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## LITHUANIAN POPULATION AFTER THE SOCIO-ECONOMIC TRANSITION

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**ABSTRACT.** The article presents changes of Lithuanian population after the restoration of state self-dependence and future prognoses. The article is based on the data at the Statistical Department of the Republic of Lithuania. There are brief analysis of the principal demographic indices: natural movement of population and migration flows. The analysis embraces the years before and after restoration of independence and future perspectives. The results of analysis was showed that the negative natural increment and migration balance have adversely affected other demographic indices: age structure, lifespan, number of marriages, deaths due to external causes, etc.

**KEY WORDS:** Lithuanian population, natural population movement, migration, age structure, prognoses of population dynamic in Lithuania.

### INTRODUCTION

After the collapse of the Soviet Union at the end of the 20<sup>th</sup> century, fundamental changes took place in the countries of East and Central Europe. They included the main aspects of public life: political orientation and character of economic development. The economies of the mentioned countries headed towards the capitalistic development; the former planned command economy was replaced by the development patterns of free market. These economic transformations produced a great influence on demographic processes, the natural movement of the population and migration flows in particular. They took place in most of the countries of the mentioned regions including Lithuania.

After the restoration of independence (1990), Lithuania encountered confronted with new, earlier unknown problems. Failure of many industrial enterprises and liquidation of collective-farms changed the living conditions and many people

filled the ranks of the unemployed. Deteriorating living conditions forced many people to emigrate in search for better life. These processes found their reflection in the demographic situation: birth rate, the total number of population, the age structure of population, number of suicides, etc. These processes were especially strong in the years of Russian economic blockade.

In the years following Lithuania's accession to the European Union and membership in the NATO (2004), the economic situation improved. The gross domestic product (GDP) increased by 8–9% and Lithuania and other East Baltic countries were called the “Baltic tigers”. Yet even during the economic boom, the main demographic indices worsened. Only the marked support to young families has recently found a reflection in higher birth rates. Yet the global economic-financial crisis has repeatedly produced a negative effect on the main demographic processes.

The changes that have occurred not only have influence the demographic processes but also the world outlook. The opinions of the population about the matrimonial relations, traditional families, nationality, patriotism and love to one's motherland have changed as also the attitude towards the consumption, property and even the aim of life (Ne visada..., 2009; Rozamirina, 2009). The mentioned changes have affected the young people most of all, because a rapid achievement of high living standards has become the main aim of life for them.

## MATERIAL AND METHODS

The article is based on the data stored by at the Statistical Department of the Republic of Lithuania (Statistikos Departamentas Prie Lietuvos Respublikos Vyriausybės). The data has been published in the “Lietuvos statistikos metraštis” (Statistical Yearbook of Lithuania, 1996, 2002, 2005, 2008), annual issue “Demografija” (Demographic Yearbook, 2007, 2009), some other publications (Stanaitis, Stanaitis, 2008; Lithuania in figures, 2009) and websites (Department of Statistics of the Republic of Lithuania). The use also has been made of other demographic literature especially the one discussing the issues of recent demographic processes: natural increment and migration flows (Gollangs, 2009; Rozamirina, 2009; Stanaitis, 2003; Vaitekūnas, 2006, 2009).

The lack of space allows only a brief analysis of the principal demographic indices: natural movement of population and migration flows. The analysis embraces the years before and after restoration of independence and future perspectives. Other indices depending on the main ones received less attention. The predictions are based on the Eurostat statistics for 2008 (Statistical..., 2008).

The text of the present article is also supplemented with individual tables and graphs. They were compiled on the basis of the data from the Lithuanian Statistical Department and embrace a longer time frame than the years of independence. It should be mentioned that some published data (number of emigrants, rates of depopulation in the future, flow of immigrants in the future, etc.) raise certain doubts. The author expresses his opinion about these data in the text.

