

Labor Activity of the Population of Retirement Age as a Factor in Socio-Economic Development of the Territory



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Abstract. The problem of population ageing in Russia is increasingly attracting attention of scientists and politicians. Long ago researchers recognized the irreversibility of the population ageing process in the conditions of narrowed population reproduction, but the measures to mitigate the consequences in our country, unlike Western countries, are not well developed yet. Population ageing with high probability leads to the change in labor market functioning due to the reduction in the share of able-bodied population and children and, consequently, the permanent increase in the proportion of older people in the total number of population. In these conditions the effective realization of resource potential of the older generation becomes one of the most important factors in socio-economic development of the territory. This article is aimed at studying the changes and specifics of labor activity of the population of retirement age on the example of the Vologda Oblast. The first part of the article is devoted to the main aspects of the impact of population ageing on economic development. It considers the prerequisites for the formation of the regressive age structure of population in the country and the region, determines the level of “age” of Russia and the Vologda Oblast. It identifies the features of population ageing of the region and its districts and the underlying factors of transformation of the age structure of the territory. The second part of the article presents the analysis of changes in the economic activity of the population of retirement age in the Vologda Oblast, the structure of employment of the older generation. On the basis of the sociological survey data the author describes the key incentives to continue working in retirement age, the current level of employment of seniors, and the difference between actual and nominal retirement age, etc. The main conclusion of the article is the following: the population of retirement age in the Vologda Oblast has considerable resource

potential. Its realization can be a significant factor in socio-economic development of the territory in the conditions of population aging. For this purpose it is necessary to create comfortable conditions for the employment of older people at the level of regional authorities and business structures.

Key words: population ageing, transformation of the age structure, the elderly, retirement age, labor activity.

Population ageing and economic development

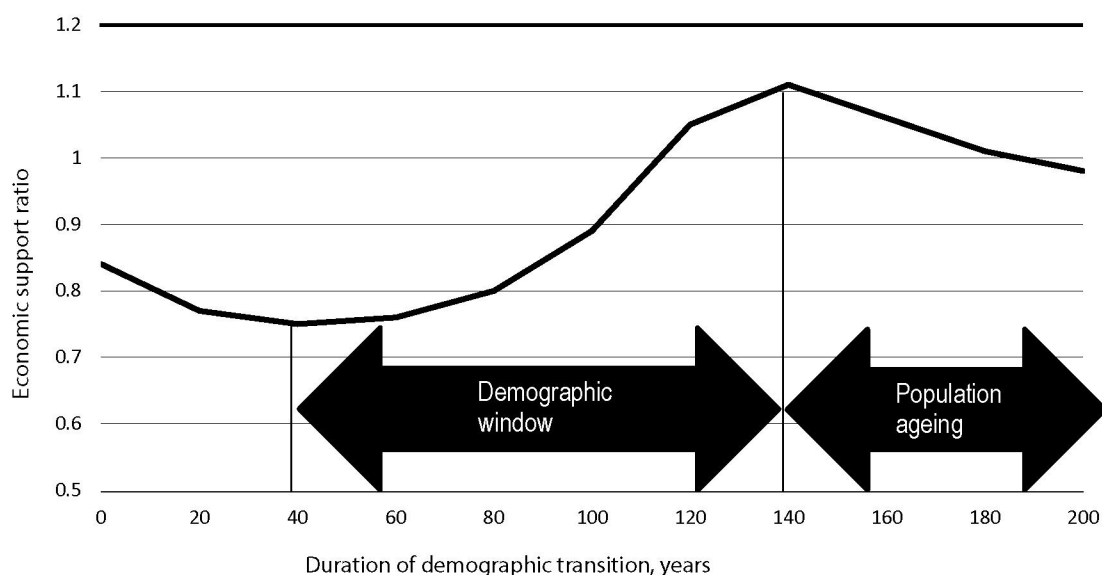
Population ageing is a consequence of the so-called “demographic transition” (DT) – a historical process of the change in the type of population reproduction from the extensive with high mortality and fertility to the intensive one with low mortality and fertility [18]. The beginning of the 4th stage of the DT is characterized by a slight rise in the birth rate and natural increase, followed by stabilization or depopulation. The decreased levels of fertility and mortality accompanied by the raised life expectancy and stabilized population lead to *the process of population ageing* – transformation of the age structure of population in the direction of increasing the share of older cohorts. This phenomenon has a significant impact on social development and economy.

Nowadays the situation is worsened by the fact that the demographic dividend that arose at the second stage of DP, when on the background of sharp decline in the birth rate and, consequently, reduction of the share of dependent groups the percentage of the working-age population rose, has already exhausted [13]. The given period of growth in the size of cohorts of working age is called a “demographic window”. American researchers Lee and Mason developed a

model [24], which visualized the effect of the “window”. They used an *economic support ratio*, calculated as a ratio of the total number of producers to the total number of consumers, and studied its dynamics over the 200-year period of the DT (*fig. 1*).

