

Unemployment and Its Natural Rate

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Unemployment: Learning Objectives

After the lesson, you will be able to answer the following questions:

- How is unemployment measured?
- What is the “natural rate of unemployment”?
- Why are there always some people unemployed?
- What are the different types of unemployment and their causes

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Labor Force Statistics: Household Survey

- Based on a survey of 60,000 households, the BLS divides civilian noninstitutional adult population into 3 groups:
- **Employed**: paid employees (full or part-time), self-employed, and unpaid workers in a family business
- **Unemployed**: people not working but who are actively looking for work.
- **Not in the labor force**: everyone else
- The **Labor Force** is the total # of employed and unemployed people.

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Labor Force Statistics

- **Unemployment rate ("u-rate"):** % of the labor force that is unemployed:

$$\text{U-rate} = 100 \times \frac{\# \text{ of unemployed}}{\text{Labor force}}$$

- **Labor force participation rate:** % of the adult population that is in the labor force

$$\text{Labor Force Participation Rate} = 100 \times \frac{\text{Labor Force}}{\text{Adult Population}}$$

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ACTIVE LEARNING: Calculate labor force statistics

Compute the **labor force**, **u-rate**, **adult population**, and **labor force participation rate** using this data:

U.S. Adult population by age group, August 2020

Group in the Labor force	in Millions
# of employed	147.288
# of unemployed	13.550
# not in the labor force	99.720

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Limitations of the u-rate:

- The official u-rate understates the problem in the labor market by excluding
- **Discouraged workers:** people not working but given up looking for a job given the state of the job market
- **Marginally attached workers:** would like to be employed and have looked for a job in the recent past but are not currently looking for work. (The discouraged workers are part of this larger group)
- **Underemployed:** are those who work part time because they cannot find full-time jobs.

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Labor Market Statistics for Different Groups

- The BLS publishes these statistics for demographic groups within the population.
- These data reveal widely different labor market experiences for different groups: by age (teens vs prime time adults), race, gender, education level, etc.

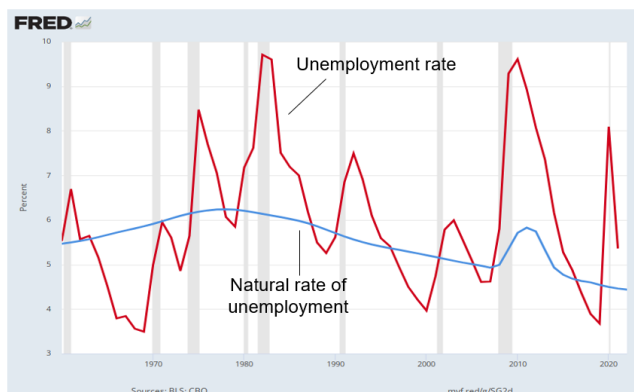
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Different types of unemployment and causes

- There's always some unemployment, though the u-rate fluctuates from year to year.
1. **Natural rate of unemployment (NARU, NAIRU)**, the normal rate of unemployment around which the actual unemployment rate fluctuates
 2. **Cyclical unemployment**, the deviation of unemployment from its natural rate associated with business cycles (recessions and booms)
- The **Actual unemployment** is the sum of these two

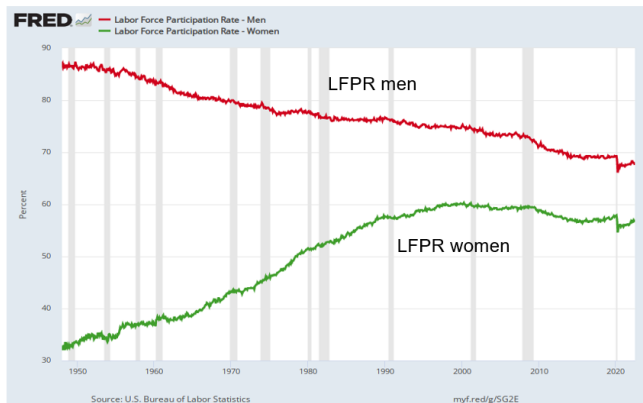
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U.S. Unemployment, 1960-2022



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LF participation rates of women and men, 1948–2022



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Active Learning: Limitations of the u-rate

In each of the following, what happens to the u-rate? Does the u-rate give an accurate impression of what's happening in the labor market?

