

***Modern Labor Economics, 12e (Ehrenberg/Smith)***

**Chapter 2 Overview of the Labor Market**

- 1) The labor market does NOT
- A) allocate workers to jobs.
  - B) coordinate employment decisions.
  - C) respond to price signals.
  - D) ensure that all workers are hired.

Answer: D

Question Status: Old

- 2) The labor market for mechanical engineers is
- A) an *internal* labor market.
  - B) a *national* labor market.
  - C) a *local* labor market.
  - D) a *monopoly* labor market.

Answer: B

Question Status: New

- 3) The labor force is made up of
- A) all members of society.
  - B) all members of society who are at least 16 years of age.
  - C) all members of society who are at least 16 years old and are either employed or unemployed.
  - D) employed workers, unemployed workers, and retired workers.

Answer: C

Question Status: Old

**Table 2.1**

Population:	260 million
Employed:	130 million
Unemployed:	10 million
Retired:	35 million
Under Age 16:	60 million

- 4) Given the data in Table 2.1, the labor force participation rate is
- A) 54%.
  - B) 65%.
  - C) 70%.
  - D) 80%.

Answer: C

Question Status: Old

5) Given the data in Table 2.1, the unemployment rate is

- A) 3.8%.
- B) 5.0%.
- C) 7.1%.
- D) 7.8%.

Answer: C

Question Status: Old

6) During the twentieth century, the unemployment rate in the United States

- A) remained roughly constant.
- B) was consistently higher than in other industrialized countries.
- C) generally decreased.
- D) became more stable.

Answer: D

Question Status: Old

**Table 2.2 Workers in the Widget Industry**

Year	Earnings	CPI
1966	\$8,000	60
1976	\$15,000	100
1986	\$22,500	178
1996	\$30,000	205

7) According to Table 2.2, real earnings in the Widget Industry in 1986 were

- A) \$22,500.
- B) \$12,640.
- C) \$11,538.
- D) \$15,730.

Answer: B

Question Status: Old

8) According to Table 2.2, in which year were the real earnings of workers in the Widget Industry highest?

- A) 1966
- B) 1976
- C) 1986
- D) 1996

Answer: B

Question Status: Old

9) A worker's *total compensation* consists of

- A) wages.
- B) earnings.
- C) earnings plus in-kind benefits.
- D) earnings plus in-kind benefits plus deferred benefits.

Answer: D

Question Status: New

10) A worker's income is equal to his

- A) earnings.
- B) wage rate multiplied by hours worked.
- C) wages plus benefits.
- D) earnings plus employee benefits plus unearned income.

Answer: D

Question Status: Old

11) When wages increase, the substitution effect implies that employment will \_\_\_\_\_ and the scale effect implies that employment will \_\_\_\_\_.

- A) increase; increase
- B) increase; decrease
- C) decrease; increase
- D) decrease; decrease

Answer: D

Question Status: Old

12) When the price of capital increases, the quantity of \_\_\_\_\_ demanded will \_\_\_\_\_, but the effect on \_\_\_\_\_ is ambiguous.

- A) labor; increase; capital
- B) labor; decrease; capital
- C) capital; increase; labor
- D) capital; decrease; labor

Answer: D

Question Status: Old

13) When the price of labor falls, the quantity of \_\_\_\_\_ demanded will \_\_\_\_\_, but the effect on \_\_\_\_\_ is ambiguous.

- A) labor; increase; capital
- B) labor; decrease; capital
- C) capital; increase; labor
- D) capital; decrease; labor

Answer: A

Question Status: Old

14) If the price of a product decreases due to a decrease in demand, then

- A) the firm moves to the left along the labor demand curve.
- B) the firm moves to the right along the labor demand curve.
- C) the labor demand curve shifts to the left.
- D) the labor demand curve shifts to the right.

Answer: C

Question Status: Old

15) Long-term unemployment rates are higher in most Western European countries than in the United States because

- A) unemployment rates are calculated differently in Western Europe.
- B) nonmarket forces keep wages in Western Europe above the equilibrium level.
- C) technological change has accelerated more quickly in Western Europe.
- D) most Western European governments hire workers to perform jobs that are not in demand.

