

## Chapter 7

# MARKETS FOR LABOR

*Essentials of Economics in Context* (Goodwin, et al.), 1<sup>st</sup> Edition

### Chapter Overview

In this chapter we present the principal economic approaches to the labor market. We first look at the traditional neoclassical model, and how it uses the concepts of labor supply and labor demand to explain why the supply curve for paid labor is generally depicted as sloping upward, and why the labor supply curve for an individual worker may bend backward.

We then consider how the labor market determines wages, and consider factors related to elasticity. In addition to considering market-based reasons for wage variation, we consider other factors such as compensating wage differentials, social norms, and efficiency wages. We also explore wage discrimination, including the gender wage gap and racial discrimination.

We then discuss several current labor issues, starting with changes in labor force participation rates. Following this, we discuss the notion of employment “flexibility” from both employee and management perspectives, immigration, cooperatives, work-life balance, and inequality.

### Objectives

After reading and reviewing this chapter, you should be able to:

1. Discuss how individuals make decisions about entering the market for paid labor.
2. Understand the concepts of labor demand and labor supply, including the ambiguity regarding the slope of the labor supply curve at the individual level.
3. Describe the interaction of supply and demand in the aggregate labor market.
4. Explain variations in wages among workers, as well as how these are determined in the market.
5. Understand other explanations for wage determination not explained by the neoclassical model, such as compensating wage differentials, bargaining and unions, efficiency wages, and dual markets.
6. Discuss wage discrimination based on race and gender.
7. Discuss recent changes in jobs and the labor force, particularly the notion of employment “flexibility,” annual work hours, and the impact of immigration.

## Key Terms

marginal revenue product of labor  
marginal factor cost of labor  
backward-bending individual paid labor supply curve  
labor force participation rate  
compensating wage differentials  
monopsony

oligopsony  
labor unions  
efficiency wage theory  
dual labor markets  
labor market discrimination  
occupational segregation

## Active Review

*Fill in the blank*

1. The upward-sloping supply curve for labor reflects the \_\_\_\_\_ effect of a change in the wage.
2. The higher wages are, the more leisure people may want to “buy”. This phenomenon can be described as the \_\_\_\_\_ effect of rising wages.
3. If a variation in wages produces little change in the quantity of labor supplied, we can say that the market labor supply is relatively \_\_\_\_\_.
4. A situation in which there is only one buyer for a good is known as \_\_\_\_\_.
5. Suppose there are many talented musicians hoping to sell their music, and just a few record label buyers of musical works. This situation, in which there are just a few buyers, is known as \_\_\_\_\_.
6. A profit-maximizing firm will hire workers up to the point where the marginal revenue product of labor is equal to the \_\_\_\_\_.
7. If a firm brings labor in a perfectly competitive labor market, it will maximize profits at the point where \_\_\_\_\_ is equal to wage.
8. Paying workers a premium in order to induce harder work is covered by the theory of \_\_\_\_\_ wages.
9. Occupational \_\_\_\_\_ refers to the tendency of men and women to be employed in different occupations.
10. According to the \_\_\_\_\_ theory, workers get slotted into either a primary sector of good jobs, or a secondary sector where workers are taken on an “as needed” basis. .

*True or False*

11. According to the theory of compensating wage differentials, non-unionized workers are more likely to take low-paying, unpleasant jobs.
12. In a dual labor market, each worker either holds two jobs or is qualified to hold two possible jobs.
13. Any given worker's wage can be taken as an accurate representation of that worker's contribution to wellbeing in the economy.

*Short Answer*

14. If the wages of car mechanics rise, would you expect a movement along the supply curve for car mechanics, a shift in the supply curve for car mechanics, or both?

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15. Explain the concept of "efficiency wage."

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16. What conditions are necessary in order for the theory of compensating wage differentials to operate in reality?

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17. The chapter describes flexibility in the labor market for the workers and for the employers. Explain these in detail. What kinds of flexibility might workers benefit from?

