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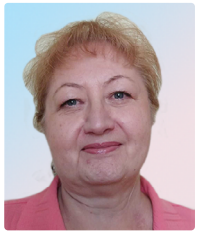
# POPULATION AGEING AS A THREAT TO THE REGION'S DEMOGRAPHIC DEVELOPMENT (CASE STUDY OF THE JEWISH AUTONOMOUS REGION)



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*The article examines the problem of population ageing, which is one of the main threats to the demographic development of both the country as a whole and its individual regions. Using the Jewish Autonomous Region as a case study, the process of population ageing and its consequences for the socioeconomic development of the region are analyzed. A high demographic dependency burden on the workingage population in the Jewish Autonomous Region is noted. Since 2008, the share of children and the elderly has converged, and subsequently the population above working age has come to predominate. This issue is also characteristic of the Primorye Territory and the Sakhalin Region and is among the most pressing in the Far Eastern Federal District, although its percentage ratio there is lower than the Russian average. The calculated longevity coefficients and ageing depth index indicate that the region is demographically old. The low life expectancy indirectly reflects the insufficient level of healthcare development in the region and the inadequate commitment of the population to a healthy lifestyle. The high proportion of the elderly population leads to high mortality rates. The growing demographic dependency burden affects the workingage population; reduces demand and consumer activity; increases the share of dependants relative to the working population; reduces the most creative, progressive, and innovation and technologyoriented segments of society; and raises spending on social protection, the pension system, and healthcare, while the base for insurance contributions shrinks.*

*Population ageing, age structure of the population, demographic dependency burden, Jewish Autonomous Region, morbidity, mortality, birth rate.*

## Introduction

Population aging is a global phenomenon in countries with high and middle levels of economic development. It is a major demographic process because it is associated with a growing social burden and mounting pressure on the economic system. People over working age make a smaller contribution to the economy due to retirement and a gradual decline in productivity driven by health status. The relationship between demographic factors and social development was already addressed in Malthusian population theory in the late 19th century. Before the development of neoclassical growth concepts, research focused on the relationship between the working-age and non-working-age populations, reflecting the balance between production and consumption[1]. In emphasizing the distinction between productive and non-productive forces, many scholars – Adam Smith and Karl Marx in particular – paid insufficient attention to changes in population structure, assuming that the share of working-age people in the total population was constant and that its growth rate was proportional to the rate of population growth as a whole (Barsukov, Kalachikova, 2020). Thus, the link between demographic factors and economic growth was reduced to assessing the impact of population increase on economic development under conditions of resource constraints and given the exogenous nature of technological progress.

As foreign studies show, the number of countries facing population aging and declining fertility is steadily rising. This process is observed mainly in developed countries whose GDP is relatively high. Despite fairly extensive and diverse measures to stimulate fertility and support older people – measures

[1] Coleman D. The third demographic transition. Demoscope Weekly. Available at: https://www.perspektivy.info/book/tretij_demograficheskij_perehod_2007-09-28.htm (accessed: 05.07.2026).

that have undoubtedly had positive economic effects – the problem remains acute. Japan and South Korea, for example, continue to face demographic difficulties despite higher public spending, while Germany and Italy have managed to achieve a better balance through comprehensive family policy. In Iceland, demographic change has slowed, but the country still faces economic constraints (Rowland, 2012; Zhao, 2025).

According to UN data, the share of people aged 60 and over worldwide increased from 12.3% in 2018 to 14.9% in 2025. By 2050, this age group is projected to grow to 21.5%[2]. Broad discussion of population aging began in the 1980s. The issue was actively debated over a long period by WHO member states. As a result, strategies and action plans were adopted based on a number of relevant resolutions and on the results of earlier work in this area at both the global and European regional levels[3]. It should be noted that current approaches to the problem of rising average age are shifting toward interdisciplinary perspectives that reflect socioeconomic patterns. As several authors point out, population aging is one of the most important demographic processes of the modern world and represents a complex, multifactorial medical and social problem (Eklund, Wilhelmson, 2009; Ham, 2010; Low et al., 2011).

