Chapter 14 Project

Positive Externalities and Public Goods

Purpose

In this chapter, you have learned that the existence of positive externalities affects a firm's incentives regarding investments. Let's explore how these things relate to your everyday life.

The purpose of this exercise is to help you understand that market outcomes will be inefficient when positive externalities exist, unless an external force moves the market level of output closer to the socially desirable level.

Directions

This exercise has two parts. In the first, you will consider the economics surrounding the positive externality associated with education. In the second, you will engage in an activity that will illustrate an example of how an external force may help move the market level of output for education to the socially desirable level.

Part 1 - The Economics of Education as a Positive Externality

This chapter described public education as a good with both private and social returns. If there was not an externality present, students would only experience a private return, and the marginal benefits to the student would also fully capture marginal benefits to society. A positive externality, however, creates a gap between marginal benefits to the student and society, which leads to an inefficient level of output in the market for education.

1. Use the following steps to construct a supply and demand graph that illustrates the market inefficiency caused by a positive externality.
   - **a.** Starting with a blank graph, draw an upward-sloping supply curve and label it *MPC* (marginal private costs). Assume there are not any social externalities associated with the supply of education.
   - **b.** On the same graph, draw a downward-sloping demand curve and label it *MPB* (marginal private benefit) to represent the benefits that students experience from education.
   - **c.** Still on the same graph, construct another downward-sloping demand curve that represents *MSB* (marginal social benefit) for the positive externality case. *MSB* and *MPB* should not be equal, the marginal social benefit should be greater because both students and society experience benefits from consumption.
   - **d.** Plot the points where the marginal social benefit and marginal private benefit curves intersect with the marginal private costs curve. What do each of the intersections represent? What does the difference between the two points illustrate?
2. Using your supply and demand graph, write a paragraph that describes whether competitive markets overproduce or underproduce goods that create positive external benefits. Use the chapter to identify at least three ways in which an efficient outcome can be achieved in the market for education.

Part 2 - Achieving the Socially Desirable Level of Output

In Part 1, you identified at least three ways in which an external force, such as the government, can help move output to the socially desirable level in markets where externalities exist. In the case of education, economists believe that one reason why this inefficiency exists is that decision makers (students) have poor information or are uninformed about the benefits of education. Thus, one way to move market output to the socially desirable level is to find ways for students to receive that information.

1. As a decision maker in the market for education, first consider the benefits associated with your education. Importantly, focus on the benefits that would incentivize you to make education a priority in your life. Then, construct an 8.5 x 11 in. poster or flyer that educators could display in the hallways of a public high school to encourage students to stay enrolled in school and/or pursue a college degree. Your goal is to deliver information to students in an appealing way that moves the market closer to the socially optimally level in Part 1.

Checklist

Part 1

- ☐ Construct a graph that demonstrates a positive externality.
- ☐ Compare marginal social benefit and marginal private benefit.
- ☐ Understand market inefficiency.

Part 2

- ☐ Reflect on your own benefits from education.
- ☐ Construct a poster/flyer about the benefits of education.