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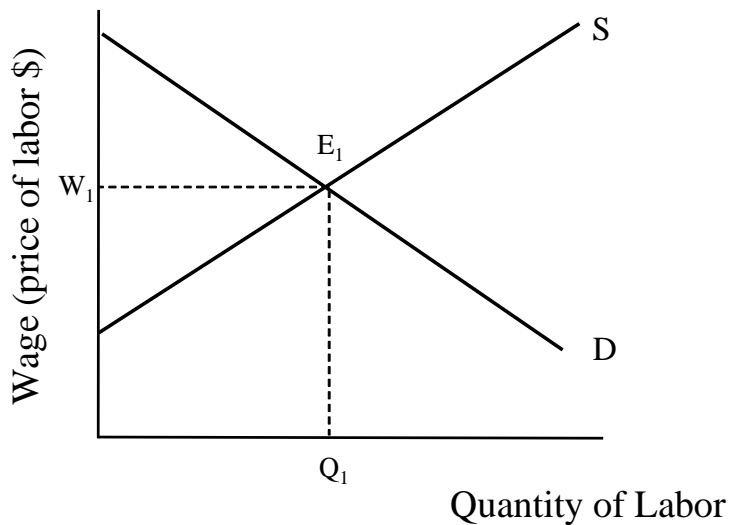
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*Problems*

1. Sketch a backward-bending individual labor supply curve, and indicate where on the curve the income effect is stronger than the substitution effect.

2. The following graph shows the labor market for pastry chefs.



Suppose a popular new diet book is published that says people should eat at least one fancy French pastry per day, for optimum health. Show the change that might result in the labor market for pastry chefs and indicate the new quantity of labor supplied and the new equilibrium wage.

3. Suppose Amy's Applesauce company produces jars of applesauce. The chart below shows the total number of applesauce jars produced for a given number of workers.

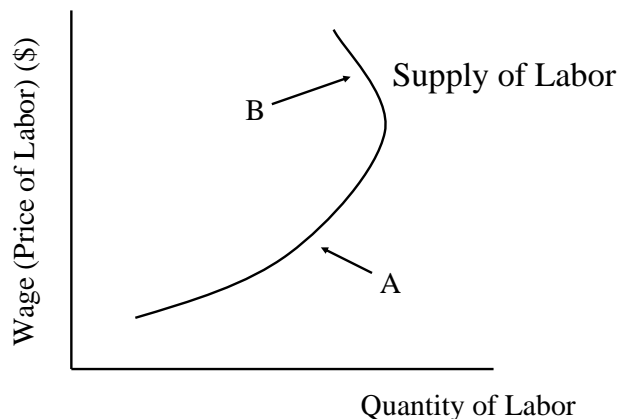
Number of Workers	Number of Jars	Marginal physical product of labor	Marginal revenue product of labor
1	30		
2	70		
3	120		
4	140		
5	150		

- a) Fill in the marginal physical product of labor for each level of production.
- b) Now suppose each jar of applesauce sells for \$5. Fill in the marginal revenue product of labor for each level of production.

### Self Test

1. Which of the following would *not* be considered an opportunity cost of paid employment?
- a. Caring for an elderly relative
  - b. Education
  - c. Self-employment
  - d. Leisure
  - e. Transportation costs of commuting to work

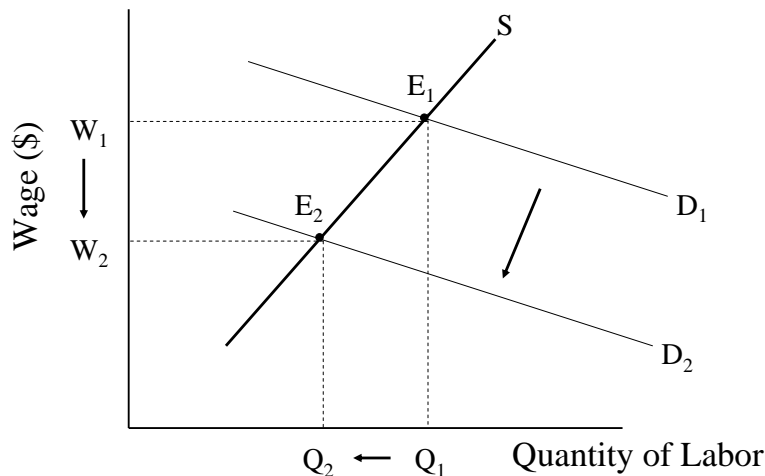
**Question #2 refers to the following graph.**



2. Which of the following statements is true?

- a. The income effect is stronger than the substitution effect at point A.
- b. The income effect is stronger than the substitution effect at point B.
- c. This graph represents the market supply of labor.
- d. An individual labor supply curve like that shown in the graph above could not occur in the real world.
- e. The shape of the curve is determined by the average cost of production.