Answer: B

Question Status: Old

16) If the salaries of accountants increase and other conditions remain the same, then

- A) a firm will move to the left along its labor demand curve for accountants.
- B) a firm will move to the right along its labor demand curve for accountants.
- C) the labor demand curve for accountants will shift to the left.
- D) the labor demand curve for accountants will shift to the right.

Answer: A

Question Status: Old

17) Because workers have varying preferences about the type of work they like to do,

- A) the market demand curve for chefs is downward sloping.
- B) the market supply curve for chefs is upward sloping.
- C) the firm supply curve for chefs is vertical.
- D) the firm supply curve for chefs is horizontal.

Answer: B

Question Status: Old

18) Because workers choose between various employers offering the same type of job based primarily on wages,

- A) the market demand curve for chefs is downward sloping.
- B) the market supply curve for chefs is upward sloping.
- C) the firm supply curve for chefs is vertical.
- D) the firm supply curve for chefs is horizontal.

Answer: D

Question Status: Old

19) If a single small firm's demand for secretaries increases, then

- A) its wage rate will increase and its employment level will remain the same.
- B) its wage rate will increase and its employment level will increase.
- C) its wage rate will remain the same and its employment level will increase.
- D) both its wage rate and its employment level will remain the same.

Answer: C

Question Status: Old

- 20) If more people enter the labor market for architects, then
- A) both the wage rate and the employment level will increase.
  - B) both the wage rate and the employment level will decrease.
  - C) the wage rate will increase and the employment level will decrease.
  - D) the wage rate will decrease and the employment level will increase.

Answer: D

Question Status: Old

- 21) If a union negotiates an industry-wide agreement to set wages above the equilibrium level,
- A) the industry's demand curve for labor will shift inward.
  - B) there will be a surplus of labor in the industry.
  - C) there will be a shortage of labor in the industry.
  - D) there will be neither a shortage nor a surplus of labor in the industry.

Answer: B

Question Status: Old

- 22) If the price of capital increases in an industry and the scale effect dominates,
- A) wages and employment levels will both increase.
  - B) wages and employment levels will both decrease.
  - C) wages will increase and employment levels will decrease.
  - D) wages will decrease and employment levels will increase.

Answer: B

Question Status: Old

- 23) Workers in an industry are probably underpaid if
- A) employers have difficulty hiring and retaining qualified workers.
  - B) the workers cannot afford to quit their jobs.
  - C) the workers could receive a higher salary in another occupation.
  - D) firms in the industry are making a positive profit.

Answer: A

Question Status: Old

- 24) Economic rent is
- A) the value of a worker's labor services.
  - B) a worker's wage rate.
  - C) the income a worker receives from his or her labor.
  - D) the amount by which a worker's wage exceeds his or her reservation wage.

Answer: D

Question Status: Old

- 25) Which of these persons is officially classified as being "not in the labor force"?
- A) Alex, who was fired from his job two months ago and is searching for a new job.
  - B) Bob, who would start looking for work if he thought he could get a good job.
  - C) Cole, who has never worked but just started looking for work two weeks ago.
  - D) Durk, who is working at a low wage job that does not challenge him.

Answer: B

Question Status: Revised

26) Which area pays the highest real wage?

- A) Nominal Wage \$15; Consumer Price Index for Area 50
- B) Nominal Wage \$20; Consumer Price Index for Area 100
- C) Nominal Wage \$25; Consumer Price Index for Area 150
- D) Nominal Wage \$50; Consumer Price Index for Area 200

Answer: A

Question Status: Revised

27) Which of the following events will cause the labor demand curve to shift up and to the right?

- A) a lower wage
- B) an increase in product demand
- C) an increase in the supply of labor
- D) all of the above shift the labor demand curve up

Answer: B

Question Status: Old

28) Which of the following occurs if a firm pays workers more than the market wage?

- A) Its application rate will be higher than usual.
- B) Its quit rate will be lower than usual.
- C) It will have a surplus of labor.
- D) All of above occur.

