

## Chapter 14 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 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.

In the following table, 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.

Labor	Output (lawns per day)	Marginal Product of Labor	Value of the Marginal Product of Labor
0	0		
1	6		
2	11		
3	15		
4	18		
5	20		

1. Complete the 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 to reflect the table below.

Labor	Output (lawns per day)	Price (per lawn)	Total Revenue	Marginal Revenue Product of Labor
0	0	\$60		
1	6	55		
2	11	50		
3	15	45		
4	18	40		
5	20	35		

2. Find the total revenue and the marginal revenue product of labor to complete the table above. 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](http://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 2016 and 2026: [hawkes.biz/occupationemployment](http://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 the table: find the  $MP_L$  and  $VMP_L$ .
- Determine how many people you should hire.
- Consider a lawn business in an imperfectly competitive market.
- Complete the table: find 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.