



UNEMPLOYMENT CONCEPT AND MEASUREMENT OF UNEMPLOYMENT RATE. NATURAL UNEMPLOYMENT THEORY AND ECONOMIC CONSEQUENCES OF UNEMPLOYMENT

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ABSTRACT

This article provides a comprehensive description of the theoretical foundations and practical measurement methods of unemployment concept and unemployment rate. Unemployment represents the situation where economically active population cannot utilize their skills and labor; the article examines the main forms of unemployment (frictional, structural, cyclical, seasonal, hidden) and their causes. Additionally, the unemployment rate and its various measurement criteria (such as international standards like U-3, U-6) are explained, which are widely used in labor market assessment. In the context of Uzbekistan, political-economic tools are recommended to ensure labor market stability based on legal-normative organizations, reports of the Labor Statistics Bureau and recommendations of international organizations. Through the practical section, the article analyzes unemployment among youth, seasonal jobs, skill matching and the impact of economic policy on unemployment. The research methodology shows the use of theoretical concepts, official statistics and case studies.

Introduction. Unemployment rate: the percentage of unemployed labor force, which is the ratio of the number of workers who are not yet employed but could be employed to the total labor force. This indicator is widely used to describe labor market activity. In Uzbekistan, the main points regarding the concept and rate of unemployment are found in the Constitution and relevant laws: the concept of unemployment finds its expression within the framework of norms regulating labor relations. In particular, the "Law on Employment of Population" regulates relations between job seekers and employers. Official definitions: unemployment is considered as the situation where the economically active population remains unable to find suitable work or cannot utilize their skills. The causes of unemployment are varied and include factors such as decreased demand for labor, increased labor productivity due to technological development, or mismatch of skills in the market. Labor market monitoring: the unemployment rate is calculated by the Labor Statistics Bureau

through various methods; the most common statistical indicators like U-3 exist, as well as broader criteria like U-6 are also used. U-3 usually represents the overall unemployment rate, while U-6 represents a broader view from the perspective of market disadvantages. Variability: the unemployment rate may show significant changes due to economic growth or decline, the weight of industrial sectors, or among young or inexperienced workers.

General concepts on measuring unemployment rate: Calculation principle: determining the ratio of labor force that is currently not employed but could be employed. This is important to ensure activity levels in different segments of the population. Data sources: the Labor Statistics Bureau collects data according to various criteria and publishes it periodically or annually. In particular, calculations exist for economically inactive population, labor-capable population according to international measurements.

Okun's Law is a macroeconomic law proposed by economist Arthur Okun, which expresses the relationship between the unemployment rate and economic growth. According to this law, when the unemployment rate increases by 1% above the natural rate, the country's gross domestic product (GDP) decreases by approximately 2.5-3%, or conversely, when GDP volume increases by 3%, the unemployment rate decreases by 1%.

The natural unemployment theory explains the unemployment rate that constantly exists in the labor market in the economy. According to this theory, the natural rate of unemployment is the sum of frictional unemployment (temporary unemployment due to transition from one job to another or change of residence) and structural unemployment (arising due to mismatch of professional skills or changes in the production sector). When the natural unemployment rate is reached, an equilibrium state is established where the number of workers and the number of job vacancies are equalized.

The natural rate of unemployment is considered economically acceptable to a certain extent, because time is necessary to find new jobs or learn new professions. Therefore, if the actual unemployment rate is higher than the natural rate, the economy cannot reach its potential production level. This law was mathematically proven by the English economist Arthur Okun, and is called Okun's Law. According to it, when the unemployment rate decreases by 1%, GDP increases by 2.5%.

Unemployment has many negative consequences for the economy. If the unemployment rate is high, the country's gross domestic product (GDP) falls behind its economic potential. This difference is explained by Okun's Law: when the unemployment rate exceeds the natural rate by 1%, a decrease in GDP volume of 2.5% is observed. Thus, unemployment slows down or reduces economic growth, resulting in the country's economy declining instead of developing.

In addition, unemployment causes many socio-economic problems: the net income of the population decreases, the poverty level increases, social activity decreases, and it affects people's standard of living. Unemployed people may lose their skills, experience a decline in social status, and face psychological stress. This leads to social instability and other problems, hindering the country's sustainable development.

Measurement of unemployment rate. The unemployment rate is one of the most important economic indicators showing the amount of unemployment in the economy.

1. Formula of Unemployment Rate. The unemployment rate is calculated using the following formula:

$$\text{Unemployment rate (\%)} = (\text{Number of unemployed} / \text{Total labor resources}) \times 100\%$$

Where:

- **Number of unemployed:** As defined above, the number of labor-capable population actively seeking work.