The figure shows that the demographic window is being “closed” at a certain moment due to the increase in the elderly population and the weak replacement of the working-age population caused by low birth rates. If it is possible to ensure productive employment of the majority of working population during this period, the growth rate of income per capita is significantly accelerated, leading to the sustainable increase in economic growth [15]. The period of demographic transition, and, accordingly, of the “window” can differ significantly: in particular, in developed countries, where population ageing started much earlier, there were more temporary possibilities to realize the demographic dividend and reforms aimed at mitigating the consequences, and the process of the age structure transformation was much more intense. However, despite the presence of regional features of population ageing (associated primarily with the time of entering the 4th stage of demographic transition), the vector of changes in the economic support ratio is similar for all countries and territories.

Figure 1. Change in the economic support ratio for the 200-year period of demographic transition



Source: Lee R., Mason A. *Population Aging, Wealth and Economic Growth: Demographic Dividends and Public Policy*. WESS background paper, 2015. 35 p.

Li and Mason [24] made a conclusion in their article that the second dividend could appear under certain conditions, even after the closing of the demographic window. The increase in the number of elderly population creates additional demand for separate types of resources needed to maintain the previous level of consumption in old age.

The authors present 3 main arguments in defense of their hypothesis:

- the elderly have the opportunity to accumulate capital during their working stage of their life and on average are more wealthy than the younger population of working age;

- if a person plans to live a long life, throughout life he/she makes more savings and increases the accumulation of funds;
- the low birth rate provides the opportunity to increase spending on personal consumption, including, and in old age.

For all these reasons even at the fourth stage of DT the amount of wealth per capita can increase. However, the authors make a reservation that such a scenario is almost impossible in countries with low income levels and, consequently, low savings. The article does not identify the type of per capita income in the country for the second demographic dividend to emerge. Russia, according to the

World Bank method, is characterized high per capita income (gross national income per capita in 2014 amounted to 23,910 U.S. dollars in current prices, which greatly exceeded the desired “high” threshold in 12,616 U.S. dollars [23]), however, it is significantly inferior to most Western countries, for which the findings of Lee and Mason are correct. In the Russian case, the need for maintaining the same level of consumption forces the elderly to seek other sources of income, the most obvious of which is to continue working in retirement.

The high level of employment of the elderly does not always have a positive effect. Moreover, American researcher James Moore showed on the example of the USA [25] that the growth in pensioners’ labor activity could become a serious structural problem for the economies of developed countries. Pensioners begin to compete with the able-bodied population on the labor market. As a result, the growth in the labor force is achieved at the expense of other populations to a lesser extent that, in turn, leads to higher unemployment among the youth. So, the level of employment either remains stable or stops increasing. Moore also notes that the Federal Reserve System keeps its dual mandate – control of inflation and employment. The regulator answers the challenge of unemployment by increasing the period of low interest rates, involving the rise in the number of working pensioners.

All the above effects are a threat to developed economies, where there is no shortage of manpower, and the labor market is successfully regulated at the expense of attraction of abroad immigrants of working age.

In Russia, a country with low fertility and life expectancy, as well as a shrinking share of able-bodied population, relatively high employment of the elderly provides many industries with sufficient staffing. The resource potential of the older generation is qualitative characteristics of an individual that are important for him/her personally and give the ability to effectively interact with other people, participate in socio-economic life of the community [9]. Employment of older people increases their purchasing power, pension capital and contributes to the preservation of social ties, but also have a significant impact on the operation of large public institutions. Let us consider the example of potential positive opportunities of the realization of labor potential of the population of retirement age, such as the situation with the balance of the budget of the Pension Fund of Russia. For the first time since 2010 in 2014 the expenditure side of the budget of the Pension Fund of Russia exceeded revenues (6.19 trillion rubles and 6.16 trillion rubles, respectively [4]). However, the in-depth analysis of the revenue and expenses structure reveals that in 2014 the total amount of insurance contributions for obligatory pension insurance amounted to 3.69 trillion rubles, whereas 4.98 trillion rubles was spent on the payment of insurance part of labor pension. The federal budget allocated 41 trillion rubles to the Pension Fund, of which at least 1.3 trillion rubles was spent to cover the deficit caused by the imbalance in the ratio of workers and pensioners. At the same time, according to the medium variant of the forecast made by the Federal State Statistics Service of the

Russian Federation, in 2031 the number of the dependent will account for 832 per 1,000 of the able-bodied population, of them two thirds are people aged 60 and over [22]. So, it can be assumed that the deficit of the PF budget will grow, thus requiring additional funds from the federal budget to cover it. The increase in the retirement age is most often mentioned as a solution to the problem of pension system financial sustainability [14;17]. However, studies show [2] that there are no demographic reasons (in particular, this applies to life expectancy and health) for it in our country. This contradiction makes it difficult to make managerial decisions in the conditions of population ageing. The increased employment of the population of retirement age can be one of the possible solutions to the problem of PF deficit budget. The promotion of employment among older people (which, by the way, is stipulated in the public draft of the “Strategy of actions in interests of senior citizens by 2025” [20]) could potentially “mitigate” the burden on the working population and the Pension Fund budget through the payment of insurance premiums by retirees working for a certain period after retirement.

