

METHODICAL ASPECTS OF TYPOLOGY REGIONS IN TERMS OF DEMOGRAPHIC LOAD (ON THE EXAMPLE OF CENTRAL FEDERAL DISTRICT)

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Abstract. This article analyzes the indicators of demographic load of the population of the Central Federal District of statistical methods. Particular attention is paid to the methodological aspects of the typology of regions. The importance of taking into account temporal changes in indicators of demographic processes. Proposed time series of informative indicators of demographic processes approximate two-parameter nonlinear regression models – exponential time series for the dependency ratio of the population, hyperbolic – the index of aging. We obtain estimates of the parameters OLS regression models performed ranking regions of the CFA in their value. The methods of correlation and factor analysis revealed the relationship of model parameters, proved the possibility of reducing the initial set of parameters to two latent variables – the main factor. Proposed visual representation of regions in the plane of two parameters of the models of the dynamics of demographic processes, the most strongly correlated with the main factors – the calculated level of total dependency ratio and the rate of growth of the index. Proposed multi-dimensional visual grouping of regions of the Central Federal District of the two complementary methods of cluster analysis – hierarchical and iterative, which ensures the reliability of the classification of regions. They discussed areas of research indicators of demographic load of the population of the Central Federal District, using data from the All-Russia Population Surveys of 2002 and 2010.

Keywords: regions of the Central Federal District; dependency ratio of the population; index of population aging; time series; model parameters; typology; correlation analysis; factor analysis; hierarchical and iterative cluster analysis; resistance cluster solution.

JEL codes: J11; C22; C38.

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