# CONTRADICTIONS IN THE STRATEGIES OF LABOR BEHAVIOR OF EMPLOYEES OF PRE-RETIREMENT AGE IN THE FIELD OF EDUCATION (ON THE EXAMPLE OF THE OMSK REGION)

# Anna Arbuz – Vladimir Polovinko

### Abstract

In Russia, an increase in the number of schoolchildren is observed in connection with demographic processes. Currently, there is a shortage of teachers both in absolute terms and in the structure of teaching subjects. The problem of evaluating and predicting the strategy of labor behavior of people of pre-retirement age is becoming important from the point of view of whether the educational system will be provided by qualified teachers. The aim of the study is to identify strategies of labor behavior of workers of pre-retirement age of the Omsk region in the field of education. The study explores the hypothesis: most educators plan to continue working in their organization without changing their profession; the conditions for the development of pedagogical competencies do not fully correspond to the required level; special programs for teachers of retirement and pre-retirement age are required. The main groups of factors that influence the choice of a strategy of labor behavior, in particular economic, social, psychological, are identified and studied. The readiness to undergo training, including on state programs, was revealed in case of insufficient level of development of the competencies required by the employer.

Key words: labor behavior, employees of pre-retirement age, field of education

**JEL Code:** J21, J24, J26

# Introduction

In connection with the demographic processes in Russia there is an increase in the number of schoolchildren. Over the next 5 years (until 2025) only in the Omsk region will increase their number by 14.2%. At the same time, there is already a shortage of teachers both in absolute terms and in the structure of teaching subjects. So, according to the Ministry of Education of the Omsk Region, already at the beginning of the 2019-2010 school year, the shortage of teachers in schools was 724 people. In addition, changes in pension legislation aggravates the question of what strategies for labor behavior and employment will be chosen

by people of retirement and pre-retirement age. According to Omskstat data, as of January 1, 2020, the percentage of elderly (retirement and prepenion) people in the Omsk Region was 34.8% of the population of the Omsk Region. Among those employed in the field of education, this percentage is 27% (an increase of 18% over the past 5 years). To ensure the education system with labor resources, the fundamental question remains: will they remain in their profession or will they prefer to change their employment. Radical changes in the education system present new requirements (digitalization, new technologies, flexible education systems, online training, etc.) require the development of new competencies, the readiness of which is assessed by a low level among the employed population. Therefore, the problem of evaluating and predicting the strategy of labor behavior of people of pre-retirement age becomes important in terms of whether the education system will be provided by qualified teachers.

The literature partially presents the results of studies on the problem. So, for example, Frolov Yu., Officers V., Officers M., Shabanov E. (2011), Vitchenko N. N., & EPP V. Ya. (2018) forecast the need for teaching staff, combining normative and statistical forecasting methods. Strategies of labor behavior of workers in the labor market under the influence of various factors are studied by Elkina O., Polovinko V. (2007). Methodological issues in assessing and predicting labor behavior are reflected in Verhoven V. (1991). The activity of persons of the third age is considered in the works of Bejakovic P., Mrnjavac Z. (2020), Brussig M., Drescher S.E., Kalina, T. (2020), Hofaecker, D., Naumann, E. (2015), McAllister A., Bentley L., Bronnum-Hansen H. et al. (2019), Nilsson K., Hydbom AR., Rylander L. (2011), Sewdas R., de Wind A., van der Zwaan L. G.L., et al. (2017), Taylor MA., Shore L. (1995). A series of articles are devoted to the regulation of employment of older workers (Torka N., Goedegebure I., van Ewijk I. et al. (2012), Chistova E. (2019), Ryabova, T., Frolova, E., Rogach, O., & Kirillov, A. (2018)).

# **1** Sample model and method

The aim of the study is to identify strategies of labor behavior of workers of pre-retirement age of the Omsk region in the field of education. Research objectives: to study the types of strategies for labor behavior of workers of retirement and pre-retirement age in the field of education; to identify factors that influence the choice of a strategy of labor behavior associated with continued employment in the field of education; to determine the conditions and obstacles for the development of modern competencies among teachers: to offer

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recommendations on adjusting strategies for the labor behavior of teachers of retirement and pre-retirement age.