Trends and patterns of population ageing in Russia and the Vologda Oblast

Russia is among those countries with the “old” age structure. The decline in fertility and mortality in Russia led to the fact that in 1926–2015 the proportion of population aged over 60 increased almost 3-fold (7% and 20%, respectively). In 2013 the Russian Federation ranged 44th in the ranking of the “oldest countries of the world” [26].

Regions’ differentiation by this indicator is one of the main features of population ageing in Russia. The analysis by the method of E. Rosset describing the classification of territories by level of “age” [16] shows that the vast majority of the regions entered a phase of “population ageing” (2015 in 74 regions of the country the share of population aged 60+ exceeded the threshold of 12% [10]), and in 56 regions the share of the elderly exceeded the critical value of 18%. However, the difference between the “oldest” region (the Tula Oblast) and the “youngest” region (the Chechen Republic) is 18 percentage points (25% and 7%, respectively).

The Northwestern Federal District ranges 2nd in terms of age (as of January 1, 2015 the share of population aged 60+ amounted to 21%) following the Central Federal District (22%, respectively). The alignment of population ageing in the NWFD regions in the period from 1990 to 2015 is of particular importance (*tab. 1*). Such changes occurred due to greater intensity of population ageing in the regions with the relatively “young” age structure. The greatest increase in the aging factor in this period was observed in the Murmansk Oblast (by 2.5 times) and the Komi Republic (by 2 times), where the rise in the share of the elderly was determined not only by the changes in the parameters of natural reproduction of the population (i.e. mortality and fertility), but also by the significant outflow of working-age citizens.

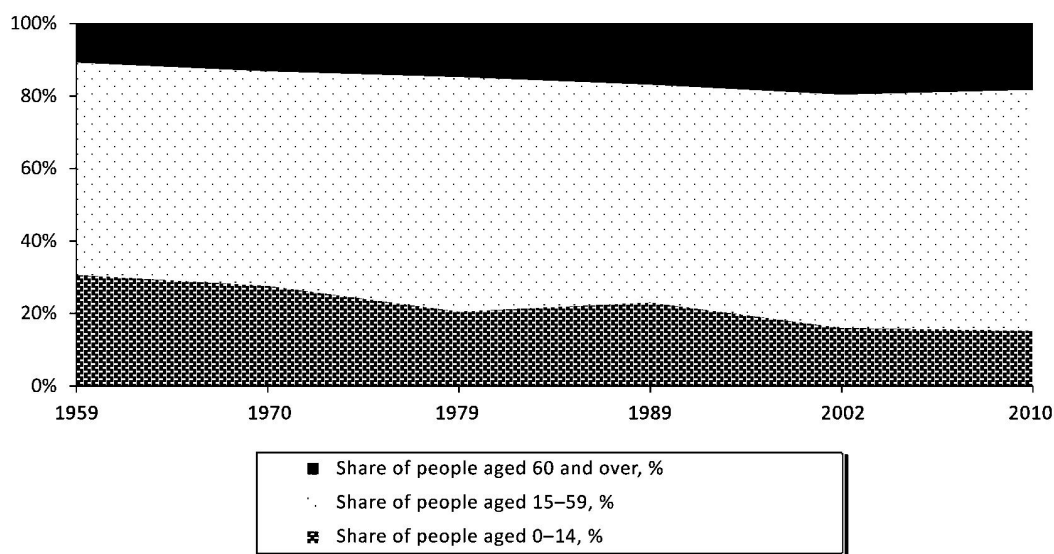
The Vologda Oblast “aged” considerably earlier than most considered regions: even in the 1960s the proportion of older persons exceeded the 12% threshold. Today, the share

Table 1. Dynamics of the changes in the aging factor in the NWFD regions, 1990–2015

Federal district	Aging factor, %		2015 to 1990, %
	1990	2015	
1. Pskov Oblast	21.2	23.7	113
2. Novgorod Oblast	19.2	23.3	121
3. Leningrad Oblast	16.8	22.0	131
4. Saint Petersburg	17.5	21.7	124
5. Republic of Karelia	13.2	20.7	157
6. Vologda Oblast	17.3	20.2	117
7. Arkhangelsk Oblast	12.9	20.0	155
8. Kaliningrad Oblast	13.9	19.8	142
9. Murmansk Oblast	6.7	16.4	245
10. Komi Republic	8.1	16.0	197

Source: data of the Unified Inter-Departmental Information and Statistical System. Available at: <http://fedstat.ru/indicators/start.do>; the author's calculations.

Figure 2. Distribution of the Vologda Oblast population by major age groups



Source: compiled with the help of data of the 1959–2010 censuses. Available at: <http://demoscope.ru/weekly/pril.php>

of the population aged 60 and over in the Vologda Oblasts is equal to 20%. It ranks 6th by level of “age” among the NWFD regions and 38th in the country.

The dynamics of the share of 3 major age contingents presents the transformation of the age structure of Vologda Oblast population in 1959–2010 (*fig. 2*). For half a century there

have been a two-fold reduction in the share of children and, consequently, a rise in the share of adults of working and retirement ages. Thus, the share of the pension contingent has grown much faster than of the able-bodied [1].

