STAFF POTENTIAL OF THE INDUSTRY

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ABSTRACT

The article investigates economic category of staff potential of railway industry enterprises. Various approaches to conceptual apparatus are considered, an analysis of its derivatives and basic components that characterize sectoral staff potential is given. An example of Kurgan division of training center of professional qualifications of the South Ural Railway shows parameters of the system of training of workers of mass professions and existing evaluation principles, training courses staffing criteria.

Keywords: railway, economic potential, staff potential, training, personnel evaluation.

Background. *Analysis of existing approaches to the concept of «staff potential» has revealed some fundamental positions of researchers. Thus, some authors [1] prefer to compare a studied category with other terms, on the basis of their location in macro- and microeconomics. The paper states that the concept of «human resources» can be applied at any level of economy, but to a greater extent it is connected with management strategy. The category «staff potential» is more commonly used in macroeconomics, the concept of «labor force» and «labor resources» also tend to macroeconomics and are most commonly found in circulation at sectoral and national levels.*

The terms «personnel» and «staff» are characteristic even for microeconomics and more accustomed to the enterprise level. The concept of «staff potential», again mostly focuses on microeconomics, description of knowledge, skills and competencies of staff, personal characteristics necessary for implementation of human resource strategy of the enterprise. In particular, the author of a study on labor market in the Russian Federation [2] is of the same opinion, indicating that the concept of «staff potential» is well established in microeconomics and is applicable for analysis of functioning of the enterprise and its development prospects.

A broad conceptual framework that characterizes staff potential is considered in [3]. There staff is denoted as one of the main components of labor potential and is considered taking into account the level of professional knowledge and skills, experience of employees. And we are talking about people who are in constant development, continuous improvement as their labor potential, and the organization as a whole.

In the monograph [4] categories «labor potential» and «staff potential» at the level of society, organization and employees are defined, the distinction between these categories is established. The authors give interpretation of staff potential of an employee based on the study of his labor potential through a set of quantitative and qualitative characteristics. Those of researchers have a different point of view [5], who argue that the category of «staff potential» as opposed to the category «labor potential» cannot be attributed to a single individual, that it is applicable only to a set of personnel, its ability to achieve the objectives of social and economic system.

The specific approach is presented in [6], where the author points out that the potential is not a probability value, and staff potential does not involve a qualitative characteristics. As a «sample» of this understanding his own definition (though in relation to science) is introduced: «staff potential of science is a total set of statistical indicators, indices reflecting the level and impact of dynamics of population, qualifications, gender and age structure of researchers engaged in research activities in specific areas on expected the result of this activity». The author notes that the basis for classification of branches of science in statistics is UNESCO recommendation, according to which both in domestic and international statistical practice six major fields of science are divided, as detailed by industry.

Thus, there are many reasons to believe that currently economic category of staff potential of enterprise or industry both in theory and measurement aspects is poorly studied, there are no particularly common approaches to understanding of staff potential of the industry. In conditions of market relations the standard of living of population is increasingly becoming dependent on the size and quality of use of working people capacity, which involves including the need for a deeper study of problems of reproduction, evaluation and implementation of staff potential of a railway network as a main transport polygon of the country [7].

Objective. *The objective of the authors is to consider the most important aspects related to staff potential of the industry.*

Methods. *The authors use general scientific methods, statistical analysis, evaluation approach, comparison, economic evaluation, graph construction.*

Results.

* * *

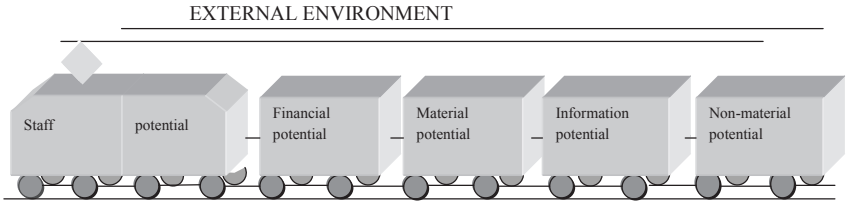
«Staff potential» is a multifaceted category. This concept includes not only staff, but also a certain level of their combined abilities and capabilities to perform tasks and achieve objectives of the enterprise. Modern organizations are complex socio-technical systems, a fundamental basis of the control over which is people who are able to enjoy fully the fruits of scientific and technological progress. Staff potential of railway industry means in this case a set of skills and abilities of its employees, which with their participation allows to ensure effective operation of the system in accordance with the mission, strategic goals and objectives of sectoral holding.

