides the number of unemployed persons by the total number of workers in the civilian labor force to arrive at the unemployment rate. While very useful, the unemployment rate does not account for discouraged workers who have stopped looking for work. Nor does it count the underemployed, those who work part-time when they want full-time employment or those who work at a job below their skill level. These include recently laid-off workers who may be in a temporary, lower-paying job.

**Full Employment**

Despite its name, full employment does not mean a zero unemployment rate. Instead, it means a level of unemployment in which none of the unemployment is caused by decreased economic activity. Even in a healthy economy there is always some level of unemployment. Sometimes people become unemployed when they relocate or when they leave one job to try to find another job that suits them better. Sometimes the available jobs do not match up with the skills of the available workers. In other words, some amount of unemployment is inevitable.

Economists generally agree that an unemployment rate of four to six percent indicates full employment in the United States. In other countries, with different labor markets and economic policies, full employment may occur at higher or lower rates of unemployment.

**APPLICATION Explaining an Economic Concept**

A. Explain why the unemployment rate is based on a country’s civilian labor force, not its entire population.
Economists pay attention not only to the unemployment statistics, but also to the reasons for unemployment. Economists recognize four types of unemployment:

- **Frictional unemployment**, temporary unemployment experienced by people changing jobs
- **Seasonal unemployment**, unemployment linked to seasonal work
- **Structural unemployment**, a situation where jobs exist but workers looking for work do not have the necessary skills for these jobs
- **Cyclical unemployment**, unemployment caused by a part of the business cycle with decreased economic activity

### TYPE 1 Frictional Unemployment

Frictional unemployment refers to the temporary unemployment of workers moving from one job to another. The frictionally unemployed might include a parent who has spent time at home raising children and decides to move back into the workforce; a magazine designer who leaves his job to seek work as a designer at a book publisher; or a recent college graduate who is looking for her first full-time job. Frictional unemployment is a reflection of workers’ freedom to find the work best suited for them at the highest possible wage. Economists consider frictional unemployment normal and not a threat to economic stability.

### TYPE 2 Seasonal Unemployment

Demand for some jobs changes dramatically from season to season, resulting in seasonal unemployment. Demand for construction workers, for example, typically falls in the winter months when construction activities are more difficult. Tourism peaks at certain times of the year, and different regions have different tourist seasons. Migrant farm workers, who move from one area to another following the growing schedules of the crops, are hard hit by seasonal unemployment. The winter months are especially slow, resulting in economic hardship for many migrant families.

### TYPE 3 Structural Unemployment

Structural unemployment results when the available jobs do not match up well with the skills and experience of the available workers. A dynamic economy will often create structural unemployment as businesses become more efficient and require fewer workers to create the same amount of output. There are a number of possible triggers for structural unemployment. New technology can replace human workers or require workers to retrain. New industries requiring specialized education can leave less well-educated workers...
Facing Economic Challenges

out of work. A change in consumer demand—from compact discs to computer music files, for example—can shift the type of workers needed. Offshore outsourcing, when jobs once held by Americans are staffed overseas, is another cause of structural unemployment.

**TYPE 4 Cyclical Unemployment**

Cyclical unemployment results when the economy hits a low point in the business cycle and employers decide to lay off workers. Workers who lose their jobs during a recession can have trouble finding new jobs because the economy as a whole is scaling back, and the demand for labor declines. When the economy picks up again, many workers are again able to find jobs.

The duration of unemployment in these four types ranges widely, but the average duration of unemployment is relatively short. More than a third of the unemployed are out of work for five weeks or less.

**APPLICATION Making Inferences**

B. If you owned a clothing factory, how would a high rate of unemployment affect your business?
The Impact of Unemployment

**KEY CONCEPTS**

Although some unemployment is unavoidable, excessive or persistent unemployment hurts the economy in several ways. It reduces efficiency; it hurts the least economically secure; and it damages workers’ self-confidence.

**Efficiency** Unemployment is inefficient. It wastes human resources, one of the key factors of economic growth.

**Inequality** Unemployment does not follow equal opportunity rules. In an economic slowdown, those with the least experience lose their jobs first—usually minorities and the young (see the graphs below). Also, with fewer jobs available, people on the lower rungs of the employment ladder have less opportunity to advance.

**Discouraged Workers** People who are unemployed—or underemployed—for long periods of time may begin to lose faith in their abilities to get a job that suits their skills. Potentially productive workers may give up their search for work. If they are underemployed, they may not be motivated to do their best work.

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**APPLICATION Writing About Economics**

C. In 1889, Jane Addams founded the Hull House Association in Chicago to help newly arrived immigrants adjust to the challenges of city life. In 1910, she wrote that “of all the aspects of social misery nothing is so heartbreakingly as unemployment.” Write a paragraph explaining the impact of unemployment on immigrants.

