

SOCIAL DEVELOPMENT

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The Quality of Labor Potential Outside Large Cities*



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Abstract. Sustainable development of rural areas in the context of reducing labor force caused by the natural loss of population and migration outflow to major cities is possible to ensure only through economic modernization, enhancement of the quality of labor potential and improvement of its efficiency. The goal of the research presented in the paper is to assess labor potential quality in the territories outside major cities. The information base of the work is the data of the monitoring of the qualitative state of labor potential of the Vologda Oblast population, an unprecedented longitudinal sociological research carried out by Vologda Research Center of RAS since 1997. The questionnaire survey takes place in eight districts of the Oblast and in the cities of Vologda and Cherepovets. The sample size is 1,500 people of working age. The assessment technique is based on the concept of qualitative characteristics of the population developed at RAS Institute of Socio-Economic Studies of Population and allows us to evaluate in index form (from zero to one) eight basic qualities of labor potential: physical health, mental health, cognitive potential, creativity, sociability, cultural and moral levels, achievement need. The originality and novelty of our approach described in the article lies in the fact that the assessment of labor potential quality is carried out in the context of age and is accompanied by a comparative analysis of “urban” and “rural” indicators. The analysis was carried out for three age groups: working age youth (16–30 years old), pre-retirement age persons (women aged 50–54, men aged 55–59), middle-aged persons (women aged 31–49, men aged up to 54). The use of this approach allows us to show that although the average quality

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of labor potential of rural areas (the average index of social capacity) is steadily lower than in major cities, the quality of rural youth, in general, is not inferior to that of urban youth: the villagers “lose” to urban residents in terms of energy potential, but compensate for this by their high development of social and psychological potential, including communicative potential. Thus, a widespread perception of the low quality of population outside major cities has not been confirmed with regard to working age youth. Under the current conditions, it is strategically important to “retain” young people in rural areas and provide them with an opportunity to implement their labor potential for the benefit of their home region.

Key words: labor potential, labor potential quality, major cities, districts, rural territories

Introduction

In the 1950s–1960s, centripetal internal migration was perceived by economists around the world as a positive phenomenon, which helped withdraw excessive rural labor from traditional agriculture to provide cheap labor for the growing industrial complex [25; 27; 24]. Later, numerous studies found that in all developing countries, rural-to-urban migration rates exceed the rate of job creation and the capacity of urban social services [26, pp. 361–362]. In addition, there emerged the problems in the development of rural territories¹, due to natural deterioration in the quality of the population outside large cities².

The outflow of qualified personnel creates significant obstacles to sustainable economic development, the relationship of which with the quality of the population and human capital is admitted by both domestic and foreign researchers [11; 21; 22; 23]. In Russia,

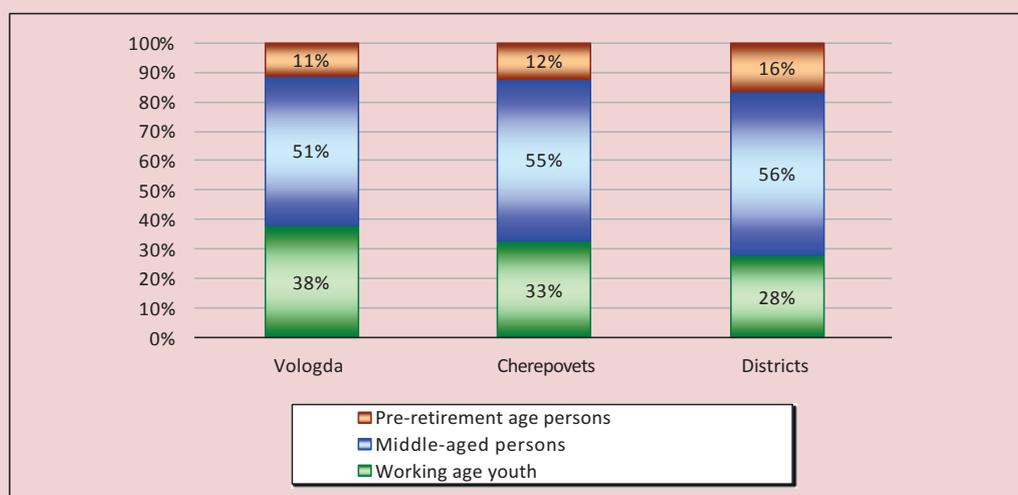
the situation is exacerbated by the overall demographic crisis. The last decade in our country witnessed a systematic reduction in working age population, and in rural areas, too. According to *L.L. Rybakovskii*, “there can be only two ways out of this impasse: either to continue attracting millions of unskilled migrant workers to the Russian economy, reducing the already low level of wages of the employed Russian population, or to implement intensive modernization of the economy on an innovative basis” [17, p.57]. The first option is the easiest to implement, it helps solve the problem in a relatively short time, but entails many negative consequences. The second option is more correct strategically, but requires significant time and financial costs. In addition, it gives rise to related personnel issues: modernization of jobs significantly increases the requirements to the quality of labor potential. It is not enough to modernize the economy alone, it is necessary to “upgrade” the people and prepare them to work in new conditions. Cities have a leading role to play in this process.