Answer: D

Question Status: Old

29) "Police persons are finding more lucrative and diverse alternative careers in the private sector." If this statement is true, then the supply curve of labor to policing will likely shift \_\_\_\_\_ and become \_\_\_\_\_ steep. Select the best pair of answers.

- A) left; less
- B) left; more
- C) right; more
- D) right; less

Answer: A

Question Status: Revised

30) If every worker wants ten dollars more per hour to work, then wages will

- A) go up by \$10.
- B) go up by more than \$10.
- C) go up by less than \$10.
- D) go down as employment falls.

Answer: C

Question Status: Old

31) Which of the following events will cause a surplus of workers?

- A) a wage above the market-clearing wage
- B) an increase in the supply of workers
- C) a decrease in the demand for workers
- D) more workers wanting to work at higher wages

Answer: A

Question Status: Old

32) It has been said that CEOs (Chief Executive Officers who are in charge of their firms) are overpaid. Which of the following would be evidence (if true) that they are, in fact, overpaid?

- A) CEOs make many times what their workers make.
- B) Firms find that they can find equally qualified persons for a lower salary.
- C) CEOs' salaries have increased very rapidly.
- D) When CEOs leave their jobs to take new jobs, their new jobs pay more.

Answer: B

Question Status: Old

33) It has been said that teaching assistants to professors are underpaid. Which of the following would be evidence (if true) that they are underpaid?

- A) There is a surplus of teaching assistants.
- B) Teaching assistants are paid far less than professors, even though they are doing similar work.
- C) Teaching assistants are made to work more than other workers in their job.
- D) Professors have a hard time finding qualified teaching assistants.

Answer: D

Question Status: Old

34) If unions raise wages above their market clearing level, then

- A) more workers will be able to get better jobs, increasing employment.
- B) there will be a shortage of workers.
- C) persistently high rates of unemployment will result.
- D) this will be Pareto efficient.

Answer: C

Question Status: Old

35) Which of the following events could explain why wages and employment could fall in a competitive labor market?

- A) The demand curve shifts right and up.
- B) The demand curve shifts left and down.
- C) The supply curve shifts left and up.
- D) The supply curve shifts right and down.

Answer: B

Question Status: Old

36) In the Widget industry, it takes two workers (with other inputs) to produce each widget and since consumers demand 1000 widgets at its current price, 2000 workers are employed in the industry. Which of the following could occur if the price of capital falls and labor and capital are substitutes in production?

- A) It takes 2.2 workers per widget and 1200 widgets are produced and sold.
- B) It takes 1.9 workers per widget and 1200 widgets are produced and sold.
- C) It takes 2.2 workers per widget and 900 widgets are produced and sold.
- D) It takes 1.9 workers per widget and 900 widgets are produced and sold.

Answer: B

Question Status: Old

37) How is the monthly unemployment rate determined in the United States?

Answer: The monthly unemployment rate is estimated by the government based on information collected in the Current Populations Survey, a survey administered to approximately 50,000 households every month. In order to be counted as unemployed, one must be available to work and to have looked for work within the last month or, alternatively, must be laid off and awaiting recall to one's previous employer.

Question Status: New

38) Suppose that there are 254 million people in the population aged 16 and over. Further suppose that 150 million people have jobs and that 10 million people are unemployed. What is the unemployment rate? How many people are not in the labor force?

Answer: The unemployment rate is  $\frac{U}{E+U} \times 100 = 6.25\%$ . The labor force consists of the

employed plus the unemployed, totaling 160 million people. The number of people not in the labor force therefore is  $254 - 160 = 94$  million people.

Question Status: New

39) Suppose that the average hourly wage rate in 1980 is \$6.85 per hour and that it is \$10.20 per hour in 1990. Furthermore, suppose that the consumer price index is 82.4 in 1980 and that it is 130.7 in 1990. Based on the information given, the purchasing power of American worker earnings increased during the 1980s. True or false? Explain.

