### PERSONNEL REJUVENATION AND MENTORING AT RUSSIAN INDUSTRIAL ENTERPRISES: PROBLEMS AND SOLUTIONS (ON AN EXAMPLE OF OMSK REGION)

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#### Abstract

Many Russian industrial enterprises have human security problems. Young people do not really want to go to work in the real sector of the economy. The personnel working in the factories are now pre-retirement or retirement age. First of all, if a company wants to provide human resources security it attracts young people transferring best practices and knowledge from generation to generation and retaining young employees in the organization. That is why it is interesting to study the experience of industrial enterprises in these matters. The article analyzes the experience of 12 industrial enterprises of the Omsk region. The source of information is the results of a survey of heads of personnel services of industrial enterprises in the Omsk region (February, 2018). The main goal of the study is to study the best practices for attracting young staff, mentoring systems and keeping young people in factories.

As a result of the research, the main characteristics of the problems encountered by industrial enterprises of the Omsk region were obtained. The article presents average values that confirm the general trend in the labor market. Also, the authors review the mentoring systems, which, unfortunately, are often only formal. However, there are some exceptions. The best practices of mentoring that are identified as a result of the research are also presented in the article.

In addition, the article presents the experience of personnel services regarding the retention of young employees. The basic motive for working in difficult working conditions of an industrial enterprise, as the study has confirmed, is wages. How much and how to pay to beginners? The authors give an answer to this question, based on the opinion of heads of personnel services of industrial enterprises in the Omsk region.

Key words: management, rejuvenation, mentoring, youth, personnel, production

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

#### Introduction

Today many Russian industrial enterprises face such a problem as "aging personnel" - the average age of workers is more than fifty years. That is why the question of attracting, training and retaining young personnel is very important. At the same time young people are not ready to work at the real sector of the economy/ They prefere to work ih other industries earning the same money, for example, in the trade. How do industrial enterprises solve this problems? What sources of personnel are used by enterprises? Which sources are the most effective?

In any plant, the staff can be divided into three categories: main, auxiliary and administration. In which of them are the most difficult problems in the age structure?

Attraction is one of the tasks. It is important that the newcomers successfully cope with the tasks. The companies can buy the ready-made specialists in the market or prepare them by themselves. After the reform of the education system, unfortunately, there are no specialized educational institutions in the Russian Federation that would purposefully train the main workers for the plants. How this problem is solved in Omsk?

The main workers can be trained on the production site by the forces of working employees. But the auxiliary workers must have basic technical competencies to ensure the uninterrupted operation of the equipment. Moreover, for any production, it is important that personnel have such technical competencies which are so unique that only several employees have them. Another difficulty is that technical competencies are formed over a long period of time. To become a productive employee, technical experts, in addition to theoretical knowledge and experience, it is very important to study the specifics of the equipment of a particular enterprise. That is why it is important to develop a system of mentoring (De Waal A. et al, 2016). At the same time, the mentor who has unique technical competencies must be able to teach others and moreover has a desire to do it. In practice it is difficult to find such mentors. What technologies and tools do HR managers use to implement the continuity of knowledge and generations in the industry? How do they choose and motivate the mentors? Are there any differences in mentoring for the main and auxiliary workers? Do these technologies apply to administrative personnel?

One more very difficult task is how to keep the trained young employees in the organization. You can find a young specialist, conclude an employment contract with him, teach him how to work, let him acquire the necessary experience and lose it. competitors will offer better conditions for work. What should be done in order not to become a free base for

industrial training for other industrial enterprises? What can keep young people in production?

#### **1** Analysis of the situation with personnel at industrial enterprises in

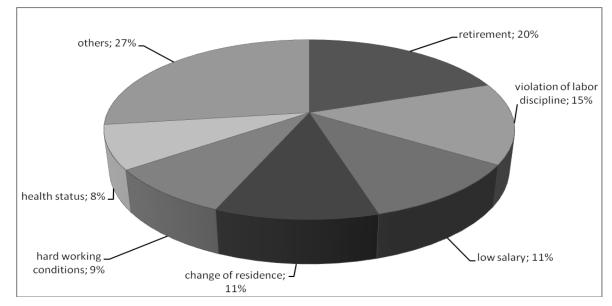
#### the Omsk region

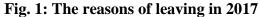
In February 2018 in the Omsk region, the authors of the article carried out a study of the work experience in providing personnel security at 12 industrial enterprises. The HR managers took part in the survey. Researchers were interested in the relevance of the theme of rejuvenation of personnel to industrial enterprises, the sources of recruitment and staffing, the technologies of adaptation and mentoring used, as well as ways to keep young people. The main results are presented in the article.