## GENERAL VARIATION PATTERN OF THE NUMBER OF POPULATION

In the 20<sup>th</sup> century, the number of Lithuanian population varied following a complicated and tragic pattern. During the first half of the century (1897–1950), the population increased only by 120.9 thousand or 4.5% of total population. After the great population losses in the years of World War II and following the war, the population number started to increase. In 1950–1992, the population increased by 1,132.9 thousand or 44.0%; from 2,573.4 to 3,706.3 thousand. In 42 years, the population was annually increasing by 27.0 thousand people on the average.

Since 1992, the population has been decreasing. According to statistical data, in 17 years (1992–2008) Lithuania's population reduced by 356.4 thousand or 9.6%, i.e., by about 21.0 thousand people every year on average. In 1993–2000, the rates of population reduction were even greater and reached 26.0 thousand. Population density reduced from 56.8 p/km<sup>2</sup> to 51.3 p/km<sup>2</sup>.

The transformations of urban and rural population before the restoration of independence took place in opposite directions (Fig. 1). The portion of urban population had been increasing and the portion of rural population had been falling. In 1950–1992, the number of urban population increased by 1,801.9 thousand or 247.0%; 42.9 thousand every year on average. The growth of the rural population was preconditioned by rapid industrialization, collectivization, land reclamation, etc.

Since 1992, the urban population has been decreasing. In seventeen years it reduced by 290.9 thousand or 11.5%, i.e., by 17.1 thousand every year. The rates of urban population reduction were predetermined by unemployment and emigration of the Russian-speaking population in the first years after the restoration of independence. The recent rates of urban population reduction equal to about 10.0 thousand people every year.

The rural population has been reducing since as far back as 1950. The years 1992–1993 make an exception; in these years, the rural population slightly increased (about 10 thousand people). Yet the reduction rates differed by years. In 1950–2000, it reduced by 734.4 thousand or 40.0%; 14.7 thousand every year

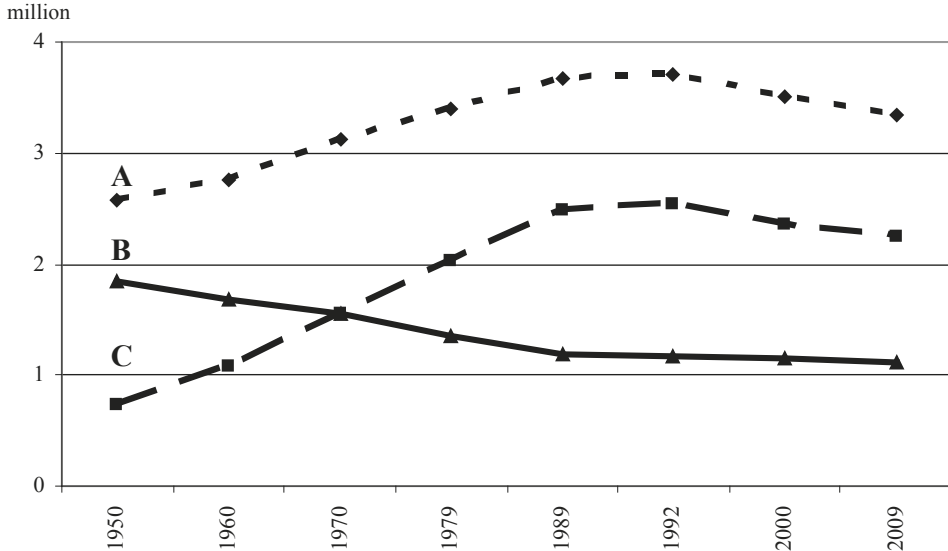


Fig. 1. Variation patterns of Lithuanian population in 1950–2009  
Explanation: A – Total; B – Rural areas; C – Urban areas

Source: Data of the Department of Statistics to the Government of the Republic of Lithuania as the Central Statistical Office's (Department of Statistics...)

on average. Before 1992, the annual reduction had been 17.5 thousand people every year and after 1992 it was 3.9 thousand every year.

It is expected that the Lithuanian population will continue to decrease in the future. In 52 years (2009–2060) its number presumably will reduce by 823.7 thousand or 24.6%. The average predicted annual reduction will make up 15.8 thousand.

