

Analysis of mortality development in Russia using various decomposition methods

Abstract

The aim of this thesis is to analyze and evaluate mortality development in Russia in last 50 years by using various decomposition methods. The first part presents the method of decomposition of the difference between two demographic indicators (E. Kitagawa's method or methods from E. Arriaga, R. Pressat and J. Pollard). In the second part mortality development in Russia is analyzed by using methods that decomposed the value of demographic indicators in a given year. Mortality is divided into senescent and background component by using the Gompertz-Makeham formula and by using the logistic model. Afterwards, avoidable and unavoidable mortality and mortality due to endogenous and exogenous causes of death is analyzed. Hypotheses, set out in the introductory chapter, are verified by using different decomposition methods. Using multiple methods of decomposition enable to obtain a more complex view of the evolution of mortality in the observed period so that could be viewed from multiple perspectives and identify specific population trends in Russia.

Keywords: mortality, Russia, decomposition, senescent and background mortality, avoidable mortality, endogenous, exogenous, causes of death, mortality crisis