

## Overview

This lesson introduces students to the link between economics and public policy. It can be used by students who have already been introduced to CAP in a U.S. government course, or it can be used by students in a high-school economics course to supplement what they are learning by doing a civic action project.

First, students discuss decisions in terms of trade-offs and opportunity costs. Next, students read and discuss a short article on doing cost-benefit analyses, using the minimum wage as a case study. Then in small groups, students conduct their own cost-benefit analysis of a policy proposal that addresses a local issue.

**Economic Concepts:** trade-off, opportunity cost, cost-benefit analysis, price floor, price ceiling

## Objectives

Students will be able to:

- Define the following economic concepts: trade-off, opportunity cost, cost-benefit analysis, price floor, and price ceiling.
- Explain how public policy can affect the economy.
- Analyze a hypothetical public policy in terms of its costs and benefits.

## Common Core State Standards Addressed

CCSS.ELA-Literacy.RH.11-12.2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

CCSS.ELA-Literacy.RH.11-12.4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in *Federalist* No. 10).

## California State Standards Addressed

### Principles of Economics

12e.2.1. Understand the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.

12e.2.8. Explain the role of profit as the incentive to entrepreneurs in a market economy.

12e.3.2. Identify the factors that may cause the costs of government actions to outweigh the benefits.

## Texas Essential Knowledge and Skills (TEKS)

118.4.b.1. ...Students apply critical-thinking skills using economic concepts to evaluate the costs and benefits of economic issues.

118.4.c.9.B. The student understands types of market structures. The student is expected to identify and evaluate ordinances and regulations that apply to the establishment and operation of various types of businesses.

118.4.c.19. The student applies critical-thinking skills to analyze the costs and benefits of personal financial decisions.

## Materials & Preparation

- **Handout A: Public Policy and Economics** — 1 per student
- **Handout B: Cost-Benefit Analysis Chart** — 1 per student
- **Handout C1: Establishing a No-Kill Policy for Stray Animals** — Enough for about one-fourth of the students
- **Handout C2: Removing Styrofoam From Cafeteria Lunches** — Enough for about one-fourth of the students
- **Handout C3: Installing a Stop Sign at a Busy Intersection** — Enough for about one-fourth of the students
- **Handout C4: Taxing Cigarettes** — Enough for about one-fourth of the students

## Procedure

### I. Focus Discussion — Trade-Offs and Opportunity Costs in Economics

Ask students: Who has made a decision recently? Which shoes to wear? What elective to take? What to do on Saturday night? What time to go to bed?

Call on a few students to *briefly* tell about their decisions.

Explain that economics is all about real-world decisions. Tell students:

We can't have it all. And because of that, we have economics. We have limited time, limited money, and limited resources. We can't have it all or do it all. We must choose. When we decide to do one thing, we forgo doing other things. In short, we live in a world of scarcity. Economics is the science of how to allocate scarce time, money, and resources.

Call on one student to discuss his or her decision further. Ask: Before you made your decision, what were your options?

Point out that when you choose one thing, you are giving up your other options. Explain that economists call this a **trade-off** — giving up something to get something else you prefer.

Ask the student: If you had not chosen the option you did, what was your second choice?

Explain that economists call the second choice your **opportunity cost**: the most desirable alternative you give up. Point out that you could have done that instead of what you chose, and that was your opportunity cost.

Repeat this process with another student who volunteered a decision, but this time call on students to identify the student's trade-offs and opportunity cost.

Conclude the discussion by explaining that when making a decision, we often look at the pluses and minuses, the pros and cons, of the decision. Tell students that economists call this a **cost-benefit analysis**, and they will be learning more about doing this.

## II. Reading and Discussion — Connecting Public Policy to Economics

*For prior CAP students:* Explain to students that they will be applying what they know about public policy to economic issues. Explain that students may work on a CAP issue that has an *economic impact* or that brings up economic concerns in addition to political, social, or environmental concerns. Most issues have some sort of economic impact. We can determine a policy's economic impact by looking at how the policy affects economic decisions of members of the community.