Staff potential along with financial, material and information determines the results of activity of JSC Russian Railways. The totality of existing potentials constitutes an industry's economic potential. Considering staff potential as an economic category, it is necessary to imagine clearly place of staff potential of railway industry in the economic potential structure.

Table 1

Staffing plan of Kurgan division of training center for 2010–2014

Graduation year	2010	2011	2012	2013	2014
Form of study	Plan	Plan	Plan	Plan	Plan
Training	649	637	603	547	540
Advanced training	542	690	399	722	669
Total	1206	1327	1002	1269	1209



Pic. 1. Economic potential of railway industry.

As for the content of economic potential of the railway industry and staff potential as one of its main components, they can be represented in graphical form as a train, in which staff resource carries out a role of a locomotive (Pic. 1).

For movement of the «train» every kind of additional feeding of staff potential is required, which is possible only in interaction and mutual supplement of potentials included in rolling stock and embodying in total economic potential of railway industry. Quantitative and qualitative changes of staff potential have an impact on the value of financial and material potentials – and vice versa. If integrity of any component of train changes, failure in movement (transportation process) occurs with a threat of disbalance of economic potential of the industry.

An important role in conventional graphical models of potentials is played by external and internal environment. External environment is a system of transportation process management, internal is a system of target parameters, main prospects for the industry development, as well as transport services quality management. Estimation of prospects of internal and external environment is inevitably connected with the study of staff potential, since effective operation of rail transport as constantly emphasized, is largely determined by a combination of abilities and capabilities of workforce, its skills and training.

Motivated by those considerations the authors performed research of basic parameters that characterize training of workers of mass professions on the basis of Kurgan technical school – structural educational unit of the South Ural railway – branch of JSC Russian Railways, transformed in 2013 in Kurgan division of the South Ural Training Center of professional qualifications.

The results obtained in the course of the study, give a right to certain generalizations and illustrate the current situation to date with training of workers of mass professions for railways.

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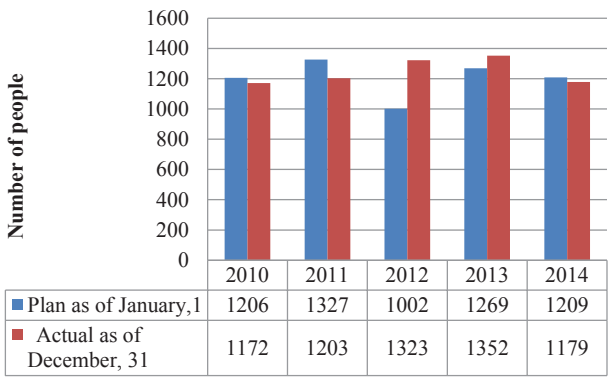
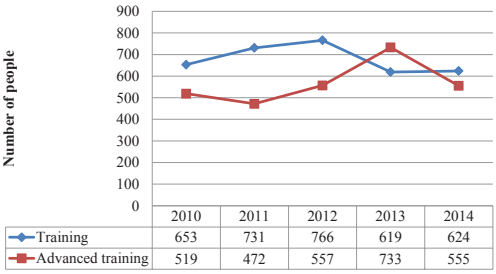
Training of groups of Kurgan division of Training Centre is conducted in areas of professional training and advanced training. Plan of staffing of workers for training courses in 2010–2014is presented in Table 1.

