

UDC 316.334.22(470.13)

LBC 60.56(2Ros.Kom)

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Topical issues of labour potential development in the Republic of Komi *

Labour potential of the region is characterized by the size and health of the population, a progressive age distribution and economic activity ratio, an employment rate, the structure of labour resources and their professional competence, as well as the changes in these characteristics and the factors that cause them. The article deals with the trend in changing the quantitative characteristics of labour potential in the Republic of Komi for the period after the 1989 census. The current state of labour potential in the republic and its utilization level are estimated in the article.

Age distribution, labour potential, economic activity of the population, employment.



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Region's labour potential is a set of aggregate population's abilities to work in the specific historical and socio-economic conditions. It can be characterized by the size and health of the population, a progressive age distribution and economic activity ratio, an employment rate, the structure of labour resources and their professional competence, as well as the changes in these characteristics and the factors that cause them.

The main source of employment resources is young people who reach working age. Accordingly, the formation of labour potential depends on marriage and birth rates that were observed fifteen years ago, infant and children's mortality, non-adult morbidity and injury rate. However, region's labour potential can be largely determined by the specifics of the migratory behavior of its population and migration attractiveness of

* The work was supported by the RAS Presidium Programme "The role of space in the modernization of Russia: natural and socio-economic potential", the project "Formation and use of the labour potential in the Republic of Komi" (registration number 12-P-7-1005).

the area for the residents from other regions. The reproduction of labour potential is influenced by the adult health, disability rate and working population mortality rate. Consenescence of age distribution is resulted in growth rates of working-age overrun and, therefore, a narrowing down of labour potential reproduction. Formation of the region's labour potential is inextricably linked with educational availabilities for the population, acquiring a specialty and labour skills, restoring the ability to work.

Next, we'll consider the changes in the quantitative characteristics of labour potential in the Republic of Komi over recent two decades and estimate the current state of labour potential in the republic and its utilization level.

Population dynamics in the Republic of Komi. Population in the Republic of Komi, as well as in the Russian North, has been formed mainly due to migration flows. Therefore, the republic had been experiencing a significant growth of the population for a long period. Since the late 1980s, the population has been declining here after nearly sevenfold increase over 70 years (*tab. 1*). The population in the republic has decreased by 28.9% since the 1989 census, when the maximum population size was fixed (1250.8 thousand people); it has

been accounted for 889.8 thousand people as by 1 January 2012. The urban population has decreased by 27.2% (from 944.4 to 687.2 thousand people); the rural population has decreased by more than a third – by 33.9% (from 306.4 to 202.6 thousand people), despite the fact that some urban-type settlements were moved into the category of villages in the 1990s.

There was the maximum volume of population decline in the republic in the 1990s. Population size has decreased by 232.1 thousand people (18.6%) over the intercensal period from 1989 to 2002 and by 117.1 thousand people (11.5%) over the period from 2002 to 2010. Over this time, the Republic of Komi has moved from the 48th to the 53rd position in 2002 according to the population size among Russia's regions and to the 58th place in 2010. Average population density has reduced from three persons to 2.2 persons per one square kilometer, which is more than three times lower than the national average.

The role of migration and natural population movement in depopulation. According to Komi Statistic Service, the republic has been characterized by the stable negative balance of migration since 1987. So, if positive migration exchange with FSU countries compensates more than half of natural population loss in Russia,

Table 1. The dynamics of the resident population in the Republic of Komi (according to the data of population census, thsd. people)

| Year | Resident population | Including | | In % to the previous population census | | |
|-------|---------------------|------------------|------------------|----------------------------------------|------------------|------------------|
| | | Urban population | Rural population | Total population | Urban population | Rural population |
| 1897 | 170.7 | 4.5 | 166.2 | | | |
| 1920 | 179.8 | 5.4 | 174.4 | 105.3 | 120.0 | 104.9 |
| 1926 | 225.6 | 10.0 | 215.6 | 125.5 | 185.2 | 123.6 |
| 1939 | 320.3 | 29.2 | 291.1 | 142.0 | 292.0 | 135.0 |
| 1959 | 815.6 | 484.3 | 331.3 | 254.6 | 1658.6 | 113.8 |
| 1970 | 967.0 | 598.1 | 368.9 | 118.6 | 123.5 | 111.3 |
| 1979 | 1110.4 | 786.5 | 323.9 | 114.8 | 131.5 | 87.8 |
| 1989 | 1250.8 | 944.4 | 306.4 | 112.6 | 120.1 | 94.6 |
| 2002 | 1018.7 | 766.6 | 252.1 | 81.4 | 81.2 | 82.3 |
| 2010 | 901.2 | 693.4 | 207.8 | 88.5 | 90.5 | 82.4 |
| 2012* | 889.8 | 687.2 | 202.6 | 98.7 | 99.1 | 97.5 |

* Calculated data on the base of the 2010 population census – at the beginning of year.

then migration, on the contrary, contributes a lot to the population decline here, as well as in most northern regions of the country.

