# VILNIUS UNIVERSITY INSTITUTE OF GEOLOGY AND GEOGRAPHY

Daiva Verkulevi i t

THE TERRITORIAL DIFFERENCES OF THE LIVING STANDARDS IN LITHUANIA ACCORDING TO SOCIAL ECONOMICAL FACTORS

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#### Scientific Consultant:

Prof. habil. dr. **Stasys Vaitek nas** (Klaip da university, Physical Sciences, Geography  $-06 \, \text{P}$ )

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Doc. dr. **Maryt Dumbliauskien** (Vilnius University, Physical Sciences, Geography – 06 P)

### Oponents:

Prof. dr. Leta Dromantien (Mykolas Romeris University, Social Sciences, Management and administration -03 S)

Doc. dr. **Dovil Krupickait** (Vilnius University, Physical Sciences, Geography – 06 P)

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Address: M. K. iurlionio 21, LT – 03101, Vilnius, Lithuania.

Tel.: 8 (5)2398285; Fax.: (+370-5) 2398285 E-mail: verkuleviciute.daiva@gmail.com

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The Doctoral thesis may be surveyed in the libraries of Vilnius University, Klaip da University and the Institute of Geology and Geography

# VILNIAUS UNIVERSITETAS GEOLOGIJOS IR GEOGRAFIJOS INSTITUTAS

Daiva Verkulevi i t

# GYVENIMO LYGIO TERITORINIAI SKIRTUMAI LIETUVOJE PAGAL SOCIALINIUS EKONOMINIUS RODIKLIUS

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## Mokslinis konsultantas:

Prof. habil. dr. **Stasys Vaitek nas** (Klaip dos universitetas, fiziniai mokslai, geografija  $-06\,\mathrm{P}$ )

Disertacija ginama Vilniaus universiteto Geografijos mokslo krypties taryboje:

### Pirmininkas:

Prof. habil. dr. **Paulius Kavaliauskas** (Vilniaus universitetas, fiziniai mokslai, geografija  $-06\,\mathrm{P}$ )

## Nariai:

Prof. dr. **Ligita Šimanskien** (Klaip dos universitetas, socialiniai mokslai, vadyba ir administravimas – 03 S)

Doc. dr. **Donatas Burneika** (Geologijos ir geografijos institutas, fiziniai mokslai, geografija – 06 P)

Doc. dr. **Saulius Stanaitis** (Vilniaus Pedagoginis universitetas, fiziniai mokslai, geografija – 06 P)

Doc. dr. **Maryt Dumbliauskien** (Vilniaus universitetas, fiziniai mokslai, geografija – 06 P)

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Prof. dr. Leta Dromantien (Mykolo Romerio universitetas, socialiniai mokslai, vadyba ir administravimas -03 S)

Doc. dr. **Dovil Krupickait** (Vilniaus universitetas, fiziniai mokslai, geografija – 06 P)

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Adresas: M. K. iurlionio 21, LT – 03101, Vilnius, Lithuania.

Tel.: 8 (5)2398285; Fax.: (+370-5) 2398285 E-mail: verkuleviciute.daiva@gmail.com

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### INTRODUCTION

## Research problem and relevance of the study

The assurance of the living standards is one of the factors of the humankind evolution, which is regulated by such of international documents like Universal Declaration of Human Rights, UN Millennium Declaration, in which is declared that "every human has the right to adequate the standards of living, that insures health and welfare of his and his family, especially food, clothes, home, medical care and social services..." (Lietuvos Respublikos Seimas, 2009). Lithuania has joined to this declaration in 1991 and has obligated to follow the principles appointed in the document.

The most important assumption of people existence is the long, healthy life, intelligence, high standards of living, having of political and civil liberties. Many countries of the world including Lithuanian people are facing with financial inequality and poverty. Differences of the living standards usually are not only between countries, but also inside them, between territory units (municipalities).

The development of Lithuania administration units, after the Lithuania independence was restored, was different and partly depended on economical development and structure in period of former Soviet. Also the political and economical geographical situation takes the importance. The split between villages and cities also between municipalities and districts has begun to increase because of different rate of economic development as well as different demographic and social structure. The differences of people income have increased, the unemployment level habitats have appeared, the need of social support has raised and the problematic territories have appeared. Differentiation of income also determines the differences of physical, psychical and social needs. Health assurance services became less affordable for part of poor people, especially for those who lives more distantly. The morbidity of social illnesses has increased, more and more of school age children doesn't go to school and doesn't get even the main education, so they are not able to get more payable work later and ere domed to misery.

The big spatial variety of the living standards may cost the social conflicts in the future which are most reliable between the regions in with bigger comparative level of poor and rich people.

All these mentioned problems motivates the scientists to research the differences of territorial living standards also to look for ways to reduce them. This problem is being solved in most of states by orienting of the political activity to the improvement of social economical situation and to reduce differences of the living standards in separate most back warded areas. Although it is not possible to fully equalize the differences of the living standards.

The reducing of territorial differences is settled also in the important Lithuania Republic documents such as The General Plan of Lithuanian Republic territory also in State long-term strategy of development until 2015 and others. In these documents it is planned to reduce the regional disproportions of the living standards by reducing the social and economical differences of Lithuania regions, also to create welfare state, with low unemployment level, big price of work, strong social guaranties, minimum quantity of poor families and high social compaction level.

The results of this research are important:

To make the social and demographical prognoses.

• To append and correct the general plans of Lithuania Republic territory and other strategic documents.

## Research object

The *object* of this scientist research is living standards in Lithuania Republic administrative territorial units such as municipalities and living areas - cities and villages.

# The aim and objectives of the study

The *aim* of the research is to identify territorial differences of the living standards between separate Lithuania municipalities, cities and villages, living areas according to the specific of social and economical factors size and dispersion of territory also to clarify the reasons of these differences.

In order to realize the raised aim of paper the following *tasks* were formulated:

- 1. To identify the differences of factors which determinates and describes the living standards (in 2000 2008) and to compare it with average of the country;
- 2. To compare the differences of the living standards factors in groups of districts with different level of urbanization;
- 3. To analyze the factors of the living standards in context of municipality demographic, employment and social economical conditions;
- 4. To accomplish the cluster analyze of municipalities according to the factors of the living standards;
- 5. To accomplish the typology of municipalities according to the factors of the living standards and to indicate the priorities improvement of in each of them.

### Scientific novelty of the study

The novelties in this scientist work are next;

- 1. The territorial differences of the living standards factors in administration units municipality) and the mutation of it is indicated (levels and mutation of it in Lithuania in 2000 2008);
- 2. It is detailed territorial research in municipality level, evaluating the forces which directly and indirectly effects the living standards;
- 3. The cluster analyze and grouping involves not only the specific the living standards factors but also the other social economical meanings which helps to define it's territorial specific in more adequate way;
- 4. Municipalities are presented according to the living standards degree and the priorities of resolution of the problems.

#### **Defensive statements**

- 1. Increasing differences of economical territorial expansion in Lithuania the territorial differences are expanding;
- 2. The differences of the living standards between territorial administration units are directly depended from level of urbanization;
- 3. The groups of districts (clusters) with similar social economical factors effecting the living standards are formatting in the country;
- 4. The degree of the living standards expression in districts helps to indicate priority of actions which allows solving of the problem of territorial difference in different

ways.

## **Approbation of the results**

9 Scientific articles have been published on the thesis topic. A detailed list publications associated with the paper's topic is given below the conclusions of the paper.

## Size and structure of the study

This paper consists of the following recommended main parts referring to the Lithuania Science Council's resolution Nr. VI - 4, 2003: introduction, research review, methodology, research results, conclusions, references. The paper includes 50 pictures, 7 tables, 25 annexes. The whole paper consists 214 pages of the main text (with cartoschemes).

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#### 1. RESEARCH REVIEW

## The interpretations of the living standards conception

The living standard is the social economical phenomenon treated in difficult and different ways, which requires the explanation and detalization of its treatment. The sociality usually understands the living standards very narrowly, trough the aspect of individuals incomes and saved wealth. By the way this conception usually is identified with categories of quality of life, well – being and welfare moreover it is treated as their synonym. The conception of the living standards is treated in different ways by various researchers. It often depends not only from the aim of research, object, methodic, problem or researched theory but also from the subjective position.

The narrowest conception explains the living standards only in material aspect, as the persons or sociality resources of wealth and material comfort (The New Oxford..., 1999, page 1812). However the living standards depend not only from the material components. That is why most of authors presenting the definition of the living standards separate the components of self-sufficiency of material and cultural valuables. The main accent in the living standards researches is people needs and satisfying of them. The needs of people are being satisfied by using of wares and services. For this reason the living standards is defined as the individuals, groups or nation exceeded consume level. The interface of needs and the living standards is researched by: Wi cław – Michniewska, 2004; Słaby, 1994; Pacione, 2001; Vengrien , 1998; Bagdonien , 1999; Urbanskien , 2000 and others).

The conceptions such as welfare, prosperity, quality of life, satisfaction and happiness are familiar to the living standards.

Welfare is treated in much more extensive way comparing with the living standards. First of all it's a good health and well provided life (Social security..., 2000). Researchers (Chambers, 1997; Henninger, 1998; Antonides, 1998, Gamboa, 2001,

Allardt, 1976, 1981; Zapf, 1994 and other) not only reveal the multidimensionality of welfare, but also explain the differences between the well-being, welfare and living standards. *The living standards* are related not only with the satisfying of the main needs of population (nutrition, safety, family renewal, etc.) but also with the ability to self-realization at work, mental life and other activities. The living standards of quality of life shall be appointed and that the latter include the "interest" concept ( and others, 2002). So the standard of living associated with the material needs and their implementation is reflected by the individual satisfaction. The material standards of living together with the quality of life generally lead to welfare.

## Detection problems of the living standard indicators and differences.

The diversity of population needs and their difficult relation with the factors of living, describes the necessity to use a system of indicators that helps you to explore the needs of the development and satisfaction. A living standards survey separates a varied number of indicators, but all of them can be divided into economic, social, demographic and other characteristics (Fahey, 2005, Sarlo. 1998, Esping – Andersen, 2000; Grosh, 1995; Lithuanian Human..., 1998; Sen, 1994; , 2002; , 1999 and others).

However, one of the most complicated issues of living studies is the selection of indicators and the setting regional differences. For the missing statistical data, mostly it has to be limited with material needs to handle indicators, although the standards of living are described with satisfying of mental needs as well, but some of them it is difficult to express statistically (for example the personal freedom and so on.).

The determination of income inequality studies is usually applied to indicate the territorial disparities of living standards (Lazutka, 2003, 2004; Foellmi, Zweimüller, 2003; Bourguignon, 2004, Gylfason. 2003; McKay, 2002 and others). The salary polarization also reflects the differences in living standards (Sarlo, 1998), territorial social contrasts (Baubinas, 2000), various indexes (Gini, square coefficient of variation, medium log deviation index, Atkins index and others). However, for the determination of differences of the living standards is necessary a single integrated index, bringing together several fully illustrating aspects. In many studies of living standards an integrated indicator is the gross domestic product (GDP). However, many of the author's approach to GDP as the indicator of living standards is critical (Burneika, 2004; Lazutka, 2004; Vengriene, 1992; Sarlo (1998). The geographers ( and others, 2004) proposed accessibility of transport area ratio, which reflects of economic geographical characteristics of the standard of living. Creation of the integrated living standard index is based on the mathematical statistical methods: cluster analysis (Rovan and others, 2003), factor analysis (Study Programme... and others, 2000.; Molien and others, 2002), the average index, MIN/MAX method (Misi nas and others, 2003).

The reasons of the living standards differences between cities and villages are explained as the diversity and specificity of economic activity, a different development of infrastructure, the needs and differences of qualification and education (Tamosaitiene, 2003; Ribašauskien, 2002 and others).