Foreign researchers emphasize that aging has a significant impact on the structure of the labor force, contributing to a decline in the number of young working-age people (Maresova et al., 2015). A rising average age is observed among those engaged in production and services (Cylus, Al Tayara, 2021). Among the possible solutions to the problems associated with population aging in developed countries is the need for changes in migration policy that would increase the inflow of working-age people from "younger" developing states (Ma et al., 2023).

Demographic aging is also characteristic of Russia. It is especially pronounced in the cities of the European part of the country. Contemporary Russian research examines the rise in average age from the perspective of the relationship between viability and quality of life, the impact of aging on national healthcare systems, the integration of international experience in extending healthy life expectancy, and the connection between population aging and economic processes (Kanev et al., 2023; Turzin, Derbenev, 2024; Vikhareva et al., 2025).

The current demographic situation in Russia's regions is characterized by declining fertility, high mortality, falling life expectancy, and a growing share of the population above working age. According to several authors, against the backdrop of a declining total population, the number of working-age citizens will also decrease, ultimately leading to a higher demographic burden[4] (Tsukanova, 2011; Gasnikov et al., 2012; Sinitsa, 2018; Khramova, Zorin, 2020; Ryazantsev, Rybakovskii, 2021; Takmakova et al., 2023).

In addition to its demographic consequences, population aging also affects the socioeconomic situation of a territory. With a high share of older people, development inevitably

[2] Population. United Nations. Available at: http://www.un.org/ru/sections/issues-depth/population/ (accessed: 01.07.2026).

[3] Strategy and action plan for healthy ageing in Europe, 2012–2020. WHO Regional Committee for Europe. Sixty-second session. Malta, September 10–13, 2012. Available at: http://www.euro.who.int/__data/assets/pdf_file/0008/175544/RC62wd10Rev1-Eng.pdf (accessed: 01.07.2026).

[4] Population of Russia 2015: Twenty-third Annual Demographic Report. Moscow: HSE Publishing House, 2017. 360 p.

becomes less dynamic and more conservative in all respects (including science and technology) than with a younger population. A number of authors note that ignoring the problem can undermine the stability of the state budget and adversely affect the country's economic well-being. There is an urgent need to attract substantial financial, material, and labor resources to achieve the goals of state policy toward older people and to ensure a decent standard and quality of life for them through material support, medical care and medication, social services, an accessible living environment including educational, sociocultural, and leisure services, and employment promotion. In line with the National Project "Demography," the "Older Generation" program has been developed, aimed at creating conditions for active longevity and a high quality of life for older citizens and at motivating them to lead healthy lifestyles (Lukyanets et al., 2021; Gaidarov et al., 2023; Kabrt, 2024).

Under conditions of reduced population reproduction, demographic aging is irreversible. The decline in the number of inhabitants from generation to generation proceeds in geometric progression, and even with rising fertility the burden on working citizens increases (Varlamov, 2011; Aleshkovskii, 2012; Gonataeva, Kirova, 2023). Despite a wide range of research on these issues, some Russian regions remain underexplored. One of these is the Jewish Autonomous Region, an economically underdeveloped constituent entity with a low quality of life. Aging has been considered mainly within studies of the gender and age structure; therefore, examining the problem in the region remains a relevant research direction.

In working on the topic, the authors relied on an interdisciplinary approach to studying the impact of aging on socioeconomic processes in society, since it is the most balanced for examining the relationship between these concepts.

The Jewish Autonomous Region is located in the southern part of the Far Eastern Federal District. Like other regions of the Far Eastern Federal District, the JAR, where Russians predominate in the ethnic composition, faces similar demographic problems: a declining share of children and an increase in older age groups. The region's population at the beginning of 2025 was 144.4 thousand people, of whom 70.9% were urban residents and 29.1% rural residents. According to the administrative-territorial division, the region comprises five municipal districts and one urban okrug.

**Methods and aim of the study**

The aim of the study is to analyze the dynamics of the population above working age in the population structure of the Jewish Autonomous Region in order to identify the main threats to the region's socioeconomic development over the period 2000–2023. Population reproduction processes are fairly inertial; therefore, assessing their dynamics requires a sufficiently long time span comparable to the length of a generation (20–25 years). To achieve the stated aim, the following objectives were set: to study the dynamics of the shares of the region's population age groups; to examine the demographic burden on the working-age population; to calculate the share of older people in the structure of working citizens; and to analyze the well-being indicators of residents of retirement age.

