

Increasing of Efficiency of the Demographic Policy as a Conceptual Direction of Perfection of the System of Reproduction of Labor Potential

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Abstract. Article deals with the main features of demographic situation in the Russian Federation like an important factor of policy in this sphere. The author presents modern trends of the field of reproduction of labor resources. In the article the most important negative features of demographic sphere of Russian Federation are highlighted. Author use different quantitative indicators, which characterize demographic processes and can be used for long period prediction of the sphere of formation of labor potential in the regions of the country. The dynamics of the different indicators of fertility and mortality are studied. In the article the relationship between key factors and trends of demographic situation and policy in this sphere are identified.

1. Introduction

Modern conditions of the economy of Russian Federation determine number of different factors of growth of crisis tendencies. The presence of a recession in a number of industries and minimal level of economic growth in the economy in recent years does not require the involvement of additional labor resources. This masks the severity of the problem of potential provision of the national economy with labor resources in next periods. At the same time, with an increase of the rate of economic growth in the future, the economy of the Russian Federation may face a potential deficit of labor resources within just a few years. The main aim of the research is to determine the impact of demographic factors on the population of the Russian Federation, especially in the context of the formation of labor potential and try to find perspective instruments of policy in this sector of economy.

2. Materials and methods

There a lot of foreign researchers who were engaged in the issues of providing the economy with labor resources in their works: R. Layard, G. Becker, Y. Ben-Poret, F. Machlup, D. Psacharopoulos, G. Sidgwick, L. Thurow, T. Schultz and others. In national science the research of this field of science was done by T. I. Zaslavskaya, A. I. Voropaev, S. A. Dyatlov, R. I. kapeliushnikov, S. M. Klimov, L. G. Simkin, V. V. Safronov and others.

In modern conditions of development of economy of the Russian Federation the urgency of modernization of economy directed on development of innovative bases of economic growth gradually increases. Methods of mutual integration of science and production, development of technologies and innovations should be the basis for improving the efficiency of the national economy. In the terms of

impossibility of a significant increase of number of labor resources in the long period perspective the increase of labor productivity in the national economy must be the most important factor of economic development. This direction of development imposes increased professional and competence requirements to the level of training of labor resources.

3. Results and discussion

From the beginning of the 21st century stable economic growth in the Russian Federation is observed. The crisis of 2008-2009 had a significant negative effect, but it could not interrupt the progressive development of the economy. The next cycle of the global economic and financial crisis and the fall in energy prices combined with the aggravation of the geopolitical situation in the world and the imposition of sanctions against the Russian economy eventually led to a recession in the economy. New sources of growth for the Russian economy are being sought. At the stage of recession, the issue of providing the economy with labor resources is not on the agenda, however, we must not forget that the most important factor in the formation of the progressive development of the economy of the Russian Federation is its provision of sufficient labor force. At the growth stage a few years ago, some experts have already raised the problem of a potential increase in the shortage of labor resources, which was associated with a General decline in the population and an increase in the share of people of retirement age. Many forecasts showed that if the trends of economic growth continued, the Russian economy could already face a shortage of labor resources in the near future, especially in certain working specialties.

The analysis clearly reveals the real nature of population growth in Russia, which occurs at a very low rate. But it is very important to note that the current trend is quite stable for 7 years and has a trend for further development. This is confirmed by the construction of a polynomial trend line with high accuracy of approximation $R^2=0.98$. On this basis, due to the development of the demographic factor in the coming years, we can expect an increase in the rate of population growth. At the same time, we must not forget the possible impact of the economic situation in the country on the state of the demographic sphere. That's why it is advisable to analyze the relationship of demographic trends with the economic indicators of the country's development and, in particular, with the dynamics of the level of living of the population.

Positive improvement in socio-economic conditions influence for an indicator of the mortality of children in the first year of life. So in 2001 in the first year of life died more than 19 thousand children. In 1991, this indicator exceeded 35 thousand deaths. In 2015 mortality rate was reduced to less than 13 thousand per year. And if in absolute terms, the dynamics of this indicator looks relatively insignificant against the background of the total population of the country, but the decrease in early child mortality has a high multiplier effect on the national demography.

