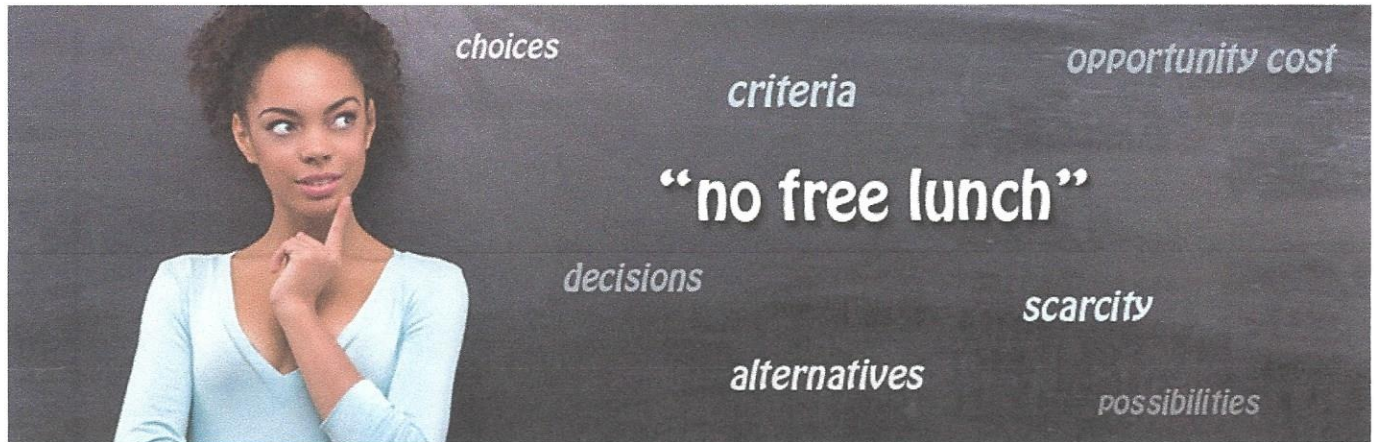


Decision Making



Students apply a particular model for making decisions in exercises that call for choosing a college and buying a personal computer. The model focuses on explicit identification of problems, alternative possibilities for solving problems, criteria for evaluating those possibilities, and the opportunity cost of the decisions arising from the process. The need to make decisions is shown to be based in the condition of scarcity.

Key Concepts

Choice , Decision-Making Grid , Opportunity Cost , Scarcity

Students Will

- Explain how scarcity affects economic choices.
 - Describe the five-step decision-making model.
 - Use a decision-making grid in making economic choices.
-

Introduction

The students learn to use a particular model for making decisions. They apply the model in

exercises that call for choosing a college and buying a personal computer. The model focuses on explicit identification of problems, alternative possibilities for solving problems, criteria for evaluating those possibilities, and the opportunity cost of the decisions arising from the process. The need to make decisions is shown to be based in the condition of scarcity.

This lesson was originally published in CEE's [Financial Fitness for Life \(Grades 9-12\)](#), a comprehensive personal finance curriculum that teaches students how to make thoughtful, well-informed decisions about important aspects of personal finance, such as earning income, spending, saving, borrowing, investing, and managing money. Visit CEE's [Financial Fitness for Life](#) website for more information on the publication and how to purchase it.

Resources

- [Visual 3.1](#)
- [Visual 3.2](#)
- [Exercise 3.1](#)
- [Exercise 3.2](#)
- [Exercise 3.3](#)

Additional Resources

To download visuals, find related lessons, correlations to state standards, interactives, and more visit <http://fffl.councilforeconed.org/9-12/lesson3> .

Process

1. Write "There is no such thing as a free lunch" on the board. Call on a student to read the statement to the class. Tell the class that the statement expresses a basic principle of economics. Then turn to an examination of the statement. Ask:
 - a. What do you think this statement means?
(Discuss responses briefly.)
 - b. How could this statement be true? If somebody takes you out and buys you lunch, that's a free lunch, isn't it?
(Building on students' responses as much as possible, explain that a person who gets invited to lunch could choose not to go to lunch. If she decided not to go to lunch, she could use her lunch time for some other purpose. She gives up that other use of her time if she does go to lunch. If she accepts the offer of lunch, her "free" lunch costs her that other use

of her time. In that sense, it isn't a free lunch.)

- c. But what about other freebies—the free samples that are sometimes handed out in grocery stores, for example? Those items are free, aren't they?

(Building again on students' responses as much as possible, explain that samples passed out to shoppers are not free. The resources that go into providing samples—e.g., the salary paid to an employee who stands near the meat counter and treats customers to little chunks of grilled bratwurst—could be put to other uses. The employee handing out the bratwurst could be stocking shelves or ringing up sales at the checkout counter instead. Using that employee's time and effort to provide the "free" sample is therefore costly. The cost is the alternative use of resources that has been forgone.)

- d. What do these two examples—the lunch and the bratwurst sample—have in common?

(In each case, the cost arises as a result of a choice somebody makes: the choice to accept the invitation to lunch, the choice to use an employee's time for distributing samples. These are not isolated examples. Every choice involves a cost.)

2. Summarize the discussion to this point: A cost of some sort arises every time anybody makes a choice. Moreover, people must make choices, despite the costs involved. Why? The answer has to do with the concept of scarcity. The next step in the lesson is to examine that concept.
3. Give each student a copy of [Exercise 3.1](#) from the Student Workbook. Ask the students to read the passage and answer the questions that follow.
4. When the students have answered the questions, go over their answers in class. Make sure they understand the relationship between scarcity and the need to make good economic decisions.
- a. Why is there no such thing as a free lunch?
(Because of scarcity. Scarcity means that people can't have everything they want. Their wants are unlimited, but the resources available to provide for these wants are limited. Because of this imbalance, people must make choices; and there is an opportunity cost associated with every choice. Thus, there can be no such thing as a free lunch—not even when somebody else pays the bill.)
- b. Give some examples of natural resources, human resources, and capital resources.
(Examples of natural resources include water, oil, minerals; examples of human resources include physical strength, intelligence, agility, organizational ability; examples of capital resources include machinery, equipment, tools, and buildings.)
- c. What is capital?
(Goods used to produce other goods and services.)
- d. Why do economists NOT view money as capital?