Large cities become “centers of modernization for the economy and human capital” [2], forming the “supporting framework of resettlement” [9]. In modern Russia, both internal and external migrants still “strive to move to big cities, where there are many opportunities for employment, higher earnings, and self-realization” [13, p. 66]. Cities serve as

¹ According to the approach used by the EU, rural areas are defined as the territories outside large cities, with their own population, way of life, traditions, material and cultural heritage, natural conditions and resources (Merzlov A.V., et al. *Introduction to the sustainable development of rural areas: major concepts and theoretical foundations: textbook*. Moscow, 2012. 57 p. P. 9). According to this definition, the terms “rural territories” and “territories outside major cities” are further used as synonyms.

² Urban geography and urban planning have the following classification of cities by their size: small towns – up to 50 thousand inhabitants, average cities – 50–100 thousand, large cities – 250–500 thousand, largest cities – 500–1 million, millionaire cities – more than 1 million inhabitants (Lappo G.M. *Geography of cities*. Moscow: Vldos, 1997. 478 p. P. 43).

Figure 1. Age structure of working-age population in major cities of the Vologda Oblast and beyond as of the beginning of 2016



Source: Age and gender composition of the Vologda Oblast population in 2015: statistics collection. Vologda, 2016. 97 p.; our own calculations.

“centers of growth” [4]; they are “engines” of development that define trends and prospects of the whole country [3].

N.V. Zubarevich points out that “accumulating human and economic resources gives the cities objective advantages”, and “despite the lack of an adequate policy of the authorities, natural trends in spatial development will continue to pull the population into large cities and their suburbs” [2, p. 5, 19]. What remains for the rural territories, whose sustainable development is now one of the major priorities of state policy in the Russian Federation [8]?

Domestic researchers think that “the quality of rural population was and remains low” [5, p. 136]. In our view, this is true to the same extent to which the average salary indicates the standard of living in the region. In particular, if we talk about labor potential, it is not quite correct to compare the indicators for the population of working age in general: as we calculated earlier on the example of the Vologda

Oblast, the average age in the districts is higher than in the cities [19].

As an example, *Figure 1* shows the structure of working-age population in major cities of the Vologda Oblast and beyond as of the beginning of 2016. When allocating young people, we have traditionally followed an approach consistent with Russian law³ and included in this category the population 14 to 30 years of age [14]. Due to the fact that working age population is the object of our research, then persons aged 14 and 15 remained outside the scope of our analysis, and the residents of the relevant territory aged between 16 and 30 were classified as young people of working age. The person’s pre-retirement age was considered to be five years or less before reaching retirement age. The rest of the working-age population was conditionally named as middle-aged.

³ About the main directions of the state youth policy in the Russian Federation: Resolution of the Supreme Soviet of the Russian Federation dated June 3, 1993, No. 5090-1. Available online at: *Reference and Legal System ConsultantPlus*.

As can be seen from the diagram, the proportion of working-age youth outside major cities is significantly lower and the proportion of persons of pre-retirement age is higher, which naturally affects the average indicators of population quality.

The purpose of our research was to assess the quality of labor potential of territories outside major cities. The evaluation was carried out in the age context and was accompanied by comparative analysis of “urban” and “rural” indicators.

The analysis was carried out on the example of the Vologda Oblast and included three age groups:

- working-age youth – young people 16–30 years of age;
- persons of pre-retirement age – working-age persons that have not more than 5 years left before they reach retirement age – women aged 50–54, men aged 55–59;
- middle-aged persons – women aged 31–49 years and men up to 54 years old.

Methodology

In our research, we understand labor potential of the territory as a “generalized characteristic of the measure and quality of a set of capabilities for work” [12, p. 14]; the characteristic is estimated quantitatively by the size of working-age population and qualitatively – by the level of development of qualitative characteristics of working-age population. It corresponds to the comprehensive economic approach to the interpretation of this concept [10].

It should be noted that the term “labor potential” is the result of original development of Russian economic thought. The substantiation for the necessity to introduce this concept “in order to characterize personal factor of production in multidimensional

terms” [15, p. 5] can be found in the works of *A.S. Pankratov*. Modern foreign textbooks and lectures on labor economics⁴ do not mention this term, and the potential production capabilities of the population are considered in the framework of the theory of human capital [22; 28]. At the same time, if in Russia it is customary to talk about qualitative characteristics of working-age population, then foreign studies focus on the education and skills of workers.

The quality of labor potential is a broader concept than the skills acquired at school and university. In particular, such qualitative characteristics of the population as morality and internal culture are not skills, they can not be “trained”, and they are acquired in the process of upbringing. At the same time, as shown by the assessments carried out in the Vologda Oblast, these qualities are significant and in demand in the workplace: more than one third of employees in working age indicated that for the successful implementation of labor activity it is very important for them to have high moral qualities (35.5%) and a high level of general culture (38.3%). However, only 5 and 7% of employees, respectively, noted that these qualities are not important at all in their work (*Tab. 1*).

This fact testifies in favor of taking into account and assessing the diversity of qualitative characteristics of working-age population. There is a need for measurements that can provide the authorities with detailed information on the state and development of local labor potential; such information should go beyond the limited statistical indicators of

⁴ Acemoglu D., Autor D. *Lectures in labor economics*. MIT, 2011. 299 p.; Borjas G.J. *Labor economics*. New York: McGraw-Hill, 2013. 576 p.; Ehrenberg R.G., Smith R.S. *Modern labor economics: theory and public policy*. Upper Saddle River: Prentice Hall, 2012. 672 p.

