REPUBLIC OF AZERBAIJAN

On the rights of the manuscript

ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

A STUDY OF THE LEVEL OF MONETARY INCOMES AND CONSUMER EXPENDITURE OF THE POPULATION ACROSS THE REGIONS OF THE REPUBLIC OF AZERBAIJAN

Speciality:	5308.01 – "General Economics"
Field of science:	Economic sciences
Applicant:	**Aytakin Ogtay Mammadova**

Baku - 2026

The work was performed at the Department of Economics of the Azerbaijan State University of Economics.

Scientific supervisor: Doctor of Philosophy in Economics
Associate Professor
Sugra Ingilab Humbatova

Official opponents: Doctor of Economic Sciences, Professor
Khatira Mail Huseynova

Doctor of Philosophy in Economics
Associate Professor
Bulud Jahangir Sadiqov

Doctor of Philosophy in Economics
Jala Rahman Aliyeva

Dissertation Council FD 2.10 of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating Azerbaijan State University of Economics

Chairman of the
Dissertation Council: Doctor of Economic Sciences, Professor
Yashar Atakishi Kalbiyev

Scientific Secretary
of the Dissertation Council: Doctor of Philosophy in Economics,
Associate Professor
Sugra Ingilab Humbatova

Chairman of the
scientific seminar: Doctor of Economic Sciences, Professor
Rasul Anvar Balayev

GENERAL CHARACTERISTICS OF THE RESEARCH

Relevance of the topic and the extent to which it has been studied. Ensuring an improvement in the population's standard of living and reducing poverty remain among the priorities of the state in its efforts to secure Azerbaijan's sustainable development. As President Ilham Aliyev has noted: "We are building a strong state and a strong economy; at the same time, the well-being of people has always been, and will continue to be, a priority for us." This is reflected in important measures aimed at diversifying the national economy, developing the non-state sector and self-employment, improving the structure of the population's monetary income and consumer expenditure, and enhancing quality of life, health and income levels. Furthermore, the adoption of well-founded targets for increasing household incomes in strategic road maps, regional development programmes, development priorities through 2030, concepts and other strategic documents confirms the importance attached to this objective. However, the pandemic in recent years and the ongoing financial crisis in countries around the world have also affected household incomes. Given that self-employment and non-monetary forms of economic activity predominate in the economies of developing countries, many developed and developing states have sought to support increases in household incomes during this period by applying regulatory mechanisms. On the one hand, inflation and, on the other, restrictions on business activity during the pandemic have made it particularly relevant to examine the level of monetary income and consumer expenditure of the population in Azerbaijan.

In measuring living standards, priority is often given to the measurement of consumer expenditure. Statistical systems, particularly in developing countries, use these data to analyse such phenomena as poverty, inequality and social exclusion. Since the "International Standards for Household Income and Expenditure Surveys", adopted at the 12th International Conference of Labour Statisticians in 1973, no longer met contemporary requirements, new international guidelines were developed for compiling income and expenditure statistics. Alongside the measures noted above, however, there is a need for Azerbaijan, as a developing country, to develop updated standards for

consumer expenditure. Moreover, analysing the effects of the natural and climatic conditions, resources, opportunities, customs and traditions of economic regions on both the monetary income and consumer expenditure of the population is essential for addressing regional inequality. These important considerations further underscore the relevance of this dissertation.

The dissertation examines the views of foreign economists, including J.R.Hicks, A.Smith, I.Fisher, F.Boye, A.Marshall, P.A.Samuelson, B.A.Raisberg, Yu.M.Ostapenko, P.V.Savchenko and Yu.P.Kokina, who have focused on issues such as the composition and formation of population income, its regulation and patterns of consumption. The studies of Azerbaijani economists Z.A.Samadzadeh, A.Kh.Nuriyev, I.H.Aliyev, T.A.Guliyev, F.A.Huseynova, S.R.Bayramova, S.A.Gurbanova, A.G.Alirzayev, T.A.Alirzayeva and others are also of considerable importance. Their research specifically addresses the types of population income, ways of increasing income and challenges associated with improving living standards. Although these and other studies are highly significant, greater attention should be devoted specifically to examining the monetary income and consumer expenditure of the population at the regional level in Azerbaijan.

Conceptual perspectives on the monetary income and consumer expenditure of the population, the improvement of living standards and poverty reduction have attracted attention over the past two decades. Among classical economists, J. R. Hicks and A. Smith explain the sources of income, while M. Friedman substantiates the relationship between consumer expenditure and future income.

A systematisation of approaches to population income reveals two principal dimensions of interpretation: quantitative and qualitative. The formation and composition of population income and expenditure, their changing trends and dynamics, the analysis of factors affecting earnings and income in general, the characteristics of income across population segments and the reasons for differences, as well as the flows, distribution and redistribution of income among different social groups, are among the key issues of the present period. The quantitative approach is discussed extensively in the works of J. R. Hicks, I. Fisher, F. Boye, P. von der Lippe, A. Marshall, P. A. Samuelson, B. A. Raisberg and others.

