SECTION

READING STUDY GUIDE WITH ADDITIONAL SUPPORT

# Scarcity: The Basic Economic Problem

### **Before You Learned**

Economics is the study of how individuals and societies satisfy their unlimited wants with limited resources.

### Now You Will Learn

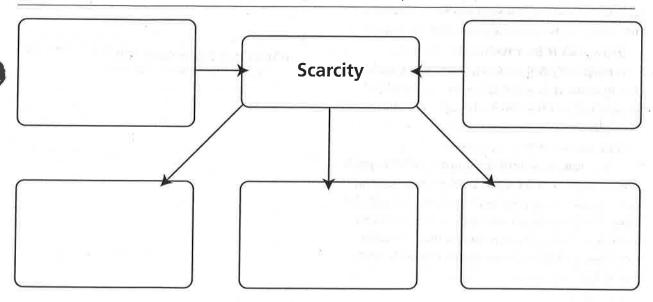
The economic problem of scarcity guides economists to ask and answer basic economic questions.

### **Economic Terms**

- scarcity: A situation in which there are not enough resources to satisfy human wants
- goods: Objects that can be bought
- services: Paid work that one person does for others
- consumer: A person who buys goods or services
- producer: A person who makes goods or provides services
- factors of production: The resources needed to produce goods and services

### As You Read

Take notes to help you understand why scarcity is the central concept of economics.



## What Is Scarcity?

Everyone has wants. These are desires that can be satisfied by consuming a good or service. People can never fulfill all of their wants, because the resources available to satisfy them are limited. This results in a tension known as scarcity. Economics is the study of how people react to this tension, deciding how to use scarce resources to satisfy their wants. Economists examine how individuals,

businesses, governments, and societies use scarce resources. Economists collect, organize, analyze, and interpret data related to these choices.



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SCARCITY: THE BASIC ECONOMIC PROBLEM, CONTINUED

affect everyone?

# Scarcity Leads to Three Economic Questions

To address the issue of scarcity, societies must answer three basic questions.

What will be produced? The goods and services a society produces depend on the natural and human resources available. The society also must determine the amount of each type of good or service to provide. In some societies, governments make these decisions. In other societies, consumer and producer interaction determines the answers.

How will it be produced? Methods of production depend also on the natural and human resources a society has. Generally, societies select the most efficient production methods.

For whom will it be produced? To answer this question, a society must address how much of a good or service each person will get and how the goods and services will be delivered. Some societies distribute goods and services so each person gets an equal share. In other societies, ability to pay determines who gets how much.

2.	What are two ways societies make the decision about what to produce?				

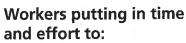
# The Factors of Production

Factors of production are the economic resources needed to produce goods and services Land includes all natural resources on or under the ground used to produce goods and services Labor includes the human effort, talent, and time that go into producing goods and services. Capital includes all of the physical resources-tools, factories, offices, and transportation systems, for example—used to produce and distribute goods and services. Capital also includes such things as the training and skills people use to produce and distribute goods and services more efficiently. Entrepreneurship involves bringing together land, labor, and capital to create and run new businesses. It requires vision, skills, risk-taking, and creativity.

# APPLICATION Mark It Up!

- Assessment of market for pencils
- Drive to invest in the manufacture of writing implements and to market them creatively
- Wood
- Graphite
- Brass
- Rubber
- Cardboard

What is needed to manufacture and sell pencils?



- run manufacturing equipment
- assess quality of pencils
- sell and transport pencils
- Equipment for manufacturing pencils
- Equipment for manufacturing packaging
- Telecommunications equipment
- Trucks
- Skills to run any vehicles and equipment



5. Identify and label each of the four factors of production on the diagram.

6.	Explain	what	the	cardboard	is	for.
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<b>7</b> .	Two workers at the pencil factory have the idea of manufacturing decorated
	pencils to convey different themes. They decide to start their own company. List
	the factor of production this situation best relates to.

CHAPTER 1

MATH SKILLS

# The Economic Way of Thinking

# Making a Production Possibilities Curve (PPC)

A production possibilities curve (PPC) shows how the quantity of the production of one item varies with the quantity of production of another item.

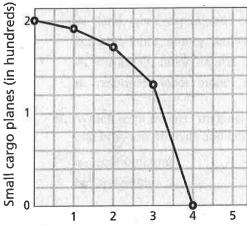
### **SAMPLE PROBLEM**

Suppose you wanted to show the relationship between the production of helicopters and small cargo planes. This relationship could be shown by the equation:  $x^2 + 4y^2 = 16$ 

In this equation, x and y are each equal to all the positive numbers that correctly solve the equation. Some of these numbers are given in the chart below.

1.5		
Helicopters (in hundreds)	Small cargo planes (in hundreds)	
4	0	
3	1.32	
2	1.73	
1	1.93	
0	2	

### Production Possibilities Curve: Helicopters v. Small Cargo Planes



Helicopters (in hundreds)

To make the PPC, you graph the pairs of numbers that form the rows of the chart. These numbers are called ordered pairs. The number of helicopters is plotted on the x-axis. The number of small cargo planes is plotted on the y-axis.

Read the top row of the chart and identify the ordered pair there: It is (4,0)

Plot this ordered pair: Find 4 on the x-axis; find 0 on the y-axis. Make a dot at this point.

Continue for the other ordered pairs in the chart: They are (3, 1.32), (2, 1.73), (1, 1.93), and (0, 2).

**Draw a line to join all of the points:** You have made a PPC for helicopters and small cargo planes.

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# The Economic Way of Thinking

## One Thing or Another

**Introduction** Just about all the decisions you make involve making choices that result in trading off something of one thing to get something of another. You have to decide among alternatives and choose things to give up to get things you want. For instance, you can't have all the time you want. Maybe you would like to have an hour to get to school so you could ride your bike. But you only have half an hour, so you have to take the bus or you would be late. You decide to take the bus. You have chosen to give up the pleasure of riding your bike in order to be on time for school. You have decided on the cost of your choice and the benefit you will gain. In the following situation, you will analyze your options before making your decisions and weigh the costs and benefits.

You have applied for a part-time job at an animal shelter at \$5.00 an hour. You can decide how many hours each day you want to work at the shelter. But you are also in the school band, and you need to practice more in order to get a solo part. And your school is playing two soccer games in the finals this week, and you really want to attend. You figure that you have 15 extra hours this week to fit in these activities. How will you schedule your time and what will be the benefits and the trade-offs that result?

### **Procedure**

- 1 Identify the options you have and assign a time value to them. For instance, you could use all 15 hours to work at the shelter. Or you could work seven and a half hours and practice seven and a half hours for the band. Identify other options.
- 2 Now that you have identified your options, what is the benefit and the opportunity cost of each? You might use a grid like the one below to record this information.
- 3 Choose an option you feel will work best for you. What is its benefit and opportunity cost? Explain why you feel what you gave up was worth the benefit you received.

Option	Benefit	Opportunity Cost
2		
- , x= -, 1 - ,		



