Tools for Teaching the Arkansas High School Economics with Personal Finance Course

Economics Arkansas

FEDERAL RESERVE BANK *of* ST. LOUIS

Tools for **Teaching** the **Arkansas High School Economics** with **Personal Finance Course**

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Preface

In July 2009, the Arkansas State Board of Education approved a one-semester economics course requirement beginning with high school students graduating in 2014. The frameworks for the course were divided into the following strands: economic fundamentals, microeconomics, macroeconomics, and personal finance management. Economics Arkansas was positioned as the “go-to” organization by the Arkansas Department of Education for preparing educators to teach this course.

Over its 50-year history, Economics Arkansas has been dedicated to delivering exceptional training and resources for teachers in the state. Its reputation for excellence provided the organization a unique opportunity to develop a course outline that included standards and activity-based lessons—*The Notebook*, as it came to be called. The original course notebook was created in partnership with Dr. Curt Anderson, director of the Center for Economic Education at the University of Minnesota Duluth.

Once completed, Economics Arkansas produced copies of *The Notebook* and provided professional development training for teachers throughout Arkansas. Teachers across the state took advantage of the opportunity to relearn—and in some cases, learn—the fundamentals of the discipline to feel comfortable teaching the new required course. Economics Arkansas staff made sure teachers had access to the materials and classroom expertise from its trainers, which include college professors, Economics Arkansas Master Economics Teachers, and content specialists within Economics Arkansas.

To maximize the best that both organizations have to offer, in 2011 Economics Arkansas partnered with the Federal Reserve Bank of St. Louis to update and redesign *The Notebook*, now called *Tools for Teaching the Arkansas Economics and Personal Finance Course*. The updated resource included online and print resources from the St. Louis Fed, the Federal Reserve System, and a plethora of high-quality effective lessons for teachers of the high school economics course. In addition, the updated resource included more lessons, data sources, and links to increase technology use in the classroom, enhance the Common Core State Standards, and increase economic education and financial literacy.

In the summer of 2014, a group of teachers and content specialists met to develop new standards for the Arkansas Economics, Social Studies Curriculum Framework for the high school economics course. The standards were divided into the following five strands: Economic Decision Making, Exchange and Markets, National Economy, Global Economy, and Personal Financial Management. The advent of these new standards gave Economics Arkansas and the Federal Reserve Bank of St. Louis the opportunity to reorganize and expand *Tools for Teaching the Arkansas Economics and Personal Finance Course*. The 2016 edition included additional resources and replaced the 2015 edition.

In December 2022, the Arkansas State Board of Education adopted Social Studies Standards and Courses to represent the work of educators from across the state. The course, titled *Economics with Personal Finance*, requires full implementation in the 2024-2025 school year.

Economics Arkansas and the Federal Reserve Bank of St. Louis are proud to present an engaging resource for both students and teachers: The 2023 *Tools for Teaching the Arkansas High School Economics with Personal Finance Course*. It is hoped that this updated resource and partnership will serve as a model for other states.

Marsha Masters
Associate Director
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Overview

This toolkit is divided by topic into 20 sessions. Each session includes the following sections:

Session Description

The session description indicates the overall purpose of the session.

Talking Points

The talking points outline the main concepts in the session. These points are not tied to a particular resource and are not intended to be presented in their entirety as listed; rather, teachers are encouraged to reference the talking points as needed.

Resources

Each session lists topical resources that may be used over multiple class periods, including online modules, video Q&As, audio Q&As (podcasts), reading Q&As, and lessons. The class time required for each resource varies. In addition, some sessions include complete copies of lessons.

Standards and Benchmarks

The standards, along with grade-level benchmarks referenced in the Arkansas Toolkit, include the Arkansas Economics with Personal Finance Standards, the Voluntary National Standards in Economics, and the National Standards for Personal Financial Education.

Links to **Economics** and **Personal Finance Standards**

Arkansas Department of Education, Social Studies Curriculum Framework
https://dese.ade.arkansas.gov/admin/Files/AR_Economics_with_Personal_Finance_Standards_2022_LS.pdf

Council for Economic Education, Voluntary National Content Standards in Economics
https://www.councilforeconed.org/wp-content/uploads/2012/03/voluntary-national-content-standards-2010.pdf

College, Career, and Civic Life (C3) Framework for Social Studies State Standards
http://www.socialstudies.org/c3

National Standards for Personal Financial Education
https://www.councilforeconed.org/wp-content/uploads/2021/10/2021-National-Standards-for-Personal-Financial-Education.pdf

Glossary

Glossary of Economics and Personal Finance Terms, Federal Reserve Bank of St. Louis
https://www.stlouisfed.org/education/glossary

Additional Resources

Complementary resources can be found on the Economics Arkansas website
https://www.economicsarkansas.org/for_teachers/

Using Online Resources from the **Federal Reserve Bank** of **St. Louis**

The recommended resources include several free lessons, videos, online modules, articles, and recordings from the Federal Reserve Bank of St. Louis and are available through the Econ Lowdown® Teacher Portal. These interactive resources are designed for students to complete individually online, either in class or as an out-of-class assignment. Once registered, teachers gain access to a "Management Panel" that allows them to preview the resources, assign them to students, and monitor student use and scores. Register and use the resources as follows:

Register

1. Go to https://www.econlowdown.org and click on the "Register for a FREE account" link or the "Register for an instructor" button.

2. Enter the required information and click the "Register" button.

3. An email will be sent to you with a link to the login screen (www.econlowdown.org) and your temporary instructor code and password.

4. Sign in and create a new password. Going forward, you will log in using your email address and chosen password.

Create a Classroom and Add Students

1. Click on "My Classrooms," and then add a classroom name and the "Begin" and "End" dates of the class. Click the "Create" button.

2. You will be prompted to select how students will log in: Select either "Log in with Google" or "Log in with EconLowdown" and follow the prompts.
   - For the Google option, you will provide students with a specified link and a classroom join code.
   - For the Econ Lowdown® option, you will be prompted to add student names (and email addresses provided your students are 13 years old or older). See the options at the bottom of the page to "auto create student names" or "import student list."

Add Resources and Notes to Your Classroom Syllabus

1. On the "My Classrooms" tab, in the "Classrooms" list, select the classroom you want to add a resource to.

2. Select the "Resources" button to access the Resource Gallery and find the resource(s) you want to add. All resources are listed alphabetically. (You can also sort by "Resource Type," "Grade," and other filters.)

3. When you have found the resource(s) you would like to assign to your students, select the "+" sign next to the title, and then select the green "Add to Syllabus" button in the lower-right-hand corner of your screen.
4. Select the "Custom Content" button to add a note to the syllabus, for example, to include your own assignment description, due dates, and instructions.
5. To arrange the items in your syllabus, select the up/down arrows on the left-hand side of a resource in your syllabus and drag and drop the item up or down the list. For example, you might want to arrange the resources in the order to be completed.
6. You can also arrange items by editing the date range for a particular resource.
7. When your syllabus is in the desired order, select the "Publish" button so it will be accessible to your students.

Share Your Syllabus with Students

1. If using Google for students to log in, proceed as follows to share your syllabus—and the assignments in it—with your students:
    - Instruct students to log in using the provided Econ Lowdown® student link and classroom join code. Once logged in, students will be able to see your instructions, click the links on their syllabus page to launch assignments, and see their score(s) for the completed assignment(s).
2. If using Econ Lowdown® for students to log in, proceed as follows to share your syllabus—and the assignments in it—with your students:
    - When you are on a classroom page, select the "Students" tab and choose either the "Email Log in Information" or "Print Log in Information" button and follow the prompts. (You will be able to add a note to include with either option.) Each of your students will receive a unique student code and password to access your classroom syllabus and the associated assignment(s). Once logged in, students will be able to see your instructions, click the links on their syllabus page to launch assignments, and see their score(s) for the completed assignment(s).

Track Student Progress

1. To track student progress and see scores of completed assignments, when logged in and on a given classroom page, select "Student Progress" and follow the prompts.

Acknowledgments

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Session 1:

Scarcity and **Decisionmaking**

Session Description

Scarcity of resources requires individuals, organizations, and governments to make decisions. Students will explore limited resources, opportunity cost, trade-offs, and the production possibilities curve.

Standards and Benchmarks (see page 1.17)

Talking Points

1. Scarcity necessitates that a decision be made.

2. Productive resources are scarce because there are not enough of them to produce the unlimited amounts of goods and services that society wants. This is the fundamental economic problem (Step 1 of the PACED model) faced by society.

3. The PACED model provides a five-step process for making decisions:

   P: Identify the **problem**. Usually, the problem is related to scarcity.

   A: List **alternatives**—the options you will choose from.

   C: Select **criteria**—the things that are important to you in making the decision.

   E: **Evaluate** alternatives based on the criteria.

   D: Make a **decision**.

4. Even though people may face the same problem and alternatives, they may have different criteria and evaluate the alternatives differently based on those criteria. So, faced with the same problem, people do not necessarily make the same decision.

5. The PACED model is not about finding the “correct” choice for everybody; it is about making a careful, well-informed decision for yourself.

6. Although societies want a large variety of goods, for simplicity’s sake, let’s assume that we have a society that wants only two goods. A production possibilities curve (PPC) shows the various combinations of these two goods a society can produce given its available productive resources and current technology (methods of converting resources into goods and services); that is, it shows the alternative mixes of goods that are possible to produce at this time.

7. To construct a PPC, first find the "all-or-nothing" extremes and then ask what is the maximum amount of one good that could be produced given a certain amount of the other good to find the remaining combinations.

8. Combinations outside the PPC are not possible to produce at this time, while those inside the PPC are possible but do not require the use of all of society's resources.

9. The opportunity cost of a choice is the most-valued alternative that must be given up (it is real goods and services and/or real activities, not simply money or time) when a decision is made.

10. The opportunity cost along a PPC is the amount of one good that must be given up to get more of the other.

11. If all units of a resource are homogeneous (equally productive), the opportunity cost is the same for all units of a good (resulting in a straight-line PPC).

12. If units of a resource are heterogeneous (not equally productive), the opportunity cost rises as more of a good is produced (resulting in a bow-shaped PPC).

13. The simple message of the PPC is that there is a trade-off: Getting more of one thing (one good) means getting less of something else (another good).

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the module:

- The Art of Decisionmaking (30:00)
  https://www.econlowdown.org/resource-gallery/decision_making

Video Q&A

Allow time for students to view the videos and answer the questions:

- Explore Economics Video Series—Scarcity (5:00)
  https://www.econlowdown.org/resource-gallery/explore-economics-video-series-scarcity

- Using the PACED Model to Make a Decision (10:00)
  https://www.econlowdown.org/resource-gallery/using-the-paced-model-to-make-a-decision

- Economic Lowdown Video Series—There is No Such Thing as a Free Lunch (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-11-there-is-no-such-thing-as-a-free-lunch

- Economic Lowdown Video Series—Production Possibilities Frontier, Segment 1 (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-8-production-possibilities-frontier-segment-1

- Economic Lowdown Video Series—Production Possibilities Frontier, Segment 2 (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-8-production-possibilities-frontier-segment-2

- Economic Lowdown Video Series—Production Possibilities Frontier, Segment 3 (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-8-production-possibilities-frontier-segment-3

Audio Q&A

Allow time for students to listen to the podcast and answer the questions:

- Economic Lowdown Audio Series—Opportunity Cost (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-1-opportunity-cost

Reading Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics*®: Choices are Everywhere: Why Can't We Just Have it All?
  https://www.econlowdown.org/resource-gallery/choices-are-everywhere-why-cant-we-just-have-it-all

Lessons

Allow time for students to complete the lessons:

- Lesson 1A: Sam's Sandwiches (see p. 1.5 in this session)
- Lesson 1B: Constructing Production Possibilities Curves (see p. 1.8 in this session)
- Production Possibilities Frontier
  https://www.stlouisfed.org/education/production-possibilities
    - Select the PDF and accompanying slides

Lesson 1A:

Sam's Sandwiches

Objective

Students will learn the role opportunity cost plays in economic profit.

Time Required

30 Minutes

Materials

- Visual 1A, one copy for the teacher

Procedure

1. Relate the following story: Samantha (Sam) is a college student with three months off this summer and wants to earn money during that time. Sam's friend offered her a job working in the make-up department of a large retail store. He told Sam she would likely earn $1,000 per month, or $3,000 for the entire summer. While this sounded good, Sam thought she might be able to earn more by opening a small business: selling sandwiches along a path beside a lake that is very popular with tourists. So, Sam got the necessary permits from the local government to use the space along the path and rented some equipment from Bob's Rent-All. Some of the rental items included a meat warmer, refrigerator for cheese and vegetables, tables, and a cash register. Plus, she purchased meat, cheese, breads, lettuce, tomatoes, and condiments from Superior Foods (a wholesale food supplier). Sam hired high school students to help her, and her business was up and running. Over the summer, she sold 10,000 sandwiches at a dollar each. She created a financial report at the end of the summer to see how well her business performed.

2. Display *Visual 1A: Sam's Statement of Revenue and Costs* and describe each item as necessary. Tell the class that Sam's total profit was $2,000! Ask the following:
   - How do you think Sam feels about her profit? (*Probably not so good. Students will likely recognize that Sam could have made more at the retail store.*)

3. Define economic profit as total revenues (price times quantity sold) minus total costs, where total costs are the opportunity costs of all resources (inputs) used. For example, if the high school students could earn $8 per hour working at any fast food restaurant in town, Sam must pay at least $8 per hour to get them to work for her. Explain that $8 per hour is the opportunity cost of the labor resource. If Bob were to give Sam all the equipment for free, he would lose the

opportunity to rent it to someone else for perhaps $2,000. Thus, $2,000 is the opportunity cost of the capital resources. The other two costs listed similarly represent the opportunity cost of using them. Ask the following:

- Were any other resources used that are not accounted for on the report? (*Yes, Sam!*)

4. Explain that by deciding to operate her own business, Sam gave up the opportunity to earn $3,000 at the retail store. Thus, the opportunity cost of Sam's entrepreneurial resources is $3,000. Although there is no explicit payment made for using this resource, it still must be accounted for in determining the economic profit of this business. When this $3,000 cost is added to the others, total costs are $11,000, meaning that Sam's business suffered an economic loss of $1,000 ($10,000 – $11, 000). Sam is not happy with her choice. It cost her $1,000 to run the sandwich shop because she only earned $2,000 when she could have earned $3,000 at the retail store.

5. Define "normal profit" as the minimum amount necessary to keep the entrepreneurial resource—the person running the business—in the business. The normal profit is just the opportunity cost of the entrepreneurial resource. Sam's normal profit was $3,000. So, normal profit is one of the costs that must be included in determining economic profit.

6. Note that if Sam (or any entrepreneur) is not able to make enough to cover all of her explicit costs plus her normal profit, she will likely close her business and move to her next-best opportunity. On the other hand, if she is able to earn an economic profit, then she is very happy to stay in business because she would earn not only her normal profit, but extra profit beyond that—economic profit.

Visual 1A: Sam's Statement of Revenue and Costs

Total Revenue

10,000 sandwiches at $1 each (Price × Quantity = $1 × 10,000)	**$10,000**

Total Costs

Permits (land/space resources)	**$2,000**
Payment to high school workers (human/labor resources)	**$3,000**
Payment to Bob's Rent-All (capital resources, i.e., equipment)	**$2,000**
Payment to Superior Foods (natural/intermediate resources)	**$1,000**
Total costs	**$8,000**

Lesson 1B:

Constructing Production Possibilities Curves

Objective

Students will

- identify the opportunity cost of producing one good in terms of giving up another good, and
- construct a production possibilities graph.

Time Required

One class period

Materials

- Handout 1B.1, one copy, with the 4 individual apples/carrots cards cut out and folded along the center lines
- Handout 1B.2, one copy for each student
- Handout 1B.2—Answer Key, one copy for the teacher

Procedure

1. Select three students of varying height to come to the front of the room. Line them up from shortest to tallest. Explain to the class that these are three resources (human resources) that are going to be used to harvest carrots and apples. Harvesting carrots requires simply bending down and pulling up the carrots. Have each student simulate this and note that they each can do it equally well. Harvesting apples requires picking them off a tree. Since they have no additional resources (such as a ladder), this requires them to reach up and/or jump up to pick the apples. Ask the following:
   - How does the ability of these students to pick apples differ? (*The tallest student can reach apples more easily and can jump higher to reach apples. The shorter students would likely not be able to reach as many apples and be less successful.*)

2. Give the students one of the production cards from *Handout 1B.1: Production Possibilities Cards* as follows:
   - Give the shortest student the "First Worker" card, which has 1 apple and 1 carrot.
   - Give the middle-height student the "Second Worker" card, which has 3 apples and 1 carrot.
   - Give the tallest student the "Third Worker" card, which has 5 apples and 1 carrot.

3. Have all students turn their cards to the carrot side. Explain that in one day each student can harvest one carrot (i.e., they are equally productive in pulling carrots). Have the students turn their cards over and note that the number of apples they could pick in one day is different (i.e., they are not equally productive in picking apples, so the production trade-offs are not the same). Given this information, ask the students the following question:

    - What is the maximum number of carrots that these three people could pull in a day, and what is the maximum number of apples they could pull in a day? (*Carrots: 1 + 1 + 1 = 3. Apples: 1 + 3 + 5 = 9.*)

4. Have the students return to their seats.

5. Distribute *Handout 1B.2: Production Possibilities Graph* and have all students plot these two points. (*Handout 1B.2: Production Possibilities Graph—Answer Key* is provided for teacher reference.) Ask the following:

    - What is the maximum number of apples the three students could pick if they also pulled 1 carrot? (*8; To maximize the number of apples, the first worker should pull one carrot because the cost, or lost production of apples, would only be 1 apple. If one of the other workers pulled the 1 carrot, the cost in terms of apples would be greater. This can be demonstrated by having each student be the only carrot puller and looking at the number of apples that can still be picked.*)
    - What is the maximum number of apples this group could pick if they also pulled two carrots? (*5; The first and second workers would have to pull the carrots while the third worker picked the apples.*)

6. Have students plot the last two points (1 carrot / 8 apples and 2 carrots / 5 apples) on their graphs and then connect the points to form the production possibilities curve. Ask the following:

    - How does this graph compare with the one constructed for squares and trian- gles? (*It is not a straight line, but bowed outward from the origin.*) Explain that in this case the opportunity cost of getting more carrots rises (*first 1 apple, then 3, and then 5*), while previously, the opportunity cost of getting more squares was always the same (*2 triangles*).
    - What caused this difference? (*The resource strips produced equal amounts of squares and triangles. The [human] resources for producing carrots and apples were not equally productive.*)
    - Are all people, machines, and lands equally productive in producing real goods and services? (*No, people have different abilities and lands produce some crops better than others.*) Explain that this implies that, in general, producing more of any one good physically requires giving up increasing amounts of other goods. This is referred to as the "law of increasing costs."

7. Ask the following:

    - If each of the three workers harvesting apples and carrots were trained to jump higher so that they each could increase the probability of getting an apple on each jump, how would this likely change the total amount of apples they could pick each day? (*They would each be able to pick more.*)

- How many apples would each person be able to pick if the training enabled each of them to pick one more apple? (*First worker, 2; second worker, 4; third worker, 6*)

8. Have students plot a new production possibilities curve based on the increased production. (*The maximum number of carrots that can be pulled is still 3; the maximum number of apples would now be 2 + 4 + 6 = 12. The other points would be 1 carrot / 10 apples and 2 carrots / 6 apples.*)

9. Ask the student volunteers to return to the front of the room and retrieve their signs.

10. Going back to the original situation, bring up a fourth student and give him or her the "Fourth Worker" card from Handout 1, which has 1 carrot and 2 apples. Ask the following:

    - What would happen to the production possibilities curve with the addition of this fourth resource? (*The curve would shift out, making more carrots and apples available for each combination.*)

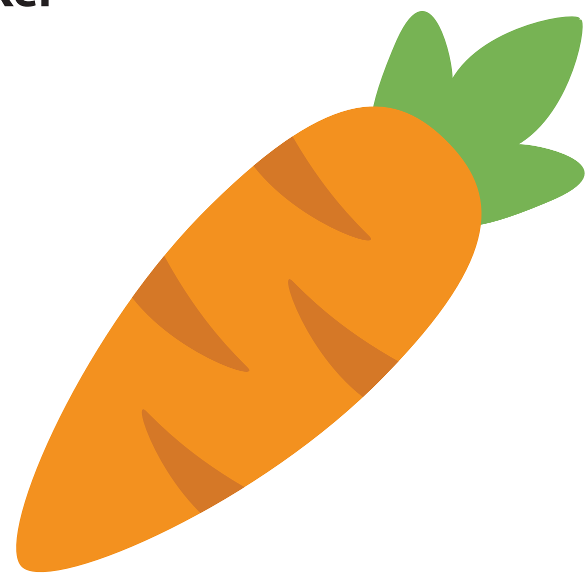
11. Have students construct the new production possibilities curve for this case. (*The maximum number of apples would be 11, while the maximum number of carrots would be 4. The other points would be 1 carrot/10 apples, 1 carrot/8 apples, and 3 carrots/5 apples.*)

Closure

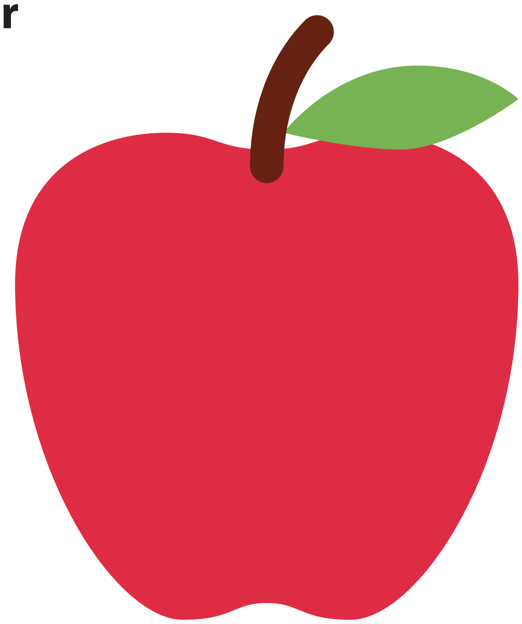
12. Ask the students to name two ways a society could increase its production possibilities or shift its production possibilities outward? (*Increase the productivity of its resources [possibly through training or advances in technology] and increase the amount of its resources.*)

Handout 1B.1: Production Possibilities Cards (page 1 of 4)

First Worker

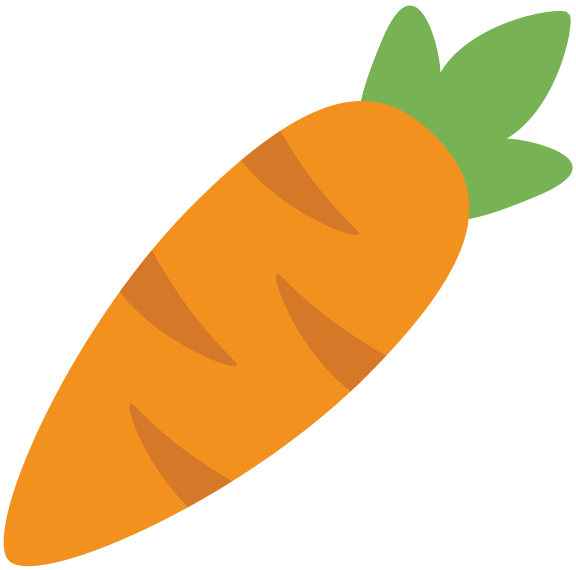


First Worker

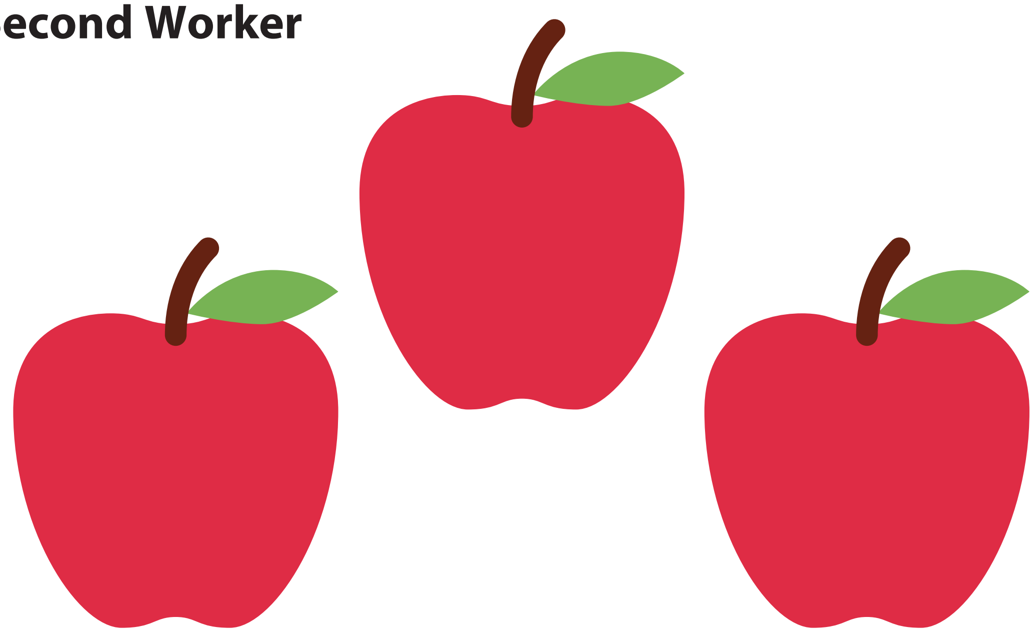


Handout 1B.1: Production Possibilities Cards (page 2 of 4)