## NATURAL MOVEMENT OF POPULATION

For many years, the natural increment used to be the main source of the increase of Lithuania's population. Yet in the second half of the 20<sup>th</sup> century, the natural movement of the population underwent considerable transformations. They affected the main constituents of the natural increment: birth and death rates.

**Dynamics of birth rate.** During and after World War II, birth rates increased as a result of compensational births. The birth rates were highest in 1960 reaching 62.5 thousand newborns per thousand of population. The birth rate coefficient of this year was 22.5‰. In later years, the population number continued to increase

yet the birth rates fell. In 1980, 51.8 thousand people were born whereas the birth rate coefficient decreased to 15.2‰. In the middle of 1980s, the number of newborns increased by 7 thousand as an outcome of compensational births. Yet this increase was short-lasting.

After the restoration of independence, the birth rates have been rapidly falling. Increasing unemployment and emigration strongly affected the birth rates. In the last decade of the 20<sup>th</sup> century, the birth rate reduced by 22.1 thousand or 39.4%. At the beginning of the 21<sup>st</sup> century, it stabilized on the level of 30–31 thousand and in 2008 it increased by 5 thousand. The increase was preconditioned by state financial support to families raising children and economic development of the country. Yet the global economic crisis is expected to negatively affect the birth rates development pattern.

It is predicted that birth rates will continue to fall in Lithuania. In 52 years (2009–2060), it will presumably fall by 41.5% from 32.3 to 18.9 thousand per year. The birth rate coefficient will reduce from 9.6 to 7.4‰. Thus in 100 years (1960–2060), the birth rate in Lithuania will have changed by 3.3 times; from 62.5 to 19.0 thousand. This dynamic pattern of birth rates implies a strong hazard of extinction of the nation.

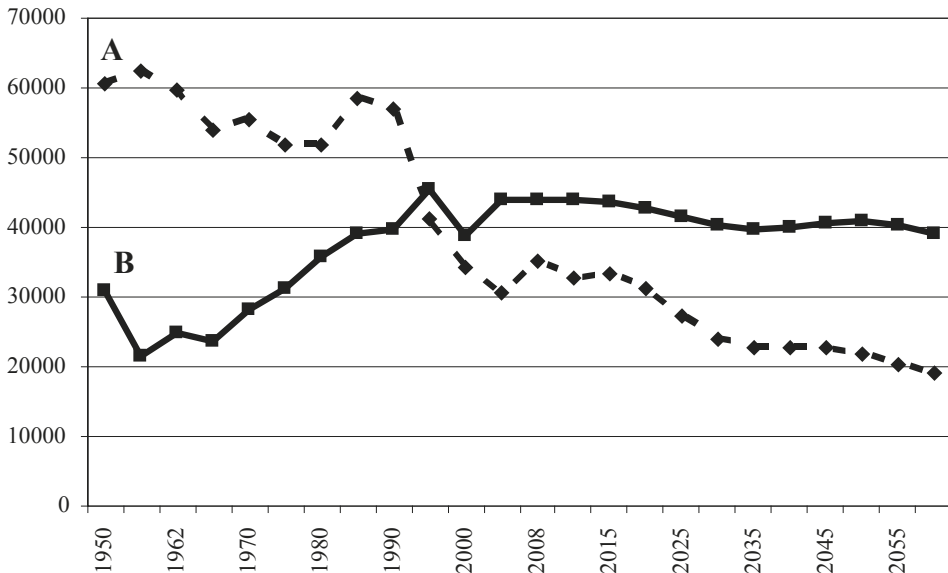


Fig. 2. Natural population movement in Lithuania in 1960–2060

Explanation: A – Deaths; B – Births

Source: as in Fig. 1

**Dynamics of death rates.** In 100 years, the death rates of Lithuania's population will have changed at smaller amplitude than the birth rates. It was lowest at the time of compensational births. In 1960, the death rate in Lithuania was 21.6 thousand people. Since this year, the death rates have steadily increased and in 1995 reached 45.3 thousand. Thus in 36 years, it has more than doubled. In later years, the death rates ranged over 40–43 thousand, i.e., within the interval of 12–13‰.

