EDUCATIONAL TRAJECTORIES OF RUSSIAN POPULATION

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Abstract

The study is aimed to analyze the educational trajectories of Russian population in the context of age groups, to identify the prevailing types of trajectories and trends in their changes. The information base of the study is the annual panel household survey RLMS-HSE, representative at the national level. There were used data on the age of respondents, presence of diplomas of different levels of education, time of their receipt, code of the obtained profession by ISCO2008.

As a result, for the population grouped on 10-year age intervals the following characteristics of educational trajectories for different periods of time were received: distribution of the population by number of formal levels of education, the share of the population received formal education during the analyzed period (in a section of quantity and levels), the share of the population having vertical and horizontal educational trajectories.

The obtained data indicate a significantly increased educational mobility of Russian population, especially for young people. Young people who initially receive lower-level vocational education still receive higher education in the future. At the same time, young people are more likely to receive non-full-time education, which is assessed as low-quality education in Russia.

Key words: education, educational trajectories, social mobility, Russian professional education

JEL Code: J200, J240

Introduction

The educational trajectory is defined by specialists as a set of educational practices of an individual, a series of positions taken by an individual in a transforming educational space (Bourdieu, 1986; Gorard, Rees & Fevre, 1997). In the analysis of educational trajectories, the emphasis is made not on the progressive movement from lower to higher levels of education, but on the flexibility and consistency of the different stages of learning, including nonlinear and reversible motion (Cam, 2009).

Analysis of educational trajectories of population is important from several points of view. First, the recognition of the modern education economy as the most important factor of economic growth actualizes research on the accumulation of human capital and its impact on different cohorts of the population in the context of growing demand for education and alternative training in the workplace. Studies show significant cross-country differences in learning outcomes (Hanushek, Schwerdt & Woessmann, 2017).

Second, education is one of the few channels of social mobility. In this context, the choice of educational trajectories may have unequal consequences for individuals in terms of access to subsequent levels of education and, in this sense, form restrictions on their individual development, economic and social inequality (Crawford, Gregg & Macmillan, 2016).

Third, the choice of an individual's educational trajectory can be determined to varying degrees by historical and geographical contexts, social environment, including family. Therefore, educational trajectories available to people can reproduce social inequality, or, on the contrary, indicate an increase in equality of opportunity. A significant number of studies in this context are carried out on the example of individual countries and devoted to the impact on intergenerational educational mobility of family characteristics such as income level, education of parents, place of residence, gender, etc. Many authors conclude that the correlation between children's education and socio-demographic characteristics of the family is weakening, noting the uneven impact of the general trend on different groups of the population (Izquierdo, Escobar & Torres, 2010; McIntosh, 2010; Roshchina, 2012; Latif, 2018).

The peculiarity of the Russian case is due to the fact that in the last quarter of a century in Russia there was a boom in demand for higher education in all social groups, resulting in a significant change in the structure of the population by level of education (Roshchina, 2012; Voznesenskaya & Cherednichenko, 2012; Cherednichenko,2014). At the same time, it is important for us to understand how effective certain educational trajectories are in terms of the quality of education, the possibility of further training and the demand for skills in the labor market.

1 Methods of research

The study of educational trajectories of the Russian population was carried out on the data of the study The Russia Longitudinal Monitoring Survey - Higher School of Economics (RLMS-

HSE) (26th round, 2017)[1]. The sample included 8268 people from 20 to 69 years. To identify changes in educational trajectories, they were grouped into 10-year age intervals (20-29 years, 30-39 years, etc. to 60-69 years). The choice of age limits is explained by the fact that people of younger ages are at the beginning of the choice of educational trajectory and, as a rule, do not have completed vocational education. The upper age limit is determined taking into account the period of economic activity. It is 5 years higher than the new retirement age for men.

Educational trajectories were studied for each age group in several sections.

1. Maximum level of formal education (there was taken into account only completed education confirmed by the issued document). Taking into account the conjugation of the education system and the labor market, we decided to limit the analysis of educational trajectories of the population by vocational education. It was divided into three groups:

- Vocational education in courses or schools, not involving full secondary education;
- Secondary vocational education, the result of which is the profession of a skilled worker or an employee of secondary qualification;
- Higher education at various levels (bachelor's, master's or specialist, which is currently equivalent to master's).

2. Trajectory characteristics related to:

- number of educational programs;
- orientation of educational mobility (upward, horizontal, downward);
- profile of educational trajectories;
- gaps in time between education;
- form of education.

