

CLAS Econ 2 Review Sheet 4 (Chapter 11)

Opening Questions:

1. Why is there always unemployment? How can we reconcile the Economic concept of equilibrium with unemployment?
2. How long do most people remain unemployed?
3. When would it make sense for a company to pay more to their employees than the equilibrium wage rate?

Important Definitions (Try to define for yourself first):

- Cyclical vs Natural Rate of Unemployment =
- Efficiency Wage =
- U - Rate =
- Labor-Force Participation Rate =
- Structural Unemployment =
- Minimum Wage and Unions =

Relate to Today

- Recently big names in the Tech industry such as Google, Amazon, and Microsoft have been performing mass layoffs. What type of unemployment would best match this trend?

Practice Problems

(Use this info for Qs 1. And 2.); In country A, the total population is 20 million, 30% of which are either below 16 or over 65. Of the population between 16 and 65, 0.5 million are disabled and cannot work, 2 million are full-time college students, 1.5 million are stay-at-home parents focusing on their children, 3 million are actively looking for jobs but cannot find them, and the rest are currently employed.

1. What is the labor force participation rate in country A?

- (a) 51% (b) 71% (c) 49% (d) 29%

2. What is the unemployment rate in country A?

- (a) 70% (b) 30% (c) 21% (d) 79%

3. In the town, there are 35 working adults, 25 unemployed but looking, 5 discouraged workers, 10 retired seniors, and 25 students. Which is greater: the unemployment rate or the labor force participation rate?

- a. Labor force participation rate
- b. Unemployment rate
- c. They are equal
- d. Cannot be determined

4. Suppose some country had an adult population of about 25 million, a labor-force participation rate of 60 percent, and an unemployment rate of 6 percent. How many people were unemployed?

- a. 6 million
- b. 0.846 million
- c. 0.9 million
- d. 1.5 million

5. In 2002, the demand for construction workers increased and the demands for textile workers diminished. This illustrates

- a. unemployment created by a sectoral shift.
- b. unemployment created by efficiency wages.
- c. unemployment created by globalization of the economy.
- d. unemployment created by frictional causes.
- e. none of the above.

6. Suppose that a well-respected study published in Child Psychology Today finds that a very high proportion of children raised by stay-at-home fathers are accepted to Harvard University. If a large number of previously working fathers quit their jobs and become stay-at-home dads, which of the following will occur, all else equal?

- i The unemployment rate will decrease.
- ii The size of the labor force will decrease.
- iii The number of unemployed people will increase.
- iv The unemployment rate will increase

- A (i) and (ii) only
- B (ii) and (iv) only
- C (i), (ii), and (iii) only
- D (ii), (iii), and (iv) only

Use Figure 1 to answer Qs 7 and 8

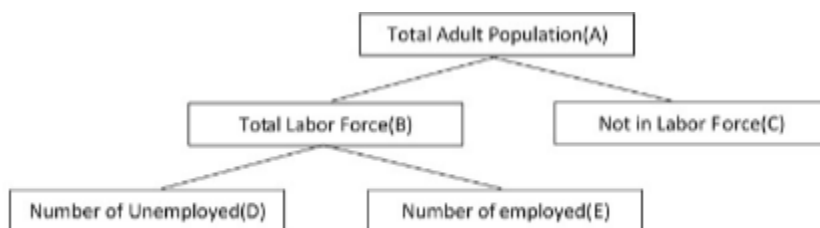


Figure 1: The breakdown of the total adult population

7.

According to the figure, which of the following is not included in the (C)?

- (a) Discouraged workers
- (b) Full-time student
- (c) Retired individuals
- (d) Those who are not working and are waiting to be called to a job from which they had been temporarily laid off

8.

According to the figure, the unemployment rate is:

- (a) $\frac{B}{A}$
- (b) $\frac{D}{A}$
- (c) $\frac{D}{B}$
- (d) $\frac{C+D}{A}$

9.

Consider a country with 500 adult population in 2018. Suppose in the year 2018, the labor force participation rate is unknown but the employment rate is 60%. Suppose further that in the year 2019, the labor force participation is 75%, and the employment rate is 80%. If the labor force participation rate increased from 2018 to 2019 and the total number of people unemployed remained the same, what must be true of the total adult population size in 2019?