(Money is not a productive resource. It is used to make the exchange of goods and services easier than it otherwise could be. Printing more money would not increase the goods and services available to people.)

e. What is an opportunity cost?

(The next-best alternative a person gives up in making a choice.)

5. Display [Visual 3.1](#). Go over each of the five steps. Provide clarification as necessary, perhaps by reference to ordinary decisions—e.g., “what should I do on Friday night” or “what type of car should I buy?” The goal here is to make sure that students understand how to use this model.
6. Display [Visual 3.2](#). Explain that people can use a decision-making grid to make decisions and thus solve problems. For any such case, the grid provides a format for listing the alternative possibilities (the decisions that might be made) and the criteria to be used in evaluating the alternatives. The criteria may be weighted (i.e., judged more or less important) on the grid in various ways—e.g., by using plus signs (+), minus signs (-), or double plus or minus signs. And the grid provides a space in which the final decision may be recorded after the alternatives have been evaluated. Formatting the elements of the problem on the grid may also help people to identify the opportunity cost of the final decision. The opportunity cost will be the highest-ranked alternative that is not chosen.
7. Ask the students to suggest some problems about which they may wish to make a decision. *(Responses might include which video game to buy, which movie to watch, which shoes to purchase, which bank to use, which pet to have, etc.)* Select one of these problems and work with it—listing alternatives and criteria to be used in evaluating the alternatives. Tell the students that, in working through such a decision, different people might weight the criteria differently; their final decisions might differ accordingly, based on the different weightings.
8. Tell the students that they will now get a chance to help someone named Maria make a decision about a problem that they might face some day: Which college to attend? Give each student a copy of [Exercise 3.2](#) from the Student Workbook.
9. Ask the students to read through [Exercise 3.2](#) and fill in the decision-making grid to help Maria make a decision based on her criteria. Ask the students not to move to Step 5 until they have filled out the grid and made a decision. When they have finished, ask them what they think Maria decided. Ask the students to read Step 5 and answer the questions at the end of the exercise. When they have finished, discuss the answers.
 - a. Why is the decision-making model important?
(It helps a person make better, more informed decisions by evaluating the alternative possibilities against important criteria.)
 - b. Are there any additional criteria that Maria did not consider that you feel are

important in choosing a college?

(Answers might include the social life, the number of friends who choose that college, extra-curricular activities, employment opportunities for graduates, the safety of the campus, their parents' view, etc.)

c. Do you agree with Maria's choice? Why or why not?

(Answers will vary. Given Maria's criteria, she seems to have made a good decision. Of course, if the students' criteria were different from Maria's, then their decisions might differ. Students might also differ in the weights they would assign to each of the criteria that were important to Maria.)

Assessment

Give each student a copy of [Exercise 3.3](#) from the Student Workbook. Assign this exercise as homework; the students will have to use the Internet and/or visit stores to complete the exercise. As appropriate, the homework reports may include copies of advertisements that show product prices and features.

Conclusion

1. Ask the students how many times they have made a choice they later regretted.
(Answers will vary, but everyone makes choices that he or she would later wish to change.) Ask the students if they think they might have made a better decision if they had used a decisionmaking model and a decision-making grid.
 2. Remind the students that they will need to make decisions continually—in their personal lives, at work, and in the voting booth. They will be helped in these cases if they become skilled at identifying the problem in question, listing the alternatives that might be available, weighing the criteria to be used in evaluating the possible alternatives, and using those criteria to make the best decision. A decisionmaking model is valuable because it makes this process explicit, reminding people to pay attention to each step along the way.
-

Extension Activity

Use accounts from a local newspaper to identify a key policy issue that faces local public officials. Ask the students to solve the problem, using a decision-making grid to record their

thinking at each step along the way. The steps should include considering the alternatives, establishing and weighting appropriate criteria, and making a final decision.

Ask the students to write up their final decisions. Optional: They may send their decisions (or make a presentation of them) to the public officials.

Related Resources

[Paraffin-alia](#)

[Let's Find a Deal - How the Crusades Led to the Finding of the New World](#)

[Vincent van Gogh's 'Flower Beds in Holland'](#)

[Economic Spotter: Resources During World War II](#)

[Destination: Mars](#)

[You Decide!](#)

[Goldi and the Three Passwords Video](#)

[Policy Perspectives on Social Security](#)

[Social Security and the National Debt | Activity](#)

[Webinar - Voters and Elections](#)

[Social Security and the National Debt | Lesson Demo](#)

[Opportunity Cost - Playful Economics | Lesson Demo](#)

Decision Making

LESSON DESCRIPTION AND BACKGROUND

The students learn to use a particular model for making decisions. They apply the model in exercises that call for choosing a college and buying a personal computer. The model focuses on explicit identification of problems, alternative possibilities for solving problems, criteria for evaluating those possibilities, and the opportunity cost of the decisions arising from the process. The need to make decisions is shown to be based in the condition of scarcity.

Lesson 3 correlates with national standards for economics and personal finance as shown in Tables 1-2 in the introductory section of the publication.

ECONOMIC AND PERSONAL FINANCE CONCEPTS

- Choice
- Opportunity cost
- Decision-making model
- Scarcity

OBJECTIVES

At the end of this lesson, the student will be able to:

- Explain how **scarcity** affects economic choices.
- Describe the five-step **decision-making model**.
- Use a decision-making grid in making economic choices.

TIME REQUIRED

One 45-minute class period

MATERIALS

- A transparency of **Visual 3.1** and **3.2**
- A copy for each student of **Exercise 3.1, 3.2,** and **3.3** from the *Student Workbook*

ADDITIONAL RESOURCES



To download visuals, find related lessons, correlations to state standards, interactives, and more visit <http://fffl.councilforeconed.org/9-12/lesson3>.