The poverty directly depends on the living standards. Researches of poverty studies conducted around the world and in Lithuania. Poverty factors are collected by Henninger (1998), the reasons of spatial concentration are analyzed by Ravallion (1999), Liutikas (2004) and others.

More restrictive level surveys of living standards are implemented around the world and in Lithuania. There are collected the statistical data of the household budget under the unified methodology. The wide range of indicators is used for the survey of household budget, allowing full indication of the living standards.

## The researches of the living standards in Lithuania.

The surveys of the living standards in Lithuania are carried out by both institutions and individual investigators. Detailed analysis, reflecting the complex information about the actual situation of the quality of life in the province was carried out during the preparation of the general territory plan of Lithuanian Republic. It was carried out the analysis of the parameters of life quality in Lithuanian counties, cities and neighborhoods also the combined assessment of the quality of life. The results of this analyze was used to draw the general plan of edge, which one of the main objectives is to improve the quality of people life and to compensate the regional differences. To the territorial living standard surveys is very closely related with the studies of social field of the professionals from Vilnius University, General Geography and Landscape Department. In these studies there is analyzed the opposition between these public events: a luxury - poverty, income levels - the price level of employment unemployment, urban living - villagers living standards, etc. (Kavaliauskas and others, 2002). The problems of the standard of living in various aspects are investigated in Labor and Social Research Institute. The each scientists are concentrated to different more detailed researches of living standards factors, such as: incomes (Šileika, 2000 and others), employment of population and unemployment rate (Vaitek nas, 2006; Pocius, 1998, 2005; Adamonien, 2004, Gruževskis, 2002 and others), living quality rural population (Vitunskien, 2007), housing (Burneika, 1999, Juškevi ius, 2003; Valentinavi ius, 2001); migration (Ma ys, 2005; Kabaila, 1999).

## The scheme of the living standards analyzes.

The living standards of each people depend on its individual characteristic and achievements. It's not only an education, professional experience and talents but also the age, family status and even the character. These individual features expresses in the living environment which formats the individual achievements and features. So there is both side connection between the living environment and person's individual features. In this case the living environmental and its conditions are realized in a broad sense – it may be the closest environment (where a man and his family live). This environment hierarchically depends on a higher level of territorial units. In the living area and in the further environment there is formed a social, economic, demographic and housing events.

Many of individual needs are being satisfied in the close environment. This may be a household, community, city, town, village or farm. The closest environment in collaboration with other higher level environments is creating the sphere of needs satisfaction (services), which not only helps to satisfy the biological and social human needs, but also to realize their knowledge and professional skills.

The standard of living can be defined as the complex poly structural system formed of many various social, economical, demographical and housing elements which are related in between connections and occurring in a particular geographical environment.

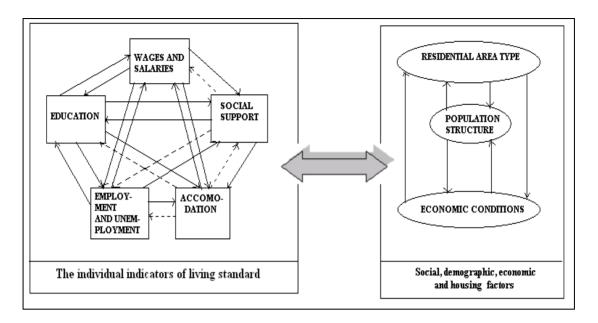


Fig. 1. The scheme of analysis of living standard

The living standard is formed (and described) by these elements of system: salary, social support components (social allowance pensions), education, unemployment and employment, accommodation. These elements are composed of many smaller elements that comprise the poly system. The function of individual components of the living standards is not possible without social, economic, demographic and housing factors consisting of the residential area type, population structure and economic and political conditions.

The scheme discussed in this chapter is the basis of the scientific work (Fig. 1). The study of main indicators of the living standards will be examined in this research (earnings (income), social benefits and pensions, housing, unemployment and employment, education) after evaluation of social, economic, demographic factors and level of urbanization.

## 2. METHODOLOGY

The main administrative territorial units, which are compared with each other on various indicators of the living standards, are the municipalities. Also the household survey data are analyzed according to the location of residence (urban and village). In determination of the standards of living territorial disparities, one of the determinants is the *level of urbanization* which is inseparable from the territory of the municipality size, population, economic activity and the functional structure. These factors indirectly determinate the standards of living. Therefore, in order to determine more precisely the standard of living differences between municipalities, they are divided into the next groups:

- A high level of urbanization municipalities urbanization level -100%;
- A medium level of urbanization municipalities urbanization level 50% and more;

• A low level of urbanization municipalities – city residents makes up to 50% of the total municipal population.

In order to fully disclose the living standards expression imbalance and its causes there are discussed the economic, demographic, social phenomena, urbanization level, etc. The living standard indicators are analyzed in two periods -1) 2000 - 2003; 2) 2008. This choice of the period was caused by the fact that in the first period, Lithuania experienced economic stagnation, after which the growth of economic has started; the second period - growth of economic.

After analysis of multiple authors and after the correlation analysis the next social – economic factors of the living standards are analyzed in this work:

- 1. Unemployment level;
- 2. Employment index;
- 3. Education of people;
- 4. Sources of income:
  - 4.1. Average wage rate;
  - 4.2. Financial social assistance rate:
  - 4.3. The average old-age pension rate;
- 5. Housing;
- 6. Housing amenities;
- 7. The relative rate of poverty risk groups,

Statistical and mathematical methods of analysis take the biggest part of all methods used in this work. The territorial differences and analyzes are identified in such ways:

- 1. By compeering the meanings of researched items with the average of the country;
- 2. By compeering the meanings of researched items between administration units;
- 3. By standardization of data;
- 4. By calculating the percentage coefficient of variation;
- 5. By calculating the ratio of deciles and quartiles.

In this work is compared the household income level, the average monthly gross wage of local population with average values of the country between urban and rural areas.

By standardization the data of municipality (*calculated z values*) is indicated their place between other administrative units (municipalities). The index of the z values indicators sum of the living standard allows identifying of each municipality place between others. However, calculating the sum of standardized z values it was took into account the negative social phenomenon which affects the living standards. For this reason some part of unemployment, social assistance benefits and share of population, entitled to social housing, z rates are not summed but minused.

The priorities of actions which should be supported firstly by dealing with the problems of the living standard are ranged according to groups of the living standards factors. The negative indexes (unemployment rates, social assistance benefits and the amount of population, entitled to social housing) have the special meaning and are putted in the first place of importance. All priorities are separated to five groups: 1) most importance; 2) very big importance; 3) big importance; 4) medium importance; 5) low importance. These levels of priorities shows the order of importance to settle the problems related with improving of the living standards.

The evolution of phenomenon according to the averages shows the percentage ratio of the variation (changes). Quartiles and deciles are meant for differentiation of income degree: the consumption differences between cities and villages of the richest and poorest households are analyzed (part I and X - deciles).

The cluster analysis can also be called as the method for detection of territorial differences whereas the specific administrative units are separated into clusters based on several similar features in which they differ from other clusters. The method of cluster analysis K - averages classified as nonhierarchical class methods is applied in this work.

The correlation coefficient R shows the interconnection of researched indexes. The reliability of it is evaluated by checking of statistical hypothesis  $(H_0)$ . To compare the social economical events in time it was counted the rate of increase. The method of groups was applied to separate the municipalities according to people homes useful area and number of flats also the repartition of index of employment and unemployment.

The statistic data in this work was taken from Lithuanian Department of Statistics (Lietuvos statistikos departamentas), State Social Insurance Board (Valstybinio socialinio draudimo fondo valdyba), international organizations and other institutions.

#### 3. RESEARCH RESULTS

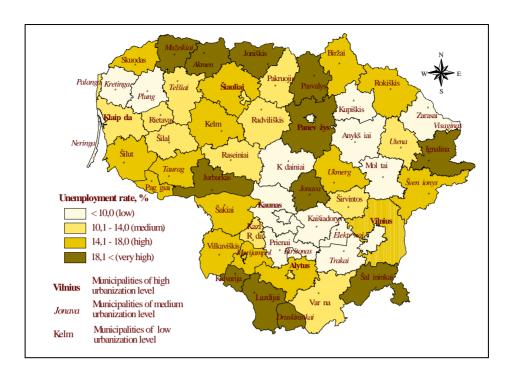
# Change of population unemployment rate and employment and differences in country

In Lithuania the unemployment rate reflects the change in economic development processes. However unemployment rates fall and scale can be indirectly addressed in the standard of living trends, because the labor income remains the main source of income and people who have lost work is missing not only a source of income but also reduces the consumption, appears poverty, social exclusion, increase social benefits need.

The period of unemployment rate growth starts from 1997 to 2001. In 2001 the unemployment rate after reaching the maximum has started to fall in Lithuania because of the high emigration level and increased economy. In 2001 – 2003 there were no municipalities with the raised unemployment and low employment. The urbanization level wasn't very important for unemployment level fall. It is confirmed also by statistic data: in three major cities of the country unemployment rates decline below the national average, but it must be borne in mind that these cities the unemployment rate has been and remains one of the lowest.

In later period (2004 - 2008) overall decline of unemployment rate in the country, most intensively this process was expressed in municipalities with highest unemployment rates. At least the unemployment rate falls in the municipalities where it was lowest.

According to the statistical data of 2001 - 2003 and 2008 there can be separated four large groups of municipalities which are more or less uniform habitats (Fig 2 and Fig. 3):



**Fig. 2.** Unemployment rate of municipalities in 2001 – 2003 (%)

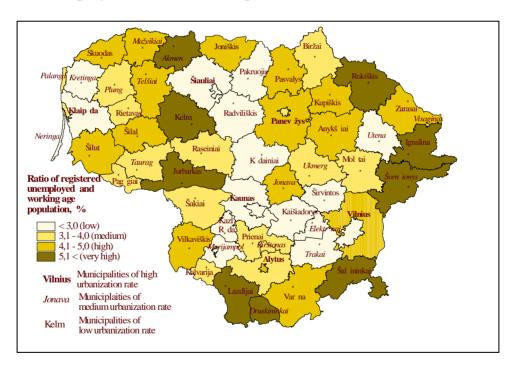


Fig. 3. The ratio of registered unemployed and working age population in municipalities in  $2008 \, (\%)$ 

1. Low unemployment rate of municipalities. These groups are a community of three habitats, of which the largest covers an area between Vilnius and Kaunas. These two largest cities attract and influence to the surrounding areas has a wide range of effects: concentrates the entities, attracts investments and encourages the labor migration. The next lower level of unemployment acreage of West Lithuanian municipalities, concentrated around the city of Klaip da and falls into its influence area. The third – North-Eastern area is behind the first two and the most effected by the influence of regional center Utena.

- 2. Medium unemployment rate of municipalities. Concentrated acreage of this community is in West Lithuania and falls into two centers city of Klaip da and district of Telšiai. In these municipalities, a relatively large proportion of the population is occupied in agricultural activities; therefore, such activities do not guarantee high employment and high income. Other medium level unemployment municipalities in 2001 2003 did not constitute an integral range and in 2008 already included the South Lithuania.
- 3. High unemployment rate of municipalities. In 2001 2003 m. this group of municipalities were located mainly at the border and accounted these three main habitats: South-Western, Eastern and Northern Lithuania. In 2008 was formed local band in Western Lithuania between Klaip da and Šiauliai cities. The second habitat concentrates around the municipality of Panev žys city. Remoteness from major industrial and service centers, low urbanization level, weakly-developed production and social infrastructure, high employment of population in agricultural activities and the rapid aging of the population especially in Eastern Lithuania these are the main reasons causing high level of unemployment in this group of municipalities.
- 4. Very high unemployment rate of municipalities. Mostly they are located in the frontier of the country and do not makes large habitats. The agriculture takes one of the most important places in economic activity structure of municipalities.