The population has declined by 98.4% due to migration over the period between the censuses of 1989 and 2002; only 1.6% of population decline has been caused by natural loss. The natural increase in urban areas is generally positive over this period between the censuses, i.e. migration has determined the total decline in the republic's urban population over the period from 1989 to 2002. In rural areas, the contribution of migration to population loss is estimated at 80.8% for the period from 1989 to 2002.

The role of migration in the republic decreased later, since the volume of outward migration flow declined after it had reached the maximum values in the first half of the 1990s. The republic's population has been declined by 85.1% due to migration over the period between the censuses of 2002 and 2010. As in the previous intercensal period, migration's impact is more significant in urban areas (90.9%) than in rural areas (75.6%).

Recently, the role of migration in the population decline has been growing again due to the reduction of natural loss because of the favorable trends in fertility and mortality. The total population decline in urban areas has been determined mostly by migration since 2007. And the natural increase of the Republic's population became positive in 2011. Transition to the natural increase under the conditions of preserving natural loss in the whole Russia was provided by relatively young age structure of the population in the Republic of Komi, which made for the subsequent natural loss in the region at one time (in 1993 vs. 1992 for the whole country). But if only 1.6% of total depopulation in the republic was caused by the prevalence of a mortality rate over a birth rate in the period between the censuses of 1989 and 2002, then 14.9% of depopulation was caused by that in 2002 – 2010.

The absolute natural loss in Komi has amounted to 46 thousand people over the period from 1993 to 2011. The number of deaths exceeded the birth rate by 19.4 thousand people over 19 years in urban areas (more than a thousand per each year) and by 26.6 thousand people in rural areas (1.4 thousand per year). At the same time, the rural population accounts for less than one quarter of the total population in the republic. The rural population natural loss was several times higher than the similar urban indicator in some years. Absolute annual natural loss maximum was fixed in the republic in 2003: -4.3 thousand people (-4.3 per 1,000 people). At the same time, the rural population natural loss was -9.8 per 1,000 people as compared with -2,6 ‰ in urban areas. This was followed by the reduction of loss and, as mentioned above, the positive natural increase of the population was fixed in 2011, i.e. the number of births exceeded the number of deaths.

Changes in age distribution. At one time, active migration inflow was accompanied with a significant rejuvenation of age distribution in the republic. Migration outflow, on the contrary, tends to raise demographic ageing rates (increasing the share of seniors and elders in the total population) due to reducing the group of people at the working age who have the greatest migration mobility. The population's consensescence was also caused by a low birth rate during the last two decades that led to a reduction in the share of children ages. At the same time, it should be noted that the aggregate birth rate, which was kept in Komi until the second half of the 1980s, was significantly higher than the average national rate; it did not differ appreciably from it in 1990 – 2000, and it was lower than the national average in some years. The decline in the population under the working age and the increase in the population at the working age and over were fixed in Komi during the period between the censuses of 1989 and 2002 (*tab. 2*).

Table 2. The dynamics of age distribution in the Russian Federation and the Republic of Komi (according to censuses) [1, 2, 3, 4, 5, 7, 8]

| Year | The share of population | | | The share of people over the working age among the population aged 16 and over, % |
|--------------------|--------------------------|-----------------------|-------------------------|-----------------------------------------------------------------------------------|
| | under the working age, % | at the working age, % | over the working age, % | |
| Russian Federation | | | | |
| 1959 | 31.4 | 58.4 | 10.2 | 14.9 |
| 1970 | 28.6 | 56.0 | 15.4 | 21.6 |
| 1979 | 23.3 | 60.4 | 16.3 | 21.3 |
| 1989 | 24.5 | 57.0 | 18.5 | 24.5 |
| 2002 | 18.1 | 61.3 | 20.5 | 25.1 |
| 2010 | 16.2 | 61.6 | 22.2 | 26.5 |
| Republic of Komi | | | | |
| 1959 | 29.1 | 65.0 | 5.9 | 8.3 |
| 1970 | 32.6 | 60.1 | 7.3 | 10.8 |
| 1979 | 26.9 | 65.4 | 7.7 | 10.5 |
| 1989 | 28.0 | 62.1 | 9.9 | 13.8 |
| 2002 | 19.8 | 66.1 | 14.1 | 17.6 |
| 2010 | 17.7 | 64.7 | 17.6 | 21.4 |

Moreover, absolute population growth was specific only for the retirement age, but the working-age population declined from 776.4 thousand to 673 thousand people, i.e. by 13.3%, in Komi in 1989 – 2002, as opposed to the country as a whole.

