

ASSESSING THE IMPACT OF HUMAN CAPITAL ON ECONOMIC DEVELOPMENT: THE CASE OF RUSSIA'S HETEROGENEITY REGIONS

Julia Dubrovskaya

Elena Kozonogova

Perm National Research Polytechnic University

Perm, Russia

Assessing the impact of human capital on economic development is an urgent research problem. Its solution makes it possible to determine the optimal levels of state social expenditures that ensure maximum indicators of economic growth of territories.

The purpose of this work was to assess the contribution of human capital to the economic development of heterogeneous regions of the Russian Federation. The authors tested two hypotheses. Firstly, the assumption of the presence of spatial heterogeneity of the contribution of human capital across the regions of Russia was tested. Secondly, the presence of differentiation in the levels of human capital contribution to the economies of developed and developing regions was checked.

Spatial regression models based on panel data were used as methodological tools. The basic model for modification was the MRW-model. The statistical sample included data on 78 regions for 2010-2019.

In the course of the literary review, it was selected nine variables most frequently used by the authors in similar studies. Those variables characterize the level of education, health and culture in the regions of Russia as indicators of human capital.

In the process of testing the first hypothesis, Moran indices were calculated based on a binary neighborhood matrix. It has been proved that spatial effects are significant for human capital. At the same time, the estimates of regression models did not give clearly interpreted results. This is logically explained by the heterogeneity of the RF regions. To account for territorial differences, the clustering of regions by the level of innovative development was carried out. The main conclusions are as follows. Firstly, the maximum contribution to economic growth relative to other factors of human capital is provided by the level of healthcare. This means that in order to increase GRP in all types of regions the most effective strategy in Russia is to invest in improving the quality of public health. Secondly, a significant heterogeneity of the levels of the contribution of education to the gross products of different types of regions was revealed. According to the estimates, the contribution of education for developed regions is three times higher than in developing regions. These results are consistent with the previously obtained estimates of scientists analyzing data from developed and developing countries.

The study has clearly illustrated the heterogeneity of the influence of human capital on heterogeneous territories. This necessitates the creation of various mechanisms for managing territories of different types.

Funding: *The research was carried out at the expense of the Russian Science Foundation, project no. 21-78-10134, <https://rscf.ru/en/project/21-78-10134/>*