Based on the aim and objectives of the study, the following methods were used. In examining the dynamics of the age structure, comparative analysis was applied both to the Jewish Autonomous Region itself and to other constituent entities of the Far Eastern Federal

District. The economic-statistical method was used to analyze time series for selected indicators relating to the age structure of the population, employment, and the well-being of the population above working age. It should be noted that one of the problems in using this method is the quality of statistical data. The current structure of the demographic statistics database does not ensure the completeness of the data used, especially given the restrictions introduced in 2025. Methods of analysis and synthesis were also applied, one of which (assessing quantitative indicators for a single constituent entity) makes it possible to trace the temporal dynamics of the impact of aging on socioeconomic processes in the region. Comparative analysis provided an opportunity to move toward elements of clustering in order to identify regions with similar trends in the aging processes of the Far Eastern Federal District. By synthesizing statistical data on age groups, the demographic burden on the working-age population, and the level of well-being of particular age groups, the authors describe the overall picture of changing demographic conditions in the region and show the dynamics of the negative effects of population aging.

**Main results and discussion**

In the region, as in the Far Eastern Federal District as a whole, common demographic trends are observed: a declining population due to natural decrease and migration outflow, as well as a rising average age (Bobkov et al., 2013; Khramova, Zorin, 2020; Stroeva, Telushkina, 2021). In 2023, children accounted for 19.9% of the population of the Jewish Autonomous Region, the working-age population for 58.6%, and people above working age for 21.5%[5]. Among the regions of the Russian Far East, the region stands out for its relatively low share of working-age population, a level close to that of the Republic of Buryatia.

Let us analyze the change in the share of older people in the population. During the perestroika era, the share of children in the Jewish Autonomous Region reached 30.8% in 1989 (the figure for Russia was 24.5%), while the share of people above working age was 15.9% and 18.5%, respectively. The steady decline in fertility is not only a cause of natural

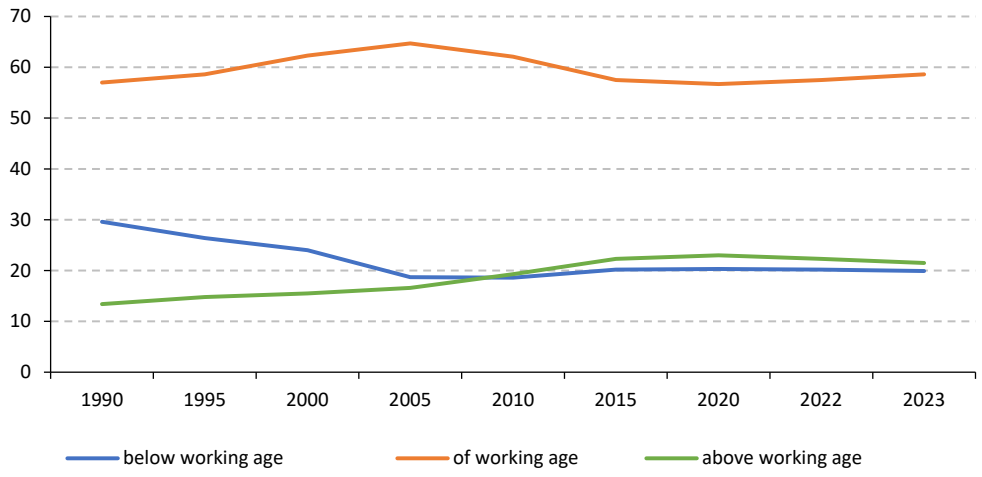


**Figure 1. Dynamics of the share of population age groups in the Jewish Autonomous Region, 1990–2023**

Source: Demographic Yearbook of the Jewish Autonomous Region 2019. Khabarovskstat, Birobidzhan. 137 p.; Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026).

[5] Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026).

population decrease but also a factor of aging. In subsequent years, the number of children declined rapidly, reaching a minimum in 2008 (18.1%). Initially, this led to an increase in the share of the working-age population, but from 2008 the share of older people began to rise, reflecting the fact that the generation born in the 1950s had reached retirement age. Whereas in 2007 the ratio of children to older people was almost equal (1.01), from 2008 it became inverse, at 0.9–0.93. The lowest inverse ratio in recent years was observed in 2024, at 0.84. At the same time, in Russia as a whole this inverse ratio between children and people above working age has been observed since 2000, reaching a minimum of 0.73 by 2014.