Table 1. Distribution of answers to the question “What qualities does your present occupation require from an individual engaged in it?”, %

To succeed in my present occupation it is necessary to have...	Answer				Total
	Not important at all	More or less important	Important enough	Very important	
1. Good physical health and well-being	2.8	13.8	43.6	39.9	100
2. High resistance to mental stress (stressful work)	4.4	15.6	41.1	38.8	100
3. Having versatile knowledge, great erudition, high qualification	9.8	23.8	40.4	26.0	100
4. Have creative abilities (to invent, create something new, solve new problems, etc.)	19.0	25.1	33.5	22.4	100
5. Sociability, ability to get along with people	3.2	12.7	34.5	49.6	100
6. Have a high general culture (be well-mannered, polite, reserved, always look good)	6.6	18.9	36.2	38.3	100
7. Have high moral qualities (honesty, truthfulness, sense of duty, decency, etc.)	5.2	17.5	41.8	35.5	100
8. Constantly strive to be promoted, improve one’s own skills, show initiative and entrepreneurial spirit	12.1	26.2	35.8	25.9	100

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.
Note: the table shows the distribution of answers obtained from the employed working age population of the Vologda Oblast according to data of the 2016 survey.

health and education and provide real “food for thought” and help take adequate management measures.

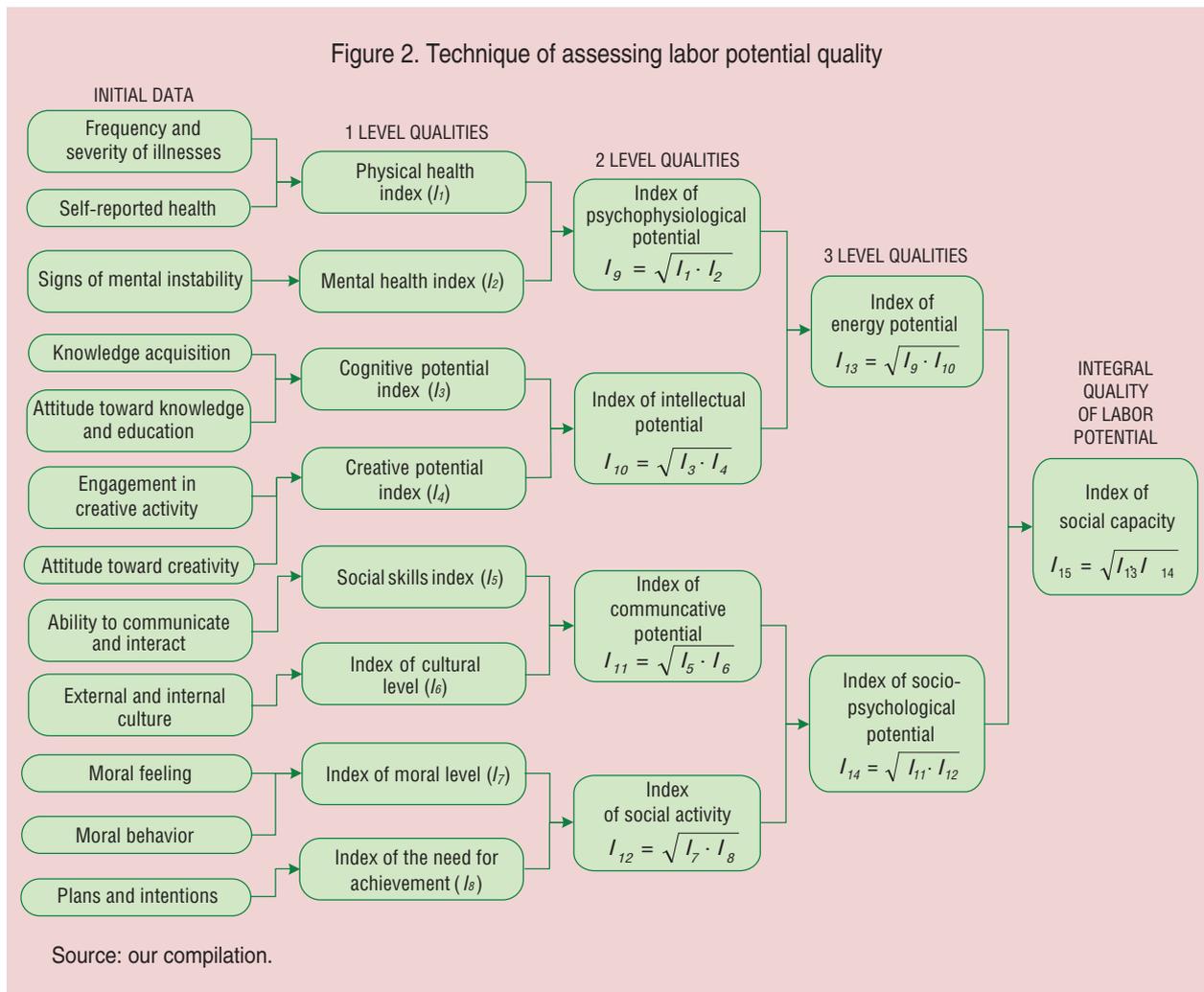
Recognizing the strategic importance of reliable and timely information at the regional level, Vologda Research Center of RAS carries out a regular sociological monitoring of the qualitative state of labor potential in the Vologda Oblast for twenty years already [1; 6; 18]⁵. The results of the measurements form the information base of the present study.