Researching of the dynamics of the total fertility rate in the Russian Federation in 1990-2015 shows that after the aggravation of the socio-economic situation in the country during the 1990s, there is a sharp decline in the total fertility rate, which in 1990 was very low and was about 1.9. By 1999, the indicator had fallen to about 1.15. Later this trend was reversed, but still over the next 15 years, the total fertility rate rose to almost 1.8. Despite the significant growth of the indicator, it is worth noting that it is still not high enough and it is necessary to implement a set of measures to further increase this indicator as the most important factor in increasing the population of the Russian Federation and its rejuvenation.

An important demographic indicator is the life expectancy of the population of the country. This indicator makes it possible to clearly trace the positive trend of gradual increase in life expectancy at birth. At the same time, women initially had a higher life expectancy – 72 years, while men-only 59 years. Nevertheless, during the last 15 years, the increase in life expectancy at birth was higher for men: from 59 to 66 years, that is for 7 years. While women's growth occurred from 72 to 77 years, that is for 5 years. Figure 1 shows the population dynamics of the Russian Federation for the period of 2001-2017.

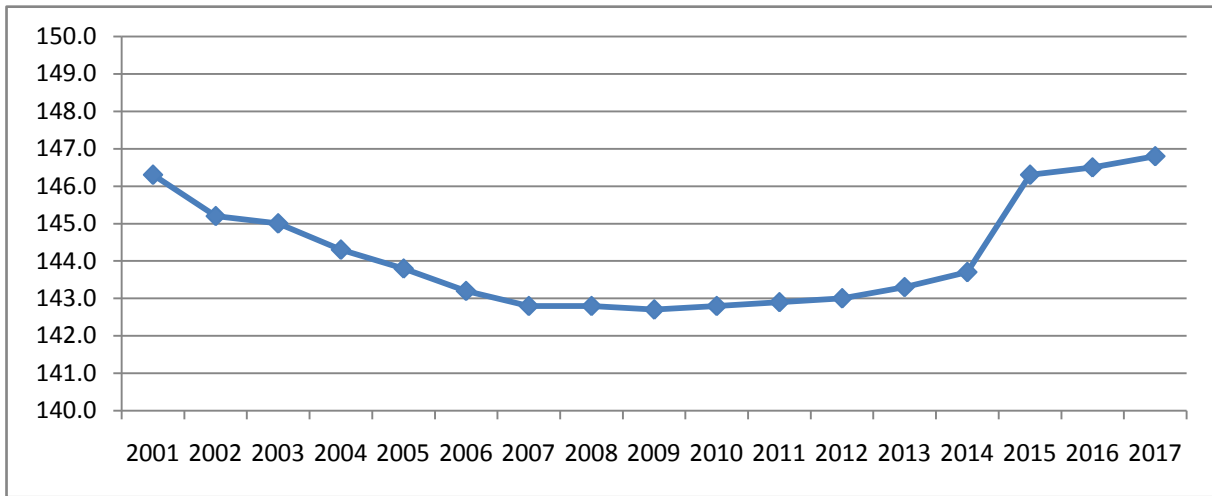


Figure 1. Population dynamics of the Russian Federation for 2001-2017, million people.

The analysis of figure 2 clearly shows the trend of population decline until 2009, which is a continuation of the trend of previous years, which further aggravates the situation, because the population of Russia decreased in the 1990s. It is important to note the positive trend of transition to population growth since 2010. At the same time, in 2014 there was a very noticeable increase by more than 2.5 million people by Russian standards. However, we should not forget that almost all of this increase is not due to demographic factors, and is provided by the accession of the Crimean Peninsula to the Russian Federation. In this regard, for a more complete study of the situation, it is advisable to consider the dynamics of the population of the country without taking into account the impact of the expansion of territories, as shown in figure 2.