The change in infant mortality is an important element of the population ageing process. On the one hand, its decline leads to the increase in the number of children that hypothetically involves the “rejuvenation” of population, because it raises the survival rate of children; for the age pyramid it is equivalent to increasing the birth rate. On the other hand, the decrease in this index results in higher life expectancy, which in the conditions of low fertility leads to population ageing. In the Vologda Oblast there are positive changes in the dynamics of this indicator: from 1990 to 2014 infant mortality in the region fell from 17.7 to 7.7 per mille [7]. The reduction in infant mortality on the territories with the model of “ageing from the bottom” is a significant factor in the intensification of the ageing process, contributing to the growth of life expectancy due to the increased survival rate. In turn, the achievement of the rate of infant mortality observed in the developed countries leads

to the reduction in resources to enhance life expectancy “from the bottom”, presenting one of the components of territories’ transition to the model of “ageing from above”, when the lengthening of the period of survival at older ages is the main factor in population ageing.

Migration is a factor that has a significant impact on population ageing in the majority of Russian regions. The analysis of migration processes in the Vologda Oblast reveals that the population outflow is caused to a greater extent by the retirement of able-bodied citizens and representatives of the younger age group (aged 0–14) from rural areas (*tab. 2*). At the same time, in-migration is observed in the elderly group (in 2012 the growth amounted to 402 persons, in 2013 – 593). It can be concluded that the age structure of rural areas is more susceptible to changes as a consequence of migration processes. The outflow of young cohorts of population creates preconditions for the formation of unfavorable forecast of the age structure of rural population. The urgency of the population ageing problem in rural areas is also confirmed by the following figures: in 2014 in villages there were 841 dependents per 1,000 population (average for the oblast – 737 [3]).

Table 2. Migration growth (decline) of the Vologda Oblast population geographically and by age group, persons

Age group	Year					
	2012			2013		
	Urban area	Rural area	Total	Urban area	Rural area	Total
Entire population	1,017	-2,070	-1,053	720	-2041	-1321
Including						
Under working age	84	-363	-279	322	-434	-112
Of working age	935	-2,109	-1,174	498	-2,020	-1,702
Over working age	-2	402	400	-100	593	493

Source: data of the Territorial Body of the Federal State Statistics Service in the Vologda Oblast. Available at: <http://vologdastat.gks.ru/>

In five districts (Vashkinsky, Kharovsky, Belozersky, Ust-Kubinsky, Kirillovsky) the aging factor is more than 27%, and the proportion of working age population is already smaller than the one of children and pensioners (*tab. 3*). Each person of working age accounts for more than one dependent group representative and two-thirds of this load is formed by the population of retirement age.

The variable-based demographic forecast of the changes in the Vologda Oblast population up to 2030 reflects the continuation of depopulation, though the increase in the birth rate is planned [11]. In turn, according to the inertial scenario, the aging factor will increase to 30.8 % in the region in 2050 [6]. The implementation of such a forecast seems to be most probable in view of the fact that there are no prerequisites for fundamental changes in the regional situation. The substantial increase in the elderly population will further decrease supply on the labor market, raise the

demographic burden on working population and the pension fund deficit. The demographic processes are slow in nature; in the literature population ageing is called a “quiet revolution” [8]. The implications of population ageing are stretched in time, that is why strategic planning should consider risks associated with changes in the age structure of population for the region to become ready for the upcoming challenges.

Socio-economic analysis of labor activity of the population of retirement age (case study of the Vologda Oblast)

In the conditions of population ageing leading to the transformed labor market functioning due to the declined share of employees, economic activity of the population of retirement age is becoming one of the most important resources for socio-economic development of the territory. The analysis of the 1992–2014 statistical data shows that the employment rate of retirement age population tends to increase in the Vologda Oblast (*fig. 3*).