In 1998 - 2007 the employment rate fell from 62,3% to 69,9% in Lithuania. But in the turn of century for the economic and financial crisis in Russia which has effected the country the employment level fell to 57,2% (2001).

The lowest number of employed working-age population is in municipalities of low urbanization degree, many of them located at the border, and the main activity of the population - agriculture. However among some municipalities with low urbanization degree there can be identified some high employment rate such as Šilal , Jurbarkas, Vilkaviškis, Joniškis districts. After separating of municipalities to the groups according to employment and unemployment level there appears the municipalities of low employment and high unemployment. This is the largest of administrative units group and the labor market situation there is most difficult. There are municipalities with relatively high employment in agriculture but there also are industrial municipalities such as: Jonava district and Visaginas. High employment grade and low unemployment grade municipalities are the most favorable of labor market. In 2008 the most favorable of labor market situation was in the biggest cities also in municipalities of Elektr nai, Trakai, Marijampol , Radviliškis., Utena, Pakruojis districts and Palanga town.

Unemployment rate and employment indicator is a weak negative correlation (r = -0.2774) so it can be concluded that the country does not have a strong relationship between unemployment and employment. In 2008 the employment rate for a minimum value slightly increased to 51,5%, and the maximum was reduced to 79,6%. Also the coefficient of variation was reduced (to 10,4%).

Low degree of urbanization municipalities located in border experienced painful changes in the labor market and they should be a top priority in improving the employment.

After analyze of public documents and offers of various specialists employment promotion goal can be achieved by several measures.

• Run the promotion of local employment initiatives and implementation program;

- To organize community service in farms and agricultural companies;
- In rural areas the agricultural activity should be gradually changed to other activities, firstly services;
- To increase the mobility by changing the profession, also between countries and inside the country;
  - To increase the qualification of workforce in order to entrepreneurship.

## Differences of municipalities according to education of people

Education of people is closely related to residential area type. Cities contain more variety economical activity and bigger employment opportunity for those who have higher education. Most of young people stays to live in cities after graduating because they can't find job in a villages according to there education level.

In Lithuania the education is related with urbanization level. The biggest part of people with high education is concentrated in cities. It also confirms the results of material counting. The higher urbanization level - is the bigger part of people with high education in municipalities (and the connection between these indicators is strong positive (r = 0.798)).

Differences of municipalities according to peoples with high education (by data of people census in 2001) are high (the coefficient of variation CVP = 46,1%) and ranging from 4% (in Kalvarija municipality) to 23,1% (in Vilnius city). The high education level differences are not so big in municipalities with low urbanization level. They are ranging between 4% - 8,2% (an extract – municipality of Kaunas district – 13,8%) while the differences are bigger of medium urbanization and high urbanization municipalities. Big part of people with higher (professional colleges) education are also concentrated in cities (the correlation between urbanization level and part of people with higher (professional colleges) education was medium R = 0,69 in 2001). Differences of a higher (professional colleges) education level between municipalities are not so high. It seeks from 13,0% (Šal ininkai district) to 26,9% (Alytus town) and the variation is medium (CVP = 13,7%).

The income sources of people in municipalities with higher (professional colleges) education level comparing with other municipalities mostly is wage and own business (the coefficient of correlation between the part of people with such features r=0,75). So the little part is people which main incomes are social subsidies and agricultural activity. The connection between higher (professional colleges) education and wage is very weak. It also confirms the data of household budget researches according to incomes of the head of household. Moreover it confirms the education indexes of migrants.

## The main income sources of population

The household budget is being formed of incomes form various sources. However the most important for the living standard is the source with the biggest incomes (it is called the main source of incomes).

As the population diversity of income sources is large in the Lithuanian general population and housing census was isolated main source of income dimension and the relative number of population (1000 people) for which some source of income is the most important. Municipal grouping according to the main sources of income of the population allows identifying of reasons for the differences in living standards taking into account the imbalance of income distribution.

In 2001 the most people (835 from thousand) lived having three main sources of income in Lithuania. Such wages, pensions, or were dependent on family and / or other persons. This distribution is the reason of population age structure - part of people depended on a *family or other persons* consists mostly from a school-age children, teenagers and young people financially depended on family or other persons who gets incomes. The territorial distribution of these groups of people depends on a demographical situation of a particular locality.

Wage – as the main source of income, is in second place (286 people from 1000). Anyway the indexes of territorial wage as the main source of income are characterized by a high variation (CVP = 20,3%). The reasons of imbalance of this index distribution are these – not only the structures of people age but also the employment differences, general development of municipalities economic. It was identified that the lowest part of people whose income is wage is in municipalities with relatively bigger part of pension age people than national average, and the main activity is agricultural.

*Pension* – source of income, which territorial disparities mostly depends on people age consist (old-age pension gets 54,8% of all people who gets the social security pension) (Valstybinis..., 2008, p. 34). In cities the value of this parameter does not exceed 200 (1000 people). And in Visaginas only the tenth part of the population gets a pension as the main income. While the high part of pensions receiving pensions is focused on Eastern and Southern Lithuanian municipalities.

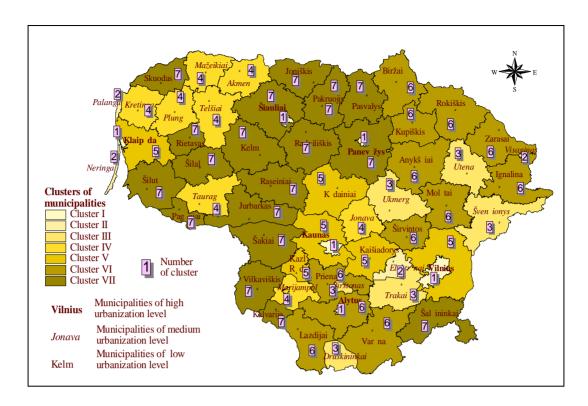
Even the quantity of people who gets the *social benefit* relatively is not big – medial 43 people from 1000, but taking to account the size of social benefit there can be said that the people of this group falls to a group of poor people. It shows how big the social problems are. This kind of income source more often is founded in low urbanization level municipalities with difficult economy situation and low employment possibilities.

To divide all municipalities according to main source of people income there was made the cluster analyze by separating clusters according to urbanization level (Fig. 4).

To each of municipalities cluster is characterized the territorial distribution specific and features caused by economic activity, people consistence and urbanization level.

High urbanization level municipalities are formatting I cluster. People of this group rarely get income from agriculture activity. Also the other types of income are specific for big cities – compeering with other municipalities there lives the biggest part of people getting studentship as the main source of income. And the relatively small part of people who get allowance as the main source of income.

Medium urbanization level municipalities are formatting II-IV clusters. II cluster municipalities are different for other clusters by the biggest part of people (353,69 from 1000) with the wage as the main source of income. In this group of municipalities exists the smallest part of people getting allowance as the income. In IV cluster municipalities comparing with III cluster municipalities are relatively bigger part of people depended on family or/and other persons. People who do not receive salaries, pensions or benefits are forced to find other sources of income. Therefore the Western Lithuanian municipalities with medium level of urbanization are characterized by the largest part of people living on other sources of income.



**Fig. 4.** Clusters of municipalities by main income sources of population in 2001 (per 1000 population)

Low urbanization level municipalities (V – VII clusters) are forming 3 clusters according to the main source of people income. The clusters are regular there. By decreasing of wage as the main source of income, other sources of income are becoming more important (such as agricultural, allowances). Relatively the most part of people gets pensions in VI cluster municipalities (297,1 from 1000). The smaller part consists of people depended on family or/and other persons (314,12 from 1000).

The people of VII cluster municipalities of low urbanization level falls to the highest risk of poverty and most of all need for social support.

### The territorial differentiation of wage

The wage had increased in Lithuania until 2007. In 2008 when the economy downfall has started, the increase of wage had slow down. The tendencies of wage differentiation strongly expressed territorially.

From 2000 the wage in Lithuania municipalities was changing very quickly: 2000 – 2003 in some administration units it has increased 10,1% and more. Such growth was typical not only for the industrial districts such as Mažeikiai and Telšiai municipalities or for energy municipality of Visaginas but also for the resorts of Neringa and Palanga city. The wage had also quickly increased in Šilal , Skuodas, Zarasai, Vilnius districts with one of the lowest wage of people in country.

In 2004 - 2007 the average monthly gross earnings had still increase (in country 56,8%). The industrial municipalities and municipalities of the biggest cities districts (Vilnius, Kaunas, Klaip da) had appeared in a number of municipalities with the highest level of wage increase (60,1% and more). In the first place of cities with raised average monthly gross earnings was Kaunas and in the last one was Panev žys (47,3%). The

slowest increase of average monthly gross earnings was in economically weak municipalities with low urbanization level also in Mažeikiai district and Visaginas municipality (<50,0%).

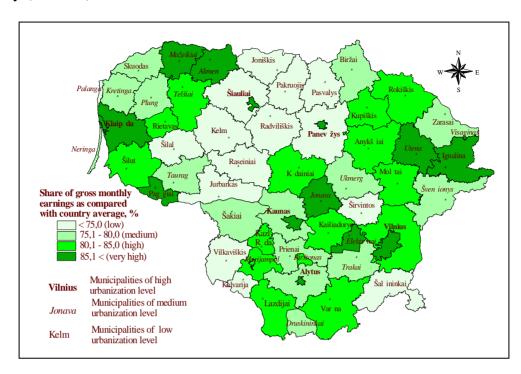
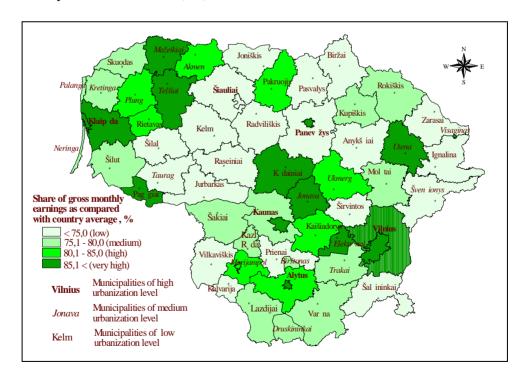


Fig 5. Share of average monthly gross earnings in municipalities as compared with average of country in 2000 - 2003 (%)



**Fig. 6.** Share of average monthly gross earnings in municipalities as compared with average of country in 2007 (%)

Different development of Lithuania economy sectors also differences of population qualification and education, the evolution of agricultural history all these factors caused the specifically geographic differentiation of nowadays people wage. The average monthly gross earnings between municipalities was different 2,3 times in 2000 - 2003. The medium income distribution goes like this – the size of people income directly depends on urbanization level. In 2007 m. the correlation of medium gross earnings and the urbanization level was direct and medium (r = 0.5808) in Lithuania.

All municipalities according to relative size of counted average monthly gross earnings compared with average of country are separated in few groups and the specific of average monthly gross earnings territorial distribution (Fig. 5 and Fig. 6). Analyzing these groups there are evaluated also the other indexes which effects the size of average monthly gross earnings (such as employment in economic sectors, unemployment, urbanization level).

The group of *low* average monthly gross earnings municipalities (up to 75% average wage of country). Most of very low average monthly gross earnings municipalities appear with relatively higher employment level in agricultural activity as in the other municipalities. In 2007 had increased the number of municipalities with low gross average monthly gross earnings and the habitat had extended to the North East.

The group of *medium* average monthly gross earnings municipalities (75,1% – 80,0% average monthly gross earnings of country). The biggest habitat of these group municipalities was in the segment of middle South of Lithuania between Kaunas and Vilnius cities. The second smaller habitat was in West Lithuania. The biggest part of these groups is occupied by population employed in services and manufacturing spheres comparing with low wage municipalities group. Anyway the employment in agricultural activity stays high. In 2007 there appeared more of municipalities of this group in South Lithuania. The former high average monthly gross earnings municipalities were also included in this group.