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**ANALYZE GRAPHS**

1. Which group, either age or race, has the highest rate of unemployment?
2. What happens to the unemployment rate as people get older?
3. If the majority of people aged 65 and older are retired, why is the unemployment rate for that group so low?
**SECTION 1  Assessment**

**REVIEWING KEY CONCEPTS**

1. Explain the relationship between the terms in each of these pairs.
   a. frictional unemployment structural unemployment
   b. seasonal unemployment cyclical unemployment

2. Explain how the unemployment rate is calculated.

3. Why are economists interested in the unemployment rate?

4. Name a job that might be affected by structural unemployment. Explain why it might be affected.

5. What is full employment?

6. Using Your Notes Write a brief summary of this section, covering measuring unemployment, types of unemployment, and the impact of unemployment. Refer to your completed cluster diagram. Use the Graphic Organizer at Interactive Review @ ClassZone.com

**CRITICAL THINKING**

7. Solving Economic Problems Unemployment insurance provides money to workers who have lost their jobs through no fault of their own. In most states, the insurance is funded entirely by employers. What else might business and government do to help unemployed workers?

8. Analyzing Cause and Effect In June 2005, claims for unemployment insurance in Illinois from construction workers made up about 14 percent of all claims. In December 2005, they made up about 21 percent. Why might more construction workers file for unemployment benefits in December than in June? What type of unemployment best explains the difference?

9. Applying Economic Concepts Give specific examples from the Great Depression of the 1930s of ways in which the widespread unemployment (1) affected efficiency, (2) was distributed unequally, and (3) eroded self-esteem.

10. Challenge Think about the type of career you hope to have when you are finished with your education. Do you think it is more likely or less likely than others to be affected by each of the various types of unemployment? Explain each of your answers.

**IDENTIFYING TYPES OF UNEMPLOYMENT**

Read the following descriptions of unemployment scenarios.

**CATEGORIZE ECONOMIC INFORMATION** Decide which of the four types of unemployment each scenario describes.

- Because of reduced demand, an appliance company temporarily closes one of its factories and lays off workers.
- In September, a part-time student at the University of Central Florida in Orlando loses his job at a theme park.
- A newspaper journalist leaves her job to make a switch into television journalism. She has been looking for a new job for several months.
- A local travel agency has to close down because of the widespread availability of direct online booking options.

**CHALLENGE** Young people are two to three times more likely than older people to be unemployed. Why is this?
Poverty and Income Distribution

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<td>In Section 2, you will</td>
<td>poverty, p. 388</td>
<td>As you read Section 2, complete a summary chart like the one below to pull together the most important ideas about poverty and income distribution. Use the Graphic Organizer at Interactive Review @ ClassZone.com</td>
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What Is Poverty?

**KEY CONCEPTS**

Persistent unemployment sometimes leads to poverty, a situation in which a person lacks the income and resources to achieve a minimum standard of living. This minimum standard varies from country to country because different countries have different ways of life. Someone who herds sheep and lives in a hut would probably be considered poor in the United States. But such a person might be thought to have a comfortable life in some other countries. Because of such disparities, there is no universal standard for what constitutes poverty.

The U.S. government has established its own standard for poverty based on income levels. This poverty threshold is the official minimum income needed for the basic necessities of life in the United States.

**The Poverty Threshold**

The poverty threshold, also called the poverty line, is the amount of income the government has determined to be necessary for meeting basic expenses. People with incomes below that threshold are considered to live in poverty. The threshold, first formulated in the early 1960s, was calculated by finding the cost of nutritionally sound food and then multiplying by three, on the assumption that food costs are about a third of a person’s expenses.

The threshold differs according to the size of the household and is adjusted annually to reflect changing prices. In 2005, the poverty threshold for a family of four in the United States was about $20,000. That same year, the median income for a family of four was over $65,000.
The Poverty Rate

The poverty rate is the percentage of people living in households that have incomes below the poverty threshold. Unlike the unemployment rate, the poverty rate is based on the population as a whole. Through census information, the poverty rate can be estimated for individuals, households, or specific segments of the population, such as African-American children or single-parent households.

The overall poverty rate in the United States declined between 1993 and 2000 to a low of 11.3 percent. It began to rise in 2000 and by 2004 had climbed to 12.7 percent, with 37 million people living below the poverty line. (See Figure 13.4.)

Poverty, like unemployment, does not hit all sectors of society equally. Children are especially at risk. Children made up more than half of the 1.3 million increase in the number of people living in poverty between 2002 and 2003. The number of families below the poverty line that are headed by a single mother also rose. Minorities and families that live in either an inner city or a rural area tend to have higher than average poverty rates. While the numbers tell the statistical story of poverty, only personal voices can convey the toll of being poor. James Baldwin, an African-American writer born in poverty, wrote that “anyone who has ever struggled with poverty knows how extremely expensive it is to be poor.”

**QUICK REFERENCE**

The poverty rate is the percentage of people living in households that have incomes below the poverty threshold.

**ANALYZE GRAPHS**

1. From 1959 to 2004, when was the poverty rate the highest? When was it lowest?
2. What decade saw the largest drop in the rate of poverty?