PROCEDURE

1. Write "There is no such thing as a free lunch" on the board. Call on a student to read the statement to the class. Tell the class that the statement expresses a basic principle of economics. Then turn to an examination of the statement. Ask:
 - a. What do you think this statement means? (*Discuss responses briefly.*)
 - b. How could this statement be true? If somebody takes you out and buys you lunch, that's a free lunch, isn't it? (*Building on students' responses as much as possible, explain that a person who gets invited to lunch could choose not to go to lunch. If she decided not to go to lunch, she could use her lunch time for some other purpose. She gives up that other use of her time if she does go to lunch. If she accepts the offer of lunch, her "free" lunch costs her that other use of her time. In that sense, it isn't a free lunch.*)
 - c. But what about other freebies—the free samples that are sometimes handed out in grocery stores, for example? Those items are free, aren't they? (*Building again on students' responses as much as possible, explain that samples passed out to shoppers are not free. The resources that go into providing samples—e.g., the salary paid to an employee who stands near the meat*

counter and treats customers to little chunks of grilled bratwurst—could be put to other uses. The employee handing out the bratwurst could be stocking shelves or ringing up sales at the checkout counter instead. Using that employee’s time and effort to provide the “free” sample is therefore costly. The cost is the alternative use of resources that has been forgone.)

- d. What do these two examples—the lunch and the bratwurst sample—have in common? *(In each case, the cost arises as a result of a choice somebody makes: the choice to accept the invitation to lunch, the choice to use an employee’s time for distributing samples. These are not isolated examples. Every choice involves a cost.)*

2. Summarize the discussion to this point: A cost of some sort arises every time anybody makes a choice. Moreover, people must make choices, despite the costs involved. Why? The answer has to do with the concept of scarcity. The next step in the lesson is to examine that concept.

3. Give each student a copy of **Exercise 3.1** from the *Student Workbook*. Ask the students to read the passage and answer the questions that follow.

4. When the students have answered the questions, go over their answers in class. Make sure they understand the relationship between scarcity and the need to make good economic decisions.

- a. Why is there no such thing as a free lunch? *(Because of scarcity. Scarcity means that people can’t have everything they want. Their wants are unlimited, but the resources available to provide for these wants are limited. Because of this imbalance, people must make choices; and there is an opportunity cost associated with every choice. Thus, there can be no such thing as a free lunch—not even when somebody else pays the bill.)*
- b. Give some examples of natural resources, human resources, and capital resources.

(Examples of natural resources include water, oil, minerals; examples of human resources include physical strength, intelligence, agility, organizational ability; examples of capital resources include machinery, equipment, tools, and buildings.)

- c. What is capital? *(Goods used to produce other goods and services.)*
- d. Why do economists NOT view money as capital? *(Money is not a productive resource. It is used to make the exchange of goods and services easier than it otherwise could be. Printing more money would not increase the goods and services available to people.)*
- e. What is an opportunity cost? *(The next-best alternative a person gives up in making a choice.)*

5. Display **Visual 3.1**. Go over each of the five steps. Provide clarification as necessary, perhaps by reference to ordinary decisions—e.g., “what should I do on Friday night” or “what type of car should I buy?” The goal here is to make sure that students understand how to use this model.

6. Display **Visual 3.2**. Explain that people can use a decision-making grid to make decisions and thus solve problems. For any such case, the grid provides a format for listing the alternative possibilities (the decisions that might be made) and the criteria to be used in evaluating the alternatives. The criteria may be weighted (i.e., judged more or less important) on the grid in various ways—e.g., by using plus signs (+), minus signs (–), or double plus or minus signs. And the grid provides a space in which the final decision may be recorded after the alternatives have been evaluated. Formatting the elements of the problem on the grid may also help people to identify the opportunity cost of the final decision. The opportunity cost will be the highest-ranked alternative that is not chosen.

7. Ask the students to suggest some problems about which they may wish to make a decision. *(Responses might include which video game to buy, which movie to watch, which shoes*

to purchase, which bank to use, which pet to have, etc.) Select one of these problems and work with it—listing alternatives and criteria to be used in evaluating the alternatives. Tell the students that, in working through such a decision, different people might weight the criteria differently; their final decisions might differ accordingly, based on the different weightings.

8. Tell the students that they will now get a chance to help someone named Maria make a decision about a problem that they might face some day: Which college to attend? Give each student a copy of **Exercise 3.2** from the *Student Workbook*.

9. Ask the students to read through **Exercise 3.2** and fill in the decision-making grid to help Maria make a decision based on her criteria. Ask the students not to move to Step 5 until they have filled out the grid and made a decision. When they have finished, ask them what they think Maria decided. Ask the students to read Step 5 and answer the questions at the end of the exercise. When they have finished, discuss the answers.

- a. Why is the decision-making model important? **(It helps a person make better, more informed decisions by evaluating the alternative possibilities against important criteria.)**
- b. Are there any additional criteria that Maria did not consider that you feel are important in choosing a college? **(Answers might include the social life, the number of friends who choose that college, extra-curricular activities, employment opportunities for graduates, the safety of the campus, their parents' view, etc.)**
- c. Do you agree with Maria's choice? Why or why not? **(Answers will vary. Given Maria's criteria, she seems to have made a good decision. Of course, if the students' criteria were different from Maria's, then their decisions might differ. Students might also differ in the weights they would assign to each of the criteria that were important to Maria.)**

CLOSURE

1. Ask the students how many times they have made a choice they later regretted. **(Answers will vary, but everyone makes choices that he or she would later wish to change).** Ask the students if they think they might have made a better decision if they had used a decision-making model and a decision-making grid.

2. Remind the students that they will need to make decisions continually—in their personal lives, at work, and in the voting booth. They will be helped in these cases if they become skilled at identifying the problem in question, listing the alternatives that might be available, weighing the criteria to be used in evaluating the possible alternatives, and using those criteria to make the best decision. A decision-making model is valuable because it makes this process explicit, reminding people to pay attention to each step along the way.

ASSESSMENT

Give each student a copy of **Exercise 3.3** from the *Student Workbook*. Assign this exercise as homework; the students will have to use the Internet and/or visit stores to complete the exercise. As appropriate, the homework reports may include copies of advertisements that show product prices and features.

EXTENSION

Use accounts from a local newspaper to identify a key policy issue that faces local public officials. Ask the students to solve the problem, using a decision-making grid to record their thinking at each step along the way. The steps should include considering the alternatives, establishing and weighting appropriate criteria, and making a final decision.



Ask the students to write up their final decisions. Optional: They may send their decisions (or make a presentation of them) to the public officials.

Five-Step Decision-Making Process

1. Define the Problem.
2. List Your Alternatives.
3. State Your Criteria.
4. Evaluate Your Alternatives.
5. Make a Decision.