*For economics students new to CAP:* Explain two things to students: (1) They will be looking at public policy (the established way governments do things to address problems in society) and how those policies relate to economic issues. Public policy may include laws of a legislature, such as Congress, the state legislature, or city council. It may also include executive decisions of the president, state governor, or local mayor. It may also include decisions of courts that affect people in society. In other words, any decision of one of the three branches of government sets public policy. (2) Students will work on addressing a problem or issue affecting their community that has an *economic impact* or that brings up economic concerns in addition to political, social, or environmental concerns. They will be taking *civic actions* to address the problem or issue. Civic actions are all of the things average citizens do to address a problem or issue in their community.

Distribute **Handout A: Public Policy and Economics** to students. Ask them to read the handout and think about the discussion questions on the handout:

1. How does public policy affect the economy?
2. What is a price floor? What do you think a price ceiling might be? Give an example of each.
3. What is the purpose of the minimum-wage law described in the reading?
4. What are the costs of raising the minimum wage? What are the benefits? Can you think of other costs and benefits not mentioned here?
5. What are the first few civic actions citizens can take to address the issue?

When they finish reading, conduct a whole-class discussion using these questions. Check for understanding on each of the questions before dividing the class into small groups for the activity.

## III. Small-Group Activity — Case Studies on CAP and Economic Policy

Divide the class into small groups of 3–4 students each. Distribute **Handout B: Cost-Benefit Analysis** to each student.

**Handouts C1 through C4** each describe a different case study of a problem or issue that needs to be addressed through public policy. Distribute one of the four handouts to each group so that at least one group is using each handout. Ask them to read the group instructions on the handout and answer any questions they may have.

Give students time to complete the activity. When they finish, call on a group working on **Handout C1**. Ask students the following:

- What was the issue?
- What was the proposed policy?
- What is the policy's purpose?
- What did you consider the two most important costs of the policy? Its two most important benefits?

If another group had the same handout, ask the members of that group what they considered the most important costs and benefits.

Repeat this process for the remaining handouts.

## **IV. Debriefing**

Conduct a whole-class debrief of the lesson by asking students to think about and answer the following questions:

1. How can a cost-benefit analysis help policymakers decide what is best for a community? Think of examples from the class discussion and handouts.
2. Does cost-benefit analysis help policymakers decide what is fair to all members of a community? Why or why not?
3. How do policymakers use incentives in their policies to affect the behavior of citizens and businesses? Do you think this is the proper role for government? Why or why not?

Conclude the lesson by reminding students they dealt with three economic concepts in this lesson. Call on students to explain each of these concepts:

- Trade-off
- Opportunity Cost
- Cost-Benefit Analysis
- Price Floor
- Price Ceiling

## Public Policy and Economics

Whenever government makes a policy decision, that decision affects people. It changes things. This is true if it is a law voted on by legislators, such as U.S. senators, state representatives, or city council members. It is also true if it is an executive decision by the president or a state governor, or even by your city's mayor. Even a judge's decision in court can change how society works.

The impact can be social, such as a curfew law that may alter your plans about what activities you can do and when at night you can do them. The impact can also be environmental, such as an anti-littering law that can make you think twice before risking a fine for throwing a gum-wrapper on the sidewalk.

The impact can also be economic. For example, the fine you might have to pay for littering gives you an incentive not to litter. (An incentive is something that motivates changes in behavior.) That is the point of the fine, to make you not litter.

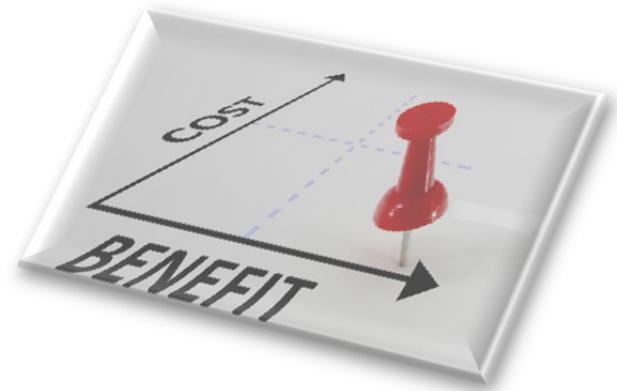
Laws and policies have an economic impact, which means they affect economic decisions you and others make. They also have an impact on how the government decides to spend taxpayers' money.

### Cost-Benefit Analysis

If we look a little closer at the economic impact, we can see how policymakers take it into account when they are deciding public policy. Let's take the curfew law as an example. Forbidding young people from staying out in public past a certain time may limit what after-school jobs you can consider. It may also lead to lower revenue, or money from sales, for local restaurants, movie theaters, and shops where you like to go. It may also require additional police on the streets for a while, at least, to enforce the law. These are some of the *costs* of the new policy.