The characteristics of the survey are as follows. The object of the study is the working age population of the Vologda Oblast. The surveys are held annually in August–September in the cities of Vologda and Cherepovets and in eight districts of the Oblast (Babaevsky, Velikoustyugsky, Vozhegodsky, Gryazovetsky,

Kirillovsky, Nikolsky, Tarnogsky and Sheksninsky). The sample size is 1,500 people. Sampling method is zoning with proportional location of observation units. Sample type: quota by gender and age. Random sampling error: 3–4% at a confidence interval of 4–5%. The method of the survey is a questionnaire poll at the place of residence of the respondents.

The method of measurement is based on the concept of qualitative characteristics of the population, developed by scientists of the Institute of Socio-Economic Studies of Population under the supervision of N.M. Rimashevskaya [7; 16]. According to the approach we use, an integral indicator of the quality of labor potential is social capacity, which has a comprehensive hierarchical structure and incorporates eight qualitative components of the first level: physical and mental health, cognitive potential, creativity, social skills, cultural and moral levels, and the need for achievement.

⁵ In 1996, we conducted a pilot survey; since 1997, sociological measurements of the quality of labor potential are conducted in a monitoring mode (until 2009 – annually, now – every two years).



Sociological evaluation of these qualities is carried out with the help of Likert scales⁶. The questionnaire consists of the sets of statements mostly with five-point rating scales of evaluation, they assess the level of agreement of the respondents with the statements. Each of the basic components of labor potential corresponds to its own set of questions. Based on the results of the measurements, all eight

qualities are given a numerical score in the form of indices ranging from zero to one, which are calculated as the ratio of the actual number of points on the scale to the maximum possible one. The indices are interpreted as follows: the closer the index value to one, the better the quality is developed in the respondent, and vice versa.

The quality of labor potential of the upper levels of the hierarchy is assessed by calculating the geometrical mean of the indices of the lower levels. The integral index of social capacity is calculated as the average geometric of the indices of energy potential and socio-psychological potential (Fig. 2).

⁶ A Likert scale is a kind of questionnaire for measuring attitudes. It is named after its author – R. Likert, who invented it in 1932. Likert scales consist of a set of statements with a five or seven-point rating scales, which establish the degree of agreement of an individual with the statement. More detailed description of the scale of measuring basic qualities is presented in the work: Ilyin V.A., Smirnova N.A., Timofeeva Ya.B. *Quality of labor potential of the population of the Vologda Oblast*. Vologda: VNKTs TsEMI RAN, 1998. 76 p.

Results and discussion

Throughout the whole assessment period, the areas outside large cities have lower average values of social capacity indices (Fig. 3). At present (according to the results of measurements of 2016), the integral index of labor potential quality in the Vologda Oblast districts makes 0.673 units, in the city of Cherepovets – 0.692 units, and in the city of Vologda – 0.702 units.

If we consider the primary qualitative characteristics of labor potential that form the integral index, then, judging by the average indicators, rural areas lag behind major cities according to the majority of basic qualities. As we have shown earlier [19], the exception is the indices of social skills, cultural, and moral levels. That is, outside large cities, people on average are more sociable and conservative in the matters of culture and morality.

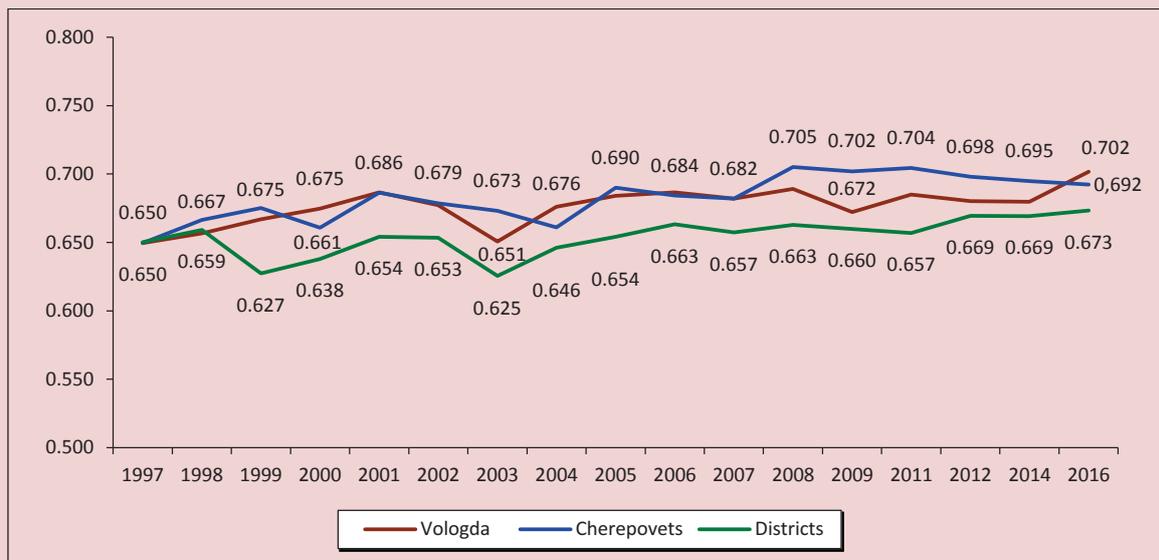
Analysis of the dynamics of the basic qualities of labor potential showed that over two decades, the able-bodied population of rural

areas lost 2% of cognitive and 7% of creative potential, 5% of physical health and 3% of moral level (Tab. 2).