The age structure of the population significantly affects economic indicators, determining the ratio between the working-age and non-working-age populations. In the early 2000s, Russia entered a period of rapid growth in the demographic burden, driven both by the aging of the population and by an increase in the number of children. According to forecasts, the growth of the child burden will cease by the end of the third decade of the twenty-first century, and its decline may begin (Andreev, Vishnevskii, 2014; Dmitrieva, 2023).

The dynamics of the demographic burden on the working-age population of the Jewish Autonomous Region are shown in *Figure 2*. In 2005, it stood at 545 people of non-working age per 1,000 people of working age in the Jewish Autonomous Region, below the national average of 589. According to data for 2018, the demographic burden in the Jewish Autonomous Region reached a maximum of 799 per 1,000 working-age people, as in other regions of the Far Eastern Federal District. At the same time, the national maximum of 778 was recorded in 2020. The burden in the Jewish Autonomous Region, together with the Trans-Baikal Territory and the Republic of Buryatia, was among the highest in the Far Eastern regions. The lowest figure among the regions of the Far Eastern Federal District was observed in the Chukotka Autonomous Area. In most regions of the Far Eastern Federal District and in Russia as a whole, the bulk of the demographic burden falls on the population above working age. The exceptions are the Republic of Buryatia and the Republic of Sakha (Yakutia), where the share of children in the structure of the burden is 1.2–1.4 times higher. In 2019, with a demographic burden of 764 people of non-working age

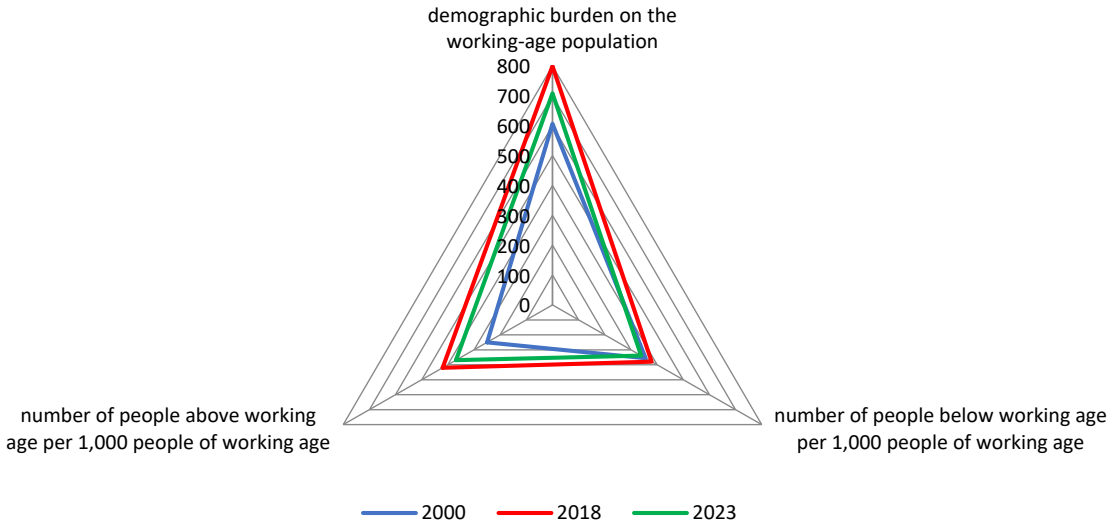


**Figure 2. Demographic burden on the working-age population of the Jewish Autonomous Region, 2000–2023**
Source: Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026).

per 1,000 working-age people in the Jewish Autonomous Region, the elderly and children accounted for 396 and 368 people, respectively. From 2019 to 2021, there was a slight decline in the burden on the working-age population, from 764 to 731 people. In 2022, the indicator rose both in Russia as a whole and in the Jewish Autonomous Region, to 756 and 741 people, respectively. In 2023, the demographic burden in Russia decreased by 4.2%, and in the Jewish Autonomous Region by 4.5% (Kalinina et al., 2023).

