Ch.8-Q3. In each of the following situations, what type of unemployment is Melanie facing?

a. After completing a complex programming project, Melanie is laid off. Her prospects for a new job requiring similar skills are good, and she has signed up with a programmer placement service. She has passed up low-paying job offers.

b. When Melanie and her co-workers refused to accept pay cuts, her employer outsourced their programming tasks to workers in another country. This phenomenon is occurring throughout the programming industry.

c. Due to the current slump in investment spending, Melanie has been laid off from her programming job. Her employer promises to re-hire her when business picks up.

**Answer.** a. Melanie is frictionally unemployed because she is refusing low-paying job offers in favor of searching for a higher-paying job.

b. Melanie is structurally unemployed because she is demanding a higher wage than the current equilibrium wage in her industry. In this case, the equilibrium wage has been lowered by the outsourcing of work to other countries.

c. Melanie is cyclically unemployed because her bout of unemployment is tied to the business cycle. It is likely she will be re-employed once the economy picks up.

Ch8-Q5. There is only one labor market in Profunctia. All workers have the same skills and all firms hire workers with these skills. Use the accompanying diagram, which shows the supply of and demand for labor, to answer the following questions.

![Diagram](image)

a. What is the equilibrium wage rate in Profunctia? At this wage rate, what is the level of employment, the size of the labor force, and the unemployment rate?
b. If the government of Profunctia sets a minimum wage equal to $12, what will be the level of employment, the size of the labor force, and the unemployment rate?

c. If unions bargain with the firms in Profunctia and set a wage rate equal to $14, what will be the level of employment, the size of the labor force, and the unemployment rate?

d. If the concern for retaining workers and encouraging high quality work leads firms to set a wage rate equal to $16, what will be the level of employment, the size of the labor force, and the unemployment rate?

**Answer. a.** The equilibrium wage rate is $10. At this wage rate, there will be 50,000 employed workers, no unemployed workers, a labor force of 50,000, and an unemployment rate of 0%.

![Graph showing equilibrium wage rate](image)

b. If the government of Profunctia sets a minimum wage equal to $12, 60,000 workers (the size of the labor force) will be looking for work but only 40,000 will find jobs. 20,000 will be unemployed and the unemployment rate will be 33.3% (= (20,000/60,000) × 100).

![Graph showing minimum wage effect](image)

c. If unions bargain with the firms in Profunctia and set a wage rate equal to $14, 70,000 workers (the size of the labor force) will be looking for work but only 30,000 will find jobs. 40,000 will be unemployed and the unemployment rate will be 57.1% (= (40,000/70,000) × 100).
d. If the concern for retaining workers and encouraging high quality work leads firms to set a wage rate of $16, 80,000 workers (the size of the labor force) will be looking for work but only 20,000 will find jobs. 60,000 will be unemployed and the unemployment rate will be 75% (= (60,000/80,000) × 100).

Ch8-Q7. In which of the following cases is it more likely for efficiency wages to exist? Why?

a. Jane and her boss work as a team selling ice cream.

b. Jane sells ice cream without any direct supervision by her boss.

c. Jane speaks Korean and sells ice cream in a neighborhood in which Korean is the primary language. It is difficult to find another worker who speaks Korean.

Answer. a. If Jane and her boss work as a team selling ice cream, Jane will want her boss to see her doing a good job. The boss knows that the quality of her work will be high without an efficiency wage because he is there to observe her.

b. If Jane sells ice cream without any direct supervision, the boss is not certain that Jane will try her best to sell as much ice cream as she can. The boss may want to pay her an efficiency wage to encourage her to work harder.
c. Jane’s boss will offer her an efficiency wage because he doesn’t want to lose an employee with a skill (speaking Korean) who is not easily replaced.

Ch8-Q8. How will the following changes affect the natural rate of unemployment?

a. The government reduces the time during which an unemployed worker can receive benefits.

b. More teenagers focus on their studies and do not look for jobs until after college.

c. Greater access to the Internet leads both potential employers and potential employees to use the Internet to list and find jobs.

d. Union membership declines.

Answer. a. If the government reduces the time during which an unemployed worker may obtain benefits, workers will be less willing to spend time searching for a job. This will reduce the amount of frictional unemployment and lower the natural rate of unemployment.

b. Since teenagers have a higher rate of frictional unemployment, this will lower the overall amount of frictional unemployment and lower the natural rate of unemployment.

c. Greater access to the Internet would facilitate job searches, reducing frictional unemployment, and lowering the natural rate of unemployment.

d. Since strong unions negotiate wages above the equilibrium level, they are a source of structural unemployment. A decline in union membership will reduce structural unemployment and, with it, the natural rate of unemployment.

Ch8-Q10: In the following examples, is inflation creating winners and losers at no net cost to the economy or is inflation imposing a net cost on the economy? If a net cost is being imposed, which type of cost is involved?

a. When inflation is expected to be high, workers get paid more frequently and make more trips to the bank.

b. Lanwei is reimbursed by her company for her work-related travel expenses. Sometimes, however, the company takes a long time to reimburse her. So when inflation is high, she is less willing to travel for her job.

c. Hector Homeowner has a mortgage with a fixed nominal 6% interest rate that he took out five years ago. Over the years, the inflation rate has crept up unexpectedly to its present level of 7%.

d. In response to unexpectedly high inflation, the manager of Cozy Cottages of Cape Cod must reprint and resend expensive color brochures correcting the price of rentals this season.
Answer: This is an example of the effect of shoe-leather costs, a net cost of inflation to the economy. Workers spend valuable resources going to the bank more frequently, firms spend valuable resources (such as bookkeepers’ time) in paying workers more frequently, and banks spend more resources in processing the greater volume of transactions.

b. This is an example of unit-of-account costs. A dollar when Lanwei spends it on a work-related expense is worth more than a dollar she receives much later in reimbursement from her company. Because she is less willing to travel for her job, there is a net cost to the economy of her forgone output.

c. This is an example of inflation creating winners and losers. As the inflation rate creeps up unexpectedly, the real value of the funds that Hector pays to the mortgage company falls. So Hector is better off as inflation increases, and the lender of his mortgage is worse off. At present, the real interest rate on his mortgage is negative: $6\% - 7\% = -1\%$. So he is now financing his house virtually cost-free.

d. This is an example of menu costs, a net cost of inflation to the economy. The manager of Cozy Cottages of Cape Cod must reprint and resend an expensive brochure because it is necessary to raise the price of rentals due to unexpectedly high inflation.