SECTION 2
Economic Choice Today: Opportunity Cost

OBJECTIVES
In Section 2, you will
- understand why choice is at the heart of economics
- explain how incentives and utility influence people’s economic choices
- consider the role of trade-offs and opportunity costs in making economic choices
- demonstrate how to do a cost-benefit analysis

KEY TERMS
- incentives, p. 12
- utility, p. 12
- economize, p. 12
- trade-off, p. 14
- opportunity cost, p. 14
- cost-benefit analysis, p. 15
- marginal cost, p. 16
- marginal benefit, p. 16

TAking Notes
As you read Section 2, complete a cluster diagram to help you see how the key concepts relate to one another. Use the Graphic Organizer at Interactive Review @ ClassZone.com

Making Choices

KEY CONCEPTS
As you recall from Section 1, scarcity forces everyone to choose. But what shapes the economic choices that people make? One factor involves incentives, or benefits offered to encourage people to act in certain ways. Grades in school, wages paid to workers, and praise or recognition earned in personal and public life are all incentives. Choice is also influenced by utility, or the benefit or satisfaction gained from the use of a good or service. When they economize, people consider both incentives and utility. In common usage, the word economize means to “cut costs” or “do something cheaply.” In strict economic terms, however, economize means to “make decisions according to what you believe is the best combination of costs and benefits.”

Incentives The chance of winning a championship trophy serves as an incentive for athletes to train and play hard.
FACTOR 1  Motivations for Choice

Choice powers an economy, but what powers choice? The choices people make are shaped by incentives, by expected utility, and by the desire to economize. For example, look at Your Economic Choices above. How will you decide between the two options? Like other economic decision makers, you weigh the costs against the benefits, and you make your choice purposefully. Perhaps you decide to go out to dinner. Even though you’ll spend more money, you feel that the tips your friend can give you on writing your college application essay are invaluable. You’ve economized by choosing what represents the best mix of costs and benefits.

In making this decision, you were guided by self-interest. This does not mean that you behaved selfishly. Rather, it simply means that you looked for ways to maximize the utility you’d get from spending time with your friend.

FACTOR 2  No Free Lunch

An old saying can sum up the issue of choice in economics: “There is no such thing as a free lunch.” Every choice involves costs. These costs can take the form of money, time, or some other thing you value. Let’s revisit your choices. If you chose to go to dinner rather than to a movie, you gained the benefit of a satisfying, informative, and beneficial conversation with a friend. Even so, you also paid a cost—you didn’t see the movie. On the other hand, if you chose to go to the movie, you gained the benefit of an entertaining evening and having more money to save or spend on something else. Once again, however, your choice involved a cost. You sacrificed the time you could have spent getting advice and guidance on the college application process from your friend.

APPLICATION  Using a Decision-Making Process

A. You have enough money to buy either an MP3 player that is on sale or some fitness equipment you want. What incentives and utility would guide your decision?
KEY CONCEPTS

Choices, as you have learned, always involve costs. For every choice you make, you give up something. The alternative that you give up when you make an economic choice is called a trade-off. Usually, trade-offs do not require all-or-nothing choices. Rather, they involve giving up some of one thing to gain more of another.

EXAMPLE 1 Making Trade-Offs

To understand how trade-offs work, let’s take a look at decisions made by Shanti, who has just finished her junior year in high school. Shanti wants to go to summer school to earn some credits she can apply to college. She could take a semester-long course at a local university, or she could take an intensive six-week course at her high school. She decides on the six-week course, even though she’ll earn fewer credits. However, she will have several weeks of the summer vacation to have fun and relax.

EXAMPLE 2 Counting the Opportunity Cost

Shanti’s friend Dan, who has just graduated, has decided to take off a year before going to college. He’s been offered a full-time job for the whole year. However, he decides to take the job for six months and then spend time traveling.

Dan’s choice, like all economic choices, involves an opportunity cost. The opportunity cost of a decision is the value of the next-best alternative, or what you give up by choosing one alternative over another. Dan decided to travel around the country and visit friends. The opportunity cost of that decision is the income he could have earned at his job. If, however, Dan had decided to work for the whole year, his opportunity cost would have been the trip around the country that he didn’t take. Note that Dan’s opportunity cost is not the value of all the things he might have done. Rather, it is the value of his next-best alternative, or what he gave up to get what he most wanted.

APPLICATION Applying Economic Concepts

B. Look again at Shanti’s decision. What was the opportunity cost of her choice? If she had chosen the semester course, what would her opportunity cost have been?
Shanti and Dan did not make their choices randomly. Rather, they carefully looked at the benefits they would gain and the opportunity costs they would incur from their decisions. This practice of examining the costs and the expected benefits of a choice as an aid to decision making is called cost-benefit analysis. Cost-benefit analysis is one of the most useful tools for individuals, businesses, and governments when they need to evaluate the relative worth of economic choices.

