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ETHNIC FACTOR IN POPULATION AGING IN KAZAKHSTAN

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Аннотация. This article assesses the age-sex structure of Kazakhstan's population, with particular attention to the process of population aging based on current data and the results of the 2021 national population census. It includes an analysis of the demographic development of Kazakhstan's largest ethnic groups, including Kazakhs, Russians, and Uzbeks.

Ключевые слова: Demography, population census, population size, ethnicity, ethnic groups, ethnic structure, population age and sex structure

Introduction

The research addresses the following objectives:

1. Assessment of the Ethnodemographic Development of Kazakhs, Russians, and Uzbeks: This objective focuses on evaluating the population dynamics, including growth rates, age structures, and ethnic compositions of the three primary ethnic groups within Kazakhstan. Understanding these dynamics is crucial for forecasting future demographic trends and planning appropriate social and economic policies.
2. Analysis of the Level of Aging in Kazakhstan: This involves examining the extent to which the population is aging, characterized by an increasing proportion of elderly individuals relative to the total population. The analysis includes studying the factors contributing to population aging, such as declining birth rates and increasing life expectancy, and assessing their implications for the country's demographic structure.
3. Evaluation of Population Aging Among Kazakhs, Russians, and Uzbeks: This objective aims to specifically assess how the aging process affects each of the three main ethnic groups in Kazakhstan. By comparing the aging trends among Kazakhs, Russians, and Uzbeks, the study seeks to identify unique challenges and opportunities within each group, thereby informing tailored policy interventions.

Data Sources and Methods

The preparation of this article utilized a diverse range of literature and statistical data. The primary sources of data include the results of the 2021 Population Census and the latest demographic statistics from the National Bureau of Statistics of the Strategic Planning and Reform Agency of the Republic of Kazakhstan. Comparative and statistical analysis methods were employed to interpret the data effectively [1].

In addressing the evaluation of population aging, various methodologies are employed. The United Nations defines elderly individuals as those aged 60 years and older, although in many cases, this threshold is set at 65 years and above. However, there is a significant discrepancy in determining which method should currently be used to assess

the level of aging. This is because, considering the standard of living and the manner in which populations age, the methodologies must also be updated. The elderly population today differs significantly from that of 30 to 50 years ago in terms of health status and living standards. Consequently, W. Sanderson and S. Sherbov have established new adjusted age thresholds for aging in countries worldwide. For Kazakhstan, these thresholds were calculated for the years 2015–2020 as 68.6 years for females and 64.6 years for males. Projections for 2045–2050 estimate these thresholds to rise to 70.9 years for females and 65.8 years for males, respectively [2].

Considering this, the present article will utilize data for individuals aged 65 years and older.

Results and Discussions

The global population is aging—the proportion of elderly individuals within the total population is increasing in virtually every country. The process of population aging has become one of the most significant social transformations of the twenty-first century, impacting nearly all sectors of society. Demographic aging influences labor and financial markets, demand for goods and services such as housing construction, transportation, and social protection, as well as the structure of families and intergenerational relationships. Elderly individuals are increasingly viewed as active participants in the development process, whose abilities to contribute to their own well-being and that of society should be considered in the formulation of policies and programs at all levels. In the coming decades, many countries will face critical challenges in the areas of healthcare, pension provision, and social protection. Every second, somewhere in the world, two people celebrate their sixtieth birthday, and nearly 58 million individuals will mark their sixtieth birthday within a single year. Currently, one in every nine people worldwide is aged 60 or older, and by 2050, this ratio is projected to increase to one in every five people, `making population aging an undeniable phenomenon [3].

In 1950, the global population of individuals aged 60 years or older was 205 million. By 2012, this number had grown to nearly 810 million. Projections indicate that within less than a decade, this figure will reach 1 billion, and by 2050, it is expected to double to 2 billion. There are significant regional disparities in these trends. For instance, in 2012, individuals aged 60 or older comprised 6% of Africa's population, 10% in Latin America and the Caribbean, 11% in Asia, 15% in Oceania, 19% in North America, and 22% in Europe. By 2050, these proportions are expected to rise to 10% in Africa, 24% in Asia, 24% in Oceania, 25% in Latin America and the Caribbean, 27% in North America, and 34% in Europe [4].

To address these challenges, the Second World Assembly on Aging, convened in Madrid, Spain, in 2002, adopted the Madrid International Plan of Action on Aging (hereafter referred to as the Plan). This Plan aims to ensure the participation of elderly individuals in the development process, strengthen their health, enhance their well-being, and create favorable conditions for them [4]. Kazakhstan also ratified this Plan, and the second National Report of Kazakhstan for the fourth cycle of reviewing and evaluating the implementation of the Madrid International Plan of Action on Aging and its Regional Strategy (MIPPA-RS) was developed for the years 2018–2022 [5].

