



Characteristics of the State of Russia's Labor Potential as a Component of Economy's Innovational Development

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Abstract. The article deals with the problems of measuring labor. In economic theory, there are still no well-founded and generally accepted definitions of the quality and efficiency of labor, their criteria and growth factors have not been established, there are no fixed relationships with the productivity of labor, the value of goods and other economic concepts and laws.

In most cases, the categories of labor are treated separately, in isolation, without necessarily taking into account their interdependence in real economic life, which indicates the non-systematic nature of their study, that is, there is no comprehensive, comprehensive approach to research. The article allows evaluating the factors influencing the level of labor potential. The strategy for the development of labor resources should be aimed at the formation of labor potential as the most important intellectual and professional resource of Russian society, which ensures effective social and economic development, high competitiveness and innovative development.

The article presents the main directions that make it possible to comprehensively assess the country's labor potential and set tasks that must be solved with a goal to overcome the current situation. Economic growth is impossible without improving the quality of labor.

Keywords: Labor · Labor potential · Labor statistics · Labor productivity
Working hours · Innovative development · Labor efficiency · Staffing

1 Introduction

In the innovative economy, the creative role of labor is enhanced and labor is much more than a simple source of material, spiritual goods and services. Human labor solves scientific, technical and socio-economic problems. However, labor not only makes it possible to solve problems and puts them. To solve labor problems, specialists of various profiles are working on it: Psych physiologists, economists and sociologists, organizers of production, etc. [1–3].

Many categories and patterns of development of labor are defined, identified, and used in the practical activities of economic entities. However, there are many unsolved problems in the theory and practice of labor. On the one hand, a number of problems of labor and labor relations have not been studied for a long time by social and natural sciences. On the other hand, labor is a continuously developing psycho-physiological and socio-economic phenomenon. Identify the laws and patterns of development of labor - one of the most important tasks of science. From knowledge of laws - to management and acceleration of processes of development of work.

2 Theoretical Basis of the Research

Issues of accounting and analysis of the demographic and labor potential are devoted to the works of a number of foreign and domestic researchers, such as I.A. Aydrus, E.M. Andreev, J. Bourgeois-Pischa, O.I. Yevseyenko, S.I. Pirozhkov, E.V. Pismenaya, S.V. Ryazantsev, S.A. Sukneva, M.Y. Surmach, E. Filrose, L. Hersh, T.N. Shelekhova, D.M. Ediev, Thomas V. Malon, and others.

At the present stage of development of labor, the problems of effectiveness and quality are most urgent [2–8]. However, an analysis of the level of development of theoretical problems of quality and labor efficiency shows that economic science is not yet able to respond properly to the requests of practice in this field.

The amount of labor a worker spends daily has also great social significance. The magnitude of labor costs greatly affects the state of physical health, labor activity, the life expectancy of each person, etc. The insufficient theoretical elaboration of a number of basic problems of labor has led to the fact that in the economic literature there is still no common opinion on the fundamental concepts of labor. Such as the productivity of labor and the productive power of labor, the intensity of labor and its relation to the productivity of labor, simple and complex labor, the efficiency of labor and the quality of labor, etc. [3, 4].

Recently, Russia is moving to the development and implementation of long-term programs for economic development based on innovative solutions, which sets the task of scientific justification of approaches to information support in the field of labor management system. The system of indicators should reflect all ongoing processes, including those that can be a source of risks, losses and causes of non-fulfillment of adopted programs [3, 14, 15].

Consider the state of the information base for work.

Labor statistics changed simultaneously with the transformation of the entire economic system of Russia. As the I.I. Eliseeva notes, “in the 1970s, Soviet socio-economic planning was developing in the Soviet statistics aimed at intensifying and increasing the efficiency of the economy. Methods of performance analysis were developed, and they all relied on data available in the statistical reporting system and statistical publications. In recent years, we have lost almost all the indicators of resource efficiency: The statistics do not calculate the indicators of labor productivity, return on assets, energy and material consumption, etc.” [2].

Currently, official statistics do not have a unified procedure for obtaining information from enterprises and organizations on the volume of output, it is replaced by the

sensor method in different statistical forms and at different intervals. Large and medium-sized organizations report on a monthly basis, small businesses - once a quarter on a selective basis. In order to obtain information on the volume of products, it is necessary to perform a number of adjustments using accounting information that is not harmonized with statistical accounting in many ways.