**EXAMPLE Max’s Decision-Making Grid**

Perhaps the simplest application of cost-benefit analysis is the decision-making grid, which shows what you get and what you give up when you make choices. Look at Max’s decision-making grid in Figure 1.2 below. Max has to decide how to spend his scarce time—studying for his government class or going out with his friends. Max likes nothing better than to spend hours talking with his friends at the local juice bar. However, the F he has in the government class at the moment will not look good on his transcript. So he certainly could benefit from some extra study time.

Max knows that he has six hours available for extra study or socializing each week. He begins to build his decision-making grid by listing all the options he has for using these six hours. He then lists the benefits and opportunity costs of each of these options. After reviewing all of this information, he chooses three extra hours of study a week. He feels that the opportunity cost, three hours of time with his friends, is worth the expected benefit, a B grade.

**FIGURE 1.2 Max’s Decision-Making Grid**

A decision-making grid helps you to see what you gain and what you lose when you make choices. Max’s decision-making grid shows the costs and benefits of hours spent studying versus time spent socializing.

<table>
<thead>
<tr>
<th>Choice</th>
<th>Benefit</th>
<th>Opportunity Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>One hour of extra study</td>
<td>D in government class</td>
<td>One hour with friends</td>
</tr>
<tr>
<td>Two hours of extra study</td>
<td>C in government class</td>
<td>Two hours with friends</td>
</tr>
<tr>
<td>Three hours of extra study</td>
<td>B in government class</td>
<td>Three hours with friends</td>
</tr>
<tr>
<td>Four hours of extra study</td>
<td>B+ in government class</td>
<td>Four hours with friends</td>
</tr>
<tr>
<td>Five hours of extra study</td>
<td>A– in government class</td>
<td>Five hours with friends</td>
</tr>
<tr>
<td>Six hours of extra study</td>
<td>A in government class</td>
<td>Six hours with friends</td>
</tr>
</tbody>
</table>

**ANALYZE TABLES**

1. What is Max’s opportunity cost of three extra hours of study?
2. Read the information about marginal costs on the next page. What is Max’s marginal cost of moving from a grade of B+ to a grade of A–?
Costs and benefits change over time. So do goals and circumstances. Such changes will influence the decisions people make. For instance, Max learns that Pine Tree State, the college he wants to attend, only considers applicants with a 3.4 or better grade point average. If he needs to get a B+ or better to raise his GPA to 3.4, he might decide to spend less time with his friends and study four or five hours per week rather than three.

**EXAMPLE Marginal Costs and Benefits**

How did Max arrive at his decision? To explain it, economists would look at marginal costs and marginal benefits. **Marginal cost** is the cost of using one more unit of a good or service, while **marginal benefit** refers to the benefit or satisfaction received from using one more unit of a good or service. Max’s choice was to study three extra hours, which gave him a B grade at the opportunity cost of three hours with his friends. Look again at Max’s decision-making grid in Figure 1.2. What would be the marginal cost of one more hour of study? As you can see, it is the loss of one more hour with his friends. The marginal benefit of that extra hour would be an improvement in grade from B to B+. Max decided that the benefit of a slight improvement in his grade was not worth the cost of one less hour with his friends.

The analysis of marginal costs and marginal benefits is central to the study of economics. It helps to explain the decisions consumers, producers, and governments make as they try to meet their unlimited wants with limited resources.

**QUICK REFERENCE**

**Marginal cost** is the additional cost of using one more unit of a product.

**Marginal benefit** is the additional satisfaction from using one more unit of a product.

**YOUR ECONOMIC CHOICES**

**MARGINAL BENEFITS AND COSTS**

**Which will you do—basketball practice or after-school job?**

For every hour you practice basketball, you gain in skill and increase your chances of making the team. However, each hour you practice is an hour you could have spent working at an after-school job to save for a car or college or something else you want.

**APPLICATION Using a Decision-Making Process**

C. Look at Your Economic Choices above. Construct a decision-making grid that analyzes the potential choices of attending basketball practice and working at an after-school job. Which option would you choose?
Making Choices
Some of the incentives that spur people to action are money, recognition, self-esteem, good grades, immediate benefit, future benefit, and altruism (doing good for others, such as working for Habitat for Humanity).

Consider Economic Choices Copy and complete the chart by noting the incentives that might motivate people to take the listed actions. (Several incentives might apply in some cases.)

<table>
<thead>
<tr>
<th>Action</th>
<th>Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donate to charity.</td>
<td></td>
</tr>
<tr>
<td>Get a promotion.</td>
<td></td>
</tr>
<tr>
<td>Buy a friend a present.</td>
<td></td>
</tr>
<tr>
<td>Attend a good college.</td>
<td></td>
</tr>
<tr>
<td>Buy organic foods.</td>
<td></td>
</tr>
<tr>
<td>Buy inexpensive imported goods.</td>
<td></td>
</tr>
</tbody>
</table>

Challlenge  Have you ever had two or more conflicting incentives for a certain behavior? If so, how would you choose among them? If not, which of the incentives above motivates you most often?