



Microeconomics: Unemployment

One key characteristic of a healthy economy is the employment rate. How many people are employed in a country or area is linked to the living conditions of those residents and the productivity in output of that economy. The statistics commonly used to analyze employment issues are participation rate and unemployment rate.

The **working age population** is defined as the total number of people of working age in a country. The **labour force** is defined as the number of working age adults in the population who are able and willing to work, not just those with jobs!

An **unemployed** adult is someone who does not have a job, but is willing and able to work, and is looking for a job. The labour force can also be defined as the number of employed adults plus the number of unemployed adults. Someone who is NOT looking for work, like a student, retiree, or stay-at-home parent, is not considered to be unemployed. These people are not included in the labour force.

There may also be a portion of the labor force who is working part-time even though they want to work full-time: they are considered **involuntary part-time** workers.

$$\text{Participation Rate (\%)} = \frac{\text{Labour force}}{\text{Working Age Population}} \times 100$$

$$\text{Unemployment Rate (\%)} = \frac{\text{Number of unemployed}}{\text{Labour force}} \times 100$$

$$\text{Involuntary Part-time Rate (\%)} = \frac{\text{Number of part-time employed}}{\text{Labour force}} \times 100$$

A more in-depth analysis of unemployment divides the type of unemployment into 5 categories: (1) cyclical unemployment, (2) frictional unemployment, (3) structural unemployment, (4) insurance-induced unemployment and (5) seasonal unemployment.

Cyclical unemployment: due to highs and lows of the business cycle. When business is good, cyclical unemployment will be low, but when business is bad (recession), cyclical unemployment will be high. A business won't need as many workers when it's not able to sell many of its goods and services.

Frictional unemployment: VOLUNTARY unemployment that occurs primarily when the economy is good. With many available job opportunities, people are willing to leave their current job to find a better and/or new job. Tends to be short-term issue.

Structural unemployment: due to a mismatch between the skills required by employers and those of unemployed people. Major causes: changes in production

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technology & changes in product demand. Can also be geographical issue – lots of jobs available in an area where not many people are looking for work. Long-term issue.

Insurance-induced unemployment: choosing to remain unemployed if the EI payments are high enough (or higher than what the person earns by actually working) to survive on.

Seasonal unemployment: due to seasonal work ending in certain industries (tree planting, ski resorts, fishing resorts, etc. have seasons of needing employees and seasons of not needing them); short-term issue.

So, “Is zero unemployment the ideal situation for an economy?” The answer is surprisingly NO.

In an economy functioning at full employment, there will *always* be some level of unemployment made up of frictional, seasonal, and structural unemployment. This is called the **Natural Rate of Unemployment**, or the **Non-Accelerating Inflation Rate of Unemployment (NAIRU)**. At any level of unemployment less than the NAIRU, the economy will be operating over full capacity (overtime/over-utilization of factors of production as the supply side tries but is unable to meet the excessive demand for goods and services) and result in inflation.

By comparing the current unemployment rate to the NAIRU, we can tell whether we are in a recession or a period of inflation. If the unemployment rate is greater than the NAIRU, we are experiencing a recessionary period.

One other issue in unemployment rate analysis is the **discouraged worker effect**. Discouraged workers are also called the “hidden unemployed”; these are workers without a job who give up looking for jobs as they don’t think any exist for them. They are no longer considered part of the labour force (observe a decline in participation rate), and the unemployment rate appears to decrease.

The downside of this effect occurs during economic boom times when the number of job openings is increasing and people are more optimistic about finding work. Discouraged workers re-enter the labour force at this time and seemingly increase the unemployment rate during a boom time.



Practice Problems

1. Identify which of the five types of unemployment is shown in each example:
 - (a) Jaime's job at Whistler ski resort has ended and he's looking for summer work.
 - (b) Corinne was fired from her job during a round of cuts in her company due to falling levels of sales/production.
 - (c) Fred is staying at home to take care of his two year old.
 - (d) Jeanine quit her job as a legal aide to look for a better paying job elsewhere.
2. Baruba's population is 180 million, of which 144 million people are of working-age. The labour force is 117 million people and 110 million are currently employed. (a) What is the participation rate? (b) What is the unemployment rate?
3. The unemployment rate refers to:
 - (a) the percentage of the labour force that is unemployed
 - (b) the percentage of the working age population that is unemployed
 - (c) the percentage of the population that is in the labour force
 - (d) the percentage of the total population that is unemployed
4. Structural unemployment exists:
 - (a) when there is a mismatch of workers and jobs
 - (b) at full employment
 - (c) only in the short term
 - (d) only when there is cyclical unemployment
 - (e) answers a, b, and c
 - (f) answers a and b
5. True or false. If the unemployment rate is 8% and the NAIRU is 6.5%, the country is in a recession. Explain.
6. The current unemployment rate in Caratas is 7%. The country is moving out of a recession and into economic recovery. The unemployment rate increases to 9%. How is this possible?
7. From one year to the next, the number of employed people in Country W increases to 11.3 million and the population of people over the age of 15 grows to 20 million. The participation rate grows to 62%. Determine the unemployment rate for Country W.



Solutions

1. (a) Seasonal (b) Cyclical (c) Not a type of unemployment (d) Frictional
2. (a) 81.3% (b) 6.0%
3. a
4. f
5. True. Since the unemployment rate is greater than the NAIRU, the country is operating at less than full capacity and is experiencing a recession.
6. The unemployment rate is likely increasing with increasing economic performance due to the discouraged worker effect. People who had removed themselves from the labour force are now re-entering as unemployed workers believing that there is more job availability in suitable jobs for themselves.
7. Number of unemployed workers is 1.1 million; unemployment rate = 8.87%

