

UNEMPLOYMENT BENEFITS AND INCOME INEQUALITY: THE ARMENIAN EXPERIENCE

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Introduction

Recently the problem of income inequality has become more acute in Armenia due to the coronavirus epidemic and the Artsakh-Azerbaijani war. This has revitalized interest in analyzing the determinant of income disparities and one of them is the labor market institutions. Labor market institutions are crucial not only for regulating the labor market but also for redistributing income. Therefore, there is a necessity to analyze the working and the non-working labour market institutions in the Republic of Armenia (RA). The unemployment benefits system, once a key labor market institution in Armenia, was later discontinued. Unemployment is a type of social insurance that enables an individual to claim for monetary benefits if he is out of job for sometime and looking for new job. Therefore, the analysis of unemployment benefits in the context of income inequality research is rather important. This research seeks to evaluate why unemployment benefits ought to be removed and whether their reinstatement is warranted.

Methodology

To evaluate the impact of unemployment benefits on income inequality in Armenia, a model was developed with unemployment benefits from the state budget as the independent variable and the income inequality index, as presented in the study by Avagyan and Torosyan, as the dependent variable [Avagyan, Torosyan, 2022, 9-26]. To calculate the income inequality index, it was essential to examine the income structure of the population across individual decile groups. This analysis revealed four primary sources of income for both the first and fifth quantiles: wage labor, government pensions and allowances, the sale of agricultural products and livestock, and transfers. To analyze changes in population income, it was necessary to focus on these four income sources. However, due to the lack of quarterly data on wage labor income, government pensions and allowances, sales of agricultural products and livestock, and transfers, proxy indicators were selected. These proxies were chosen based on their availability and their consistency with the dynamics of the original income sources. Correlation analysis was used to select income sources and their corresponding proxy variables by measuring the strength of their relationships. The average monthly nominal salary was chosen to represent wage labor income, state budget allocations for pensions and social benefits were used to represent government-provided income, the agricultural food producers' sales

price index was selected to represent income from agricultural products and livestock, and remittance data was used as a proxy for transfer income. The growth rates of these indicators were calculated and weighted according to the contribution of each income source for the given year. Summing these weighted contributions provided the overall growth rate of population income changes. Income inequality was calculated using the ratio of income growth rates between the fifth and first quantiles. A ratio greater than 1 indicated faster income growth for the fifth quantile compared to the first, signaling increasing inequality. Conversely, a ratio between 0 and 1 suggested faster income growth for the first quantile, indicating decreasing inequality [Avagyan, Torosyan, 2022, 9-26]. Thus, the model evaluating the impact of unemployment benefits on income inequality is as follows:

$$QF = \beta_0 + \beta_1 * UB,$$

where the QF is an index characterizing income inequality, UB is the amount of benefits provided for unemployment from the state budget.

The least squares method was used in model calculation and all variables were included in the models with quarterly data calculated with their natural base logarithms. The models were calculated on the basis of data from 2008-2013, due to the availability and comparability of data on the studied factors.

Literature review

Unemployment benefits for the first time, appeared in Switzerland and England at the end of the 18th century and at the beginning of the 19th century [Kaufmann, 1946, 85-89]. These early systems were created for particular classes of workers closest to the manufacturing process and finally grew larger. By 1949, 22 European countries had implemented some form of unemployment benefit system [Berg, Kucera, 2008, 9-32]. In Armenia, unemployment benefits were first introduced on December 3, 1991, under the RA Law on 'Population Employment,' enacted by the RA Supreme Council [RA Supreme Council, 1991]. Over time, the legislation governing unemployment benefits underwent numerous changes. The system remained in effect until January 1, 2014, when the RA National Assembly passed the Law on 'Employment,' which excluded unemployment benefits from the state's social guarantees in the employment sector [RA National Assembly, 2013].