A Decision-Making Grid

The Problem: _____

Criteria 					
 Alternatives					

The Decision: _____

NAME: _____ CLASS PERIOD: _____

Decision Making

A fundamental lesson in economics is that there is no such thing as a free lunch. There is no such thing as a free lunch because individuals, businesses, governments, and economic systems all face scarcity. Because of scarcity, we must make choices; and the consequence of every choice is that something else is not chosen. This means that for every personal, workplace, and governmental decision there is a cost—the something else not chosen. A wise decision involves weighing the benefits and costs of the alternatives from which individuals must choose.

There is no getting around the condition of scarcity, or the choices and costs it creates. We face scarcity because our resources are limited and our economic wants are unlimited. Economic wants always outstrip the limited resources available to satisfy them. Without scarcity, it would be a different world; everything you wanted would be freely available.

People's wants are never fully satisfied. No matter what we already have, we would like to have more. The United States is one of the richest nations in the world, but poverty still exists. Even wealthy individuals desire more. Few of us are ever fully satisfied with our education, health care, and standard of living. Most everyone would like to have a higher income. Our wants are limited only by our imagination. Wants also change over time. Twenty years ago, few, if any, Americans had DVD/Blu-ray players, cell phones with cameras and video, MP3 players, car navigation systems, or digital cameras. Millions of people now own these items. Unfortunately, our resources are limited. We have only so many human resources, natural resources, and capital resources.

Human resources are the physical, intellectual, and creative talents of people. When you are working, you are using human resources. Also, when you get a better education, you are said to have improved your human capital. When people are better educated, they tend to be more productive; as a result, they usually enjoy a higher standard of living.

Natural resources are gifts of nature. They include water, forests, natural gas, oil, and climate. Natural resources are not the only resources a nation needs to become rich, but they can assist countries in improving economic outcomes.

Capital resources include those goods that are used to produce other goods and services. Tools, factories, equipment, and office buildings are examples of capital resources. In economics, the word capital refers to items used to produce something else. Capital does not refer to money.

Money is best thought of as a medium of exchange. It is used to make the buying and selling of goods and services easier. People like more money because they can use it to buy more stuff. It's the stuff that is important. Printing more money does not mean that more stuff has been produced, nor does it mean that we are all bet-

NAME: _____ CLASS PERIOD: _____

Personal Decision Making

This exercise focuses on making personal decisions. Our personal resources include time, energy, and skills that we use to satisfy our wants. They also include the financial resources (such as money, savings bonds, and deposit accounts in banks) that we have accumulated over our lifetime.

We use these personal resources to purchase goods and services. Goods are things we can touch, such as cars, houses, computers, and cell phones. Services are activities such as rock concerts, education, movies, insurance, loans, vacations, and health care. Of course, we cannot have all the goods and services we want because of scarcity. But we can have more goods and services if we choose wisely. By carefully considering the costs and benefits of our decisions, we can improve our lives.

A College for Maria

Maria Delgado will graduate from high school this spring. She plans to attend college, but she does not know which college to attend. She is using a decision-making model in order to make a better choice. Let's work through Maria's decision, using the five-step decision-making model.

Step 1: Define the Problem

Maria must recognize the problem. She knows that all colleges and universities are not alike, and she must choose the one that is right for her. She plans to major in marketing.

Step 2: List the Alternatives

Maria has found three main alternatives. State U is a big university with 30,000 students, and it offers both undergraduate and graduate programs. Many undergraduate classes are very large; some have more than 300 students. The tuition is reasonable. The business school and the marketing program are highly ranked nationally. State U is located 150 miles from Maria's hometown.

Local Community College is a two-year college only a few miles away from Maria's house. Its classes are smaller than State U's, averaging about 40 students. There are marketing classes. While some faculty members are outstanding, Maria has heard that most do not have Ph.D. degrees (most faculty members at State U do have Ph.D. degrees). The tuition for LCC is low, and if she decides on LCC, Maria could keep her part-time job.

Private College, which has only 3,000 students, is located 200 miles from Maria's hometown in a neighboring state. The classes are small, and the students get a lot of individual attention and help. The college offers marketing courses. Its admission standards are high, but Maria is an outstanding student and thinks she has a good

chance of being accepted. Tuition is expensive. Private College gives scholarships and loans, but the cost would still be higher than the cost at State U.

STEP 3: Identify Your Criteria

For any choice, your criteria are important considerations by which the alternative possibilities may be judged. People often differ in the criteria they consider important in making choices.

Maria's most important criteria are these:

- Low-cost tuition, because her family is not wealthy.
- High-quality education, particularly in marketing.
- Small class size and personal attention.
- Close location to home, because she feels she would miss her friends if she were far away.

Step 4: Evaluate Your Alternatives

Maria must now evaluate her alternatives against her criteria. She has decided to use the decision-making grid shown at the end of this exercise. She will use a "+" and "-" system to evaluate each alternative. One plus sign is positive and two plus signs are even better—very positive. A minus sign is negative. Two minus signs are very negative. Complete the grid before going to Step 5.

Step 5: Make a Decision

Maria decided to attend Local Community College for two years. Cost is very important to her. By attending the community college while working part-time, she might even be able to save some money. She felt the private college had the best program for her, but it is too expensive and too far from home. The community college had the most pluses. Low cost and closeness to home were very important to Maria, and the community college ranked highest on these criteria.

A longer-term option for Maria may be to save money and apply for scholarships during the two years when she attends the community college. If she does this, she may be able to attend the private school for her final two years of college.

Maria's Decision-Making Grid

Based on the information in this exercise, use the grid to help Maria make a decision. Then answer the questions that follow.

What is the problem?

Fill in the boxes with "+", "++", or "-", "--", as you think Maria might have decided.

ALTERNATIVES	CRITERIA			
	Low Cost	Quality Programs	Personal Attention	Close to Home
State U				
Local Community College				
Private College				

Maria's Decision _____

Questions:

- Why is the decision-making model important?
- Are there any additional criteria that Maria did not consider that you feel are important in choosing a college?
- Do you agree with Maria's choice? Why or why not?