Statistics in Pic. 2 show positive dynamics of the number of workers enrolled in Kurgan division in terms of systematic training and improvement of their skills. Failure in staffing plan is connected with cancellation of groups planned by Directorate of infrastructure, and postponement of training period.

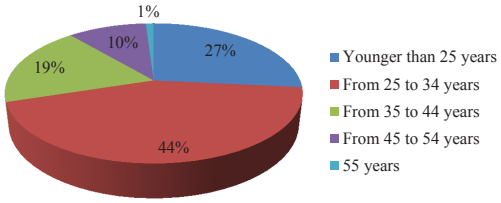
Training in Kurgan division of Training center is carried out in two forms: training and advanced training. Dynamics of training of workers of mass professions in Pic. 3 shows that in 2013 the number of workers being trained, reduced significantly, while the performance of professional development are growing steadily and in 2013 it exceeded for the first time the figure (in quantitative terms) of training of workers of mass professions.



Pic. 2. Analysis of performance of staffing plan for 2010–2014.

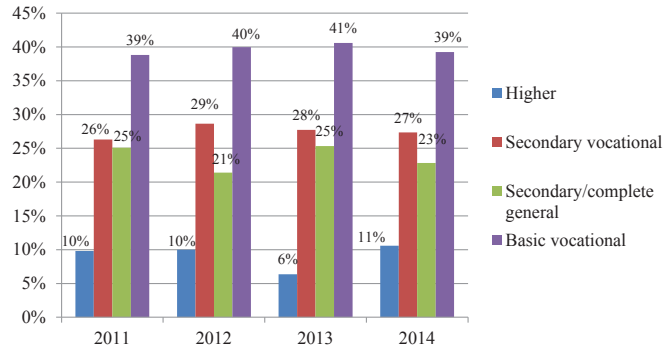


Pic. 3. Dynamics of training of personnel in 2010–2014.



Pic. 4. Age structure of workers trained in 2011–2014.

Pic. 5. Structure of trainees by level of education.



The decision to increase the qualification level of specialists is influenced by following circumstances. Firstly, decline in training level of specialists for railway transport indicates staffing of the industry enterprises. Secondly, for training significant financial resources are required, and due to reduction of traffic volume and lack of funds there is no need to create a reserve of specialists to a greater extent than is necessary in fact. As for time, training of a specialist takes about six months, and the duration of advanced training takes on average, about a month. Highly skilled professional orientates himself in emergency situations much better than an inexperienced one. Nevertheless, data of 2014 year show that the level of training remained almost at the level of 2013 year, and the plan of advanced training decreased in comparison with the previous year by 24,3%.

Analysis of qualitative characteristics of ongoing training shows that the most involved in the professional educational process category is presented by young people. The average age of student staff is 31 year. The largest age group is from 25 to 34 years (44% of personnel completed training), the next largest (27%) is a group of age range under 25 years old. Young people under 35 years old are more than 2/3 of the total number of trained (71%). Distribution of workers by age groups is shown in Pic. 4.

For development of staff potential the industry should promote constant acquisition of new professional knowledge, enhancement of capacity, class, etc. Mostly the railway pays serious attention to the level of education of its employees, supports the desire to learn and develop. The structure of trained staff by level of education is shown in Pic. 5.

The quality of training of workers of mass professions is represented by two figures in Pic. 6 and 7: scoring percentage and coefficient of training completion.

Coefficients of training completion from 0,64 to 0,6 indicate a high level of students' knowledge; coefficients from 0,59 to 0,4 – optimal level of knowledge; coefficients from 0,39 to 0,3 – critical level of knowledge; coefficients of 0,29 and below – insufficient knowledge.

Quality of training in training workers of mass trades in 2014 increased compared to 2010 by 13,11%, and for advanced development decreased by 4,58%. Significant impact on the final result of training belongs to initial basic level of knowledge of employees.