The group of *high* average monthly gross earnings municipalities (80,1% - 85,0% average of country) took the fourth part of all municipalities in 2000 – 2003. This group of municipalities hasn't surrounded the solid territory habitat. Anyway most of them are placed in the East – South section of Lithuania. In most of municipalities the employment in agricultural activity exceeds the average of country. The most changes in this group of municipalities have happened until 2007. The number of them decreased from 14 to 8. There have left no municipalities with high average monthly gross earnings in the North East area of Lithuania, and the number of them had decreased in the South area.

The group of *very high* average monthly gross earnings municipalities (85,1% and more). The variety and development of industry and services causes the very high wage. The very high average monthly gross earnings appear also in all big cities which can offer the variety of services developed most of all.

The variation of average monthly gross earnings between different urbanization level municipalities is balancing from the smallest (low urbanization level municipalities) to big (medium urbanization level municipalities). The big differences of wage especially appear in the economy activities where the private section takes the domination place (such as industry, construction, trade, hotels and restaurants). The differences of wage in public sector are small (especially in education). The biggest

variety of wage appears in medium urbanization level municipalities. People living in cities and in municipalities with low urbanization level more equal wage.

## Differences in social benefit recipients and distribution

For various reasons (loss of job or working ability, large number of dependents in the family, etc.), the amount of income can reduce so that the family can no longer make a living. For individuals and families unable to self-sufficiently support their living, the State provides monetary social support.

Municipality at its discretion may not only grant social benefits, but also compensations for the costs of heating and hot water for families. Since the number of disadvantaged families varies in different municipalities, there is a difference in the unemployment rate, so individual municipalities may grant a very different amount from their own budgets for social benefits.

In Lithuania social security benefits in 2004 were received by 2,4% of the total population and in 2008 their share declined to 1,1%.

In the major cities of the country, the share of social benefit recipients is lower than the national average. This leads to both higher income of population, and higher employment rates. The relatively low share of recipients of welfare benefits in the districts near the major cities as well as in the surrounding adjacent municipalities. The municipalities having the largest number of recipients of social benefits are situated at the border. In all municipalities in this group, the unemployment rate is high and very high.

From 2004 by 2008, the number of population in Lithuania receiving social security benefits was declining, with the exception of Neringa municipality in which it rose. The most rapid decline in the numbers of individuals receiving social security benefits was in the municipalities where they had the largest share.

The level of urbanization is one of the most important factors of unequal distribution of social benefits' recipients in the country. If in a the municipalities with a high degree of urbanization social benefits recipients in 2004 represented 1,39% of the population (in 2008 it was 0,5%), so in the municipalities with the average urbanization level the number was 2,88% (2008 it totalled 1,4%) and in the municipalities where rural population is over 50%, the share of social allowance beneficiaries was 3,65%.

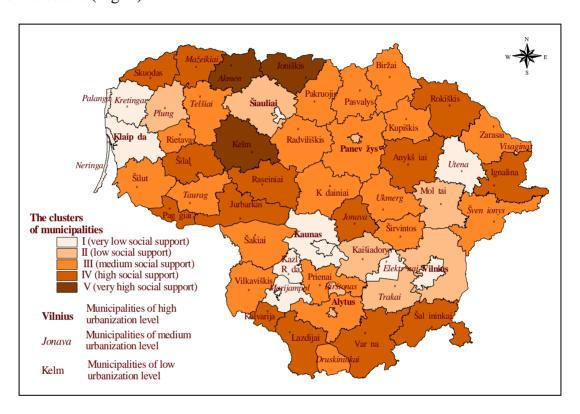
There was established a direct relationship between the amount of local governments' spending for social sphere and social benefits, per capita (r = 0.7). Meanwhile, in 2004 the correlation coefficient of local government spending for social sphere and social benefits r was 0.65 and in 2008 it was r = 0.67.

Low-costs for social sphere are not limited to large cities, but also for the municipalities with average urbanization level. However, even within the group of some municipalities with moderate levels of urbanization (Taurag , Telšiai, Akmen , Mažeikiai, Elektr nai districts), the costs for social sphere are high. This once again confirms that a single large manufacturing company can not provide all residents with high income, while the rest of the municipality has high unemployment levels and low incomes. All this leads to a significant need of social benefits.

The need for social benefits (and simultaneously, their size) depends on the level of unemployment in municipalities. In 2000 – 2004, the group of municipalities with low amounts of social benefits (up to LTL 20,0 per resident) was dominated by low unemployment rates. The same trend has been in the municipalities where the level of

social benefits is *average* (LTL 20,1–30,0 per resident), but this local group already covered more municipalities with high unemployment rates. The largest social security benefits were paid to the residents of the western and southern economically disadvantaged Lithuanian municipalities with low level of urbanization.

A linear relationship between the share of the beneficiaries of social benefits, local government spending on social assistance and social allowance rate per capita was identified: the higher the number of social benefit recipients, the more funding municipalities spend to social assistance and the greater is the amount of benefits per capita. This distribution can be observed also by dividing local municipalities according to these indicators (Fig. 7).



**Fig.7.** The clusters of municipalities by indicators of social support in 2008

A relatively *very low* and *low social support* (clusters I - II) is characteristic of large municipalities and those with medium-sized city level of urbanization. *Very high social support* is needed mostly for the people of the frontier municipalities (cluster V). The cluster III - IV (*medium and high social support*) covers the municipalities both with medium and low level of urbanization.

In 2008, the composition of clusters has changed significantly. Most of the local governments of the former fourth and the fifth cluster (high and very high social support) moved to a higher level – the third cluster (average social assistance). The number of municipalities with population receiving a very high social support decreased and now only three of them remain (districts of Joniškis, Akmen , Kelm ).

In 2004–2007, compared with 2000–2004, the amount of social allowance decreased in many municipalities, but its coefficient of variation increased. The minimum size of social benefits in 2004–2007, same as in 2000–2003, remained in the municipality of Neringa (2,2 LTL per capita) and the maximum benefits were paid for the Akmen municipal population – 47,01 LTL per capita. (2000–2003 in Pag giai

municipality this number was 50,7 LTL per capita). In 2004–2007, compared with 2000–2004, the coefficient of variation of the share of beneficiaries of social benefits increased as well.

# Territorial differences in the size of retirement pension beneficiaries and amounts of retirement pensions

The share of retirement pensioners is an important indicator in determining the standard of living: the higher this share is, the greater is the likelihood that more people would receive low income, as retirement pensions are by 54–56% lower than net earnings. In Lithuania, the variation of retirement pension rate is small (in 2003, the CVP was 7,11%) and in 2008 decreased to 6,06%). The highest amount of pension received by Visaginas residents in 2003 was 1,45 times that of the average pension size of the Šilal district residents (in 2008, it was 1,37-fold).

The average size of retirement pensions in 2003 was LTL 340 and in 2008 it rose to LTL 770. The pension amount is not a very significant indicator of territorial differences in the standard of living, as it has a fixed size (basic pension). Other part of the pension depends on the former salary. However, one can determine the basic laws of the pension size distribution in the country and use them for making judgements on the retirement pensioners' living standards.

Since the retirement pension amount most of all is dependent on the former wage, it can be assumed that the highest pensions are received by residents of local governments with the best developed industrial and service sectors, and vice versa – agricultural and forestry workers who used to receive relatively lower wages are paid a smaller amount of retirement pensions. However, it must also be taken into account that even in agriculture; the income of the population highly varies.

According to the relation of the retirement pension amount to the national average, the Lithuanian municipalities can be divided into the 4 main groups:

- 1. Municipalities with *low* amount of retirement pension (up to 90,0% of the average). These municipalities make a single area in the South Samogitia. Also, separate municipalities in the South and East Lithuania belong to this group. These are the municipalities where no intensive industrial activities have been developed to the restoration of Independence or now. There is no major service centres, and due to the relatively low soil productivity, agricultural income is lower than elsewhere. Almost all municipalities fall within the group with low level of urbanization.
- 2. The group of municipalities with *average* amount of retirement pension (90,1 to 95,0% of the national average). They represent a number of areas in the North West, Central and North-Eastern Lithuania. These municipalities have large industrial centres, developed service sector, and developed agriculture in the south-western Lithuania. The level of urbanization in some of the municipalities in this group is medium, but they are very different demographically: In the North West Lithuania, there is a greater number of the pre-working and working age population than in the north-eastern area's municipalities.
- 3. The group of municipalities with *high* level of retirement pension (95,1% 100,0% of the national average). It covers a huge acreage in North and Central Lithuania and the individual municipalities in other parts of Lithuania: Druskininkai and Palanga resorts, Trakai Elektr nai and Marijampol Kazl R da Kalvarija, Šakiai district municipalities. The municipalities of this group have agricultural areas with high

agricultural productivity score. The number of industrial municipalities is low (districts of Elektr nai, Jonava, Akmen ), which is characterized by the average level of urbanization.

4. The group of municipalities with *very high* level of retirement pension (100,1 % and above the national average). Distinction of this group is relative, as the statistics of average retirement pensions of population in large cities and their districts are presented together. In the major cities of the country (in Vilnius, Kaunas, Klaip da and Panev žys) and Visaginas municipality, retirement pension is the highest and it is likely that this is determined by the high wages in the service and industrial sectors, where the majority of the population is occupied.

In general, there are no significant territorial differences in the amounts of retirement pensions. In the municipalities with the retirement pension amount below the average (these are mostly municipalities with a low level of urbanization), the retirement age population receive added (albeit small) income from agriculture, own-produced products for their needs. Meanwhile in the cities, retirement pension for many elderly people is the only source of income and housing maintenance costs are higher than those in the countryside. Thus, the retirement pension size alone still does not allow drawing conclusions about the standard of living of the beneficiary population – it is necessary to evaluate a number of other factors (including individual factors).

#### Household incomes and their structure

The household socio-economic status is described by the current estate, residential housing, savings, however, all of which are accumulated over a long period of time. Meanwhile, a fixed income is necessary to satisfy persistent, daily requirements.

In Lithuania, most of all income consists of the *employment income* (in 2007, they accounted for 62,4% of total household disposable income) and this share is continuously growing. However, when comparing urban and rural statistics (2008), the visible disparities can be seen: in rural households, incomes of employment make just a little less than half (48,9%) of total income (in urban areas – nearly two-thirds, 67,1%).

According to the structure of disposable income, social benefits in old age (retirement pensions) hold the third position in rural areas and the second in urban areas. In view of the rapidly aging population, the share of social benefits in old age is increasing in both urban and rural areas, although the growth rates are higher in the latter areas (in 2008, social benefits in old age already accounted for 27,6% of disposable income. In cities, the share of retirement pensions in the total social benefit structure also increases.

Other social benefits in the structure of disposable income represent a small percentage, but in all cases, it is higher in villages than in cities. Social benefits are closely linked to the number of household members. The number of household members, particularly children, is a key factor reducing the income of households per person.

Relatively low share of disposable income in rural areas is formed by income from property and rents -58,5% for urban households in this type of income. Statistics show that these types of income in rural areas will continue to constitute only a small part and will not be of fundamental importance for the structure of residents' income. Meanwhile, agricultural income will form an important part of income of rural population in the future as well.

Falling incomes of population and price increases since 1998 led to the decline in *actual* disposable income in both urban and rural households. Before 2000, the decline in actual disposable income was higher in villages, but in 2000–2001, the decline of actual income has slowed down in rural areas and was not as rapid as in urban areas. However, since 2002, urban labour income grew faster and the amount of actual income per capita was higher than in rural areas. In 2007, the actual income of the country, after reaching a maximum value, in 2008 decreased to 3,5%.