#### 1.1 Personnel movement in 2017

The first thing we would like to stress is that all the organizations that participated in the study noted that in 2017 the balance of personnel movement (admission-dismissal) was negative. This means that more employees were dismissed than accepted. This difference ranges from (-17) to (-66) people, which is 1-3% of the total number of enterprises.

1. In the course of the survey, experts were asked to estimate the percentage of the main reasons for the dismissal of employees in 2017. The general results are shown in Fig. 1.

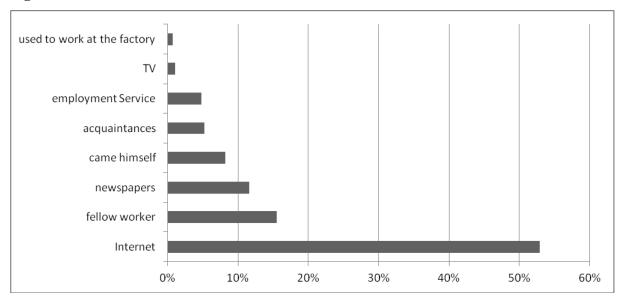


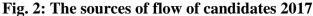


Source: authors

The main reasons for the staff dismissal experts noted the low level of wages, the change of residence (changing the region which is also the cause of low living standards and, as a result, insufficient wages), severe working conditions, health conditions, and retirement. This is the top 5 reasons for dismissal of personnel in industrial enterprises. More than a half (7 of 12) of the experts said that retirement is one of the famous reasons (from 8% to 20%). In addition, organizations (10 of 12) stressed that the number of retired pensioners is growing every year.

Answering the question about the sources of personnel attraction, all respondents noted that the most effective way are Internet, working employees and newspapers (Fig. 2).

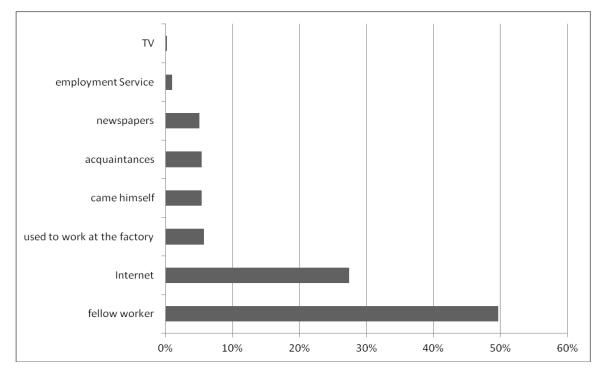




Source: authors

At the same time, the majority said that the most reliable source is working employees who recommend their relatives or acquaintances (Fig. 3). Such candidates, as a rule, have more reliable information about the specifics of job and are ready to physical labor and work more than three months (Blau, F.D. et al, 2013).

#### Fig. 3: The sources of candidates applied in a plant in 2017



Source: authors

On the whole, assessing the situation on the labor market in the Omsk region, experts stressed that the candidates flow in February 2018 is decreased if compare with the candidates flow in February 2016.

Tab. 1: Expert evaluation of the -flow and drop-out of candidates 2016-2017

	Total flow of candidates on average, people	Screening candidates on average, people	Screening candidates on average, %
2016	5798	4806	83%
2017	3867	3398	88%

Source: authors

Moreover the quality of applicants is getting worse and the only one from ten can be interwied in a working place. Among the main reasons experts pointed out:

• Refusal to the candidate - searching for temporary work (which cannot be provided in an industrial enterprise), inappropriate behavior (signs of alcohol intoxication, aggression, etc.) and "age" (pre-retirement and retirement age);

• Refusal of candidates - level of wages, work schedule and a lack of desire to work physically".