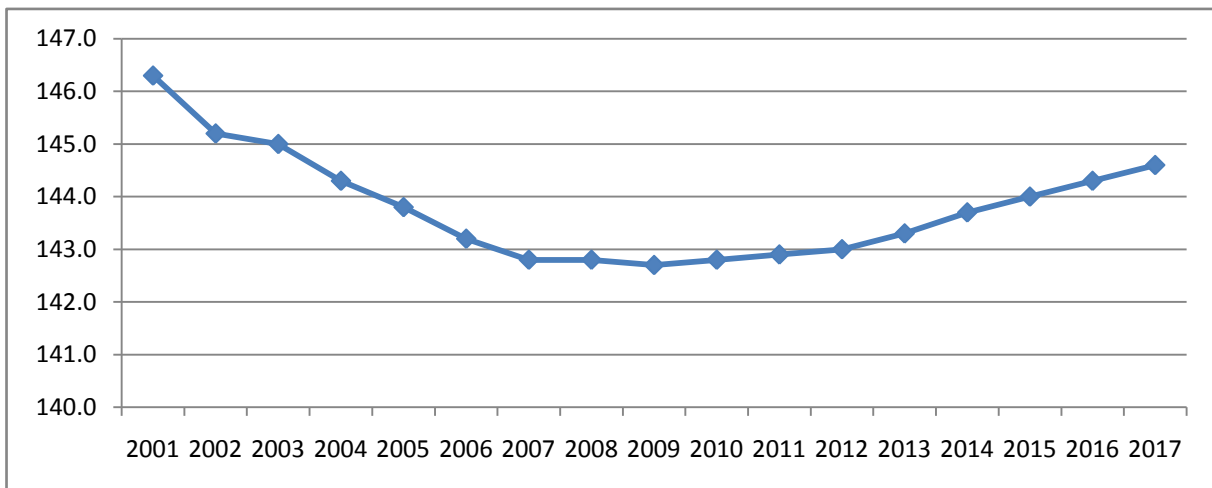


Figure 2. Population dynamics of the Russian Federation for 2001-2017, excluding the accession of the Crimean Peninsula, million people.

Modern situation makes it relevant to analyze the current demographic trends in Russia and try to identify their relationship with the economic situation in the country. The analysis clearly shows the trend of population decline until 2009, which is a continuation of the trend of previous years, which further aggravates the situation, because the population of Russia decreased in the 1990s. It is important to note the positive trend of transition to population growth since 2010. At the same time, in 2014 there was a very noticeable increase by more than 2.5 million people. However, we should not forget that almost all of this increase is not due to demographic factors, and is provided by the

accession of the Crimean Peninsula to the Russian Federation. In this regard, for a more complete study of the situation, it is advisable to consider the dynamics of the population of the country without taking into account the impact of the expansion of territories.

On this basis, due to the development of the demographic factor in the coming years, we can expect an increase in the rate of population growth. At the same time, we must not forget the possible impact of the economic situation in the country on the state of the demographic sphere. That's why it is advisable to analyze the relationship of demographic trends with the economic indicators of the country's development and, in particular, with the dynamics of the level of living of the population. For a more complete analysis of the current situation in the demographic sphere, it is important to research the indicators of the absolute number of births and deaths in the country, as well as the balance of these indicators, which has a decisive impact on the natural population growth. In the early 2000s, the number of deaths in Russia was almost a million more than the number of births annually. This information is presented in table 1.

Table 1. Number of births and deaths in the Russian Federation for the period of 2000-2017.

Year	Number of births per year, person	Number of deaths per year, person	Balance, person
2000	1 266 800	2 225 332	-958 532
2001	1 311 604	2 254 856	-943 252
2002	1 396 967	2 332 272	-935 305
2003	1 477 301	2 365 826	-888 525
2004	1 502 477	2 295 402	-792 925
2005	1 457 376	2 303 935	-846 559
2006	1 479 637	2 166 703	-687 066
2007	1 610 122	2 080 445	-470 323
2008	1 713 947	2 075 954	-362 007
2009	1 761 687	2 010 543	-248 856
2010	1 788 948	2 028 516	-239 568
2011	1 796 629	1 925 720	-129 091
2012	1 902 084	1 906 335	-4 251
2013	1 895 822	1 871 809	24 013
2014	1 942 683	1 912 347	30 336
2015	1 940 579	1 908 541	32 038
2016	1 888 729	1 891 015	-2 286
2017	1 690 307	1 826 125	-135 818