- (a) The total adult population size is more than 1000 in 2019.
- (b) The total adult population size is less than 1000 in 2019.
- (c) The total adult population size increased.
- (d) The total adult population size decreased.

10.

Suppose the unemployment rate is 5%, and the number of employed is 45 million. The labor force participation rate is 77%. What is the number of total adult population?

- (a) 47.37 million
- (b) 58.44 million
- (c) 61.52 million
- (d) More information is needed.

11.

Smeagol loses his job and decides to wander in the Middle Earth and stop looking for work during the next few years. Other things the same, what happens to the unemployment rate and labor force participation rate in the Middle Earth?

- a. the unemployment rate increases and the labor-force participation rate decreases.
- b. the unemployment rate increases and the labor-force participation rate is unaffected.
- c. the unemployment rate is unaffected and the labor-force participation rate decreases.
- d. the unemployment rate and the labor-force participation rate are both unaffected.

Answers

Important Definitions

- Cyclical vs Natural Rate of Unemployment = The Natural Rate of Unemployment is the idea that unemployment will always occur and so the normal rate at which it sticks should be considered the baseline to which we compare our rates. Cyclical Unemployment is the ebbs and flows of unemployment which occur to natural upticks and downturns in the economy. Most unemployment lasts no longer than 14 weeks.
- Efficiency Wage = When a company pays a higher wage than equilibrium dictates in an attempt to make workers more productive.

- U - Rate =

$$u - rate = 100 \times \frac{\text{Number of people unemployed}}{\text{Labor force}}$$

- Labor-Force Participation Rate =

$$\text{Labor force participation rate} = 100 \times \frac{\text{Labor force}}{\text{Adult population}}$$

- Structural Unemployment = The type of unemployment caused by changes in technology or other circumstances in a part of the economy.
- Minimum Wage and Unions = A minimum wage exceeding the equilibrium wage may cause structural unemployment. Unions are organizations of workers which give more bargaining power to workers against corporations. There are conflicting views on both of these concepts based on the dilemma of “insiders” versus “outsiders” for Unions where people involved in the Union are better off while those who are not are worse off. Likewise, the minimum wage can force wages above equilibrium, thus lowering the quantity of jobs available.

1. B

1. $20 \text{ mil} \times 0.7 = 14 \text{ mil} \leftarrow \text{Adult Pop.}$

$14 \text{ mil} - 0.5 \text{ mil} - 2 \text{ mil} - 1.5 \text{ mil} = 10 \text{ mil} \leftarrow \text{Labor Force}$

(disabled unable to work) (Full-time college) (stay-at-home parents)

Labor Force Participation Rate = $\frac{\text{Labor Force}}{\text{Adult Pop.}} = \frac{10 \text{ mil}}{14 \text{ mil}} = 0.71 \times 100 = 71\%$