Second Worker

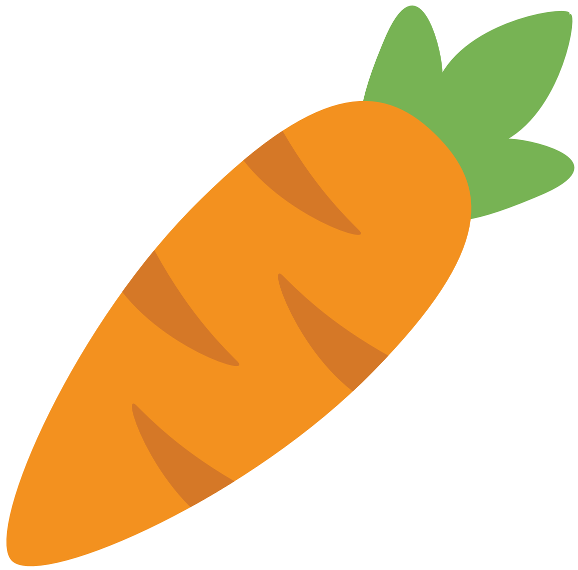


Second Worker

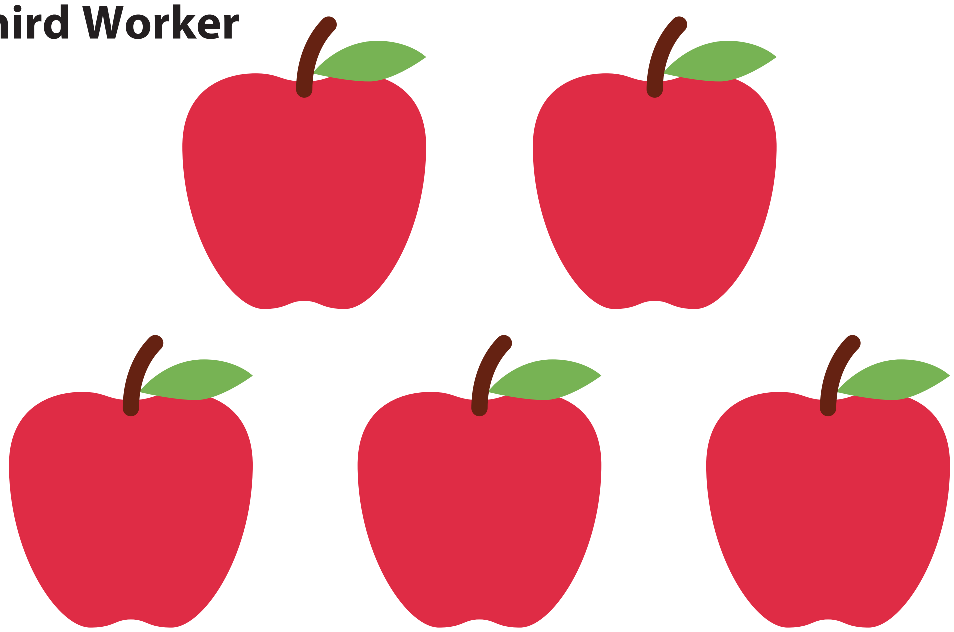


Handout 1B.1: Production Possibilities Cards (page 3 of 4)

Third Worker

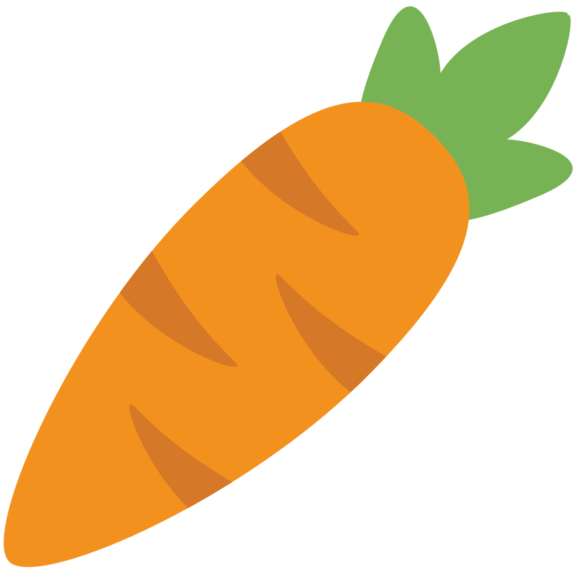


Third Worker

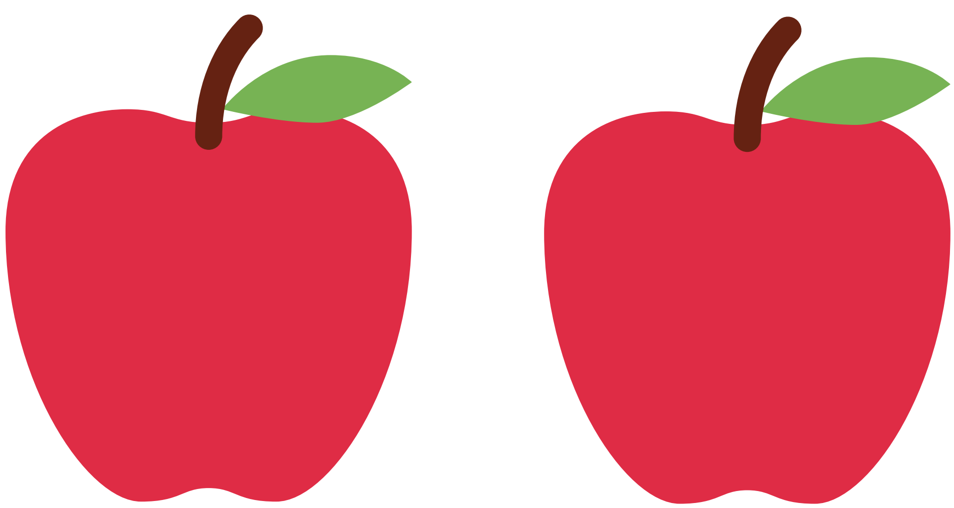


Handout 1B.1: Production Possibilities Cards (page 4 of 4)

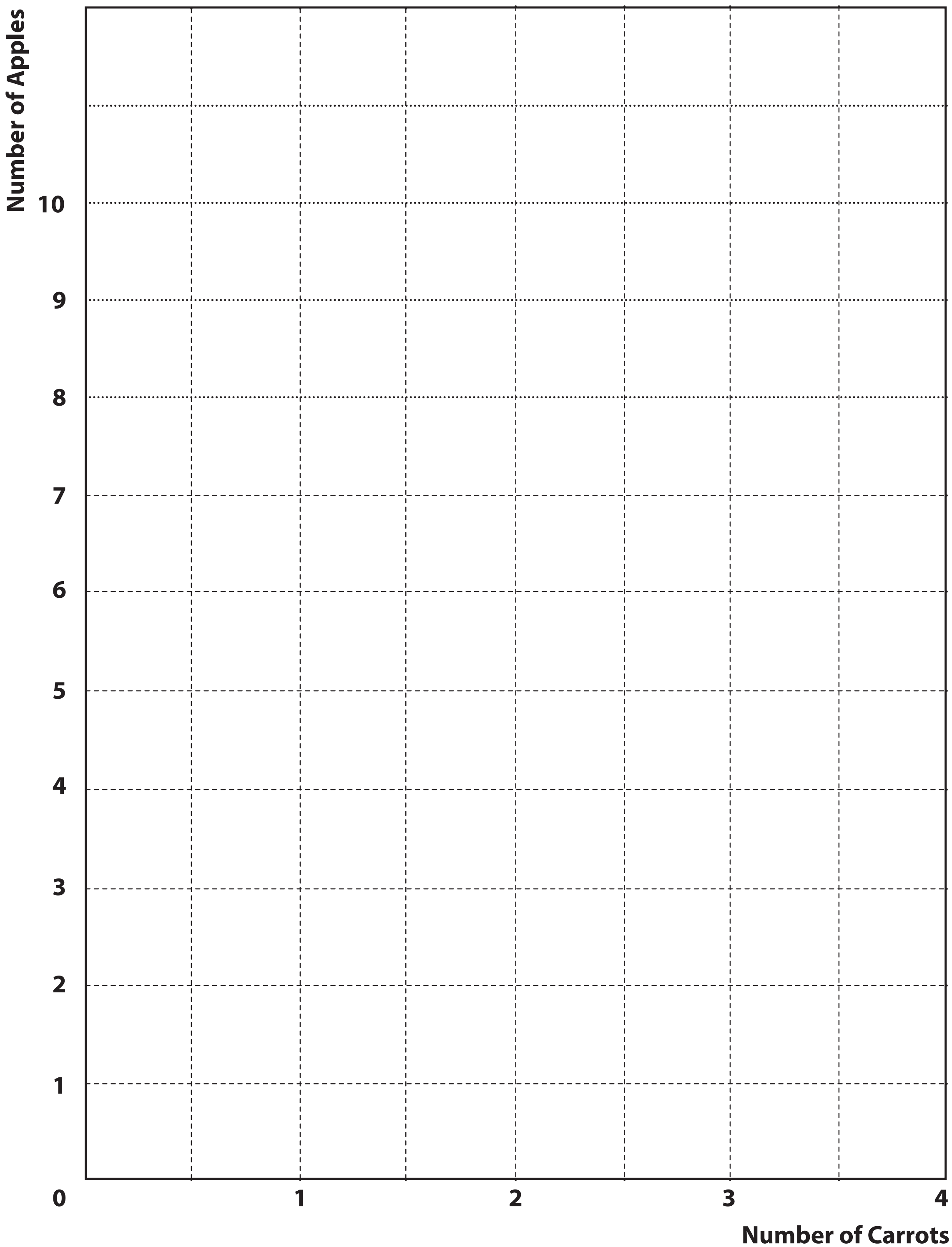
Fourth Worker



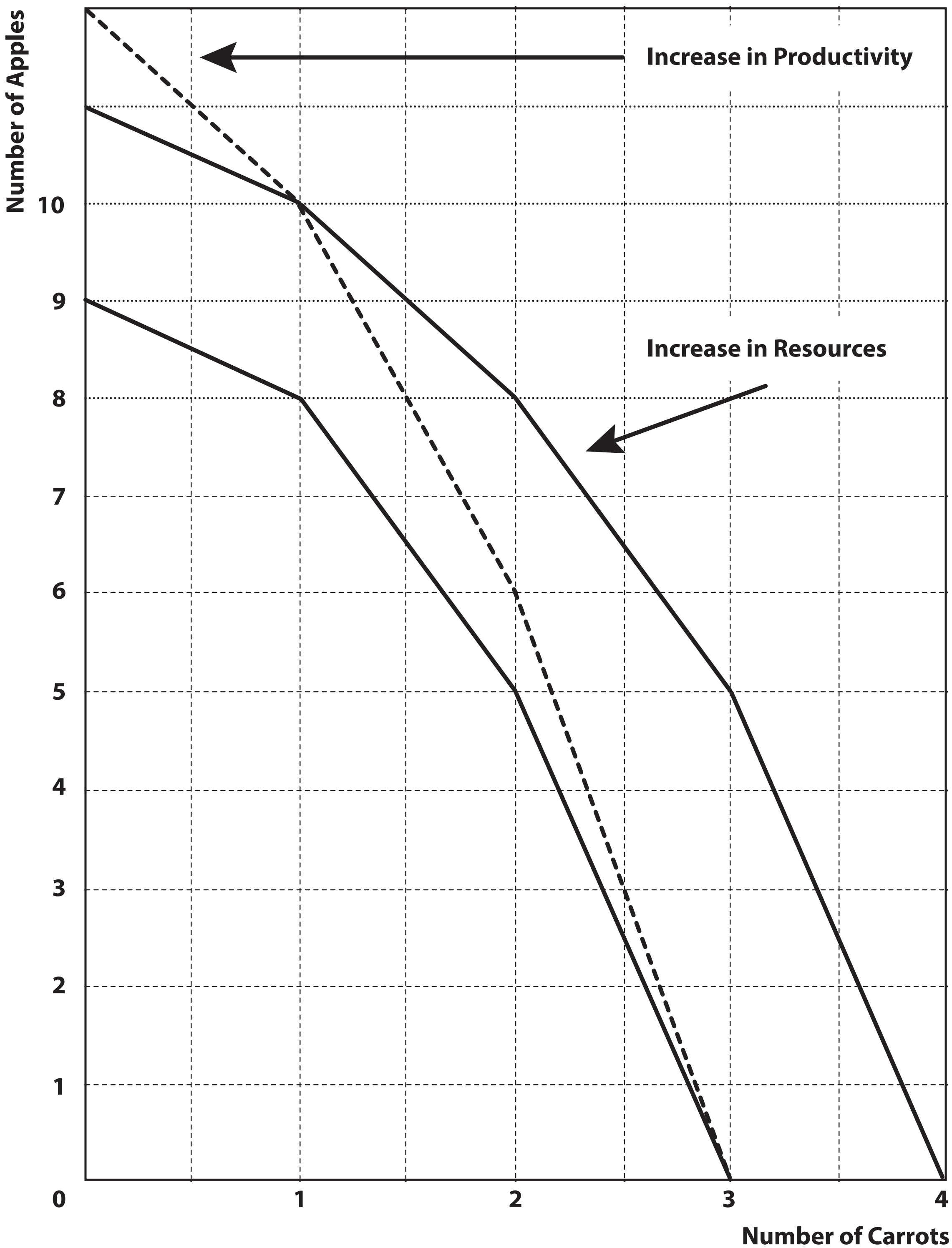
Fourth Worker



Handout 1B.2: Production Possibilities Graph



Handout 1B.2: Production Possibilities Graph—Answer Key



Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)
- **E.2.ECON.3:** Justify various economic solutions to problems affecting an individual or society using marginal cost and marginal benefit analysis.

Session 2:

Allocation

Session Description

In this session, students explore the ways scarce resources are allocated.

Standards and Benchmarks (see page 2.8)

Talking Points

1. People face scarcity of marketable resources (land, labor, capital, and entrepreneurship). This scarcity limits their ability to earn income.

2. Because of limited income and limits to their time, people must make choices about allocating/rationing what is available.

3. There are many possible allocation/rationing methods.

4. There are costs and benefits to every method of allocation/rationing. Selection of an allocation/rationing method does not eliminate scarcity.

5. Market economies are based on the willingness-and-ability-to-pay allocation/rationing method.

6. Command economies are based on the fiat method of allocation.

7. Economics investigates the choices people make as individuals and groups regarding methods of allocation/rationing when faced with scarcity.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Audio Q&A

Allow time for students to listen to the podcasts and answer the questions:

- Economic Lowdown Audio Series—The Role of Self-Interest and Competition in a Market Economy (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-3-the-role-of-self-interest-and-competition-in-a-market-economy

- Economic Lowdown Audio Series—Price Signals (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-12-price-signals

Reading Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics*®: Prices: The Marketplace's Communication System
  https://www.econlowdown.org/resource-gallery/prices-the-marketplaces-communication-system

Lessons

Allow time for students to complete the lessons:

- Lesson 2A: Possible Allocation Methods (see p. 2.3 in this session)

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 2: Allocating Scarce Resources
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/

Lesson 2A:

Possible Allocation Methods

Objective

Students will identify the allocation methods used in various situations found in newspaper and/or magazine articles.

Time Required

Two class periods

Materials

- Visuals 2A.1 and 2A.2, one copy of each for the teacher
- Handout 2A, one copy cut into 3 "Get Out of a Quiz Free" cards OR 3 other items used to give a pass on homework or to provide extra-credit points
- A different newspaper and/or magazine article for each group of 3 to 4 students that illustrates scarcity and allocation. For example, an article about the homeless may indicate that beds are provided based on a lottery (random draw), or an article about college may indicate that entry is based on test scores (performance).
- A sheet of paper for each student

Procedure

1. Distribute a piece of paper to each student. Have students write one word that they think describes what economics is about fundamentally. Have each student share his or her word. (*Answers will vary but could include money, business, investing, resources, or choices.*)

2. Tell students to think about the word "scarcity." Ask the following:
   - What does it mean when something is scarce? (*There is not enough of it for everyone who wants some of it.*)

3. Explain that economics is fundamentally about scarcity; that is, productive resources— land, labor, and capital resources—are limited and people's wants for goods and services are unlimited. The first thing most people think of when they hear the word scarcity is not having enough income to buy all the goods and services they want (the basic personal finance problem). Incomes are limited because the quantity and quality of the resources people have available for earning income are limited. People often say that their time is scarce. Again, this is related to resources—

human resources—there's a limited amount a person can do and many things that the person wants to do. People may say that space is scarce, an idea that is related to limited natural resources—that is, there is not enough space for all the ways we would like to use the space we have.

4. Show the class a card from *Handout 2A: Get Out of a Quiz Free!* (or other item used to give a pass on homework or provide extra credit points).

5. Ask the students how many of them would like to have this card, which allows them to skip a quiz or have a low quiz score removed. (Likely most of the class will want one.) Explain that labor resources, use of printers, and so forth were limited, so that you have only three of these passes. As a result, the class must decide who in the class will get the cards.

6. Ask the class to suggest ways the cards could be allocated. Note that rationing is another term for allocation. As students share, record the methods on the board. (For a list of general categories to use, refer to *Visual 2A.1: Possible Allocation Methods*, but do not show the visual yet. Let students come up with the categories on their own).

7. Ask the students to describe exactly how each suggested allocation method would work. For example, if someone suggests "by height," write down "Personal Characteristic" and then below that write "height" and ask the student to explain how that would work. Help provide explanations as necessary. For example, if a student says "height," suggest that everyone could be lined up along the wall from tallest to shortest and you could select the three tallest students (or the three shortest students). If a student says "by auction," which would fall into the "Willingness and Ability to Pay" category, explain that each student could secretly write down the maximum they would be willing and able to pay for a card and then you could give the cards to the three highest bidders. If a student says "a lottery," which would fall into the "Random Draw" category, explain that everyone's name could be placed in a hat and three names could be drawn. For each category noted, ask if there are other methods that could fall under that category. For example, for personal characteristics, weight and age could also be used. Guide students as necessary and continue until the students have come up with ideas that represent most of the methods shown on Visual 2A.1.

8. Display Visual 2A.1 and review any allocation methods that the students didn't note.

9. Divide the students into groups of 3 or 4. Give each group a newspaper or magazine article and ask them to identify what is scarce and which allocation method is used in each case. Display *Visual 2A.2: Group Instructions* and review.

10. Have each group present their findings.

Closure

11. Have students generate a list of allocation methods and examples.

Visual 2A.1: Possible Allocation Methods

1. **Random Draw**
   By luck, by lottery, by drawing out of a hat, etc.
   Examples: drawing cards for shelter beds, choosing Vietnam War draftees, determining a Powerball winner, selecting a raffle or door-prize winner

2. **Personal Characteristic**
   By age, by weight or height, by ancestry, alphabetically by name, by need, etc.
   Examples: government benefits (e.g., Social Security, welfare, Indian health services), organ transplants, basketball starters

3. **Performance**
   By test score, by 10K race results, by quantity of sales, by number of push-ups, etc.
   Examples: scholarships, promotions, awards, sport/game winners

4. **Willingness and Ability to Pay**
   By the amount of cash, goods, or services one is willing and able to sacrifice
   Examples: most everything in a market-based economy: pizzas, houses, cars, toys, college education, personal electronics, etc.

5. **First Come, First Served**
   By who is first in line, first on a list, first to a stop sign, etc.
   Examples: goods in the former Soviet Union, an intersection with a four-way stop sign, immigration into the United States, tickets to a popular concert, restaurant reservations

6. **Fiat (Authority)**
   By authority/whim of the allocator (e.g., teacher's pet, parent's favorite, dictator's choice)
   Examples: rules, use of resources (e.g., a dictator decides if his or her country's resources are going to be used to produce housing or military equipment), punishment

7. **Voting**
   By majority rule—who gets the greatest amount of votes
   Examples: selection of congressmen, allocation of public resources by Congress, selection of prom king and queen

8. **Multiple Methods**
   By combining two or more of the above
   Example: tickets to a popular concert (you must be willing and able to pay the ticket price and at the proper place in line to purchase the tickets [first come, first served])

Visual 2A.2: Group Instructions

As a small group, complete the following:

- Read your article.
- Develop a summary to share with the class.
- Identify what is scarce.
- Identify the allocation method used.

Handout 2A: Get out of a Quiz Free!

Get out of a quiz FREE!!!

Get out of a quiz FREE!!!

Get out of a quiz FREE!!!

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)
- **E.2.ECON.3:** Justify various economic solutions to problems affecting an individual or society using marginal cost and marginal benefit analysis.

Content Standard E.3: Students will understand the exchange of goods and services. This includes different allocation methods and changes in supply and demand, the role of producers, consumers, and government in a market economy; and the degree of competition among buyers and sellers in markets.

- **E.3.ECON.1:** Identify various allocation methods used in different circumstances, countries, and economies (e.g., price, auction, lottery, first come, first served, personal characteristics, a contest/performance-based, fiat, or a combination).
- **E.3.ECON.3:** Analyze the role of consumers in a market economy.
- **E.3.ECON.4:** Analyze the role of producers in a market economy.

Session 3:

Marginal Analysis

Session Description

Students will analyze the marginal costs and marginal benefits of solutions to economic problems.

Standards and Benchmarks (see page 3.4)

Talking Points

1. People cannot have everything they want. As a result, they must make decisions.

2. Family budgets are limited by the incomes they earn. Incomes are dependent on the quantity and quality of human resources (people working) and any income the family might earn from other types of resources it owns (natural, capital, and entrepreneurial ability).

3. Families must make decisions about how to spend their income. For example, if more money is spent on clothing and electronic gadgets, less money can be spent on food and other items.

4. Governments also have limited budgets based on tax revenue collected and direct ownership of resources. For example, if additional funds are budgeted for police patrols, less money is available to hire more parks and recreation workers.

5. Identifying and systematically comparing alternatives allows people to make more informed decisions and to recognize often overlooked relevant consequences of choices.

6. To make decisions that provide the greatest possible return from the resources available, people and organizations must weigh the benefits and costs of using their resources to do more of some things and less of others. Examples include the following:
   - A student might decide between spending another hour studying or talking with friends.
   - School officials might decide among spending funding on tablets for students, more equipment for sports teams, or more equipment for classrooms.
   - Business owners and managers regularly decide which products to make and whether to increase or decrease the amount they produce.
   - The president, Congress, and other government officials regularly decide which public spending programs to increase or decrease.

7. In economics, comparing changes in benefits with changes in costs is referred to as marginal analysis.

8. Decision makers maximize utility by pursuing an activity as long as the marginal benefit of the action is greater than or equal to the marginal cost.