It should be noted that J. M. Keynes was the first to draw attention to the fact that, in the developed countries of the world, the average income of citizens was considerably higher than the required minimum income level. Neo-Keynesians advocated state regulation of income and proposed the principle of indicative planning to reconcile the economic interests of society as a whole. Post-Keynesians, including P. Samuelson, J. Tobin, W. Heller, R. Solow, R. Clower, P. Sraffa and others, substantiated policies for regulating income, particularly wages, and put forward such regulation as a principal instrument for combating inflation and unemployment. According to F. Hayek, the maximum permissible scope of state intervention in the economy is limited to the payment of old-age pensions and unemployment benefits. Of particular importance are A. Pigou's analysis of the relationship between population income and living standards within welfare theory; K.Marx's introduction of the concept of "standard of living" in determining the value of labour power; Ernst Engel's economic theory, known as Engel's Law, explaining the relationship between household income and expenditure on a particular good or service; and the idea of the "social market economy", articulated by A.Müller-Armack and further developed by W.Röpke, W.Eucken and L.Erhard, together with studies aimed at mitigating social contradictions and improving the living standards of the middle strata of society.

These scientific and theoretical approaches and studies, together with the annual approval of the subsistence minimum, measures aimed at poverty reduction, the socio-economic development of regions and the regulation of population income, official documents approved by President I. Aliyev, national regulatory legal acts and measures regulating population income and expenditure, have made the preparation of this dissertation particularly relevant.

Research object and subject. The object of the research is the monetary income and consumer expenditure of the population of Azerbaijan. The subject of the research is the determination of the levels of monetary income and consumer expenditure of the population across the country's regions.

Aim and objectives of the research. The main aim of the research is to analyse the levels of monetary income and consumer expenditure of the population across the regions of the Republic of Azerbaijan and to put

forward proposals of theoretical and practical significance.

The following objectives were set in the course of the research:

- To examine theories and contemporary concepts concerning population income and expenditure and to determine the role of income and expenditure in shaping the population's standard of living;
- To identify methodological problems in assessing population income and expenditure;
- To analyse the current state of population income and expenditure;
- To determine economic development models and their effects on population income and expenditure;
- To assess income and expenditure differentiation in the Republic;
- To analyse the unequal distribution of population income;
- To examine the effects of price levels and inflation on population income and expenditure, as well as approaches to managing these effects;
- To put forward proposals on ways to reduce poverty.

Research methods. The materials were processed using statistical analysis, comparative analysis, grouping, systematic assessment, retrospective analysis and mathematical-logical research methods.

Main propositions submitted for defence:

- The regulation of the monetary income and consumer expenditure of the population in the regions should be approached from the perspectives of continuity and sustainability;
- The calculation of population income is associated with identifying new sources of income formation that differ from those currently existing;
- In practice, the development patterns of population income and expenditure differ across regions;
- The legal foundations governing population income and expenditure play an important role;
- The development of population income and expenditure is closely linked to the country's level of development and a favourable economic environment;
- Differences exist between population incomes in the public and non-state sectors;

- The pandemic and other crisis situations necessitate the identification of regulatory approaches in the area of population income and expenditure;
- Improving the efficiency and regulation of monetary income and consumer expenditure requires the enhancement of the existing methodological framework.

Scientific novelty of the research. The principal scientific novelties of the dissertation are as follows:

- Theoretical and methodological approaches to population income and expenditure have been classified taking institutional changes into account;
- The need to approach the regulation of the monetary income and consumer expenditure of the population in the regions from the perspectives of continuity and sustainability has been substantiated;
- Methodological problems in assessing the monetary income and consumer expenditure of the population have been identified, and possibilities for addressing them have been substantiated;
- The long-term dynamics of the monetary income and consumer expenditure of the population across the regions of the Republic of Azerbaijan have been systematised, and the main characteristics of interregional differences have been identified on the basis of comparative statistical analysis;
- The Gini coefficient has been calculated for the Republic of Azerbaijan and its regions;
- The close relationship between the levels of population income and expenditure and the development conditions and favourable economic environment of the country and its regions has been identified;
- The potential for using contemporary digital and artificial-intelligence-based approaches to forecast income and consumption indicators across regions has been substantiated;
- A regression model has been constructed to assess the quantitative relationship between the population's monetary income and final consumption expenditure, and the effect of income on changes in consumer expenditure has been statistically assessed using the model;
- Proposals have been put forward to improve the mechanisms for

regulating the monetary income and consumer expenditure of the population.

Theoretical and practical significance of the research. The findings of the dissertation are intended to establish scientific and practical foundations for improving the provision of population income and expenditure in the country and organising it in accordance with changing conditions and requirements. The results obtained in the research may contribute to making the composition of population income and expenditure more refined and effective nationwide and across the regions, as well as to improving the effectiveness of state regulation in this area. The dissertation materials may be used in preparing regulatory and methodological materials and documents related to improving quality of life, as well as in developing teaching materials and other resources on income policy.

Approbation of the research. The main propositions of the dissertation have been reflected in papers and presentations delivered at numerous international and national scientific conferences, as well as in articles published in reputable international foreign scientific journals and periodicals included in the list of scientific publications recommended by the Higher Attestation Commission.

The dissertation was carried out at Azerbaijan State University of Economics.

Scope and structure of the dissertation. The dissertation consists of an introduction, three chapters, eight sections, conclusions and recommendations, and a list of references and sources. Chapter I comprises 93,743 characters, Chapter II 71,799 characters and Chapter III 77,545 characters, bringing the total length of the dissertation to 285,096 characters. The dissertation comprises 190 pages and contains 21 graphs, 15 tables and 1 diagram.