Urban population in the republic is characterized by the significant consenscence of population that consists in marked reduction in the share of children and increase in the share of pensioners. In rural areas, on the contrary, there was a more significant increase in the share of working-age population. However, the absolute number of working people has decreased by 11.2% here over the period from 1989 to 2002.

There was an increase only in the share of population over the working age in the last intercensal period from 2002 to 2010 in the Republic of Komi. And only the rural population is still characterized by a slight increase in the share of working-age people mainly due to a less significant increase in the number of pensioners because of the high mortality of the working-age villagers. It should be noted that in 2002 – 2010 there was more significant decrease in the share of children ages in rural areas than in cities. There was a marked decline in the share of working-age population: by 16.1% versus 12.6% in cities.

Table 2 shows that Russia's population has already crossed the threshold of old age in 2002. The Komi Republic's age distribution allows the population not to be considered as old. At least, according to not all the scales of old age. The share of pensioners (men aged 60 and over, women aged 55 and over) does not exceed 20% both in rural and urban areas. Despite the fact that the Republic of Komi had a migration population loss in the last 25 years and it is characterized by the increased rates of population aging, its population is still younger. According to the 2010 Population Census, the average age of the population in Russia accounted for 39 years, it increased by 1.3 years as compared with 2002 [8]. The average age of the population in Komi accounted for 37.2 years [7, p. 94]. However, it has increased by 2.2 years over the recent intercensal period.

At the same time, it should be taken into account that there is an early retirement age in the republic: 50 years – for women and 55 years – for men, which is an additional factor affecting the labour potential in the region. Moreover, the branch system of management and uncomfortable living conditions in the North impose the special requirements to the characteristics of public health and, accordingly, to the age distribution.

Dynamics of the level of economic (demographic) pressure. The significant decrease in the share of children and slight decrease, especially in rural areas, in the share of pensioners in 1989 – 2002 led to the marked reduction in the level of demographic pressure on the working-age population in the republic (*tab. 3*). The demographic pressure index has reduces from 610 people aged under and over working age down per 1000 able-bodied people to 513 people, i.e. by 15.9%.

However, there is a natural increase of economic pressure in recent years due to the fact that a lot of generations of post-war fertility compensatory recovery have reached the pensionary age, but a few generations of the 1990s have reached the working age, which heightened the negative effects of migration.

The latter fact is also accompanied by a decline in the number of reproductive contingents, especially in the most active child-bearing ages, which defines the unfavourable trends in fertility in the near term and, thus, the further narrowing of labour reproductive resource base.

According to the 2010 Population Census, the demographic pressure was equal to 546 people aged under and over working age per 1000 able-bodied people in Komi. It was still lower than the nationwide statistics. However, it should be noted that the economic pressure on the working-age population continued to decrease the intercensal period from 2002 to 2010 in Russia as a result of the migration inflow of working-age population from the neighboring countries, while there was a significant increase in demographic pressure in the Republic of Komi in this period.

Economic activity of the population in the Republic of Komi. It is impossible to assess the region's labour potential without the analysis of the trends in the population's economic activity. Since the middle of 1993, the national statistics has transited to the classification system recommended by the International Labour Organization, which divides the population into economically active and economically inactive. It is economically active population, i.e. people aged from 15 to 72 offering their services in the labour