Next, let us focus on the current quality of labor potential of the territories of the Vologda Oblast located outside major cities. According to the approach substantiated in the introduction, in order to reflect the current situation adequately and make accurate comparison of the data with the indicators for Vologda and Cherepovets, we carried out the analysis for three age groups.

The measurements showed that currently the index of social capacity of working age youth outside major cities is not inferior to the indicators for Cherepovets (Tab. 3): the villagers have lower energy potential, but compensate for this with the high development of socio-psychological potential, including communicative potential. The quality of labor potential of middle-aged and pre-retirement age people in the districts of the Oblast is significantly lower than in large cities. At the

Figure 3. Dynamics of social capacity indices in major cities of the Vologda Oblast and outside them



Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VoIRC RAS.

Table 2. Dynamics of labor potential quality outside large cities of the Vologda Oblast in 1997–2016, index

Quality	Year							Δ, units	Δ, %
	1997	2000	2003	2006	2009	2012	2016		
Physical health	0.756	0.678	0.639	0.706	0.715	0.720	0.716	-0.040	-5.2%
Mental health	0.682	0.676	0.642	0.738	0.715	0.748	0.783	0.101	14.8%
Cognitive potential	0.634	0.614	0.599	0.636	0.599	0.619	0.620	-0.013	-2.1%
Creative potential	0.581	0.560	0.552	0.557	0.548	0.525	0.540	-0.042	-7.2%
Social skills	0.729	0.718	0.685	0.735	0.726	0.768	0.751	0.021	2.9%
Cultural level	0.603	0.589	0.605	0.644	0.663	0.705	0.689	0.086	14.3%
Moral level	0.795	0.774	0.714	0.774	0.737	0.790	0.772	-0.023	-2.9%
Need for achievement	0.595	0.611	0.663	0.624	0.631	0.616	0.641	0.045	7.6%

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.

Table 3. Labor potential quality in major cities of the Vologda Oblast and beyond, broken down by age groups in 2016, index

Quality	Working age youth			Middle-aged persons			Pre-retirement age persons		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Basic qualities of the first level									
Physical health	0.772	0.780	0.766	0.733	0.745	0.714	0.672	0.671	0.647
Mental health	0.816	0.787	0.806	0.822	0.792	0.786	0.765	0.773	0.738
Cognitive potential	0.631	0.612	0.616	0.654	0.638	0.618	0.643	0.645	0.635
Creative potential	0.598	0.573	0.537	0.586	0.587	0.545	0.608	0.562	0.530
Social skills	0.748	0.764	0.763	0.773	0.766	0.746	0.774	0.727	0.745
Cultural level	0.697	0.674	0.710	0.688	0.706	0.684	0.694	0.638	0.670
Moral level	0.773	0.765	0.769	0.788	0.790	0.768	0.829	0.800	0.787
Need for achievement	0.730	0.715	0.707	0.682	0.677	0.638	0.580	0.559	0.546
Qualities of the second level									
Psychophysical potential	0.790	0.780	0.782	0.771	0.764	0.742	0.711	0.715	0.686
Intellectual potential	0.608	0.587	0.571	0.614	0.608	0.576	0.621	0.599	0.576
Communication potential	0.719	0.712	0.731	0.726	0.730	0.709	0.728	0.674	0.702
Social activity	0.747	0.736	0.734	0.725	0.726	0.695	0.686	0.663	0.650
Qualities of the third level									
Energy potential	0.688	0.672	0.665	0.684	0.678	0.648	0.662	0.651	0.626
Socio-psychological potential	0.731	0.721	0.730	0.723	0.726	0.700	0.705	0.666	0.673
Integral index of labor potential quality									
Capacity	0.708	0.695	0.696	0.702	0.700	0.671	0.681	0.656	0.646

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.

same time, the greatest gap is observed in the components of energy potential, which in rural areas is significantly depleted when approaching retirement age, which indicates the existence of problems in social infrastructure and quality of life (including working life) outside major cities.

Self-reported health among the working age population in the districts of the Vologda Oblast

is lower in all age groups (Tab. 4). For example, 62% of rural youth (in Vologda – 67%, in Cherepovets – 65%), 42% of middle-aged persons of working age and 18% of persons of pre-retirement age consider their health to be “excellent” and “good”. Negative self-assessments of their own health were given by 4%, 6% and 11% of the age groups, respectively.

Table 4. Self-reported health among the working-age population, %

Self-reported health	Working age youth			Middle-aged persons			Pre-retirement age persons		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Excellent	14.0	16.2	11.7	10.5	9.6	5.2	5.9	5.3	3.3
Good	53.4	48.7	50.0	36.2	51.2	36.5	13.7	24.6	14.2
Satisfactory	30.3	32.5	34.4	49.3	34.0	52.1	72.5	54.4	71.7
Poor	2.2	2.6	3.3	3.3	4.8	4.0	5.9	15.8	9.2
Very poor	0.0	0.0	0.6	0.7	0.5	2.1	2.0	0.0	1.7
Total	100	100	100	100	100	100	100	100	100

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VoIRC RAS.

In addition, according to the results of the monitoring, 7% of young people, 17% of middle-aged people, and 32% of people of pre-retirement age who live outside major cities complained of having very frequent minor ailments (headache, general weakness, exacerbations of chronic diseases, injuries, etc.), which do not reduce the overall working capacity. At the same time, 51% of young people have never experienced the illnesses that would lead to loss of their ability to work and study. This figure is significantly lower among middle-aged persons and people of pre-retirement age: 39% and 27%, respectively.