- Sue lost her job and begins looking for a new one.
- Jon, a steelworker who has been out of work since his mill closed last year, becomes discouraged and gives up looking for work.
- Sam, the sole earner in his family of 5, just lost his \$80,000 job as a research scientist; and he takes a part-time job at McDonald's until he can find another job in his field.

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Explaining the Natural rate of unemployment

1. Frictional unemployment:

- Results because it takes time for workers to search for the jobs that best suit their tastes and skills
- Short-term for most workers

2. Structural unemployment:

- Results because the number of jobs available in some labor markets is insufficient to provide a job for everyone who wants one
- Due to wages stuck above the equilibrium level
- Usually, longer-term

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Explaining Frictional Unemployment

- **Job search:** the Process by which workers find appropriate jobs given their tastes and skills
- Some frictional unemployment is inevitable
- Because the economy is always changing
- **Sectoral shifts:** changes in the composition of demand among industries or regions
- Changing patterns of international trade

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Public Policy 1: Job Search help

- Government-run employment agencies provide information about job vacancies
- Public training programs aim to ease workers' transition from declining to growing industries and help disadvantaged groups escape poverty
- This role of govt has advocates and critics

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Public Policy 2: Unemployment Insurance

Unemployment insurance, UI: government program that partially protects workers' incomes when they become unemployed

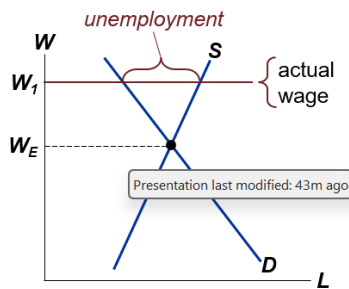
- Reduces the hardship of unemployment, income uncertainty, helps people to have more time to search according to their tastes and skills
- Increases unemployment: UI benefits end when a worker takes a job, so workers have less incentive to search or take jobs while eligible to receive benefits.

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Explaining Structural Unemployment

Structural unemployment occurs when there are not enough jobs to go around.

- Occurs when wage is kept above equilibrium.
- There are three reasons for this.



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The Three reasons why wage rates above eqm

1. The minimum wage (if binding)
2. Unions: if they succeed bargaining higher wages above the market rate. Insiders vs outsiders
3. Efficiency Wages: Some firms voluntarily pay above-equilibrium wages to boost worker productivity and increase firm profitability, but this causes unemployment because the wage rate is above eqm.

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1. Minimum Wage

- Matter most for those with low levels of skill and experience, such as teenagers
- Causes structural unemployment
- Quantity of labor supplied exceeds the quantity of labor demanded
- Workers are unemployed because they are waiting for jobs to open up

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2. Unions

- Worker association that bargains with employers over wages, benefits, and working conditions
- Exert their market power to negotiate higher wages for workers.
- Unions raise the wage above equilibrium and cause unemployment: insiders better-off, outsiders worse-off
- Some outsiders go to non-unionized labor markets, which increases labor supply and reduces wages in those markets.

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Are Unions Good or Bad for the Economy?

Critics:

- Unions are cartels: they raise wages above equilibrium, which causes unemployment and depresses wages in non-union labor markets
- Inefficient and inequitable

Advocates:

- Unions counter the market power of large firms
- Make firms more responsive to workers' concerns
- Keep a happy and productive workforce

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3. Efficiency Wages

- The theory of efficiency wages: Firms voluntarily pay above-equilibrium wages to boost worker productivity and increase firm profitability
- Different types of efficiency wage theories suggest different reasons why firms pay high wages:
- higher wages results in *healthy workers*, lower *worker turnover*, attracts *higher quality* workers, increase *worker's effort* (by lowering shirking on the job), increases *worker's moral*, which inturn increase productivity

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ACTIVE LEARNING: Applying the concepts

Which type of unemployment is increased or decreased by each of the following?

A. The govt eliminates the minimum wage. B. The govt increases unemployment insurance benefits. C. A new law bans labor unions. D. More workers post their resumes at “indeed.com”, and more employers use “indeed.com” to find suitable workers to hire. E. Sectoral shifts become more frequent due to job creation and destruction.

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SUMMARY

The natural rate of unemployment consists of frictional unemployment - It takes time to search for the right jobs - Occurs even if there are enough jobs to go around structural unemployment - When wage is above eq'm, not enough jobs - Due to min. wages, labor unions, efficiency wages cyclical unemployment, the short-term fluctuations in unemployment associated with business cycles (more detail in later chapters).

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