In their study, V.G. Ayusheeva and co-authors classify the Jewish Autonomous Region among Russia's Asian regions in which the ratio between population groups younger and older than working age is becoming more balanced. They note that there is an intense demographic burden on the working-age population, which, in the context of migration, is a destabilizing factor for development (Ayusheeva et al., 2021).

When considering the demographic burden across the region's individual districts, significant differentiation must be noted. The highest burden falls on Birobidzhansky District, at 857 people per 1,000 of working-age population, of which 53.4% is the burden of children – a circumstance that bodes well for a future decline. The lowest burden is observed in Leninsky District, at 675 people, with children accounting for 54.9%. The highest burden of people above working age is recorded in Smidovichsky District (55.9%), which is characterized by active out-migration of the working-age population to the city of Khabarovsk.

Amid the steady decline of the population in the Jewish Autonomous Region, a gradual decrease is occurring in all age groups. The number of working citizens fell by 2.4% in 2018–2023 alone, the population below working age by 9.4%, and the retirement-age population by 15.6%. An examination of the dynamics of population distribution by age group reveals a downward trend in the share of children since 2015, following the decline in the region's fertility. The share of pensioners grew steadily until 2020, after which it declined as a result of the pandemic *(Tab. 1)*.

The share of the population above working age in the region (13.4%) was already among the highest in the Far Eastern Federal District in 1990, along with the Trans-Baikal Territory, but was considerably lower than the national average (19%). A steady positive increase was observed up to 2018 (to 23.3%), followed by unstable dynamics. In 2023, the region recorded its lowest value since 2014 (21.5%).

As E.V. Chistova notes, the share of older people in the total population is the most common indicator of demographic aging, but it is insufficient for identifying its depth, drivers, and pace (Chistova, 2017). The aging coefficient is calculated as the ratio of the population aged 65 and over to the total population, multiplied by 100. A region can be classified as demographically old if the aging coefficient exceeds 15%. In the Jewish Autonomous Region it stands at 15.77%; the region therefore falls into this group. The longevity coefficient is an indicator that quantifies longevity. It is

**Table 1. Distribution of the population of the Jewish Autonomous Region by age group, 2000–2023, %**

| Population age group | 2000 | 2005 | 2008 | 2010 | 2015 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|
| Below working age | 22.2 | 18.7 | 18.2 | 18.6 | 20.6 | 20.3 | 20.3 | 20.2 | 19.9 |
| Of working age | 62.3 | 64.7 | 63.6 | 62.1 | 57.3 | 56.7 | 57.8 | 57.5 | 58.6 |
| Above working age | 15.5 | 16.6 | 18.2 | 19.3 | 22.1 | 23 | 21.9 | 22.3 | 21.5 |

Compiled from: Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026).

calculated as the ratio of the population aged 80 and over to the population aged 60 and over. In the region it is 0.11, which indirectly reflects the low level of development of healthcare and social support, as well as the older population's weak commitment to a healthy lifestyle. The depth-of-aging index (age-based aging index) reflects the share of the population in old age (75–89 years) within the entire elderly population; in the Jewish Autonomous Region it stands at 21%. All these values point to a demographic aging crisis in the region.

The population forecast up to 2045 shows a decline in the total number of residents, both overall (by 25.5%) and in particular age groups, as presented in *Table 2*.

The results of the analysis indicate that the Jewish Autonomous Region is already facing a number of socio-economic consequences of population aging.

First, there is a shortage of labor supply on the regional labor market, caused by difficulties in the reproduction of labor resources and the actual and projected decline in the share of younger age groups. Moreover, the growing share and number of people of retirement age further increase the burden on the employed population *(Tab. 3)*.