Analysis of exclusion of trainees in 2012–2014, in Kurgan division of the center is shown in Pic. 8. The exclusion ratio is calculated by dividing the number of voluntarily discharged workers and those excluded due to discipline violations to the total amount of trained. Thus, exclusion coefficient in 2012 was equal to 0,035 (48: 1371 = 0,035), this percentage will be 3,5% (0,035 × 100% = 3,5%). Exclusion coefficient in 2013 was 0,02 (28: 1380 = 0,02), or 2% (0,02 × 100% = 2%). Exclusion coefficient in 2014 was 0,022 (27: 1206 = 0,022), or 2,2%. Exclusion coefficient in 2012 is 1,75 times higher than in 2013 and 1,6 times higher than in 2014 (3,5% 2% = 1,75; 3,5%: 2,2% = 1,6). And it shows the stabilization in the number of trained workers and stabilization of staffing situation in the divisions to which they relate.

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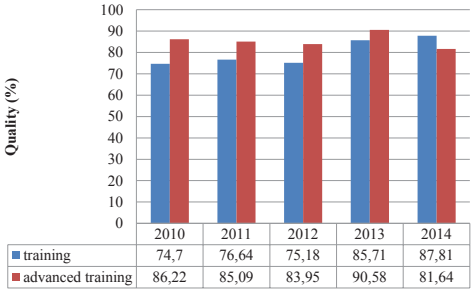
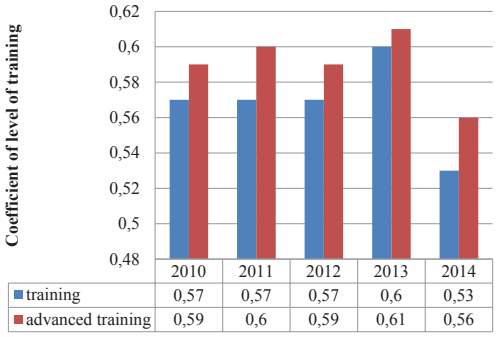
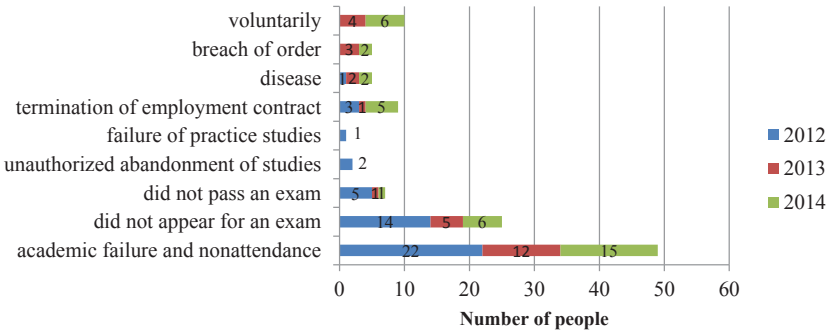
Conclusion. *In the course of the study a set of parameters was identified that features the training of workers of mass trades in Kurgan division of training center, qualitative and quantitative indicators were developed as follow: age structure, educational level, quality of education, coefficient of education completion, exclusion of trainees (turnover of trainees). The identified set of indicators characterizes the work of educational institutions and the potential of competitiveness of the industry, reflected in the growing competence of the staff: knowledge, skills, experience of employees. Evaluation of staff by the degree of training level makes it possible to determine competencies and identify growth potential. Obtaining reliable results when evaluating the employee is a very*



Pic. 6. Quality of training, %.



Pic. 7. Coefficient of training completion.



Pic. 8. Analysis of expulsion of trainees in 2012–2014.

urgent task, this is confirmed by our analysis. Training programs may suffer from a lack of indicators which would allow to monitor the results of staff potential development. Insufficient use of valuation techniques and of integration of data on the potential of workforce leads to a limitation of company's abilities to make full use of its human resources.

The inclusion in the turnover of objective indicators should be a basis for planning of personnel decisions, identification of real needs for training and development of staff potential of the industry. This problem is especially acute in connection with reorganization of technical schools into training centers that are designed to train workers of mass professions with the measure of their willingness and competency level that would ensure increased growth in efficiency and productivity in the new technological order and the formation of a knowledge economy.

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