Answer: False. Even though nominal hourly earnings increased by \$3.35 per hour between 1980 and 1990, a 49 percent increase, the real or inflation adjusted hourly wage rate actually fell during the 1980s. Using the CPI data given, real hourly earnings in 1980 were  $\frac{\$6.85}{0.824} = \$8.31$  per

hour, while real earnings in 1990 were  $\frac{\$10.20}{1.307} = \$7.80$  per hour.

Question Status: New



40) What are the two basic types of *employee benefit* that workers receive? Give examples of each.

Answer: One type of employee benefit is a payment in-kind. Payments in-kind include medical insurance, dental insurance, unemployment insurance taxes, and paid vacations or personal time. The other major type of employee benefit is deferred payment. Deferred payments include various forms of retirement income (pension income, contributions into pension plans, and Social Security taxes).

Question Status: New

41) Draw a hypothetical labor demand curve for machinists in the aircraft industry. What is being held constant in drawing your labor demand curve? Why does the curve look as you have drawn it? Why does the shape of this curve depend on the period of time (short run versus long run) under consideration?

Answer: The labor demand curve for machinists in the aircraft industry should be negatively sloped with the wage on the vertical axis and quantity (or employment) of machinists on the horizontal axis. The labor demand curve reflects an inverse relationship between the wage paid to machinists and the quantity of machinists demanded.

The curve assumes the prices of other factors of production, such as capital or other types of labor, the state of technology, and the product demand curve are held constant.

The labor demand curve for machinists is negatively sloped because a change in the machinist wage rate generates both a scale and a substitution effect. To illustrate, suppose the wage rate increases. The increase in the wage raises aircraft manufacturer production costs which aircraft manufacturers will attempt to pass on to consumers through an increase in the product price. An increase in product price, given the product demand curve, leads to a reduction in demand for aircraft which in turn implies fewer machinists demanded. This effect is the scale effect of the wage increase. In addition, the higher machinist wage implies that machinists are relatively more expensive compared to other factors of production. Aircraft manufacturers will therefore also wish to switch production methods toward less machinist-intensive production technologies. This effect is the substitution effect of the wage increase. Taken together, the scale effect and the substitution effect of a wage change work in the same direction and imply that quantity demanded decreases in response to a wage increase and that quantity demanded increases in response to a wage reduction.

The labor demand curve is likely to be steeper in the short run because in the short run a wage increase will yield smaller scale and substitution effects than in the long run. In the short run, aircraft manufacturers will find it difficult to move away from the existing production technology, blunting the substitution effect. Likewise, the scale effect will be smaller in the short run because aircraft manufacturers will find it easier to pass along product price hikes because product demand is usually less elastic in the short run.

Question Status: New

42) Suppose the price of capital in the restaurant industry decreases. Explain how the decrease in the price of capital affects the demand for labor in the restaurant industry.

Answer: A drop in capital price in the restaurant industry reduces meal production costs. Restaurants will pass along some of these reduced production costs to consumers through lower meal prices, stimulating demand for restaurant meals by consumers. In order to meet the additional consumer demand, restaurants will need to add more workers. Thus one effect of reduced capital price on labor demand is a positive scale effect favoring greater employment of restaurant workers. This scale effect will be larger the more elastic is the demand for restaurant meals and smaller the less elastic is the demand for restaurant meals. The drop in capital price, other factor prices constant, will also induce restaurants to move toward more capital-intensive and less labor-intensive production technologies. Hence the lower capital price induces a negative substitution effect away from labor in the restaurant industry. The substitution effect will be larger the easier it is to replace labor with capital in restaurant meal production. Taken together, the positive scale effect and the negative substitution effect imply that, at a given wage, labor demand might be higher (if the scale effect dominates) or lower (if the substitution effect dominates). Thus the labor demand curve in the restaurant industry will shift in response to a reduction in capital price, but the direction of shift is ambiguous.

Question Status: New

43) The supply of a particular type of labor to a firm is less elastic than the supply of labor to the market. True, false, or uncertain? Explain.