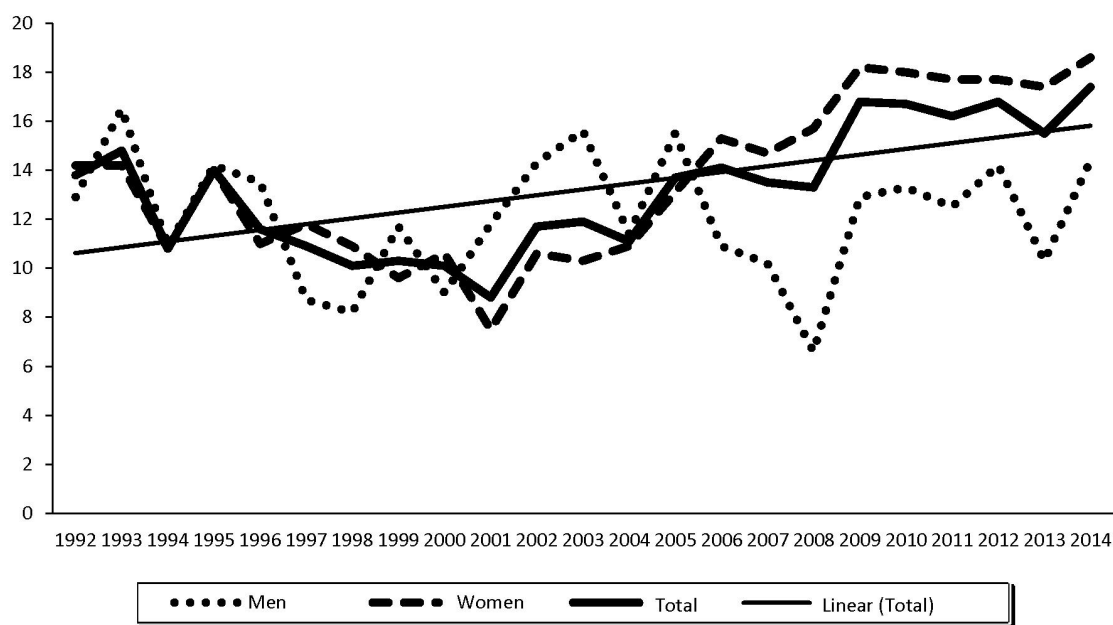
Table 3. Basic indicators of population ageing of the Vologda Oblast territorial entities in 2014

Territory	Aging factor, %	Aging index	Demographic burden	Demographic burden of children	Demographic burden of the elderly	Share of people under working age, %	Share of people of working age, %	Share of people of retirement age, %
Vashkinsky	29.0	174	1,126	372	754	17.5	47.0	35.5
Kharovsky	28.3	172	1,046	355	691	17.3	48.9	33.8
Belozersky	28.1	172	1,034	353	681	17.3	49.2	33.5
Ust-Kubinsky	27.9	166	1,052	364	688	17.7	48.7	33.5
Kirillovsky	27.6	164	1,039	359	680	17.6	49.0	33.4
...
Cherepovets	18.3	106	684	304	379	18.1	59.4	22.5
Nikolsky	18.0	89	783	379	404	21.3	56.1	22.7
Vologda	17.8	105	664	295	368	17.7	60.1	22.1

Ranked by the aging factor value.

Sources: Vozrastno-polovoi sostav naseleniya Vologodskoi oblasti v 2014 godu: stat. sbornik [Age-Sex Composition of the Vologda Oblast Population in 2014: Statistical Collection]. *Vologdastat* [Territorial Body of the Federal State Statistics Service in the Vologda Oblast]. Vologda, 2015. 96 p.; the author's calculations.

Figure 3. Change in the level of employment of the population of retirement age in the Vologda Oblast, % of the total population of retirement age



Source: data of the Territorial Body of Federal State Statistics Service in Vologda Oblast. Available at: <http://vologdastat.gks.ru/>; author's calculations.

In the 1990s the decline was caused by the unstable economic and political situation in the country and the region, when due to mass unemployment older people found it difficult to apply for jobs. However, the stabilization of the socio-economic situation in the country in the early 2000s led to the “return” of pensioners to the labor market. Noteworthy is the stepwise change in the employment rate of men of retirement age, with a substantial decline in “crisis” years. This leads to the

conclusion that the position of older men on the labor market has a strong dependence on the changing socio-economic situation in the country and the region.

The higher employment rate of women is substantiated by several reasons: they retire earlier, have relatively higher life expectancy, moreover, the nature of women’s work in most cases is less energy-intensive and harmful than of men’s¹. In addition, there is a significant change in the structure of value

¹ Article 253 of the Labor Code establishes a general rule on the limitation of women’s employment in heavy works and works with harmful and (or) dangerous working conditions and underground work except for nonphysical jobs or sanitary and consumer services. Part 2 Article 253 of the Labor Code prohibits the employment of women in works connected with lifting and moving manually weights, exceeding maximum permissible norms, established by the RF Government Decree of February 6, 1993 No. 105. Maximum allowable cargo weight when lifting and moving weights when rotating works is about 10 kg, and when lifting and moving weights constantly during a work shift – 7 kg.

orientations of older women. According to experts [19], the recently emerged diversity of women's life strategies is replaced by the dominance of survival strategies, which become more widespread amid the increasing social stratification of population and high risk of poverty for the vast majority of women. As a result, women living in families, on the one hand, spend more time on domestic work and service of the family, on the other – the value of involuntary employment increases for these women.

If we turn to the economic activities of working pensioners in the Vologda Oblast, we can highlight some most “popular” areas, which include education and healthcare, agriculture (which is traditionally characterized by the high proportion of workers of retirement age) and mining (*tab. 4*). The smallest percentage of working pensioners is observed in the financial sector, hotel and restaurant business.