If we talk about mental health of the working-age population, then we can point out

that along with the tendency toward increasing the corresponding index observed during the monitoring study (see Tab. 2), at present, such signs of psychological instability as sleep problems, difficulties with attention focusing, and a feeling of unreality of what is happening are more widespread among rural residents (Tab. 5).

One of the problematic points in the development of labor potential outside large cities is the intellectual potential of the population, which includes a tendency toward the decrease in the cognitive and creative potentials. At the same time, if we move away from analyzing average indicators, we can see that the cognitive potential of young people in

Table 5. Manifestation of some signs of mental instability in the population of working age, %

Sign	Working age youth			Middle-aged persons			Pre-retirement age persons		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Sometimes it is difficult to fall asleep and I have to use sleeping pills	9.5	18.8	19.4	15.7	23.9	25.4	37.3	31.6	46.7
Sometimes I have fits of uncontrollable laughter and crying	22.3	16.9	17.8	17.6	13.9	15.9	3.9	7.0	11.7
I am continuously worried about some things	34.1	31.2	26.7	37.3	32.1	33.9	43.1	29.8	47.5
Some things trouble me so much that I can't talk about them.	21.8	20.1	27.8	20.3	17.2	23.5	19.6	19.3	35.0
It's hard to concentrate on anything	9.5	11.0	10.6	5.9	6.7	18.7	5.9	10.5	20.0
I am worried about the possibility of getting infected with any disease	19.0	17.5	20.0	19.0	17.2	22.9	11.8	21.1	19.2
I often have a feeling as if everything around me were unreal	8.4	9.7	13.9	2.6	9.1	14.4	0.0	7.0	16.7

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VoIRC RAS.

Table 6. Activities of the working-age population aimed at gaining knowledge, %

Feature of activity	Working age youth			Middle-aged persons			Pre-retirement age persons		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Regularly read special, scientific and other literature on at least one topic, communicate with experts	27.8	28.8	39.4	30.3	38.0	38.4	29.4	31.6	37.3
Read popular scientific literature	33.0	32.7	21.1	25.7	26.4	16.7	35.3	22.8	19.5
Read only what is found in newspapers, social and political magazines, TV and radio, and the news on the Internet	30.7	31.4	30.6	39.5	30.8	33.7	29.4	45.6	35.6
Don't read anything, but participate in discussions with friends, acquaintances, colleagues	7.4	5.2	5.0	4.6	2.4	7.4	2.0	0.0	5.9
Don't read anything or just don't care	1.1	2.0	3.9	0.0	2.4	3.7	3.9	0.0	1.7

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.

the districts of the Oblast is not inferior to the indicators of Cherepovets residents, although it is less than the cognitive potential of Vologda residents (see Tab. 2). At the same time, the proportion of young people of working age who regularly read special literature in large cities is 10% lower than outside them; in the cities, the proportion of those who read popular scientific literature on at least one topic is about 10% higher (Tab. 6). In general, about 60% of young people both in large cities and outside them read special or popular scientific literature. Only 9% of rural youth, 11% of people of average working age, and 8% of people of pre-retirement age do not read anything.

The majority of the working-age population has a positive attitude toward knowledge and education. It is interesting that, regardless of the age category, 68% of the respondents outside large cities believe that “knowledge make a person’s life better, makes them happier”. However, the largest share of consonants with this statement is observed among the youth of the city of Vologda – 83%. The youth living in Cherepovets is more skeptical – 67%. It is important to understand that positive public sentiment forms a favorable environment for

the development of the intellectual potential of the population, so such sentiment should be supported and used. The spread of negative attitudes toward knowledge will inevitably cause destructive practices, and the value of education will be denied not with words, but in practice. Currently, one in two able-bodied residents of the districts of the region is of the opinion that “it is possible to succeed in life and to be useful to people, even if you do not possess any special knowledge” (53% of working age youth, 52% of middle-aged people, and 51% of pre-retirement age people). The lowest approval of this position is found among the persons of pre-retirement age who live in large cities: 42% – in Vologda, 44% – in Cherepovets.

The weak demand for the creative abilities of workers also contributes to the reduction of the intellectual potential of the population. Table 1 shows that the abilities to invent, create something new, and solve previously unknown tasks are the least important for achieving success in professional activities, according to the respondents’ estimates.

According to the results of the survey, in the districts of the Oblast, 3% of young people, 5% of middle-aged people and 6% of pre-

retirement age people are constantly engaged in creative (rationalization, inventive) activity. As practical necessity arises, 17%, 19% and 14%, respectively, are engaged in creative work; 58%, 56% and 63% of respondents never do any creative work (*Tab. 7*), which is significantly different from the corresponding indicators in large cities. In our opinion, this phenomenon is explained, first of all, by the difference in the structure of employment in urban and rural areas, and the prevalence and objective demand for creative professions there.

The attitude toward creativity and creative people is ambiguous. On the one hand, in the districts of the Oblast, at least 64% in each age group hold the opinion that “if one has creative abilities, one should implement them to the fullest extent”. On the other hand, at least one in four people believes that “enough has been invented already, we need to work and do things”. At the same time, 19% of young people of working age, 24% of middle-aged and 20% of pre-retirement age persons agree that “someone who is always making a fuss about their ideas prevents others from living and working normally”.