To achieve this goal, we conducted a survey of education workers in the Omsk Region of retirement and pre-retirement age from 50 to 65 years. The population as of January 1, 2020 is 13900 teachers. At the first stage, the number was determined in accordance with the share of the population of pre-retirement and retirement age (34.8% of the population) - 4837 people. At the second stage, a sample of respondents is determined with a confidence level of 95% and a sampling error of 5% - 356 people. At the third stage, the distribution for urban and rural population was taken into account. In accordance with the share of urban (69.9%) and rural (30.1%) population, we interviewed 249 and 107 teachers. The study was conducted in January-February 2020.

Research hypotheses: the majority of respondents plan to continue working in their organization without changing their profession. The conditions for the development of pedagogical competencies do not fully correspond to modern requirements; special programs are needed for teachers of retirement and pre-retirement age.

The basic research question is the choice of a labor behavior strategy. Two main strategies were identified: continue to work / stop working. Further, among those who assume the continuation of labor activity: work by profession / change profession. The combination of the second choice: in your organization / in another organization. To solve the second problem, the factors influencing the strategy of labor behavior were investigated. They are divided into external (economic, organizational, managerial, socio-psychological) and motivational (psycho-physiological, material, recognition / status, labor content). To solve the third problem, the barriers and conditions for continuing work in the profession were studied, where it was studied: the impact of development of competencies, social package, social and psychological support, material support on the choice of strategy.

# 2 Results

Based on the analysis of statistical data, it was revealed that due to the increase in the number of students in secondary schools, the annual additional need for teachers will be 915 people, taking into account the boundaries of retirement and staff turnover - 1235 people. At the same time, the number of graduates of the pedagogical university of the corresponding training profile is about 570 people. Thus, the training of personnel does not make it possible to cover the need, which aggravates the problem of providing the region's education system with

qualified personnel, including by increasing the duration of teachers' work after retirement. Therefore, it is advisable to measure the strategies of labor behavior for teachers of retirement and pre-retirement age (see table 1).

Tab. 1: Strategies of labor behavior for teachers of retirement and pre-retirement age
(% of respondents)

Strategies	Continued employment in the	Continued employment outside
	organization	the organization
Employment in the education system	43.3	9.8
without a change in profession		
Employment outside the education	8.3	7.2
system with a change in profession		
I do not suppose labor activity	31.4	

source: own research

The survey showed that 67.6% of respondents expect to continue working at school after retirement age. Thus, when creating the appropriate conditions in the field of the education system, more than 50% intend to continue their labor activity. About 10% of teachers will continue pedagogical work in the framework of tutoring and further education. About 15% intend to change their profession. To this should be added the number of teachers who intend to complete work after the retirement age (about 30%). The main hypothesis was partially confirmed, while it was noted that a significant proportion of teachers still intend to leave the professional sphere.

To solve the second problem, the factors influencing the choice of a strategy of labor behavior were studied. To calculate the coefficient of influence, the Likert scale was used (see table 2).

An analysis of the factors shows that the value of the external conditions relative to the personality is significantly higher. This indicates that the potential of managerial and organizational measures affecting the choice of strategies for labor behavior is high. By adjusting these parameters, you can significantly adjust the choice of strategy. A significant impact lies in the area of material security - the size and fairness of wages, social support measures and benefits. This conclusion confirms the answer to the question about the projected financial situation after retirement. The Cramer correlation coefficient between the question of the level of material security at present (the modified Likert scale) and the strategy of «staying in the education system without changing a profession» is 0.67 with a confidence interval of p = 0.05.

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Coefficient of influence:			
0-no effect, 5-strong effect			
External factors			
4.2			
4.5			
3.6			
Motivational factors			
3.1			
4.4			
2.7			
3.5			

Tab. 2: Factors affecting teachers' choice of strategies for labor behavior (K = 0-5)

