Vera A. Maltseva, Higher School of Economics (vamaltseva@hse.ru) Natalia Ya. Rozenfeld, Higher School of Economics

"The Roads We Take": Education and career pathways of the Russian universities' graduates in longitudinal perspective¹

The educational and career pathway can be pictured as status sequencing in education and the Labour market. Due to the increasing nonlinearity and complexity of paths, the term of entering the labour market, a one-time transition from education to employment is increasingly losing its relevance. Longitudinal data help to overcome this limitation and explore educational and career trajectories in their complexity.

Sociologists study the transitions between study and work within the framework of the concept of life path (Monaghan, 2020; Pavlenko, Yakubovskaya, 2020) or patterns of transitions and institutional, social, and other contexts of these transitions (Walther, 2006; Lorentzen et al, 2019). Labour economists focus on the result of the trajectory, the returns on investments in human capital, and the criterion is employment status and wages (Roshchin, 2006; HSE, 2020; Roshchin, Rudakov, 2017; Dudyrev, Romanova, Travkin, 2020). We embrace both approaches and investigate educational and career pathways of the recent graduates on longitudinal data following the sociological approach but considering the key findings of labour economists.

The study aims to identify the diversity of trajectories and to make assumptions about the nature of these differences. Our research answers the following questions: What are the educational and career paths of the recent graduates, how do they differ from each other? What individual and contextual characteristics can be associated with a particular pattern?

Empirical data and methodology

The empirical basis of the study is the nine waves (2012-2020) of the national cohort panel study "Trajectories in Education and Career" (TrEC). We trace the nine-year trajectories of those who have received higher education by 2020. We use sequence-cluster analysis, identifying and clustering patterns of status changes in education and the labour market (Brzinsky-Fay, 2014; Brzinsky-Faya, Solga, 2016; Monaghan, 2020). Nine statuses were introduced for the sequence analysis: 1) studying at school; 2) studying at vocational school; 3) studying at the university; 4) combining university studies and work; 5) combining vocational school studies and work; 6) temporary employment; 7) permanent employment; 8) inactivity; 9) unemployment. The research sample of the graduates who passed all the waves of the longitudinal study includes 1247 observations.

As a result of the sequence-cluster analysis, we identified nine clusters (patterns) of educational and career trajectories. Then we conduct a descriptive analysis of the patterns and examine the relationship between the characteristics of patterns and a set of variables (socio-economic, demographic characteristics, human capital measures, characteristics of the region of residence).

¹ This paper is an output of a research project implemented as part of the Basic Research Program at the National Research University Higher School of Economics (HSE University).

Findings

1. We detected three types of patterns in the educational & career pathways of the recent graduates: short training and work, long training, and mixed type. The pathways are distinguished by the four features: prolonged education (master's degree), the combination of study and work, duration of work experience, and the duration of being in a precarious position.

- Descriptive analysis of the patterns showed that the boundary between study and work has blurred. Most graduates have worked and studied longer than the time spent without the combination of study and work. The linear trajectory "high school-university-permanent job", as in other countries, is turning into an exception.
- Studying at the master's level is becoming a distinct education & career track. However, patterns associated with master's degrees are not homogeneous and can hardly be interpreted as "academic" pathways. Also, there are differences in participation in the prolonged education patterns depending on the field of work.

2. We found the relationship between the characteristics of patterns and socio-demographic characteristics of participants (cultural capital, marital status), academic ability (mathematical literacy according to TIMSS), and characteristics of the region of residence (labour market tension and regional higher education system):

- The symptoms of socio-economic inequality can be detected in the analysed educational and career pathways. Likewise, we found some gender differences. Despite women representing the majority of graduates, the achieved level of higher education of young women turned out to be lower than their educational aspirations and vice versa for men.
- The region of residence appears as another issue of inequality, as it is associated with the type of pattern and success in the labour market. The duration of education is positively associated with the development of the regional higher education system, and the prevalence of precarious status is associated with the labour market tension.

Our research contributes to the studies of the graduates' employment and life trajectories of the youth. The use of longitudinal data and sequence analysis enables us to obtain a comprehensive view of the educational and career paths of those who received higher education by the age of 25. Subsequently, these results, the output from sequence analysis and cluster analysis, can be used to assess the link between starting conditions and future educational & career pathways, thus identifying predictive markers of transition pathways.