The structure and administration of unemployment benefit systems vary significantly across countries. Broadly, there are three types: voluntary state-subsidized systems, targeted programs, and compulsory unemployment insurance programs. Voluntary state-subsidized systems, often established by trade unions and public organizations, allow employees to voluntarily contribute financial resources in exchange for benefits in case of dismissal. Targeted unemployment benefit programs primarily focus on socially disadvantaged groups who are most affected by job loss. Compulsory unemployment insu-

rance programs provide temporary financial assistance so they can afford basic necessities while searching for new employment [Esser et al., 2013, 4-9].

In the long run, adverse effects of unemployment compensation emerged. Mortensen was among the first authors to address these questions in his papers, pointing to the effect of unemployment benefits on the behavior of job seekers. Specifically, when benefits are high and accessible for extended periods, they may reduce individuals' motivation to find employment [Mortensen, 1977, 505-517]. Another perspective suggests that unemployment benefits impact price levels. When benefit amounts are high, workers may pressure employers to raise wages, as they can achieve comparable income without working. Higher wages, in turn, increase the cost of goods and services, ultimately driving up overall price levels [Pissarides, 2000, 70-75].

Recent empirical research indicates that unemployment benefits can significantly increase individuals' efforts to find work, particularly as the benefits approach their expiration [Filges et al., 2013, 27-37]. For example, Kruger and Mueller's study demonstrated that job search efforts increase dramatically when unemployment benefits are limited to the duration of one to two months [Krueger, Mueller, 2010, 298-307].

Several studies have evaluated the impact of unemployment benefits on income inequality. For instance, Cecchi and García-Penalosa analyzed data from 16 OECD member countries between 1969 and 2004. Their findings indicated that unemployment benefits reduce income inequality but increase unemployment. This outcome occurs because unemployment benefits provide additional income for the unemployed, potentially reducing their urgency to seek new employment. The study found that a one percentage point increase in unemployment benefits reduces the Gini coefficient by 1.3 points [Cecchi et al., 2008, 602-649]. Another study was conducted by Osberg, who looked at Canadian demographics in the 1980s. Osberg found that unemployment benefits reduce income inequality. In addition, according to the author, unemployment benefits provide additional economic security for the population [Osberg et al., 1997, 96-102]. There are also authors who found in their analysis that unemployment benefits have a negative impact on income inequality. Carreiro and Philander conducted an analysis of unemployment benefit systems in European countries and their effects on income inequality. Their results pointed at the beneficial connection between unemployment benefits and income inequality, which means that unemployment benefits lead to the increase of income inequality among the population [Carreiro et al., 2019, 498-514].

Russian researchers Vishnevskaya, Zudina, Kapeliushnikov, Lukyanova, Oshchepkov, and Sharunina also examined the impact of unemployment benefits on income inequality. From their study, they discovered that unemployment benefits are very important in filling the income needs of those who have been laid off at work, especially the low income

earners. But the authors also pointed out that unemployment benefits that are insufficiently low can make income distribution even worse [Vishnevskaya, 2021, 79-88].

In summary, opinions on the impact of unemployment benefits on income inequality vary. While some researchers argue that unemployment benefits positively influence income distribution, others hold the opposite view. But, it can be generalised that all types of unemployment benefits are detrimental to employment. It is therefore tied to its employment and influence of income distribution. If unemployment benefits significantly impact employment, they are also likely to negatively influence income inequality.

Scientific novelty

This study provides fresh evidence on the relationship between unemployment benefits, and income distribution with a focus on Armenian context, which is understudied in the existing literature. The key innovations of this research are as follows:

Context-Specific Analysis: Unlike prior studies that primarily focus on developed economies or OECD countries, this research highlights the Armenian experience, an underexplored context where unemployment benefits were withdrawn entirely.

Empirical Measurement with Income Quantiles: The paper introduces a model that measures income inequality by analyzing the income growth rates of the fifth and first quantile groups. This approach captures the redistributive effects of unemployment benefits more precisely, showing how benefits impact different income strata.