But what exactly is aging? Population aging is the process by which the proportion of adults and elderly individuals in the population increases, while the proportion of children and adolescents decreases. This process leads to an increase in the average and median age of the population. Aging occurs when the birth rate declines while life expectancy remains unchanged or improves in older age groups [6].

The process of population aging has a profound impact on all aspects of human life: the economy, savings, investments, consumption, the labor market, pensions, taxation, and intergenerational transfers. In the social sphere, it affects the health status of individuals, family composition, lifestyle, housing conditions, and population migration.

Kazakhstan is only beginning to enter the category of countries with a predominance of elderly populations, and the ensuing problems are expected to lead to the development

of sectors directly related to elderly care. This will significantly affect the healthcare sector. Health issues among the elderly population are primary causes of disability and mortality. In the structure of chronic diseases, cardiovascular diseases, musculoskeletal system diseases, digestive system diseases, respiratory diseases, and eye-related conditions prevail. High morbidity rates among individuals over 60 years old result in a high frequency of visits to outpatient and polyclinic organizations by elderly individuals—twice as often as other age groups. Given the specific nature of diseases in old age, there is a need to increase the number of gerontologists, therapists, and other specialists, which must be considered when determining the priorities for the development of the healthcare and education systems in the republic. One of the main directions for forming the necessary infrastructure for elderly individuals is the development of a service system provided by local organizations for the care of elderly and solitary individuals. Accessible housing and suitable types of transportation, which enable people to continue living in their own homes, are absolutely necessary for maintaining independence. These factors facilitate social contacts and allow elderly individuals to remain active members of society [7].

An immediate indicator of population aging is the increase in the proportion of older age groups within the total population. Population aging has become a global process, gradually encompassing all regions of the world, albeit with varying intensities. Demographers at the United Nations have proposed a three-tier scale for assessing the age structure of the population in terms of aging:

- If the proportion of the population aged 65 and older is below 4%, the population is considered young.
- If it is between 4% and 7%, the population is on the threshold of aging.
- If it exceeds 7%, the population is considered old [8].

According to data from the Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan as of early 2024, the population of the country amounted to 20,033,842 individuals. The proportion of males was 48.8%, and females accounted for 51.2%.

The growth rate compared to the beginning of 2023 was 1.35%, with a total increase of 267,035 individuals, of which 96.5% was due to natural increase and 3.5% due to positive migration balance. The highest population growth rates were recorded primarily in three cities of republican significance, as well as in the Mangystau, Almaty, and Atyrau regions. While in the cities of Astana, Almaty, and Shymkent, and in the Almaty and Mangystau regions, the overall population growth is ensured by both natural and migratory increases, in other regions with growth, it is solely due to natural increase. Population depopulation was observed in six regions: Abai, Zhetysu, North Kazakhstan, Pavlodar, Kostanay, and East Kazakhstan regions. Except for the North Kazakhstan region, the reason for the population decline in these regions is a negative migration balance. In North Kazakhstan, alongside migratory outflow, the population is decreasing due to natural decline.

The urbanization rate in Kazakhstan at the beginning of 2024 was 62.4%. The highest proportions of urban population were observed in Karaganda (81.6%), Ulytau (79.2%), Aktobe (74.9%), and Pavlodar (70.7%) regions, while the lowest were in the Almaty (19.6%), Turkestan (24.9%), and Zhambyl (43.4%) regions.

As of early 2024, the number of Kazakhs was 14,220,289 individuals (71.0% of the total population), Russians – 2,983,344 individuals (14.9%), and Uzbeks – 660,585 individuals (3.3%).

Overall, the population structure remains comparatively young, with the average age of residents being 32.3 years. At the same time, despite a high birth rate and a high proportion of children, the population continues to "age." There is an annual increase in the proportion of elderly individuals aged 65 and older. As of early 2024, this indicator was 8.8%. Population aging in Kazakhstan exhibits pronounced regional differentiation. The lowest proportion of elderly population is observed in the Turkestan (5.7%) and Mangystau (5.4%) regions, as well as in the city of Shymkent (4.3%), while the highest proportions are

in the East Kazakhstan (15.6%), North Kazakhstan (14.9%), and Kostanay (13.4%) regions.

The aging index in Kazakhstan shows an upward trend. Starting from 2019, the indicator increased from 26.5 to 29.5 by 2023. The indicator is higher in urban areas than in rural ones (Figure 1).