**APPLICATION Drawing Conclusions**

A. Why is the poverty rate based on the entire population, while the unemployment rate is based on the civilian work force?
The Problem of Poverty

**KEY CONCEPTS**

Across the globe, about half of the world’s 6 billion people live in poverty. In the United States, one of the world’s wealthiest countries, almost 40 million people live below the poverty level. Even good economic times, such as the boom that the United States experienced in the 1990s, do little to move large numbers of people out of poverty. Why is an adequate income out of reach for so many people?

**Factors Affecting Poverty**

Four major factors have the strongest influence on who lives in poverty in the United States: education, discrimination, demography, and changes in the labor force.

**Education** As you learned in Chapter 9, usually there is a direct relationship between level of education and income: the higher the level of education, the higher the income. In the United States, the poverty rate of people who did not complete high school is 12 times higher than that of people with a college education.

**Discrimination** White males tend to have higher incomes than racial minorities and women, even when there are no differences in education or experience. Certain groups sometimes face wage discrimination or occupational segregation and may find it difficult to move beyond low-paying jobs. Government initiatives, as well as the pressures of the competitive marketplace, have helped to reduce job discrimination.

**Demographic Trends** In the 1950s, about one-fourth of all marriages ended in divorce. Now, almost half of all marriages end in divorce. Over the same period, births to unmarried mothers jumped from about 5 percent of all births to over 30 percent. Such demographic trends lead to higher poverty rates because single-parent families are more likely to have economic problems than two-parent families.

**Changes in the Labor Force** The shift in the labor force from mainly manufacturing to mainly service industries is one of the changes that affects the distribution of poverty. When manufacturing jobs were plentiful, even relatively low-skilled workers were able to earn a good wage. As the jobs shifted from manufacturing to service, the wages did not always follow. Workers in many service jobs, such as fast-food clerks, tend to earn lower wages than similarly skilled workers in manufacturing.

**Income Distribution**

The United States has one of the highest median family incomes in the world, yet millions of Americans live below the poverty line. This disparity is reflected in the country’s income distribution, the way income is divided among people in a nation.

All countries have some degree of income inequality, an unequal distribution of income. Unless everyone earns the same amount, there will always be a difference between the incomes of the wealthiest citizens and those of the poorest. Compared to other advanced nations, the United States has relatively high income inequality. However, less advanced countries tend to have the most extreme differences between what the rich earn and what the poor earn.
A Lorenz curve graphically illustrates the degree of income inequality in a nation. The Lorenz curve in Figure 13.5, for example, plots income distribution in the United States. If income were distributed equally, then 20 percent of the population would receive 20 percent of the income, 40 percent would receive 40 percent, and so on. That distribution would be represented with a diagonal line.

However, income is not equally divided. The Lorenz curve in Figure 13.5 shows that the lowest 20 percent of the population (Group 1) receives only about 3.4 percent of the nation’s total income. The lowest 40 percent (Group 2)—which includes the lowest 20 percent plus the next 20 percent—receive about 12.1 percent of the nation’s total income. The more the Lorenz curve dips away from the diagonal line of equality, the greater the level of income inequality.

In the United States, the income gap between the lower 80 percent of the population and the top 20 percent grew steadily throughout the late 1900s. In 1970, the richest 20 percent of Americans earned on average 9 times more than the poorest. By 1997, they were earning 15 times more. Households are not stuck in one group. When people gain experience and education, their incomes tend to increase. When they retire or make poor economic decisions, their incomes decrease.

**APPLICATION Applying Economic Concepts**

B. In 2004, the richest 20 percent of households in the United States received about 50 percent of the nation’s income. Based on that proportion, if $100 was shared among five people, how much would the richest one receive? How much would each of the other four get if they shared the rest equally?
Antipoverty Programs

KEY CONCEPTS

In 1964, in his first State of the Union Address, President Lyndon Johnson pledged: “This administration today, here and now, declares unconditional war on poverty in America.” Johnson’s antipoverty programs were among many that the U.S. government has tried in an effort to close the income gap. These programs are often referred to as welfare, government economic and social programs that provide assistance to the needy. Some of these programs, however, have been criticized for wasting government funds and for harming rather than helping the recipients. During the 1980s and 1990s, the government changed its approach, and it now uses tax breaks, grants, job training, and other “self-help” initiatives in addition to cash benefits.

Programs for Low-Income Households

The national food stamp program, which was established by the Food Stamp Act of 1964, helps ensure that no one will go hungry. Qualifying individuals and families receive electronic benefit transfers, which have replaced the paper food stamps that had been used originally. Recipients are given a card tied to an account into which the government makes monthly deposits of food benefits. The card can be used only to purchase food at grocery stores. Since 1975, the number of food stamp recipients has fluctuated from year to year from about 16 million to about 27 million. In 2005, almost 26 million people participated in the program.

The Medicaid program is another antipoverty measure for low-income households. Medicaid offers health care for the poor and is funded by both the federal and state governments. The expense to each state is often as much as 25 percent of the state budget. Medicaid is the only health care coverage for about 40 million Americans, nearly half of them children.

Another antipoverty program is the earned-income tax credit. This program provides the working poor a refund of payroll taxes and other taxes deducted from their paychecks. About 21 million people received these credits in 2004. One benefit of the program is that the money refunded to the recipients generally gets spent in their own communities. This spending helps to boost the economies of poor neighborhoods.