TABLE OF CONTENTS

Introduction

Chapter I. Theoretical and methodological foundations of population income and expenditure

1.1. Theoretical Approaches to the Economic Nature of Population Income and Expenditure

1.2. The Significance of Income and Expenditure in Shaping the Population's Standard of Living
1.3. Methodology for Assessing Population Income and Expenditure
Chapter II. The current state and development trends of population income and expenditure in the Republic of Azerbaijan and its regions
2.1. A Comparative Analysis of Population Income and Expenditure in Azerbaijan and Other Countries of the World
2.2. The Current State and Characteristic Trends of Population Income and Expenditure in Azerbaijan
2.3. Regional Assessment of the Population's Monetary Income and Consumer Expenditure
Chapter III. Prospects for regulating population income and expenditure in Azerbaijan
3.1. Areas of Impact of Inflation on Population Income and Expenditure
3.2. Ways of Rationalising Income and Expenditure to Reduce Poverty
Conclusions and Recommendations
List of References

SUMMARY OF THE DISSERTATION

The dissertation consists of an introduction, three chapters, conclusions and recommendations, and a list of references. The introduction substantiates the relevance of the topic and sets out the aim of the study, the tasks addressed in order to achieve this aim, the principal propositions submitted for defence, and the scientific novelty and practical significance of the findings.

The first chapter of the dissertation, entitled "Theoretical and Methodological Foundations of Population Income and Expenditure", presents theoretical approaches to the economic nature of population income and expenditure, explains the significance of income and expenditure in shaping the population's standard of living, and examines issues relating to the methodology for assessing population income and expenditure.

The existence of different scientific approaches to the sources of population income and the uses to which expenditure is put makes their analysis necessary. An examination of the theoretical approaches developed to date reveals that the composition of income and expenditure,

the principles underlying their formation and the factors affecting them have been analysed from different perspectives. Bringing these approaches together, it may be noted that the principal principles governing the formation of population income include distribution according to labour, ownership and social security norms.

In general, the theoretical approaches defining the category of "population income" may be presented as follows:

- as a key component of the overall human development index, reflecting people's capacity to meet their basic needs;
- as an essential basis for determining the economic well-being and standard of living of a country's population;
- as the outcome of a set of explicit and implicit agreements prevailing in society;
- as the maximum amount of money that the population can spend over a given period;
- as the aggregate of monetary and in-kind receipts, as well as free services, received by individuals or families from various sources over a specified period.

Alongside population income, the analysis of expenditure also characterises the prevailing situation in a country. For this reason, theorists seek solutions to numerous economic problems by analysing the composition of expenditure and the directions in which income is used. In general, population expenditure may be divided into consumption, compulsory, investment and other expenditure. Population expenditure comprises the costs incurred by individuals in purchasing goods and paying for services to meet their personal needs, as well as mandatory payments and expenses arising from the specific needs of certain population groups.

A number of publications provide extensive analyses of models of social policy (conservative, liberal, socialist and social-democratic). However, following the worldwide spread of COVID-19 and its development into a pandemic, the experience of Sweden, China, Germany and other countries, including the United States and Japan, has recently attracted extensive discussion and research as examples of socially oriented models of economic development.

In analysing the degree of income stratification among the

population, income differentiation coefficients are used in practice, including the relative deviations of quartiles, quintiles and deciles. These coefficients indicate how many times the minimum income of the wealthiest 25% (20% or 10%) of the population exceeds the maximum income of the poorest 25% (20% or 10%). In 2024, income from paid employment amounted to AZN 57 per capita per month in the first decile and AZN 313.3 in the tenth decile, representing a ratio of 5.5 to 1. For income from self-employment, the difference between the first decile (AZN 88) and the tenth decile (AZN 200) was 2.3 times. Income from paid employment was AZN 67.3 in the first quintile and AZN 262.7 in the fifth quintile, a difference of 3.9 times. The difference between the first and fifth quintiles in income from property was 23 times. For income from self-employment, the difference between the first quintile (AZN 89.3) and the fifth quintile (AZN 175.4) was 1.96 times. The analysis indicates that, over the years, inequality between quintiles in income from paid employment generally tended to increase. By contrast, inequality in income derived from property declined considerably. The difference between quintiles in income from self-employment was lower than for other sources of income, indicating a more equitable distribution of this type of income. Since the State Statistical Committee of the Republic of Azerbaijan does not publish the quartile coefficient, it was not possible to present an analysis based on this indicator.

There are problems associated with obtaining data on population income and expenditure. First, the coefficients of differentiation of wages and monetary income are calculated using different information sources. Wage differentiation is assessed on the basis of sample survey data on employees' wages collected from large and medium-sized enterprises, while small enterprises are excluded. The differentiation of the population's monetary income, in turn, is assessed using household sample survey data. Second, data obtained through these and other sampling methods are adjusted to make them consistent with indicators for the population as a whole. The surveys do not fully cover all segments of the population. Individuals living outside private households are not included in these surveys and are therefore not reflected in the statistical data. Another problem is that households frequently refuse to participate in surveys; in many cases, high-income households avoid participation or

do not provide accurate information. As a result, there is a risk that indicators for low-income population groups may be assessed directly in a biased manner. This, in turn, may undermine the reliability of important indicators, such as the Consumer Price Index at national and regional levels and the characteristics of income differentiation among the population.

