Chapter 15 Project

Labor Markets and Income

Purpose

In this chapter, you have learned how the supply and demand of labor determine the wage rate and how the wage determines how many workers a firm will hire in different market structures. You have also learned that there are many labor markets, one for each type of work, skill level, and location, all of which operate similarly.

The first purpose of this exercise is to illustrate how firms in competitive and imperfectly competitive product markets determine how many people to hire. The second purpose is to research conditions in a market for a specific type of labor.

Directions

This exercise has two parts. In the first, you will determine how many workers a firm in a perfectly competitive product market will hire compared to employment for a firm that sells its product in an imperfectly competitive market. In the second, you will research wages and demand for labor in a specific labor market of your choice.

Part 1 - Determining Employment Levels to Maximize Profit

Suppose that you are planning to open a lawn maintenance business. You have a riding lawn mower and a push mower, an edger, bush trimmer, and some other lawn tools. Since there are many companies in your area offering lawn services, the market for lawn care is perfect competition, and the price is $60 per lawn.

You have estimated your production function based on the capital that you have (your lawn equipment) and different numbers of workers that you are considering hiring at the perfectly competitive labor market wage of $150 per day. One worker produces an output of 6 lawns per day, 2 workers produce 11, 3 workers produce 15, 4 workers produce 18, and 5 workers produce 20.

1. Create a table with the labor and output given and complete your table by finding the marginal product of labor and the value of the marginal product of labor. Based on these calculations, how many people should you hire to maximize profits?

   Now, suppose that the market for lawn care changes to imperfect competition because many of the companies offering lawn services differentiate their product, and the demand curve for lawn care changes. You can charge $55 per lawn if your company completes 6 lawns per day, $50 if 11 lawns are completed, $45 if 15 lawns are completed, $40 if 18 lawns are completed, and $35 if 20 lawns are completed.

2. Find the total revenue and the marginal revenue product of labor to complete your table. If the market for workers is still competitive, with a wage of $150 per day, how many workers will you hire to maximize profit?

3. Is the employment rate in an imperfectly competitive product higher or lower than employment in a perfectly competitive product market? Explain.

Part 2 - Researching a Specific Labor Market

1. Choose an occupation that you are interested in pursuing. Use the following link to find some information about the labor market of that occupation: hawkes.biz/occupationlabormarkets

2. Find the current number of people employed in this occupation and the median annual wage, both nationally and in your state.

3. Use the following link to find by how much employment in the occupation will change between 2020 and 2030: hawkes.biz/occupationemployment

4. Based on this information about the labor market in the occupation, are you satisfied with your choice? Explain how the labor market may change.

Checklist

Part 1

- ☐ Consider a lawn business in a perfectly competitive market.
- ☐ Complete your table by finding the MP_L and VMP_L.
- ☐ Determine how many people you should hire.
- ☐ Consider a lawn business in an imperfectly competitive market.
- ☐ Complete your table by finding the Total Revenue and MRP_L.
- ☐ Compare employment between markets.

Part 2

- ☐ Research an occupation.
- ☐ Find the estimated future employment change.
- ☐ Reflect and explain the labor market of your future occupation.