It is predicted that until 2060, the death rates will have changed but little. They will range within the limits of 40–44 thousand. The death rate coefficient will increase to 15.0‰. This will happen because in 52 years the population number will decrease by 24.5% whereas the death rate will decrease only by 11.3%, i.e., by almost 5.0 thousand. In the middle of the 21<sup>st</sup> century, the annual death rate in Lithuania will be 40.0 thousand people.

**Natural increment of population.** The different dynamics of death and birth rates were responsible for very uneven dynamics of the natural increment of population. It ranged within a wide interval from negative to positive values. The highest values were characteristic of 1960 when they reached 40.9 thousand. The natural increment coefficient was 22.5‰. In later years, the natural increment of population has been slowly decreasing and in 1980 it reached 15.9 thousand. Some time later, on the wave of compensational births, it increased by 6–7 thousand for a short time.

The greatest reduction of the natural population increment occurred in the first years of independence. In 6 years (1990–1995) it has reduced from 17.1 to –4.1 thousand. This was predetermined by the mentioned political and economic transformations. The second marked reduction of population increment took place in 2000–2005; from –4.8 to –13.3 thousand. In recent years, the value reached –13 thousand. The natural increment coefficient was –4.0‰. Emigration of young people is the main cause of the reduction. The increasing negative natural increment is expected to persist in the future. It is predicted that in 2055–2060 its annual value will reach –20.0 thousand whereas the coefficient of natural increment will increase to –7.6‰ (Fig. 2).

In 19 years of independence, Lithuania has lost 71.4 thousand people due to the negative natural increment alone. In 52 years (until 2060) it will presumably lose another 821.8 thousand. Thus in 71 years (1990–2060) Lithuania may lose 893.2 thousand people due to negative natural increment alone, i.e., 12.6 thousand every year. In case of this dynamic pattern of natural increment, by the middle of the 21<sup>st</sup> century Lithuanians will have disappeared from the present territory of Lithuania.

## MIGRATION MOVEMENT OF POPULATION

The migration movement of population is the second important factor affecting the population number. After the restoration of independence, its value has been especially high in Lithuania (Fig. 3).

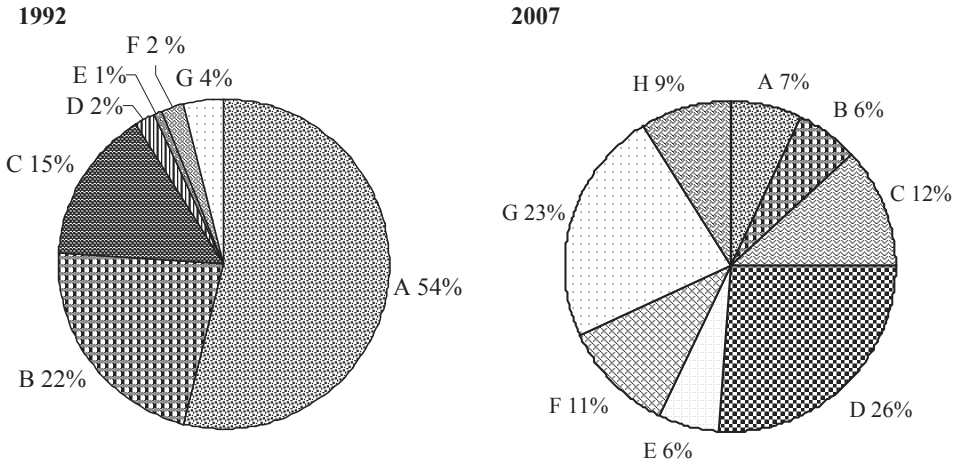


Fig. 3. Emigration in 1992 and 2007

Explanation: Countries in 1992: A – Russia; B – Byelorussia, C – Ukraine; D – Israel; E – Latvia; F – USA; G – other countries. Countries in 2007: A – Russia; B – Byelorussia; C – Ireland; D – United Kingdom; E – Spain; F – USA; G – other countries; H – Germany