In Russia, along with the traditional system of training (full-time education), other forms are quite widespread: evening (training after the end of the working day) and distance (mainly self-study by students attending short-term sessions twice a year). The education received not in full-time form, experts estimate as lower on quality. The increase in the number of educational programs may indicate, on the one hand, the flexibility and adaptability of the population, and on the other – the imbalance between the labor market and the market of educational services. To solve this problem, the methods of descriptive statistics and the matrix of transitions between higher, secondary vocational and primary vocational education

[1] "Russia Longitudinal Monitoring survey, RLMS-HSE», conducted by National Research University "Higher School of Economics" and OOO “Demoscope” together with Carolina Population Center, University of North Carolina at Chapel Hill and the Institute of Sociology of the Federal Center of Theoretical and Applied Sociology of the Russian Academy of Sciences. (RLMS-HSE web sites: http://www.cpc.unc.edu/projects/rlms-hse, http://www.hse.ru/org/hse/rlms)

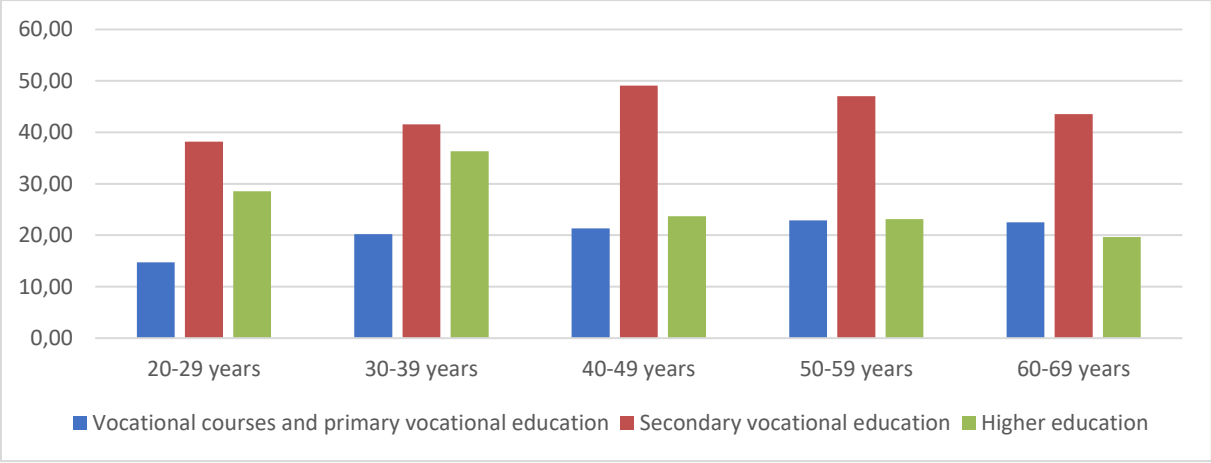
(professional courses) were used, which show the probability of obtaining further education by the respondent.

3. Evaluation of the probability of receiving higher education in full-time form, depending on the profile of education, sex and age of the individual, place of residence at the time of graduation and school performance using logit regression.

2 Results of research

The formal characteristics of education of the Russian population in all age groups are quite high and tend to increase due to the increased coverage of young people with higher education (Fig. 1). The age group of 30-39 years stands out especially against the general background; the coverage of higher education in this group is 1.5 times higher than the same indicator for older ages. A slight decrease in the prevalence of higher education among the population of 20-29 years is due both to the fact that some people of this age are still in the process of obtaining education, and the results of the state policy to close universities that provide educational services of poor quality.

Fig. 1: Level of education of the Russian population in the context of age groups, % of the corresponding age group



Source: authors.

Younger Russians are not only more educated but also more mobile (Tab.1). On average, every Russian citizen between the ages of 20 and 69 has a professional education. For a generation of 30-39 years, this value is even slightly higher – 1.08 professions. Compared to the older population, younger people are more likely to receive formal education. For example, 33.7% of people in the age group of 30-39 years received additional formal education during

their lifetime (without taking into account the development of their basic profession). For comparison, in the age group of 50-59 years this share is 23.3%, and in the age group of 60-69 years – 18.9% (the same as in the age group of 20-29 years, only entering the labor market).

Analyzing the changes in the level of education of the population, we can note the predominance of upward mobility over downward mobility in all age groups. But at the same time, significant intergroup differences are also recorded.