The distribution of working pensioners by economic activity also has its own cha-

Table 4. Distribution of the employed by age and economic activity in 2014

Activity	Employed as total, thousand people	Aged 55–72, thousand people	Aged 55–72, in % of the total number	Average age, years
Agriculture, hunting and forestry	55.9	12.1	16.2	43.7
Fishing and fish farming	0.7	0.2	14.4	45.5
Mining	0.4	0.1	25	48.3
Manufacturing	111.8	10.9	10.5	39.4
Production and distribution of electricity, gas and water	24.2	5.2	10.2	43.3
Construction	41.9	3.9	5.6	37.8
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items	90	6.3	6.5	36.3
Hotels and restaurants	10.6	1.3	3.8	38.9
Transport and communications	53.6	5.6	6.7	39.6
Financial activities	9.1	0.4	1.4	34.6
Operations with real estate, rent and granting of services	25.5	4.7	9.7	40.9
Public administration and military security; social insurance	44.3	3.4	4.1	37.5
Education	53.6	10.6	13.8	43.1
Healthcare and social services	45.7	9.7	13.0	44
Total	589.7	77.4	13.1	40

Source: Trud i zanyatost' v Vologodskoi oblasti v 2010–2014 gg.: stat. sbornik [Work and Employment in the Vologda Oblast in 2010–2014: Statistical Collection]. *Vologdastat* [Territorial Body of the Federal State Statistics Service in the Vologda Oblast]. Vologda, 2015. 111 p.

racteristics. Over one third (35%) of all skilled agriculture workers and one of five (20%) unskilled workers account for the population over 55 years of age. The myth about the “geriatric” structure of executive personnel is disproved by the following figure: only 14.6% of the heads of institutions, organizations and their structural subdivisions in the Vologda Oblast is over 55 years of age [21].

The actual irreversibility of the population ageing process, along with increasing life expectancy, creates a situation where the socio-demographic category of the elderly is becoming increasingly important, which, in turn, actualizes the research on the subject. These statistics allow us to estimate the rate of changes in pensioners’ economic activity and some structural elements, but do not give an opportunity to determine, for example, motives for work in retirement.

Taking into account the problem importance, in 2015 the Institute of Socio-Economic Development of Territories of RAS carried out an expert survey “Quality of life of older persons in the Vologda Oblast”. The sample size is 1,500 people. The distribution of respondents by sex and age conforms to the general totality of Vologda Oblast population aged over 50 (according to age and gender indicators presented in the statistical compilations) that allows us to evaluate the obtained results as reliable. To determine territorial characteristics of the study we single out 2 major cities – Vologda and Cherepovets. The sampling error does not exceed 4%. A substantial part of the questionnaire is devoted to various aspects of labor activity of the elderly population.

Assessing resource potential of the older generation in the future, it is important to understand, whether citizens of preretirement age intend to continue the labor activity. According to the findings, 53% of the respondents of preretirement age plan to retire immediately upon attainment of the age point. A quarter (25% of the respondents) have not decided yet. Accordingly, 22% of people aged 50–59 do not plan to retire in the first year.

More than a third of the population of preretirement age (35%) plan to continue working in retirement. A significant proportion of the respondents (38%) find it difficult to answer this question: their decision can be influenced by economic (additional income) and non-economic (need for communication) motives. The data of our study confirm that the need for additional income (94% of the respondents) is the main motive for the population of preretirement age to continue employment. The interest in constant communication (15%) and the desire to be useful to society (11%) are less significant.

The duration of work after retirement is the most important indicator to assess pensioners’ labor activity. According to the comprehensive monitoring of living conditions of the population conducted by Rosstat, in Russia the average length of employment in retirement amounts to 6.3 years for working pensioners and 6.4 years for citizens who have completed their career [5]. The study reveals that in the Vologda Oblast the average planned duration of employment in retirement is 5.5 years. One fifth of the respondents (21%) plan to work in retirement for 1–5 years. About the same proportion of region’s residents

of preretirement age are going to work for 5–10 years after retirement, and 3% of the respondents – more than 10 years. More than half of the respondents (53%) ready to work in retirement find it difficult to specify the approximate number of years, during which they are going to continue their career.

The study allow us to identify the difference between the actual and nominal (55 for women and 60 for men) age of retirement. According to our calculations, the actual age of retirement for men amounts to 58 years (the deviation from the nominal age of retirement is equal to 2 years) (*tab. 5*), and every third of the male respondents retires early (32.3%). The actual age of female retirement coincides with the nominal and is equal to 55. Unlike men, only 12% of the women retire early.

The vast majority of the respondents of retirement age receive old-age pension (78.5%). Every tenth of the respondents (11%) gets superannuation, 6% – disability pension, and 2% – military pension. The average size of pension in the area, according to the respondents, amounts to 11,860 rubles (*tab. 6*). The average size of old-age pension is in the range of average regional values (11,832 rubles). Among men it is slightly higher than among women (12,090 and 11,744 rubles, respectively). The largest size of old-age pension is observed among the regional population aged 50–54 (13,670 rubles) and the lowest – among the residents aged 55–59 (10,671 ruble).

Almost half of the surveyed pensioners (45%) continue to work after retirement. The respondents receiving pension have motives

Table 5. Distribution of answers to the question: “At what age have you retired?”, %

Answer option	Total	Men	Women
No answer	4.5	5.2	4.2
Aged under 50	3.2	4.6	2.6
Aged 50–54	9.4	8.8	9.7
Aged 55–59	61.2	18.9	79.9
Aged 60–64	20.3	60.1	2.7
Aged 65 and over	1.4	2.4	0.9
Average age, years	55	58	55

Source: here and below, unless otherwise indicated: data of the survey “Quality of life of the elderly” conducted by ISEDT RAS in 2015. Sample size – 1,500 people aged 50 and over.