In modern conditions, when the services sector is developing vigorously, it is not creativity but social skill that becomes the most popular quality (see *Tab. 1*). During the period of the monitoring study, the growth of the index of social skills in the districts of the Oblast amounted to 3%: from 0.729 in 1997 to 0.751 in 2016 (see *Tab. 2*). Currently, one in two people experiences difficulty in finding a suitable topic for conversation in a company of others (*Tab. 8*); 58% of working age persons are easily irritated when communicating with others; 41% of young people, 39% of middle-aged persons and 47% of pre-retirement age persons feel awkward if they become the center of attention in a group of people. However, pre-retirement age and middle aged persons enjoy collective entertainment more and find it easier to meet new people in comparison with the representatives of the younger age group. At the same time, young people from large cities talk more often to strangers in public transport, and residents of the districts are more sociable at pre-retirement age.

If we analyze the indicators of internal and external culture of the population, it should be

Table 7. Distribution of answers to the question: “To what extent are you currently engaged in creative (rationalization, inventive, etc.) activities?”, %

Answer	Working age youth			Middle-aged people			Pre-retirement age people		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
1. I constantly invent, write, compose something, etc. It is my lifestyle	8.0	5.9	2.9	10.6	6.3	5.3	2.0	5.5	6.0
2. I invent something when there emerges a practical need to do it, and it is unknown how it should be done, there are no ready solutions	29.7	28.1	16.9	22.5	29.8	18.9	42.0	21.8	13.7
3. I invent, compose, etc. something, when I receive such a task from my superiors	22.3	16.3	22.1	23.2	21.6	20.1	16.0	16.4	17.1
4. I never invent anything, I do what I have been taught before, or what others suggest, or what I can read about in books, reference books, etc.	40.0	49.7	58.1	43.7	42.3	55.7	40.0	56.4	63.2

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.

Table 8. Characteristics of the ability to communicate and interact in the working age population, %

Feature	Working age youth			Middle-aged people			Pre-retirement age people		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Experience difficulties in finding a suitable topic for conversation in a company of other people	54.2	50.6	51.7	61.4	60.3	50.8	52.9	56.1	51.7
Get irritated easily when communicating with people	51.4	58.4	58.3	69.3	63.6	58.4	62.7	57.9	58.3
Feel awkward if they find themselves the center of attention in a group of people	42.5	43.5	41.1	48.4	45.5	38.8	47.1	42.1	46.7
Enjoy collective entertainment	12.3	11.7	13.9	19.6	22.0	25.1	21.6	35.1	19.2
Find it easy to meet people, feel comfortable in a company of others	6.7	10.4	8.9	12.4	12.0	10.4	9.8	14.0	16.7
Often talk with strangers on the train, bus, etc.	53.1	49.4	37.2	44.4	40.2	30.9	33.3	36.8	37.5

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VoIRC RAS.

noted that the ability to speak well and express one's own thoughts is least developed in all age groups, regardless of territory of residence (Tab. 9). However, the ability to listen to the interlocutor and delve into the meaning of their statements is one of the most developed abilities. The ability to yield and compromise is developed more poorly, especially among pre-retirement age people in the districts of the

Oblast. At the same time, they consider their own courtesy and manners to be very good, although they are inferior to Vologda residents in this indicator.

The internal culture of an individual is largely determined by their moral development. Throughout the entire measurement period, the index of moral level has the highest values among the eight qualitative characteristics

Table 9. The level of development of some indicators of internal and external culture of the working-age population, average score on a 4-point scale

Qualities and abilities	Working age youth			Middle-aged people			Pre-retirement age people		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Courtesy, good manners, knowledge of etiquette	2.99	2.97	3.01	3.01	3.05	2.89	3.10	2.88	2.90
Ability to dress tastefully	2.71	2.68	2.84	2.72	2.77	2.65	2.65	2.35	2.49
Ability to speak well, express their thoughts eloquently	2.53	2.40	2.66	2.50	2.64	2.55	2.61	2.32	2.55
Ability to listen to the interlocutor, delve into the meaning of the statements	3.03	2.79	2.91	3.03	3.00	2.83	2.92	2.72	2.74
Ability to compromise, to yield	2.73	2.67	2.79	2.72	2.81	2.68	2.76	2.56	2.55
Tactfulness, ability to respect the self-esteem of others	2.87	2.75	2.80	2.84	2.90	2.83	2.86	2.81	2.77
Ability to keep emotions in check in any critical situation and "not to lose face"	2.70	2.58	2.72	2.72	2.86	2.65	2.90	2.49	2.69
Ability to maintain health	2.68	2.62	2.84	2.59	2.66	2.68	2.49	2.37	2.63

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VoIRC RAS.

of labor potential (see Tab. 2). Respect for parents and relatives, decency, honesty and justice are of the greatest subjective importance to rural residents. Respect for people of other nationalities and equality between people are less valued (Tab. 10).

Moral feeling is closely related to moral behavior. Thus, 34% of working age youth, 43% of middle-aged people and 53% of pre-retirement age people living outside major cities cannot blame themselves for the lack of attention to their parents: there was no such case in their lives; 18%, 24% and 30% of the relevant age groups have never failed to fulfill their promises given to anyone; 22%, 24% and 35% have never deceived anyone by accident or deliberately. On average, the moral level of pre-retirement age people is currently higher than that of the younger age groups.