Tab. 1: Probability of transition between levels of education by age groups

The first level of education	The second level of education		
	Higher education	Secondary vocational education	Vocational courses and primary vocational education
20-29 years			
Higher education	0.056	0.000	0.032
Secondary vocational education	0.142	0.030	0,055
Vocational courses and primary vocational education	0.158	0.127	0.118
30-39 years			
Higher education	0.110	0.011	0.116
Secondary vocational education	0.269	0.060	0.128
Vocational courses and primary vocational education	0.090	0.060	0.180
40-49 years			
Higher education	0.143	0.011	0.093
Secondary vocational education	0.172	0.045	0.110
Vocational courses and primary vocational education	0.047	0.067	0.151
50-59 years			
Higher education	0.059	0.003	0.098
Secondary vocational education	0.117	0.045	0,103
Vocational courses and primary vocational education	0.040	0.079	0.170
60-69 years			
Higher education	0.081	0.007	0.1176
Secondary vocational education	0.088	0.039	0.0688
Vocational courses and primary vocational education	0.038	0.076	0.1540

Source: authors.

Thus, in age groups of 20-29 years and 30-39 years, the probability of obtaining higher education after secondary vocational and primary vocational education is much higher than in other age groups. In recent years, the Russian state has taken a number of measures aimed at increasing the demand of young people for non-higher education programs, including through the redistribution of resources aimed at financing professional programs of various levels, tightening the requirements for admission tests. In these circumstances, young people, choosing

primary vocational or secondary vocational education, however, still focus on higher education. Confirmation of this thesis is the fact that people with primary vocational education and professional courses gradually turned from the most immobile in older age groups into the most mobile. Opportunities for accelerated receiving higher education after secondary vocational training, provided by Russian legislation, and a different procedure for passing entrance examinations also confirm this point of view.

For the population groups of 30-39 and 40-49 years we note the high level of horizontal educational mobility for people with higher education. In these groups, 11.0% and 14.3% of the population have two diplomas of higher education, what is probably caused by the lack of demand in the market economy of educational programs and diplomas obtained during the existence of the USSR, as well as the difficult and protracted transition of the country to a market economy in the 90s of the 20th century. In such circumstances, young graduates of Russian universities had to retrain.

The age of education has also changed significantly (Tab. 2).

Tab. 2: Average age of education by age groups (years)

	Age at the time of education					
	Higher education		Secondary vocational education		Vocational courses and primary vocational education	
Age group	first	second	first	second	first	second
20-29 years	22.81	24.74	19.71	21.63	19.93	22.07
30-39 years	24.49	27.86	20.02	23.98	22.17	26.31
40-49 years	26.84	32.28	20.00	28.44	23.09	29.09
50-59 years	25.77	38.78	20.44	28.91	22.80	33.84
60-69 years	25.57	33.18	21.23	28.44	23.23	30.67

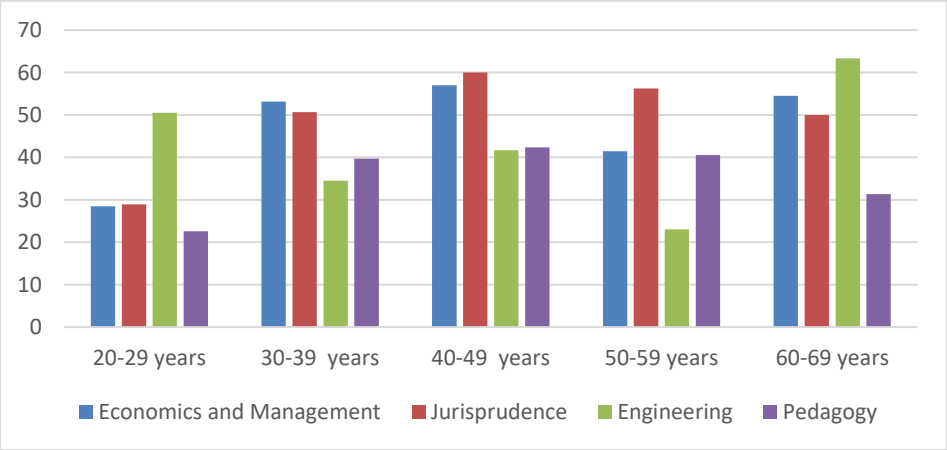
Source: authors.