Since 2002 the gap of disposable income between urban and rural households was continuously declining and in 2006 rural disposable income amounted to 80,1% of urban households' income levels. In 2008, the value dropped to 75,5%.

Unemployed persons are paid *unemployment insurance benefit*, but it, like other social benefits, does not help to overcome poverty.

The size and structure of disposable income depends on the employment of the population. However, the population's education is important for the latter, ensuring not only different job opportunities, but also the level of income.

The higher the level of education, the higher the income is received by households and their relative size is higher than the national average. If the household income per family member where the main family member had no primary education and primary education, was only 77,2% of the national average, so in families with the main family member having higher education the income reached 130,0% of the national average (2007). Besides, the family whose householder has higher education has the income higher than the average.

Income in households with family members with different education level were lower than average. It depends on the type of income, which depends on the social groups and economic activity in which a person is engaged.

Very often, peoples' education depends on the social group. In the households whose main member was an employer or self-employed, the average monthly disposable income per family member in 2007 amounted to LTL 1046,2. This is a group of households, accounting for the highest income. Meanwhile, disposable income in farmers' household averaged 106.4% of the household income of hired workers, 144.2% of pensioners' household income, and was even 2,3 times higher than other household income.

Living standard surveys determine how households subjectively assess their living standards. In Lithuania in 2004 about 60% of households considered that in comparison with other households they are "a medium class", in 2008 their share rose to 69%. However, that statement is contrary to their declared disposable income, the amount of which should be sufficient for a household to live in medium conditions. According to Statistics Lithuania (Lithuanian Department of Statistics), the average disposable income in 2004 was about 40% lower than the level of income, which, in the opinion of households, might ensure the average living standards. In 2008, this share declined to 37.6%. During the eight years, the fluctuation amplitude between the relationship of the "desirable" and the actual level of income was higher in urban households. With the increasing disposable income, the amount of money needed to sustain the "medium" living standards increased as well. Relatively lower needs of rural population leads to lower income necessary to sustain the "medium" living standards.

The absolutely minimum monthly amount of income for a household to survive (make both ends meet) in the cities should be LTL 771 (2008). This is 18,2% lower

amount than the actual amount of disposable income. In rural areas the disposable income in 2008 was 20,3% higher than the amount of funds required meeting minimum needs.

Causes of the worsening standard of living are interpreted differently by urban and rural residents. Although in both types of residential areas, deterioration in living standards in most households is linked to the growing prices and not increased income, but in rural areas the number of such households is less than in the cities. Meanwhile, the loss of earning capacity is indicated by the greater part of rural households as the reason for the deterioration of living standards.

The income and price ratio is reflected by the purchasing power values that can help to identify not only the quantity of goods that can be acquired by residents or households per month, but also to compare the purchasing capacity variations and differences between urban and rural households. Purchasing capacities with reference to all goods in urban areas are higher than in rural areas; therefore, urban residents can buy more goods from their earnings.

In 2000 - 2007, the purchasing capacity of the Lithuanian population grew, but the price differences of various goods and services between local governments decreased in 2000 - 2008. The highest price differences among the municipalities are in housing utility services. In 2008, the district heating price differences among the municipalities differed by more than twice, price of cold water -1,87-fold, hot water -1,72-fold. Meanwhile, the price differences among excise products (gasoline and diesel fuel, cigarettes, vodka, beer, sugar) are the lowest. However, statistically significant price differences among local governments were not found. They ranged in any particular year, and may depend on agricultural crop production.

The growing disparities of purchasing capacity among the cities and villages show that the differentiation in standards of living was increasing.

# Supply of Lithuanian population with housing and its quality

Real estate market emerged in Lithuania after the restoration of independence when the privatization process started. This led to the territorial differences in the supply of housing among population. One of the reasons for the differences is high housing prices, especially in major cities.

In Lithuania, apartment building from the territorial viewpoint had a varied pace. There are geographical housing differences emerging in the country that characterize the features of the supply population with new housing. The intense growth in housing construction area in Vilnius – Kaunas attraction area can be observed. Extremely high rates of construction of apartments are in Vilnius (in 2008, a total of 100.6 apartments were built per 10000 population) and also in the adjacent municipalities: Vilnius, Trakai, Kaunas, Elektr nai districts. Another group of municipalities that is distinguished by relatively high growth rate of the number of apartments are the municipalities of the resorts (Palanga and Druskininkai). Meanwhile, the frontier municipalities with low level of urbanization in northern Lithuania are distinguished both by absolutely and relatively low housing construction rates (up to 4 apartments built per 10000 residents). A little number of apartments is built in small municipalities, established in 2000: Pag giai, Kalvarija, Kazl R da, Rietavas.

According to the Law on state support for the housing rent or purchase of the Republic of Lithuania, the socially disadvantaged population receives state grants to

partially offset the housing loans. The municipalities also develop lists of individuals (families) who are entitled to rent housing.

At the beginning of 2008, the number of population entitled to social housing and listed in the lists of municipalities was 7,1 (per thousand residents). This part of the population ranged from 1,6 (in Skuodas district) to 32,0 (in Neringa municipality). The lowest proportion of people eligible for social housing and included in the lists lives in the municipalities with low urbanization level, and some of them are at the country's borders: Skuodas, Alytus, Rokiškis, Pasvalys, Anykš iai district and others.

The pressing need for social housing exists in some of the medium urbanised municipalities of Neringa, Jonava, Taurag , Druskininkai district and in the municipalities of large cities.

However, appropriations from the state budget for the families or individuals in need of housing are not adequate to the demands of housing. The relatively small governmental allocations are in the municipalities, which are characterized by high social housing demand.

The master plan of the territory of the Republic of Lithuania provides for the outlook of an average of 28 m<sup>2</sup> total floor space per capita in the year 2020 (26 m<sup>2</sup> in urban areas and 32 m<sup>2</sup> in rural settlements). However, according to the data of 2004, the average dwelling areas of the population were in line with these requirements only in urban areas of 7 municipalities and in rural areas of 10 municipalities. In 2007, this figure rose to 13 and 14, respectively.

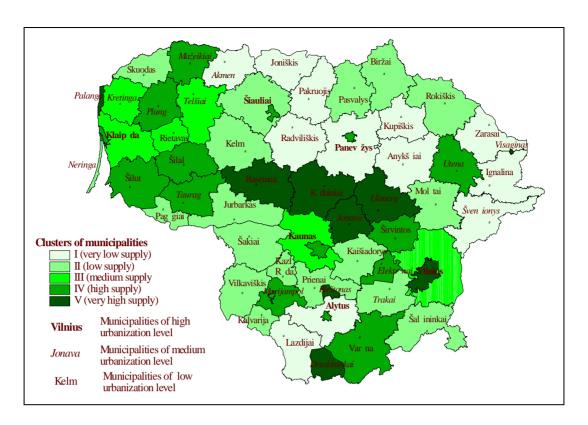
The Lithuanian *cities* are characterized by a relative increase in the averaged useful area per capita ( $m^2$ ) with the increase in a relative number of apartments (per 1000 of population). A strong positive correlation (r = 0.7178) was established between these two housing indicators. In the cities in 2007 in average 1000 inhabitants had 393 apartments, but the supply with residential accommodation among the municipal cities varies from 287 apartments (in Klaip da district) to 482 apartments (in Druskininkai municipality). It can be argued that the differences in the supply of housing in urban areas are not significant: the coefficient of variation CVP = 11.1% (in 2004 – 8,86%).

Rural areas, compared to urban, typically show even higher correlation between the relative number of apartments per 1000 population, and floor area per capita: the calculated the correlation coefficient r=0.9866. This is due to the larger total residential area, because the greater part of rural households has a residential house. Another reason is a smaller number of rural population and their aging, which leads to the higher indicators of housing supply.

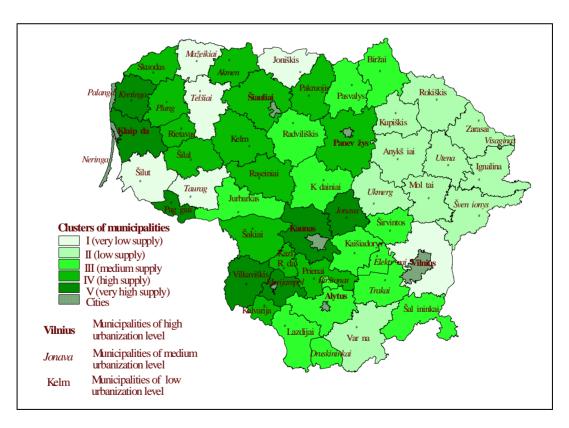
In the Lithuanian villages, if compared to the cities, not only the technical infrastructure is significantly less-developed, but also its quality is significantly lower. Large differences are in the aspects of differences in water supply, central heating, sewage systems and other amenities. However, in both urban and rural areas the supply of population with housing amenities is improving.

The cluster analysis summarizes the supply of population with housing and their amenities. Since the values of indicators are very different, the supply of urban and rural population with housing and amenities are analyzed separately.

The clusters of the supply of urban population with housing and their amenities (Fig. 8):



**Fig. 8.** The clusters of the supply of urban population with housing and their amenities 2004



**Fig. 9.** The clusters of the supply of rural population with housing and their amenities 2004

- I. The *first* cluster (*very low supply*) consists of municipalities featuring a high supply of population with housing (411,9 apartments per 1000 population; 25,5 m<sup>3</sup> per capita) but very low supply with its amenities (housing quality). There are mostly small towns where people often have private houses and this leads to a relatively large housing useful area per capita, while the municipal infrastructure is not available in all dwellings.
- II. The *second* cluster (*low supply*) consists of municipalities with a supply of urban population with housing is average, and their level of comfort is low. These are municipalities with low level of urbanization, where the majority of people have private houses, and public utility services are not accessible to everyone. In the towns of these municipalities there are no large industrial or service facilities, and are therefore occupational income is relatively lower than the average.
- III. The municipalities of the *third* cluster (*medium supply*) are not so different from the second cluster of municipalities according to the housing and amenities indicators in urban population areas. These are major city municipalities (districts of Vilnius, Kaunas, Klaipeda) as well as Telšiai districts and Rietavas municipalities where the supply of population with housing is low, and the level of amenities is average.
- IV. The *fourth* cluster (*high supply*) of the supply municipal urban residents with housing can be considered relatively low, and their quality (amenities) very high. This cluster covers the major cities, with the exception of Vilnius, and many of the county centres. Many of these municipalities have a well-developed industrial and service sector, which ensures high-income to residents, allowing the improvement of the quality of their homes.
- V. The *fifth* cluster (*very high supply*) covers the resorts, industrial cities and the capital city of the Republic. These cities are characterized by a very high supply of population with housing and its amenities.

The clusters of the supply of rural population with housing and their amenities (Fig. 9):

- I. The *first* cluster (*very low supply*) consists of municipalities characterized by low supply of population with housing and a very low level of amenities. In these municipalities there is a particularly low percentage of housing with central heating, hot water, and bath. A higher proportion of these municipalities are located in Western Lithuania.
- II. The group of municipalities representing the *second* cluster (*low supply*) is distinguished by the very high supply of rural population with housing, and the facilities are in less than a third of the dwellings. The municipalities of this cluster dominate in the Eastern and South-East Lithuania, which is characterized by intense population aging, small, endangered villages, old houses, and houses equipped with basic amenities are rare. Low-income, which structure is dominated by pension, does not make room for improvement of housing quality.
- III. The *third* cluster (*medium supply*) municipalities are characterized by high indicators of the supply of rural population with housing and medium supply with amenities. Geographically, municipalities with these housing characteristics are located mostly in the mid-northern and southern parts of Lithuania, where the Soviet years more planned type settlements were established, and residential housing has many amenities.