- **Labor resources:** This is the sum of the employed (employed) and unemployed.

$$\text{Labor resources} = \text{Number of employed} + \text{Number of unemployed}$$

Example: If 50 million people in a country are part of the labor resources, and 3 million of them are unemployed, the unemployment rate would be: $\text{Unemployment rate} = (3 \text{ million} / 50 \text{ million}) \times 100\% = 6\%$

2. Data Collection Methods. The following methods are used to obtain information about unemployment:

- **Population Census:** A general count conducted at a specific time (usually once every 10 years). This method is the most accurate, but because it is very expensive and time-consuming, it is not used frequently.

- **Sample Surveys:** The most common method. Statistical agencies conduct surveys of randomly selected households across the country, collecting information about the employment status of their members and their job search activity. In Uzbekistan, this work is mainly carried out by the Ministry of Labor and Social Protection of the Population of the Republic of Uzbekistan and the State Statistics Committee.

3. Limitations in Measuring Unemployment

The unemployment rate does not always fully reflect the real situation. There are several reasons for this:

- **Informal Employment:** Those employed in unregistered, "hand-to-hand" paid jobs are not included in statistics. This indicator is especially important for developing countries.

- **Discouraged Workers:** Those who have given up looking for work are not officially counted as unemployed because they are not actively seeking work, but they are people who can and want to work. This situation shows the actual unemployment rate as lower.

- **Underemployment:** People who are looking for full-time work but have only found part-time work are recorded as "employed" in statistics. This indicates that their full labor potential is not being utilized.

Conclusion: Unemployment is an integral part of any economy, being one of the important indicators that determines the state of the labor market, the level of economic stability, and the welfare of the population. The existence of unemployment means that economic resources are not fully utilized, and this situation directly affects the country's GDP volume. Therefore, studying the causes of unemployment, its types, and developing effective policy measures against it is one of the priority directions of economic policy. By determining the unemployment rate, assessing its natural rate, and studying trends in the labor market, it becomes possible to ensure economic growth, expand employment, and strengthen the social protection of the population.

References:

- 1.Элов, О., Касимов, А., & Холбоева, М. (2024). ЭВОЛЮЦИЯ И БОРЬБА С ТЕНЕВОЙ ЭКОНОМИКОЙ В УЗБЕКИСТАНЕ. " Science Shine" International scientific journal, 14(1).
- 2.Элов, О. К., & Исмоилов, У. Б. (2023). ЦИФРОВИЗАЦИЯ ПОТРЕБЛЕНИЯ. ЭКОНОМИКА И СОЦИУМ, (6-1 (109)), 1202-1206.
- 3.Elov, O. K., Holboyeva, M. A., & qizi Pirmamatova, N. K. (2023). MAKROMARKETING VA MIKROMARKETING O'RTASIDAGI FARQLAR. Educational Research in Universal Sciences, 2(12), 112-116.
- 4.Elov, O. K., Berdialiyeva, S., & Ortiqova, S. (2023). B2B MARKETING VA SANOATDAGI O 'RNI. Educational Research in Universal Sciences, 2(18 SPECIAL), 130-133.
- 5.Komilovich, E. O., Holboyeva, M., & Pirmamatova, N. (2023). MIJOZLARNING ONLAYN XARID QILISHDAN QONIQISHI. Educational Research in Universal Sciences, 2(17), 485-487
- 6.Elov, O., & Kuvandikova, B. (2025). INTERNATIONAL MODELS OF MANAGEMENT: BY NAVOIY REGION. Академические исследования в современной науке, 4(32), 141-146.
- 7.Elov, O., Niyatova, I., & Toshtemirova, M. (2025). FACTORS OF MANAGING AND RESOLVING CONFLICTS: THE CASE OF NAVOI REGION. Академические исследования в современной науке, 4(31), 123-128.
- 8.Elov, O., & Xidirova, S. (2025). COMPARATIVE MANAGEMENT MODELS. Академические исследования в современной науке, 4(30), 95-99.
9. Kalonov, B. H., & Latipov, N. F. (2021). Characteristics of geographical location of the population of Navoi region. International Journal of Progressive Sciences and Technologies, 25(2), 477-479.
- 10.Karshibaevna, K. N., Kahramonovna, Z. D., & Normurod Faxriddino'g'li, L. (2022). Some problems with creating a medical-geographical atlas map of Uzbekistan. International journal of early childhood special education, 58365840, 13.
- 11.Ugli, L. N. F. (2019). Geourbanistic's role in socio-economic geography. International scientific review, (LXV), 47-50.
- 12.Komilova, N., & Latipov, N. (2022). Classification of settlements on the basis of the ecological situation in the Navoi region and the factors affecting the health of the population. Visnyk of VN Karazin Kharkiv National University, series" Geology. Geography. Ecology", (56), 209-213.
- 13.Kalonov, B. H., Latipov, N. F., & Shirinova, M. S. (2021). Environmental problems in the Navoi region cotton field. Мировая наука, (4 (49)), 15-18.
- 14.Latipov, N. F. (2021). Factors influencing the territorial distribution of the population. Экономика и социум, (9 (88)), 105-108.