Source: Data of the Department of Statistics to the Government of the Republic of Lithuania (Statistical Yearbook of Lithuania, 1996, 2002, 2005, 2008)

In the Soviet years, the balance of migration movement of Lithuanian population was positive and after the restoration of independence it became negative. The negative migration balance was especially high in the first years after the restoration of independence. In 1992–1996, the negative migration balance reached 23–24 thousand. They were the years when Russian-speaking people left Lithuania: Russian, Ukrainians, Byelorussian and others. The immigration at those years was low amounting to 2–3 thousand per year.

In recent years, the migration balance has reduced and today equals 6–9 thousand. The annual emigration amounted to 13–15 thousand people and immigration to 5–7 thousand. The return of emigrants started in 2004–2008 when the economic situation improved in Lithuania. Yet the present global crisis has slowed down this positive trend and again expedited emigration.

In 19 years of independence, Lithuania has lost 272.1 thousand people through emigration or 14.3 thousand people every year on the average. Yet there is an opinion that the actual migration balance is higher than the reported one by experts in statistics. This opinion is supported by local demographic studies of some localities.

It is expected that the negative migration balance will reduce in the future. By 2040, it will have reached zero and in later years it even will have a small positive value of about 1.0 thousand per year. This dynamic pattern of migration balance is possible because the reduced Lithuanian population, due to the fall of natural increment and migration balance, will be supplemented by the immigrants to whom the living conditions in Lithuania will be favourable.

### DYNAMICS OF SOME OTHER DEMOGRAPHIC INDICES

**Age structure of the population.** Emigration of young people, reducing birth rates and lengthening of the employable age will change the age structure of the population. This can be easily observed analysing the dynamics of the main groups of population in recent decades (Fig. 4).

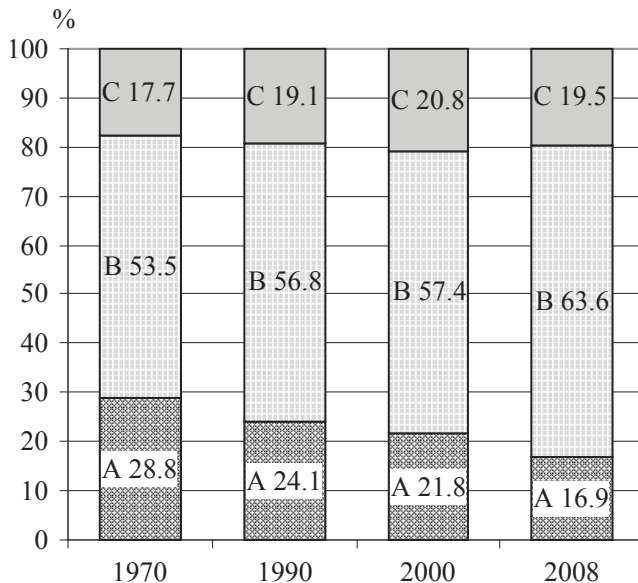


Fig. 4. Age structure of the population in Lithuania in 1970, 1990, 2000 and 2008  
Explanation: A – Children (0–15); B – Working age; C – Pensioners

Source: as in Fig. 1



The greatest changes (reduction) are characteristic of the age group of children and teenagers (aged 0–15). In 1990–2008, it decreased by 322.4 thousand or 36.2%; (SVO) the percent reduction from 24.1 to 16.9%. The prognoses of birth rates show that the portion of children and teenagers is likely to follow a reduction pattern in the future as well.

Other age groups of Lithuanian population have changed less markedly. The portion of pensioners has changed negligibly and the portion of employable people has increased due to the prolonged employable age. Before 1995, the employable age for men had been 16–59 years and for women 16–54 years. After 1995, the employable age was lengthened by two months every year for men and 4 months for women until it reached 62.5 years for men and 60 years for women.