Redistributive Function Failure: The study identifies the failure of Armenia's unemployment benefit system to fulfill its intended redistributive role, as benefits primarily impacted higher-income groups rather than low-income earners. This sheds light on the critical importance of benefit targeting and adequate benefit levels in achieving income equality goals.

Policy Implications for Developing Economies: By dissecting the structural and administrative shortcomings of Armenia's unemployment benefit system this study offers actionable recommendations for policymakers. It underscores the necessity of adopting targeted, equitable and efficient unemployment benefit schemes that mitigate income inequality without adverse effects on employment, providing a roadmap for social policy development in similar economies.

Analysis

Researchers have conflicting opinions on the impact of unemployment benefits on income inequality. Some argue that unemployment benefits positively influence income distribution by acting as a state mechanism to redistribute income from high-income to low-income earners. Others contend that unemployment benefits negatively affect income inequality due to their adverse impact on employment. To evaluate the impact of

unemployment benefits on income inequality in Armenia, two key questions must be addressed: first, how unemployment benefits affected the distribution of income across population and second how it impacts employment.

First, the study elucidates how unemployment benefits impacted various groups of people by looking at how unemployment benefits impacted people’s incomes. The rationale behind unemployment benefit is to provide temporary financial support to individuals who have lost their jobs and primary sources of income. Therefore, unemployment benefits are expected to first and foremost affect the unemployed since those who lose their jobs are among the lowest income earners. To evaluate this, data on the number of unemployment benefit recipients and the incomes from state pensions, benefits, and scholarships for the first quantile group were analyzed.

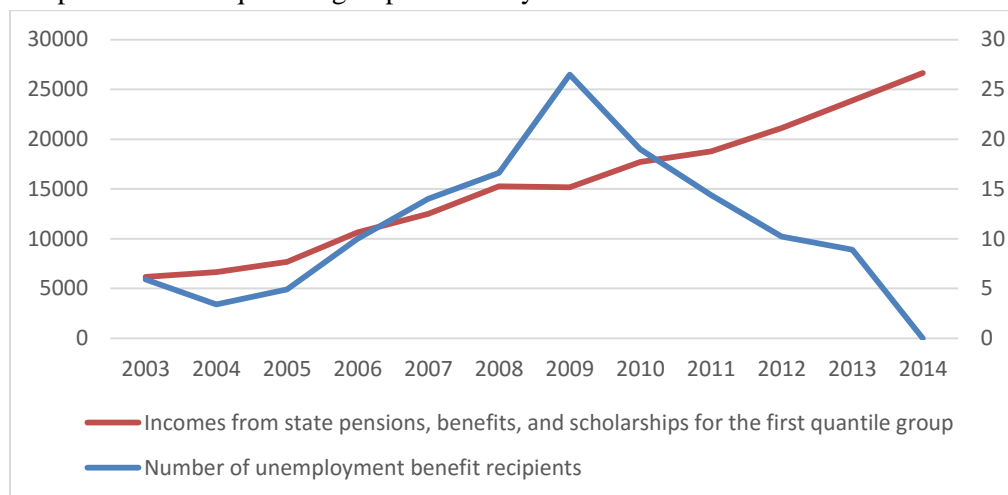


Figure 1. The number of beneficiaries receiving unemployment benefits (1000 people) and incomes received from state pensions, benefits and scholarships of the population of the first quantile group (dram), 2003-2014 [ARMSTAT, 2015]

An analysis of trends in the number of unemployment benefit recipients and the income from state pensions, benefits, and scholarships for the first quantile group revealed no clear correlation between the two indicators, despite an expected logical relationship. For instance, when there are more beneficiaries under the unemployment, the incomes of the first quantile group did not state a high level. In 2008-2009 the number of unemployment beneficiaries increased from 16.6 thousand to 26.5 thousand, a near 60%. At the same time, the growth rate of incomes from the state pensions, benefits, and scholarships for the first quantile group reduced. Similar tendency was observed in years when number of unemployment beneficiaries dropped. The same picture can be observed in the years when the number of unemployment beneficiaries was on the decline. In 2009–2014, the

number of unemployment beneficiaries gradually decline, but, as mentioned, the incomes of the population of the first quantile group in 2009-2014 did not decline.