General Programs

The U.S. government’s Social Security program—which pays benefits to retirees, survivors, and the disabled—is the largest government program in the world. In the year 2004 alone, it paid out $500 billion, and that amount is expected to increase as people born during the baby boom after World War II reach retirement age. It was established in 1935 by the Social Security Act.
The Social Security program is funded through a special payroll tax. At retirement, all workers—rich and poor alike—are entitled to monthly checks to help with living expenses. Another payroll tax helps to fund Medicare, a government health insurance program for seniors. Medicare became part of the Social Security program in 1965. These benefits have been key in reducing the number of older Americans in poverty. From 1960 to 1995, the poverty rate of those aged 65 and over fell from about 35 percent to about 10 percent.

The Social Security Act also established a system of unemployment insurance administered through state governments. People who lose their jobs through no fault of their own are eligible to receive income while they look for work. Each state administers its own unemployment insurance program. Most of the programs are funded by taxes paid by employers, but in a few states employees contribute too. These benefits, which usually last no more than 26 weeks, help people avoid financial problems while they seek new employment.

**Other Programs**

Other antipoverty programs supplement the largest programs. One is the Community Services Block Grant program, which provides blocks of federal money to local communities to address such issues as employment, education, and housing. Job training is another. One such program provides grants to community colleges to develop training for high-tech, high-growth jobs. Another way to provide jobs for the unemployed and at the same time boost the economy of a struggling neighborhood is through Empowerment Zones. The government tries to attract businesses to these specially designated neighborhoods by not charging them certain taxes. Businesses that operate in Empowerment Zones provide needed services and offer employment opportunities to area residents.

In 1996, the federal welfare program underwent substantial revision in a series of changes often referred to as welfare-to-work. These changes included new incentives for working, which older welfare programs often did not provide. Workfare, for example, is a program that requires welfare recipients to do some kind of work in return for their benefits. Their work provides a useful service and also helps prepare the workers for future jobs. Direct financial aid, now called Temporary Assistance for Needy Families (TANF), now has a limit of five years.

**APPLICATION Explaining an Economic Concept**

C. In terms of government spending, what is a fundamental difference between the food stamp program and the Empowerment Zone initiative?
Peruvian economist Hernando de Soto has attacked the problem of poverty by redefining it: “The poor . . . are essentially the biggest source of wealth within [a] country.” According to de Soto, the poor have numerous assets—but in most countries they lack the basic property rights they need to grow economically. “They have houses but not titles; crops, but not deeds; businesses, but not statutes of incorporation.” In short, their wealth is not protected by the rule of law.

**Prosperity Through Property Rights**

As a young man, de Soto was struck by the sharp contrast between the poverty in Peru’s shantytowns and the energetic industry of the people. These thoughts led him, in time, to establish the Institute for Liberty and Democracy (ILD), which addresses this contrast in Peru and throughout the world.

De Soto estimates that 4 billion of the world’s 6 billion people are shut out of the formal economy. Antiquated and needlessly complex laws make it difficult for these people to gain legal ownership of their homes and businesses, assets that are recognized as theirs in the informal economy.

De Soto estimates that the assets of the world’s poor add up to about $10 trillion. He argues that until legal systems change to accommodate the poor, they will continue to prefer to operate in the informal economy—at the cost of lost economic opportunity for everyone. If the resources of the poor could be brought into the formal economy and developed, the wealth they would create could lift struggling nations out of poverty into prosperity.

De Soto’s critics point to his non-scholarly approach, but he says that he purposely “closed the books and opened his ears” as he traveled throughout the world listening to the voices of the poor. Former U.S. President Bill Clinton echoed the sentiments of many world leaders when he described de Soto’s ILD as “the most promising antipoverty initiative in the world.”

**APPLICATION Writing About Economics**

D. De Soto said: “Capitalism . . . allowed the people that came from humble origins of the world to have economic rights the way only nobility . . . had it before. So capitalism is essentially a tool for poor people to prosper.” Do you agree with that explanation? Write a paragraph to explain your answer.
1. Explain the relationship between the terms in each of these pairs.
   a. poverty threshold  
   b. income distribution  
   c. welfare
   poverty rate  
   income inequality  
   workfare

2. Why is it difficult to determine a universal poverty threshold?
3. What groups are especially hard hit by poverty?
4. What four factors help explain the distribution of poverty?
5. What does the Lorenz curve show?

6. Using Your Notes  Describe five different antipoverty programs and the problems each combats. Refer to your completed summary chart.
   Use the Graphic Organizer at Interactive Review @ ClassZone.com

7. Making Inferences and Drawing Conclusions  A number of antipoverty programs are targeted specifically at children:
   • State Children’s Health Insurance Program (SCHIP) provides health insurance to low income children who do not qualify for Medicaid and have no health insurance
   • National School Lunch Program provides free or reduced price lunches to eligible children
   • School Breakfast Program provides cash to schools for offering breakfasts to more than 8 million children nationally
   What are the economic benefits of antipoverty programs aimed at children?