Thus, research into ways of resolving the methodological problems identified above has led to the following conclusion:

As demonstrated by international experience and the findings of individual domestic studies, most problems relating to the insufficient reliability of estimates based on sample survey results can be addressed by using supplementary information (external data collected in connection with survey findings). For example, in order to record the income and expenditure of higher-income households more comprehensively, supplementary data may include information on the income of the population or specific population groups (such as tax authority data and information on the distribution of personal income), retail trade data, wage data for particular groups of the working-age population, and macroeconomic statistics. External information used for this purpose must meet certain requirements: in particular, it must be sufficiently reliable, cover the relevant population categories and groups, relate to the same or a comparable reporting period and frequency, be methodologically consistent with the survey results, and be accessible. In addition, such supplementary external data may be used both at the data collection and processing stages and at the stage of estimating indicators.

The second chapter of the dissertation, entitled "The Current State and Development Trends of Population Income and Expenditure in the Republic of Azerbaijan and Its Regions", presents a comparative analysis of population income and expenditure in Azerbaijan and other countries of the world, examines the current state and characteristic trends of population income and expenditure in Azerbaijan, and provides a regional assessment of the population's monetary income and consumer expenditure.

Calculations for 2005–2025 based on data from the State Statistical Committee used in the dissertation show that the population's monetary income increased 11.15-fold in manat terms and 6.21-fold in US dollar

terms. Over the same period, population expenditure increased 13.48-fold in manat terms and 7.5-fold in US dollar terms. Thus, the rate of growth in expenditure exceeded the rate of growth in income. Alongside the expansion of consumer demand, this gap also indicates a risk of reduced savings potential.

It is noteworthy that, compared with 2005, savings in 2025 increased 1.39-fold in manat terms, whereas the corresponding figure in US dollar terms was 0.77. This finding indicates that, over the long term, growth in nominal income and expenditure did not have an equally positive effect on the capacity to save. In particular, changes in savings indicators denominated in foreign currency under conditions of devaluation and inflation constitute an important signal in terms of household financial resilience.

It should be noted that, although the volume of income declined in 2020 compared with 2019 due to the pandemic, income from paid employment increased. A particularly marked increase was observed in pensions, allowances and social assistance in connection with the pandemic. A negative development was the decline in 2020, compared with 2019, in income from agricultural production and self-employment.

The rate of income growth varied across economic regions during 2005–2025. According to preliminary data for 2025, the Absheron-Khizi economic region and the city of Baku recorded high growth rates, whereas growth in the Nakhchivan Autonomous Republic was relatively lower. These differences are important for assessing the economic development of regions, employment opportunities and the territorial distribution of income. Nevertheless, an increase in nominal income does not necessarily imply an equivalent improvement in real well-being; price changes and population size must also be taken into account.

The calculations show that, in 2025 compared with 2005 (based on preliminary data for 2025), population income increased 11.2-fold across the Republic, including 12.98-fold in Baku, 15.85-fold in the Absheron-Khizi economic region, 9.48-fold in the Ganja-Dashkasan economic region, 7.46-fold in the Shaki-Zagatala economic region, 7.44-fold in the Lankaran-Astara economic region, 8.67-fold in the Mountainous Shirvan economic region, 9.28-fold in the Guba-Khachmaz economic region, 8.33-fold in the Gazakh-Tovuz economic region, 9.27-fold in the

Karabakh economic region, 9.16-fold in the Central Aran economic region, 6.21-fold in the Nakhchivan Autonomous Republic, 7.6-fold in the Mil-Mughan economic region and 9.55-fold in the Shirvan-Salyan economic region. The State Statistical Committee did not report data for the East Zangazur economic region until 2023. For information, population income in this region amounted to AZN 254.5 million in 2023, AZN 274.9 million in 2024 and AZN 312.2 million in 2025. Although these figures indicate growth in nominal income, expanding the region's economic opportunities, creating sustainable sources of employment and increasing real per capita income should be separate objectives.

The analysis for 2024 shows that paid employment, or wages, was the main source of population income in a number of economic regions, particularly Absheron-Khizi and East Zangazur, as well as in Baku. This is associated with the fact that, owing to urbanisation, most of the population in these economic regions prefers paid employment. The highest levels of income from self-employment, including agricultural production, were recorded in the Gazakh-Tovuz and Central Aran economic regions and the Nakhchivan Autonomous Republic. This is associated with the development of agricultural production, handicrafts and artisanal activities in these regions. Baku leads in income from property, primarily because property is concentrated in the capital, where demand is higher and rental rates are more expensive. Current transfers received are particularly evident in the Shirvan-Salyan and Mil-Mughan economic regions. The fact that funds received from abroad are concentrated mainly in the Gazakh-Tovuz and Mountainous Shirvan economic regions, Baku and the Shaki-Zagatala economic region is explained by the activity of these regions in foreign economic trade.

An examination of population income sources by economic region and sex reveals that women account for a higher share of total income than men in all economic regions. In 2024, the highest share was recorded in Baku (54.6%), while the lowest was observed in Karabakh and East Zangazur (50.1%). In 2020, the highest figure was recorded in Shaki-Zagatala (53.7%) and the lowest in Upper Karabakh (50.9%). It is also observed that women's income is higher in the public sector than in the private sector and that pensions and support account for a larger share. Various factors may explain the higher average income of women in

economic regions. One example is the structural difference in employment: women and men may work in different types of activities and in enterprises with different wage levels. Differences in the number of employees should also be taken into account, since a larger number of highly paid women in a particular region may raise the average income indicator for women. Regional economic specialisation, including the shares of tourism, manufacturing, education and other activities, may also affect average wages.