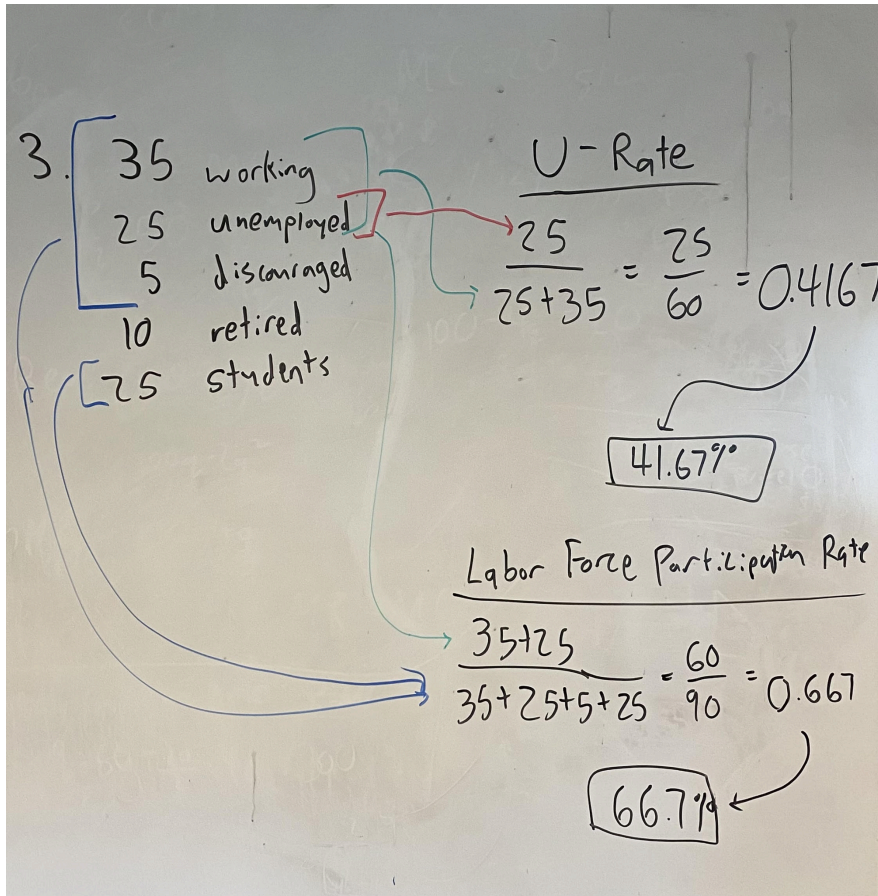
2. B

2. $10 \text{ mil} \leftarrow \text{Labor Force (from Q \#1)}$
 $3 \text{ mil} \leftarrow \text{Unemployed (from set-up)}$

Unemployment Rate = $\frac{\text{\# of people unemployed}}{\text{Labor Force}} = \frac{3 \text{ mil}}{10 \text{ mil}} = 0.3$

$0.3 \times 100 = 30\%$

3. A



4. C

5. A

6. B

7. D

8. C

9. B

10. C

11. C

EXTRA UNEMPLOYMENT AND INFLATION PRACTICE

1. The Bureau of Labor Statistics would categorize a retiree who is not working as

- A) employed.
- B) unemployed.
- C) a discouraged worker.
- D) out of the labor force.

2. The labor force equals the number of people

- A) employed.
- B) unemployed.
- C) employed plus unemployed.
- D) in the working-age population.

Total population	20,000
Working-age population	15,000
Employment	1,000
Unemployment	100

3. Refer to the table above. The unemployment rate for this simple economy equals

- A) $(100/1,000) \times 100$.
- B) $(100/1,100) \times 100$.
- C) $(100/15,000) \times 100$.
- D) $(100/20,000) \times 100$.

4. Refer to the table above. The labor force participation rate for this simple economy equals

- A) $(1,000/1,100) \times 100$.
- B) $(1,000/15,000) \times 100$.
- C) $(1,100/15,000) \times 100$.
- D) $(1,100/20,000) \times 100$.

5. Suppose the labor force stays constant, and the working-age population stays constant, but a greater number of persons who were unemployed become employed. The labor force participation rate will

- A) increase.
- B) decrease.
- C) remain constant.
- D) not change in a way that can be predicted.

6. The unemployment rate equals the number of unemployed divided by the _____, all times 100.

- A) number of employed
- B) labor force
- C) working-age population
- D) total population

7. Someone who is available for work but has not actively looked for work in the previous four weeks would be classified as

- A) employed.
- B) unemployed.
- C) not in the labor force.
- D) not in the working-age population.

8. Which of the following labor market statistics best indicates the amount of labor that is available to the economy from a given working-age population?

- A) unemployment rate
- B) discouraged-worker ratio
- C) labor force participation rate
- D) the ratio of minimum wage to inflation

9. Which of the following cause the unemployment rate (U-3) as measured by the Bureau of Labor Statistics to understate the true extent of joblessness?

- A) inflation
- B) discouraged workers
- C) people employed in the underground economy
- D) unemployed persons falsely report themselves to be actively looking for a job

10. The advice to "keep searching, there are plenty of jobs around here for which you are qualified", would be most appropriate for which of the following types of unemployment?

- A) frictional unemployment
- B) structural unemployment
- C) cyclical unemployment
- D) seasonal unemployment

11. Cyclical unemployment is the result of

- A) a persistent mismatch between the skills and characteristics of workers and the requirements of the jobs.
- B) the search process of matching workers with jobs.
- C) the ups and downs in inflation.
- D) a slowdown in the economy.

