

## Chapter 3 Project

### Demand and Supply

#### Purpose

This chapter taught you about demand, supply, market equilibrium, and social surplus.

**The purpose of this exercise is to help you relate demand, supply, and market equilibrium to your own life.**

#### Directions

This exercise has two parts. In the first, you will construct your demand curve for a good and consider your own choices and consumer surplus at different prices. In the second, you will consider how and why your demand for goods might change and how that would impact consumer surplus.

#### Part 1 - The Demand for Concert Tickets

Suppose that your favorite band or singer plays local shows once a week for the next year.

1. Consider the lowest ticket price that would make you decide not to go to *any* shows. For example, if the price is \$200, you would not attend a single show. This is the vertical intercept of your demand for concert tickets (0, *your maximum price*).

The (lowest) price that would make me unwilling to buy *any* concert tickets is \$\_\_\_\_\_.

2. Now, consider how many shows you would go to if tickets were free. The maximum number is 52 (the number of weeks in the year). If you chose that, your horizontal intercept would be (52, 0), but you would likely not choose to go every week.

The greatest number of shows that I would attend if they were free is \_\_\_\_\_.

You have now found two points on your demand curve.

3. Think about the other points on your demand curve and write your demand schedule. For example, if you were not willing to buy any tickets at \$200, you might buy 1 ticket at \$190, 2 tickets at \$150, etc. Write all the points that you have found in a demand schedule, and then graph your demand curve.
4. Now, choose a price around the middle of your demand curve and suppose that this is the price of tickets. How many tickets would you buy at this price? Calculate the consumer surplus that you would receive on each of the tickets that you buy at that price, and then add them up to find your total consumer surplus. (For example, if you are willing to pay \$150 for a ticket, but the ticket price is \$50, you receive consumer surplus of \$100. Find this for each price and quantity up to the price that you choose.)
5. Then, suppose that the price drops to the next lowest price on your demand curve. Recalculate consumer surplus for each ticket. How has your total consumer surplus changed?
6. Finally, with reference to your demand schedule and demand curve, explain the relationship between price and quantity demanded. Then, explain what consumer surplus is and how it changes as the price of tickets changes. What does consumer surplus mean to you? In what sense are you better off when consumer surplus increases?

In the next part, you will relate changes in demand to consumer surplus.

## Part 2 - Demand Shifts and Consumer Surplus

For this part of the exercise, you will be using the demand curve that you created in Part 1.

1. For each of the following cases, determine whether your demand will increase, decrease, or stay the same and briefly explain why. Then, state what will happen to your consumer surplus.
  - a. Your income increases, and tickets are a normal good.
  - b. You get tired of the band and are less interested in hearing them play.
  - c. The price of tickets falls.
  - d. The price of tickets for another band that you like a lot falls.
  - e. You expect that next year, tickets will be cheaper than they are this year.
2. Now consider only 1(a). Show the shift of the demand curve, and show graphically what will happen to your consumer surplus. (You do not need to calculate this mathematically.)
3. Before demand changed, how much consumer surplus did you receive on the last ticket that you bought? How much consumer surplus did you receive on the last ticket after demand changed? What happened to consumer surplus on the first ticket that you bought before and after demand changed?
4. Finally, carefully explain the two reasons why consumer surplus increases when your demand for a good changes.

### Checklist

#### Part 1

- Identify the maximum price you would pay to go to a concert.
- Identify the maximum number of shows you would attend.
- Create/plot your demand curve.
- Calculate your consumer surplus.

#### Part 2

- Consider different scenarios of demand and supply.
- Explain how/why your consumer surplus changed.