The first time the level of higher and primary vocational education is obtained at an earlier age today. The variance in the age of higher education is also decreasing (from 6.1 to 1.7). In cohorts of 40 years and older a person received the first higher education after 25 years. Today a person can have two diplomas of higher education by this age. Part of the decline in the age of receiving higher education is due to the transition of the Russian education system from five-year to four-year higher education programs and the introduction of the second level of higher education - master's degree. It was assumed that bachelors will enter the labor market earlier, and then, after accumulating the necessary experience, they will choose the subsequent specialization in the master's degree. However, as the analysis shows, this reform did not lead

to the expected consequences. The actual gap in terms of receiving the second education indicates that the training takes place immediately after the bachelor's degree, often without gaining sufficient experience in the labor market and an understanding of career development. For the other two levels of education, rapid secondary education is also an alarming symptom. If a young man, barely entering the labor market, changes his profession, it may indicate a deep imbalance in the system of Russian education.

Another problem that deserves attention is the increase in the number of students receiving higher education not in a full-time form. Introduced in Soviet times, these forms of training were designed for the working population, which received theoretical knowledge, working in enterprises in these or similar professions. At present time, however, the link between non-full-time education and practical activities in the labor market is completely lost. That is why the increase in the proportion of students in distant form of education increases the risk of reducing the quality of education. Among people with higher education at the age of 50 years and older, one in three respondents received education in a distant form, and in the groups of 30-39 years and 40-49 years this figure is 46.7% and 47.1%, respectively. The share of second higher education received in a distant form reaches 66.7-82.3% for groups aged 30 years and older. Among the programs that are not implemented in full-time education, in all age groups the "leading" programs are in the field of Economics and Management, Law, Engineering and Pedagogy (Fig.2).

Fig. 2: Prevalence of distance/part-time education in the context of programs and age groups, % of the total number of people with higher education of the relevant profile



Source: authors.

Given that distance learning is much cheaper, as well as the fact that the Russian population is increasingly choosing the level of master's degree as a second education, there is

a risk of reducing the quality of education, and with it – the quality of human resources, which will have high formal, but not real quality characteristics.

Unfortunately, the RLMS-HSE database used in the work does not allow to analyze in detail the social characteristics of respondents who decide to get higher education in different forms of education.

At the same time, the available data allow us to verify the existence of a link between full-time higher education and a number of predictors:

- education profile (Economics and Management, Law, Engineering, other);
- place of residence of a person at the time of graduation, which determines the territorial accessibility of higher education (Moscow or St. Petersburg; cities or towns in Moscow or Leningrad region; regional or regional center; another city; village);
- gender and age of completion the education;
- age cohort: young people (20-29 years), middle age (30-49 years), older (50-69 years).

The model based on the whole sample showed that today's young people, as well as middle-aged people, are less likely to receive a diploma of higher education in a full-time form than older people ($p<0.01$). Comparing the models obtained for different cohorts, it is possible to note substantial differences:

For all age cohorts, the probability of receiving full-time education is higher for girls than for boys ($p<0.01$ for youth and middle-aged cohorts, $p<0.05$ for middle-aged cohorts).

The absence of differences related to the place of residence at the time of graduation indicates a sufficiently high availability of education for residents of different regions and types of settlements.

There was found the expected statistically significant negative impact of age on full-time education in the middle and older age groups. It is also expected that in the cohort of young people its influence is statistically insignificant.

For all age groups, there is a lower probability of receiving full-time education when choosing a program in the field of Economics and Management ($p<0.01$ for a cohort of young people, $p<0.05$ for other groups). For Law and Engineering programs, the negative effect was revealed only for the middle-aged group ($p<0.05$).

Conclusion

The results show that the availability of education for young people in Russia has become higher in comparison with older generations. This conclusion applies both to the increase in the average level of education and the increase in vertical educational mobility. The obtained data indicate that the consistent receipt of different levels and profiles of education without long breaks in training has become a social norm for modern Russian youth.

Reducing the gap between the first and second degrees to two years means that young people do not actually have time to enter the labor market, to consolidate skills in the profession and to make an informed decision on the feasibility of further training and its direction. As a result, part of the investment of society and the youngest person in professional skills does not pay off.

High demand for education gives rise to another problem that is associated with the increasing incidence of training is not in a full-time form. This trend has particularly affected the training of economists and managers, to a lesser extent – programs in the field of Engineering and Law.

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