12. Economists consider full employment to occur when

- A) everyone who wants a job has a job.
- B) frictional unemployment equals zero.
- C) the sum of frictional unemployment and structural unemployment equals zero.
- D) the unemployment rate consists of only frictional and structural unemployment.

13. A lumberjack loses his job because timber cutting restrictions were imposed by the EPA to protect the spotted owl habitat. This lumberjack would be

- A) frictionally unemployed.
- B) cyclically unemployed.
- C) structurally unemployed.
- D) seasonally unemployed.

14. Workers laid off as a result of a recession suffer

- A) frictional unemployment.
- B) structural unemployment.
- C) cyclical unemployment.
- D) seasonal unemployment.

15. The average price of goods and services in the economy is also known as

- A) the price level.
- B) the inflation rate.
- C) a market basket.
- D) the cost of living.

16. Which of the following is true about the consumer price index?

- A) It accounts for people switching to goods whose prices have fallen.
- B) It assumes that consumers purchase the same amount of each product in the market basket each month.
- C) It frequently updates the price changes of new products added to the market basket, as these have a tendency to fall.
- D) It filters out the part of price increases that occurs because of quality improvements in products.

17. Which of the following price indices comes closest to measuring the cost of living of the typical household?

- A) GDP deflator
- B) producer price index
- C) consumer price index
- D) household price index

ANSWERS

1. D) Out of the labor force

The labor force is composed of people currently employed and those looking for employment. Someone who is retired fits neither of these criteria.

2. C) Employed + Unemployed

Only those who are looking for employment or already have a position are counted.

3. B) $(100/1,100) \times 100$.

$1,000 + 100 = 1,100 \leftarrow$ Labor Force

Formula: $[(\# \text{ of Unemployed})/(\# \text{ of Employed} + \# \text{ of Unemployed})] \times 100$

4. C) $(1,100/15,000) \times 100$.

Formula: $[(\text{Labor Force}/\text{Adult Pop.})] \times 100$

5. C) Labor Force Participation Rate stays the same.

As people shift from unemployed, the ratio is unfazed:

Formula: $\text{LFPR} = [(\text{LF})/(\text{Adult Pop.})] \times 100 = [(\text{Employed} + \text{Unemployed})/(\text{Adult Pop.})] \times 100$

6. B) Labor Force

U-Rate:

Formula: $[(\text{Unemployed})/(\text{Labor Force})] \times 100$

*** $(\text{Labor Force} = \text{Employed} + \text{Unemployed})$

7. C) Not in the labor force

Someone who is not actively searching for employment and is not currently employed is a discouraged worker. Discouraged workers are not counted in the Labor Force (Employed + Unemployed only).

8. C) Labor Force Participation Rate

LFPR measures how many people are working or looking for a job versus the total amount of people eligible to work

Formula: $[(\text{Labor Force})/(\text{Adult Pop.})]$

*** $(\text{Labor Force} = \text{Employed} + \text{Unemployed})$

9. B) Discouraged Workers

The U-Rate under-reports people without jobs by not counting discouraged workers.

Discouraged workers are people who are eligible to work but no longer looking for a job. For this reason, these people are not reported as jobless when they are.

10. A) Frictional Unemployment

Someone who is in between jobs is frictionally unemployed. Advice to keep searching for a job makes sense for someone with this type of unemployment, where it might not for someone who is structurally unemployed and their line of work is now completely gone.

11. D) Cyclical Unemployment

Fits with ups and downs of the Economy, When the Economy takes a downturn, unemployment rises in a cyclical fashion.

12. D) Only some frictional and structural unemployment.

The Economy is at full employment when there are only some people in between jobs (frictional unemployment) or old industries have been phased out and the workers in those industries are looking for a job to replace that role (structural unemployment).

13. C) Structurally Unemployed

The lumberjack's job is lost due to a change in the industry.

14. C) Cyclical Unemployment

A recession is a downturn in the Economy, and therefore people unemployed by this event are cyclically unemployed.

15. A) The Price Level

The average of all prices in the economy is the price level. As it moves, inflation or deflation occur.

16. A) It accounts for substitution.

If consumers switch from one good in the market basket to another, the change will be captured in the quantities. The CPI has goods that are substitutes so that this change can be reflected.

17. C) Consumer Price Index

The CPI picks goods which typical households consume to build the market basket.