Table 6. Distribution of answers to the question: “Please, indicate the size of your pension”, rubles

Answer option	Total	Gender		Age				
		Men	Women	50–54	55–59	60–64	65–69	70 and over
Aaverage value	11,860	12,282	11,686	12,789	10,886	11,334	11,730	12,800
Average pension: old-age	11,832	12,090	11,744	13,670	10,671	11,394	11,838	12,704
war	20,167	20,167	-	22,667	22,000	17,250	15,000	22,667
disability	11,500	11,190	11,741	9750	9889	10,827	10,900	14,093
superannuation	11,038	11,070	11,018	11,167	12,000	10,387	11,544	10,306

to continue working that are different from the population of preretirement age: the need for additional income is less important (81% against 94%, respectively), the need to communicate (20% against 15% respectively) and the desire to do good to the society (13% against 11%, respectively) become increasingly urgent. According to the analysis of pensioners' attitudes, becoming older, people are more concerned about altruistic and aesthetic values, while the influence of the material factor becomes a little less significant. Such changes in the structure of older persons' values have certain influence on the motives to continue working at older ages.

The conducted research reveals that about half of the retirees (45%) of those who continue working after retirement work up to date (tab. 7). The most obvious reduction in work activity is recorded in the group of people aged over 70 (of which only 9% continue working at the time of the survey), whereas in the group of respondents aged 65–69 39% of the pensioners carry out labor activity (of the those who continue working after retirement). This allows us to assume that the limit in 70 years is a conditional point of finishing realization of older people's labor potential. However, it is also necessary to pay attention to the fact that by the age of 60 almost half of the respondents stop working.

A third of the retirees (33%, carrying out labor activity at the time of the survey) are going to work in retirement for 1–5 years, and every fifth (18%) – in for 5–10 years. The state of health is a determining factor in the prolongation of labor activity in retirement, which is confirmed by the decrease in the respondents' estimates of the possible employment period with age, and great "enthusiasm" of women.

Of those people who continue working at the time of the survey, the majority has a permanent job (71%). Every fifth retiree (20%) holds a contract, has a temporary job. To a greater degree it is characteristic of the elderly aged over 70 (53.8% of the total number in this age group) due to the unsatisfactory state of health, preventing to work on a regular basis. The employer's position in relation to older people is also a significant limiting factor, which is evidenced by the fact that 13% of the pensioners face manifestations of age discrimination in hiring.

According to the study data, 21% of the non-working pensioners are ready to accept any feasible job if they received an offer. Over half of the respondents (61%) are more likely to refuse it. This can be caused by either the impossibility to continue labor activity due to poor health (70% of the respondents assess their health as "imperfect" and "bad") or the

Table 7. Distribution of answers to the question: "Are you working now?", % of those who continue to work after retirement

Answer option	Total	Gender		Age				
		Men	Women	50–54	55–59	60–64	65–69	70 and over
Yes	44.8	48.3	43.3	78.9	73.8	52.2	39.3	9.0
No	55.2	51.7	56.7	21.1	26.2	47.8	60.7	91.0

lack of motivation, as for many older people the value of rest prevails over the desire to continue employment.

Older people can fulfil their potential and some their needs (communication, hobby, etc.) doing volunteer work. However, only 13% of the retirees have a positive attitude towards the opportunity to work on a voluntary basis in public organizations. However, the proportion of older people skeptical about this occupation is also relatively small – 23%. The majority of the respondents (63.5%) find it difficult to answer this question due to, in our opinion, the pensioners' insufficient awareness about the work of community and voluntary organizations. Volunteer organizations should pay more attention to the dissemination of information concerning their activities and the possibility of attracting the elderly.

The level of older people's qualification and the correspondence of their skills to the modern requirements are the factors determining the possibility to continue employment in retirement. The ability to quickly adapt to innovations is an important competitive advantage of any specialist, which is the key to the success of both an employee and an organization. The survey shows that only 12% of the retirees would currently take training courses, learn new skills and knowledge. A quarter of the respondents (24%) find it difficult to answer the question. The rest (64%) indicate that do not need training at the moment.

In the questionnaire the respondents are asked to rate the truthfulness of some statements about the employment of older people. So, 61% of the retirees agree that

older employees give more time and effort to the work than their younger colleagues. However, about half of the respondents (46%) believe that most elderly people lack sufficient motivation and commitment to career development.