• To analyze the fixability of newcomers experts were asked to estimate the share of employees who leave within 3 months of their industrial company.

Despite the fact that most of the personnel services use a sufficiently rigid filter at the entrance, on average, every fifth newcomer leaves the industrial enterprises. In the top 5 reasons for the layoffs of newcomers were hard working conditions, health, the opportunity to work in accordance with education, family circumstances and violation of labor discipline. So we can conclude that not all newcomers are ready to work in production under existing conditions.

The situation with staff is exacerbated because of the decrease in the candidate flow and the increase in the drop-out of candidates, as well as the stable high level of turnover and dismissals due to retirement at industrial enterprises (Holden L. at al., 2000, Sinek, S., 2009).

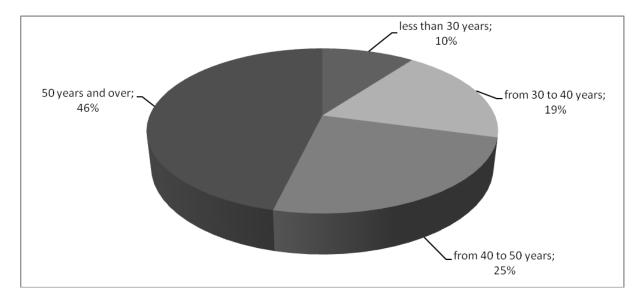
#### 1.2 Priorities in work to ensure human resource security

In order to clarify the measures to reduce risks to ensure staff safety, experts were asked to identify the groups of the most critical professions, for which the preferential selection is conducted. All groups of professions were conventionally united into three groups of categories: main staff, support staff and administrative staff.

It is interesting that the recruitment of the support staff is the most important according to the experts opinions. This can be explained by the fact that the main workers who directly influence productivity the financial results of the organization are trained independently through the mentoring system. Consequently, applicants with any level of education (or even without it) are accepted for these positions. Special requirements for the basic level of knowledge are important for the support staff who service equipment and are responsible for the uninterrupted operation of the plant. 75% of experts note that the largest share of employees over 50 years (pre-retirement and retirement age) is in technical services, where the support staff is concentrated (Fig. 4). Also at all industrial enterprises of the Omsk region (who participated in the survey) confirmed that the professionals with technical competencies with a long term of formation (more than a year) are concentrated in support divisions.

#### Fig. 4: Age structure of auxiliary personnel of industrial enterprises in Omsk

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Source: authors

So it can be concluded that the most important issue in working with technical services personnel is the construction of such a mentoring system that would allow to transfer unique knowledge. The question is how to organize this system in such way that some could and would like to teach and others could and would like to learn. Moreover, the first ones must leave the enterprise painless, and the second ones would stay on working on it.

# 2 Examples of implementing mentoring systems at industrial enterprises in the Omsk region

Researching the specifics of personnel work to ensure personnel security at industrial enterprises in the Omsk region, three main approaches to the development of mentoring systems for different categories of personnel were identified (Leavitt, Harold J., 1965).

#### 2.1 Mentoring for the main staff

After the system of professional technical training were disappeared in Russia, special schools and colleges were closed, most of the industrial enterprises in the Omsk region had to set up its own system to train their main professions.

In general the system of training the main personnel in industrial enterprises can be described in the following way. After employment, the employee becomes a student and assigned to a mentor, who is selected from the experienced workers. Training can last several weeks or several months. It depends on the complexity of the profession and consists of two blocks - theoretical and practical.

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Theoretical learning for which is responsible as a mentor and a supervisor in some enterprises is given in the format of lecture classes, in orters the selfeducation are used. The mentor is responsible for the practical part and he teaches safety and effective methods of work. After a certain time, the student exams the theory and receives an interim work permit. Final work admission can be received when newcomer passes the qualification test and final exam (Bowler W. M. at al., 2010).

The payment for the mentoring is carried out in different ways in the enterprises. Some enterprises set a constant premium or a percentage of the tariff or a fixed amount. Others pay only to those mentors, whose students have successfully passed the final exam and were granted admission to independent work. There is the experience of differentiated payment in one enterprises. It depends on the evaluation the student received.