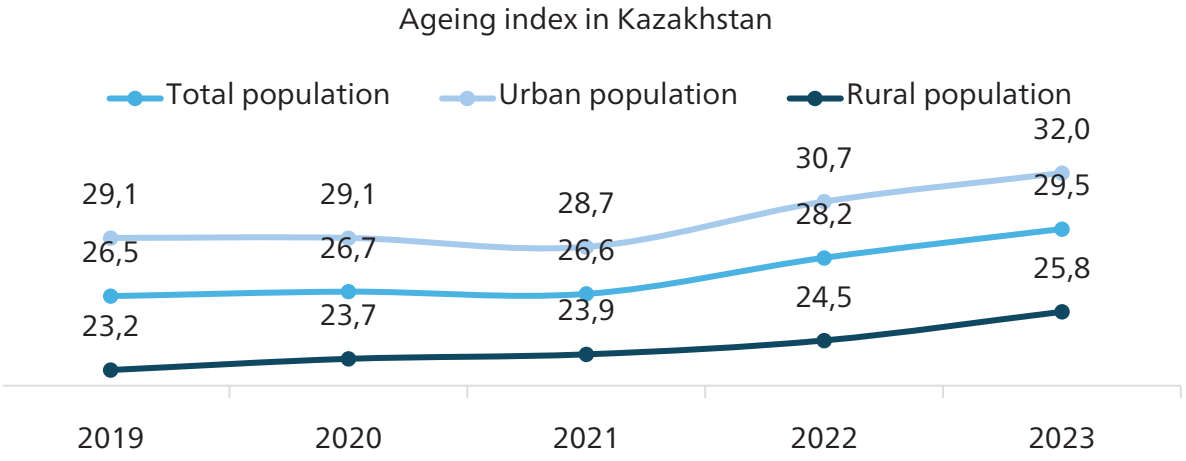

Figure 1. Aging Index in Kazakhstan, 2019-2023, per 100 Children Source: Statistical Bulletin. Population Aging Index in the Regions of the Republic of Kazakhstan – 2023. Astana, 2024. www.stat.gov.kz

In terms of regions, the highest values of the indicator in 2023 were in the North Kazakhstan (72.9), East Kazakhstan (71.8), Kostanay (62.1), and Pavlodar (52.5) regions. The lowest values were in the city of Shymkent (15.3), Turkestan (14.9), and Mangystau (14.3) regions.

One favorable factor contributing to the relatively low speed of population aging development at present is the high birth rate and the polyethnic structure of the population.

The ethnodemographic situation plays a crucial role in assessing interethnic relations. One of the key advantages of conducting population censuses is the updating of data regarding population size, ethnic composition, age structure of ethnic groups, and family sizes. This data allows for the evaluation of reproductive behavior prospects within the population.

Population censuses are conducted every ten years worldwide, including in Kazakhstan. Since gaining independence, Kazakhstan has conducted such censuses in 1999, 2009, and 2021.

According to the results of the latest National Population Census of 2021, the population of Kazakhstan was 19,186,015 individuals, with representatives of 124 ethnic groups residing in the country (125 in 2009). Between the censuses of 2009 and 2021, the number of Kazakhs increased by 33.7% (accounting for 70.4% of the population), Uzbeks by 33.4% (3.2% share), while the number of Russians decreased by 21.4% (15.5% share) [9].

The demographic potential of Asian ethnic groups, including Kazakhs and Uzbeks, significantly surpasses that of European ethnic groups, such as Russians. Among European ethnic groups, the level of population aging is considerably higher than among Asian ethnic groups. According to census data, among the main ethnic groups residing in Kazakhstan, the highest levels of aging are observed among Ukrainians (23.4%), Poles (18.1%), and Russians (17.4%).

Kazakhs represent a relatively young ethnic group, with the proportion of elderly individuals over 65 years old accounting for 5.5% of the total population, and the proportion of youth at 28.8%.

More than one-third of Tajiks (35.7%), Turks and Kurds (33.8%) constitute the youth, nearly one-third of Dungans (32.1%) and Uzbeks (32.0%) also belong to the youth category. The smallest proportion of youth in the 15–34 age group is observed among Ukrainians (18.8%), Poles (23.2%), and Kyrgyzs (23.6%).

Overall, the results of the population census demonstrate that, despite the overall growth in population size, significant ethnic differences persist. The number of Kazakhs and Asian ethnic groups is increasing, while the number of European ethnic groups is declining. This is primarily due to differences in age structure and reproductive behavior: European ethnic groups, including Russians, are characterized by high levels of aging and low birth rates, whereas Asian ethnic groups, such as Uzbeks, Tajiks, Dungans, and others, have a younger age structure and, on average, two to three children per family. The high level of aging among European ethnic groups also leads to increased mortality and, consequently, a higher number of widows and widowers compared to Asian ethnic groups.

One of the main reasons for the low birth rates among Russians and other European ethnic groups and the high birth rates among Kazakhs, Uzbeks, and other Asian ethnic groups is the demographic transition undergone by these ethnicities. The demographic transition is a process during which a society transitions from high birth and death rates to low birth and death rates. This transition encompasses several stages and is closely linked to the socio-economic development of society.

