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Review Questions

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Table 2.4 Unemployment and Long-Term Unemployment, Selected European and North American Countries, 2005

	Unemployment: Overall Rate	Percent of Unemployed Out of Work > One Year	Unemployment: Long-Term Rate
Belgium	8.4%	51.6%	4.3%
Canada	6.8	9.6	0.7
Denmark	4.8	25.9	1.2
France	9.5	42.5	4.0
Germany	9.5	54.0	5.1
Ireland	4.3	34.3	1.5
Netherlands	4.8	40.1	1.9
Norway	4.6	9.4	0.4
United Kingdom	4.7	22.4	1.1
United States	5.1	11.8	0.6

Source: OECD, Employment Outlook (Paris: OECD, 2006), Tables A and G.

## **Review Questions**

- 1. As discussed on page 45, in the early 1970s, Egypt experienced a dramatic outflow of construction workers seeking higher wages in Saudi Arabia at the same time that the demand for their services rose within Egypt. Graphically represent these two shifts of supply and demand, and then use the graph to predict the direction of change in wages and employment within Egypt's construction sector during that period.
- 2. Analyze the impact of the following changes on wages and employment in a given occupation:
  - A decrease in the danger of the occupation.
  - b. An increase in product demand.
  - Increased wages in alternative occupations.
- 3. What would happen to the wages and employment levels of engineers if government expenditures on research and development programs were to fall? Show the effect graphically.

- 4. Suppose a particular labor market were in market-clearing equilibrium. What could happen to cause the equilibrium wage to fall? If all money wages rose with inflation each year, how would real wages in this market adjust?
- 5. Assume that you have been hired by a company to do a salary survey of its arc welders, who the company suspects are overpaid. Given the company's expressed desire to maximize profits, what definition of "overpaid" would you apply in this situation, and how would you identify whether arc welders are, in fact, overpaid?
- 6. Ecuador is the world's leading exporter of bananas, which are grown and harvested by a large labor force that includes many children. Assume Ecuador now outlaws the use of child labor on banana plantations. Using economic theory in its "positive" mode, analyze what would happen to employment and wages in the banana farming industry in Ecuador. Use supply and demand curves in your analysis.

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- 7. Unions can raise wages paid to their members in two ways: (i) Unions can negotiate a wage rate that lies above the market-clearing wage. While management cannot pay below that rate, management does have the right to decide how many workers to hire. (ii) Construction unions often have agreements that require management to hire only union members, but they also have the power to control entry into the union. Hence, they can raise wages by restricting labor supply.
  - a. Graphically depict method (i) above using a labor supply and a labor demand curve. Show the market-clearing wage as  $W_e$ , the market-clearing employment level as  $L_e$ , the (higher) negotiated wage as  $W_u$ , the level of employment associated with  $W_u$  as  $L_u$ , and the number of workers wanting to work at  $W_u$  as  $L_e$ .
  - b. Graphically depict method (ii) above using a labor supply and a labor demand curve. Show the market-clearing wage as  $W_e$ , the market-clearing employment level as  $L_e$ , the number of members the union decides to have as  $L_u$  (which is less than  $L_e$ ), and the wage associated with  $L_u$  as  $W_u$ .
- 8. American students have organized opposition to the sale by their campus stores of university apparel made for American retailers by workers in foreign countries who work in sweatshop conditions (long hours at low pay in bad working conditions). Assume this movement takes the form of boycotting items made under sweatshop conditions.
  - a. Analyze the immediate labor market outcomes for sweatshop workers in these countries using supply and demand curves to illustrate the mechanisms driving the outcomes.

- b. Assuming that actions by American students are the only force driving the improvement of wages and working conditions in foreign countries, what must these actions include to ensure that the workers they are seeking to help are unambiguously better off?
- 9. Suppose the Occupational Safety and Health Administration were to mandate that all punch presses be fitted with a very expensive device to prevent injuries to workers. This device does not improve the efficiency with which punch presses operate. What does this requirement do to the demand curve for labor? Explain.
- 10. Suppose we observe that employment levels in a certain region suddenly decline as a result of (i) a fall in the region's demand for labor and (ii) wages that are fixed in the short run. If the *new* labor demand curve remains unchanged for a long period and the region's labor supply curve does not shift, is it likely that employment in the region will recover? Explain.
- 11. In the economic recovery of 2003–2004, job growth in Canada was much faster than job growth in the United States. Please answer the following questions: (a) Generally speaking, how does economic growth affect the demand curve for labor? (b) Assume that growth does not affect the labor supply curve in either country, and suppose that the faster job growth in Canada was accompanied by slower (but positive) wage growth there than in the United States. What would this fact tell us about the reasons for the relatively faster job growth in Canada?
- Assume that the war in Iraq increased the desired size of the U.S. military, and assume that potential recruits are reduced by the prospect of facing dangerous, unpleasant

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## Problems

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wartime conditions. First, analyze how the war affects the supply curve and the demand curve for military personnel. Second, use your analysis to predict how the war will affect the wages and the employment level of military personnel.

## **Problems**

- Suppose that the adult population is 210 million, and there are 130 million who are employed and 5 million who are unemployed. Calculate the unemployment rate and the labor force participation rate.
- 2. Suppose that the supply curve for school-teachers is  $L_S = 20,000 + 350W$ , and the demand curve for schoolteachers is  $L_D = 100,000 150W$ , where L = the number of teachers and W = the daily wage.
  - a. Plot the supply and demand curves.
  - b. What are the equilibrium wage and employment levels in this market?
  - c. Now suppose that at any given wage, 20,000 more workers are willing to work as schoolteachers. Plot the new supply curve, and find the new wage and employment level. Why doesn't employment grow by 20,000?
- 3. Have the real average hourly earnings for production and nonsupervisory workers in the United States risen during the past 12 months? Go online to the Bureau of Labor Statistics Web site (http://stats.bls.gov) to find the numbers needed to answer the question.
- 4. Suppose the adult population of a city is 9,823,000 and there are 3,340,000 people who are not in the labor force and 6,094,000 who are employed.
  - Calculate the number of adults who are in the labor force and the number of adults who are unemployed.
  - Calculate the labor force participation rate and the unemployment rate.

- 5. From Table 2.2, the CPI (with a base of 100 in 1982–84) rose from 130.7 in 1990 to 201.6 in 2006. The federal minimum wage (nominal hourly wage) in 1990 was \$3.80, and it was \$5.15 in 2006. Calculate the minimum wage in real (1982–84) dollars. Did the federal minimum wage increase or decrease in real dollars from 1990 to 2006?
- 6. The following table gives the demand and supply for cashiers in retail stores.

Wage Rate	Number of cashiers demanded	Number of cashiers supplied
\$3.00	200	70
\$4.00	180	100
\$5.00	170	120
\$6.00	150	150
\$7.00	130	160
\$8.00	110	175
\$9.00	80	190

- a. Plot the supply and demand curves.
- b. What are the equilibrium wage and employment levels in this market?
- c. Suppose the number of cashiers demanded increases by 30 at every wage rate. Plot the new demand curve. What are the equilibrium wage and employment level now?
- 7. From the original demand function in Problem 6 (see table), how many cashiers would have jobs if the wage paid were \$8.00 per hour? Discuss the implications of an \$8 wage in the market for cashiers.