On the other hand, it may also lead to benefits to you and to society. Often, curfews are passed because of either a rise in youth crime or a rise in dangers to youth because of crime, such as gang activities or sales of illegal drugs. With a curfew, crime may go down, adult customers may then feel safer, local businesses may attract more business, and youth may be better protected. A reduction of crime would benefit society as a whole. You, too, may have an *incentive* to stay home and get to bed earlier, which will lead to more productive days at school and better health. These are some of the *benefits* of the new policy.

Cost-benefit analysis can be summarized this way: Policymakers in government weigh the costs against the benefits of a policy. If the costs outweigh the benefits, then the policy is probably not worth making. If, however, the benefits outweigh the costs, then the policy is probably a



good idea and can probably get support from people in the community. The costs, of course, will have to be paid for. Taxpayers generally have to pay for government services, like police or road repair.

Is it worth it? That is the question you must ask whenever you do a cost-benefit analysis of a public policy. Policymakers do a cost-benefit analysis in almost all of their decisions.

### Case Study: Minimum Wage

A hotly debated issue in the United States is the minimum wage, the lowest amount that an employer may legally pay an employee for one hour of that employee's labor. Economists call the minimum wage a **price floor**, a minimum price set for a good or service. The federal government has set a minimum wage over the years under a law called the Fair Labor Standards Act. State governments may set a higher minimum wage than the federal government.



The federal minimum wage was 75 cents per hour in 1949, \$2 per hour in 1974, \$5.15 per hour in 1997, and \$7.25 per hour in 2009. You can see it increased over the years, largely due to inflation, or the decreased value of the U.S. dollar.

**What are the costs of the minimum wage?** Opponents of the minimum wage argue that the increased cost of employing people leads to a decrease in the demand for workers. In other words, fewer people get hired. Private businesses are employers and must pay workers the minimum or else risk investigation and even prosecution by a government agency responsible for enforcing the law. Of course, government itself is an employer and must pay the minimum wage to its own employees, too.

**What are the benefits of the minimum wage?** Supporters of the minimum wage argue that more workers will have more money to spend on goods and services, which puts more money into the economy. The increased demand for goods and services gives businesses and government an incentive to employ more people, not fewer people. Supporters also argue that the minimum wage has the benefit of fairness, so that workers can afford to live decently with adequate food, clothing, and shelter.

### Discussion

1. How does public policy affect the economy?
2. What is a price floor? What do you think a price ceiling might be? Give an example of each.
3. What is the purpose of the minimum-wage law described in the reading?
4. What are the costs of raising the minimum wage? What are the benefits? Can you think of other costs and benefits not mentioned here?
5. What are the first few civic actions citizens can take to address the issue?

# Cost-Benefit Analysis Chart

## Policy Proposal:

(in your own words)

Costs	Benefits

## Establishing a No-Kill Policy for Stray Animals

**Issue:** Animal shelters in the City of Centerville often reach their capacity and euthanize stray dogs and cats that no one has adopted. Thousands of animals are euthanized every year, and no city ordinance, or city law, exists to stop or limit the practice. Current policy is that if enough shelter space does not exist for stray animals, paid shelter staff may euthanize them.

**Policy Proposal:** The city council should adopt a “no-kill policy” for animal shelters within city limits. The purpose is to end the euthanasia of thousands of cats and dogs and increase the number of households adopting pets. This policy would mandate that animal shelters must:

1. Not euthanize any animal that is not terminally ill or a danger to humans.
2. Work with local animal-welfare nonprofit organizations and volunteers to ensure the health of all animals in shelters.
3. Expand their programs to offer low-cost pet adoptions across the city.

### Group Instructions

Read and discuss the issue and policy proposal. Then discuss and answer the following questions. For Question 4, reach a decision about the best civic actions your group should first take.

1. What is the purpose of the policy proposal described above?
2. In what ways does the policy proposal have an economic impact?
3. What are the costs of enacting the policy? What are the benefits? (Chart the costs and benefits on Handout B.)
4. What are the two most important costs? Two most important benefits? Why? (Put a check by each on your chart.)
5. What are the first few civic actions citizens can take to address the issue?