- IV. The municipalities forming the *fourth* cluster (*high supply*) are located in Central Western South-West Lithuania. In this part of Lithuania, villages are larger; housing is equipped with better amenities than in the villages of the East or South Lithuania. Demographically the cluster includes younger villages; they have a higher birth rate. As a result, the supply of population with housing in these municipalities is average, and the housing quality is high. There is only one low indicator, namely, the supply of municipal population of this group with electric stove (0.88% of all dwellings).
- V. The *fifth* cluster (*very high supply*) consists of municipalities distinguished by extra low supply of rural population with housing and its very high quality. The proximity of cities not only determines a good utility network infrastructure but also the high level of income of the rural working-age population employed in urban areas, high income, which allow for improving the housing quality. In addition, many urban residents move to live to the surrounding settlements, resulting in the shortage of housing.

In summary, Lithuania still has the lack of living space in both urban and rural areas and, although this problem is more acute in urban areas, the rural areas face with a more acute housing quality problem.

# Structural differences between the household consumption expenditure of urban and rural population

Consumer spending is a no less important indicator than the disposable income since it more accurately reflects the household's living standards, as it includes costs from those sources that are not directly related to the income during that period (e.g. savings).

Differences in household consumption expenditure of urban and rural household were changing very unevenly. In 2000, rural household consumption expenditure accounted for the total 72,89% of urban household expenditure level, and in 2004, this value was already 74,81%. In 2008, consumption expenditure in rural areas accounted for 68.1% of the urban household consumption expenditure.

Changes of the population's level of income and prices affected the amount of consumption expenses for various goods and services to a varied extent. The most intense growth of consumer expenditure in 1998–2007 was for communications (4,56 times, and in villages as much as 5,9 times). Consumption expenditure increased by more than twice for health care services, transport, leisure, recreation and culture, other goods and services.

Difference between consumption expenditure between the towns and rural areas was growing varied by types of goods and services: In 1996–2007, the consumption expenditure margins increased on alcoholic beverages, housing, hotels, restaurants and cafes, entertainment and culture, education, transport. Expenditure on tobacco products communication, other goods and services decreased. Stable consumption gap remains for clothing and footwear, health care, housing maintenance and furnishings, transportation services and goods. The changes of the differences in food consumption and non-alcoholic drinks have taken the opposite trend: till 1999, the consumption expenditure was lower in villages, but since 2000 the rural population spent more money for food than city dwellers.

The most marked difference between the consumption expenditure between the wealthiest and the poorest are observed in recreation and culture, education, transport and furnishings (more than 30 times). Differences in the consumption of essential goods and services between the richest and the poorest are not so high: cost of food differs 3.2 times, or housing – 8 times.

The variation values of household consumption expenditure are not as high as this of disposable income. The coefficient of variation for the consumption expenditure for many of the goods and services is average, and the consumption variation is high only for those goods and services, which are luxury, or are intended for a certain stratum of society (transport, leisure and culture, education, food services, etc.). Meanwhile, the share of costs for food and soft drinks varies slightly.

# Territorial distribution of people facing the poverty risk

Poverty is an expression of social status and lack of resource availability. The difference in the numbers of poor between the towns and villages in 2000 - 2007 in Lithuania ranged from 11 to 18 percentage point. Such difference in the part of the poor was due to their unequal distribution in certain individual years in towns and villages. Poverty is certainly more widespread in rural areas – among the entire country's poor, the rural population amounts to 53%.

Social benefits can reduce the poverty level, and to some social groups (and for unemployed and other inactive persons – even significantly).

R. Lazutka and A. Misi nas (Lazutka et al, 2006) proposed a method which allows comparing municipalities in their efforts, the processes taking plane and results achieved in the field of social support. One of the indicators – the poverty risk index – was used for the assessment of the municipal social efforts. After summarising the percentage of groups at risk of poverty (families with three or more children per 1000 families, single mother/parent families per 1,000 families, number of unemployed per 1000 of population) the territorial differentiation of the risk of poverty is revealed. In Lithuania one can distinguish three main groups of municipalities, according to the summarised part of the poverty risk groups. This distribution is determined by the proportion of the three different indicators in the municipalities, resulting from demographic, economic and social reasons in a particular administrative unit.

The *low* summary value of poverty risk indicators (below 100) is characteristic to the municipalities located in the country between the municipalities of Vilnius and Kaunas cities, K dainiai and Utena municipalities. In many of these municipalities the number of large families is relatively higher than the national average, whiles the percentage of single mothers / parents or of unemployed is below the average.

In many of the Middle – West Lithuanian municipalities, summary value of poverty risk indicators was 101 to 120 and conditionally it can be considered as *medium*. In this group of municipalities there is also a higher number of large families than the national average, while the percentage of single mothers / parents is below average. The total value of the poverty risk is increased by the high overall part of the unemployed in a number of municipalities.

The distribution of the municipalities with high risk of poverty (the total value exceeds 121) is characterized by their location near the border of the country, mainly in the northern, south-western and western parts of the country. In this group of municipalities, the values of relative poverty risk indicators (the share of unemployed

persons and the share of families with three or more children) exceed the national average.

The analysis of risk poverty indicators shows that the level of urbanization is not always a determining factor in the number of groups at risk of poverty. Although there are relatively less urban families with many children, but they have the greater part of families of single mothers/fathers, and a large part of unemployed in the municipalities even with average urbanization level can be attributed to a lack of job opportunities in rural areas.

## The nature of the standard of living and priorities for action in municipalities

The indicator of the amount of standardized z values of living standard indicators allows identifying the placement of each municipality among other municipalities. According to the summarised indicator of z values, all municipalities are divided into 4 groups and reflect the standard of living by the degree of expression of the identified indicators (Fig. 10). This indicator describes not only the standard of living in each municipality, but, given the nature of events, one may set priorities in the light of which the corresponding problems can be solved.

- 1. The summarised indicator of z values <(-3,0). Municipalities with such indicator are situated in the southern part of western Lithuania; the group also includes several cross-border municipalities, located in the North, South and East Lithuania. Many of them have a low degree of urbanization, with the poor developed industrial and service sector. The main problems of such municipalities are low educational attainment and high unemployment rates among population, and in some municipalities low wages. Therefore, there is a high demand for social benefits.
- 2. The summarised indicator of z values (-2,9)-0.0. Municipalities in this group form a several clusters in the western, eastern, south-western Lithuania and in the area between Vilnius and Kaunas. This group also includes municipalities with the average degree of urbanization: Mažeikiai, Jonava, Šven ionys, Telšiai, Plung, Kretinga districts. In many listed municipalities with the average urbanization level, having large industrial facilities, the levels of population education and wages in the district centres is high, but the high unemployment rate outside the district centre leads to a high level of social benefits needs. In other municipalities, many values of the standard of living indicator are close to average or lower and higher than that.
- 3. The summarised indicator of z values 0,1-3,0. Most of municipalities in this group are concentrated in the Central North East Lithuanian area. The group includes Birštonas and Druskininkai resort municipalities. Inclusion of Pakruojis and Zarasai district municipalities in this group is debatable. The importance of Pakruojis municipality value is increased by relatively high wages and employment of residents, and Zarasai by a very high level of employment and supply with housing. High scores of some municipalities are determined by industrial activity or proximity of large cities.
- 4. The summarised indicator of z values 3,1<. This group of municipalities includes the major cities, as well as Palanga town, Utena district, Visaginas, Marijampol and Elektr nai municipalities. Here, many people have high education, low or average levels of unemployment, high or very high level of employment and wages, low amounts of social benefits, but in this group of municipalities' people face housing shortage.

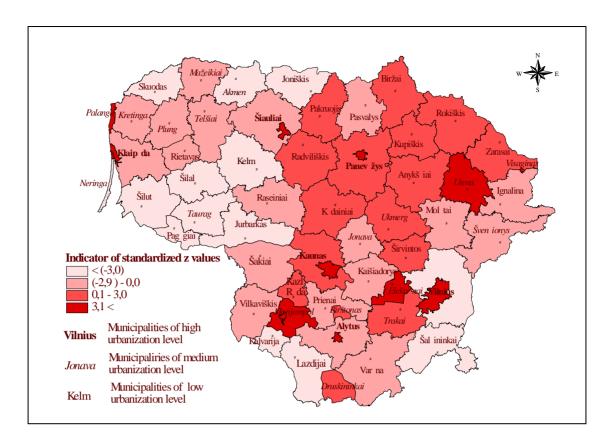


Fig. 10. Municipalities by indicator of standardized z values

Following the identification of the degree of expression of standard of living indicators of the municipalities, priorities for action are highlighted that should be the major in addressing the socio-economic problems of a specific administrative unit. Consistently improving the social and economic environment, the overall standard of living in the municipalities will improve.

The maximum public attention should be given to the municipalities where, according to the values of indicators illustrating the standard of living, the highest (the most important) priorities for action are set. The biggest number of these priorities is in the municipalities of Šilut , Vilkaviškis, Šilal , Telšiai, Lazdijai, Ignalina, Šven ionys districts, Kalvarija and Rietavas. Many listed municipalities have low rates of educational attainment and wages.

In the cities, the number of very high interest priorities is low, and they mainly relate to the problems of the supply of housing.

One can distinguish the category of municipalities where there are no highest level priorities (very high and the highest importance): these are municipalities of K dainiai district, Palanga town, Panev žys city, Rokiškis district, Šiauliai, Elektr nai. This does not mean that these municipalities have no problems to be addressed, but they are not as pressing as elsewhere.

Priorities for action (Tables 1-2) ranked in accordance with the group values of the standard of living, shows the order of precedence for dealing with problems related to the improvement of living standards.

**Table 1.** The typology of municipalities by degree of expression of standard of living indicators and priorities for action in 2007 - 2008

Municipalities	Higher education, %	Professional colleges education, %	Unemploy- ment rate, %	Employment index, %	Average monthly gross earnings, LTL	Social assistance benefit, LTL per capita	Apartments in urban areas, per 1000 population	Apartments in rural areas, per 1000 population	Share of population entitled to social housing, %
Alytus city.	Very high	Very high	High	High	Very high	Low	Low	-	Medium
Alytus dis.	Low	Low	Medium	Medium	Medium	Medium	Medium	High	Low
Druskininkai	Very high	Very high	Very high	High	Medium	High	Very high	Medium	Very high
Lazdijai dis.	Low	Low	Very high	Low	Medium	Very high	High	High	Medium
Var na dis.	High	High	Medium	Low	Medium	Very high	Medium	Very high	Very high
Birštonas	Very high	Very high	Medium	Medium	Medium	Medium	High	High	High
Jonava dis.	Very high	High	High	High	Very high	Very high	Very high	Low	Very high
Kaišiadorys dis.	Very high	Low	Low	Low	High	Low	Medium	High	Medium
Kaunas city	Very high	Low	Low	High	Very high	Low	High	-	High
Kaunas dis.	Very high	Low	Low	Medium	Medium	Low	Low	Low	Low
K dainiai dis.	High	Medium	Low	Very high	Very high	Medium	High	High	Low
Prienai dis.	Medium	Low	Medium	High	Low	High	High	Medium	Low
Raseiniai dis.	Medium	Low	Medium	High	Low	Very high	High	Medium	Low
Klaip da city	Very high	Very high	Medium	High	Very high	Low	Medium	-	High
Klaip da dis.	High	Very high	Low	Very high	Very high	Low	Low	Low	Low
Kretinga dis.	Very high	Medium	Low	High	Medium	Low	Low	Low	Medium
Neringa	Very high	Very high	Low	Very high	Medium	Low	Low	Medium	Very high
Palanga town	Very high	Very high	Medium	Very high	Medium	Low	Very high	-	Medium
Skuodas dis.	Low	Low	High	Medium	Medium	Very high	Medium	Medium	Low
Šilut dis.	High	High	High	Low	Medium	High	Low	Low	Medium
Kalvarija	Low	Low	Medium	Low	Low	Very high	Medium	Low	High
Kazl R da	Medium	High	Low	Low	Medium	Low	Medium	Medium	Medium
Marijampol	Very high	Very high	Low	Very high	High	Low	Low	Low	High
Šakiai dis.	Medium	Medium	Medium	Medium	Medium	High	High	Medium	Low
Vilkaviškis dis.	Low	High	High	Very high	Low	High	Medium	Low	Medium
Biržai dis.	Medium	High	Medium	Medium	Low	High	Very high	High	Medium
Kupiškis dis.	High	High	High	High	Medium	High	Very high	Very high	Medium
Panev žys city	Very high	Very high	Medium	Very high	Very high	Low	High	-	Medium
Panev žys dis.	Medium	Medium	High	Very high	Low	Medium	Very high	Medium	Low
Pasvalys dis.	Low	Medium	High	High	Low	High	Very high	High	Low