NAME: _____ CLASS PERIOD: _____

Buying a New Computer or Digital Camera

You can use the decision-making model and grid for any consumer decision. Assume you want to buy a computer or a digital camera. Fill out the decision-making grid that follows and decide which computer or digital camera to buy. Find the alternative models at electronics superstores, computer or camera stores, or online stores. Develop your criteria, which could include size, cost, memory, disk capacity, speed, audio and video capabilities, etc. Choose the criteria that are most important to you; fill out the grid; make a choice; and justify it.

Decision-Making Grid

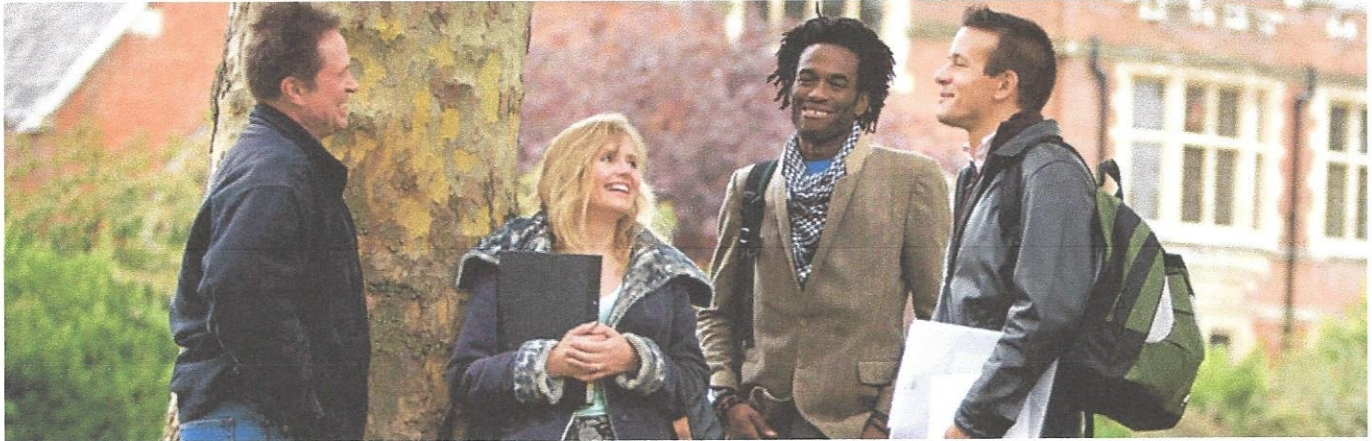
The Problem:

↓ Alternatives	Criteria →					

The Decision:



The Hidden Costs of College



College costs have escalated over the past two decades, and many students are relying on student loans to cover the costs. So it is more important than ever to carefully consider the costs of college, anticipated career income, and how to best finance those college expenses. Students must consider the costs beyond tuition, room and board, and books, in order to get a more realistic estimate of total college expenses. In this lesson, students will research the cost of attending two colleges of their choice and learn about hidden costs that are often overlooked when preparing a budget for college.

Key Concepts

Choice , Cost/Benefit Analysis , Decision Making , Expenses , Opportunity Cost , Trade-off

Students Will

- Investigate various college options available to them.
 - Calculate the cost of attendance (COA) for one year of college, including hidden costs that are often overlooked (inflation, car, fraternity/sorority).
 - Use a five-step decision-making grid to make a decision about which college to attend.
-

Introduction

So you are ready to start looking at colleges. Congratulations! You may have dreams of becoming a writer, a welder, a politician, a musical instrument repair technician, or a scientist – or maybe you haven't a clue what you are looking for in a career. Your choice of the right college – and how to finance your education – will have ramifications for your career and the rest of your financial life.

College costs have escalated over the past two decades, and many students are relying on student loans to cover the costs. Therefore, it is more important than ever to carefully consider and study the costs of college, anticipated career income, and how to best finance those college expenses. In order to get a more realistic estimate of total college expenses, consider the costs beyond tuition, room and board, and books. In this lesson, students will research the cost of attending two colleges of their choice and learn about hidden costs that are often overlooked when preparing a budget for college.

Resources

- *Beware of Hidden College Costs*: <https://www.edvisors.com/plan-for-college/money-saving-tips/beware-of-hidden-college-costs/> Contains a checklist of unanticipated college costs
 - College Navigator from the National Center for Education Statistics: <http://nces.ed.gov/collegenavigator/> Displays the official published costs of attending colleges
 - Net Price Calculator from the College Board: <http://studentnpc.collegeboard.org/> Calculates the estimated net price of attending college, based on parents' financial records, test scores, and GPA
 - Lesson 3, Decision Making, from *Financial Fitness for Life* (Grades 9-12)
 - Exercise 3.2, Personal Decision Making, from *Financial Fitness for Life* (Student Workbook, Grades 9-12)
-

Process

1. Tell the students that this is the first of two related lessons (the second is How Will I Pay for College?). Tell the students they will need to research the costs for different colleges before deciding where to enroll. Of course, students should consider the academic program, the quality of professors, the preferred size of the school, distance from home, career placement

rate, likelihood of graduating on time, and other important criteria. However, the cost can often be the deciding factor in selecting a college.

It is important to remember that tuition is not the only cost of college. Often, the costs of room and board in a dormitory can outweigh tuition. There are other costs that colleges add to the bill to cover technology, health care, construction projects, parking, and other expenses. And then, of course, there are the costs of maintaining a social life. If hidden costs such as transportation are overlooked, it is more difficult to plan for college expenses. Accurate comparisons of schools require a review of the hidden costs of higher education.

2. Give the students 5-10 minutes to work in small groups to brainstorm some of the costs that they may encounter, which are not included in the “sticker” price of their school (published tuition and fees). If students have trouble getting started, ask them if they plan to go to school in another state and go home to visit family on holidays, or what sort of social life they expect to have. Then show them the *Hidden Costs of College* worksheet, pointing out costs they might not have considered, such as laundry, transportation, inflation, or changing majors. The worksheet can be found at: <https://www.edvisors.com/plan-for-college/money-saving-tips/beware-of-hidden-college-costs/>.