9. It impossible to change how resources were used in the past. Past decisions only establish the starting point for current decisions on the allocation of resources.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Lessons

Allow time for students to complete the lessons:

- *Saving the Environment with Economic Ideas*
    - Lesson 3: Marginal Analysis: How Clean Is Clean Enough?
      https://www.stlouisfed.org/education/saving-the-environment-with-economic-ideas

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
    - Lesson 3: Marginalism
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

- Dumptown, USA (EconEdLink)
    - Go to https://www.econedlink.org
    - Search for and then choose “Dumptown, USA”

- Utility (EconEdLink)
    - Go to https://www.econedlink.org
    - Search for and then choose “Utility”

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)
- **E.2.ECON.3:** Justify various economic solutions to problems affecting an individual or society using marginal cost and marginal benefit analysis.

Session 4:

Demand, Supply and **Market Equilibrium**

Session Description

Students will construct supply and demand graphs, recognize shifts in supply and demand, and construct graphs of those shifts. They will also participate in activities that illustrate market equilibrium.

Standards and Benchmarks (see page 4.26)

Talking Points

Demand

1. Demand is the relationship between various prices and the quantities consumers are willing and able to buy during some time period. The demand curve is a picture of demand.

2. In general, people get less satisfaction (what economists call “utility”) from additional units of a good or service. This is due to the “law of diminishing marginal utility.” As people get more of something, they value an additional unit less and less.

3. Price is the amount of money buyers actually must pay for a good or service.

4. Buyers will buy units of a good or service as long as the amount of satisfaction the buyer gains from the purchase is greater than the price they must pay for the good or service. They will not buy when the opposite is true.

5. The demand curve reflects the law of demand: As the price of a good or service decreases, buyers buy more of it; as the price of a good or service increases, buyers buy less of it.

Supply

1. Cost is defined as what is given up (i.e., opportunity cost).

2. Cost is not a single-number concept (units of a good or service will have different costs).

3. In general, the cost society incurs from additional units of a good rises because more of other goods or services must be given up (rising opportunity cost).

4. The cost curve shows the additional cost society incurs from each individual unit of the good or service (reading vertically up and then over).

5. Supply shows how sellers react to various prices of a good or service.

6. Sellers will produce units of a good or service when the cost of production for one more unit is less than the price they are able to charge for that unit. They will not produce when the opposite is true. The cost curve reads horizontally over and then down. It shows the amount sellers would produce and offer for sale at various prices and, thus, is also the supply curve for the good.

7. The supply curve reflects the law of supply: As the price of a good or service decreases, sellers produce less of it; as the price of a good or service increases, sellers pro- duce more of it.

Market Equilibrium

1. Price is determined in a market by the interaction of buyers and sellers (buyers trying to pay the lowest possible price and sellers trying to sell at the highest possible price).

2. When there are surpluses in a market, sellers and/or buyers will have an incentive to push the price down, moving the price to where the quantity demanded equals the quantity supplied.

3. When there are shortages in a market, sellers and/or buyers will have an incentive to push the price up, moving the price to where the quantity demanded equals the quantity supplied.

4. Price is a single-number concept—all units are sold at the equilibrium price.

5. Market equilibrium answers two of the fundamental questions raised earlier:
   - The allocation question: How much of each good should be produced? The market answers with the equilibrium quantity.
   - The distribution question: Who receives the produced goods and services? The market answers by allowing everyone who is willing and able to pay the equilibrium price or more to purchase goods and services.

6. The market equilibrium quantity is the quantity of a good found to be allocatively efficient. The market demand curve accurately depicts society's willingness to pay, and the market supply curve accurately depicts society's costs. If markets determine price, as shown earlier, markets can produce the allocatively efficient amounts of all goods and services, thus using society's scarce resources efficiently. Those are big "ifs," however (which are explored further in Session 6, which address market failures).

7. Price is not a measure of demand or a measure of supply; it is a measure of the relative scarcity of the good (its desirability relative to its availability). It takes both demand and supply to determine price. (For example, although the demand for air is great, the price of air is zero because of its abundance—that is, at a price of zero, the quantity of air supplied is greater than the quantity demanded.)

8. Several factors can cause an increase or decrease in demand—that is, a shift of the demand curve to the right or left:
   - changes in consumer tastes/preferences,
   - changes in consumer income/wealth,
   - changes in the prices of related goods,
   - changes in consumer expectations, and
   - changes in the number of buyers.

9. Several factors can cause an increase or decrease in supply—that is, a shift of the supply curve to the right or left:
   - changes in productivity/technology,
   - changes in resource prices,
   - changes in government policies,
   - changes in expectations, and
   - changes in the number of sellers.

10. A change in demand or supply leads to a surplus or shortage at the initial price, which causes the price to change and the market to move to the new equilibrium price and quantity.

11. Price changes in one market often lead to price changes in other related markets because of goods that are substitutes or complements for one another or because one good is an input in the production of another.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Demand

Online Modules

Allow time for students to complete the module:

- Demand (30:00)
  https://www.econlowdown.org/resource-gallery/demand

Video Q&A

Allow time for students to view the video and answer the questions:

- Economic Lowdown Video Series—Demand (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-2-demand

Lessons

Allow time for students to complete the lesson:

- Lesson 4A: Demand Curve Construction (see p. 4.6 in this session)

Supply

Online Modules

Allow time for students to complete the module:

- Supply (30:00)
  https://www.econlowdown.org/resource-gallery/supply

Video Q&A

Allow time for students to view the video and answer the questions:

- Economic Lowdown Video Series—Supply (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-1-supply

Reading Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics*®: The Science of Supply and Demand
  https://www.econlowdown.org/resource-gallery/the-science-of-supply-and-demand

Lessons

Allow time for students to complete the lesson:

- Lesson 4B: Shifting Supply and Demand (see p. 4.12 in this session)

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
    - Lesson 4: Classroom Market for Cocoa
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

Market Equilibrium

Online Modules

Allow time for students to complete the module:

- Market Equilibrium (30:00)
  https://www.econlowdown.org/resource-gallery/market_equilibrium

Video Q&A

Allow time for students to view the video and answer the questions:

- Economic Lowdown Video Series—Equilibrium (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-3-equilibrium

Lessons

Allow time for students to complete the lesson:

- Visual 4A: Steps in Market Equilibrium Change (see p. 4.x in this session)
- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
    - Lesson 5: What Happens When Prices Are Not in Equilibrium?
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

    - Lesson 6: The Markets Never Stand Still
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

    - Lesson 7: How Markets Interact
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

Lesson 4A:

Demand Curve Construction

Objective

Students will be able to construct a demand graph using provided information.

Time Required

One class period

Materials

- Visuals 4A.1, 4A.2, and 4A.3 (optional), one copy of each for the teacher
- Handout 4A, one copy for each student
- Index cards
- Blank overhead transparency or paper for document camera
- Overhead markers

Procedure

1. Display *Visual 4A.1: Demand*. Read the definition. Underscore that in order for people to help create the demand for a good or service, they must be both willing and able to purchase the good or service.

2. Ask students to think about how much they would be willing and able to pay for an A in your class for the term.

3. Explain that you will be accepting bids for A's and using the data to construct a demand curve.

4. Hand out index cards for students to write down their bids. Explain that they need to write the dollar amount they are willing and able to pay and their name on the paper so you know who to talk to about the deal after class. (Note: In order to give you time to place the bids in order and write the dollar amounts on an overhead or graph, you may want to give students an article to read or have another activity.)

5. Using the bids for an A for the semester, construct a demand graph. The graph is constructed by graphing the bids from highest to lowest. (*Visual 4A.2: Demand Curve for an A* is provided as an example.)

6. Explain that the graph is read as follows: Reading up from the horizontal axis and then over to the vertical axis, the graph shows the added value of the *n*th A to the class.

7. Note that this is a downward-sloping curve, indicating that as society (the class) gets more A's, in general, the added value of another A falls (because it is given to someone who values it less highly than the students before).

8. Continue explaining the graph as follows: Reading from the vertical axis over and then down to the horizontal axis, the graph shows the number of A's that would be purchased at a given price, or the quantity demanded of A's. Note that all the students who value an A greater than the price chosen would be willing and able to buy an A (because they would value it more highly than the price chosen), but all those students who value an A less than the price chosen would not be willing or able to buy an A. Also, note that if a lower price is chosen, there are more students with values higher than the price and hence, more students would buy the A's. This is the law of demand: As price falls, buyers will buy more units of a good or service (and vice versa). (Optional: Display *Visual 4A.3: Steps in Market Equilibrium Change*.)

9. If there are any blank index cards, on which students did not note a price, or if any students wrote zero, note the following: Students who refuse to "pay" for a grade are simply not in the market for an A because they are not willing, or in some cases not able, to buy the grade.

10. Conclude the demonstration by explaining that the demand for any good or service can be described with price and quantity data. Explain that the relationship between price and quantity demanded is an inverse relationship—as price goes up, quantity demanded goes down.

Closure

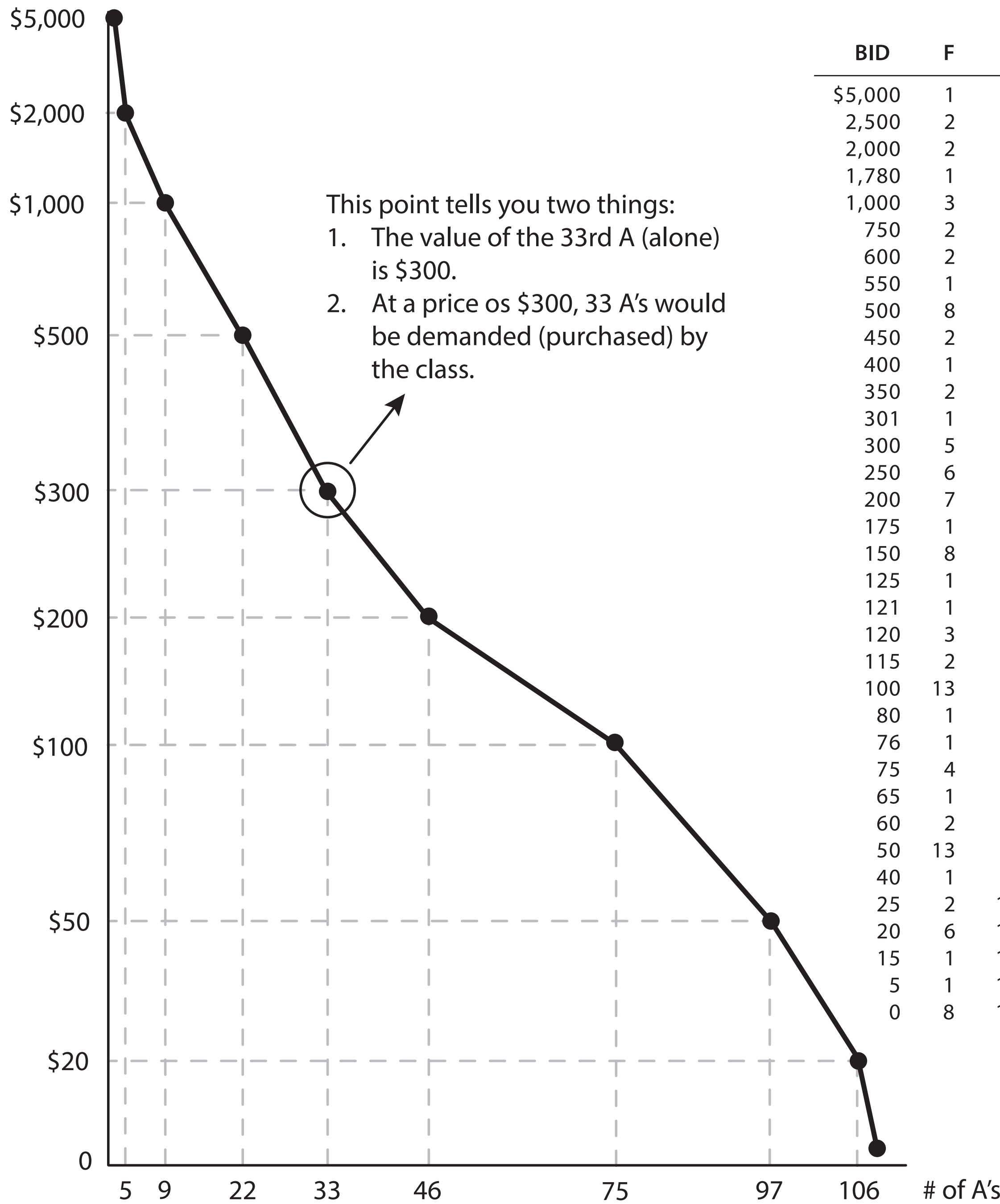
12. Distribute *Handout 4A: Construct a Demand Curve* and have the students generate their own demand curve based on the information provided.

Visual 4A.1: Demand

Demand

The quantity of a good or service that buyers are *willing* and *able* to buy at all possible prices during a certain time period.

Visual 4A.2: Demand Curve for an A



BID	F	CF
$5,000	1	1
2,500	2	3
2,000	2	5
1,780	1	6
1,000	3	9
750	2	11
600	2	13
550	1	14
500	8	22
450	2	24
400	1	25
350	2	27
301	1	28
300	5	33
250	6	39
200	7	46
175	1	47
150	8	55
125	1	56
121	1	57
120	3	60
115	2	62
100	13	75
80	1	76
76	1	77
75	4	81
65	1	82
60	2	84
50	13	97
40	1	98
25	2	100
20	6	106
15	1	107
5	1	108
0	8	116

NOTE: F, frequency; CF, cumulative frequency.

Visual 4A.3: Steps in Market Equilibrium Change (optional)

1. **An event occurs** that changes the demand for or supply of a given good or service.

2. **Demand and/or supply shift(s)** in response to the above change.

3. **A surplus or shortage occurs** at the old equilibrium price.

4. **The price moves:** It increases if there is a shortage; it decreases if there is a surplus.

5. **The new equilibrium price and quantity are established** at the intersection of the new demand or supply curve and the original demand or supply curve.

Handout 4A: Construct a Demand Curve

Name________________________________

Directions: Construct a demand graph using the information provided. Label your graph.

Market for Soft Drinks

Suggested price	Quantity demanded
$2.50	1
$2.00	2
$1.75	4
$1.50	6
$1.25	7
$1.00	10
$0.75	13
$0.50	15

Lesson 4B:

Shifting Supply and Demand

Author

Dr. Jeni Logan

Objectives

Students will

- construct market equilibrium graphs, and
- shift supply and demand on a graph to determine the new equilibrium point.

Time Required

One class period

Materials

- Visual 4B.1 (optional), one copy for the teacher
- Handout 4B.1, one copy for each student
- Handout 4B.1—Answer Key, one copy for the teacher
- Whiteboard or document camera

Procedure

1. Display and discuss *Visual 4B: Shifts in Supply and Demand*. Distribute *Handout 4B.1: Supply and Demand Graphing*.

2. Ask a student to read number 1. Ask the following:
   - What was affected, supply or demand? (*See the Answer Key*).

3. Ask the students to recall how the graphs were labeled from the session on supply and demand. Ask them to label their graphs while you do so on the board.

4. Ask the students to construct a simple supply and demand equilibrium graph for number 1 in the space provided on the handout. Demonstrate how to do so on the board.

5. Continue through as many of the scenarios as needed until the students can complete the remainder on their own. NOTE: If your students are not ready to graph a double shift, tell them they do not need to complete number 11.

Visual 4B.1: Shifts in Supply and Demand (optional)

Causes of Shifts (Changes) in Demand

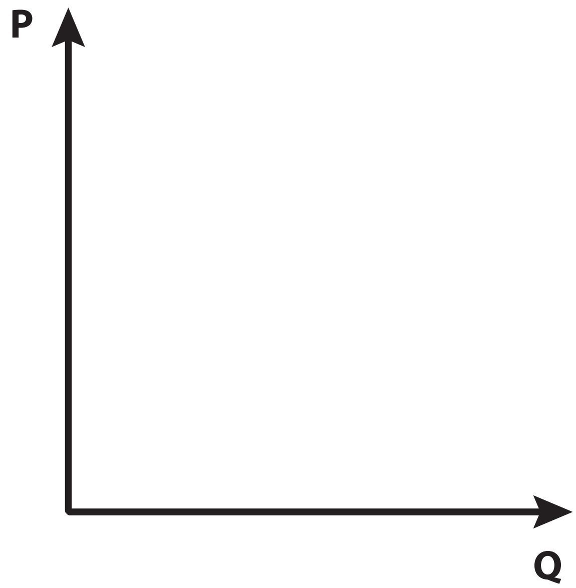
1. Consumer tastes/preferences (changes in a person's willingness to pay)
2. Consumer income/wealth (changes in a person's ability to pay)
3. Prices of related goods (changes in the prices of substitute goods or complementary goods)
4. Consumer expectations about the future
5. The number of buyers

Causes of Shifts (Changes) in Supply

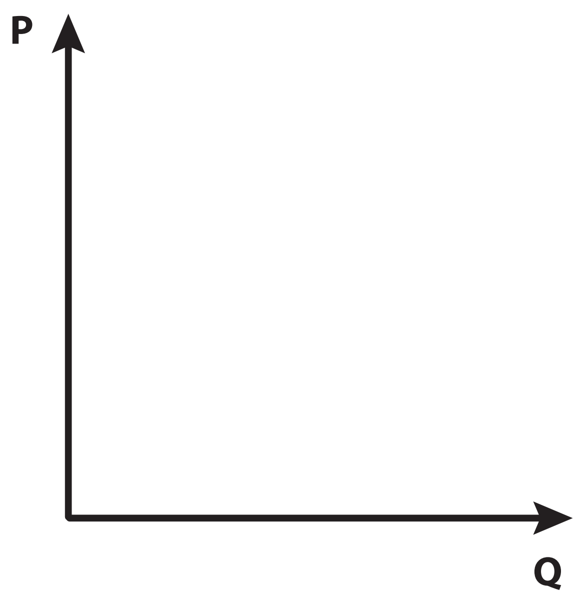
1. Productivity/technology (resource savings in how the good is produced)
2. Prices of resources used (resource prices are directly related to costs)
3. Government policies (changes in taxes or subsidies)
4. Producer expectations about the future
5. The number of sellers

Handout 4B.1: Supply and Demand Graphing (page 1 of 6)

1. Suppose the price of peanut butter increases sharply. How will this influence the market for jelly?

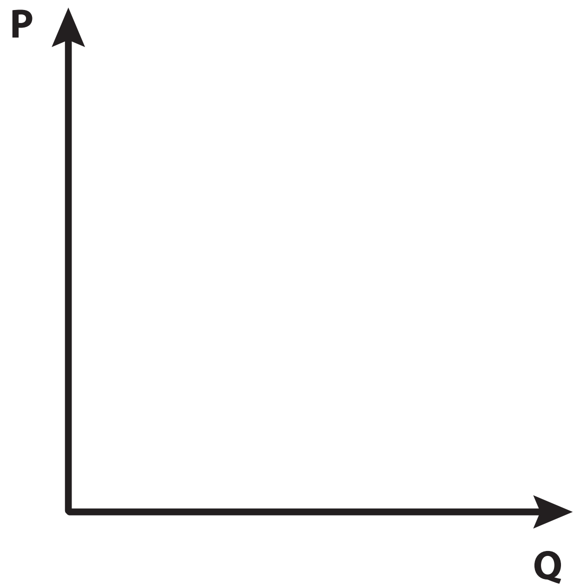


2. Suppose a lack of rainfall in the Midwest leads to a reduction in wheat production. How will this influence the market for bread?

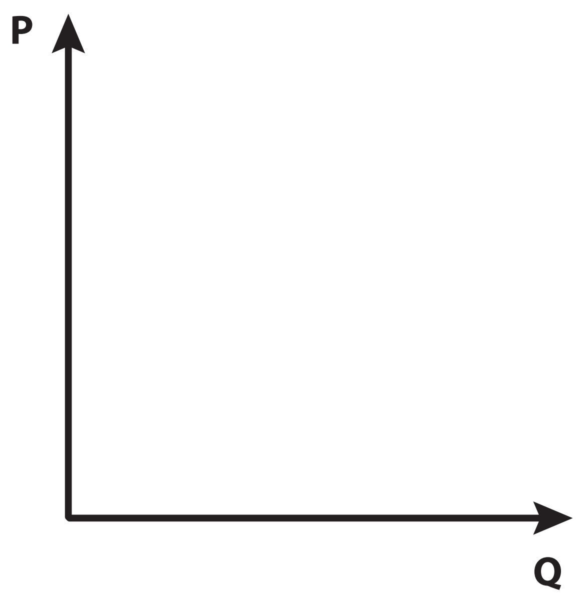


Handout 4B.1: Supply and Demand Graphing (page 2 of 6)

3. As the summer season approaches, more people want to surf. How will this influence the surfboard market?

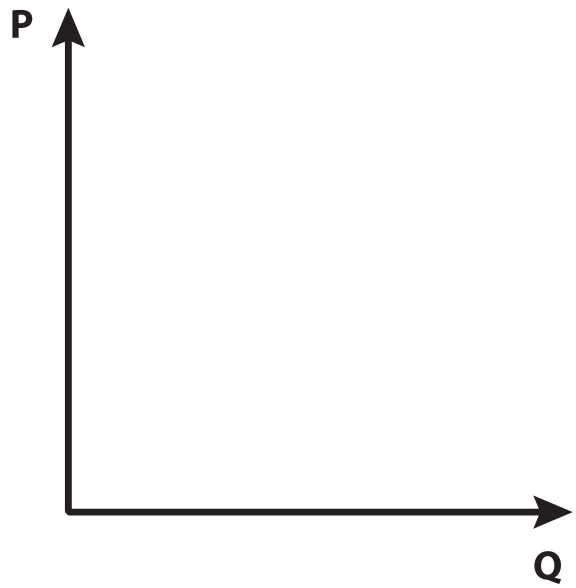


4. Suppose lemonade vendors expect future lemonade prices to double. How will this influence the current lemonade market?

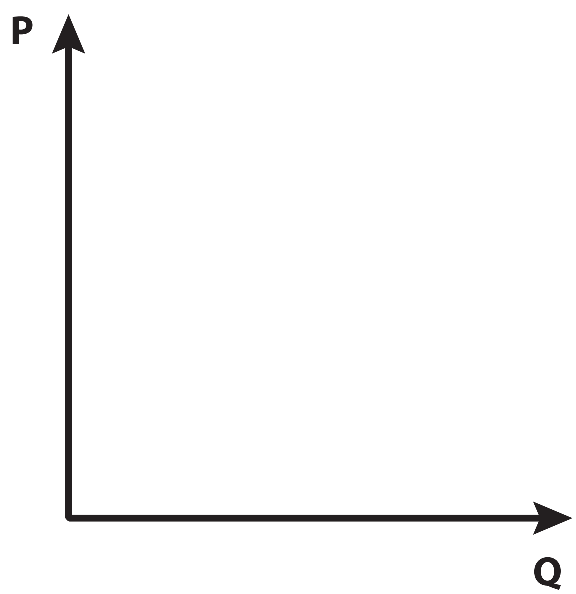


Handout 4B.1: Supply and Demand Graphing (page 3 of 6)

5. Technological advancements in cellular phones have dramatically improved the production process. How has this influenced the cellular phone market?