**Question #3 refers to the graph shown below.**



3. Suppose that the graph shown above depicts a change in the labor market for graphic designers. Which of the following events could have produced the change we see in this graph?

- a. A new computer program allowed people to complete graphic designs automatically, without the aid of a trained designer.
- b. Many new graphic designers graduated from a top training program.
- c. The wage offered for specialized graphic design services rose.
- d. The market for graphic designers expanded.
- e. None of the above.

4. A situation in which there are many sellers of labor but only one employer (i.e. buyer of labor) can be referred to as

- a. Monopolistic labor
- b. Monopoly
- c. Monopsony
- d. Competitive equilibrium
- e. Labor equilibrium

5. The labor force participation rate is
- the number of people in the labor force divided by the population
  - the number of people in the labor force divided by the civilian, noninstitutionalized age 16 and over population
  - the number of people in the noninstitutionalized age 16 and over population divided by the labor force.
  - the number of unemployed divided by the labor force
  - the number of unemployed divided by the civilian, noninstitutionalized age 16 and over population
6. Factors that might make one job more appealing than another include
- working conditions
  - wages
  - amount of vacation offered
  - both a and c are true
  - a, b, and c are all true
7. The notion that, all else equal, workers will accept lower wages for jobs with better characteristics is known as the theory of
- social contribution
  - consumer sovereignty
  - market power
  - compensating wage differentials
  - employee morale
8. Efficiency wage theory holds that
- Workers will work harder when they know their current employer is paying them more than they could get elsewhere.
  - Workers work less when they know they are being overpaid.
  - Employee morale is not a factor influencing total productivity.
  - Raising wages is the best way to increase output per worker.
  - All of the above.
9. A situation in which some workers get high wages, job security, and other benefits while other workers, doing similar jobs, get low wages, no job security, and few other benefits, is known as
- An efficiency wage situation
  - A wage contour
  - A dual labor market
  - A price discriminating labor force
  - A high monitoring costs employment structure

10. The tendency of men and women to be employed in different occupations is referred to as
- a. occupational segregation.
  - b. gender inequality.
  - c. racial segregation.
  - d. contour segregation.
  - e. occupational dysphoria.
11. The neoclassical model of the labor market assumes that
- a. firms are relatively powerless.
  - b. workers are sometimes irrational.
  - c. the firm faces multiple equilibria.
  - d. workers maximize profits.
  - e. All of the above are true
12. When a firm hires an additional worker, all else being equal, which of the following statements is false?
- a. Costs rise by the amount of the additional wages paid.
  - b. Revenue increases.
  - c. Revenue only increases if the firm makes a positive profit.
  - d. Profits may or may not increase.
  - e. Output increases.
13. A profit-maximizing firm should keep hiring more labor until the point where the marginal revenue product of labor is equal to
- a. Marginal productivity of capital.
  - b. Factor cost of capital.
  - c. Monopolistic wage.
  - d. Marginal factor cost of labor.
  - e. Marginal factor cost of fixed assets.
14. If a firm can maximize profit simply by setting  $MRP_L = \text{wage}$ , then we know that the firm must be
- a. A monopolist.
  - b. A monopsonist.
  - c. An oligopolist.
  - d. A monopolistic producer.
  - e. Operating in a perfectly competitive labor market.



15. The possible benefits of having more democratic work place include ...
- a. better working conditions and greater bargaining power for workers
  - b. more equal distribution of work and income levels among the workers
  - c. increased productivity and motivation for workers
  - d. All of the above
  - e. None of the above
16. According to United States data for 2018, the median wage for women of all races was \_\_\_\_\_ of that of men.
- a. 20%
  - b. 50%
  - c. 71%
  - d. 85%
  - e. 93%
17. From the perspective of an individual, the upward-sloping labor supply curve reflects the \_\_\_\_\_ effect of changes in wages.
- a. income
  - b. substitution
  - c. downward
  - d. backward-bending
  - e. upward
18. Which of the following jobs is most likely to have a relatively inelastic labor supply curve?
- a. cashier
  - b. garbage collector
  - c. janitor
  - d. nuclear physicist
  - e. none of the above
19. Suppose a firm manufactures bags of peanuts. A single worker can produce 20 bags of peanuts, but adding a second worker makes it possible to produce 45 bags of peanuts. The marginal physical product of the second worker is
- a. Equal to \$20.
  - b. Equal to \$25.
  - c. 20 bags of peanuts.
  - d. 25 bags of peanuts.
  - e. Measured in dollars but unknown from the information given in this problem.