The data in Table 3 show a negative trend in the ratio of employees to pensioners. From 2000 to 2023, the ratio of the average annual number of people employed in the economy to the number of pensioners declined from 1.7 to 1.4 (for comparison, at the end of the study period the corresponding figure for the Russian Federation was 2.1), and it will continue to decline. This negative trend will affect the region's economy, leading to an overall reduction in the working population and tax revenues, altering the structure of consumer

**Table 2. Projected distribution of the population of the Jewish Autonomous Region by age group up to 2045, %**

| Population age group | 2024 | 2030 | 2040 | 2045 |
|---|---|---|---|---|
| Below working age | 19.9 | 17.8 | 16.6 | 17.6 |
| Of working age | 58.7 | 61.9 | 61.5 | 58.9 |
| Above working age | 21.3 | 20.2 | 21.9 | 23.4 |
| Source: compiled by the authors based on Rosstat data. Available at: https://27.rosstat.gov.ru/storage/mediabank/Еврейская%20авт.%20обл._9900000000s.xlsx (accessed: 29.05.2026). | | | | |

**Table 3. Ratio of the average annual number of people employed in the economy to the number of pensioners in the Jewish Autonomous Region, 2000–2023**

| Indicator | Year | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2005 | 2008 | 2010 | 2015 | 2020 | 2021 | 2022 | 2023 |
| Average annual number of people employed in the economy, thousand people | 71.2 | 79.8 | 82.6 | 81.3 | 70.3 | 63.9 | 62.2 | 62.4 | 60.2 |
| Number of pensioners (pension recipients), thousand people | 43.0 | 44.0 | 47.0 | 49.0 | 51.0 | 50.0 | 49.0 | 48.0 | 42.0 |
| Ratio of average annual employment to the number of pensioners | 1.7 | 1.8 | 1.8 | 1.7 | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 |
| Compiled from: Number and composition of the labor force aged 15 and older. Federal State Statistics Service. Available at: https://www.rosstat.gov.ru/storage/mediabank/trud-1_15-s.xlsx (accessed May 29, 2026); Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026). | | | | | | | | | |

demand, and increasing the burden on the pension system.

The second problem is the growing burden on the regional pension system, which slows the growth of pension accruals and makes it necessary to reconsider the upper limits of working age, as well as to ensure the material well-being of pensioners on the part of the state. A key indicator that provides insight into the level of well-being of the population above working age is the size of pensions paid and its ratio to the regional subsistence minimum for older people. This, in turn, gives an idea of the purchasing power of pensions *(Tab. 4)*.

The data in the table demonstrate growth in both the average size of assigned pensions and the subsistence minimum throughout the analyzed period. Pension provision rose by 17,712 rubles, and the subsistence minimum by 15,914 rubles. It should also be noted that in the Jewish Autonomous Region during the study period there is an ambiguous trend in the ratio of the average pension to the subsistence minimum, which characterizes the purchasing power of pension payments for the region's population. Positive dynamics can be seen from 2008 to 2015, when the purchasing power of the average assigned pension rose from 1.0 to 1.4 times. In the following period, 2015–2023, the value declined from 1.4 to 1.1 times. This is explained primarily by the annual rise in prices for essential goods, medicines, and housing and utility services, while the indexation of pensions for non-working pensioners is below the level of rising inflation.

The regional replacement rate, calculated as the ratio of the average labor pension to the wage level, remained below the ILO-recommended threshold of 0.4 throughout the entire analyzed period and showed a downward trend. From 2001 to 2023, the ratio of the average assigned pension to average monthly wages in the Jewish Autonomous Region declined from 39.7 to 28.6%, or by a factor

**Table 4. Indicators of the well-being of the population above working age in the Jewish Autonomous Region, 2001–2023**

| Indicator | Year | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2001 | 2008 | 2015 | 2020 | 2021 | 2022 | 2023 |
| Average size of assigned pensions, rubles | 1108 | 4555 | 10561 | 14780 | 15600 | 17868 | 18820 |
| Subsistence minimum, rubles | 750 | 4335 | 7414 | 11709 | 13526 | 16133 | 16664 |
| Average monthly wage of employees, rubles | 2790 | 15037 | 30896 | 46237 | 50075 | 56957 | 65815 |
| Ratio of the average size of assigned pensions, % of: | | | | | | | |
| subsistence minimum | 147.7 | 105.0 | 142.4 | 126.2 | 115.3 | 110.7 | 112.9 |
| wages of employees | 39.7 | 30.3 | 34.2 | 32.0 | 31.2 | 31.4 | 28.6 |

