Choices Beyond the Buyer

How taxes and subsidies address spillover costs and benefits

E.4.2 "Describe how the government taxes negative externalities (spillovers) and subsidizes positive externalities to resolve the inefficiencies they cause."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline a cost or benefit felt by someone outside a purchase, circle each tax or subsidy, and number the steps showing how each policy changes people's choices.

Two Decisions in Lakebend

1. On warm weekends, residents of Lakebend spread lawn fertilizer to keep their grass green. After heavy rain, some fertilizer washes into the lake, where extra nutrients can fuel algae growth. A homeowner pays for the fertilizer and enjoys the lawn, but other residents may face murky water and higher costs to treat drinking water. Those costs reach people who did not choose to fertilize. Because buyers do not pay the full cost of runoff, they may buy more fertilizer than is best for the community. Economists call this unpaid harm a negative externality.

2. Lakebend's council considers a tax on each bag of lawn fertilizer. The tax raises the price buyers face, so some may use less fertilizer or choose other ways to care for lawns. If fewer nutrients wash into the lake, residents outside the purchase benefit. The tax aims to make buyers consider part of the outside cost, not to punish everyone who likes green grass. A bag tax is imperfect: careful users pay it even if their fertilizer never reaches the lake. Still, a well-designed tax can bring fertilizer use closer to a level that reflects its broader costs.

3. Across town, a clinic offers flu shots. A person who gets vaccinated may avoid illness, but other people can also benefit when the vaccine reduces the spread of flu. That added protection is a positive externality, a benefit the person receiving the shot may not count when deciding whether to pay for it. Without help, fewer people may get vaccinated than would benefit the community. Lakebend could subsidize shots by paying part of their cost, lowering the price patients face. More people might choose vaccination, extending protection to others. Neither policy guarantees a perfect outcome, but each addresses a cost or benefit left out of a private decision.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why might Lakebend residents buy more lawn fertilizer than is best for the community?

2. How could a tax on fertilizer reduce the harm to people who do not buy it?

3. Why might a subsidy for flu shots benefit people who do not receive a shot?

4. How do the fertilizer tax and flu-shot subsidy each change a private decision to better reflect its effect on others?

3 YOUR TURN

Your own words

In four sentences, invent one activity with a negative spillover and a different activity with a positive spillover. For each, explain who bears a cost or receives a benefit beyond the buyer and seller, and how a tax or subsidy could change the activity.

ANSWER KEY

Choices Beyond the Buyer

HIGH SCHOOL · E.4.2

PART 1 · READ AND MARK

Underline a cost or benefit felt by someone outside a purchase, circle each tax or subsidy, and number the steps showing how each policy changes people's choices. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why might Lakebend residents buy more lawn fertilizer than is best for the community?	**Buyers do not pay the full cost of runoff, including possible harm to the lake and higher drinking-water treatment costs for others.**
2	How could a tax on fertilizer reduce the harm to people who do not buy it?	**The tax raises the price, which may lead buyers to use less fertilizer. Less runoff could reduce harm to other residents.**
3	Why might a subsidy for flu shots benefit people who do not receive a shot?	**A subsidy lowers the price patients face, so more may get vaccinated. Vaccination can reduce flu's spread and protect others.**
4	How do the fertilizer tax and flu-shot subsidy each change a private decision to better reflect its effect on others?	**The tax makes buyers face more of fertilizer's outside cost and may reduce its use. The subsidy lowers the price of shots to encourage an activity with benefits for others.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Disposable takeout containers can become litter, leaving city residents to pay for cleanup. A tax on the containers could encourage customers to choose reusable ones instead. Planting a shade tree can cool a sidewalk used by neighbors, not just the property owner. A subsidy for tree planting could encourage more owners to provide that shared benefit.

Accept other accurate spillovers and policies if students identify an affected third party and explain how a tax discourages a harmful activity or a subsidy encourages a beneficial one. Policies change incentives but need not eliminate the spillover.