Table

Average Monthly Nominal Wages of Employees by Economic Region and the Administrative Territorial Unit of Baku, in AZN

Economic region / administrative unit	2010	2015	2020	2021	2022	2023	2024
Republic of Azerbaijan	331	466.9	707.7	732.1	840.0	933.9	1,009.4
City of Baku	474.8	666.8	927.8	951.3	1,080.6	1,183.8	1,269.3
Nakhchivan Autonomous Republic	304.7	399.7	535.0	553.6	610.8	689.0	782.4
Absheron-Khizi economic region	246	360.9	582.9	605.9	689.2	774.7	807.3
Mountainous Shirvan economic region	209.3	269.8	461.4	471.0	556.2	614.2	647.6
Ganja-Dashkasan economic region	210.2	298.1	506.2	528.0	611.0	683.0	722.5
Karabakh economic region	187.1	242.0	409.9	437.4	536.6	602.3	645.3
Gazakh-Tovuz economic region	217	281.1	475.3	498.4	577.4	642.7	686.2
Guba-Khachmaz economic region	231.6	303.5	498.3	507.0	577.7	640.2	675.4
Lankaran-Astara economic region	218.1	276.2	447.3	460.3	543.8	598.6	634.6
Central Aran economic region	204.5	259.4	439.8	454.4	525.2	588.9	621.2
Mil-Mughan economic region	220.1	275.7	443.1	454.5	524.2	593.2	634.5
Shaki-Zagatala economic region	195.2	255.4	429.8	443.9	514.6	577.5	622.1
East Zangazur economic region	223.8	258.3	500.3	482.7	583.0	653.0	718.9
Shirvan-Salyan economic region	237.8	316.9	518.3	542.5	625.0	691.1	727.6

Source: https://www.stat.gov.az/source/labour/ (as of 4 August 2026).

The average monthly nominal wage increased from AZN 331 in 2010 to AZN 1,009.4 in 2024. However, before the devaluation of the manat in 2015, the country's average nominal wage was USD 566, whereas in 2020 it was USD 416. The average monthly nominal wages of employees across the economic regions showed different growth rates in 2024 compared with 2010. Nationwide, the average monthly nominal wage of employees increased 3.05-fold. The highest increase, 3.45-fold, was recorded in the Karabakh economic region, while the lowest, 2.57-fold, was observed in the Nakhchivan Autonomous Republic.

Within the framework of the state's social policy, targeted social assistance is provided to low-income families in Azerbaijan. In 2025, 76,000 families, comprising more than 330,000 family members in total, received this assistance, with an average monthly payment of AZN 107.52 per family member. The needs criterion increased from AZN 5 in 2004 to AZN 300 in 2026. The minimum wage also rose from AZN 12 in 2004 to AZN 400 in 2025.

In 2026, the subsistence minimum was set at AZN 300 for the country as a whole, AZN 317 for the working-age population, AZN 245 for pensioners and AZN 260 for children. However, the composition of the consumer basket should be aligned with the population's actual needs. To this end, the weights assigned to food products, medicines and services should be reassessed, and the needs of children in different age groups should be taken into account. The formation of the consumer basket should also be based on the climatic, environmental and socio-cultural characteristics of the regions, as well as the results of household surveys.

The dynamics of income and expenditure in 2005–2025 also reflect the impact of macroeconomic developments. The period 2005–2010 is characterised by rapid growth accompanied by oil revenues, infrastructure projects and investment flows. Growth was more moderate in 2010–2015, while exchange-rate changes after 2015 affected the growth ratios of indicators expressed in manat and US dollars. In 2020, income and expenditure declined as a result of the pandemic, and a recovery process began in subsequent years.

Qualitative changes have occurred in the structure of consumer expenditure in recent years. Although expenditure on food products increased 2.2-fold between 2010 and 2024, against a 2.5-fold increase in

total consumer expenditure, its share in consumer expenditure declined from 48.8% to 43.5%. This change indicates a certain diversification of the consumption structure: as the share of food expenditure declined, the relative importance of funds allocated to other goods and services increased. In 2024, the next largest share of households' aggregate monthly per capita consumer expenditure was accounted for by water, electricity, gas and other fuels. Expenditure on utilities—water, electricity, gas and other fuels—increased 2.9-fold in 2010–2024, while its share of consumer expenditure rose from 6.72% to 7.9%. This trend indicates the growing burden of utility costs on household budgets. Energy efficiency, the renewal of housing and utility infrastructure, and targeted support for low-income families are important for optimising expenditure.

It should be noted that, between 2010 and 2024, expenditure on household goods, household appliances and routine household maintenance increased 2.7-fold. Its share in consumer expenditure rose from 6.9% in 2010 to 7.6% in 2024, while its average share in aggregate consumer expenditure over 2010–2024 was 8.3%.

Transport expenditure increased 2.8-fold over this period and accounted for 6.4% of aggregate consumer expenditure in 2010–2024.

Education expenditure increased 2.7-fold during the same period, and its share of consumer expenditure rose from 1.5% to 1.7%. Nevertheless, the average share of education expenditure in aggregate consumer expenditure over 2010–2024 was 1.76%, highlighting the need to increase expenditure directed towards human capital further. The 3.52-fold increase in healthcare expenditure, 3.15-fold increase in communication expenditure and 3.13-fold increase in recreation expenditure indicate expanding demand for services.

The lowest growth was recorded in expenditure on hotels, cafés, restaurants and canteens. Although this expenditure increased between 2005 and 2019, it declined somewhat in 2020 and 2021 due to the pandemic. It subsequently increased again in 2022, 2023 and 2024. Overall, this expenditure increased 2.03-fold in 2010–2024 and accounted for 7.9% of aggregate consumer expenditure over the period. Whereas it represented 8.55% of consumer expenditure in 2010, this indicator had fallen to 7.04% by 2024.