Given the lack of a significant relationship between the number of unemployment beneficiaries and the income of the first quantile group, a question arises: which quantile group of the population benefited most from unemployment support? Analyzing the incomes received from state pensions, benefits and scholarships of all quantile groups, it is possible state that only incomes of the population of the third and fifth quantile groups have a certain dependence on the number of unemployment beneficiaries.

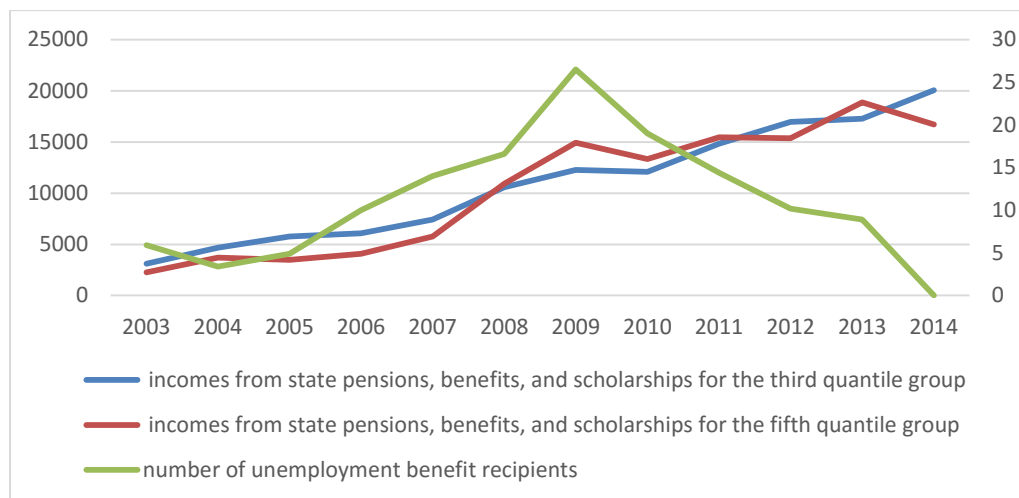


Figure 2. The number of beneficiaries receiving unemployment benefits (1000 people) and incomes received from state pensions, benefits and scholarships of the population of the third and fifth quantile groups (dram), 2003-2014 [ARMSTAT, 2015]

The data reveals a correlation between the number of unemployment beneficiaries and the income received from state pensions, allowances, and scholarships among the third and the fifth quantile groups. Such dynamics can be observed in more detailed manner in 2009-2010 when the number of unemployment beneficiaries has dropped significantly and as a result, the incomes of such groups. Such studies enable us to state that unemployment benefits did not raise the incomes of the low-paid population, thus they did not perform the role of income redistribution.

According to some authors, unemployment benefits have a negative effect on employment. The logic of this point of view is that the higher the amount of the unemployment benefit, the lower the interest of people to find a job. For this, the average monthly amount of unemployment benefits and the number of officially registered unemployed were investigated. The data indicates that increases in the average monthly unemployment benefit amount did not influence the number of unemployed individuals. This can be seen clearly during the time when unemployment benefits were stopped in Armenia.

Between 2014 and 2016, when no unemployment benefits were provided, the number of officially registered unemployed individuals increased. Consequently, the position of the economists stating that the increase of unemployment benefits negatively affect employment has not be completed for the RA economy.