8. Solving Economic Problems  Antipoverty programs in the United States are least effective for immigrant families and for non-elderly people without children. Why might this be so?

9. Analyzing Cause and Effect  How does the earned income tax credit aid both the working poor and their communities?

10. Challenge  In 2005, the poverty threshold for a family of four was an annual income of just over $19,800. Based on this income, devise a monthly budget for a family of four. Assume that no taxes or payroll deductions will reduce the family’s income. Also assume that the family lives in an apartment that costs $700 per month. Provide a detailed account of your estimated allowances for food, clothing, and other expenses.
What Is Inflation and How Is It Measured?

In 2006, militants attacked many of Nigeria’s oil installations, demanding that more of the country’s oil wealth be shared with the Nigerian people. Before the attacks, Nigeria produced about 2.5 million barrels of oil a day, and the country was the fifth largest source of oil imported by the United States. On news of the attacks, the price of oil rose by almost 20 percent. Some economists predicted that if oil stayed at those price levels, manufacturers might raise the prices of their products to compensate for higher fuel costs. They suggested that the high oil prices might ultimately lead to inflation, a sustained rise in the level of prices generally or a sustained fall in the purchasing power of money. Economists have several instruments for measuring inflation.

Consumer Price Index

One tool for gauging inflation is the consumer price index (CPI), a measure of changes in the prices of goods and services commonly purchased by consumers. Creating the index requires many different steps, but the following describes the basic process. The U.S. government surveys thousands of people across the country to find out what goods and services they buy on a regular basis. The government then creates a “market basket” of about 400 different items and tracks the price changes of these items over time. The CPI is calculated by comparing the average price of a fixed basket of goods and services to the average price of the same basket in a base year. The change in the CPI reflects the change in the average price level of goods and services. A higher CPI indicates higher inflation, while a lower CPI indicates deflation, or a sustained decrease in the price level.
goods and services purchased by a typical household. The basket is adjusted to account for how much of a household’s budget goes to purchase each type of item. For example, families tend to spend more on food than on lawn care, so the market basket is balanced to reflect this.

Each month, government workers research the current prices of the items in the market basket. What consumers spend to fill the basket can then be compared to prices in the reference base, which reflects the level of prices in the three years 1982 to 1984. Those numbers are given the value of 100. See the Connect to Math sidebar for more information.

**Producer Price Index**

The CPI shows the level of inflation experienced by consumers, but producers also experience inflation. The tool that gauges that kind of inflation is the **producer price index (PPI)**, a measure of changes in wholesale prices. The PPI is constructed in roughly the same way as the CPI, but it reflects the prices producers receive for their goods rather than the prices consumers pay. The difference between consumer prices and producer prices lies in all the additional fees consumers pay, such as sales taxes or shipping charges. Like the CPI, the PPI is tied to a reference base of producer prices. More than 10,000 PPIs for individual products and groups of products are available. The indices are grouped either by stage of production (finished goods, intermediate goods, and raw materials, for example) or by industry. Index changes from period to period are calculated in the same general way as the CPI.

Because producers tend to encounter inflation before consumers, PPI tends to lead CPI as an indicator of inflation. Economists use CPI and PPI to calculate the **inflation rate**, the rate of change in prices over a set period of time.
Types of Inflation

The different types of inflation are defined according to the degree or level of the inflation rate. Rates below 1 percent are negligible, and those between 1 and 3 percent are moderate. If a moderate rate continues over a period of time, the result is creeping inflation. A rapid increase in price level is known as galloping inflation. If galloping inflation gets out of hand, the result is hyperinflation—a rapid, uncontrolled rate of inflation in excess of 50 percent per month. One of the most dramatic episodes of hyperinflation happened in Germany in 1922 and 1923. At the height of the crisis, prices rose at a rate of about 322 percent per month. Deflation, a decrease in the general price level, happens more rarely. The Great Depression of the 1930s in the United States was marked by deflation.

APPLICATION Applying Economic Concepts

A. If the price of milk goes up, is that inflation? Why or why not?
What Causes Inflation?

**KEY CONCEPTS**

Economists generally distinguish between two kinds of inflation, each with a different cause. When the inflationary forces are on the demand side of the economy, the result is **demand-pull inflation**, a situation where total demand is rising faster than the production of goods and services. When the forces that lead to inflation originate on the supply side of the economy, the result is **cost-push inflation**, a situation where increases in production costs push up prices.

**Demand-Pull Inflation**

In demand-pull inflation, total demand rises faster than the production of goods and services, creating a scarcity that then drives up prices. Suppose, for example, that consumers gain confidence in the economy and decide they want to buy more durable goods—new refrigerators, stoves, second cars, and so on. It takes producers some time to recognize this rise in demand and to gear up for higher production. During this lag period, consumer demand pushes up prices on the currently available goods. Figure 13.9 illustrates how demand-pull inflation happens.

As you will learn in Chapter 16, the U.S. government creates and controls money through the Federal Reserve Bank. If the government creates too much money during the lag period before an increase in production makes more goods available, there will be too much money chasing too few goods, and prices will rise. The creation of excess money is the main reason for demand-pull inflation.