Although expenditure on clothing and footwear increased 2.04-fold, its share of consumer expenditure declined from 7.06% in 2010 to 5.83% in 2024.

The gradual decline in the share of food expenditure in the population's consumer expenditure in the Republic, accompanied by increased spending on recreation, culture, education and the purchase of other goods and services, indicates a reduction in poverty and, at the same time, an improvement in living standards.

A regional analysis of consumer expenditure shows that the share of food expenditure is highest in Baku, East Zangazur and the Lankaran-Astara economic region (44.8% in each). The lowest food expenditure is observed in Mil-Mughan (40.6%). The analysis indicates that the highest expenditure on clothing and footwear is recorded in Guba-Khachmaz (6.7%); on utilities, in Shirvan-Salyan (11.4%); on household goods and appliances, in Mil-Mughan (9.5%); on healthcare services, in Ganja-Dashkasan (6%); on transport services, in Guba-Khachmaz (7.7%); on communication services, in Absheron-Khizi (4%); on recreation and culture, in Absheron-Khizi (4.8%); on education, in Ganja-Dashkasan (2.1%); on hotels, cafés and restaurants, in Guba-Khachmaz (9%); and on other goods and services, in Ganja-Dashkasan (6.5%).

Overall, whereas 80.72% of the population's income was allocated to expenditure in 2005, this figure stood at 97.6% according to preliminary data for 2025. According to a household survey conducted by the State Statistical Committee, only 20% of the population in Azerbaijan has any income remaining after all expenditure has been covered. Indeed, the ratio between the wealthy and the poor is an indicator that characterises the country's socio-economic situation with considerable accuracy.

The analysis of the consumption structure yields an important methodological conclusion for assessing social well-being: the standard of living of families earning the same amount of income may differ depending on the proportions of their expenditure on food, utilities, healthcare, education and transport. Therefore, regional policy should monitor not only per capita income but also the level of essential consumer expenditure and the disposable income remaining at the family's disposal.

While the share of food products in the consumer basket has declined in developed countries, this indicator remains high in developing countries. Since the subsistence minimum is determined on the basis of the minimum consumer basket, the composition of the consumer basket should be reformulated for different population categories. In particular, quantitative adjustments are required. The weights of certain goods and services in consumption should be increased, and new items should be added, including a higher weight for meat and meat products and regularly used medicines. It should also be taken into account that the needs of children under the age of 15 differ across the preschool age group (0–6 years), the pre-adolescent age group (6–12 years) and the adolescent age group (13–15 years). This would contribute to human capital development, the sustained health of the population and the indexation of income in a manner that adequately reflects actual conditions. In general, when revising the composition of the consumer basket, comparative analyses should be conducted not only across world regions but also among domestic regions, taking into account climate, environmental conditions, customs and traditions. The composition and weights of the goods and services used to form the national consumer basket should be determined and revised on the basis of new household surveys, taking into account the characteristics of both Azerbaijan's domestic regions and the Middle East and Central Asia region, to which Azerbaijan belongs.

The dissertation assesses the relationship between population income and final consumption expenditure for 2005–2021 using the ordinary least squares method. Based on the EViews software package, it was determined that an increase of AZN 1 million in population income in Azerbaijan raises final consumption expenditure by an average of AZN 860,000, other conditions remaining constant.

The unequal distribution of income among population groups is a socio-economic problem observed in various countries. These differences depend on labour market conditions, property relations, economic policy and the social security system. Income inequality arises from the interaction of individual characteristics, educational attainment, market conditions relating to property and socio-economic developments. Increasing employment, creating equal opportunities and strengthening social protection are important for reducing it. In addition, the number of

income earners in a family, the proportion of working-age members and the presence of dependants affect the family's material well-being. Where the number of members differs, families with the same income also have different per capita income levels. At the same time, pensions, social benefits and targeted social assistance improve the material circumstances of low-income families and help reduce income inequality. The effectiveness of these measures depends on the funds allocated and the scope of coverage.

At the same time, we calculated the Gini coefficient for the regions of Azerbaijan, taking the population of each region into account. This provides a more accurate picture of income inequality at the regional level, since it takes into consideration not only absolute economic indicators but also their relationship to the number of people living in each region. The analysis was conducted using regional population and income data for 2024. The Gini coefficient for population size was 0.5638, indicating substantial inequality. The Gini coefficient for per capita GDP was 0.3306. This indicator reflects differences in living standards across regions.

The analysis makes it possible to conclude that the country's regional development is characterised by the "mature model", a contemporary regional development model. There is a significant gap between Baku, the leading centre, and the other regions, with Baku serving as the dominant economic centre and accounting for approximately 61% of GDP and 23% of the population. Per capita GDP in Baku is approximately 5.2 times higher than the average for the other regions. Peripheral regions are seeking to catch up with Baku in terms of economic indicators. Although economic indicators in the regions are gradually improving, the rate of growth is insufficient to narrow the gap quickly. The unequal distribution of resources and investment is evident, with economic resources concentrated mainly in the capital region. The Gini coefficient for per capita GDP (0.3306) indicates substantial inequality in living standards across regions. East Zangazur is the least developed economic region and remains at an initial stage of development. Mountainous Shirvan is one of the economically underdeveloped regions, with low per capita GDP. Located close to Baku, Absheron-Khizi demonstrates signs of faster development due to its proximity to the

capital. Ganja-Dashkasan is the second major economic centre; it is developing within the framework of the "catch-up model of high development" and has higher indicators than other regions. Regional economic inequality encourages internal migration, further reinforcing this imbalance.