3. Show students this actual bill for Emily, who attends a major state university as an in-state student.

Full-Time Tuition	\$ 9,087
Dormitory (Double Room)	\$ 6,545
Meal Plan (Standard)	\$ 3,250
Activity Fee	\$ 198
Technology Fee	\$ 395
Student Health Fee	\$ 220
Transportation Fee	\$ 128
Repair and Rehabilitation Fee	\$ 360
Total	\$20,183

By focusing only on tuition, Emily would have missed more than half of the cost of one year of college. Then there are the costs specific to the academic program the student chooses. Count on \$1,000 or more per year for textbooks. Students may also face lab fees, instrument rental, supply charges, parking fees, and other costs for classes. If the student attends school out of state, expect the tuition to double or triple. Beware of penalties that can add up; Emily faced a

\$70 fee for registering for classes after the deadline and an additional \$17 for dropping a class. Some colleges even charge a fee for paying by credit card rather than check.

Ask the students to calculate the percentage of the total cost that Emily will spend on the dormitory. $[6,545 / 20,183 = 32\%]$

Now ask the students to estimate some of the hidden costs Emily might need to add to her cost of attending college for one year. Are these hidden costs more than \$1,000 per year? [Answers may vary]

4. Now let's look at Josh's college costs. Josh is attending a community technical college and will be living in an apartment. Consider his actual bill.

Full-Time Tuition	\$ 5,744.64
Apartment (One Bedroom with Roommate)	\$ 4,500.00
Food and Utility Expenses	\$ 2,700.00
Building Fee	\$ 135.64
Service and Activities Fee	\$ 155.00
Comprehensive Fee	\$ 9.00
Security Fee	\$ 9.00
Technology Fee	\$ 3.00
Additional Program Fee	\$ 300.00
Required Tools	\$ 3,500.00
Total	\$17,056.28

While Josh's tuition at the technical school is significantly lower than Emily's at the major state university, Josh faces the cost of tools. Apartment rental and food costs can vary widely among regions of the country. One other obvious consideration is how many years the student expects to remain in school to achieve the desired certification or degree. While some technical programs require only months or a year, advanced degree programs may require many years of school. And many students take five or more years to complete a four-year degree program. Other students will begin their studies at a community college and later transfer to a four-year college. It is very important to consider all of the costs in making a choice of colleges and universities.

Now ask the students to calculate Josh's tuition for the second year if the school increases tuition by 5%. $[(\$5,744.64 * .05) + \$5,744.64 = \$6,031.88]$

5. Tell the students they will now have an opportunity to look at the costs to attend two colleges or universities they would consider attending. Visit the college’s website or go to <http://nces.ed.gov/collegenavigator> to look up tuition and fees (Type in the name of the school you are interested in attending. Click on Tuition, Fees and General Expenses). Use the information to complete the center column of the table below. Then use the same procedure to find a second school and put the information in the right column of the table.

Inform the students that the “sticker” price of the college is not what most students actually pay. The average net price that students pay is usually substantially lower because many students receive financial aid (the College Navigator website has estimates for net price paid by income level: Click on Net Price for more information). For the purposes of this lesson, however, we will use the sticker price because the net price depends on a number of variables such as family income and number of siblings in college.

Name of School		
Full-Time Tuition		
Housing Costs		
Meal Plan		
Other Fees and Hidden Costs		
Textbook Costs		
Estimated Total Annual Cost		

Students will most likely be surprised by the cost of college. Students will realize that their families may not have enough cash on hand to pay these bills. Now that they have information about the costs of college, they’ll need to consider how to finance their education, which is the focus of the next lesson, [How Will I Pay for College?](#)

Assessment

1. Ask students to refer to the table they completed in Procedure 5.
2. Explain the concept of Opportunity Cost and model how to use a five-step decision-making grid to decide where to go to college. The [Decision Making lesson](#) from *Financial Fitness for Life* provides background information for the teacher and [Exercise 3.2](#) provides students with practice using the decision-making grid. The steps in the decision-making process are as follows:
 - a. Define the problem.

- b. List your alternatives.
- c. State your criteria.
- d. Evaluate your alternatives.
- e. Make a Decision

3. Students will then use the [blank decision-making grid](#) to list their alternatives, state their criteria, and evaluate their alternatives to make a decision about which college they should attend.

4. After completing the decision-making grid, ask the students to write a paragraph explaining which college seems to be a better value. Then ask the students to write a second paragraph, explaining why a student might choose a school whose "sticker" price does not appear to be a better value.

Conclusion

Parents and students must sit down and research ALL the costs of attending college, not only tuition and room and board. Having a realistic idea about the actual costs is the first step toward creating a workable plan for financing a college education.

Extension Activity

Students can work with their parents to calculate the estimated net price of attending college. The College Board Net Price Calculator at <http://studentnpc.collegeboard.org/> bases the estimates on parents' financial records, test scores, and GPA. Please note that not all schools participate in the Net Price Calculator.

Related Resources

[Mobile Phones Matter](#)

[The Opportunity Cost of a Lifetime](#)

[A Penny Saved is a Penny at 4.7% Earned](#)

[Off to Interactive Island](#)

[There is Something in the Water](#)

[Break a Leg](#)

[Goldi and the Three Passwords Video](#)

[Policy Perspectives on Social Security](#)

[Social Security and the National Debt | Activity](#)

[Medicare and the National Debt | Activity](#)

[Balancing the Federal Budget | Activity](#)

[Overview of the Budget Process | Animated Video](#)



How Will I Pay for College?



In this lesson, students will learn about current trends in student borrowing and determine a reasonable debt load for hypothetical students. College costs have escalated over the past two decades, and more and more students are relying on student loans to cover the costs. Therefore, it is more important than ever to carefully consider the costs of college, your anticipated career income, and how to best finance those college expenses.

Key Concepts

Borrow , Borrower , Cost/Benefit Analysis , Debt , Decision Making , Expenses , Human Capital Investment , Interest , Principal

Students Will

- Analyze trends in student borrowing.
- Identify the costs and benefits of taking out student loans.
- Identify ways to lower the cost of attending college.
- Use online calculators to determine the amount borrowed and monthly payments, and to compare the impacts of changing the amount borrowed.

Introduction

According to the Federal Reserve Bank of New York, student loan debt has tripled between 2004 and 2014, and the average amount of debt per borrower in 2014 was \$27,000. Most students do not understand the long-term implications of taking on large amounts of student debt and have no idea what their monthly loan payments will be after graduation. Despite the high costs, for most students, it still pays to attend college. However, students need to carefully consider the options for financing their education before utilizing student loans. In this lesson, students will analyze the student loan decisions of hypothetical students, consider ways to reduce the amount to borrow, and examine data to determine wise choices for their own anticipated student loan debt.