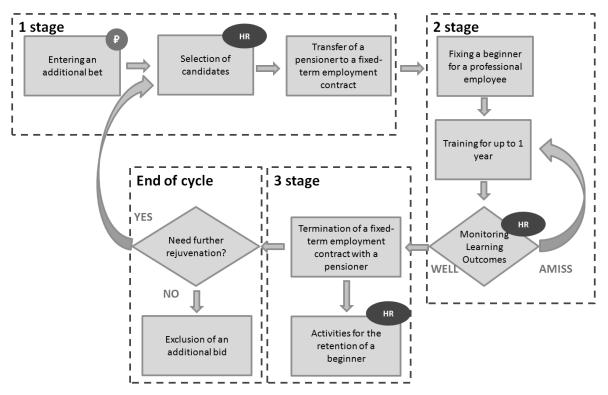
However, most manufacturing companies share the view that the payment for mentoring should consist of two parts: for the process and for the result. The first part is paid when a newcomer passes the exam and gets an admission to independent work. The second part is received when the student achieves the rate of output.

#### 2.2 Mentoring and rejuvenation systems for support staff

A survey of HR services' heads showed that one of the priority areas of work to ensure human resources security is the rejuvenation, training and retention of support staff. However, no one could offer an alternative system of mentoring, which would solve both problems. If young employees are accepted, then for the vacant rates, as well as for the core staff, the experienced employee is assigned. Sometimes in these services the mentoring takes place without additional payment (Van Rensburg J. M. et al, 2014).

At the same time, one of the companies has an interesting experience in solving both tasks (rejuvenation and training). An additional rate is introduced in the department a young employee with a profile education is hired and the mentor assigned to him. At the same time, by agreement, a working pensioner is transferred to a fixed-term employment contract. In addition, a young worker is given an expensive profession training (Fig. 5).

#### Fig. 5: Scheme of rejuvenation and mentoring (auxiliary workers)



Source: authors

An additional agreement is concluded with him, according to which a person must work in the organization for a certain period, otherwise the cost o training will be kept in proportion to the worked time. When a young employee learns the specifics of a particular production, the pensioner's labor contract is stoped and the additional rate is excluded from the staff schedule. If there is another young applicant, the rate does not exclude, and another working pensioner is transferred to a fixed-term employment contract. Thus, solving the business problem, the HR-service can evaluate the cost-equivalent of the decision and the term of its implementation (Wooldridge et al, 2008).

#### 2.3 Mentoring systems for highly qualified engineering professions

The survey of experts confirmed that in the industrial enterprises the key employees are the workers of engineering professions, whose knowledge and skills are important to manage unique equipment. In this case, even "the coolest professional" after hiring should spend some time in order to study the specifics of the enterprise (De Waal A.A. et al., 2012). As a rule, such key employees are expensive, aware of their uniqueness and are not always ready to share their knowledge with others. Only one company shared its system with the authors during the survey.

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If necessary, an additional rate is introduced in the department and the prospective young employee is adopted or transferred and the mentor assigned to him. The student and the mentor create a training program. The mentor is paid a bonus equal to his average monthly salary if certain conditions are completed. As a rule, the key employees are highly paid, so the amount of the bonus is significant for them.

The bonus is divided into two equal parts. The first one is paid during the course of training when newcomer pass the exams. Based on the total cost of the training process, the mentor can determine the duration and cost of each payments himself. The second part will be paid to the mentor only when the student will be able to show his knowledge in the production independently according to the expert opinion of his supervisor. Thus, the mentor is rewarded for both the process and the result, continues to work, and the business receives in return a less expensive high-level specialist (Fig. 6).

