

POPULATION QUALITY OF LIFE INDICATORS: ITS ESSENCE AND ESTIMATION OF INTERCONNECTIONS

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At present one of the priority tasks in the development of Russian nation is the improvement of life quality of its citizens. This fact justifies the relevance to study this category which hasn't got an established definition and estimation methods. The paper represents the author's definition of "population quality of life" as a category. On the basis of correlation analysis a system of statistical indicators has been formed, with the help of which population quality of life in the regions of the Privolzhsky District are researched.

Economic growth and improvement of population quality of life are among the top goals that have been set by the government of Russian Federation. These goals are closely interconnected.

Modern economics requires highly-skilled labor force and labor of workers needs high wages. Population income forms the effective demand which is the principal force of growth in a market economy. Thus, the improvement of life quality is not a result, but it's a necessary precondition and the aim of total economic growth as well. This statement makes the task to improve the population quality of life be among the priority ones.

Population quality of life is an integral socioeconomic category representing the result of aggregated impact of objective components. They reflect the condition and different levels of development of social, economic and ecological spheres. It means that population life quality should be considered as a system containing social and demographic indicators, the social strain indicators (the dynamics of crimes), the level of material well-being and the degree of products and services consumption, and also some indicators characterizing the environmental situation.

When analyzing the population quality of life in the region we should pay special attention to budget security of the subjects of Russian Federation. To evaluate contribution of the region into improvement of life quality is possible by determining consolidated budget expenditures on social policy, education and health service.

The choice of basic indicators for measuring quality of life is one of the most disputable questions in the quality of life researches. The vast

majority of methods are based on the principle of the expert selection of indicators. As a result, none of these methods used for measuring quality of life provides us with the objective data.

In our opinion, the method of correlation analysis can solve the problem of selection of necessary indicators for measuring standards of life. It allows finding out existence, direction and the degree of connections between different indicators. The selection can be done on the basis of the meanings of correlation coefficients. But one should remember that the discovery of connections between distinctions is based on the results of qualitative theoretical analysis. The program STATISTICA and the official statistical data on Russian Federation and the regions of the Privolzhsky Federal District published by Rosstat are used for calculating correlation coefficients.

The main task described in our paper is creating a system of statistic indicators to characterize (to evaluate) population quality of life (QOL).

Using socioeconomic analysis to start with, we have formed the expanded set of indicators which characterize different aspects of living standards. There are 63 indicators in the set given per capita, because it is difficult enough to formulate correct conclusions according to absolute value of the indicator if you do not compare it with the size of the population.

Such great amount of data makes it difficult to analyze the population quality of life. In our opinion it is reasonably to have only a few indicators for characterizing each aspect of life quality. That's why at the next stage a number of indicators should be restricted according to the following principles:

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1) the chosen indicator must be observed in dynamics by the authorities of regional and Russian statistics, i.e. it must correspond to principles of availability and reliability;

2) the indicator must reflect the process which is under consideration adequately;

3) the existence of close correlative connection established by means of statistics is necessary with the exception of multicollinearity, i.e. the existence of linear dependence between arguments.

If one of the matrix elements r is greater than 0.8, it means that there is multicollinearity. And only one of the elements should be included in a system of indicators. The existence of multicollinear connection between indicators leads to unreliability of obtained results and to impossibility of their economic interpretation.

Using these approaches we have developed the author's system of indicators to analyze (to evaluate) population quality of life which consists of 18 indicators. The given indicators were divided into 6 units within 3 subsystems:

Economic subsystem:

I unit: the degree of economic development of the region:

◆ consolidated budget expenditures (total) per capita (rubles); fixed investment per capita (rubles).

II unit: the indicators characterizing material well-being and degree of goods and services consumption by the population:

◆ purchasing power of income of the population (the ratio of cash income per capita on an average and the subsistence minimum); bank deposits of legal entities and natural persons attracted by the credit organizations per capita (rubles); specific figure of subsistence expenses (%); population size with income below the subsistence minimum.

Social subsystem:

III unit - social and demographic indicators:

◆ life expectancy of birth (number of years); the total death coefficient (‰); infant mortality coefficient (‰); sickness rate per 1000 persons of the population (registered patients who are diagnosed for the first time in their lives); the number of sick persons with an active form of tuberculosis per 100 000 persons.

IV unit: labour market indicators:

◆ the number of graduates trained by secondary and high educational institutions (persons); unemployment rate (%).

V unit - social strain indicators:

◆ the number of crimes registered per 100 000 persons of the population; sale of alcohol per capita (l).

Ecological subsystem:

VI unit - the ecological environment:

◆ air pollution with wastes from permanent sources per capita (kg); current expenditures for environment protection per capita (rubles).

The established connection between indicators and regressive models may be used in life quality management of at the region level.

The analysis shows that while considering different aspects of life quality a great number of local indicators can be distinguished. Each local indicator characterizes the certain aspect of life. In order to get the complex quantitative value of life quality it is necessary to create an integral indicator. It would allow to summarize the great amount of non-homogeneous information and to provide the methodological unity of all the local indicators.

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