We would like to acknowledge the Outreach and Education staff of the [Federal Reserve Bank of New York](#) for their contributions to this lesson.

Resources

- [Graph of Delinquent Loans](#) (Federal Reserve Bank of New York)
 - [The Student Loan Landscape](#). Summary of research by the Federal Reserve Bank of New York
 - Earnings information for various occupations: http://www.bls.gov/oes/current/oes_nat.htm or <http://www.careeronestop.org/toolkit/toolkit.aspx>
 - Federal Student Loan Repayment Estimator: <https://studentloans.gov/myDirectLoan/mobile/repayment/repaymentEstimator.action> Estimates monthly payments and full costs of student loans
 - College Navigator from the National Center for Education Statistics: <http://nces.ed.gov/collegenavigator/> Displays the official published costs of attending colleges
 - *Is College Worth It?*: <http://www.frbsf.org/education/teacher-resources/value-of-college> Interactive with the Federal Reserve Bank of San Francisco
 - *College 101*: https://www.stlouisfed.org/education_resources/college101/index.html Infographic by the Federal Reserve Bank of St. Louis
 - Net Price Calculator from the College Board: <http://studentnpc.collegeboard.org/> Calculates the estimated net price of attending college, based on parents' financial records, test scores, and GPA
-

Process

1. Put the students in small groups of three to five. Students will take the Student Debt Quiz, discussing each question before answering as a group. Encourage students to discuss examples of friends and family members to help guide their answers. After students have had 5-10 minutes to work on the quiz, go over the answers.

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Student Debt Quiz

The average amount of debt per undergraduate student borrower in 2014 was:

- a. \$ 8,000
- b. \$16,000
- c. **\$27,000**
- d. \$31,000
- e. \$43,000

True or **false**: Student loan debt can be discharged in bankruptcy .

True or **false**: You don't have to repay your student loans if you don't graduate.

True or **false**: You don't start paying interest on your loans until after you graduate.

What is the percentage of 25-year-olds who hold student debt?

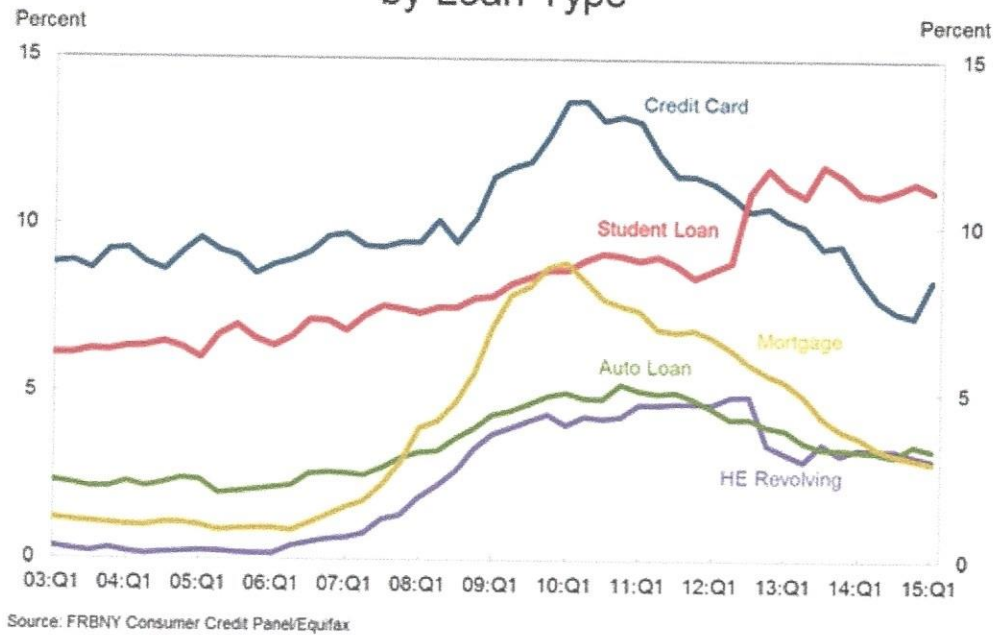
- f. 8%
- g. 18%
- h. 35%
- i. 43%**
- j. 57%

True or false: Students who owe less than \$5,000 in student debt have higher default rates.

2. In the Hidden Costs of College lesson, students calculated the cost of attendance for two different schools and realized that they may need to take out student loans to cover part or all of their college expenses. In recent years, student loan debt has significantly increased, so it is very important for students to consider not only the cost of college, but the income they can expect to earn in their career after college. If students intend to enter a career which pays a lower income than others, they will need to determine whether borrowing large sums of money to attend their dream college is appropriate.

Show the students the graph below on consumer debt and ask them the following questions:

Percent of Balance 90+ Days Delinquent by Loan Type



9

- What do banks mean when a loan is 90+ days delinquent? [The loan payment is more than 90 days late.]
- Which type of loan had the highest rate of delinquency in the first quarter of 2004? [Credit card]
- Which type of loan had the highest rate of delinquency in the first quarter of 2015? [Student loan]

3. Ask students to read the article [The Student Loan Landscape](#), which summarizes research on student loan debt by staff members of the Federal Reserve Bank of New York. Then discuss their answers to the following questions:

- What happened to the amount of student loan debt between 2004 and 2014? [Tripled]
- How much is the average student debt per borrower? [\$27,000]
- Why has the amount of college debt increased? [More students attending; students staying longer; less expensive to take out loans; increased cost of college]
- Why is the student loan repayment rate low? [Deferring payments; income-based repayment plans; can't afford it; cannot be discharged in bankruptcy]
- Is the student loan default rate increasing or decreasing? [Increasing]

- Why are some borrowers, who are making their payments, seeing their loan balance continue to increase? [Their payments are not keeping up with the accruing interest]
- How does significant student loan debt affect a person's credit score? [Reduces it]
- Why is a credit score important? [It affects the ability to get a home mortgage, an auto loan, or use credit cards.]
- How can the high amount of student debt affect the macro economy? [Students and their parents who are repaying the loans cannot use that money for consumer purchases, which can hurt the macro economy]
- Why is a college degree still a worthwhile investment? [College graduates earn 80% higher income than non-graduates, and graduates are less likely to become unemployed]

4. Tell students that a good rule of thumb is to avoid taking on more debt than they expect to earn in their first year of work. Also, discuss the opportunity cost of these loan payments--what students may have to "give up" in order to make loan payments. Students with significant debt may find that they don't have enough money for a new car or a down payment on a house.