Answer: False. The supply of labor to a firm is arguably perfectly elastic whereas the supply of labor to the market is less elastic and positively sloped. The supply of labor to an individual firm is perfectly elastic because, assuming the basic conditions of employment are essentially the same across employers of the labor type in question, if a given firm offered a wage below the going wage, workers simply would flock to other firms paying the going wage. Likewise, a given firm has no incentive to pay above the going wage for the labor type, as it is able to attract as many workers as it needs at the going wage rate. Labor supply to the market is less elastic because occupations differ in terms of their basic conditions of employment and because workers differ in terms of their tastes and preferences with respect to these conditions of employment. For example, relatively few people would be willing to do construction work on high-rises or skyscrapers if the wage for such work was low because many other jobs would pay comparably with much less risk to safety. A higher wage for such work, wages in other occupations constant, will attract more into high-rise construction because the additional pay will be enough to compensate some for their fear of heights.

Question Status: New

44) Suppose that a burst of technological advancement and innovation occurs that increases the demand for highly skilled labor. Use demand/supply analysis to analyze the effect of the technological change on the equilibrium wage and equilibrium employment levels for high skill workers.

Answer: Student should draw a graph with a single, upward sloping labor supply curve (employment of high skill workers on the horizontal axis). The technological change shifts the demand curve for high skill workers to the right. The model predicts a higher equilibrium wage and higher equilibrium employment level for high skill workers as a result of the technological change.

Question Status: New

45) *Nonmarket forces* can prevent a labor market from achieving equilibrium. Explain.

Answer: In this context, nonmarket forces refer to barriers to labor market adjustment that constrain the behavior of workers and employers. For example, the minimum wage is a law that prevents employers from paying a wage below the minimum rate. If it's the case that the minimum wage is greater than the equilibrium wage in the labor market, then such a constraint results in an excess of labor supply over labor demand and excessive unemployment. As another example, prior to the 1970s the federal government paid a wage below the equilibrium wage to military personnel. Because the federal government was the sole employer of U.S. military personnel at the time, there were no market forces to push the wage toward equilibrium. As a result, supply fell short of the number of vacancies (there was excess demand for military personnel) and the U.S. government chose to fill the excess vacancies via conscription (also known as the draft) rather than raising the rate of pay. Conscription, because it forces individuals to perform tasks against their will is antithetical to the workings of a free market type of society. Because of the social tensions created by conscription, the federal government did away with the draft in the 1970s, raised the pay of military personnel, and switched to more capital intensive production technologies.

Question Status: New

46) Suppose the labor supply curve is as follows. The labor supply curve is perfectly elastic at an hourly wage of \$8 per hour over the first 100 workers. If more than 100 workers are to be attracted, a wage greater than \$8 per hour must be paid. For example, if the wage is \$10 per hour, then labor supply is 150 workers. If the wage is \$16 per hour, then labor supply is 300 workers. Draw the labor supply curve described. What is the *economic rent* in the labor market if a wage of \$10 per hour is paid and 150 workers are employed? Explain. What is the economic rent if a wage of \$16 per hour is paid and 300 workers are employed? Explain.

Answer: Economic rent is the difference between the actual wage paid and the reservation wage. In the problem described, 100 workers by definition have a reservation wage of \$8 per hour. Therefore, if the wage is \$10 per hour, the economic rent accruing to these workers is \$2 per hour and their total economic rent is \$200. The reservation wages of workers 101 to 150 are greater than \$8 and less than or equal to \$10, so, using basic geometry, the economic rent accruing to this segment of the labor supply curve is  $\frac{1}{2} \times (\$10 - \$8) \times (150 - 100) = \$50$ . Hence the total economic rent at a wage of \$10 per hour in this market is \$250. By similar reasoning, if the wage is \$16 per hour, the first 100 workers enjoy rents of  $(\$16 - \$8) \times 100 = \$800$ . Workers 101 to 300 earn rents of  $\frac{1}{2} \times (\$16 - \$8) \times (300 - 100) = \$800$ . Hence total economic rent at a wage of \$16 per hour in this labor market totals to \$1600.

Question Status: New