**QUICK REFERENCE**

*Demand-pull inflation* results when total demand rises faster than the production of goods and services.

*Cost-push inflation* results when increases in the costs of production push up prices.

**FIGURE 13.9 Demand-Pull Inflation**

1. In the first scenario, did the demand curve shift or the supply curve?
2. In the second scenario, which curve shifts when the supply of money increases?
Cost-Push Inflation

In cost-push inflation, prices are pushed upward by rising production costs. When production costs increase, producers make less of a profit. If consumer demand is strong, producers may raise their prices in order to maintain their profits. A general trend of rising prices leads to inflation.

Cost-push inflation is often the result of supply shocks—sharp increases in prices of raw materials or energy. For example, in 1973 and 1974, many members of the Organization of Petroleum Exporting Countries (OPEC) limited the amount of oil they sold to the United States and other Western countries. The resulting rapid rise in the price of oil led to cost-push inflation.

Wages are a large part of the production costs for many goods, so rising wages can lead to cost-push inflation. A wage-price spiral is a cycle in which increased wages lead to higher production costs, which in turn result in higher prices, which then lead to demands for higher wages. You can see the wage-price spiral in motion in Figure 13.10.

**Figure 13.10 Wage-Price Spiral**

A wage-price spiral is a cycle that begins with increased wages, which lead to higher production costs, which in turn result in higher prices, which result in demands for even higher wages.

**Quick Reference**

A wage-price spiral is a cycle that begins with increased wages, which lead to higher production costs, which in turn result in higher prices, which result in demands for even higher wages.

**Analysis Charts**

1. Using the cotton industry as an example, explain how the cycle might proceed. Use the cotton workers, cotton growers, textile mills, and other intermediate industries in your explanation.
2. Do employers grant wage increases whenever employees ask for a raise? What economic principles determine wage levels?

**Application** Categorizing Economic Information

B. What type of inflation would result if bad weather hit farmers hard over a long stretch of time?
What Is the Impact of Inflation?

KEY CONCEPTS
Since the 1960s, the impact of inflation on the United States economy has been significant. Inflation has raised interest rates, limited the growth of the stock market, forced agricultural bankruptcies, and slowed production. It has also had a huge impact on politics. More than half of those who voted for Ronald Reagan in 1980 said that his promise to stop the long-running inflation of the 1970s was the decisive factor. Inflation is a major challenge to economic stability. For the economy as a whole and for individual consumers, inflation has an especially strong impact on the purchasing power of the dollar and on interest rates.

EFFECT 1 Decreasing Value of the Dollar
With inflation, today’s dollar buys less than last year’s. The consumer price index, illustrated in Figure 13.7, shows that the real value of a dollar has declined steadily. The rising index represents the declining value of the dollar.

Consider how this declining value affects people who are on a fixed income. Suppose, for example, that your cousin started college with a savings of $10,000 to see him through. He planned to spend $2,500 a year on carefully budgeted expenses. However, because of inflation, each of those dollars bought less each year. To pay for exactly the same things he bought in his freshman year for $2,500, by the time he was a senior he needed $2,750. Inflation had pushed prices up by 10 percent over the four-year period. Senior citizens living on a fixed retirement income—as well as anyone else with a fixed income—are especially vulnerable to the decreasing value of the dollar through inflation.

YOUR ECONOMIC CHOICES
INFLATION AND PURCHASES
Buy now or wait?
If condominium prices have skyrocketed, does it make more sense to buy a condo now or to continue renting until the market cools off?
Conversely, inflation can help borrowers. With inflation, those who borrow at a fixed rate of interest can repay their debts with dollars that are worth less, making their repayments smaller than they would have been without inflation. Suppose someone borrows $100 at 5 percent interest, promising to pay the lender $105 after a year. If inflation rises at 5 percent, the $105 the borrower pays the lender will have the same purchasing power as the $100 of the original loan. The borrower essentially paid no real interest on the money he borrowed.

**EFFECT 2 Increasing Interest Rates**

As prices increase, interest rates also tend to increase. Lenders raise their interest rates to ensure they earn money on their loans despite inflation. Higher interest rates mean that borrowing money becomes more expensive. For example, a $10,000 loan at 10 percent interest to be repaid over the course of five years would have a monthly payment of $212.47. At 5 percent interest, the monthly payment would be only $188.71. At the end of five years, you would have paid over $1,425 more for the loan at the higher rate. When interest rates are high, businesses are less likely to borrow to expand or to make capital improvements. Consumers are less likely to make purchases of high-priced items that they would need to finance. People carrying debt on credit cards have to make higher monthly payments as their rates rise.

**EFFECT 3 Decreasing Real Returns on Savings**

Inflation also has a significant effect on savings. People who save at a fixed interest rate get a lower rate of return on their savings. While the interest paid on savings tends to increase during inflationary times, the difference between the rate of return and the rate of inflation still leaves them at a disadvantage.

For example, if someone puts $100 in a savings account that pays 5 percent interest per year, they will have $105 at the end of a year. But if the rate of inflation for the year was 10 percent, that $105 will buy only about what $95 bought when they deposited their money. Although they have more dollars, that money will buy less. Inflation, then, can discourage savings, leading more people to make purchases today rather than saving for tomorrow.