As a result of such changes, statistics almost lost data on the use of working time, and therefore, on the level of average hourly and average daily labor productivity, on the indexes of “tightness” of the working day and working period [2]. The indicator of labor productivity was almost the main qualitative indicator.

In the conditions of development of the innovation economy, a number of theoretical and methodical approaches to the use of traditional indicators and methods for their analysis need to be changed.

3 Research Methodology

The current level of Russia’s labor potential does not correspond to the tasks of the country’s economic growth. Its professional and qualification structure is not fully adequate to the needs of production. On the other hand, professional education does not have the proper level. Premature mortality and low level of public health also negatively affect labor potential. A fairly small salary of workers does not allow motivation for highly effective work [13]. In view of the low-quality workforce and the reduction in the number of the able-bodied population, there are risks to doing business and the competitiveness of domestic production is decreasing [9, 10].

Thus, the main factor in the growth of national GDP is the improvement of the quality of labor. Only investments in human capital bring a significant effect. According to the estimates of developed countries, one dollar invested in education yields a return of 2–10 dollars of net profit [11, 12].

According to the conducted researches, it is possible to formulate the following problems of development of labor potential of Russia in the beginning of the XXI century:

(1) *Depopulation*

Depopulation in Russia has three main aspects.

The essence of the *first aspect* is that the end of the twentieth century is characterized by a very low birth rate and a high mortality rate, which corresponds to the underdeveloped state. For the period 1992–2004. The population of Russia has decreased by 10.4 million people, which is comparable with the population of Yugoslavia, Belgium or Belarus. If we take into account the partial migration, the total loss was 4.45 million people.

The second aspect is connected with long-term fundamental processes, and not with time, factors and the improvement of the social and economic situation in the country completely will not allow to get out of this state.

The distinctive features of depopulation in Russia in comparison with the developed European countries, in which the population also decreases, characterize the third aspect. Depopulation results from a very low birth rate. The total

fertility rate for 2004 in Russia was 1.35 (for example, in Norway this coefficient is 1.73, in Sweden - 1.65, in France - 1.88, in the UK - 1.71. Russia also has a very high mortality rate.

In the absence of migration growth and the maintenance of the existing level of fertility and mortality by 2025, the population of Russia can reach 122.0 million people.

The consequence of depopulation is the aging of the labor potential, which entails an increase in the demographic burden on every able-bodied person.

(2) ***Health status of the population***

One of the limitations of the country's economic growth is the health of the nation, mainly the able-bodied population. Statistical analysis showed that in 2009, the loss of resources due to the deterioration of workers' health amounted to 43% of GDP. Over the past 10 years due to premature mortality of the able-bodied population, the country's losses reached 1.5 trillion. Alternatively, 225 million person-years of active labor.

(3) ***Staffing***

Deficiency of a labor generates personnel risks. In Russia, it is most difficult to ensure the production of workers' professions. Underfunding of qualified personnel of enterprises and organizations leads to a decline in production. This is especially true for enterprises with a high number of employees aged over 35–40 in the number of employees. Young people do not aspire to occupy vacant jobs at enterprises that are not engaged in production modernization, since very low wages and harsh working conditions.

(4) ***Innovative way of development and changing the structure of demand for labor***

At present, the transition to an innovative development model is required, involving the introduction of new technology, research, the development of new types of competitive products, advanced technologies, which requires increased investment in improving production. This entails the renewal of the system of labor relations, the training of highly qualified specialists capable of generating new managerial decisions and using modern methods of work.

(5) ***International migration and the "brain drain"***

Russia is one of the leading countries in the world for a "brain drain" along with countries such as South Africa, India, Poland, and the Philippines. The main factors affecting the international migration of labor resources are economic and non-economic.

Economic factors include:

- Different level of industrial production and standard of living;
- Different level of wages;
- The presence of organic unemployment;
- The functioning of international corporations and international capital flows.

About one third of talented Russian scientists work outside Russia. Consequently, the annual losses of the Russian economy amount to about 50–60 billion dollars US.