Thus, regions with higher population density have higher GDP. The reduction in inequality when population is taken into account indicates that economic concentration is partly consistent with population concentration, although regional imbalance remains. Consequently, economic inequality among the regions of Azerbaijan remains substantial even when population size is taken into account. The high concentration of economic resources in Baku creates a serious imbalance in regional development. The significant difference between the Gini coefficients for total GDP (0.5638) and per capita GDP (0.3306) indicates that inequality is partly associated with the uneven distribution of the population. More balanced regional development requires targeted measures to increase economic activity in less developed regions, particularly those with low per capita GDP. The regional analysis demonstrates that the country's economic potential is distributed unevenly across its territory.

Thus, Azerbaijan's regional development corresponds to the mature development model, in which one dominant centre (Baku) significantly outperforms other regions in terms of economic indicators, while peripheral areas gradually seek to narrow this gap. The high Gini coefficient confirms substantial economic inequality among regions, which is a key indicator of the catch-up model of higher development in regional development.

To reduce interregional disparities, it is important to develop infrastructure, support small and medium-sized enterprises, provide concessional loans and align vocational education with labour market requirements. In addition, protecting consumer rights, establishing effective complaint mechanisms against unjustified price increases and promoting healthy nutrition contribute to improving public well-being.

The third chapter of the dissertation, entitled "Prospects for Regulating Population Income and Expenditure in Azerbaijan", examines the areas in which inflation affects population income and expenditure and ways of rationalising income and expenditure to reduce poverty. The

years 2016, 2017, 2020 and 2021, when income growth lagged behind the Consumer Price Index, were assessed as periods of risk in terms of preserving real income.

The poverty rates presented in the dissertation were 29.3% in 2005, 9.1% in 2010, 4.9% in 2015, 6.2% in 2020 and 5.3% in 2024. This trend indicates a long-term decline, while also showing that economic shocks can once again affect poverty indicators.

The study substantiates the need to regularly update the composition of the minimum consumer basket, calculate the subsistence minimum by taking regional price differences into account, develop a specific Consumer Price Index for low-income families and differentiate the indexation of social transfers.

The study examines the main factors affecting poverty in Azerbaijan. It establishes that the poverty level is influenced by household composition and the education level, sex and age of the head of household. As the educational attainment of the head of household increases, income opportunities expand and the risk of poverty declines. Thus, monthly per capita income in households headed by persons with higher education amounted to AZN 409.4, compared with AZN 359.5 in households whose heads had specialised secondary education.

Income differences are also observed according to the sex of the head of household. Income is higher in households headed by women than in those headed by men. Overall, women's income is higher; men have an advantage only in income derived from self-employment. In 2024, monthly per capita income in households headed by women amounted to AZN 362.2, compared with AZN 351.6 in households headed by men. By age group, the lowest income was recorded in households whose heads were aged 30–39. As a rule, the likelihood of a household being poor decreases as this indicator increases.

One of the issues that has become particularly relevant in recent years is digitalisation and artificial intelligence. Digitalisation and artificial intelligence can have both positive and negative effects on population income and expenditure in the regions. On the positive side, these technologies can create new employment opportunities, promote entrepreneurship, increase agricultural productivity and expand the population's access to markets. At the same time, electronic services and

automation help reduce certain routine and production costs. On the other hand, expenditure on technological equipment, internet access and the development of digital skills must also be taken into account. Since the application of artificial intelligence may reduce demand for certain traditional occupations, new skills are becoming necessary in the labour market.

Overall, digitalisation and artificial intelligence create significant opportunities to increase income, optimise expenditure and improve living standards in the regions. However, ensuring that the entire population benefits equally from these opportunities requires the development of modern infrastructure, the advancement of digital education and the accessibility of technologies.

Statistical indicators provide grounds for expecting Azerbaijan to achieve significant economic progress in the coming years. Reports by various reputable international organisations also indicate that the country has made progress in human development and poverty reduction. According to the World Bank's "Azerbaijan: Living Conditions Assessment Report", the country has achieved considerable progress in the Human Development Index and in reducing poverty. Reports on human development published by the United Nations and other international organisations also emphasise Azerbaijan's achievements. According to the 2025 Human Development Report of the United Nations Development Programme, Azerbaijan, with an index value of 0.789, ranked 81st among 193 countries and was included among countries in the "high human development" category.

CONCLUSIONS AND RECOMMENDATIONS

The research conducted demonstrates that the population's monetary income and consumer expenditure are interrelated socio-economic indicators. An increase in income expands consumption opportunities; however, if expenditure grows faster than income, it may weaken savings capacity and the financial resilience of households. Reducing regional disparities requires not only an increase in social transfers but also the expansion of local economic activity and productive employment.

- Sector-specific employment programmes should be developed on the basis of the comparative advantages of economic regions, and jobs

should be assessed in terms of wages, sustainability, formal employment and the participation of women and young people.

