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**Barriers to the growth of human capital of highly-skilled professionals**

Scientific and technological progress, the development of an innovative economy, digitalization, penetrating all spheres of state, society, and human life, have now become the main drivers of economic growth in many countries. At the same time, the introduction of innovations and scientific achievements requires not only investments in their development, but also a sufficient number of employees with the necessary level of knowledge and skills, i.e., high-quality human capital. The main "carriers" of high-quality human capital are highly qualified specialists (professionals) in the modern economy. Meanwhile, existing studies show that this professional group is extremely heterogeneous in its composition and at the same time there are persons with both very high and low quality of human capital in it. Such heterogeneity attracts attention, because formally, in order to take professional positions of highly qualified specialists, it is necessary at least to obtain a diploma of higher education. However, everything is not so clear, and empirical studies record that some professionals have not studied at universities at all, and some have spent much more time on education and have a much wider set of necessary skills than is typical for an average specialist with a higher education. The purpose of our research was to identify the factors that determine such an increased attention of some highly qualified specialists to the quality of their human capital. Authors use the multinomial logistic regression and methods of content analysis based on the data of the RLMS HSE in 2019. It is shown that the main role in the processes of accumulation and renewal of their human capital is played by factors related to the specific of socio-economic institutions in Russia. Employment in the main sectors of the Russian economy – industry, trade, and services – does not require professionals to further increase their human capital. The concentration of enterprises from industries where highly qualified specialists are usually in demand in the most urbanized regions causes an unequal distribution of high-quality human capital between large cities and other localities. It is also shown that the influence of age on the processes of accumulation of human capital is nonlinear. The possibility to get into the group with the highest quality of human capital for professionals are drained even before the age of 40. At the same time, from the age of 45, the chances for them to have human capital with its typical quality for highly-skilled professionals begin to decrease, which is associated with discrimination in the Russian labor market of older workers and the inexpediency for them to invest in their human capital in these conditions. The results show how difficult it will be in the current conditions and considering the inevitable aging of the population to implement the plans of the country's leadership to increase the share of high-tech enterprises and increase labor productivity without changing the institutional environment.