source: own research

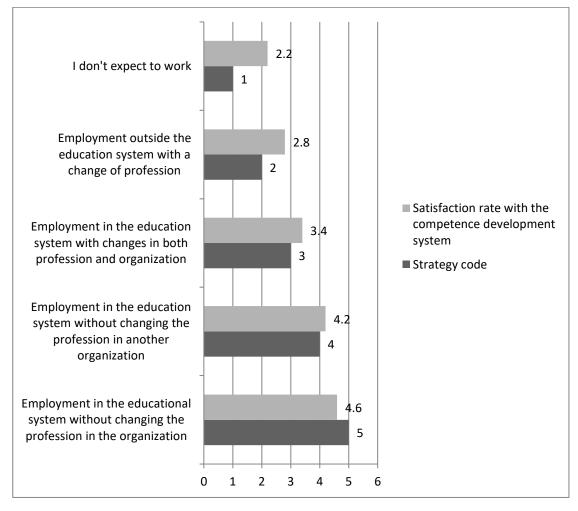
At the next stage of the study, questions were studied about what could influence the decision to choose the strategy «to remain in the education system without changing the profession». According to respondents, confidence in the future, material well-being can increase measures of social benefits and social programs. In the first place in the list of such events is «medical care at the expense of the state and organization», «vaccination against diseases at the expense of organization»). This is important for almost every respondent (97%). The introduction of such norms would make it possible to adjust the choice of strategy for almost half (46%) of the respondents. Note that the relevance of this completely correlates with the characteristics of the studied social group. Among the measures of social benefits and support, the popular ones are «providing vouchers to sanatoriums» (86%), «compensation for food expenses» (77%).

The last of the above measures is related to the fact that teachers are currently forced to spend more than 10 hours at work. The lack of teachers and the need to increase their earnings dictate the need to work for more than one rate. In the Omsk region, currently the proportion of teachers performing additional functions working at 1.5 or more percentages is 68%. According to the respondents, this leads to stress, reduces the quality of teaching, and does not make it possible to pay sufficient attention to the family and leisure. Almost all

respondents (89%) who chose the strategy «not to continue working» and «to continue working outside the sphere of education» choose the factor of high workload as the main reason. Thus a vicious circle arises. On the one hand, overload is associated with a lack of teachers. On the other hand, it is for this reason that staff turnover from the field of education occurs.

To increase the number of teachers choosing the strategy «employment in the education system without changing the profession», it is important to create an effective system for developing the competencies of teachers. Respondents perceive this factor both from the perspective of threats and from the perspective of opportunities (see figure 1).

Fig. 1: Influence of satisfaction with the system of development of teachers ' competencies depending on the strategy of labor behavior



source: own research

To assess satisfaction with the teacher competency development system, the question «How well does the established competency development system meet your requirements?». Was used During processing, the Likert scale was used (0 - fully consistent, 5 - completely

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incompatible), the satisfaction coefficient was calculated as a weighted average. The answer options for choosing a strategy were assigned ciphers that met the criteria (in the profession, in the organization - outside the profession, outside the organization). Based on this, the Gamma correlation coefficient is calculated, which is 0.76, the probability of error is p = 0.001. This confirms the strong connection between the influence of satisfaction with the development of competencies on the choice of a strategy for labor behavior. The higher the satisfaction with existing practices for developing competencies, the greater the likelihood of choosing a labor behavior strategy that focuses on preserving the profession in the future.

# Conclusion

Thus, the study showed that due to the increase in the number of students until 2030, the annual need for teachers for secondary schools in the Omsk region will be more than 1 thousand people. Accordingly, it is planned to expand the hiring of non-specialists with a decrease in the quality level of the teaching staff. One way to solve the problem is to create conditions under which teachers of retirement and pre-retirement age will remain in the profession, in the education system. For this, it is necessary, including:

1. Create conditions for increasing teachers' salaries. Currently, the Government of Russia is taking certain measures, but they must be accompanied by mechanisms that provide for a gradual reduction in the burden of teachers so that the current level of wages allows them to work at a single rate (without an extensive increase in the load in order to ensure an acceptable level of material well-being).

2. To expand social guarantees and benefits for teachers, with particular attention to be paid to measures that compensate for the costs of medical care, recreation, leisure.

3. The reduction of psychological barriers and the growth of professionalism is possible on the basis of modern requirements for the development of teachers' competencies. At present, according to respondents, the system is characterized by formalism and does not fully meet the real needs of teachers. It should contain programs for the development of digital competencies, the psychological aspects of interaction with students and parents.

4. Effective implementation of measures to adjust labor behavior strategies will reduce the need for teachers by approximately 50%.

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#### Contact

Anna Arbuz Omsk F.M. Dostoevsky State University Russian Federation, Omsk city, Mira pr. 55a <u>denezhkina1@mail.ru</u>

Vladimir Polovinko Omsk F.M. Dostoevsky State University Russian Federation, Omsk city, Mira pr. 55a <u>pw3@mail.ru</u>