Compiled from: Average pension size in nominal terms assigned to pensioners registered in the Pension Fund system of the Russian Federation by constituent entities of the Russian Federation. Federal State Statistics Service. Available at: https://www.rosstat.gov.ru/storage/mediabank/Urov_p1_2025.xlsx (accessed: 29.05.2026); Subsistence minimum for the main socio-demographic groups of the population in the Russian Federation as a whole for 2000–2020. Federal State Statistics Service. Available at: https://www.rosstat.gov.ru/storage/mediabank/vpm_RF_kv.xlsx (accessed: 29.05.2026); Subsistence minimum per capita and for the main socio-demographic groups of the population in the Russian Federation as a whole and by constituent entities of the Russian Federation, established for 2021–2026. Federal State Statistics Service. Available at: https://www.rosstat.gov.ru/storage/mediabank/vpm_RF_kv.xlsx (accessed: 29.05.2026); Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026).

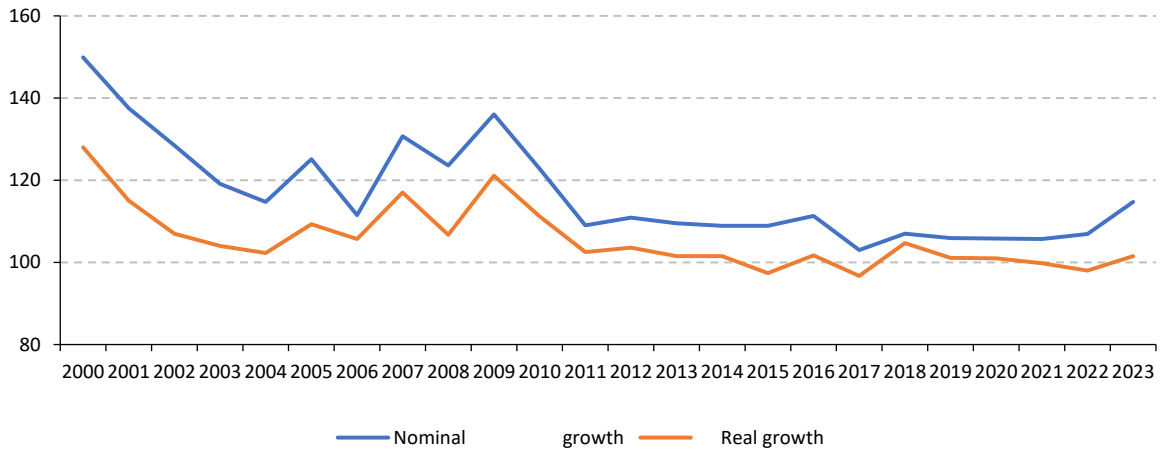


**Figure 3. Dynamics of the growth of nominal and real assigned pensions in the Jewish Autonomous Region, 2000–2023, %**

Source: Average pension size in nominal terms assigned to pensioners registered in the Pension Fund system of the Russian Federation by constituent entities of the Russian Federation. Federal State Statistics Service. Available at: https://www.rosstat.gov.ru/storage/mediabank/Urov_p1_2025.xlsx (accessed: 29.05.2026).

of 1.4. The low replacement rate in the region is explained by the fact that average monthly wages are substantially higher than average assigned pensions, and pensions are tied to the pensioner's subsistence minimum rather than to actual incomes – a pattern typical of Russia as a whole. Consequently, most people above working age experience a significant decline in living standards upon retirement, forcing them to continue working *(Tab. 5)* (Cheremisina et al., 2022).

It can be seen that the employment rate among people above working age shows a pronounced upward trend over the study period (208.6%, or 2.08 times). At the same time, since 2008, female employment among the elderly population of the Jewish Autonomous Region has been somewhat higher than male employment.

The higher employment rate among women is explained by several factors. First, women retire earlier and have a higher life expectancy. Second, their work is generally less physically demanding and hazardous than men's. At the same time, women living in families face increasing time costs for household work and family care, while the importance of forced employment is also growing.