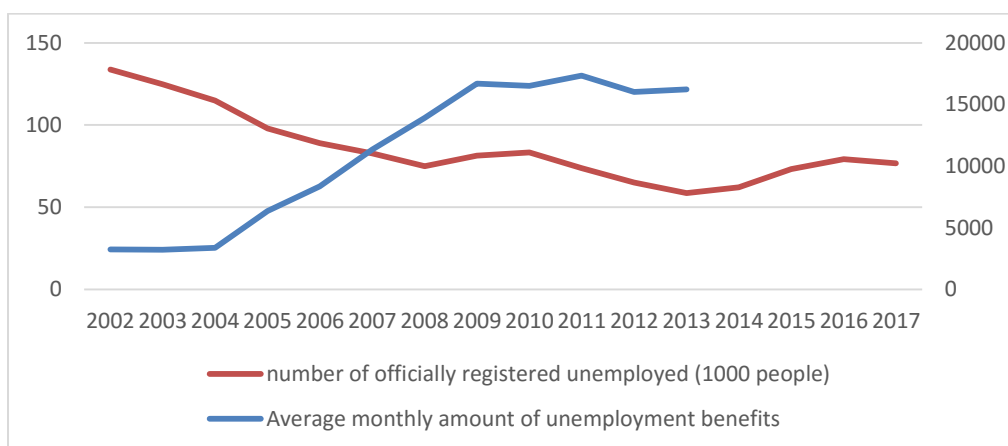


Figure 3. The average monthly amount of unemployment benefits (dram) and the number of officially registered unemployed (1000 people) [ARMSTAT, 2018]

This was probably due to the fact that the unemployment benefit in RA was very low and did not even satisfy the amount of money needed for normal human activities. Table 1 shows the impact of unemployment benefits from the state budget on the income inequality index.

Table 1. The impact of unemployment benefits from the state budget on the income inequality index

Method: Panel Least Squares				
Sample: 2008Q1 2013Q4				
Method: Least Squares				
Total panel observations: 179				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Unemployment benefit on Quantile factor	0.083534	0.026918	3.103285	0.0052
C	-1.006135	0.364784	-2.758163	0.0115

The model results indicate that a one-point increase in state-funded unemployment benefits raises the income inequality index by 0.083 points. The income inequality index, used as the dependent variable, represents the ratio of income growth rates between the fifth and first quantile groups. Therefore, an increase in unemployment benefits corre-

lates with a rise in income inequality. The primary reason is that unemployment benefits were not specifically targeted at disadvantaged groups. As a result, changes in the number of unemployment benefit recipients had a greater impact on the incomes of the third and fifth quantile groups compared to the first quantile group (see Figure 2).

Conclusion

It is still an open debate in literature on how unemployment benefits influences income inequality. This work aims to join this discussion by discussing the example of Armenia, which experienced a termination of unemployment benefits in 2014. The study seeks to give a real picture of the effects of unemployment benefits on income inequality and employment using quantitative model and empirical data of 2008-2013 employed thus providing a developing economy perspective. The results showed that state-funded unemployment benefits in Armenia were unsuccessful in minimizing income distribution. In other words, increase in employment benefits such as unemployment benefits by one point led to a 0.083 point increase in the income inequality index which mean that the benefits favored the relatively well off rather than the low income earners. Such failure of redistribution raises fundamental questions on the targeting and design of the unemployment benefit programme. Moreover, the study found no significant evidence to support the argument that unemployment benefits discourage job-seeking behavior or negatively affect employment levels. During periods when unemployment benefits were provided, there was no observable increase in unemployment rates. Even after the benefits were discontinued in 2014, the number of registered unemployed individuals continued to rise. This finding challenges conventional assumptions about the disincentivizing effects of unemployment benefits and underscores the importance of considering contextual factors when evaluating labor market policies. The findings suggest that, Armenia's unemployment benefit regime did not serve the redistributive purpose because of issues of appropriateness of benefits, inadequate targeting and low awareness of benefits among the public. These shortcomings indicate that discontinuing unemployment benefits was quite reasonable. Policy implications for this study are generalizable beyond Armenian context, and they are useful for all other developing and transition economies. Therefore, policymakers for claiming to offer best unemployment benefits, and they must ensure they craft effective targeting, appropriate levels of benefit, and job sought. Moreover, credible institutional arrangements are crucial to avoiding distortions in resource use and guaranteeing that resultant advantages will accrue to individuals who need them. Therefore, the main implication of this study is the need for governments to undertake a general assessment of their country's socio-economic characteristics that should inform the selection of unemployment benefit structures. While the Armenian experience underscores the risks of poorly targeted programs, it also points to the potential of unemployment benefits as a tool for reducing income inequality and fostering economic stability.