Table 1. Some demographic indices for 1992 and 2007–2008

|                                  | 1992    | 2007–2008      | Change    |
|----------------------------------|---------|----------------|-----------|
| Population, thousand             | 3,693.7 | 3,366.4 – 2008 | – 327.2   |
| Urban population, thousand       | 2,513.9 | 2,250.8 – 2008 | – 263.1   |
| Rural population, thousand       | 1,179.8 | 1,115.6 – 2008 | – 64.2    |
| Birth rate                       | 56,869  | 35,065 – 2008  | – 2,180.4 |
| Death rate                       | 39,760  | 43,832 – 2008  | + 4,072   |
| Natural increment                | 17,108  | – 8,767 – 2008 | – 25,875  |
| Immigrated                       | 23,592  | 13,853 – 2007  | – 9,739   |
| Emigrated                        | 14,744  | 8,609 – 2007   | – 6,135   |
| Migration balance                | – 8,848 | – 5,244 – 2007 | – 3,604   |
| Children and teenagers, thousand | 891.3   | 568.8 – 2008   | – 322.5   |
| Employable age, thousand         | 2,107.7 | 2,140.2 – 2008 | + 32.5    |
| Pensioners, thousand             | 709.2   | 657.4 – 2008   | – 51.8    |
| Men – average lifespan           | 66.6    | 64.9 – 2007    | – 1.7     |
| Women – average lifespan         | 76.2    | 77.2 – 2007    | + 1.0     |
| Number of marriages              | 36,310  | 23,065 – 2007  | – 13,245  |
| Number of divorces               | 12,747  | 11,336 – 2007  | – 1,411   |

*Source:* data of the Department of Statistics to the Government of the Republic of Lithuania as the Central Statistical Office's (Department of Statistics...)

**Average lifespan.** After the restoration of independence, the average lifespan of population in Lithuania has changed depending on the economic, living conditions. It would shorten during crises and lengthen during economic rises. In 1993–1996, the average lifespan for men was 63.5 years and for women 75.1 years. In 2007, it was 64.9 and 77.2 years respectively (Table 1).

The average lifespan of urban and rural population differs. The difference of lifespan for men makes 3–4 and for women it makes 1–2 years. In 1995, the

average lifespan for urban men was 64.9 years and for rural men 60.8 years. For women, it was 75.6 and 74.2 years respectively.

The average lifespan of Lithuanian population is among the shortest in Europe. Moreover, the difference between the average lifespan of men and women is possibly the highest one reaching 12 years. The difference can be explained by different lifestyles of men and women, different working conditions and different attitude towards health care. Women are apt to stronger concern about health than men.

**Sexual composition of population.** Like in other European countries, the portion of women is larger than the portion of men in Lithuania. This is a result of different lifestyles, past wars and some other circumstances. Since World War II until today, the number of women exceeds the number of men by 220–230 thousand. The difference slightly reduced in the 1990s changing the portion of women a bit: from 54.1% in 1959 to 53.5% in 2008.

At present the ratio of men and women is 1,000/1,148. The difference increases with age: the ratio of 100-years old men and women is 1/4. The smallest proportional difference was recorded in 1989 when the ratio was 1,000/1,130. The recent increase of the ratio is predetermined by a considerably shorted lifespan and deaths of men predetermined by external circumstances.

**Marriages and divorces.** The number of marriages considerably reduced in the years of independence due to transformed attitude towards traditional family. The number of officially registered marriages was decreasing. Many pairs prefer living together without marriage. In 1990–2007, the number of official marriages decreased by 13.2 thousand or 36.5% (Table 1); the coefficient decreased from 9.8 to 6.8. Yet it was the lowest one in 2001 – 4.5. The number of children born in unregistered families was increasing. In 1995, they accounted for 12.8% and in 2007 as much as 29.2% of the total number of births. In rural areas, their portion is larger than in urban areas. The number of second marriages has been increasing. In 2007, they accounted for 24.0% among men and 22.4% among women.