For a more complete analysis of the current situation in the demographic sphere, it is important to research the indicators of the absolute number of births and deaths in the country, as well as the balance of these indicators, which has a decisive impact on the natural population growth. In the early 2000s, the number of deaths in Russia was almost a million more than the number of births annually. Between 2000 and 2011 years the mortality rate exceeded the birth rate by about 7.5 million people. Only since 2013 there has been a slight excess of fertility over mortality. As we can see from the table, this is due to a set of factors that reduce mortality and increase fertility. As the main factors we see the improvement of living standards in conjunction with increased stability in the economy and political sphere. At the same time, it should be noted that a certain contribution to the improvement of the situation has made a new demographic wave. According to some scientists, serious demographic problems caused by the civil war after the revolution, as well as the II World war still have a significant impact on the demographic processes of our time. All this, despite the continuing decline in

mortality, has again formed a negative balance of natural population growth. If in 2016 it was a decrease of 2.2 thousand. in 2017, this figure increased to 135.8 thousand people. This is a serious problem for the formation and reproduction of the labor potential of the Russian Federation. Even more worrying is the possible further development of the emerging trend due to the decline in the birth rate. Noteworthy is figure 3, which presents graphs describing the number of births and deaths per 1000 population.

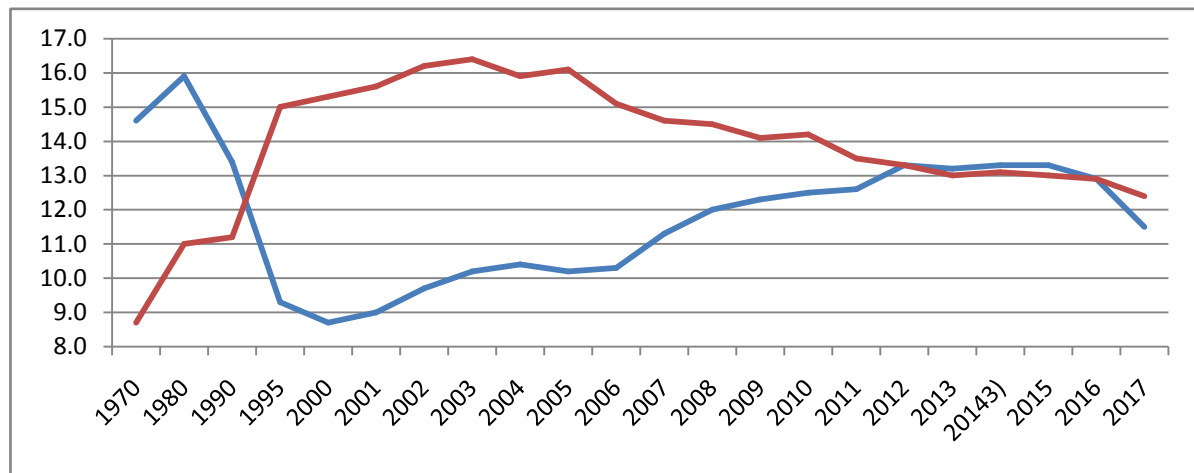


Figure 3. Number of births and deaths per 1000 population per year in the Russian Federation in 1970-2017 years, ppm.

Figure 3 gives a clear picture of the dramatic disruption of demographic reproduction processes in the late 1980s and early 1990s. Researching of the number of births and deaths per 1,000 population provides a clear picture of the dramatic disruption of population reproduction in the late 1980s and early 1990s. This period is associated with dramatic changes in people's lives, a decrease in living standards and increasing income differentiation. To this trend it is possible to apply the name "Russian cross".

4. Conclusion

At last years of the period of research we can observe a gradual rectification of the situation, but the sharp destabilization of the economic and political situation in the country has had a strong impact on the birth rate, the positive changes have a much smoother and more delayed effect. It will take several years of stability and improved socio-economic living conditions before this affects the growth of the birth rate in the country. Moreover, in 2017, we can observe another fairly sharp decline in the birth rate, which is due to purely demographic factors, including a decrease in the number of women of fertile age, and the complication of the socio-economic situation. The decline in the real disposable income of the population has a negative impact on the birth rate. We must not forget the extremely complex factor of people's attitude to life, when the role of family values and childbirth is reduced, replaced by the material values of modern consumer society.

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