References

1. Avagyan G., Torosyan A., The impact of fiscal policy on income inequality in the RA, Messenger of ASUE, N2, 2022, pp. 9-26 - <https://asue.am/upload/files/science/banber/2022-year>
2. ARMSTAT, Labour market in the RA, 2018 - <https://armstat.am/am/?nid=82&id=2106>
3. ARMSTAT . Social Snapshot and Poverty in Armenia, 2015 - <https://armstat.am/am/?nid=82&>
4. Berg, J., Kucera, D., In Defence of Labour Market Institutions: Cultivating Justice in the Developing World, ILO, Geneve, 2008, pp. 9-32
5. Carriero, R., & Filandri, M., Support for conditional unemployment benefit in European countries: The role of income inequality. JESP, 29(4), 2019, pp. 498-514.
6. Checchi, D., & García-Peñalosa, C., Labour market institutions and income inequality. Economic Policy, 23(56), 2008, pp. 602-649.
7. Esser, I., Ferrarini, T., Nelson, K., Palme, J. and Sjöberg, O., Unemployment benefits in EU member states., 2013, pp. 4-9
8. Filges, T., Geerdsen, Unemployment benefit exhaustion: incentive effects on job finding rates: a systematic review. Campbell Systematic Reviews, 9(1), 2013, pp.1-104.
9. Kaufmann, F., History of Unemployment Insurance and Public Employment Services. Occupations: The Vocational Guidance Journal, 25(2), 1946, pp.85-89.
10. Krueger, A.B., Mueller, A., Job search and unemployment insurance: New evidence from time use data, Journal of Public Economics, Vol. 94(3-4), 2010, pp. 298-307
11. Mortensen, D.T., Unemployment insurance and job search decisions. ILR Review, 30(4), 1977, pp.505-517.
12. Osberg, L., Erksoy, S., & Phipps, S., Unemployment, Unemployment Insurance and the Distribution of Income in Canada in the 1980's. Cambridge University Press, 1997, pp. 96-102
13. Pissarides, C.A., Equilibrium unemployment theory. MIT press, 2nd edition, 2000, pp. 70-75
14. RA Supreme Council, "On Employment of the Population" RA Law, HO-7, December 3, 1991
15. RA National Assembly, "On Employment" RA Law, HO-152-N, December 1, 2013 - <https://www.arlis.am/documentview.aspx?docid=87734>
16. Vishnevskaya, N., Zudina, A., Kapelyushnikov, R., Lukyanova, A., Oshchepkov, A., Sharunina, A.V., Inequality in wages: dynamics , main factors, regional differences, influence of labor market institutions, Higher School of Economics, 2021, pp. 79-88

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Unemployment benefits and income inequality: the Armenian experience

Key words: Unemployment benefit, income inequality, income structure, unemployment, Armenia

This paper analyzes the role and effects of unemployment benefits on income distribution in Armenia with regard to the contemporary problems like the COVID-19 pandemic and the Artsakh-Azerbaijani war. As an empirical work the research applying a quantitative model analyses the impact of the state-funded unemployment benefits on income inequality across the population. The results show that unemployment benefits in Armenia had a regressive nature and therefore did not perform the task of income redistribution by directing funds to those in need (first quantile), but rather to the inhabitants with the higher incomes (fifth quantile). Moreover, there is no evidence that the level of unemployment benefits causes unemployment, suggesting that low benefit amounts did not discourage job-seeking behavior. Because of these results, the unintended disadvantages of the Armenian unemployment benefit system are revealed and it is confirmed that its cancellation in 2014 was justified. The study is an important addition to the ongoing discourses concerning the characteristics of labor market institutions.