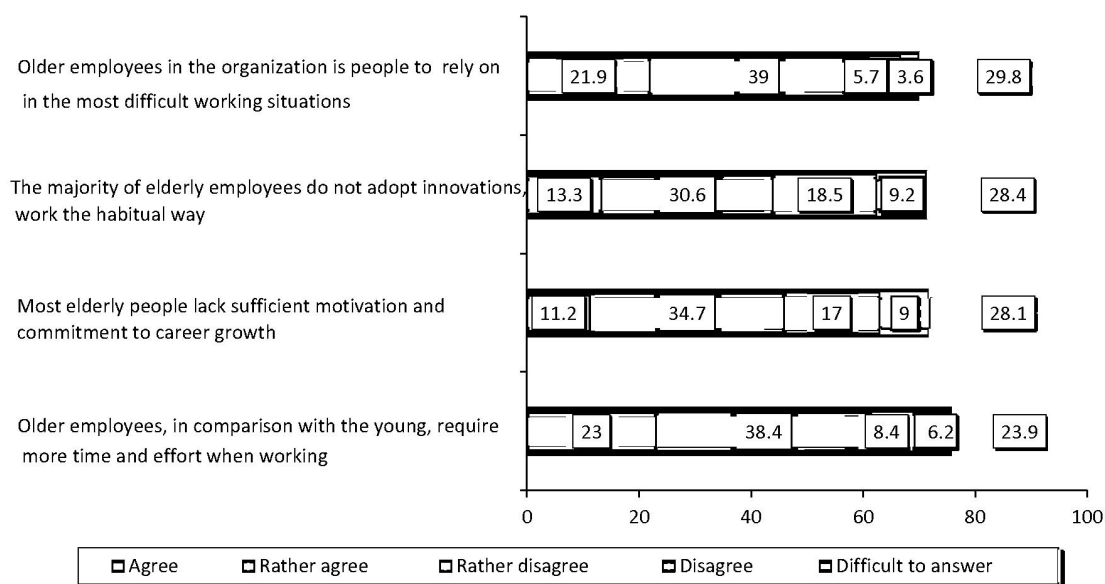
Also about half of the surveyed retirees (44%) believe that in most cases older employees are not inclined to innovations and more likely to work "the old way" (*fig. 4*). However, according to 61% of the respondents, older employees are people to rely on in the organization, and their experience accumulated over a long working life helps even in the most difficult situations.

Thus, the sociological portrait of an elderly employee, based on the pensioners' subjective evaluations, is as follows: this is an experienced and responsible worker, whose opinion is respected; however, he/she has a fairly conservative approach to the duties and finds it difficult to adapt to innovations.

Conclusions and recommendations

Labor activity of older persons in the Vologda Oblast can be described as the average: about 45% of the respondents continue working after retirement. For comparison, the national average amounts to 31% [5]. The need for additional income is the key motive to continue employment in retirement, but with age there increases the importance of such factors as communication and desire to do good to the society. The important result is that a fifth of the population approaching retirement age is not planning to retire immediately after reaching the required age. It can have a positive effect on the pension system and the region's economy in the future.

Figure 4. Distribution of answers to the question “Do you agree with the following statements?”, %



As for reserves of increasing pensioners’ labor activity in the area, a fifth of pensioners are ready to take up any possible work. At the same time, 13% of the respondents experience manifestation of age discrimination in hiring.

On the one hand, population ageing entails a number of negative consequences for the society (deterioration of the employment structure of population, raised population pressure and burden on social infrastructure, etc.), on the other hand, older people have vast experiences and resources that can and should be implemented in the social and economic spheres of public life. The positive aspects include the grown employment and economic activity of pensioners and increased levels of education. This confirms the fact that the social group of older people will play

a more important role in the near future and become one of the major resources for Russia’s development [19].

The main activities of the state and society, which, in our opinion, help realize the resource potential of older population, are presented below.

1. It is necessary to form the legal base to regulate various aspects of older people’s employment, in particular, working conditions. This process should be connected to all main actors: the state, as a guarantor of protection of the right to employment at any age, employers, offering jobs, and the elderly themselves, offering their labor. According to the analysis and expert evaluation [19], in the modern realities it is necessary to adopt a law on non-discrimination by age.

2. It is important to encourage the business community to create jobs appropriate for the older generation.

3. It is necessary to pay much attention to the enhancement of employees' qualification throughout the period of their employment, including after retirement. The reduction in the difference in time between training courses will help the elderly better adapt to the latest innovations.

4. The pensioners' remote involvement into work via the Internet can be a perspective direction to raise labor activity and productivity of older people. The main obstacle is a lack of computer literacy of the elderly population. Nine of ten respondents aged over 70 (90%) indicate that they do not have the skills to work with computers. However, among the respondents of pre-retirement age (50–59 years), the proportion is only 37%. These figures suggest that in the near future the

problem of insufficient computer literacy among the elderly will be solved in a natural way.

5. It is necessary to focus on the promotion of ideas of healthy (self-preserving) behavior among the population [12]. In our opinion, this direction can be realized through the adoption of the active ageing concept at the federal and regional level, which aims at developing personal responsibility for own health, knowledge and skills of a long and active life.

6. There is a need to introduce gerontology profiling for professionals working with older people, medical workers, teachers, employees in the sphere of recreation and leisure.

7. It is important to keep a balance of work and rest modes that can positively influence the state of health in old age and, in turn, significantly extend the period of employment.

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