20. Which one of the following statements is false?

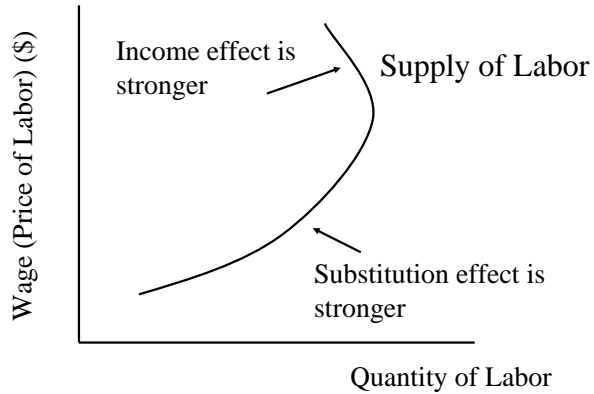
- a. The gender wage gap in the United States is larger than it is in most other industrialized nations.
- b. In the United States, the wage gap based on gender is larger than the wage gap based on race.
- c. Research evidence indicates that at least a portion of the wage gap based on race in the United States is based on discrimination.
- d. Research evidence indicates that immigration into the United States does not have a negative impact on the wages of U.S.-born workers.
- e. Male labor force participation rates in the United States have generally been declining over the last several decades.

### **Answers to Active Review Questions**

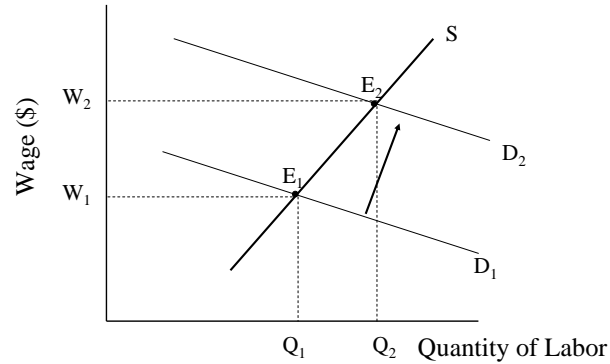
- 1. substitution
- 2. income
- 3. wage inelastic
- 4. monopsony
- 5. oligopsony
- 6. Marginal factor cost of labor
- 7. Marginal revenue product of labor
- 8. efficiency
- 9. segregation
- 10. dual labor market
- 11. False. It is true that non-unionized workers are more likely to be found in low-paying, unpleasant jobs, but this is not the focus of the theory of compensating wage differentials. The theory of compensating wage differentials holds that workers will be willing to accept lower wages for jobs with better characteristics and will demand higher wages for jobs with unappealing characteristics, all else being equal.
- 12. False.
- 13. False.
- 14. Rising wages for car mechanics will produce movement along the supply curve only.
- 15. Efficiency wage theory suggests that workers perform better when they know their current employer is paying them more than they would receive elsewhere. Efficiency wages may be profit maximizing since the cost to the firm may be counterbalanced by superior work effort and loyalty on the part of the employees.
- 16. Workers must have very good information about job conditions and risks, and must be able to move freely to alternative jobs.
- 17. Flexibility for workers includes job sharing, having more flexible work hours or being able to work remotely. Workers could benefit from such work arrangements. Participating in the gig economy, where workers work under short-term contracts or work when they want to and are needed, also provides some flexibility to the workers—though many workers may be taking up such work only because they cannot find “regular” jobs. Flexibility for employers involves firms having greater power over hiring and firing workers and being able to hire workers on “as needed” basis and with little job protection.

## Answers to Problems

1.



2.



3.

Number of Workers	Number of Jars	Marginal physical product of labor	Marginal revenue product of labor
1	30	30	\$150
2	70	40	\$200
3	120	50	\$250
4	140	20	\$100
5	150	10	\$50

## Answers to Self Test Questions

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|-------|-------|
| 1. e  | 11. a |
| 2. b  | 12. c |
| 3. a  | 13. d |
| 4. c  | 14. e |
| 5. b  | 15. d |
| 6. e  | 16. d |
| 7. d  | 17. b |
| 8. a  | 18. d |
| 9. c  | 19. d |
| 10. a | 20. b |