CASE STUDIES

Armed with their background knowledge about student debt, students will read case studies of hypothetical students and advise them regarding a manageable amount of money to borrow.

For the first two case studies, have students use one of the following websites to find the salaries the students in the case studies can expect to earn: http://www.bls.gov/oes/current/oes_nat.htm or <http://www.careeronestop.org/toolkit/toolkit.aspx>. Have students divide annual income by 12 to determine monthly gross income.

For all four case studies, have students use the interest repayment estimator to determine the monthly student loan payment: <https://studentloans.gov/myDirectLoan/mobile/repayment/repaymentEstimator.action>

Click "Add Loan," select "Direct Unsubsidized Loan," and type in the amount to be borrowed. Use 4.29% as the interest rate. This is the interest rate for unsubsidized federal student loans initiated in 2015-2016. Use the Standard Rate as the monthly repayment cost.

Have students compare the monthly income to the monthly student loan repayment. How would the students advise each student in the case studies?

- Jason wants to become an elementary school teacher. His dream school is out of state, which will require him to borrow \$191,560. [His monthly loan payment would consume

more than 40% of his monthly income. He should look for less expensive schools.]

- Alex wants to become a welder. She can complete a one-year program at her local community college, which requires her to borrow \$14,523. [Her monthly loan payment would consume less than 5% of her monthly income. It is a reasonable loan debt.]
- Shawn spent his first year of college partying and skipping classes. As a result of his poor grades, he will now have to attend a fifth year of college in order to obtain his four-year degree. He will have to borrow an additional \$23,032 for his fifth year. Assuming a \$40,000 income after graduation, by how much will his monthly loan payment increase for the next ten years? By how much will his total loan increase, including interest? [\$236] [\$28,378]
- Sam took several AP and dual credit courses in high school, which will allow her to graduate one semester early. Assuming a \$40,000 income, if one semester's cost of attendance is \$12,530, what is the total amount she will save in loan debt? [\$15,439]

5. Discuss with students ways they can reduce college costs, reducing their reliance on student loans.

- Complete your FAFSA form and apply for as many scholarships as possible -- even the little ones
- Take AP or dual credit classes while in high school
- Carefully compare your options for housing and meal plans; consider what you can afford
- Graduate on time; work with your adviser early to select courses and keep up your grades
- Buy or rent used textbooks
- Buy only what you need; you don't need every college sweatshirt, towel, and hat
- Check to see whether local businesses offer discounts with a student ID
- Pay bills on time to avoid paying interest charges and late fees
- Work at least part-time while in school to reduce the amount you need to borrow

Assessment

Let's bring this close to home. Have students use the salary indicator to determine their likely salary in the career they are considering: http://www.bls.gov/oes/current/oes_nat.htm or <http://www.careeronestop.org/toolkit/toolkit.aspx>.

Next find the estimated annual cost of attendance for the college the student would like to attend. Visit the college's website or go to <http://nces.ed.gov/collegenavigator> to look up tuition and fees. Students should multiply that annual cost by the number of years they expect to be in

college. Although the costs of graduate school tend to be significantly higher than for a four-year degree, for purposes of this lesson, students should just use the same tuition for additional years of graduate school.

Tell the students to assume they must borrow the entire amount to pay for their education. Use the interest repayment calculator to determine the monthly student loan repayment:

<https://studentloans.gov/myDirectLoan/mobile/repayment/repaymentEstimator.action>

Given what the students have learned in this lesson, ask them to write a paragraph answering each of these questions:

- Given the monthly student loan repayment and projected salary, is this college a smart financial choice? Explain why or why not.
- Explain three specific actions the student could take to reduce the amount of student loans required to finish the college education.

Conclusion

At a time when college costs are higher than ever, it is important to carefully consider the level of student debt a student should carry. It is critical for students to plan in advance, find ways to reduce their college costs, and be realistic in selecting a college with costs the student will be able to afford to repay.

Given concerns about the size of student loan debt, is a college education worth it? Absolutely. Even though costs have escalated in the past decade, a college degree is still a worthwhile investment for most students. On average, college graduates earn significantly more income than non-graduates, and they are less likely to become unemployed. A study by the [Federal Reserve Bank of New York](#) found that the return on investment in a college education (calculating the costs and benefits of a bachelor's degree) is approximately 15% – more than double the 7% historical rate of return in the stock market! Of course, not all degrees are equal. Engineers saw a 21% return on investment, while teachers only saw a 9% return on investment. But given the trends of falling wages for those with high school diplomas, compared to stagnant wages for those with a college degree, the benefits of a college degree still outweigh the costs of that degree. To calculate the age at which a college degree will begin to pay off, visit: <http://www.frbsf.org/education/teacher-resources/value-of-college> . To see an infographic about college benefits and costs, visit: https://www.stlouisfed.org/education_resources/college101/index.html . The videos on this website can be useful in supporting the infographic.

Your choice of college and career are among the most important decisions you will ever make. Take the time to do careful research and prepare to reduce your costs, so you can enter a career with minimal debt and make those investments and choices of your dreams!

Extension Activity

Students can work with their parents to calculate the estimated net price of attending college. The College Board Net Price Calculator at <http://studentnpc.collegeboard.org/> bases the estimates on parents' financial records, test scores, and GPA. Please note that not all schools participate in the Net Price Calculator. In the Net Price Calculator, click on "Participating Schools" and then select a school and "Enter as a Guest" to get started.

Related Resources

[You're Going to College](#)

[The Hidden Costs of College](#)

[Work, Earnings and Economics: Using 'Lyddie' by Katherine Paterson](#)

[Pop Goes the Housing Bubble](#)

[Loan Amortization - Mortgage](#)

[The Economics of Voting](#)

[Policy Perspectives on Social Security](#)

[Taxation and the National Debt \(B\) | Activity](#)

[Taxation and the National Debt \(A\) | Activity](#)

[Social Security and the National Debt | Activity](#)

[Balancing the Federal Budget | Activity](#)

[Overview of Federal Taxes | Animated Video](#)