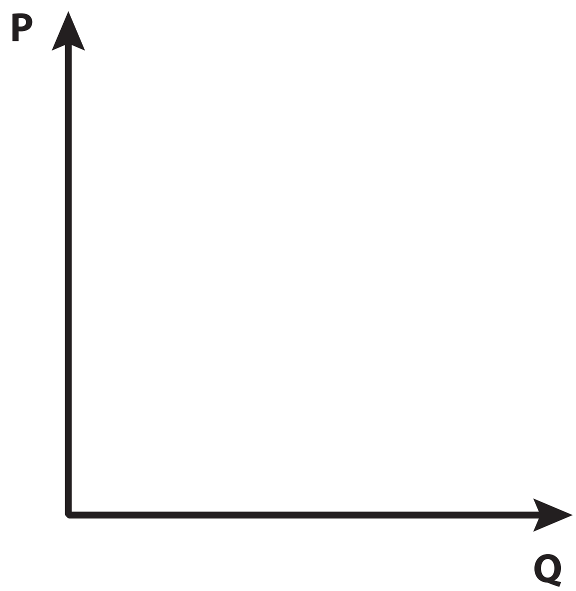


6. Suppose the price of Pepsi™ falls dramatically. How will this affect the market for Coke™?

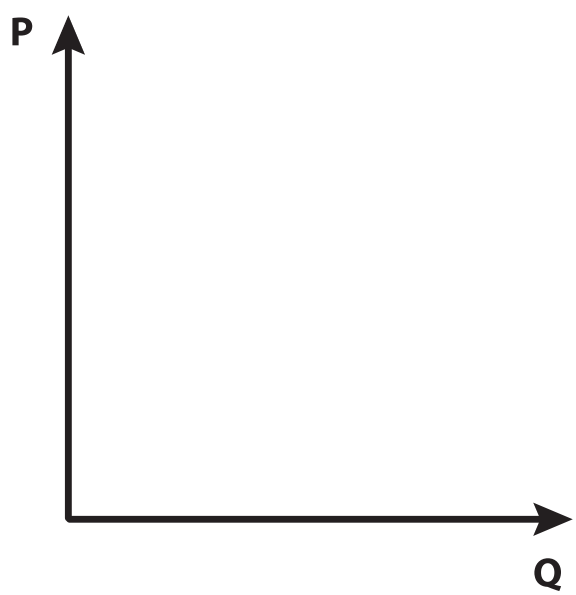


Handout 4B.1: Supply and Demand Graphing (page 4 of 6)

7. Suppose medical professionals announce that consuming coffee will stunt your growth. How will this influence the coffee market?

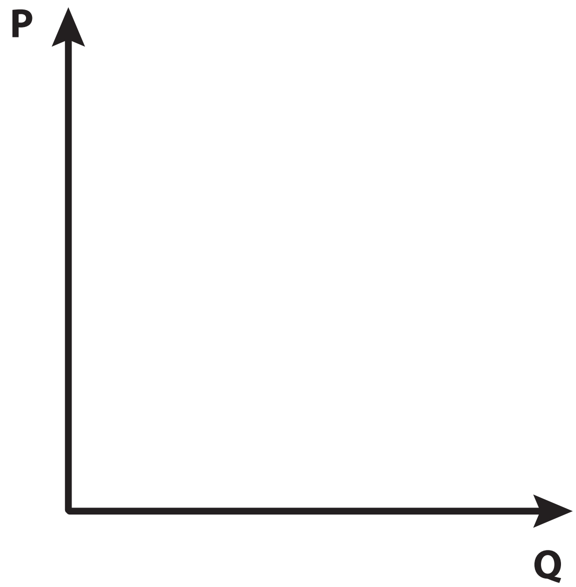


8. Suppose households anticipate a dramatic increase in the price of milk in the future. How will this influence the milk market?

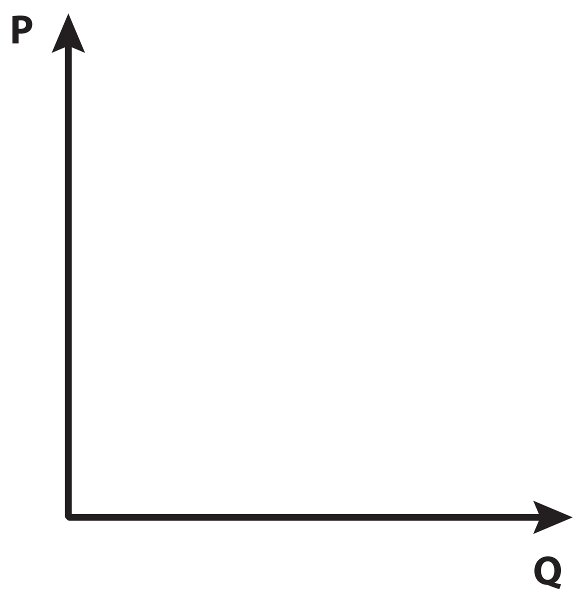


Handout 4B.1: Supply and Demand Graphing (page 5 of 6)

9. Suppose that because of higher profit potential elsewhere, many Brussels sprout sellers are leaving the market. How will this influence the Brussels sprout market?

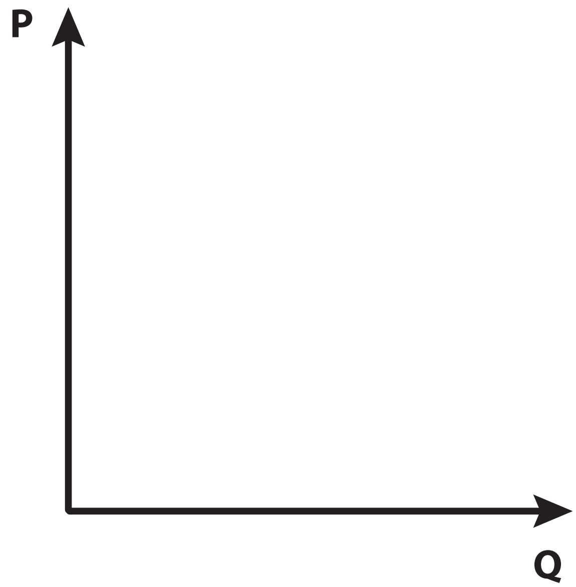


10. Suppose people become increasingly concerned with physical fitness. How will this influence the market for athletic shoes?



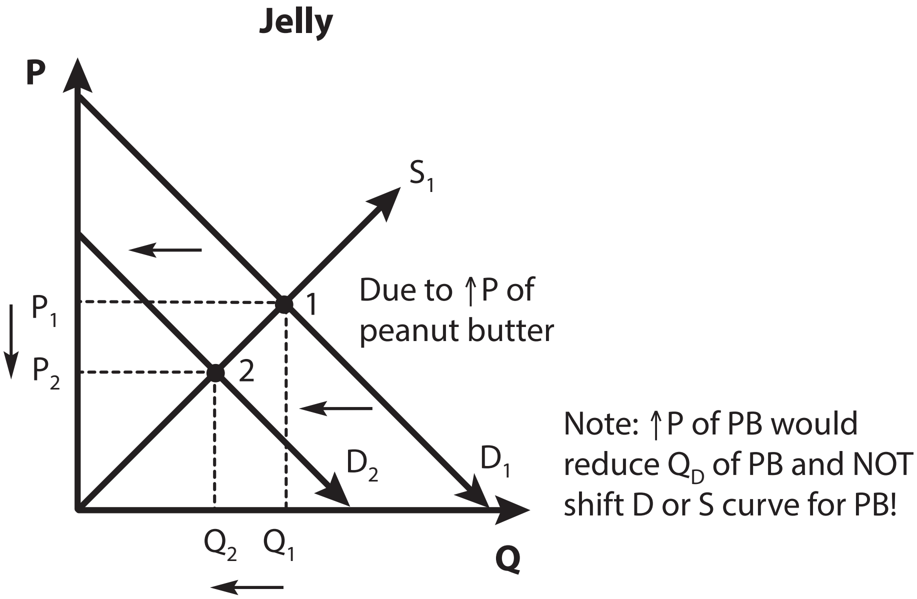
Handout 4B.1: Supply and Demand Graphing (page 6 of 6)

11. Suppose hurricanes decrease the shrimp population but the popularity of shrimp cocktail increases. How will this influence the market for shrimp? **(Double shift alert!)**

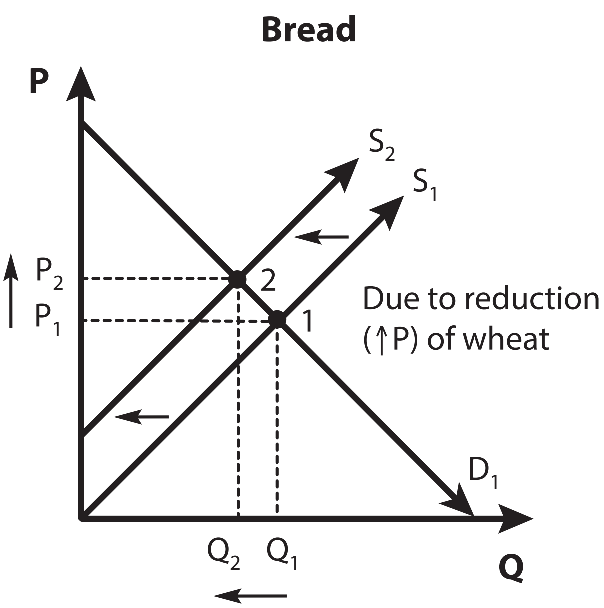


Handout 4B.1: Supply and Demand Graphing—Answer Key (page 1 of 6)

1. Suppose the price of peanut butter increases sharply. How will this influence the market for jelly? (*The demand for jelly decreases because peanut butter and jelly are complementary goods. The equilibrium price of jelly decreases and the equilibrium quantity decreases.*)



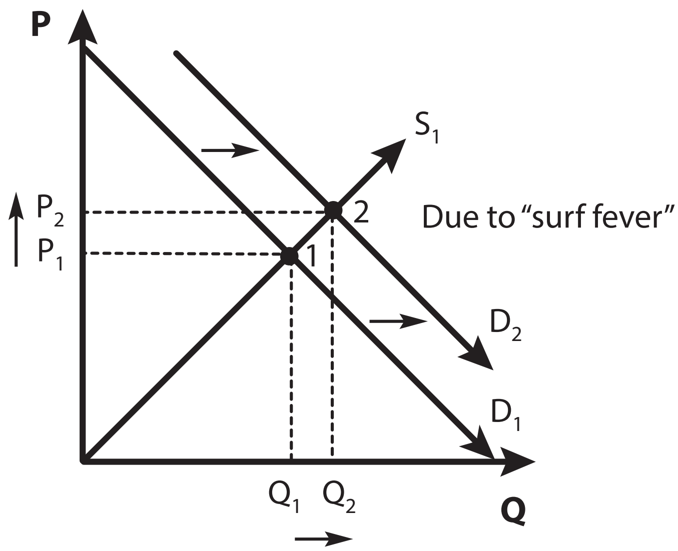
2. Suppose a lack of rainfall in the Midwest leads to a reduction in wheat production. How will this influence the market for bread? (*The supply of bread decreases because wheat is an input in the production of bread. The equilibrium price of bread increases and the equilibrium quantity decreases.*)



Handout 4B.1: Supply and Demand Graphing—Answer Key (page 2 of 6)

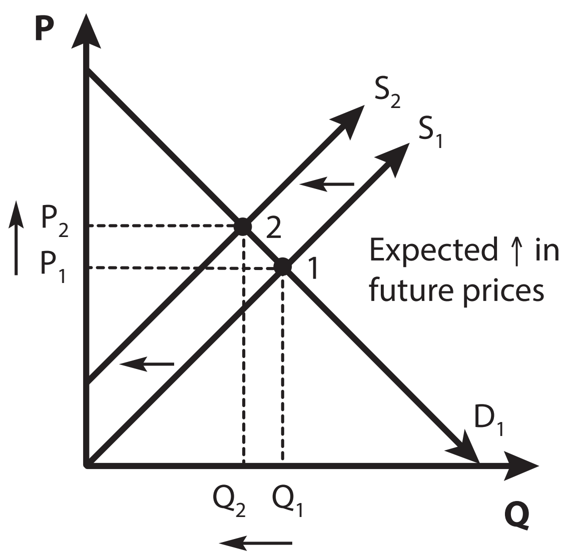
3. As the summer season approaches, more people want to surf. How will this influence the surfboard market? (*The demand for surfboards increases because the number of consumers in the market increases. The equilibrium price of surfboards increases and the equilibrium quantity increases.*)

Surfboards



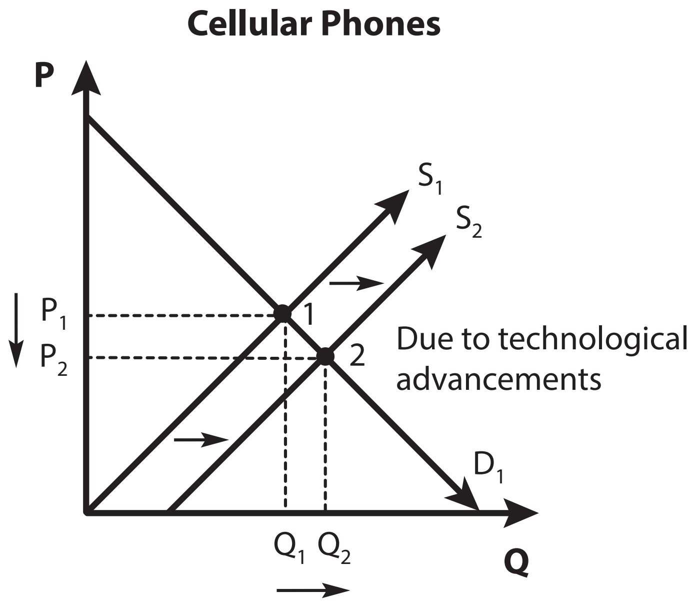
4. Suppose lemonade vendors expect future lemonade prices to double. How will this influence the current lemonade market? (*The supply of lemonade today decreases because producers expect to receive higher prices in the future. The equilibrium price of lemonade rises and the equilibrium quantity decreases.*)

Lemonade

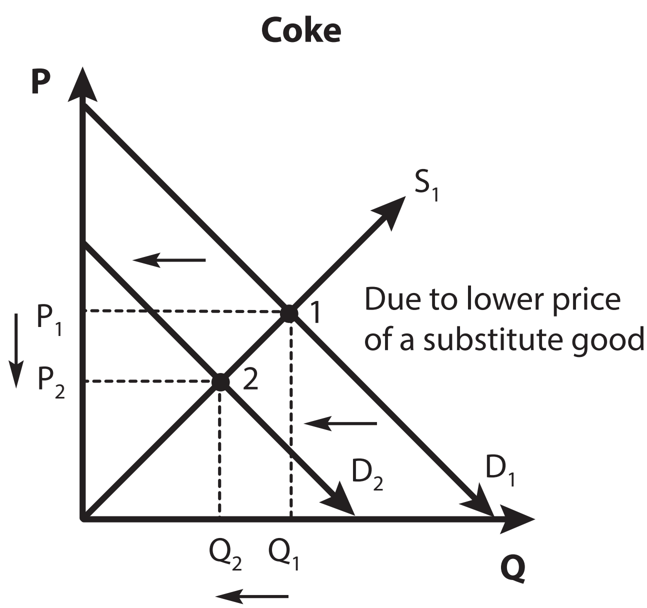


Handout 4B.1: Supply and Demand Graphing—Answer Key (page 3 of 6)

5. Technological advancements in cellular phones have dramatically improved the production process. How has this influenced the cellular phone market? (*The supply of phones has increased because of a change in technology. The equilibrium price of cellular phones decreased and the equilibrium quantity increased.*)

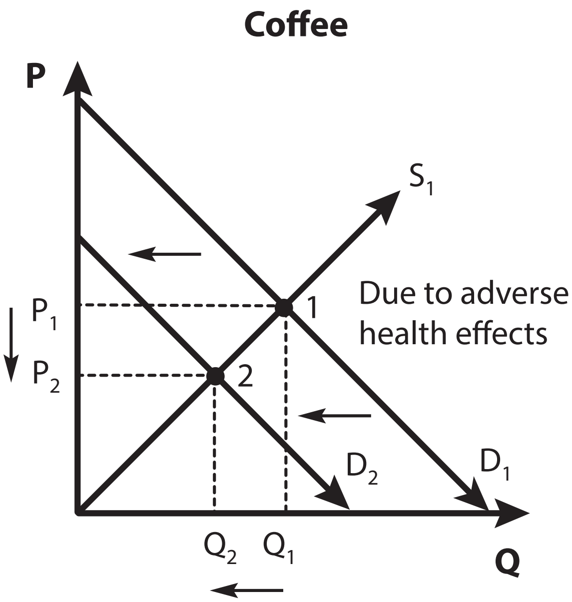


6. Suppose the price of Pepsi™ falls dramatically. How will this affect the market for Coke™? (*The demand for Coke decreases because Pepsi is a substitute for Coke. The equilibrium price of Coke decreases and the equilibrium quantity decreases.*)

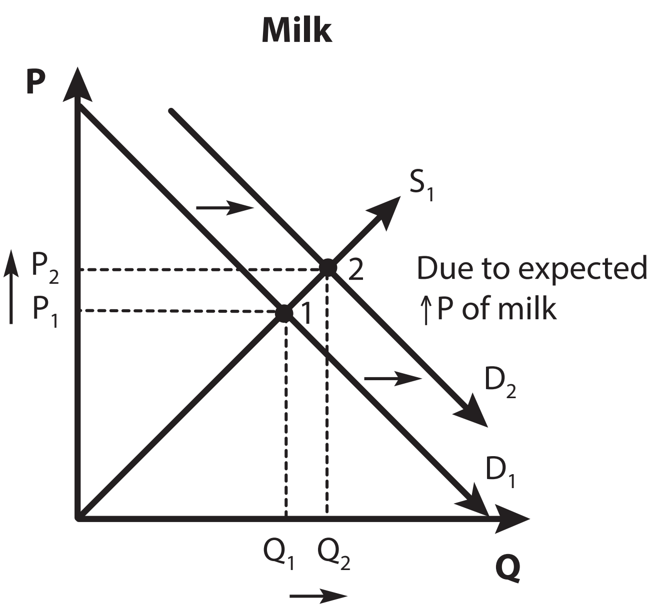


Handout 4B.1: Supply and Demand Graphing—Answer Key (page 4 of 6)

7. Suppose medical professionals announce that consuming coffee will stunt your growth. How will this influence the coffee market? (*The demand for coffee decreases because of a change in consumer tastes and preferences. The equilibrium price of coffee decreases and the equilibrium quantity decreases.*)

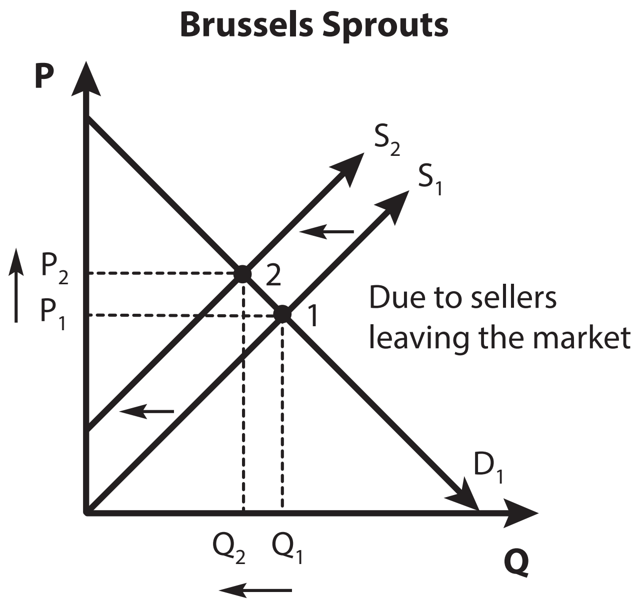


8. Suppose households anticipate a dramatic increase in the price of milk in the future. How will this influence the milk market? (*The current demand for milk increases because consumers expect to pay more in the future. The equilibrium price of milk increases and the equilibrium quantity increases.*)

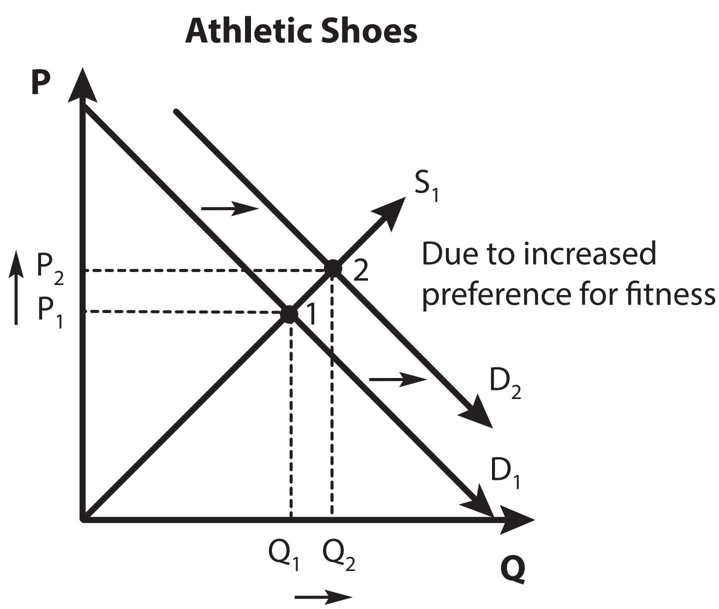


Handout 4B.1: Supply and Demand Graphing—Answer Key (page 5 of 6)

9. Suppose that because of higher profit potential elsewhere, many Brussels sprout sellers are leaving the market. How will this influence the Brussels sprout market? (*The supply of Brussels sprouts decreases as producers shift to another product. The equilibrium price of Brussels sprouts increases and the equilibrium quantity decreases.*)

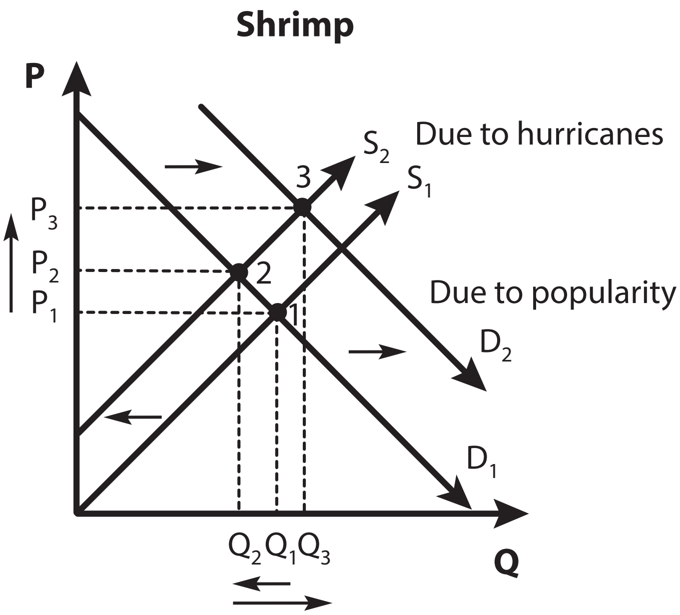


10. Suppose people become increasingly concerned with physical fitness. How will this influence the market for athletic shoes? (*The demand for athletic shoes increases because consumer tastes and preferences have changed. The equilibrium price of athletic shoes increases and the equilibrium quantity increases.*)



Handout 4B.1: Supply and Demand Graphing—Answer Key (page 6 of 6)

11. Suppose hurricanes decrease the shrimp population but the popularity of shrimp cocktail increases. How will this influence the market for shrimp? **(Double shift alert!)** (*The demand for shrimp increases and the supply of shrimp decreases. The equilibrium price increases, but how the equilibrium quantity changes is unknown.*)



Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.3: Students will understand the exchange of goods and services. This includes different allocation methods and changes in supply and demand; the role of producers, consumers, and government in a market economy; and the degree of competition among buyers and sellers in markets.

- **E.3.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)
- **E.3.ECON.3:** Justify various economic solutions to problems affecting an individual or society using marginal cost and marginal benefit analysis.
- **E.3.ECON.4:** Analyze the role of producers in a market economy.
- **E.3.ECON.5:** Evaluate intended and unintended consequences of government policies created to improve market outcomes (e.g., regulatory, participatory, supervisory, price floor, price ceiling, minimum wage).
- **E.3.ECON.6:** Compare and contrast various degrees of competition in markets (e.g., perfect competition, monopolistic competition, oligopoly, monopoly)
- **E.3.ECON.7:** Explain how differences in the extent of competition in various markets can affect price, quantity, and variety.

Session 5:

Circular Flow

Session Description

In a market economy, businesses (producers), consumers, and government are linked. Students explore this linkage with circular flow activities. Students will also investigate the major forms of business organizations.