**Table 5. Share of employed persons above working age in the economy of the Jewish Autonomous Region, 2000–2023, %**

| Indicator | Year | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2000 | 2008 | 2015 | 2020 | 2021 | 2022 | 2023 |
| Employed in the economy – total, including: | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Persons above working age: | 3.5 | 4.7 | 6.3 | 7.6 | 7.4 | 7.5 | 7.3 |
| among men | 4.0 | 4.0 | 5.3 | 6.6 | 5.8 | 6.8 | 6.5 |
| among women | 2.9 | 5.0 | 7.4 | 8.7 | 9.2 | 8.5 | 8.1 |
| Compiled from: Regions of Russia. Socio-Economic Indicators. Electronic versions 2002–2024. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13204 (accessed: 29.05.2026). | | | | | | | |

**Conclusion**

The study confirms the continued relevance of analyzing demographic processes, particularly population aging and its impact on the socioeconomic development of the region. At the current stage of social development, the rising average age is becoming one of the key factors shaping a broad range of social security issues.

The analysis of the demographic situation shows that the Jewish Autonomous Region is already facing a number of negative consequences of aging. Interdisciplinary studies that take into account both the demographic and socioeconomic aspects of the shift in the age structure remain scarce for this territory, since the region was previously distinguished by high fertility and a large share of working-age population. Current demographic trends have led to a decline in the number of working citizens, an increase in the share of older people, lower labor productivity, and a higher demographic burden. These factors will subsequently lead to reduced consumer demand and spending activity, a decline in overall purchasing power, a growing share of dependents relative to workers, and rising expenditures on social protection, the pension system, and healthcare against a shrinking base for calculating insurance premiums.

Based on the analysis of the impact of demographic aging on the region's socioeconomic development, the authors draw the following conclusions:

– The Jewish Autonomous Region is a demographically old region, with growth rates of the demographic burden on the working-age population exceeding both the Far Eastern and national averages.

– The regional labor market is experiencing the negative effects of aging, manifested in a shortage of labor at the regional level. Compensation occurs through higher employment among pensioners, with an inevitable decline in overall labor productivity.

– The need to continue working is driven by a significant decline in living standards upon retirement and the stagnating dynamics of real pension levels.

Overall, the region exhibits trends typical of most Russian regions with ongoing population aging. The results are of practical importance, as they reveal the specific features of the rise in average age in underdeveloped regions of the Russian Far East. These trends point to necessary future adjustments in the region's socioeconomic development strategy, primarily related to the shrinking working-age population and the possibility of engaging people above working age in feasible labor activity in order to achieve the planned results of the National Projects "Demography" and "Long and Active Life" implemented in the region.

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# СТАРЕНИЕ НАСЕЛЕНИЯ КАК УГРОЗА ДЕМОГРАФИЧЕСКОГО РАЗВИТИЯ РЕГИОНА (НА ПРИМЕРЕ ЕВРЕЙСКОЙ АВТОНОМНОЙ ОБЛАСТИ)

*В статье рассматривается проблема старения населения. Это является одной из основных угроз демографического развития как в целом страны, так и ее отдельных регионов. На примере Еврейской автономной области рассмотрен процесс старения населения и его последствия для социально-экономического развития области. Отмечается высокая демографическая нагрузка на трудоспособных жителей в Еврейской автономной области. С 2008 года доля детей и пожилых людей сравнялась и в дальнейшем население старше трудоспособного возраста стало преобладать. Данная проблема также характерна для Приморского Края и Сахалинской области и является одной из самых актуальных в Дальневосточном федеральном округе, но при имеет процентное соотношение ниже, чем в среднем по России. Рассчитанные коэффициенты долголетия и индекс глубины старения показывают, что регион относится к демографически старым. Низкое значение длительности жизни косвенно характеризует низкий уровень развития здравоохранения в регионе и недостаточную приверженность населения к здоровому образу жизни. Высокая доля пожилого населения приводит к высокой смертности населения. Рост демографической нагрузки сказывается на трудоспособном населении; влияет на сокращение спроса и потребительской активности; увеличивает долю иждивенцев по отношению к доли работающих; уменьшает наиболее креативные, прогрессивные и открытые для инноваций и современных технологий слои общества; повышает расходы на социальную защиту, пенсионную систему и здравоохранение, при этом база начисления страховых взносов сокращается.*

*Старение населения, возрастная структура населения, демографическая нагрузка, Еврейская автономная область, заболеваемость, смертность, рождаемость.*

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