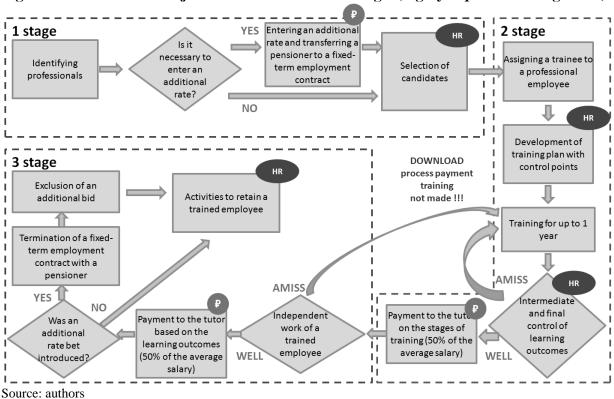


Fig. 6: Scheme of rejuvenation and mentoring (highly qualified engineers)

## **3** Ways of retaining personnel at industrial enterprises in the Omsk

#### region

The survey confirmed that attracting young personnel to production in the Omsk region is getting more difficult from year to year. The transferring the specific knowledge and ensuring the continuity of generations is expensive, but can be implemented. However, according to the expert oppinion, the most important task is to retain staff. In this direction, industrial enterprises of the Omsk region have a wide range of activities which depend on financial possibilities (Carroll A., 1991, Gratton L., 2000, Hewlett et al, 2005, Schein E.H., 1992). All of them can be combined into the following groups:

• social benefits and guarantees (additional medical insurance, partial payment for food, the possibility of allocating vouchers for sanatorium treatment, etc.);

• full-payment or part-payment for training (the higher education or the expensive training with the conclusion of an additional agreement to an employment contract with an obligation to work out a certain period, etc.);

• organization and partial compensation of leisure and sports life (cultural events, payment of gyms and swimming pools, etc.).

Though all experts stressed that the most important instrument is the monitoring the labor market and regulating the level of wages (Papadakis V. M. at al., 1998). In this regard, there are three possible options for regulating wages, associated with certain social risks (tab. 2).

Options	Risks	
Newcomer's wage > Experienced employee's wage	<ul><li>Social tension</li><li>Outflow of experienced staff</li></ul>	
Newcomer's wage = Experienced employee's wage	<ul> <li>Significant increase in payroll fund</li> <li>Growth of wage in employees who are ready to work at the current level of wage</li> </ul>	
Newcomer's wage < Experienced employee's wage	<ul><li>Recruitments difficulties</li><li>Increasing in outflow of newcomers</li></ul>	

Tab. 2: Wage adjustment options aimed at retaining young staff

Source: authors

These options were suggested to be evaluated by experts during the research. Most of them agreed that the most fair is the third option. By the way, 8 out of 12 enterprises apply this approach. However, despite the fact that two thirds agreed that in the conditions of limited resources the first option is economically viable, five organizations apply option two. Thus, when scaling up the systems of rejuvenation and mentoring, the question of regulating the level of wages becomes critical.

#### Conclusion

An analysis of the results of a survey of heads of personnel services of industrial enterprises in the Omsk region showed that the rejuvenation of personnel is relevant for all of them. One of the main problems is the involvement of young workers in production, given the average age of employed in the real sector of the economy. However, the situation in the labor market of the Omsk region is not in favor of industrial enterprises. Approximately for the same level of wages applicants, especially young, prefer to choose less labor-consuming work.

The survey of experts confirmed that the most effective sources of staff selection are the Internet, employees of the enterprise and newspapers. At the same time, when evaluating the effectiveness of sources from the point of view of formalizing the employment relationship and consolidating at the plant, the source comes first as the employees of the enterprise, and then the Internet. This is explained by the fact that newcomers recommend by a friend who already workse has a clearer idea of the future work.

In addition, the study confirmed that HR-services actively seek and apply a variety of schemes of rejuvenation and mentoring for the adaptation and training of young employees. Schemes for the core staff are simple and rely on the transfer of work skills. And the main difficulties are encountered with the mentoring of support personnel with unique technical competencies, which are formed for a long time. Some enterprises use schemes that do not require additional financing. Other companies, understanding the importance, attract additional resources.

At the same time, for the effectiveness of the this instruments, it is necessary to pay the great attention to the issues of retaining personnel, primarily by monitoring labor market and regulating the level of wages. And, as the results of the research showed, from the economic point of view, to retain beginners, it is expedient for them to set higher wages than experienced employees who work in factories at the current wage level. However, in terms of fairness and the risk of social tension, all experts agreed that this is not the best option.

Thus, the study showed that industrial enterprises in the Omsk region faced the same problems in the field of personnel security, and almost identical approaches and schemes were used to solve them.

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