Though the number of marriages has reduced considerably, the number of divorces has remained the same. In 1985, they amounted to 11.5 thousand and in 2007 to 11.3; the coefficients are 3.2 and 3.4 respectively. The number of divorces per 100 of marriages has increased: from 35.1 in 1990 to 49.1 in 2007. In 2001, it amounted even to 69.9. This index is one of the highest in Europe.

**National composition of population.** After marked national changes during and in the aftermath of World War II, the national composition of the Lithuanian population has changed minutely (Table 2). The number of Russians, Byelorussians and Ukrainians has increased more markedly whereas the number of Jews and Latvians has slightly reduced.

Table 2. National composition of population in the years of population censuses

| Nationality      | Number, thousand |         |         |         | Per cent |       |       |       |
|------------------|------------------|---------|---------|---------|----------|-------|-------|-------|
|                  | 1970             | 1989    | 2001    | 2008    | 1970     | 1989  | 2001  | 2008  |
| Lithuanians      | 2,506.8          | 2,924.3 | 2,907.3 | 2,837.4 | 80.1     | 79.6  | 83.5  | 84.3  |
| Russians         | 268.0            | 344.5   | 219.8   | 168.1   | 8.5      | 9.4   | 6.3   | 5.0   |
| Poles            | 240.2            | 258.0   | 235.0   | 208.3   | 7.7      | 7.0   | 6.7   | 6.2   |
| Byelorussians    | 45.4             | 63.2    | 42.9    | 36.7    | 1.5      | 1.7   | 1.2   | 1.1   |
| Ukrainians       | 25.1             | 44.8    | 22.5    | 20.3    | 0.8      | 1.2   | 0.7   | 0.6   |
| Other            | 42.7             | 40.0    | 23.6    | 23.0    | 1.4      | 1.1   | 0.7   | 0.7   |
| Did not indicate | –                | –       | 32.9    | 72.6    | –        | –     | 0.9   | 2.1   |
| Total            | 3,128.2          | 3,674.8 | 3,484.0 | 3,364.4 | 100.0    | 100.0 | 100.0 | 100.0 |

Source: as in Table 1

In the first years after the restoration of independence, many Russian-speakers left Lithuania. For this reason, the number and portion of some nationalities decreased. In 1989–2008, the portion of Ukrainians decreased by 54.7%, Russians by 52.2%, Byelorussians by 41.9%, and other nationalities by 42.5%. In recent years, the number of people who do not indicate their nationality has been increasing. In 1990–2008, the total Lithuanian population reduced by 9.3%.

In the future, the increasing rates of emigration and immigration will change the national composition. The number of Lithuanians and Poles will reduce whereas the number of immigrants from the neighbouring Slavic and from further countries will increase. The transformation rates of national composition will depend on a few factors: rates of immigration and emigration, economic situation, attitude of the political leaders of the Republic towards these processes, etc.

## CONCLUSIONS

After the restoration of state self-dependence, the development of Lithuanian population has been influenced by the following major factors: transformation of political system, replacement of the planned economy by free market economy, accession to the EU and NATO, and open frontiers to free movement of the population.

Political and economic transformations have produced a strong impact on the reduction of the natural increment of population. The natural increment and migration balance have become negative.

In the 19 years of independence, the number of Lithuania's population has reduced by 9.3% (343.8 thousand). The average annual rates of natural increment and migration balance reduction were 3.8 and 14.3 thousand respectively.

The negative natural increment and migration balance have adversely affected other demographic indices: age structure, lifespan, number of marriages, deaths due to external causes, etc.

The national composition of Lithuania's population has changed. The number of all nationalities has decreased. Due to the uneven reduction of the number of people belonging to different nationalities, their portion also changed unevenly. The highest reduction values have been recorded among Ukrainians, Russians, Byelorussians, etc., whereas the number of Lithuanians has increased.

It is expected that the number of Lithuanian population will continue to decrease. In 52 years (until 2060), their number will have decreased by 23.9%. The negative natural increment will act as a decisive factor on the reduction of population.

By 2060, the average lifespan and immigration will have increased and the national composition will have changed. The portion of immigrants from the countries with different customs and traditions will increase.

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