Standards and Benchmarks (see page 5.4)

Talking Points

1. In the circular flow model (CFM) of an economy, consumers trade resources for money in resource markets. They use the money to buy finished goods and services in product markets. Producers buy resources in resource markets with money. Producers use the resources to produce goods and services, which they sell in resource markets in exchange for money. So, real things (goods and services) and money flow in opposite directions.

2. Consumers are sellers in resource markets and buyers in product markets, while producers are buyers in resource markets and sellers in product markets.

3. Consumers and producers have different names for the same flows in the CFM:
   - Consumers sell resources; producers buy inputs.
   - Consumers are paid income; producers incur costs.
   - Consumers buy goods and services; producers sell their outputs.
   - Consumers make expenditures; producers receive revenue.

4. There are four main types of business ownership: sole proprietorship, partnership, franchise, and corporation. These types are distinguished by the ability of the owners to raise financial capital, the liability they face should the business fail, and some differences in tax liability.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Video Q&A

Allow time for students to watch the video and answer the questions:

- Economic Lowdown Video Series—Circular Flow (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-6-circular-flow

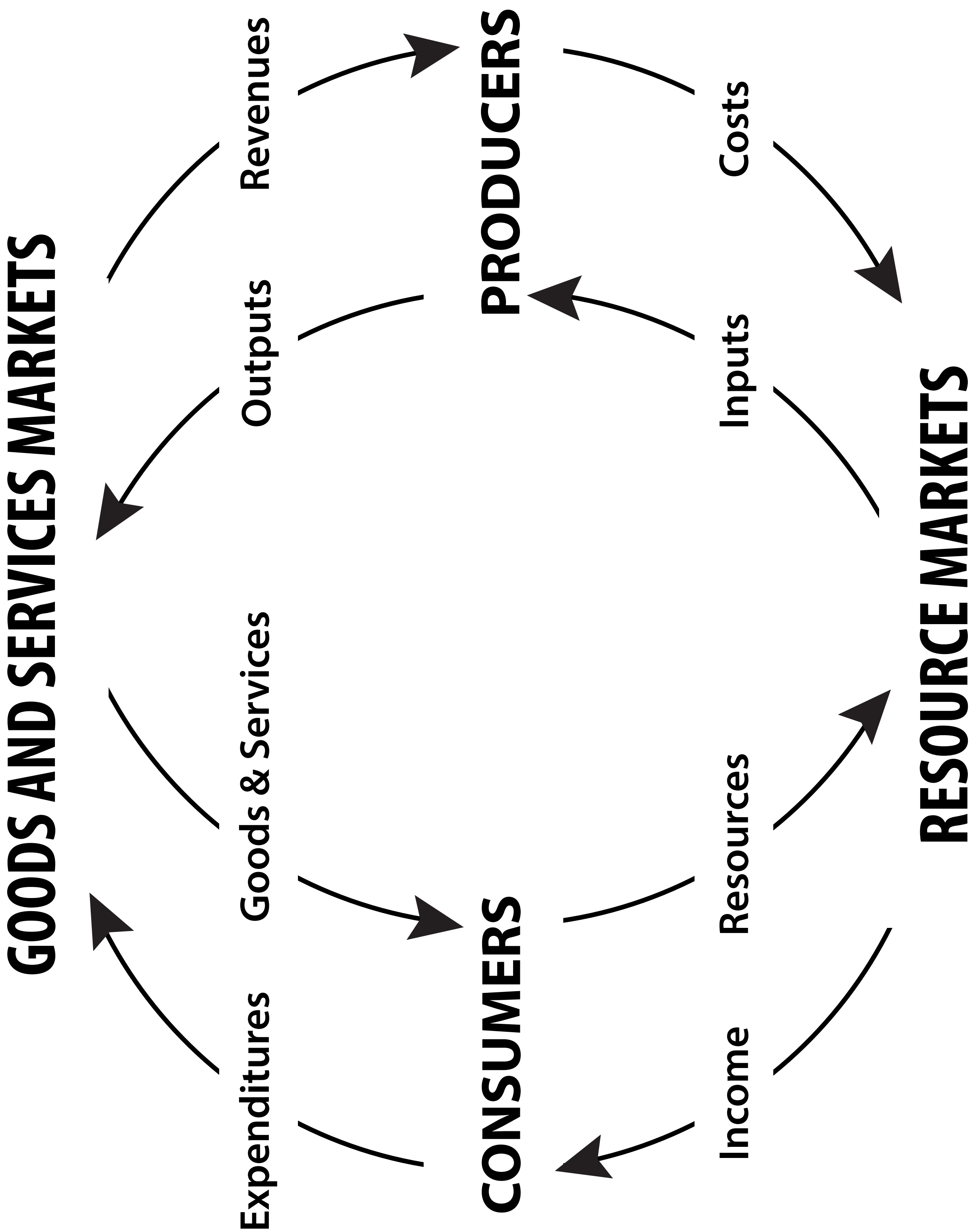
- Circular Flow Study Guide and Answer Key
  https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-6-circular-flow

Lessons

Allow time for students to complete the lessons:

- Visual 5: Goods and Services Markets (see p. 5.3 in this session)

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 16: The Circular Flows of Econoland
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/


GOODS AND SERVICES MARKETS
PRODUCERS
CONSUMERS
RESOURCE MARKETS
Revenues
Outputs
Goods & Services
Expenditures
Costs
Inputs
Resources
Income

Standards and Benchmarks

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Content Standard E.3: Students will understand the exchange of goods and services. This includes different allocation methods and changes in supply and demand, the role of producers, consumers, and government in a market economy; and the degree of competition among buyers and sellers in markets.

- **E.3.ECON.3:** Analyze the role of consumers in a market economy.
- **E.3.ECON.4:** Analyze the role of producers in a market economy.

Session 6:

Market Failures

Session Description

Students will learn that market failures are caused by a problem within a market that can result in an inefficient use of resources. Policymakers may intervene in an attempt to correct market failures through laws that include regulations and/or programs to alleviate the market failure. Students will also learn that firms will not provide goods and services if they aren't able to earn a profit. If society values these goods and services, government may provide them.

Standards and Benchmarks (see page 6.8)

Talking Points

1. For markets to produce the allocatively efficient quantities of goods, the markets must be perfectly competitive with well-defined property rights.

2. A market failure occurs when the market fails to produce the allocatively efficient quantity of a good or service.

3. Economic power (e.g., a monopoly, as discussed in Session 7) leads to a higher price and a lower quantity of output than is efficient.

4. Economic power can be addressed by the government through regulation, such as the legal restrictions currently placed on utility companies, or antitrust laws, which attempt to limit collusion and restrict mergers that could significantly reduce competition.

5. Barriers to trade (or entry) lead to inefficiency because resources cannot move to their most-valued uses, resulting in too much output produced in some markets and too little produced in others. (NOTE: This is a principal argument for free trade between countries discussed in Session 15.)

6. Commonly owned or unowned resources tend to be inefficiently used because there is no owner to protect them and monitor that they be used in the most-valued way. This is often referred to as the "tragedy of the commons."

7. Governments often take de facto control of common property resources. For example, the Environmental Protection Agency (EPA) makes rules regarding the use of air sheds and waterways, and states control their deer and fish populations through the issuance of hunting and fishing licenses.

8. If property rights are defined for a resource but are not enforced or protected, the resource will be used inefficiently, as if it weren't owned in the first place.

9. Governments define and enforce property rights through the provision of a legal court system and police services.

10. Negative (positive) externalities are costs (benefits) generated from the production or consumption of a good that spill over to people other than the market participants, resulting in markets producing too much (too little) of the good.

11. Negative (positive) externalities can be corrected through government taxes/charges (subsidies).

12. Public goods and services are both
    - non-rival in consumption (one person's use or consumption of the good or service does not affect another person's ability to also consume the good or service) and
    - non-excludable (non-payers cannot be excluded from receiving the benefits of the good or service if it is provided).

13. Examples of public goods include light from a lighthouse, ecological benefits from the Amazon rainforest, levee protection, over-the-air radio/TV broadcasts, and a fireworks display.
    - Public goods offer benefits to people whether they pay for them or not. For example, ships benefit from the light provided by a lighthouse whether they pay to use the lighthouse or not.
    - Because people are able to benefit from public goods without paying, they have an incentive to be "free riders"—that is, to enjoy the benefits without making any payment.
    - Because suppliers are unable to collect payment from free riders to pay for public goods, it isn't profitable to produce these goods. As a result, markets (i) fail to produce the goods or (ii) produce a quantity that is less than efficient.

14. Governments often correct for this market failure by providing public goods. Governments provide many goods and services, but only some of them, such as national defense, are public goods as defined by the characteristics above. That is, only some of the goods governments provide are non-excludable and non-rival.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Video Q&A

Allow time for students to watch the video and answer the questions:

- Economic Lowdown Video Series—Externalities (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-5-externalities

Audio Q&A

Allow time for students to listen to the podcast and answer the questions:

- Economic Lowdown Audio Series—Public Goods (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-17-public-goods

Reading Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics®*: Economics and the Environment
  https://www.econlowdown.org/resource-gallery/economics-and-the-environment

Lessons

Allow time for students to complete the lessons:

- Lesson 6A: Negative and Positive Externalities (see p. 6.5 in this session)

- *Saving the Environment with Economic Ideas*
  - Lesson 1: Water Rights: Managing the Colorado Water System
    https://www.stlouisfed.org/education/saving-the-environment-with-economic-ideas
  - Lesson 2: Property Rights
    https://www.stlouisfed.org/education/saving-the-environment-with-economic-ideas

- Unintended Consequences
  https://www.stlouisfed.org/education/unintended-consequences

- *Seas, Trees, and Economies*
  - Lesson 5: Eggs-ternal Costs
    https://www.stlouisfed.org/education/seas-trees-economies-unit

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
    - Lesson 11: Not-So-Private Goods and Services
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/
    - Lesson 12: Third-Party Costs and Benefits
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

Lesson 6A:

Negative and Positive Externalities

Objective

Students will understand what happens when the exclusive benefits and costs condition provided by property rights is violated.

Time Required

30 minutes

Materials

- Handout 1, one copy for the teacher and (if desired) one copy for each student

Procedure

1. Display *Handout 6A: Positive and Negative Externalities*. If desired, distribute a copy to each student.

2. Remind students that allocative efficiency implies that resources will be allocated to the production of a good as long as the added value to society of producing one more unit of that good exceeds the added cost of producing one more unit of that good (or in other words, up to the point where the two curves, typically represented by demand and supply, cross). However, the demand curve represents only the value to the buyers in the market, while the supply curve represents only the cost to the sellers in the market. Therefore, if other people who are neither buyers nor sellers of a particular good are affected by the production or consumption of the good, then the demand and supply curves do not show the real value or cost of producing one more unit of the good to society as a whole.

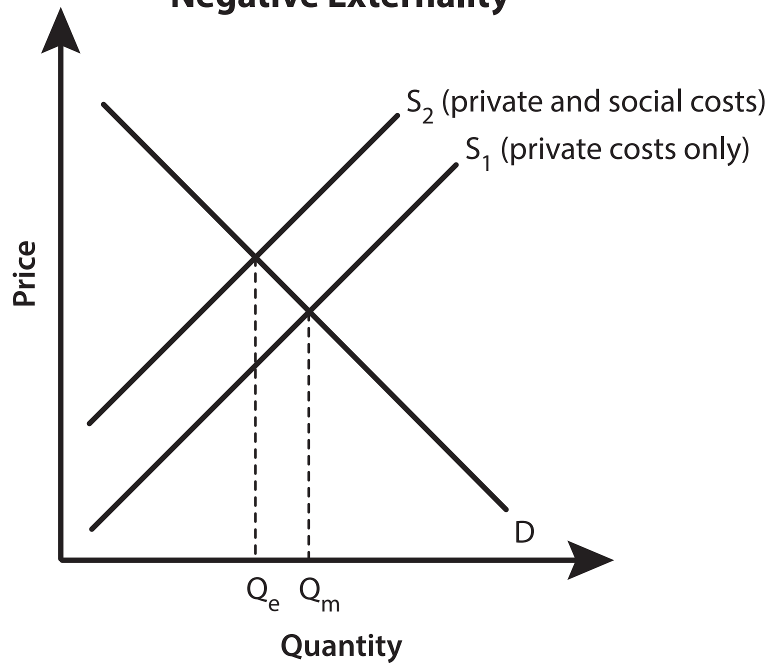
3. Explain that a negative externality exists when people other than those in the market for a good or service suffer costs due to the production or consumption of that good or service. In this case, the cost to society of producing the good is understated by the market because the cost doesn't include these "external" or "social" costs. As a result, the market produces the quantity Q_m based on the private benefits and private costs of the market participants, while the efficient amount of the good to produce for society is the quantity Q_e, where all costs are considered. Examples include pollution generated in the production of a good, secondhand smoke from the consumption of cigarettes, and domestic violence and drunk-driving costs associated with alcohol consumption.

4. Explain that a positive externality exists when people other than those in the market for a good or service enjoy benefits due to the production or consumption of that good or service. In this case, the benefit to society of producing the good is under- stated by the market because the price does not reflect the "external" or "social" benefits. As a result, the market produces the quantity Q_m based on the private benefits and private costs of the market participants, while the efficient amount of the good to produce is the quantity Q_e, where all benefits are considered. Examples include flu shots, flower gardens, research knowledge, and education.

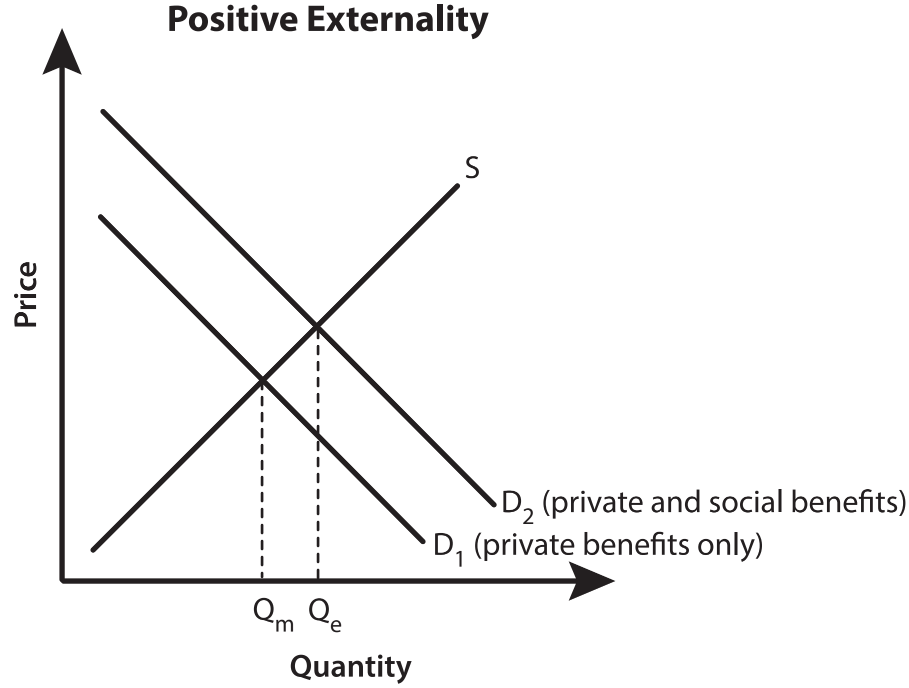
5. Explain that the government can correct for negative externalities (i.e., get the market to produce at Q_e) by taxing producers an amount equal to the social costs (the vertical distance between S_1 and S_2). Similarly, the government can correct for positive externalities by subsidizing producers enough to drop their costs (and S) down to where it intersects demand at Q_e.

Handout 6A: Positive and Negative Externalities

Negative Externality



Positive Externality



Standards and Benchmarks

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Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)
- **E.2.ECON.3:** Justify various economic solutions to problems affecting an individual or society using marginal cost and marginal benefit analysis.

Content Standard E.3: Students will understand the exchange of goods and services. This includes different allocation methods and changes in supply and demand, the role of producers, consumers, and government in a market economy; and the degree of competition among buyers and sellers in markets.

- **E.3.ECON.1:** Identify various allocation methods used in different circumstances, countries, and economies (e.g., price, auction, lottery, first come, first served, personal characteristics, a contest/ performance-based, fiat, or a combination).
- **E.3.ECON.5:** Evaluate intended and unintended consequences of government policies created to improve market outcomes (e.g., regulatory, participatory, supervisory, price floor, price ceiling, minimum wage).

Session 7:

Market Structures

Session Description

Students learn that market structures refer to the characteristics, level of competition, and the resulting prices and quantities of goods and services produced. In addition, they learn that, in general, the greater the amount of competition in a market, the lower the price and higher the quantity produced and vice versa.

Standards and Benchmarks (see page 7.5)

Talking Points

Market Structures: Perfect Competition

1. The following exist in perfectly competitive markets:
   - Many firms produce essentially identical products.
   - Businesses enter and exit the market with ease—that is, there are no barriers to entry or exit.
   - Individual firms are "price-takers"—that is, they have no power over their output price.
   - The market sets the price in the short run.
   - In the long run,
     - firms enter an industry when economic profits cause supply to shift to the right or
     - firms leave an industry when economic losses cause supply to shift to the left.

2. The following occur as a result of perfect competition:
   - Consumers get the lowest price possible.
   - Productive efficiency: Firms are forced to produce in the least-costly manner possible.
   - Allocative efficiency: The market sets the equilibrium quantity.

3. The "invisible hand" of the market refers to the market's ability to respond to changes in society's values by automatically reallocating resources toward more-desired goods.

Other Market Structures

1. There are other market structures—with varying levels of competition.

2. The market structure with the least amount of competition is a monopoly. A monopoly is a single firm that
   - produces a product with no close substitutes and
   - is protected by insurmountable barriers to entry.

3. Barriers to entry are obstacles that limit the ability of new firms to enter a market.

4. Monopolies are "price-makers." They have complete control over their output price because they have complete control over supply (the quantity produced).

5. Monopolies increase the price of their output by restricting their production (output).

6. The following occur as a result of a monopoly:
   - Prices are higher and output is lower than with perfect competition; therefore, the output level chosen is not allocatively efficient.
   - Productive efficiency is not necessary for the firm to survive.

7. The monopolistic competitive market structure is similar to the perfectly competitive market structure except there is some non-price competition due to product differentiation in the former.

8. The oligopolistic market structure is similar to the monopolistic market structure except price leadership is used to set prices and there is extensive non-price competition (advertising and product development) in the former.

9. Collusion is an agreement among firms in a market about quantities to produce or prices to charge.

10. If businesses are truly seeking long-run economic profits, they would much prefer to operate at the monopoly end of the market structure spectrum. Long-run economic profits are much more likely there than in the more-competitive market structures.

11. Monopolistic competitive markets tend to be dominated by sole proprietorships and partnerships, while oligopolistic markets tend to be dominated by corporations.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Video

Allow time for students to view the video:

- Microeconomics Modules—Episode 25: Market Structures (Dr. Mary J. McGlasson) (5:51)
  https://www.youtube.com/watch?v=9Hxy-TuX9fs

Audio Q&A

Allow time for students to listen to the podcast and answer the questions:

- Economic Lowdown Audio Series—The Role of Self-Interest and Competition in a Market Economy (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-3-the-role-of-self-interest-and-competition-in-a-market-economy

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics*®: The Economics of Flying: How Competitive Are the Friendly Skies?
  https://www.econlowdown.org/resource-gallery/the-economics-of-flying-how-competitive-are-the-friendly-skies

- *Page One Economics*®: What Should College Athletes Be Paid? Market Structure and the NCAA
  https://www.econlowdown.org/resource-gallery/what-should-college-athletes-be-paid-market-structure-and-the-ncaa

Lessons

Allow time for students to complete the lessons:

- Teaching Market Structures with a Competitive Gum Market
  https://www.stlouisfed.org/education/teaching-market-structures

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 9: Perfect Competition Versus Monopoly
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/
  - Lesson 10: Game Theory: One Step Ahead of the Competition
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/

- Professional Baseball—Can You Join the League?
  https://www.stlouisfed.org/education/professional-baseball

- Perfect Competition (slides)
  https://www.stlouisfed.org/education/perfect-competition

- Monopoly (slides)
  https://www.stlouisfed.org/education/monopoly

- Monopolistic Competition (slides)
  https://www.stlouisfed.org/education/monopolistic-competition

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- **E.3.ECON.5:** Evaluate intended and unintended consequences of government policies created to improve market outcomes (e.g., regulatory, participatory, supervisory, price floor, price ceiling, minimum wage).
- **E.3.ECON.6:** Compare and contrast various degrees of competition in markets (e.g., perfect competition, monopolistic competition, oligopoly, monopoly).
- **E.3.ECON.7:** Explain how differences in the extent of competition in various markets can affect price, quantity, and variety.

Session 8:

Macroeconomic Indicators: GDP, CPI, and the **Unemployment Rate**

Session Description

Students will learn that macroeconomics is concerned primarily with data used to analyze the country's economic health. The session shows how data are used and what some specific data measure. Students will use basic math skills to analyze data.

Standards and Benchmarks (see page 8.12)

Talking Points

Macroeconomic Indicators: GDP, CPI, and the Unemployment Rate

1. Economic growth is measured by the percentage change in real gross domestic product (GDP).

2. A percentage change is calculated by dividing the change in the value of a variable by its initial or starting value.

3. GDP is the total market value of all final goods and services produced within the borders of a country in a given year.

4. GDP is typically measured by adding together the spending of four sectors: household (C, consumption expenditures), business (I, gross investment expenditures, including new home construction), government (G, federal/state/local government expenditures), and foreign (Net exports [NX] = Exports minus imports).

5. GDP does not include financial transactions, transfers, secondhand sales, non-market goods and services, or the production of illegal goods.

6. Nominal GDP = GDP not adjusted for inflation.

7. Real GDP = nominal GDP adjusted for inflation.

8. Real GDP per capita = Real GDP divided by the population of the country.

9. A price index is based on the cost of a particular basket of goods and services in a base year.

10. The consumer price index (CPI) is based on a basket of goods and services purchased by typical consumers. The current standard reference base is 1982-84 = 100.

11. Inflation is measured by the percentage change in some price index (usually the CPI).

12. The rate of unemployment is defined as the percentage of the civilian labor force that is actively seeking a job but is unable to find one (i.e., unemployed).

13. The civilian labor force of the United States is defined as non-institutionalized individuals 16 years old or older who are working or actively seeking employment.

14. A person is considered unemployed if he or she is a member of the labor force but earned no wage or salary income from a job and is actively seeing work.

Macroeconomic Goals

1. Societies have broad social goals. Included among these are the following:
   - Economic growth
   - Economic stability
   - Economic equity
   - Economic efficiency

2. Economic growth refers to a sustained rise over time in a nation's production of goods and services. Economic growth is measured by changes in the level of GDP.

3. Economic stability is a two-part goal that includes both price stability and employment stability, which are measured by employment and unemployment statistics and with price indices such as the CPI.

4. Economic equity refers to a more-equal distribution of goods and services to citizens.

5. Economic freedom refers to the ability of people in the society to decide the following: How to earn income, how to save and spend income, whether and when to change jobs, and whether to open a business or to close an existing business.

6. Economic efficiency refers to not wasting scarce resources—that is, people produce the goods and services that people want the most and economize the use of resources in the production of goods and services.

7. Updated data for GDP, CPI, and the unemployment rate can be found at https://fredaccount.stlouisfed.org/public/dashboard/47481.

Economic Growth and Stability

1. Economic growth is a sustained increase in a country's output of goods and services.

2. GDP measures a country's output of goods and services.
   - Nominal GDP is the market value of all final goods and services produced in a country in a year.
   - Real GDP is the market value of all final goods and services produced within a country over a given period of time valued in a base year. That is, Real GDP = Nominal GDP adjusted for inflation.
     - Market value is the current price of a good or service.
     - Final goods and services are those that are for consumers. For example, tires that people buy to replace the tires on their cars are final goods, and they are counted as part of GDP. When Ford buys tires to place on new cars, the tires are not final goods, the car is. So, the tires are not counted separately as part of GDP. The car is counted as part of GDP.
     - "Produced in a given country" means only goods and services produced within that country's borders. For example, cars produced by Toyota in a plant in Kentucky are counted as part of US GDP. However, cars produced by Ford in Slovakia are not counted as part of US GDP.