- Support for small and medium-sized enterprises should be directed towards developing local value chains and the processing, packaging, storage and logistics of agricultural products.
- Practical programmes in vocational training, digital skills, remote work and e-commerce for women and young people should be expanded.
- Reconstruction projects in Karabakh and East Zangazur should be linked to local employment, the training of the local workforce and the integration of small businesses into procurement chains.
- Micro-entrepreneurship in tourism, agritourism, ecotourism and local services should be encouraged.
- The composition of the minimum consumer basket should be updated regularly on the basis of household surveys, and the composition and weights of goods and services should be reassessed.
- Price differences across economic regions should be taken into account when calculating the subsistence minimum.
- A Consumer Price Index that separately measures the impact of inflation on low-income families, pensioners and households with children should be developed.
- In determining eligibility for targeted social assistance, household composition, dependants, essential health-related expenditure, place of residence and access to the labour market should be taken into account.
- The indexation of social transfers should be improved on a differentiated basis, in accordance with the consumption patterns of low-income and fixed-income groups.
- Programmes to improve energy efficiency and reduce utility expenditure in low-income households should be implemented.
- Regional income and expenditure statistics should be collected in a unified format by economic region, urban/rural area, household composition, income quintile, employment status and source of income.
- The representativeness and frequency of household surveys should be increased, and cash and in-kind income, informal activity, transfers,

debt and savings should be recorded separately.

- Indicators covering real per capita income, consumer expenditure, the shares of food and utility expenditure, the savings rate, poverty risk and employment should be established for each economic region.

The main propositions of the dissertation, the findings obtained and the recommendations made are reflected in the following published scientific works:

1. Məmmədova A.O. Əhalinin sosial müdafiəsi. Az.DİU, Elmi-tədqiqat işlərinin yekununa həsr olunmuş konfrans materialları, Bakı, 2013, səh. 113-115

2. Мамедова А.О. Индексация доходов населения. "Экономика и предпринимательство", №7 (60) 2015, Москва. ISSN 1999-2300, стр. 194-199

3. Məmmədova A.O. Yoxsulluq və Azərbaycanda onun azaldılması məsələləri. "Əmək və sosial problemlər" (Elmi əsərlər toplusu), № 2 (16) 2015, səh. 181-187

4. Məmmədova A.O. Azərbaycanda yoxsulluğa səbəb olan amillər və onların aradan qaldırılması yolları. "Kooperasiya" elmi-praktiki jurnal. № 2 (41)-2016, Bakı. İSSN 2218-91-49, səh. 90-97

5. Мамедова А.О. Доходы и расходы населения, как индикаторы уровня жизни. XII Международная научно-техническая конференция, 19-20 апреля, 2018 года, Могилев, стр. 321-322

6. Məmmədova A.O. Respublikamızda əhalinin cari məşğulluq səviyyəsinin yaşayış səviyyəsinə təsiri. The XVII International Scientific Symposium. Karabakh: Way To Victory, Proceedings book, August 28/2021, Göteborg, Sweden. ISBN: 978-605-74249-3-8, səh. 300-304

7. Мамедова А.О. Влияние инфляции на доходы населения. Azərbaycan Respublikası və Ukrayna Respublikası arasındakı əməkdaşlığın 30 illiyi münasibətilə Ukraynada təşkil olunan "Civilizational bridges between people and cultures" adlı XXV Beynəlxalq elmi konfrans, Ukrayna, 23 aprel 2022/ İSBN: 978-605-71427-5-7, səh. 152-155

8. Məmmədova A.O. İqtisadi inkişaf modelləri və onların əhalinin yaşayış səviyyəsinə, gəlir və xərclərinə təsiri. "Şuşa ili"nə həsr olunan Gənc alimlərin Beynəlxalq elmi Konfransı, Gəncə Dövlət Universiteti, 9-10 dekabr 2022, səh. 24-27

9. Məmmədova A.O. **Əhalinin gəlir və xərclərinin qiymətləndirilməsi metodologiyası.** Azərbaycanın Vergi Jurnalı, №2 (145) 2023, səh. 65-80

10. Məmmədova A.O. Əhalinin həyat səviyyəsinin formalaşmasında gəlir və xərclərin rolu. "Qloballaşan dünyada elmin aktual problemləri" adlı multidisiplinar beynəlxalq elmi konfrans. Əskişəhər, Türkiyə. 30 sentyabr 2023, səh. 344-349

11. Məmmədova A.O. Azərbaycan Respublikasının regionları üzrə əhalinin pul gəlirləri və istehlak xərclərinin qiymətləndirilməsi. "İpək yolu", Azərbaycan Universitetinin Elmi Jurnalı, №1 – 2024, səh.72-83

12. Məmmədova A.O. Azərbaycan əhalisinin gəlir və xərclərinin dünya ölkələri ilə müqayisəli təhlili. "Dayanıqlı inkişaf" jurnalı, Mingəçevir Dövlət Universiteti. №1 – 2024, səh. 67-75



The defense will be held on 16 December 2026 at 16:00 at the meeting of the Dissertation council FD 2.10 of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating at Azerbaijan State University of Economics.

Address: 6 Istiqlaliyyat Street, Baku, AZ 1001

Dissertation is accessible at the Azerbaijan State University of Economics Library.

Electronic version of the abstract is available on the official website of the Azerbaijan State University of Economics (www.unec.edu.az).

Abstract was sent to the required addresses on 14 November 2026.

Signed for print: 11.11.2026
Paper format: 60x84 1/16.
Volume: 44037 characters.
Number of hard copies: 20.

Printed at the “AA – Poligraf” production and commercial association using ready-made diapositive films.
Contact: capevi@internet.ru / (+99455) 201-2809