Branch specificity of the manifestation of the labor shortage. Despite the fact that in general, the labor deficit is not obvious in the economy, considering certain sectors, it is possible to observe significant distortions. For example, there is a significant decrease in the number of employees in key sectors of the economy. The most noticeable decrease in the number of workers occurred in science and scientific services, for the period 1990–2003. (2.6 times); Agriculture and forestry (1.3 times); Machine building and metalworking (2.1 times); Construction (in 1.8 times).

Professional qualification aspect of the deficit. At present, there is a problem of shortage of experienced and skilled workers of certain technical professions and qualifications, provided there are sufficiently well educated labor resources. This is due primarily to the reform of the system of primary professional education (PPE). In the system of PPE for the period 1990–2013. The output of qualified specialists decreased by more than 40%, while the number of students decreased by 15%.

In addition, most graduates of universities do not work for acquired specialty, which causes an additional shortage of staff. According to expert estimates, this figure is 50% for young engineers, 30–40% for graduates of medical schools, and 70% for graduates of agricultural institutes.

The age aspect of the deficit is the aging of the population at the working age. This also contributes to the reduction of human resources in the sectors of the economy. Moreover, against the background of a reduction in the number of all age groups, only the number of employed at the age of 45–54 is growing. Most of all, this reduction affected the age groups of up to 20 years, 30–39 years, 55–59 years.

Rosstat conducts a survey of the population on employment issues. Based on the data of this survey in 2016, the average age of people employed in the national economy has approached 43 years, and in some industries, for example, in science and scientific services, it reaches 48 years.

Extrapolation of the prevailing trends in the age structure of employed shows that the absolute number and share of employed at the age of 40–49 will continue to increase. For a whole group of ages (60–72, 20–29, 35–39 years), there will be a slight increase or stabilization of the values attained so far. However, there is a decrease in the number of employed in the age group 25–29 years.

Thus, if the prevailing trends persist in the long term, the number of the employed population of the most active age groups decreases.

It should be noted a weak influx of young personnel into a group of industries. This can be explained by the low level of wages in these industries and the prevailing system of preferences. From this, we can conclude that there is a structural deficit, which manifests itself in conditions of differentiation of wages.

The negative impact of structural problems of labor shortage on the demographic situation. Unemployment and low wages adversely affect the development of the family. Unemployment creates such social problems as drug addiction, crime, alcoholism, suicide. Low incomes entail a refusal to create a family, the birth of children or their delayed birth, divorce, abortion, etc. Unsecured work and harmful working conditions also lead to premature deaths, injuries and poor health.

The listed structural problems of the labor market entail a general decline in the economic growth rate and an increase in the resources needed to overcome these

problems. This, in turn, leads to a reduction in spending on social needs and the implementation of programs to overcome the demographic crisis.

Thus, *it is necessary to talk not only about the impact of the demographic decline on the stagnation of the labor market, but also on the reverse process.*

4 Analysis of the Results

The study showed that at present Russia's labor potential does not correspond to the modern innovative way of its development. The professional qualification structure of the labor potential does not fully meet the needs of the economy. The quality of professional education is deteriorating. Premature mortality and poor health lead to large losses. There is no motivation for effective labor activity, since low wages do not stimulate the labor activity of workers. On the other hand, due to the inadequate quality of the workforce, the competitiveness of domestic goods and services is declining. In addition, a significant reduction in the working-age population creates additional risks for business and the economy as a whole.

Despite this, the achievement of economic growth is impossible without a sharp increase in the quality of labor. Therefore, the main factors for increasing national GDP should be the effective use of labor potential.

It should also be taken into account that as a result of the ongoing state policy of supporting the family, since 2014, the population has been growing and by the beginning of 2017 its level has reached 146,804,372 (according to the Federal State Statistics Service). Such growth is provided by the natural and migratory growth of the population, of which the migration gain was 95.5%.

5 Conclusions

In economic theory, there are still no well-founded and generally accepted definitions of the quality and efficiency of labor, their criteria and growth factors have not been established, there are no fixed relationships with the productivity of labor, the value of goods and other economic concepts and laws. Consequently, both in theory and in practice, labor efficiency is often identified with its productivity, the quality of products with the quality of labor, and so on.

In solving the problems of production and labor efficiency, the problem of the quantity of labor occupies one of the leading positions. The fact is that the effectiveness and efficiency of production and labor is achieved with the "optimal" quantity and quality of labor expended by the workers. Measuring and possibly quantifying this number in each workplace is an important task of science and practice.

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