3. The components of GDP are consumer spending (C), investment spending (I), government spending (G), and net exports (NX; exports minus imports).

Inflation

1. The goal of economic stability has two parts: stable prices and stable employment.

2. Stable prices refer to a low and stable rate of inflation.

3. Inflation is a sustained increase in the average price level. In general, if the price level rises and incomes do not rise as quickly, the purchasing power of our money decreases.

4. Deflation is a sustained decrease in the average price level.

5. The most common/reported measure of inflation is the CPI. CPI is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

6. The CPI represents changes in prices of all goods and services purchased for consumption by urban households. User fees such as water and sewer service and sales and excise taxes paid by consumers are also included. Income taxes and investment items, such as stocks, bonds, and life insurance, are not included.

7. Prices for the goods and services used to calculate the CPI are collected in 87 urban areas throughout the country and from about 23,000 retail and service establishments. The data on rents are collected from about 50,000 landlords or tenants.

8. The weight given to an item in the CPI is derived from reported expenditures on that item as estimated by the Consumer Expenditure Survey.

Unemployment

1. The second part of the economic stability goal is stable employment. A common measure used is the unemployment rate. People are counted as unemployed if they are 16 years old or older, not currently employed, and actively seeking a job.

2. The unemployment rate is the percentage of the labor force that is willing and able to work, does not currently have a job, and is actively looking for employment. The labor force includes those who are employed and those who are unemployed—as defined above.

3. Stable employment does not mean zero unemployment.

4. The “natural” rate of unemployment (the lowest rate that does not trigger inflation) is the sum of frictional and structural employment (around 5 to 7% for the United States).

5. The economy is considered to be at “full employment” when the unemployment rate is around 5 to 7%.

6. There are four types of unemployment:
    - Frictional unemployment is short-term unemployment associated with normal turnover in the labor market, such as people changing jobs or entering the labor force for the first time.
    - Structural unemployment is unemployment caused by changes in the economy that result in a mismatch between the skills and/or the location of those looking for work and the requirements for and/or locations of available job openings.
    - Cyclical unemployment is unemployment caused by fluctuations in the overall rate of economic activity. Cyclical unemployment occurs when there’s a downturn in the economy (recession).
    - Seasonal unemployment is unemployment caused by a change in season or time of year.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- Demand (60:00)
  https://www.econlowdown.org/resource-gallery/demand

- Great Inflation (120:00)
  https://www.econlowdown.org/resource-gallery/great_inflation

- The Story of Unemployment (90:00)
  https://www.econlowdown.org/resource-gallery/story_of_unemployment

- Consequences of Unemployment (15:00)
  https://www.econlowdown.org/resource-gallery/consequences_of_unemployment

- Education vs. Unemployment (15:00)
  https://www.econlowdown.org/resource-gallery/education_vs_unemployment

- Measuring Unemployment (40:00)
  https://www.econlowdown.org/resource-gallery/measuring_unemployment

- Types of Unemployment (30:00)
  https://www.econlowdown.org/resource-gallery/types_of_unemployment

Video Q&A

Allow time for students to view the videos and answer the questions:

- GDP and Pizza Video Series
  - The Definition of GDP (5:00)
    https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-definition-of-gdp
  - The Components of GDP (10:00)
    https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-the-components-of-gdp
  - Measuring Exports and Imports in GDP (10:00)
    https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-measuring-exports-and-imports-in-gdp

    - Per Capita GDP (5:00)
      https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-per-capita-gdp
    - Real vs. Nominal GDP (10:00)
      https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-real-versus-nominal-gdp

- Economic Lowdown Video Series—Gross Domestic Product (10:00)
  https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-7-gross-domestic-product
- Economic Lowdown Video Series—Inflation (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-9-inflation
- Economic Lowdown Video Series—Unemployment (10:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-episode-10-unemployment

Audio Q&A

Allow time for students to listen to the podcasts and answer the questions:

- Economic Lowdown Audio Series—Inflation (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-4-inflation
- Economic Lowdown Audio Series—Unemployment (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-5-unemployment
- Economic Lowdown Audio Series—Gross Domestic Product (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-13-gross-domestic-product-gdp

Reading Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics*®—Making Sense of Unemployment Data
  https://www.econlowdown.org/resource-gallery/making-sense-of-unemployment-data

Lessons

Allow time for students to complete the lessons:

- The GDP Expenditures Equation: What Is GDP and How Do We Measure It?
  https://www.stlouisfed.org/education/gdp-expenditures-equation
    - Visual 8A: GDP Expenditure Flows (see p. 8.8 in this session) (may be used with the above lesson if desired)

- Visual 8B: Unemployment (see p. 8.9 in this session)

- Handout 8B: Types of Unemployment (see p. 8.10 in this session)
    - Handout 8B: Types of Unemployment—Answer Key (see p. 8.11 in this session)

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
    - Lesson 17: Inflation
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/
    - Lesson 18: Unemployment Survey
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/
    - Lesson 20: Explaining Short-Run Economic Fluctuations
      Visuals and activities for this lesson can be found at
      https://highschooleconomics.councilforeconed.org/

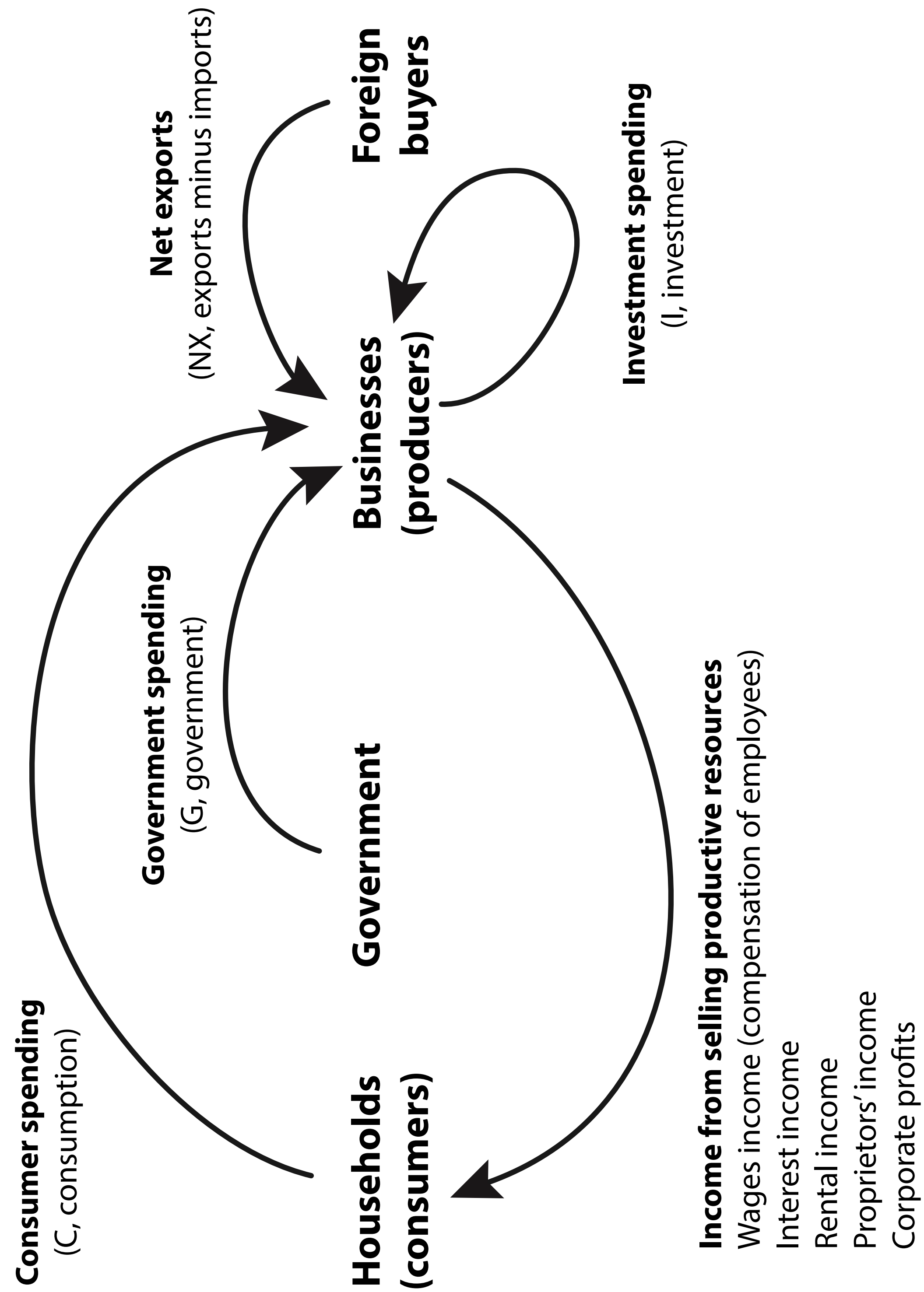
- *The Great Depression: A Curriculum for High School Students*
    - Lesson 1: Measuring the Great Depression
      http://www.stlouisfed.org/education/great-depression-curriculum-unit
      NOTE: This lesson provides an introduction to GDP, unemployment, and CPI.

- Teaching About Money, Spending, and Inflation Using a Classroom Inflation Auction
  https://www.stlouisfed.org/education/classroom-inflation-auction

- How Do We Measure Unemployment?
  https://www.stlouisfed.org/education/how-do-we-measure-unemployment

- FRED® Activities for AP Macro
    - Activity 3: Measures of Inflation
      https://www.stlouisfed.org/education/fred-activities-ap-macro
    - Activity 9e: Unemployment and Labor Force Participation
      https://www.stlouisfed.org/education/fred-activities-ap-macro

GDP Expenditure Flows



Visual 8B: Unemployment

Unemployment—A condition where people at least 16 years old are not currently employed but are actively seeking a job.

Natural rate of unemployment—The rate of unemployment that denotes full employment of resources such that unemployment is at its "optimal" level (debated to be between 5 and 7%).

Four types of unemployment

- ***Frictional unemployment***—The "good" unemployment: short-term unemployment associated with normal turnover in the labor market, such as new entrants into the workforce and people changing jobs.
- ***Structural unemployment***—Job loss due to changes in the business structure (e.g., the introduction of new technologies or a change in the location of manufacturing).
- ***Cyclical unemployment***—Job loss due to a downturn in the business cycle (e.g., caused by a recession or natural disaster).
- ***Seasonal unemployment***—Job loss due to a change in the season/time of year (e.g., after the Christmas shopping season or summer vacation season).

Bureau of Labor Statistics (BLS) estimates and notation

- Employment (E)
- Unemployment (U)
- Population (POP)
- Labor force = E + U
- Labor force participation rate = (E + U)/Adult POP
- Not in labor force = Adult POP – (E + U)
- Unemployment rate = (U/(E + U)) × 100

Handout 8A: Types of Unemployment

Directions: Identify the type of unemployment each scenario below.

Structural = S   Cyclical = C   Frictional = F

________ 1. A computer programmer moves to Mexico City and temporarily cannot find a job that complements her family responsibilities.

________ 2. A steelworker is laid off because of a long recession.

________ 3. A clerical worker trained 30 years ago cannot find work in modern offices that require computer skills.

________ 4. A store clerk loses her job because retail sales are slow due to high unemployment and consumers' fears of eroding family budgets.

________ 5. A high school dropout applies for several jobs but is told each time that he is not qualified.

________ 6. An unemployed college senior is looking for her first job.

________ 7. Robotics replace 30% of assembly line autoworkers, whose skills are not readily transferable to other industries.

________ 8. An unemployed person rejects a job offer because the wage is too low.

________ 9. The banking sector of the economy lays off 20% of its workforce because of the global financial crisis.

________ 10. A prolonged rainy season prevents agricultural workers from beginning their harvesting at the usual time.

Handout 8A: Types of Unemployment—Answer Key

Directions: Identify the type of unemployment each scenario below.

Structural = S   Cyclical = C   Frictional = F

__ **F** __ 1. A computer programmer moves to Mexico City and temporarily cannot find a job that complements her family responsibilities.

__ **C** __ 2. A steelworker is laid off because of a long recession.

__ **S** __ 3. A clerical worker trained 30 years ago cannot find work in modern offices that require computer skills.

__ **C** __ 4. A store clerk loses her job because retail sales are slow due to high unemployment and consumers' fears of eroding family budgets.

__ **S** __ 5. A high school dropout applies for several jobs but is told each time that he is not qualified.

__ **F** __ 6. An unemployed college senior is looking for her first job.

__ **S** __ 7. Robotics replace 30% of assembly line autoworkers, whose skills are not readily transferable to other industries.

__ **F** __ 8. An unemployed person rejects a job offer because the wage is too low.

__ **C** __ 9. The banking sector of the economy lays off 20% of its workforce because of the global financial crisis.

__ **F** __ 10. A prolonged rainy season prevents agricultural workers from beginning their harvesting at the usual time.

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.1:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity costs in decision making (e.g., PACED decision making model, cost/benefit analysis)
- **E.4.ECON.2:** Identify various causes and impacts of inflation, deflation, and stagflation, including the role of federal fiscal policies.
- **E.4.ECON.3:** Evaluate the impact of advancements in technology, investments in capital goods, and increases in human capital on economic growth and standards of living.

Session 9:

Economic Growth

Session Description

Students will explore how advances in technology and investment in human capital and in capital goods impact economic growth and standards of living.

Standards and Benchmarks (see page 9.4)

Talking Points

1. Economic growth is defined as a sustained rise over time in a nation's production of goods and services. This is measured as a percentage change in real GDP (real GDP was discussed in Session 8).
2. Economic growth is largely dependent on the following:
   - The quantity of resources available: An economy can produce more if it has a larger labor force, a larger stock of capital, and/or more natural resources.
   - The quality (productivity) of its resources: An economy can produce more if its resources become more productive—for example, through training and educating the labor force, improved capital, and/or better technology.
3. Other factors affecting economic growth include the following:
   - the level of economic freedom of members of the society: Economic freedom refers to the ability to choose your work, choose where you live, choose to operate a business, and so on;
   - the political stability of the country;
   - the willingness and ability of society members to save;
   - the level of government regulation of production and consumption;
   - the opportunity to earn a profit by operating a business; and
   - how efficiently society's resources are allocated.
4. When real GDP expands, the unemployment rate tends to fall, although there is often a lag.
5. When real GDP contracts, the unemployment rate tends to rise, although there is often a lag.
6. When real GDP expands, the price level may rise, fall, or stay the same.
7. When real GDP contracts, the price level may rise, fall, or stay the same.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- Economic Growth (30:00)
  https://www.econlowdown.org/resource-gallery/economic_growth

- GDP: Measurement and Growth (30:00)
  https://www.econlowdown.org/resource-gallery/gdp_measurement

Video Q&A

Allow time for students to view the videos and answer the questions:

- GDP and Pizza Video Series—Levels of GDP vs. Percentage Change in GDP (10:00)
  https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-levels-of-gdp-vs-percentage-change-in-gdp

- GDP and Pizza Video Series—Trend Growth (10:00)
  https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-trend-growth

Audio Q&A

Allow time for students to listen to the podcast and answer the questions:

- Economic Lowdown Audio Series—Economic Growth (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-15-economic-growth

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics*®: What are the "Ingredients" for Economic Growth?
  https://www.econlowdown.org/resource-gallery/what-are-the-ingredients-for-economic-growth

- *Page One Economics*®: Why are Some Countries Rich and Others Poor?
  https://www.econlowdown.org/resource-gallery/why-are-some-countries-rich-and-others-poor

- *Page One Economics*®: Minding the Output Gap: What Is Potential GDP and Why Does It Matter?
  https://www.econlowdown.org/resource-gallery/minding-the-output-gap-what-is-potential-gdp-and-why-does-it-matter

Lessons

Allow time for students to complete the lessons:

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 2: Allocating Scarce Resources
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/
  - Lesson 19: Economic Growth
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.1:** Analyze economic indicators used to measure economic performance including, but not limited to, unemployment, Gross Domestic Product (GDP), Consumer Price Index (CPI), and inflation.
- **E.4.ECON.2:** Identify various causes and impacts of inflation, deflation, and stagflation, including the role of federal fiscal policies.
- **E.4.ECON.3:** Evaluate the impact of advancements in technology, investments in capital goods, and increases in human capital on economic growth and standards of living.

Session 10:

Financial Institutions

Session Description

Students will learn that money and financial institutions are vital to a well-functioning economy.

Standards and Benchmarks (see page 10.3)

Talking Point

1. Financial institutions are private or public institutions that may be for-profit or non- profit. These organizations pool small amounts of money so that larger investments (with higher returns) can be made. They do this by collecting money from the public or from other institutions and investing those funds in financial assets. A common example is banks that take in customer deposits for safekeeping and use the deposits to make loans to other customers. Another example is insurance companies. Although insurance companies do not take in deposits, in exchange for premiums paid by cus- tomers, they guarantee payment to customers if a certain situation occurs.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the module:

- Payments 101 (30:00)
  https://www.econlowdown.org/resource-gallery/payments_101

Video Q&A

Allow time for students to watch the videos and answer the questions:

- The Federal Reserve and You—Chapter 1: The Payments System
  https://www.econlowdown.org/resource-gallery/the-federal-reserve-and-you-chapter-1-segment-103-the-payments-system

- The Federal Reserve and You—Chapter 5: Introduction to the Payments System
  https://www.econlowdown.org/resource-gallery/the-federal-reserve-and-you-chapter-5-introduction-to-the-payments-system

Video Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics*®—Banking Basics
  https://www.econlowdown.org/resource-gallery/focus-on-finance-banking-basics

Lessons

Allow time for students to complete the lesson:

- Hamilton's National Bank
  https://www.stlouisfed.org/education/hamiltons-national-bank

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.4:** Compare and contrast the roles and functions of financial institutions in the United States including banking practices and regulation of savings and investments.

Session 11:

The Role of the **Federal Reserve System** and **Monetary Policy**

Session Description

The Federal Reserve System's monetary policy works to stabilize and promote the growth of the US economy. This session will provide students with an overview of the Federal Reserve System and its monetary policy.

Standards and Benchmarks (see page 11.7)

Talking Points

The Federal Reserve System (the Fed)

1. The Federal Reserve (Fed) is the central bank of the United States. The US Congress has given the Fed two objectives, called the "dual mandate"—to pursue the economic goals of maximum employment and price stability. In order to move the economy toward achieving this dual mandate, the Fed conducts monetary policy.

2. The Federal Reserve System is comprised of three parts: (1) the Board of Governors, (2) 12 regional Reserve Banks, and (3) the Federal Open Market Committee (FOMC). These parts work together to promote the health of the US economy and the stability of the US financial system.
   - The **Board of Governors** in Washington, DC, is the governing body of the Federal Reserve System. The Board of Governors guides the operation of the Federal Reserve System to promote the goals and fulfill the responsibilities given to the Fed by Congress. The Board of Governors is overseen by seven "governors" who guide all aspects of the operation of the Federal Reserve System.
   - The United States is divided into **12 Federal Reserve Districts**, with a Federal Reserve Bank established in each District. The 12 Reserve Banks examine and supervise financial institutions, lend to depository institutions, and provide US payment system services, among other things. Each Federal Reserve Bank is managed by a president who serves as chief executive officer (CEO), and each president plays a key role as a maker of monetary policy. Federal Reserve Bank presidents contribute to making national monetary policy but also serve as the voice of "Main Street."
   - The **Federal Open Market Committee (FOMC)** is the body within the Federal Reserve System that determines monetary policy for the country. The FOMC sets monetary policy to promote maximum employment and price stability in the US economy. The Committee includes up to 19 participants—seven Federal Reserve Board governors (if all positions are

filled) and the presidents of the 12 Federal Reserve Banks. Of the 19 FOMC participants, 12 are voting members of the Committee, on a rotating basis. The structure of the FOMC ensures that a diverse set of voices is reflected in the policymaking process.

Monetary Policy

1. Keeping our economy healthy is one of the most important jobs of the Federal Reserve. According to its dual mandate, the Fed must pursue the economic goals of maximum employment and price stability. It does this by conducting and implementing monetary policy.
    - The FOMC *conducts* monetary policy by setting a target for the federal funds rate, which is the Fed's policy rate.
    - The Fed *implements* monetary policy by using its monetary policy tools to steer the federal funds rate into the target range.

Conducing Monetary Policy

2. The FOMC sets a target range for the federal funds rate; it is the range where it wants the federal funds transactions to take place. For example:
    - If the FOMC *lowers* the target range for the federal funds rate, this will lower interest rates in the economy and encourage consumers and businesses to take loans to spend and invest.
    - If the FOMC *raises* the target range for the federal funds rate, this will raise interest rates in the economy and discourage consumers and businesses from taking loans to spend and invest.

Implementing Monetary Policy

3. The Fed has four tools to implement monetary policy. The first three are "administered rates": Interest on Reserve Balances, the Overnight Reserve Repurchase Agreement Facility, and the Discount Rate. The final tool is open market operations.
    - **The Fed's Primary Tool: *Interest on Reserve Balances***

      Today, the Fed's primary tool for adjusting the federal funds rate is interest on reserve balances. The interest on reserve balances rate is the interest rate paid on funds that banks hold in their reserve balance account at a Federal Reserve Bank. For banks, this interest rate represents a risk-free investment option. Importantly, the interest on reserve balances rate is an "administered rate," which means it is set by the Fed and not determined in a market (like the federal funds rate is).

      Because the Fed sets the interest on reserve balances rate directly, the Fed can steer the federal funds rate down or up by lowering or raising the level of the interest on reserve balances rate. As a result, interest on reserve balances is the Fed's primary tool for adjusting the federal funds rate, but the Fed has other tools that play supporting roles.

- **Setting a Floor for the Federal Funds Rate:** ***The Overnight Reverse Repurchase Agreement Facility***

  Interest on reserve balances is available only to banks and a few other institutions. The Fed has an overnight reverse repurchase facility that is open to a broader set of financial institutions. This facility allows these financial institutions to deposit their funds at a Federal Reserve Bank and earn the overnight reverse repurchase agreement rate offered by the Fed. The overnight reverse repurchase agreement rate works for these institutions similar to the way the interest on reserve balances rate works for banks. The overnight reverse repurchase agreement facility is a supplementary tool because the rate the Fed sets for it helps set a floor for the federal funds rate.

- **Setting a Ceiling for the Federal Funds Rate:** ***The Discount Window***

  The discount rate is the rate charged by the Fed for loans obtained through the Fed's discount window. Because banks will not likely borrow at a higher rate than they can borrow from the Fed, the discount rate acts as a ceiling for the federal funds rate: It is set higher than the interest on reserve balances rate and the overnight reverse repurchase agreement rate.

- **The Final Tool:** ***Open Market Operations***

  As noted above, the Fed's current method for implementing monetary policy relies on banks' reserves remaining "ample." So, if the Fed needs to add reserves to ensure they remain ample, it does so by buying US government securities in the open market. This action is known as open market operations. When the Fed buys securities, it pays for them by depositing funds into the appropriate banks' reserve balance accounts, adding to the overall level of reserves in the banking system. Prior to 2008, open market operations were the Fed's primary monetary policy tool, which it used daily to make sure the federal funds rate hit the FOMC's target. Today this tool is mainly used to ensure that reserves remain ample.

  Now that you understand the Fed's implementation tools, let's see how the Fed uses them to achieve its two goals: maximum employment and price stability.

Expansionary Monetary Policy Using the Fed's Tools

4. Suppose the following: The economy weakens, with employment falling short of maximum employment, and the inflation rate has been steady at around 2 percent but is showing signs of decreasing. The FOMC might decide to *conduct* monetary policy by lowering its target range for the federal funds rate. To *implement* that monetary policy, it would decrease its administered rates—the interest on reserve balances rate, overnight reverse repurchase agreement rate, and discount rate—to ensure the market-determined federal funds rate stays within the target range. These actions would transmit to other interest rates and broader financial conditions:

   - Lower interest rates decrease the cost of borrowing money, which encourages consumers to increase spending on goods and services and businesses to invest in new equipment.
   - The increase in consumption spending increases the overall demand for goods and services in the economy, which creates an incentive for businesses to increase production, hire more workers, and spend more on other resources.