Be prepared to present your answers and reasons for them to the class.



## Removing Styrofoam From Cafeteria Meals

**Issue:** The school cafeteria at Centerville High School serves all meals using Styrofoam plates, bowls, and cups. Styrofoam is a petroleum-based product, and petroleum is a limited natural resource. Chemicals from Styrofoam leach, or soak out, into foods and beverages, especially when heated in a microwave. Also, Styrofoam is not biodegradable, which means it fills up landfills.



**Policy Proposal:** To reduce the school's use of materials that seem harmful to the environment, the school should end its current policy of using Styrofoam. Instead, the school should adopt a "Styrofoam-replacement policy." The school would replace all Styrofoam products in the cafeteria with a more environmentally friendly alternative, namely corn-based plates, bowls, and cups. The alternative is significantly more expensive than using Styrofoam.

### Group Instructions

Read and discuss the issue and policy proposal. Then discuss and answer the following questions. For Question 4, reach a decision about the best civic actions your group should first take.

1. What is the purpose of the policy proposal described above?
2. In what ways does the policy proposal have an economic impact?
3. What are the costs of enacting the policy? What are the benefits? (Chart the costs and benefits on Handout B.)
4. What are the two most important costs? Two most important benefits? Why? (Put a check by each on your chart.)
5. What are the first few civic actions citizens can take to address the issue?

Be prepared to present your answers and reasons for them to the class.

## Installing a Stop Sign at a Busy Intersection

**Issue:** Traffic is usually heavy at the intersection of High Road and Low Road in Centerville. The intersection lies just outside the city center in a residential area where many students and their families live. A stop sign faces Low Road, but it was damaged in a car accident two years ago and is bent toward the ground.



As a result, drivers unfamiliar with the area tend not to see the stop sign and frequently drive through unaware they are supposed to stop. Eight non-fatal auto collisions have occurred in the last two years.

Residents have complained to the City Office of Street Maintenance. The city office has replied that it has had a work order for the repair for at least a year, but severe budget cuts have slowed the process. The city simply cannot afford to hire more workers to take on all the repairs needed.

**Policy Proposal:** The current policy in the city is to have any repairs to damaged city-owned signs completed within 30 days of the filing of the work order. Citizens living near the High Road-Low Road intersection would like this policy to be enforced before someone gets killed.

### Group Instructions

Read and discuss the issue and policy proposal. Then discuss and answer the following questions. For Question 4, reach a decision about the best civic actions your group should first take.

1. What is the purpose of the policy proposal described above?
2. In what ways does the policy proposal have an economic impact?
3. What are the costs of enacting the policy? What are the benefits? (Chart the costs and benefits on Handout B.)
4. What are the two most important costs? Two most important benefits? Why? (Put a check by each on your chart.)
5. What are the first few civic actions citizens can take to address the issue?

Be prepared to present your answers and reasons for them to the class.

## Taxing Cigarettes

**Issue:** Three years ago, the Centerville City Council enacted an ordinance, or local law, to tax the sales of cigarettes within city limits. The amount of the tax is \$6 per pack of cigarettes. The purpose of the ordinance is to increase revenue for city-run health clinics and hospitals. The council expected that the tax would bring in \$3 million in revenue per year. In the first year, the tax brought in \$3.2 million. In the second year, however, it brought in \$2.8 million. In the third year, it brought in only \$2.5 million. The health clinics have had to shorten the hours they are open to save money. Also, a recent study has shown that arrests of persons selling counterfeit cigarettes or selling cigarettes without a business license have been on the rise since the enactment of the ordinance.

**Policy Proposal:** The current policy needs to be modified, or changed. The tax should be increased to \$6.50 per pack of cigarettes, and the funds from the increase should be set aside to pay for more police officers to handle the growing number of illegal cigarette sales. The amount to the health clinics would remain the same.

### Group Instructions

Read and discuss the issue and policy proposal. Then discuss and answer the following questions. For Question 4, reach a decision about the best civic actions your group should first take.

1. What is the purpose of the policy proposal described above?
2. In what ways does the policy proposal have an economic impact?
3. What are the costs of enacting the policy? What are the benefits?  
(Chart the costs and benefits on Handout B.)
4. What are the two most important costs? Two most important benefits? Why? (Put a check by each on your chart.)
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