_inflation_ is the most commonly used economic term in the popular media, far outpacing the distant second, _unemployment_. Inflation worries many people, especially those who remember the volatile 1970s. Much of the worry centers on a person’s individual standard of living: Will my wages keep up with rising prices? Will my savings see me through retirement? Fear of inflation has contributed to the shift away from the traditional American belief in saving over consumption.

**APPLICATION Writing About Economics**

C. According to opinion polls, most Americans feel inflation is a more serious problem than unemployment. Write a paragraph stating your view on which is more serious. Use convincing reasons and examples.
SECTION 3 Assessment

REVIEWING KEY CONCEPTS

1. Explain the relationship between the terms in each of these pairs.
   a. consumer price index  b. hyperinflation  c. demand-pull inflation
   producer price index  deflation  cost-push inflation

2. What are the stages in a wage-price spiral?

3. Use a specific example to explain cost-push inflation.

4. Use a specific example to explain demand-pull inflation.

5. What are three effects of inflation?

6. Using Your Notes If you were a business owner, what decisions might you make on news of a steady rise in inflation? Refer to your completed cluster diagram and provide specific examples.
   Use the Graphic Organizer at Interactive Review @ ClassZone.com

CRITICAL THINKING

7. Analyzing Cause and Effect Why would producers tend to experience inflation before consumers? What type of inflation would the producers experience?

8. Explaining an Economic Concept How does the creation of excess money cause a demand-pull inflation? Refer to Figure 13.9 to help you answer this question.

9. Applying an Economic Concept Imagine that union leaders are meeting with the owners of a steel manufacturer to negotiate a new five-year contract for union employees. Explain how both sides of the union-management negotiation team must take the unpredictability of future inflation into account.

10. Challenge The cost of attending college has been rising faster than the inflation rate, at times twice as fast. For proof, ask your school guidance counselor for a catalog from a private college that shows prices from several years ago. Compare the old prices to the current prices shown on the college website. Calculate the percentage increase for this school.

Estimating the Effects of Inflation

Suppose that a natural disaster disrupts the production of oil so dramatically that prices for oil and related products double in a short period of time. In this graph of macroeconomic equilibrium, P1 shows the price level before the natural disaster.

Draw Aggregate Supply and Demand Curves On your own paper, recreate the graph of macroeconomic equilibrium. Then draw the new aggregate supply curve that would result from the natural disaster scenario, and indicate where P2 would fall.

Challenge Explain what will happen to total economic output because of the change in prices. How does the new graph show this?

Use SMARTGrapher @ ClassZone.com to complete this activity.
The Effects of Inflation in the 1970s

**Background**  Periods of high inflation can wreak havoc with a country’s economy. In the 1970s, for example, the United States experienced the biggest and most sustained period of inflation in the country’s history. By 1979, inflation had risen into the “double digits,” that is, to 10 percent per year or higher. The prices of consumer goods—everything from food and gas to cars and houses—rose dramatically. Those on fixed incomes were particularly hard-hit, because as prices rose their limited budgets bought less.

**What’s the issue?**  How did inflation affect people and businesses in the 1970s? Study these sources to discover what it was like to live with a high rate of inflation.

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**The Industrialized World and Inflation**

**How inflation affected the U.S. economy**

For the years 1967 through 1978, the U.S. inflation rate averaged 6.1 per cent a year, compared with an average of 2 per cent for the years 1952 through 1967. Even during the 1973–74 recession, unlike most previous recessions, the inflation rate continued at a relatively high rate. In the late 1970s inflation speeded up again, reaching unprecedented levels.

Inflation would not be so bad, in the opinion of some economists, if it were accompanied by substantial increases in output and employment. But economic growth in the United States slowed during the high-inflation 1970s, bringing on a condition that economists describe as “stagflation.” Another measure of economic health—productivity, or output per worker—also slowed dramatically in those years throughout the industrialized world, and in the United States and Great Britain for a time failed to increase at all. For the United States, a country long accustomed to ever-increasing material wealth, the fall-off in economic growth and the constantly eroding value of the dollar were traumatic developments. If the trends continued, the average American could no longer anticipate a constantly rising standard of living.

*Source: The Search for a New Economic Order, The Ford Foundation, 1982*

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**Thinking Economically**  Explain how the effects of inflation might be offset by increases in output and employment.
Protesting Inflation

Consumers grew impatient with the government’s inability to control inflation.

Here we are, spending more and getting less, but the [government] economists are optimistic. What makes them so happy? The rate of inflation may have dropped 1 per cent. Just suppose the rate of inflation had gone down from 5 per cent to 4 per cent. . . . To me this is another increase of four cents, and a further shrinkage of my dollar.

Obviously this type of economics is good for someone. It certainly isn’t good for me, or my friends, or my relatives. Everyone is complaining, but the experts are satisfied.