Upon completing the demographic transition, society typically encounters several key changes:

1. Stabilization of Population Size: Birth and death rates reach low levels, leading to the stabilization of the population size.
2. Population Aging: A decline in birth rates and an increase in life expectancy result in a higher proportion of elderly individuals in the population.
3. Change in Family Structure: A decline in birth rates and changes in social norms can lead to a reduction in the average family size and an increase in the number of single-person households.
4. Economic and Social Challenges: Population aging can place a burden on pension systems and healthcare, necessitating the adaptation of social and economic policies.
5. Immigration: In some countries, immigration becomes an important factor for maintaining the size of the working-age population and compensating for low fertility.

Population aging has numerous significant consequences that affect various aspects of society:

1. Economic Consequences: A reduction in the labor force and an increase in the proportion of pensioners create a strain on pension systems and social welfare. This can lead to increased taxes and reduced economic growth.
2. Social Consequences: An increase in the number of elderly individuals requires the expansion of healthcare and social services. It can also lead to changes in family structures and an increase in the number of single-person households.
3. Healthcare: Population aging increases the demand for medical services and long-term care, requiring substantial resources and potentially leading to an overloaded healthcare system.
4. Consumer Activity: A decline in the youth population and an increase in the proportion of elderly individuals can lead to reduced demand for certain goods and services, impacting the economy.
5. Political Consequences: Population aging can alter the political landscape, as elderly individuals may have different priorities and needs compared to younger generations.

These changes necessitate a comprehensive approach to managing demographic processes and adapting to new socio-economic conditions.

Conclusions

The analysis of the age-sex structure of the population and ethnodemographic processes in Kazakhstan indicates the increasing influence of the global trend of aging, which affects various ethnic groups in the country differently. The identified trend toward aging has significant socio-economic implications: Kazakhstan, previously characterized by a

relatively young population structure, is gradually transitioning into a category of countries with an increasing proportion of elderly individuals. This process requires a revision and adaptation of many aspects of state policy, especially in the areas of healthcare, pension provision, and social protection.

The main ethnic groups in the country, such as Kazakhs, Russians, and Uzbeks, exhibit different rates of demographic aging, reflecting their reproductive behaviors and stages of demographic transition. Specifically, Kazakhs and Uzbeks, as representatives of Asian ethnic groups, maintain high birth rates and relatively young age structures. In contrast, European ethnic groups, such as Russians, face a higher proportion of elderly individuals and low birth rates, leading to demographic aging and population decline. These differences play a crucial role in shaping the ethnodemographic situation, affecting interethnic relations, social stability, and the long-term sustainability of the economy.

The demographic transition, at various stages for the ethnic groups of Kazakhstan, leads to a series of changes, including the stabilization of population size, an increase in the proportion of elderly individuals, and the transformation of family structures. A decline in birth rates and an increase in life expectancy result in a reduction in the proportion of young people, making it difficult to maintain the size of the working-age population. These changes present the state with challenges to enhance the efficiency of the pension system, develop medical services, and ensure employment opportunities for elderly citizens. One of the key priorities should be the development of gerontological care, as well as the formation of infrastructure that supports active and healthy aging.

For Kazakhstan, it is important to consider regional differences in the level of population aging, as the highest percentage of elderly citizens is observed in the northern and eastern regions of the country, while the southern and western regions maintain a younger population structure. These differences influence the economic development of regions and their social needs. Implementing regionally adapted population support programs, including medical services, social services, and affordable housing, will help address the consequences of aging and reduce the burden on more mature regions.

The ethnodemographic situation in Kazakhstan is an important aspect of interethnic relations and national policy. National censuses, conducted every ten years, provide updated data on population size, ethnic composition, and age structure, allowing for the monitoring of demographic changes and the assessment of demographic development prospects. These data confirm that in recent decades, the population of Kazakhs and other Asian ethnic groups has been growing, while the population of European ethnic groups is declining. A significant reason for this is the difference in reproductive behavior and the level of aging, particularly among Russians and Ukrainians.

In the context of an increasing proportion of elderly individuals, Kazakhstan must develop strategies that enhance the quality of life for this demographic group and their integration into social life. The older generation should be regarded as an important resource for society, and measures to actively involve elderly individuals in socio-economic life should become part of the national strategy. Creating accessible infrastructure, social support programs, and medical services will help maintain a high level of vitality among elderly citizens and their engagement in public life.

Thus, the results of the study emphasize the necessity of a comprehensive and interdisciplinary approach to demographic policy, based on an understanding of the ethnic and regional characteristics of population aging. Further demographic research and censuses will assist Kazakhstan in responding promptly to the challenges associated with aging and in creating conditions for sustainable and inclusive social and economic development.

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