- As these increases in spending ripple through the economy, likely moving the unemployment rate down toward its full employment level, inflation could possibly move up.

So, the Fed's monetary policy implementation tools can be effective for moving the economy back toward maximum employment and price stability when the economy is stalling.

Contractionary Monetary Policy Using the Fed's Tools

5. Suppose the following: The economy is showing signs of overheating, with the unemployment rate very low and businesses finding it hard to fill jobs, and the inflation rate has been above the Fed's 2 percent target for quite some time and is rising. In this case, the FOMC might decide to *conduct* monetary policy by raising its target range for the federal funds rate. To *implement* that monetary policy, it would increase its administered rates—the interest on reserve balances rate, overnight reverse repurchase agreement rate, and discount rate—to ensure the federal funds rate stays within the target range. These actions would transmit to other interest rates and broader financial conditions:

   - Higher interest rates increase the cost of borrowing money and raise the incentive to save, which dampens consumer spending on some goods and services and slows businesses' investment in new equipment.
   - The decrease in consumption spending decreases the overall demand for goods and services in the economy, which will likely lead to a decrease in production levels, fewer employees hired, and less spending on other resources.
   - As these decreases in spending ripple through the economy, demand for workers could lessen, inflationary pressures would diminish, and the inflation rate would fall back toward 2 percent.

   So, higher interest rates can be used to move the economy back to maximum employment and price stability when the economy is overheating.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the module:

- The Fed's New Monetary Policy Tools (40:00)
  https://www.econlowdown.org/resource-gallery/monetary_policy_tools

Video Q&A

Allow time for students to view the videos and answer the questions:

- Economic Lowdown Video Series—Monetary Policy, part 1: The Fed and the Dual Mandate (10:00)
  https://www.econlowdown.org/resource-gallery/monetary-policy-part-1-the-fed-and-the-dual-mandate

- Economic Lowdown Video Series—Monetary Policy, part 2: Two Important Interest Rates in Monetary Policy Implementation (10:00)
  https://www.econlowdown.org/resource-gallery/monetary-policy-part-2-two-important-interest-rates-in-monetary-policy-implementation

- Economic Lowdown Video Series—Monetary Policy, part 3: Reservation Rate and Arbitrage (10:00)
  https://www.econlowdown.org/resource-gallery/monetary-policy-part-3-reservation-rate-and-arbitrage

- Economic Lowdown Video Series—Monetary Policy, part 4: The Fed in Action (10:00)
  https://www.econlowdown.org/resource-gallery/monetary-policy-part-4-the-fed-in-action

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics*®: Independence, Accountability, and the Federal Reserve System
  https://www.econlowdown.org/resource-gallery/independence-accountability-and-the-federal-reserve-system

- *Page One Economics*®: How Does the Fed Use Its Monetary Policy Tools to Influence the Economy?
  https://www.econlowdown.org/resource-gallery/how-does-the-fed-use-its-monetary-policy-tools-to-influence-the-economy

Lessons

Allow time for students to complete the lessons:

- Classroom Activity: How Fed Policy Transmits to the Economy
https://www.stlouisfed.org/education/how-fed-policy-transmits-to-the-economy

- What Happens When the Federal Reserve Raises Interest Rates?
https://www.stlouisfed.org/education/what-happens-when-federal-reserve-raises-interest-rates-lesson

- Lecture Guide: How the Federal Reserve Implements Monetary Policy
https://www.stlouisfed.org/education/monetary-policy-lecture-guide

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.4:** Compare and contrast the roles and functions of financial institutions in the United States including banking practices* and regulation of savings and investments.
- **E.4.ECON.5:** Examine primary (e.g., ample reserves) and secondary (e.g., discount rate, reserve requirement, interest on reserves) monetary policy tools used by the Federal Reserve System.

Session 12:

Fiscal Policy

Session Description

The fiscal policy of Congress works to stabilize and promote the growth of the US economy. This session will provide students with an overview of the fiscal policy of the federal government.

Standards and Benchmarks (see page 12.3)

Talking Points

1. Fiscal policy involves actions of the federal government—the administration and Congress—to set government spending and tax rates in an effort to affect the economy.

2. Expansionary policies, such as increases in government spending and/or decreases in taxes, in theory are thought to increase overall demand for goods and services. These actions move the budget toward a deficit. Congress and the president might use expansionary policies during a recession.

3. Contractionary policies, such as decreases in government spending and/or increases in taxes, in theory are thought to decrease overall demand for goods and services. These actions move the budget position toward a surplus. Contractionary policies are rarely used.

4. If the government runs a deficit, it borrows to cover the deficit spending. This borrowing increases the demand for loanable funds. An increase in the demand for loans could increase interest rates and "crowd out" (reduce/replace) private investment spending. Crowding out tends to lower overall demand.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- Fiscal Policy: Tools for Influencing the Economy (30:00)
  https://www.econlowdown.org/resource-gallery/fiscal_policy_tools

- Fiscal Policy: The Basics of Taxation and Government Spending (30:00)
  https://www.econlowdown.org/resource-gallery/fiscal_policy_basics

Video Q&A

Allow time for students to view the videos and answer the questions:

- Fed FAQ: Fiscal and Monetary Policy (5:00)
  https://www.econlowdown.org/resource-gallery/fed-faq-fiscal-and-monetary-policy

- GDP and Pizza Video Series—Automatic Stabilizers (5:00)
  https://www.econlowdown.org/resource-gallery/gdp-and-pizza-video-series-automatic-stabilizers

Audio Q&A

Allow time for students to listen to the podcast and answer the questions:

- Economic Lowdown Audio Series—Fiscal Policy (15:00)
  https://www.econlowdown.org/resource-gallery/economic-lowdown-audio-series-episode-21-fiscal-policy

Reading Q&A

Allow time for students to read the essay and answer the questions:

- *Page One Economics*®—Individual Income Tax: The Basics and New Changes
  https://www.econlowdown.org/resource-gallery/individual-income-tax-the-basics-and-new-changes

Lessons

Allow time for students to complete the lessons:

- *Making Personal Finance Decisions*
  - Unit 4: Paying Taxes—Lesson 4A: What Are Taxes For?
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 21: Fiscal Policy: The Multiplier Effect
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.2:** Identify various causes and impacts of inflation, deflation, and stagflation, including the role of federal fiscal policies.

Session 13:

Revenues, Outlays, and **Debt** of the **Federal Government**

Session Description

Students will learn that the federal government receives income from taxes and other sources and provides goods, services, and transfer payments. In addition, students will learn key concepts and terms regarding the federal budget.

Standards and Benchmarks (see page 13.10)

Talking Points

1. The typical sources of revenue for the federal government are personal income taxes, Social Security taxes, Medicare taxes, unemployment taxes, corporate income taxes, and other taxes (custom duties, excise taxes, tariffs, and so on), and borrowing. To see the previous year's revenue, go to http://www.usgovernmentrevenue.com/breakdown.

2. Typically, the main spending (outlays) of the federal government are Social Security and Medicare payments, national defense and foreign aid, social programs, physical/ human/community development, net interest on debt, law enforcement, and general government. To see the previous year's spending, go to https://www.usgovernmentspending.com/breakdown_2023USrt_24rs1n.

3. If government revenue is greater than its outlays, the government has a budget surplus.

4. If government revenue is less than its outlays, the government has a budget deficit.

5. If the government has a deficit, it must borrow funds (i.e., increase its debt).

6. The debt of the federal government (public debt) is the total amount owed by the federal government as a result of its current and past borrowing.

7. The main historical causes for accumulated public debt have been
   - wars,
   - unanticipated downturns in the economy (recessions),
   - tax cuts with no offsetting cuts in outlays, and
   - increases in outlays with no offsetting increases in revenues.

8. Foreign investors hold just less than one-third of US public debt, which represents a loss of wealth as interest payments leave the country.

9. For every debt in an economy, someone else has a credit—an IOU—a valuable asset.

10. If a borrower defaults—that is, is unable to pay their loan—the lender loses wealth (the IOU becomes worthless).

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- Fiscal Policy: The Basic of Taxation and Government Spending (30:00)
  https://www.econlowdown.org/resource-gallery/fiscal_policy_basics

- Government Budgets (60:00)
  https://www.econlowdown.org/resource-gallery/government_budgets

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics*®—Individual Income Tax: The Basics and New Changes
  https://www.econlowdown.org/resource-gallery/individual-income-tax-the-basics-and-new-changes

- *Page One Economics*®—Making Sense of the National Debt
  https://www.econlowdown.org/resource-gallery/making-sense-of-the-national-debt

Lessons

Allow time for students to complete the lessons:

- Lesson 13A: Where Will You Cut the Budget? (see p. 13.4 in this session)

- Use these handouts with any of the government debt and deficit resources
  - Handout 13A: Calculating Government Surpluses, Deficits, and Debt (see p. 13.7 in this session; Answer Key on p. 13.8)
  - Handout 13B: A Brief History of US Public Debt (see p. 13.9 in this session)

- *The Budget and Economic Outlook: 2015 to 2025* (Congressional Budget Office)
  https://www.cbo.gov/publication/49892
  - Select Appendix G
    https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49892/49892-breakout-AppendixG.pdf
  - View Table G-1 on pages 158 and 159, "Revenues, Outlays, Deficits, Surpluses, and Debt Held by the Public Since 1965"

Lesson 13A:

Where Will You Cut the Budget?

Objective

Students will choose which areas of the federal budget to cut and defend their choices.

Time Required

One to three class periods

Materials

- Handout 13A.1, one copy for each student
- Signs matching items A through J on Handout 13A.1
- Tape

Preparation

- Prepare signs and post them around the room.

Procedure

1. Distribute *Handout 13A.1: Where Will You Cut the Budget?*

2. Allow students the opportunity to read through the spending categories and ask questions. Direct the students to rank the categories according to the directions on Handout 1.

3. Ask the students to move and stand under the sign that indicates the category they would cut first from the federal budget. Encourage students to share why they made this choice.

4. Have the students move to their second choice and share. Do this several times.

5. Have the students return to their first choice. Divide the students into small groups based on this choice.

6. Assign each group to conduct research about what would happen if funding were cut from the particular category they chose, specifically who would benefit and who would lose. Instruct the groups to prepare an argument to share with the class defending their choice.

Closure

7. Invite groups to share their arguments.

8. Optional: Invite students to debate their arguments.

Visual 13A.1: Where Will You Cut the Budget?

Directions: Assume you are a member of Congress. You must recommend budget cuts. Consider the spending categories below and rank them in order of importance (designated by the letters), with 10 being the last item to cut. Be prepared to defend your decisions:

A. National defense

B. International affairs

C. General science, space, and technology

D. Energy

E. Environmental protection

F. Transportation

G. Education, training, employment, and social services

H. Social Security

I. Health care and Medicare

J. Veterans benefits

Cut first: 1. ________

2. ________

3. ________

4. ________

5. ________

6. ________

7. ________

8. ________

9. ________

Cut last: 10. ________

Handout 13A: Calculating Government Surpluses, Deficits, and Debt

Directions: Calculate the budget surplus or deficit for each year below. Assume that any deficit requires the government to borrow an amount equal to the deficit and that any surplus is exclusively used to reduce the debt.

NOTE: Figures are hypothetical and in billions of dollars.

Year	Revenue	Outlays	Surplus (+) or deficit (–)	Debt
Prior to 2003				**50**
2003	100	90	_________	_________
2004	110	115	_________	_________
2005	125	125	_________	_________
2006	120	130	_________	_________
2007	130	135	_________	_________
2008	150	145	_________	_________
2009	155	170	_________	_________

Handout 13A: Calculating Government Surpluses, Deficits, and Debt— Answer Key

Directions: Calculate the budget surplus or deficit for each year below. Assume that any deficit requires the government to borrow an amount equal to the deficit and that any surplus is exclusively used to reduce the debt.

NOTE: Figures are hypothetical and in billions of dollars.

Year	Revenue	Outlays	Surplus (+) or deficit (–)	Debt
Prior to 2003				**50**
2003	100	90	+10	40
2004	110	115	–5	45
2005	125	125	0	45
2006	120	130	–10	55
2007	130	135	–5	60
2008	150	145	+5	55
2009	155	170	–15	70

Handout 13B: A Brief History of US Public Debt

US Debt in Given Years from Historical Events

Year	Public debt	Budget status	Event
1791	$75M	Deficit	Revolutionary War
1816	127M	Deficit	War of 1812
1837	0	Balanced	Jackson administration
1860	64M	Deficit	War with Mexico
1866	2.7B	Deficit	Civil War
1915	3.0B	Deficit	50 Years of relative prudence
1919	27.4B	Deficit	World War I
1930	16.2B	Deficit	Roaring Twenties
1940	43.0B	Deficit	Great Depression
1946	269.4B	Deficit	World War II
1960	290.2B	Deficit	Korean War
1980	930.2B	Deficit	Vietnam War/War on Poverty
1983	1.4T	Deficit	1981-82 Recession
1988	2.6T	Deficit	Tax cuts
2000	5.7T	Surplus	Surplus (debt decreased)
2010	14T	Deficit	Tax cuts, wars, bailouts, and stimulus

NOTE: M, million; B, billion; T, trillion. To see the current national debt, go to the National Debt Clock at https://www.usdebtclock.org/.

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.2:** Identify various causes and impacts of inflation, deflation, and stagflation, including the role of federal fiscal policies.
- **E.4.ECON.6:** Examine fiscal policy tools used by the executive and legislative branches of the government, including taxation, spending, regulation, and printing of currency.
- **E.4.ECON.7:** Determine how the federal budget (i.e., spending and taxation) creates surpluses or deficits and impacts the national debt.o

Session 14:

Absolute Advantage and **Comparative Advantage**

Session Description

Students will learn that people engage in trade voluntarily because they expect to benefit. They will also learn the roles that absolute advantage and comparative advantage play in specialization and trade.

Standards and Benchmarks (see page 14.4)

Talking Points

1. Trade increases the value society receives from a given or fixed amount of goods and services because both traders gain from a voluntary trade. Each trader receives goods or services that they value more highly than the goods or services they trade.

2. In addition, trade makes specialization possible, allowing people to increase the amount of goods and services that can be produced.

3. The producer/country that has the greater output of a good or service per unit of input (or resource) used has an absolute advantage in the production of that good or service.

4. The producer/country that has the lower opportunity cost of producing a good or service, in terms of other goods or services that must be given up to produce that good or service, has a comparative advantage in the production of that good or service.

5. Even if a producer/country doesn't have an absolute advantage in producing a good or service, it can still have a comparative advantage in producing that good or service.

6. Producers/countries should specialize in the production of those goods or services for which they have a comparative advantage.

7. Trade expands a country's consumption possibilities beyond its production possibilities and, thus, makes it possible for people in the country to consume more goods and services, which are the fundamental gains from trade.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- Comparative Advantage (120:00)
  https://www.econlowdown.org/resource-gallery/comparative_advantage

- How Trade Helps Each Side (5:00)
  https://www.econlowdown.org/resource-gallery/how-trade-helps-each-side

- Jack of All Trades: Production Possibilities Frontier (20:00)
  https://www.econlowdown.org/resource-gallery/comparative_advantage_production_possibilities_frontier

- Jack of All Trades: Advanced Specialization (30:00)
  https://www.econlowdown.org/resource-gallery/comparative_advantage_advanced_specialization

- Jack of All Trades: Comparative Advantage (30:00)
  https://www.econlowdown.org/resource-gallery/comparative_advantage_comparative_advantage

- Jack of All Trades: Benefits of Trade (20:00)
  https://www.econlowdown.org/resource-gallery/comparative_advantage_benefits_of_trade

- Opportunity Cost (15:00)
  https://www.econlowdown.org/resource-gallery/opportunity_cost

Audio Q&A

Allow time for students to listen to the podcasts and answer the questions:

- EconoFact Audio Series—A Brief History of International Trade (and Why It Matters Today) (30:00)
  https://www.econlowdown.org/resource-gallery/econofact-a-brief-history-of-international-trade-and-why-it-matters-today-podcast

- EconoFact Audio Series—Trade and Jobs: Who Loses, Who Adapts, and Who Pays? (30:00)
  https://www.econlowdown.org/resource-gallery/econofact-trade-and-jobs-who-loses-who-adapts-and-who-pays

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics®*—Does International Trade Create Winners and Losers?
  https://www.econlowdown.org/resource-gallery/does-international-trade-create-winners-and-losers

- *Page One Economics®*—Global Economy: It's a Small World After All
  https://www.econlowdown.org/resource-gallery/the-global-economy-its-a-small-world-after-all

Lessons

Allow time for students to complete the lessons:

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 26: Comparative Advantage
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/

- Comparative Advantage: Trading Pizzas and Brownies
  https://www.stlouisfed.org/education/comparative-advantage-trading-pizzas-and-brownies

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.3: Students will understand the exchange of goods and services. This includes different allocation methods and changes in supply and demand; the role of producers, consumers, and government in a market economy; and the degree of competition among buyers and among sellers in markets.

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

Content Standard E.5: Students will understand the growth, stability, and interdependence within a global economy. This includes ways in which trade leads to increased economic interdependence.

- **E.5.ECON.1:** Analyze the role of comparative advantage in trade and global markets using available data and a variety of sources.

Session 15:

Globalization

Session Description

Students will learn that people and countries engage in trade voluntarily because they expect to benefit.

Standards and Benchmarks (see page 15.5)

Talking Points

1. Generally, when a country imports a good or service, domestic producers of that good or service are made worse off and domestic consumers are made better off. However, the country as a whole is better off because the gains of those who are made better off from trade will exceed the losses of those who are made worse off.

2. Generally, when a country exports a good or service, domestic producers of that good or service are made better off and domestic consumers are made worse off. However, the country as a whole is better off because the gains of those who are made better off from trade will exceed the losses of those who are made worse off.

3. Trade barriers—those imposed naturally or by governments (tariffs, quotas, embargos, standards, and so on)—reduce trade and, therefore, a country's gains from trade.

4. The formation of trade blocs and participation in free-trade agreements are attempts to lower trade barriers between certain countries.

5. The exchange rate of a currency is its price in terms of another currency and can be determined by market forces or fixed by a country's central bank.

6. When the price of one country's currency increases in terms of another country's currency, it is said to be appreciating in value.

7. When the price of one country's currency decreases in terms of another country's currency, it is said to be depreciating in value.

8. An appreciation in the value of a country's currency makes its exports more expensive to foreigners and imports from other countries less expensive to domestic consumers, leading to a decrease in net exports (NX) and a decrease in aggregate demand.

9. A depreciation in the value of a country's currency makes its exports less expensive to foreigners and imports more expensive to domestic consumers, leading to an increase in NX and an increase in aggregate demand.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- How Trade Helps Each Side (5:00)
  https://www.econlowdown.org/resource-gallery/how-trade-helps-each-side
- Global Connections (5:00)
  https://www.econlowdown.org/resource-gallery/global-connections

Audio Q&A

Allow time for students to listen to the podcast and answer the questions:

- EconoFact Audio Series—Trade and Jobs: Who Loses, Who Adapts, and Who Pays? (30:00)
  https://www.econlowdown.org/resource-gallery/econofact-trade-and-jobs-who-loses-who-adapts-and-who-pays

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics*®—Does International Trade Create Winners and Losers?
  https://www.econlowdown.org/resource-gallery/does-international-trade-create-winners-and-losers
- *Page One Economics*®—Why Are Some Countries Rich and Others Poor?
  https://www.econlowdown.org/resource-gallery/why-are-some-countries-rich-and-others-poor
- *Page One Economics*®—Is a Strong Dollar Better Than a Weak Dollar?
  https://www.econlowdown.org/resource-gallery/is-a-strong-dollar-better-than-a-weak-dollar
- *Page One Economics*®—International Trade: Making Sense of the Trade Deficit
  https://www.econlowdown.org/resource-gallery/international-trade

Lessons

Allow time for students to complete the lessons:

- *A ¥en to Trade*
  - Lesson 1: Ringgits, Rupees, and Rials
    https://www.stlouisfed.org/education/a-yen-to-trade-unit
  - Lesson 7: Trading Hurdles
    https://www.stlouisfed.org/education/a-yen-to-trade-unit

- Lesson 8: Pieces of Paper
  https://www.stlouisfed.org/education/a-yen-to-trade-unit

- Is Trade a Zero-Sum Game? The Answer Lies in Candy
  https://www.stlouisfed.org/education/is-trade-a-zero-sum-game

- *High School Economics,* 3rd Edition (email acee@economicsarkansas.org to order this book)
  - Lesson 25: Trade: Why Do People Trade?
    Visuals and activities for this lesson can be found at
    https://highschooleconomics.councilforeconed.org/

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.1: Students will understand the impact of economic decision-making. This includes the exchange of goods and services; role of producers, consumers, and government in the marketplace; and growth, stability, and interdependence within a global economy.

Content Standard E.3: Students will understand the exchange of goods and services. This includes different allocation methods and changes in supply and demand; the role of producers, consumers, and government in a market economy; and the degree of competition among buyers and among sellers in markets.

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

Content Standard E.5: Students will understand the growth, stability, and interdependence within a global economy. This includes ways in which trade leads to increased economic interdependence.

- **E.5.ECON.1:** Analyze the role of comparative advantage in trade and global markets using available data and a variety of sources.

Session 16:

Factors for **Financial Success** and **Earning Income**

Session Description

Students participate in activities that demonstrate how improving their human capital will put them on a path to financial success.

Standards and Benchmarks (see page 16.5)

Talking Points

Factors for Financial Success

1. Financial success depends on learning to manage your personal financial life and on learning to make informed decisions.

2. Financial success also depends on factors such as being willing to work hard, acquiring useful skills, having a good attitude, being motivated, and luck.

Earning Income

1. Human capital refers to the set of skills, education, and attitudes a person possesses.

2. Human capital can be increased by getting more education and training, practicing a skill or task, developing a strong work attitude/ethic, and by staying healthy.

3. Higher levels of human capital are associated with higher levels of productivity, which in turn are associated with a greater demand for a person's services.

4. As a person acquires more human capital, there are fewer other people who possess a similar set of skills, which means there is a lower supply of people able to do what that person does.

5. Greater demand coupled with lower supply leads to higher wages for people with higher levels of human capital.

6. In particular, higher levels of education are associated with both higher incomes and lower rates of unemployment.

7. Net income (or disposable income) is gross income minus taxes and other deductions.

8. Instead of working for someone else (for wages or salaries), one can also work for him or herself (for profit) as a business owner or entrepreneur.

9. Entrepreneurs are people who tend to have certain personal characteristics, including self-reliance, self-motivation, a desire to achieve, and a willingness to take risks, work hard, and lead others.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- *It's Your Paycheck!* (These lessons are also available in PDF and PPT formats.)
    - Lesson 1: Invest in Yourself (20:00)
      https://www.econlowdown.org/resource-gallery/its_your_paycheck_1
    - Lesson 2: "W" Is for Wages, W4 and W2 (20:00)
      https://www.econlowdown.org/resource-gallery/its_your_paycheck_2
- Education vs. Unemployment (15:00)
  https://www.econlowdown.org/resource-gallery/education_vs_unemployment

Video Q&A

Allow time for students to view the video and answer the questions:

- No-Frills Money Skills Video Series—Soft Skills (15:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-8-soft-skills

Reading Q&A

Allow time for students to read the essays and answer the questions:

- Ben Franklin: Highlighting the Printer
  https://www.econlowdown.org/resource-gallery/ben-franklin-highlighting-the-printer
- *Page One Economics®*—Education, Income, and Wealth
  https://www.econlowdown.org/resource-gallery/education-income-and-wealth
- *Page One Economics®*—Soft Skills: Success May Depend on Them
  https://www.econlowdown.org/resource-gallery/soft-skills-success-may-depend-on-them
- *Page One Economics®*—College: Learning the Skills to Pay the Bills?
  https://www.econlowdown.org/resource-gallery/college-learning-the-skills-to-pay-the-bills

Lessons

Allow time for students to complete the lessons:

- *It's Your Paycheck!* (These lessons are also available as online modules.)
    - Lesson 1: Invest in Yourself
      https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit

- Lesson 2: "W" Is for Wages, W4 and W2
  https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit

- *Making Personal Finance Decisions*
  - Unit 1: Thinking Economically—Lesson 1B: Making Choices and Identifying Costs
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/making-choices
  - Unit 3: Earning Income—Lesson 3A: Investing in Yourself
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/investing-in-yourself
  - Unit 3: Earning Income—Lesson 3B: Entrepreneurship—Working for Yourself
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/entrepreneurship

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and marginal benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity cost in decision-making (e.g., PACED decision-making model, cost/benefit analysis, employment choices, the four factors of production).