I have a family of meat eaters. . . . Long ago I discovered a marvelous cut of meat called skirt steak. It used to cost 89 cents a pound. It has inched its way up and has recently taken a leap to $1.59 and overtaken sirloin steak. Chopped meat is now where my skirt steak used to be. . . . Even the lowly onion is no longer cheap. A weekly trip to the supermarket, which in 1969 cost $50, now costs $70.


Thinking Economically Why might a small decrease in a large rate of inflation satisfy government economists but frustrate consumers?

THINKING ECONOMICALLY Synthesizing

1. Name one example from each document that shows how inflation has a negative impact on the economy.

2. Inflation is a general rise in price levels. Are the examples of price increases in documents B and C symptoms of inflation or isolated price increases?

3. Compare the tone of documents A and C. Do economists care as much about inflation as consumers? Explain your answer.
Unemployment in Today’s Economy (pp. 382–387)

1. What are the four main kinds of unemployment and how do they differ from one another?

2. What are three negative impacts of unemployment?

Poverty and Income Distribution (pp. 388–395)

3. Which of the following persons is most likely to live in poverty: a senior citizen, a disabled adult, a college graduate, or a child? Explain your answer with specific facts and reasons.

4. Describe three antipoverty programs you feel are most useful and give reasons for your position.

Causes and Consequences of Inflation (pp. 396–405)

5. Describe two causes of inflation.

6. Which consequence of inflation would be the most troublesome to you personally? Explain your answer.

There are different types of unemployment. 1 represents workers changing jobs to increase their working satisfaction or to accommodate a move to another region. 2 results from significant changes in the economy and in the way work is done. Even during periods of 3 about 4 to 6 percent of the work force is still unemployed.

Nearly 40 million people in the United States have incomes below the 4, even though the nation has one of the highest median incomes in the world. The poorest receive assistance through 5. In recent years 6, which requires an exchange of labor for government benefits, has replaced some direct cash payments.

7, a rise in the general level of prices, is another economic challenge. To monitor it, government economists developed the 8, which tracks what consumers pay for a market basket of items, and the 9, which tracks prices from the producers’ point of view. They monitor the 10 using these indices.

The table below shows employees laid off from selected industries in 2004. It also shows how many of these jobs were replaced by outsourcing.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employees Laid Off</th>
<th>Replaced by Outsourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>6,123</td>
<td>0</td>
</tr>
<tr>
<td>Apparel Manufacturing</td>
<td>11,583</td>
<td>4,102</td>
</tr>
<tr>
<td>Computer and Electronic Products</td>
<td>14,979</td>
<td>6,481</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>40,634</td>
<td>6,223</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>143,660</td>
<td>5,298</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>59,098</td>
<td>2,090</td>
</tr>
<tr>
<td>Educational Services</td>
<td>1,429</td>
<td>0</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>44,212</td>
<td>621</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2004 data
9. **Creating Graphs** The population can be divided into five equal groups—or quintiles—according to income. Income mobility means moving from one quintile to another. A study done by the U.S. Treasury Department between 1979 and 1988 showed the following about taxpayers who started out in the lowest quintile:

- 14.2 percent of the taxpayers in the bottom quintile in 1979 were still there in 1988
- 20.7 percent had moved to the next higher quintile
- 25 percent had moved to the middle quintile
- 25.3 percent had moved to the second highest quintile
- 14.4 percent of those who started in the lowest quintile had moved into the highest quintile

Create a bar graph that illustrates these facts about income mobility in the United States.

10. **Analyzing and Interpreting Data** What conclusions can you draw about income mobility based on the above data?

11. **Analyzing Cause and Effect** Think of three possible reasons a person might be able to move from one level of income to another.

12. **Explaining an Economic Concept** Which antipoverty programs use market forces to achieve their goals? Explain your answer.

13. **Analyzing and Interpreting Data** Consider the following data:
   - Consumer Price Index: up by 6 percent
   - Unemployment Rate: up to 7 percent
   - Gross Domestic Product: up by 1 percent

   What’s the economic problem? To correct the problem, which of these measures would you address first and why?

14. **Challenge** Which economic challenge—unemployment, poverty, or inflation—represents the greatest threat to social stability, in your opinion? Explain your answer with reasons and examples.

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**The Pursuit of Happiness**

Do you need money to be happy? Since income alone does not tell the whole story of someone’s quality of life, some people think other measures besides income should be used to determine a household’s well-being. Many elements beyond material possessions also affect a person’s quality of life.

To better understand the relationship between wealth and happiness, create a quality-of-life threshold by following the steps below.

**Step 1.** As a whole class, discuss the differences between income and quality of life.

**Step 2.** Break into five small groups and devise a quality-of-life threshold, a standard below which a person would be considered seriously impoverished.

**Step 3.** Try to find a measure for each of your criteria. For example, if one standard is “lives in warm climate,” define the temperature range that qualifies as warm.

**Step 4.** Report your criteria to the rest of the class and explain how you would measure each.

**Step 5.** With the whole class, debate the relative merits of each quality-of-life threshold and its measurement.

**Challenge** Write a paragraph explaining how the quality-of-life threshold you developed relates to Hernando de Soto’s ideas about property and prosperity (see page 394).