In addition, many indicators of the need for achievement also differ significantly from age to age. For example, if 51% of young people plan to become high-class specialists, then such a desire becomes less common among middle-aged and pre-retirement age people: only 37%

and 21%, respectively, plan to achieve that (Tab. 11). Naturally, the observed difference is largely due to the fact that the older generations have the plans and achievements that have already been implemented in the course of their long-term professional activity.

It is important to note that young people outside large cities are often no less ambitious than those living in the center. For example, in Vologda every fifth young individual intends to achieve public recognition (to receive awards, distinctions), in rural districts – one in three.

At the same time, the level of realization of the quality of labor potential [20] in rural areas lags significantly behind the indicators for the city of Vologda (Tab. 12), which brings to the fore the issue concerning the improvement of the efficiency of labor resources accumulated outside large cities.

We agree with *N.V. Zubarevich*, who points out that “population reduction is inevitable, and in such conditions the most important thing is to use human resources efficiently, to reproduce and increase their quality in the first place”. [2, p. 5].

Table 10. Self-assessment of the importance of moral values (moral sense) of the working-age population, average score on a 4-point scale

Qualities and abilities	Working age youth			Middle-aged people			Pre-retirement age people		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Honesty, truthfulness	3.30	3.32	3.31	3.38	3.39	3.28	3.47	3.42	3.27
Decency	3.33	3.30	3.36	3.54	3.46	3.36	3.73	3.54	3.37
Compassion, mercy	3.03	2.93	3.03	3.13	3.07	3.03	3.25	3.09	3.04
Justice	3.31	3.23	3.20	3.34	3.28	3.20	3.47	3.35	3.18
Dignity	3.25	3.14	3.27	3.42	3.33	3.20	3.47	3.26	3.08
Respect for others' (private, public) property	2.97	2.97	3.04	3.06	3.00	2.94	3.18	3.12	2.83
Respect for parents, relatives	3.51	3.46	3.50	3.60	3.56	3.50	3.73	3.53	3.44
Respect for people of other nationalities	2.86	2.66	2.90	2.99	2.74	2.87	3.00	2.91	2.74
Tolerance, respect for the views and opinions of others	3.11	3.04	3.13	3.23	3.17	3.05	3.39	3.11	3.00
Equality between people	3.03	2.80	2.94	3.07	2.85	2.90	3.29	3.07	2.84

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VoIRC RAS.

Table 11. Prevalence of certain types of social aspirations among the working age population, %

Plans and intentions	Working age youth			Middle-aged people			Pre-retirement age people		
	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts	Vologda	Cherepovets	Districts
Improve one's knowledge, become an erudite person	54.2	42.9	50.6	39.5	39.2	24.6	20.0	21.4	16.7
Become a highly qualified specialist, who enjoys respect of the colleagues	57.4	50.0	51.1	53.6	44.5	36.6	26.0	21.4	20.8
To get promoted, to make a career	58.5	57.8	51.1	42.8	40.2	31.4	16.0	8.9	9.2
To achieve a high financial position	61.7	64.9	62.8	58.3	56.0	50.2	20.0	30.4	18.3
To occupy a high position in society	35.4	31.8	41.1	26.5	22.5	19.7	4.0	5.4	10.0
To achieve social recognition (receive awards, honors)	21.1	17.5	33.3	18.0	15.8	20.3	4.0	8.9	15.0

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.

Table 12. Level of realization of the quality of labor potential in the major cities of the Vologda Oblast and outside them, broken down by age categories in 2016, %

Territory	Quality								Average
	Physical health	Mental health	Cognitive potential	Creative potential	Social skills	Cultural level	Moral level	Need for achievement	
Working age youth									
Vologda	83.5	87.5	83.7	69.4	87.4	86.9	86.5	74.6	82.4
Cherepovets	82.0	82.4	76.2	70.5	82.4	81.0	81.7	74.3	78.8
Districts	82.8	81.1	78.1	70.3	85.7	83.0	82.8	78.8	80.3
Middle-aged people									
Vologda	85.7	87.1	86.0	72.4	88.7	86.6	86.9	74.3	83.5
Cherepovets	84.3	82.4	80.7	71.5	84.9	81.9	83.6	75.7	80.6
Districts	82.7	78.6	76.7	68.3	81.7	78.9	79.2	73.4	77.4
Pre-retirement age people									
Vologda	82.7	87.2	84.0	72.4	88.2	87.8	87.2	69.9	82.4
Cherepovets	80.4	78.0	79.2	66.1	78.0	73.2	78.0	62.5	74.4
Districts	84.2	80.6	78.1	66.0	82.3	77.8	80.0	64.4	76.7

Source: Monitoring of the qualitative condition of labor potential of the population in the Vologda Oblast; VolRC RAS.

Conclusion

Summing up, we briefly state the key points of the study. First, the monitoring of labor potential quality is objectively necessary in the context of the decline in the number and proportion of working age population, because such a study makes it possible to identify specific problems and develop adequate differentiated measures. Second, the quality of labor potential in the territorial context is more reasonable to carry out on comparable age groups, which

allows us to take into account the structure of the population and to neutralize the effect of a more rapid demographic aging of rural areas. Third, the widespread notion concerning the low quality of the population outside major cities is not confirmed with respect to working age youth. In particular, despite the fact that rural youth lags behind urban youth in terms of creative potential, the former have good mental health, developed social skills, and high cultural and moral levels. In modern conditions, it is

strategically important to “retain” young people in rural areas, to give them an opportunity to realize their labor potential for the benefit of their home region, to become a “driver” of socio-economic development of territories outside large cities.

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