Rokiškis dis.	Very high	High	Very high	High	Medium	Very high	Very high	Very high	Low
Akmen dis.	Medium	Low	Very high	Medium	High	Very high	Very high	Medium	Medium
Joniškis dis.	Medium	Medium	High	Very high	Low	Very high	Very high	Medium	High
Kelm dis.	Medium	Low	Very high	High	Low	Very high	Medium	Medium	Low
Pakruojis dis.	Low	Medium	Low	High	High	High	High	Medium	Low
Radviliškis dis.	High	High	Low	Medium	Low	High	High	High	Medium
Šiauliai city	Very high	Very high	Low	Very high	Very high	Low	Medium	-	Medium
Šiauliai dis.	Medium	Medium	Low	Low	Low	Medium	Medium	Low	Low
Jurbarkas dis.	High	Very high	Very high	Very high	Low	Very high	Medium	High	Low
Pag giai	Low	Low	Medium	Medium	Very high	Very high	High	Low	High
Šilal dis.	Low	Low	High	Very high	Low	Very high	Medium	Medium	High
Taurag dis.	High	High	Medium	Medium	Low	Medium	Medium	Low	Very high
Mažeikiai dis.	Very high	High	High	Medium	Very high	Very high	High	Low	High
Plung dis.	High	Medium	Medium	High	High	Low	Low	Low	High
Rietavas	Low	Low	Medium	Low	High	High	Low	Medium	Medium
Telšiai dis.	High	Low	High	Very high	Very high	High	Low	Low	Medium
Anykš iai dis.	High	High	High	High	Low	Very high	High	Very high	Low
Ignalina dis.	Medium	Low	Very high	High	Low	Very high	Very high	Very high	Very high
Mol tai dis.	Medium	Low	Medium	Medium	Medium	Low	Low	Very high	High
Utena dis.	Very high	Very high	Low	High	Very high	Low	Low	Very high	Low
Visaginas	Very high	Very high	Medium	High	Very high	Medium	Medium	-	High
Zarasai dis.	High	Medium	High	Very high	Low	Medium	Very high	Very high	Medium
Elektr nai	Very high	Medium	Low	Very high	Very high	Low	Medium	High	Low
Šal ininkai dis.	Medium	Low	Very high	Low	Low	Very high	Medium	High	Low
Širvintos dis.	Medium	Low	Low	High	Low	Medium	High	High	High
Šven ionys dis.	High	Low	Very high	Medium	Low	Very high	High	Very high	High
Trakai dis.	Very high	Low	Low	High	Medium	Low	Low	High	Low
Ukmerg dis.	Very high	Very high	Medium	Medium	High	High	Medium	Very high	Medium
Vilnius city	Very high	High	Low	Very high	Very high	Low	High	-	High
Vilnius dis.	High	Low	High	Medium	Very high	Medium	Low	Low	Low

However, it is necessary to emphasise the need of looking into the social, demographic, economic, geographical circumstances of each administrative unit and solving the highlighted societal problems. This would ensure a comprehensive and consistent improvement in their standard of living. Priority tendencies of improvement of the living standard must be primarily directed to the strengthening of the labour market, particularly improvement of the employment opportunities for the population the frontier municipalities that have low level of urbanization. Rising incomes will encourage an increase in purchasing power and consumption. In parallel with the increase of employment, the options for accessibility of education to population education must be improved as well.

**Table 2.** Priorities for action in improving the standard of living

Priorities			
	Most importance		
	Very big importance		
	Big importance		
	Medium importance		
	Low importance		

Differences in many indicators of living standards in the country are increasing, thus increasing the gap not only between cities and villages, but also between the administrative-territorial units. These differences will remain in the future, as convergence of socio-economic conditions in Lithuania is not possible due to a very different demographic structure and economic base. But in the future, in order to avoid social tension or even conflicts in separate territorial units, the various levels of support / policies of the state are necessary that would be aimed to the improvement social and economic development in the municipalities with particularly high a level of problems (high unemployment, low wages) while improving everyone's living standards.

### **CONCLUSIONS**

Traditional research methods were applied in the work which confirmed their suitability for the territorial research of the standard of living and have led to the following conclusions:

- 1. Since 2000, Lithuania's economy did not reduce the growing social and economic disparities between municipalities: the variance in the amount of social benefits, levels of unemployment, municipal budget spending to social needs, supply of population with housing has increased. This shows the growing territorial differentiation of the standard of living, which is determined by not only different economic development but also the inequalities in the development of human resources and urbanization levels.
- 2. Since 2002, the gap in disposable income between urban and rural households had a decreasing trend (in 2000, the disposable income in rural households amounted 66.9% of urban household income rates, while in 2008, this number was 75.5%). Meanwhile, consumer spending gap between urban and rural households in various years was very volatile: In 2005, rural household consumption expenditure accounted for the

total 74,8% of urban household expenditure level, and in 2007, this value was already 68,1%. Consumer spending gap between the richest and the poorest sectors of the population in Lithuania already exceeds 8 times.

- **3.** The territorial distribution of most of the socio-economic phenomena illustrating the standard of living, depends on the degree of urbanization. According to the level of urbanization, three local groups of municipalities are distinguished in the work: large cities (where the most favourable conditions for the needs of population are ensured), municipalities of the average urbanization level (with inherent maximum dispersion of social and economic phenomena) and municipalities of a low degree of urbanization (with the lowest values of indicators describing the standard of living the population employment, wages, and with the highest values of the need for social support).
- **4.** By applying the clustering and cluster analysis techniques it was found that in Lithuania, territorially adjacent municipal groups (clusters) are emerging with the characteristic specificity of occurrence of social and economic indicators illustrating the living standard: Vilnius Kaunas areas of influence, municipalities of central and western Lithuania, north eastern and southern Lithuania and at the Lithuanian border.
- 5. The municipal typology by the degree of performance of indicators of the standard of living was carried out, allowing identification of the priorities of problems to be addressed. The maximum state attention should be focused to the municipalities of Šilut , Vilkaviškis, Šilal , Telšiai, Lazdijai, Ignalina, Šven ionys districts, Kalvarija and Rietavas where the values illustrating living standards are the lowest, and the priority areas of the life raising level should be primarily addressed at increasing employment opportunities for president, particularly by improving employment opportunities for population living in frontier municipalities with low level of urbanization. In parallel with the increase of employment, the options for accessibility of education to population education must be improved as well. In other Lithuanian municipalities, the values of indicators of living standards are relatively more favourable.

#### LIST OF PUBLICATIONS

# In peer – reviewed editions of International databases recognized by Science Council of Lithuania:

**Verkulevi i t D.** (2008). Territorial differences in provision of housing for Rural Residents in Lithuania: situation, reasons and further tendencies of changes. Management Theory and Studies for rural Business and infrastructure Development 13 (2): 187 – 196. Kaunas: Akademija (EBSCO, Peer Reviewed).

**Verkulevi i t D.,** Bu ien , A. (2009). *Territorial dependence of agricultural income and production on social-economic and environmental factors in Lithuania*. Tiltai. 4 (49) (EBSCO, Copernicus Master List).

## In reviewed journals:

**Verkulevi i t D.** (2002). Gyvenimo lygis Lietuvos kaime: situacija ir problemos. Tiltai 1(18): 59 - 65. Klaip da.

**Verkulevi i t D.** (2003). *Pagrindini materialini ir kult rini poreiki patenkinimo ir juos lemian i veiksni teritoriniai ypatumai*. Tiltai, Priedas 13: Transformacijos Ryt ir Centrin je Europoje, 2: 498 - 505. Klaip da.

**Verkulevi i t D.** (2008). Lithuanian residents' provision with housing and its quality: territorial aspect. Tiltai 1 (42): 55-66.

### In editions of scientific conferences:

**Verkulevi i t D.** (2005). *Gyvenimo lygio teritoriniai skirtumai Lietuvoje*. Vadyba 1(16).: 221 - 224. Klaip da.

**Verkulevi i t D.** (2006). *Living standards in Lithuania: changes and territorial differences*. Changes in social and business environment. Proceedings of the 1<sup>st</sup> International conference. 218 – 223: Kaunas: Technologija.

# Other scientific publications:

**Verkulevi i t D.** (2005). *Kaimo žmoni gyvenimo kokyb*. Lietuvos agrarin s ekonomikos institutas. Lietuvos žem s kis ir kaimo pl tra 2004, (vad. G. Radzevi ius): 160 – 165. Vilnius.

Arbušauskait A., iegis R., **Verkulevi i t D.** (2007). *Gyvenimo s lyg Klaip dos mieste kiekybinis tyrimas*. Mokslo studija. Klaip da.

## **CURRICULUM VITAE**

Name, Surname Birthdate and place Adress	Daiva Verkulevi i t 17 04 1972, Salo iai (Pasvalys district), Lithuania Department of Social Geography, Faculty of Social Sciences, Klaip da University, Minijos g. 153, LT – 93185, Klaip da, Lithuania
Education	
1990	Secondary education, Salo iai secondary school (Pasvalys district)
1995	Geography and biology studies, geography and biology teacher's qualification of general education school, Vilnius Pedagogic University
1996	Master of Nature science studies, Vilnius Pedagogic University
1999 - 2003	Doctoral studies of geographical trend, Klaip da University
Scientific interests	The standard of living, quality of life, social territorial analysis of social phenomenon

#### **SANTRAUKA**

#### **VADAS**

#### Temos aktualumas ir reikšm

Gyvenimo lygio užtikrinimas pasaulyje yra vienas iš žmonijos raidos veiksni, kur reglamentuoja svarb s tarptautiniai dokumentai: Visuotin žmogaus teisi deklaracija, JTO T kstantme io deklaracija, kuriose skelbiama, kad "kiekvienas žmogus turi teis pakankam gyvenimo lyg, kuris garantuot jo ir jo šeimos sveikat ir gerov, ir ypa maist, drabužius, b st, medicinin prieži r ir b tin socialin aptarnavim..." (Lietuvos Respublikos Seimas, 2009). Lietuva prie šios deklaracijos prisijung 1991 m. ir sipareigojo laikytis dokumente nustatyt princip.

Pa ios svarbiausios prielaidos žmogaus egzistencijai yra ilgas, sveikas gyvenimas, išsimokslinimas, aukštas gyvenimo lygis, politini ir pilietini laisvi tur jimas. Su turtine nelygybe ir skurdu susiduria daugelio pasaulio valstybi , taip pat ir Lietuvos, gyventojai. Gyvenimo lygio skirtumai b dingi ne tik tarp atskir šali , bet ir j viduje - tarp atskir teritorini vienet (savivaldybi ).