Personal Finance Alignment

- **PF.7.SI.4:** Analyze the relationship between risk and return.

Content Standard E.6: Students will understand the factors affecting income, wealth, and financial risk. This includes the role of credit in personal finance.

- **E.6.ECON.PF.1:** Analyze the impact of education, training, job seeking skills, and workforce readiness skills (i.e., soft skills) on productivity, earning potential, and employment:
    - Job-seeking skills: network, interview skills, resumé writing
    - Workforce readiness skills: positive attitude, problem-solving, communication, time management, leadership, active listening, teamwork, meeting basic employer expectations and requirements

Personal Finance Alignment

- **PF.1.EI.5:** Summarize skills needed to be successful in the workplace:
    - Communication
    - Time management
    - Basic employer expectations

Session 17:

Setting and **Achieving Financial Goals** and **Spending**

Session Description

Students will learn about setting both short term and long- term financial goals and the value of developing a budget.

Standards and Benchmarks (see page 17.4)

Talking Points

Setting and Achieving Financial Goals

1. A financial goal is a monetary target to be met by a specific time in order to purchase a good or service (car, down payment on a house, college education, start-up funds for a business, retirement, and so on).

2. Financial goals are met with a systematic financial plan for saving (deciding how much to save each pay period) and investing (deciding what financial assets to purchase with income saved).

3. A financial plan largely depends on
   - the amount of the goal,
   - how long a person has until the goal must be met,
   - how much can be saved each pay period, and
   - the rate of return earned on investment assets.

4. A person's net worth, or wealth, is the market value of the assets he or she owns minus the market value of the debt, or liabilities, he or she owes.

5. A person's cash flow is the amount of income he or she earns minus the amount of expenses he or she incurs over a given period of time.

6. A person's net worth tends to rise when his or her cash flow is positive—that is, when income is greater than expenses each pay period.

7. A person's net worth tends to fall when his or her cash flow is negative—that is, when income is less than expenses each pay period.

8. A budget is a cash-flow plan that decides how a person's income is to be spent each period (all income each pay period is essentially spent on goods and services, taxes, and savings to purchase goods and services in the future).

9. There are three categories of spending in a typical monthly budget:
    - regular spending (goods and services typically purchased every month),
    - irregular spending (financed by short-term saving for goods and services purchased on a non-monthly basis during the year), and
    - future spending (financed by long-term saving, or investment, for purchasing goods and services more than a year away).

10. Making a budget involves trade-offs—allocating more spending to one item and less to other items—so one must consider the satisfaction per dollar spent on each item (see Session 1).

Spending

1. The fundamental consumer problem is a scarcity of resources from which they are able to earn income. This means that people don't have enough income to buy all the goods and services they would like to have. Thus, they must decide how to spend (or allocate) their income in order to best satisfy their unlimited wants.

2. Two general assumptions are made about people's preferences (or the satisfaction they get from consuming goods and services):
    - More is preferred.
    - Each additional unit of a particular good tends to add less satisfaction than the unit before it.
3. People maximize their satisfaction by purchasing those goods or services that give them the most satisfaction per dollar spent. So, their preferences and the prices of goods and services both matter in making spending decisions.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- *It's Your Paycheck!* (These lessons are also available in PDF and PPT formats.)
  - Lesson 3: Cash the Check and Track the Dough (40:00)
    https://www.econlowdown.org/resource-gallery/its_your_paycheck_3
  - Lesson 4: Your Budget Plan (20:00)
    https://www.econlowdown.org/resource-gallery/its_your_paycheck_4
- Budgeting 101 (30:00)
  https://www.econlowdown.org/resource-gallery/budgeting_101

Lessons

Allow time for students to complete the lessons:

- *It's Your Paycheck!* (These lessons are also available as online modules.)
  - Lesson 3: Cash the Check and Track the Dough
    https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit
  - Lesson 4: Your Budget Plan
    https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit
- *Making Personal Finance Decisions*
  - Unit 2: Planning and Tracking—Lesson 2A: The inventory Game—Net Worth and Cash Flow
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/inventory-game
  - Unit 5: Budgeting—Lesson 5A: Making a Budget—It Is All Spending!
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/making-a-budget
  - Unit 5: Budgeting—Lesson 5B: Budget Trade-Offs—A Penny Here and a Penny There
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/budget-trade-offs

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.6: Students will understand the factors affecting income, wealth, and financial risk. This includes the role of credit in personal finance.

- **E.6.ECON.PF.4:** Analyze income and expenses to create a household budget including food, shelter, transportation, utilities, insurance, savings, charitable giving, and other expenses.

Personal Finance Alignment

- **PF.5.MM.4:** Analyze expenses to create a household budget including, but not limited to, housing, utilities, food, saving, insurance, taxes (e.g., taxes on earnings such as income tax, taxes on what people buy such as groceries (i.e., sales tax), and items people own such as a house or car (i.e., property tax), spending, and charitable giving.
- **PF.5.MM.5:** Examine the influences on financial planning decisions (e.g., long-term, needs vs. wants, priorities, values, stages of life, estate planning).

Session 18:

Saving and **Investing**

Session Description

Students will investigate different forms of credit, compare credit card offers, and determine the costs and benefits of credit.

Standards and Benchmarks (see page 18.5)

Talking Points

Saving

1. Saving is allocating part of one's current income toward the purchase of goods and services in the future (i.e., it is spending on future goods and services).

2. Saving is hard to do because it goes against people's natural time preference to enjoy benefits now and pay costs later.

3. Saving is good to do because there is a monetary reward: interest (a payment typically based on a percentage of the amount saved).

4. The simple interest formula shows how much interest (I) an initial amount of savings (the principal, P) will earn at a fixed interest rate (r) over a specific amount of time (t, usually years): I = prt.

5. The compound interest formula shows how much an initial amount of savings (P) will be worth (A) at the end of some number of years (t) if the annual interest rate is r and n is the number of times interest is compounded during the year: $A = P(1 + \frac{r}{n})^{nt}$.

6. Based on compounding, one can determine the number of years it would take an initial amount of savings to double. This doubling can be approximated by the Rule of 72: Time to double = 72/r, where r is the interest rate expressed as a whole number.

7. Because of compounding, the earlier a person starts to save, the greater the impact on the amount saved.

Investing

1. The rate of return on an investment, or asset, over a year is the return (any income generated plus any change in the market value of the asset over the year) divided by the market value of the asset at the beginning of the year.

2. The rate of return on an asset can vary from period to period.

3. The expected rate of return is an average of the actual rates of return over several periods and is typically expressed as an annual rate of return.

4. The greater the variability of the actual rate of return from the expected rate of return, the greater the risk associated with the asset.

5. Because people tend to be risk averse (i.e., they wish to avoid risk), they usually must be paid a higher expected rate of return on riskier assets.

6. Risk can be reduced by
   - choosing assets with lower variability,
   - time, and/or
   - diversification (holding several different types of assets).

7. The PACED decision-making model can be applied to the investment decision:
   - **P**roblem: The need to choose investments for a portfolio.
   - **A**lternatives: Identify investment alternatives (choices), e.g., stocks, bonds, mutual funds, savings accounts, and real estate.
   - **C**riteria: Determine which factors to use to evaluate alternatives, e.g., risk, rate of return, liquidity, costs, and diversification.
   - **E**valuation: Evaluate the alternatives based on the criteria. Evaluation will vary depending on a person's age, risk preferences, time horizon, and so on.
   - **D**ecision: Choose the highest-ranked alternative given the criteria.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Saving

Online Modules

Allow time for students to complete the modules:

- *Cards, Cars, and Currency*
  - Lesson 5: A Penny Saved (30:00)
    https://www.econlowdown.org/resource-gallery/cards_cars_currency_5

- *It's Your Paycheck!*
  - Lesson 5: Savvy Savers (30:00)
    https://www.econlowdown.org/resource-gallery/its_your_paycheck_5

- Soar to Savings (90:00)
  https://www.econlowdown.org/resource-gallery/soar_to_savings

Video Q&A

Allow time for students to view the videos and answer the questions:

- No-Frills Money Skills Video Series—Growing Money (15:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-1-growing-money

- No-Frills Money Skills Video Series—Ways to Save (20:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-2-ways-to-save

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics®*—Banking Basics
  https://www.econlowdown.org/resource-gallery/focus-on-finance-banking-basics

- *Page One Economics®*—Stock Market Strategies: Are You an Active or Passive Investor?
  https://www.econlowdown.org/resource-gallery/stock-market-strategies-are-you-an-active-or-passive-investor

Lessons

Allow time for students to complete the lessons:

- *Making Personal Finance Decisions*
  - Unit 1: Thinking Economically—Lesson 1B: Making Choices and Identifying Costs
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/making-choices

 - Unit 6: Saving—Lesson 6B: Simple and Compound Interest—Why It Is Great to Save
   https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/simple-and-compound-interest

Investing

Video Q&A

Allow time for students to view the videos and answer the questions:

- No-Frills Money Skills Video Series—Get into Stocks (15:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-3-get-into-stocks

- No-Frills Money Skills Video Series—Understanding Bonds (20:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-4-understanding-bonds

- No-Frills Money Skills Video Series—Mutual Benefit (20:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-5-mutual-benefit

- Thinking Money: Loss Aversion (5:00)
  https://www.econlowdown.org/resource-gallery/thinking-money-loss-aversion

- Tools for Enhancing The Stock Market Game™: Invest it Forward™ Wealth Creation for All (15:00)
  https://www.econlowdown.org/resource-gallery/wealth-creation-for-all

- Tools for Enhancing The Stock Market Game™: Invest it Forward™ Understanding Capital Markets (10:00)
  https://www.econlowdown.org/resource-gallery/understanding-capital-markets-high- school-and-college

Lessons

Allow time for students to complete the lessons:

- Diversification and Risk (includes PPT)
  https://www.stlouisfed.org/education/diversification-and-risk

- *Making Personal Finance Decisions*
  - Unit 8: Investing—Lesson 8A: Managing Risk—Time and Diversification
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/managing-risk

  - Unit 8: Investing—Lesson 8B: Evaluating Investment Options
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/evaluating-investment-options

Standards and Benchmarks

Arkansas Economics with Personal Finance Standards

Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity cost in decision-making* (e.g., PACED decision-making model, cost/benefit analysis, employment choices, the four factors of production).

Personal Finance Alignment

- **PF.7.SI.4:** Analyze the relationship between risk and return.

Content Standard E.4: Students will understand the growth, stability, and interdependence within a national economy. This includes the current and future state of the economy using economic indicators and monetary and fiscal policies for a variety of economic conditions.

- **E.4.ECON.4:** Compare and contrast the roles and functions of financial institutions in the United States including banking practices and regulation of savings and investments.

Personal Finance Alignment

- **PF.5.MM.1:** Compare types of banking institutions including products and services available.
- **PF.5.MM.2:** Explore the process of opening and managing different types of accounts (e.g., checking, savings).
- **PF.7.SI.8:** Understand the regulation of savings and investments.

Content Standard E.6: Students will understand the factors affecting income, wealth, and financial risk. This includes the role of credit in personal finance.

- **E.6.ECON.PF.2:** Critique components of personal money management* in order to build short-term and long-term wealth:
    - Saving (e.g., stick to a budget, automate savings, cut out unnecessary spending) and investing (e.g., growth, shares, property)
    - Planning for retirement

Personal Finance Alignment

- **PF.7.SI.5:** Compare the characteristics of saving tools (e.g., liquidity, interest rates, term length) to determine how to best meet a financial goal
- **PF.7.SI.7:** Research different types of investments and consider the importance of diversification
    - Annuities
    - Bonds
    - Money Market Funds

   - Mutual Funds
   - Real Estate
   - Stocks
- **PF.5.MM.3:** Analyze the advantages and disadvantages of various retirement plans (e.g., pension, 401K, IRA, social security)
- **PF.7.SI.1:** Compare the effects of interest rates as applied to saving and borrowing money
- **PF.7.SI.4:** Analyze the relationship between risk and return

Session 19:

Insuring

Session Description

After learning how insurance works, students will understand the costs and benefits of choices when making decisions.

Standards and Benchmarks (see page 19.3)

Talking Points

1. Insurance is a product that allows people to pay a fee (called a premium) now to transfer the costs of potential loss to a third party. A premium is the amount a person pays to an insurance company for protection. Typically, the price of insurance increases as the amount of protection increases.

2. Insurance can be purchased for almost any kind of potential loss, but the most common types of insurance are home, automobile, medical, dental, disability, life, and renters.

3. Insurance companies pool premiums from many people to cover the losses of a few (and much like banks, they take the pooled premiums and make investments).

4. Insurance companies set premiums to cover the expected losses plus a rate of return for the company.

5. Choosing the right amount of insurance is a matter of weighing the benefits of additional protection, or coverage (lower losses in the case of a covered event), against the costs (the premium, any uncovered losses, and other opportunity costs).

6. Most people pay more for insurance than what it will save them in terms of losses, while some people pay less for insurance than what it will cost them in terms of losses. Unfortunately, when deciding how much insurance to buy, people don't know in which groups they will end up.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Video Q&A

Allow time for students to view the videos and answer the questions:

- No-Frills Money Skills Video Series—Understanding Car Insurance: Premiums and How Coverage Works, Segment 1 (10:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-7-segment-1-understanding-car-insurance-premiums-and-how-coverage-works

- No-Frills Money Skills Video Series—Understanding Car Insurance: Losses, Deductibles and Types of Coverage, Segment 2 (10:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-7-segment-2-understanding-car-insurance-losses-deductibles-and-types-of-coverage

- No-Frills Money Skills Video Series—Understanding Car Insurance: Applying for Coverage, Segment 3 (5:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-7-segment-3-understanding-car-insurance-applying-for-coverage

- No-Frills Money Skills Video Series—Insurance: Protecting Yourself from Damage (10:00)
  https://www.econlowdown.org/resource-gallery/no-frills-money-skills-episode-6-insurance-protecting-yourself-from-damage

- Personal Finance 101 Conversations—Insurance: Coverage and Cost Basics, Segment 1 (10:00)
  https://www.econlowdown.org/resource-gallery/insurance-segment-1-coverage-and-cost-basics

- Personal Finance 101 Conversations—Insurance: Types of Coverage, Optional Add-ons, and Possible Discounts, Segment 2 (10:00)
  https://www.econlowdown.org/resource-gallery/insurance-segment-2-types-of-coverage-optional-add-ons-and-possible-discounts

Lessons

Allow time for students to complete the lesson:

- *Making Personal Finance Decisions*
  - Unit 10: Protecting—Lesson 10B: Is Insurance Worth Buying?
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/insurance

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.2: Students will understand the impact of economic decision-making. This includes considering the marginal costs and benefits of alternatives.

- **E.2.ECON.2:** Evaluate the roles of scarcity, incentives, trade-offs, and opportunity cost in decision-making (e.g., PACED decision-making model, cost/benefit analysis, employment choices, the four factors of production).

Personal Finance Alignment

- **PF.7.SI.4:** Analyze the relationship between risk and return.

Content Standard E.6: Students will understand the factors affecting income, wealth, and financial risk. This includes the role of credit in personal finance.

- **E.6.ECON.PF.3:** Analyze insurance as a risk-management strategy to protect against unforeseen financial loss (e.g., auto, health, life, homeowners, renters, disability, liability).

Personal Finance Alignment

- **PF.6.I.2:** Investigate the relationship between insurance premiums and deductibles.
- **PF.6.I.3:** Evaluate auto insurance options and factors affecting the cost of coverage including split limit.
- **PF.6.I.4:** Assess health-related insurance options and types of coverage (e.g., health, dental, vision, stroke/heart disease, cancer, accident, short-term/long-term disability, long-term care)
- **PF.6.I.5:** Analyze various types of life insurance (e.g., term, whole)
- **PF.6.I.6:** Investigate property insurance and potential riders including, but not limited to, homeowner's, renter's, and mortgage.
- **PF.6.I.1:** Analyze the need for insurance in managing risk and how risk affects cost.

Session 20:

Borrowing

Session Description

Students will investigate different forms of credit, compare credit card offers, and determine the costs and benefits of credit.

Standards and Benchmarks (see page 20.5)

Talking Points

1. People receive credit when they obtain the use of someone else's money to purchase goods or services.

2. People who obtain credit are given a loan of money in exchange for their promise to repay the money later plus additional money called interest.

3. Common types of credit include mortgage loans, car loans, student loans, personal loans, and credit cards.

4. Interest is the price borrowers pay for using someone else's money and the price lenders receive for letting someone else use their money.

5. Using credit has both benefits and costs.

6. Benefits of credit include the following:
   - acquiring assets to increase your net worth over time,
   - the ability to finance emergency purchases,
   - payment convenience (purchasing goods and services now as opposed to later),
   - a lower cost than using your own invested funds, and
   - the ability to take advantage of a lower price for some good or service (to get a good deal).

7. Costs of credit include the following:
   - creating a liability that lowers your net worth,
   - paying interest and fees,
   - purchasing fewer goods and services in the future,
   - less available credit for emergencies, and
   - increased exposure to identity theft.

8. Credit providers consider the three C's in deciding to whom they will extend credit:
   - Capacity—The ability of the creditor to repay the loan.
   - Character—How honest and reliable the creditor is in paying debts.
   - Collateral—Assets the creditor has that could be sold later to pay off the loan.

9. People's credit scores are a measure of their character because credit scores are based largely on their payment history. For example, whether they
   - pay bills on time,
   - pay bills in full,
   - stay below their credit limits, or
   - have declared bankruptcy.

10. When considering whether credit or a loan is desirable, it is important for people to consider the likely impact the choice will have on their personal net worth over time.

Resources

NOTE: See p. v for instructions on how to set up an Econ Lowdown account and assign resources found in the Resource Gallery to your students.

Online Modules

Allow time for students to complete the modules:

- Credit Cred (90:00)
  https://www.econlowdown.org/resource-gallery/credit_cred
- *Cards, Cars, and Currency* (These lessons are also available in PDF and PPT formats.)
  - Lesson 2: The Credit Card Deal (30:00)
    https://www.econlowdown.org/resource-gallery/cards_cars_currency_2
  - Lesson 4: The Car Deal Package (45:00)
    https://www.econlowdown.org/resource-gallery/cards_cars_currency_4
- Paying & Receiving Interest (30:00)
  https://www.econlowdown.org/resource-gallery/interest
- *It's Your Paycheck!* (These lessons are also available in PDF and PPT formats.)
  - Lesson 6: Credit Reports (20:00)
    https://www.econlowdown.org/resource-gallery/its_your_paycheck_6
  - Lesson 7: Creditors' Criteria and Borrowers' Rights and Responsibilities (30:00)
    https://www.econlowdown.org/resource-gallery/its_your_paycheck_7
  - Lesson 8: So How Much Are You Really Paying for that Loan? (20:00)
    https://www.econlowdown.org/resource-gallery/its_your_paycheck_8

Video Q&A

Allow time for students to view the videos and answer the questions:

- Continuing Feducation Video Series—The Amazing $2000 Pizza (10:00)
  https://www.econlowdown.org/resource-gallery/continuing-feducation-the-amazing-2000-pizza
- Continuing Feducation Video Series—Understanding How a FICO Credit Score is Determined (15:00)
  https://www.econlowdown.org/resource-gallery/continuing-feducation-understanding-how-a-fico-credit-score-is-determined

Reading Q&A

Allow time for students to read the essays and answer the questions:

- *Page One Economics*®—Bankruptcy: When All Else Fails
  https://www.econlowdown.org/resource-gallery/bankruptcy-when-all-else-fails

- *Page One Economics*®—Credit Bureaus: The Record Keepers
  https://www.econlowdown.org/resource-gallery/credit-bureaus-the-record-keepers

- *Page One Economics*®—On the Move: Mortgage Basics
  https://www.econlowdown.org/resource-gallery/on-the-move-mortgage-basics-high-school

- *Page One Economics*®—Fast Cash and Payday Loans
  https://www.econlowdown.org/resource-gallery/fast-cash-and-payday-loans

Lessons

Allow time for students to complete the lessons:

- *It's Your Paycheck!* (These lessons are also available as online modules.)
  - Lesson 6: Credit History, Credit Reports, and Credit Scores
    https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit
  - Lesson 7: Creditors' Criteria and Borrowers' Rights and Responsibilities
    https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit
  - Lesson 8: How Much Are You Really Paying for that Loan?
    https://www.stlouisfed.org/education/its-your-paycheck-curriculum-unit

- *Cards, Cars, and Currency* (These lessons are also available as online modules.)
  - Lesson 2: The Credit Card Deal
    https://www.stlouisfed.org/education/cards-cars-and-currency-curriculum-unit
  - Lesson 4: The Car Deal Package
    https://www.stlouisfed.org/education/cards-cars-and-currency-curriculum-unit

- *Making Personal Finance Decisions*
  - Unit 9: Borrowing—Lesson 9A: The Three C's of Credit
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/three-cs-of-credit
  - Unit 9: Borrowing—Lesson 9B: Evaluating the Benefits and Costs of Credit
    https://www.stlouisfed.org/education/making-personal-finance-decisions-curriculum-unit/benefits-costs-credit

Standards and Benchmarks

Arkansas Economic Standards

Content Standard E.6: Students will understand the factors affecting income, wealth, and financial risk. This includes the role of credit in personal finance.

- **E.6.ECON.PF.6:** Evaluate costs and benefits (e.g., interest rates, fees, penalties, rewards) of using various types of credit:
  - Student loans
  - Credit cards
  - Personal loans (e.g., auto, home mortgage)

Personal Finance Alignment

- **PF.4. C.4:** Analyze factors that determine/influence mortgage costs (e.g., interest rate, term length, credit rating)
- **PF.7.SI.2:** Examine how consumers are affected by raising and lowering interest rates
- **PF.7.SI.3:** Calculate simple and compound interest and explain the difference between the two
- **PF.4. C.7:** Understand the different components of loans by:
  - Differentiating between the types of loans (e.g., payday, auto, home, personal, student)
  - Examining the lending process from application to approval
  - Calculating true costs associated with loans (e.g., term length, interest rate)
  - Understanding the factors that contribute to different interest rates
  - Evaluating the implications of obtaining and/or defaulting on a loan
- **E.6.ECON.PF.7:** Analyze factors that affect creditworthiness (e.g., credit score, three Cs of credit).

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- **PF.4. C.4:** Analyze factors that determining/influence mortgage costs (e.g., interest rate, term length, credit rating)
- **PF.4. C.5:** Understand different components of credit by:
  - Comparing and contrasting sources of credit (e.g., car loans, student loans, credit cards)
  - Discussing the establishment and use of credit
  - Identifying the factors that contribute to a credit score
  - Calculating the actual costs associated with credit
  - Discussing methods of solving credit problems
  - Evaluating the risks associated with overextending credit

- **E.6.ECON.PF.8:** Evaluate strategies to avoid and correct credit issues:
    - Identity protection
    - Bankruptcy*
    - Debt and credit management

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- **PF.4. C.1:** Identify types of fraud and credit abuse and develop strategies to protect oneself from identity fraud and theft
- **PF.4. C.6:** Understand the different components of bankruptcy by:
    - Identifying and evaluating types of bankruptcy
    - Examining the impact of declaring bankruptcy and how it may affect future financial opportunities
- **E.6.ECON.PF.9:** Discuss consumer protection laws (e.g., Credit Card Accountability Responsibility and Disclosure Act of 2009, Truth in Lending Act, Fair Debt Collection Practices Act, Fair Credit Reporting Act).

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- **PF.4. C.2:** Discuss common crimes against consumers and examine federal consumer protection laws.