

Results of the analysis and forecast of population reproduction at the macro and meso levels

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Abstract. In this article, on the basis of the research, trends in demographic processes at the macro- and meso-levels are determined, taking into account the influence of various factors. Based on the results of the analysis and forecast of the age structure of the population of the KBR, the main periods of the reproductive process of the population of the region were determined, the presence of demographic waves that are fading was revealed. It is substantiated that the expected changes in the age structure in the coming years will lead to depopulation. Based on the analysis of various situational models, ways to prevent population depopulation in the republic were identified, optimal parameters for ensuring a stationary and extended population reproduction regime were determined.

Keywords: forecast, situational models, population reproduction, age structure of the population, birth and death rates, demographic transition, internal and external factors

REFERENCES

1. Antonov A.I., Medkov V.M., Arkhangelsky V.N. *Demograficheskiye protsessy v Rossii XXI veka* [Demographic processes in Russia of the XXI century]. Moscow, 2002. 168 p. (in Russian)
2. Ashabokov B.A., Berova F.Zh. On one approach and some results of the forecast of demographic processes in the region. *Ekonomicheskaya nauka sovremennoy Rossii* [Economic science of modern Russia]. 2011. No. 4(55). Pp. 66–88. (In Russian)
3. Ashabokov B.A., Berova F.Zh. *Otsenka i prognoz pokazateley vosproizvodstva naseleniya KBR do 2015 goda* [Evaluation and forecast of indicators of reproduction of the population of the KBR until 2015]. *Materialy mezhdunarodnoy nauchnoy konferentsii "Modelirovaniye ustoychivogo regional'nogo razvitiya"*. Nalchik, 2005. P. 92. (In Russian)
4. Berova F.Zh. Age structure of the population and its role in the socio-economic development of the region. *News of the Kabardino-Balkarian Scientific Center of RAS*. 2020. No. 1(93). Pp. 3–11. (In Russian)

5. Berova F.Zh. *Metodologiya issledovaniya sotsial'no-demograficheskikh protsessov na mezourovne* [Methodology for the study of socio-demographic processes at the meso level]. Nal'chik: Izdatel'stvo KBNTS RAN. 2012. 264 p. (in Russian)
6. Berova F. Zh. Results of the analysis of time series of demographic indicators. *News of the Kabardino-Balkarian Scientific Center of RAS*. 2011. No. 4(42). Pp. 152–159. (In Russian)
7. Vishnevsky A.G., Andreev E.M., Treyvish A.I. *Perspektivy razvitiya Rossii: rol' demograficheskogo faktora* [Prospects for the development of Russia: the role of the demographic factor]. Moscow, 2003. Pp. 84–86. (In Russian)
8. *Atlas demograficheskogo razvitiya Rossii* [Atlas of demographic development of Russia]. Eds. Osipov G.V., Ryazantsev S.V. Moscow: Ekonomicheskoye obrazovaniye, 2009. 220 p. (In Russian)
9. *Demograficheskoye razvitiye Rossii v XXI veke* [Demographic development of Russia in the XXI century]. Eds. Osipov G.V., Rybakovsky L.L. Moscow: Ekonom-Inform., 2009. 340 p. (In Russian)
10. Ashabokov B.A., Berova F.Zh. *Prognozirovaniye demograficheskikh protsessov i analiz ikh vzaimosvyazi s sotsial'no-ekonomicheskim razvitiyem regiona* [Prediction of demographic processes and analysis of their relationship with the socio-economic development of the region]. Nal'chik: Izdatel'stvo KBNTS RAN, 2010. 176 p. (In Russian)
11. Berova F.Zh. On the need for a demographic policy in the KBR. *News of the Kabardino-Balkarian Scientific Center of RAS*. 1999. No. 3. Pp. 9–17. (In Russian)
12. Berova F.Zh. *Demograficheskiye volny 1980-kh i 1990-kh godov i puti preodoleniya demograficheskogo krizisa* [Demographic waves of the 1980s and 1990s and ways to overcome the demographic crisis]. *Materialy X mezhdunarodnoy nauchnoy konferentsii "Rossiya: klyuchevyye problemy i resheniya"*. INION RAN. Moscow. 2010. No. 5. Part I. Pp. 526–530. (In Russian)
13. Berova F.Zh. The results of forecasting the dynamics of the age structure of the population of the KBR. *News of the Kabardino-Balkarian Scientific Center of RAS*. 2009. No. 6(32). Pp. 18–26. (In Russian)
14. Berova F.Zh., Inarokova A.M. *Demograficheskaya situatsiya v KBR: vozrastno-polovyye osobennosti smertnosti naseleniya* [Demographic situation in the KBR: age and sex characteristics of population mortality]. *Materialy mezhdunarodnoy konferentsii "Zdorov'ye – osnova chelovecheskogo potentsiala: problemy i puti ikh resheniya"*. Sankt-Peterburg, 2007. (In Russian)
15. Berova F.Zh. Mortality Crisis: Diagnosis and Causes. *Prostranstvo ekonomiki* [Space of Economics]. 2010. Vol. 8. No. 1. Pp. 286–294. (In Russian)
16. Berova F.Zh. The results of a comparative analysis of morbidity and mortality of the population at various levels. *News of the Kabardino-Balkarian Scientific Center of RAS*. 2019. No. 4(90). Pp. 31–39. (In Russian)

17. Berova F.Zh. Some features of demographic processes in the republics of the North Caucasus. *Uspekhi sovremennogo yestestvoznaniya* [Successes of modern natural science]. 2004. No. 8. P. 124–130. (In Russian)

18. Atlaskirov A.R. Transformations in the system of value orientations of the youth of the Kabardino-Balkarian Republic. *Research result. Sociology and management*. 2019. Vol. 5. No. 4. Pp. 3–13. DOI: 10.18413/2408-9338-2019-5-4-0-1. (In Russian)

19. Atlaskirov A.R. Civilization identity in the regions of the North Caucasus (on the examples of Adygea and Kabardino-Balkaria). *Vlast'*. 2020. Vol. 28. No. 5. Pp. 135–142. DOI: <https://doi.org/10.31171/vlast.v28i5.7588> (In Russian)

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