Lietuvos administracini vienet raida, atk rus Nepriklausomyb , buvo skirtinga ir dalinai priklaus nuo ekonomikos išvystymo bei strukt ros, buvusios tarybiniu laikotarpiu; svarbi reikšm tenka ir politinei bei ekonominei geografinei pad iai. D l nevienod ekonomikos raidos temp , skirtingos demografin s ir socialin s sud ties, prad jo did ti atotr kis tarp kaim ir miest bei didmies i taip pat tarp savivaldybi ir apskri i . Išaugo gyventoj pajam skirtumai, atsirado aukšto nedarbo lygio arealai, padid jo socialin s paramos poreikis, atsirado problemin s teritorijos. Pajam diferenciacija lemia ir gyventoj vartojimo - fizini , dvasini ir socialini poreiki tenkinimo skirtumus. Daliai neturting gyventoj , ypatingai gyvenan i atokesn se vietose, tapo sunkiau prieinamos sveikatos apsaugos paslaugos, padid jo sergamumas socialin mis ligomis, vis daugiau mokyklinio amžiaus vaik nelanko mokyklos ir ne gyja net pagrindinio išsilavinimo, taip netekdami galimyb s ateityje gauti gerai mokam darb ir yra pasmerkiami skurdui.

Didel gyvenimo kokyb s erdvin vairov ateityje gali sukelti socialinius konfliktus, kuri atsiradimo tikimyb didžiausia tarp administracini vienet , kuriuose gyvena santykinai turtingesni ir skurstantys žmon s.

Išvardintos problemos skatina mokslininkus tirti teritorinius gyvenimo lygio skirtumus bei ieškoti b d jiems mažinti. Š uždavin sprendžia daugelis valstybi , nukreipdamos politin veikl atskir , ypa atsiliekan i vietovi socialin s ekonomin s situacijos gerinimui ir gyvenimo lygio skirtum mažinimui, nors visiškai išlyginti gyvenimo lygio skirtum ne manoma.

Teritorini skirtum mažinimas yra nustatytas ir svarbiuose Lietuvos Respublikos dokumentuose: Lietuvos Respublikos teritorijos bendrajame plane, Valstyb s ilgalaik je raidos strategijoje iki 2015 met ir kt. Šiose dokumentuose numatyta Lietuvoje švelninti gyvenimo kokyb s regionines disproporcijas mažinant socialinius ir ekonominius Lietuvos region skirtumus, sukurti gerov s valstyb , kurioje b t žemas nedarbo lygis, didel darbo kaina, tvirtos socialin s garantijos, minimalus skurstan i šeim skai ius, ir aukštas socialin s sanglaudos lygis.

Tod l šio tyrimo rezultatai yra svarb s:

- Socialini bei demografini prognozi sudarymui.
- Lietuvos Respublikos savivaldybi teritorij bendr j plan ir kit strategini dokument papildymui ir koregavimui.

Nuosekliai ir kryptingai vykdomas išskirt gyvenimo lygio gerinimo prioritetini veiksm gyvendinimas konkre ioje savivaldyb je, pakelt žmoni gyvenimo lyg, skatint vartojim, didint investicin patrauklum.

2008 m. antroje pus je prasid j s ekonominis sunkmetis, koreguoja socialinius - ekonominius savivaldybi rodiklius. Ta iau nustatyti skirtumai tarp administracini vienet ir veiksm prioritetai gyvenimo lygio gerinimui juose, išlieka aktual s ir taikytini.

## Tyrimo objektas

Mokslinio tyrimo objektas – gyvenimo lygis Lietuvos Respublikos administraciniuose teritoriniuose vienetuose – savivaldyb se bei gyvenamosiose vietov se – miestuose ir kaimuose.

## Tyrimo tikslas ir uždaviniai

Tyrimo tikslas – nustatyti gyvenimo lygio teritorinius skirtumus tarp atskir Lietuvos savivaldybi , miest ir kaim gyvenam j vietovi pagal socialini ir ekonomini rodikli dydžio ir teritorin s sklaidos specifik bei išaiškinti nustatyt skirtum priežastis.

Tyrimo tikslo gyvendinimui formuluojami uždaviniai:

- 1. Nustatyti gyvenimo lyg lemian i bei j apib dinan i socialini ekonomini rodikli skirtumus tarp savivaldybi (2000 2008 m.) ir palyginti juos su šalies vidurkiu;
- 2. Palyginti skirtingo urbanizacijos lygio savivaldybi grupi gyventoj gyvenimo lygio rodikli skirtumus;
- 3. Gyvenimo lygio rodiklius analizuoti savivaldybi demografini , gyventoj užimtumo, socialini ir ekonomini s lyg kontekste;
- 4. Atlikti savivaldybi klasterin analiz pagal nustatytus socialinius ekonominius gyvenimo lygio rodiklius;
- 5. Atlikti savivaldybi tipologij pagal gyvenimo lygio rodikli pasireiškimo laipsn ir nustatyti veiksm prioritetus gyvenimo lygio gerinimui kiekvienoje iš j .

#### Darbo naujumas

Šiame moksliniame darbe nauja yra tai, kad:

- 1. Nustatomi gyvenimo lygio rodikli teritoriniai skirtumai administracini vienet (savivaldybi ) lygiu ir j kitimas Lietuvoje 2000 2008 m.;
- 2. Tai išsamus teritorinis tyrimas savivaldybi lygiu, vertinant gyvenimo lyg tiesiogiai bei netiesiogiai lemian ius veiksnius;
- 3. Tyrime atlikta klasterin analiz apima ne tik konkre i gyvenimo lygio rodikli bet ir j lemian i kit socialini ekonomini reiškini reikšmes, padedanti tiksliau apibr žti jo pasireiškimo teritorin specifik ;
- 4. Savivaldyb s išd stytos pagal gyvenimo lygio pasireiškimo laipsn ir nustatomi problem sprendimo prioritetai jose.

## Ginamieji teiginiai

- 1. Augant ekonominiams teritoriniams skirtumams Lietuvoje, did ja ir gyvenimo lygio teritoriniai skirtumai;
- 2. Gyvenimo lygio skirtumai tarp teritorini administracini vienet tiesiogiai priklauso nuo urbanizacijos lygio;
- 3. Šalyje formuojasi savivaldybi grup s (klasteriai), kuri socialiniai ekonominiai rodikliai, nusakantys gyvenimo lyg, yra panaš s.
- 4. Gyvenimo lygio rodikli pasireiškimo laipsnis savivaldyb se leidžia nustatyti veiksm prioritetus, leidžian ius diferencijuotai spr sti jo teritorinio netolygumo problemas.

## Rezultat aprobacija

Darbo tema paskelbti ir publikuoti 9 moksliniai straipsniai. Detalus su darbo tema susijusi publikacij s rašas pateikiamas po darbo išvad (angl kalba).

## Darbo apimtis ir strukt ra.

Pagal Lietuvos mokslo tarybos 2003 m. nutarim Nr. VI -4, šis darbas sudarytas iš ši rekomenduojam pagrindini dali : vado, tyrim apžvalgos, darbo metodologijos, tyrim rezultat , išvad ir naudotos literat ros s rašo. Darbe yra 50 paveiksl , 7 lentel s, 25 priedai. Vis darb sudaro 214 puslapi pagrindinio teksto su kartoschemomis ir strukt rin mis schemomis.

## **IŠVADOS**

Darbe taikyti tradiciniai tyrim metodai, kurie patvirtino j tinkamum gyvenimo lygio teritoriniams tyrimams ir leido padaryti tokias išvadas:

- 1. Nuo 2000 m. auganti Lietuvos ekonomika nesumažino socialini ekonomini skirtum tarp savivaldybi : išaugo socialin s pašalpos dydžio, nedarbo lygio, savivaldybi biudžet išlaid socialinei sferai dalies, gyventoj apsir pinimo gyvenamuoju plotu variacija. Tai rodo augan i teritorin gyvenimo lygio diferenciacij , kuri lemia ne tik skirtinga ekonomin raida bet ir žmogišk j ištekli išvystymo bei urbanizacijos lygio netolygumas.
- 2. Disponuojam pajam dydžio skirtumas nuo 2000 m. tarp miest ir kaim nam ki tur jo maž jimo tendencij (2000 m. kaim nam ki visos disponuojamos pajamos sudar 66,9% miest nam pajam dydžio, o 2008 m. 75,5%). Tuo tarpu vartojimo išlaid skirtumas tarp miest ir kaim nam ki atskirais metais buvo labai nepastovus: jei 2005 m. kaim nam ki visos vartojimo išlaidos sudar 74,8% miest nam išlaid dydžio, tai jau 2007 m. ši reikšm jau buvo 68,1%. Vartojimo išlaid skirtumas tarp turtingiausi ir skurdžiausi gyventoj sluoksni Lietuvoje jau viršija 8 kartus.
- **3.** Daugumos socialini ekonomini reiškini , nusakan i gyvenimo lyg , teritorinis pasiskirstymas priklauso nuo urbanizacijos lygio. Pagal urbanizacijos lyg išskirtos trys savivaldybi grup s: *didži j miest* (kuriose užtikrinamos palankiausios gyventoj poreiki patenkinimo s lygos), *vidutinio urbanizacijos lygio savivaldybi* (su b dinga didžiausia socialini ir ekonomini reiškini sklaida) ir *žemo urbanizacijos*

*lygio* savivaldybi (kuriose išryšk ja žemiausios gyvenimo lyg nusakan i rodikli - gyventoj užimtumo, socialin s paramos, darbo užmokes io reikšm s).

- **4.** Naudojant grupavimo ir klasterin s analiz s metodus nustatyta, kad Lietuvoje ryšk ja teritoriškai gretim savivaldybi grup s (klasteriai) su jiems b dinga gyvenimo lyg nusakan i socialini ekonomini rodikli pasireiškimo specifika: Vilniaus Kauno takos zonos, Vidurio ir Vakar Lietuvos, Šiaur s Ryt ir Piet Lietuvos bei pasienio savivaldybi .
- 5. Atlikta savivaldybi tipologija pagal gyvenimo lygio rodikli pasireiškimo laipsn, leidžia išskirti spr stin problem prioritetus. Savivaldyb se, kuri gyvenimo lyg nusakan i rodikli reikšm s yra žemiausios (Šilut s r., Vilkaviškio r., Šilal s r., Telši r., Lazdij r., Ignalinos r., Šven ioni r., Kalvarijos ir Rietavo), prioritetin s gyvenimo lygio gerinimo kryptys pirmiausia turi b ti nukreiptos gyventoj užimtumo galimybi didinim, ypatingai gerinant žemo urbanizacijos lygio, pasienio savivaldybi gyventoj sidarbinimo galimybes. Lygiagre iai užimtumo didinimui turi b ti gerinamos ir gyventoj išsilavinimo /išsimokslinimo pasiekiamumo galimyb s. Kitose Lietuvos savivaldyb se gyvenimo lygio rodikli reikšm s santykinai yra palankesn s, ta iau problem sprendimai taip pat tur t remtis joms pritaikytais prioritetiniais gyvenimo lygio gerinimo veiksmais.

#### **CURRICULUM VITAE**

Vardas, pavard Daiva Verkulevi i t

**Gimimo vieta, data** 17 04 1972, Salo iai (Pasvalio raj.), Lietuva

Adresas Socialin s geografijos katedra, Socialini moksl fakultetas,

Klaip dos universitetas, Minijos g. 153, LT – 93185, Klaip da,

Lietuva

Išsilavinimas

1990 m. Vidurinis išsilavinimas, Salo i vidurin mokykla (Pasvalio

raj.)

1995 m. Geografijos ir biologijos studijos, Bendrojo lavinimo mokyklos

geografijos ir biologijos mokytojo kvalifikacija

1996 m. Gamtos moksl magistras, Vilniaus pedagoginis universitetas 1999 – 2003m. Geografijos krypties doktorant ros studijos, Klaip dos

universitetas

Moksliniai interesai Gyvenimo lygis, gyvenimo kokyb, socialini reiškini

teritorin analiz