Table 3. Dynamics of the demographic pressure index in the Russian Federation and the Republic of Komi (according to the population censuses)*

| Year | The number of persons aged under and over working age per 1000 able-bodied people, pers. | The number of persons aged under working age per 1000 able-bodied people, pers. | The number of persons aged over working age per 1000 able-bodied people, pers. |
|---------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Russian Federation | | | |
| 1959 | 712 | 538 | 175 |
| 1970 | 786 | 511 | 275 |
| 1979 | 656 | 386 | 270 |
| 1989 | 754 | 430 | 325 |
| 2002 | 630 | 295 | 334 |
| 2010 | 623 | 263 | 360 |
| Republic of Komi | | | |
| 1959 | 538 | 448 | 91 |
| 1970 | 664 | 542 | 121 |
| 1979 | 529 | 411 | 118 |
| 1989 | 610 | 451 | 159 |
| 2002 | 513 | 300 | 213 |
| 2010 | 546 | 274 | 272 |
| * Accounted on the base of [1; 2; 3; 4; 5; 7; 8]. | | | |

market, which is a real labour potential of the region. Quantitatively, this group is made up of the number of employed and unemployed population that includes the strictly defined categories of people. The size of these categories is assessed on the basis of sample population employment surveys that have been regularly held in Russia since 1992; and since 1999 – every three months (as of the last week of every second month of the quarter).

According to the 2011 population employment surveys, the size of the economically active population in the Republic of Komi accounted for 531 thousand people, or 70.1% of the total population in this age group [6]. There was a steady decline in the population aged 15 – 72 (*tab. 4*) as a result of both migration outflow and reaching the working age of a few contingents who were born in the 1990s. People who were born in 1996 reached 15 in 2011; the share of people from this age group will decrease in the next few years. However, there are growth trends in the economic activity of the population over the 2000s both in the country and the Republic of Komi. Thereby, it should be noted that the level of the economic activity in Komi is traditionally higher than the nationwide average, which is natural under the conditions of increased share of the working-age population.

According to the 2010 Population Census that took place at the end of the year, there were 582.7 thousand of working-age people in the republic. According to the population employment surveys, 491.4 thousand persons were classified as economically active population in 2011. In other words, the level of economic activity is about 84% of working-age population. The rest of working-age people belong to the economically inactive population. The economic activity of the working-age population is about 85% in urban areas and 81% in rural areas.

It should be noted that in recent years there has been a growth trend in the level of the working-age population's economic activity in Komi. More recently, nearly 20% of the working-age people in urban areas and almost 30% in rural areas were referred to the economically inactive population. These figures were about 15 and 19% in 2011. If the economic inactivity of the urban working-age population is caused largely by the full time students, then the economic inactivity of the population in rural areas, where there are practically no professional institutions, reveals the high share of people who “lost hope of finding a job and stopped looking for it”, i.e. a significant transition of stagnant unemployment into the population's economic inactivity.

Table 4. Dynamics of economic activity of the population in the Republic of Komi*

| Year | Number of people aged 15 – 72, thsd. pers. | Size of economically active population, thsd. pers. | Level of economic activity, in % to the number of people aged 15 – 72 | For reference: Level of economic activity in the Russian Federation, % |
|------|--------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------|
| 2001 | 810.6 | 549.6 | 67.8 | 64.2 |
| 2002 | 807.1 | 536.1 | 66.4 | 64.9 |
| 2003 | 803.4 | 549.7 | 68.4 | 64.8 |
| 2004 | 801.7 | 531.4 | 66.3 | 65.3 |
| 2005 | 798.0 | 547.0 | 68.5 | 65.8 |
| 2006 | 792.3 | 547.3 | 69.1 | 66.1 |
| 2007 | 785.1 | 547.2 | 69.7 | 67.1 |
| 2008 | 779.5 | 569.8 | 73.1 | 67.7 |
| 2009 | 771.4 | 541.5 | 70.2 | 67.8 |
| 2010 | 766.2 | 547.1 | 71.4 | 67.7 |
| 2011 | 757.5 | 531.0 | 70.1 | 68.3 |

* According to sample population employment surveys.

Absolutely, the decline in the working-age population's economic inactivity should be regarded as a very auspicious moment that shows, first of all, the improved situation on the labour market.

The level of labour potential utilization in the republic. In 2011, the economically active population in the Republic of Komi consisted of 485.8 thousand of employed people (91.5%) and 45.2 million unemployed persons (8.5%) according to the International Labour Organization. The 2000s population employment rate is characterized by an increasing trend, and unemployment rate, respectively – by a decreasing trend (*tab. 5*). However, the table shows that there are the swings in these trends due to the impact of economic conditions (i.e., the effects of the 2009 global financial crisis) or the features of surveys' samples in some years.

The unemployment rate was traditionally about two times higher in rural areas of the republic than in urban areas. In 2011, it covered 13.7% of the economically active rural population vs. 7.1% in urban areas. Unemployment population included 13.9% of rural working-age residents and 7.3% of urban working-age people.

The most depressing regions in terms of employment are Troitsko-Pechorsky District, northern regions (Ust-Tsilemsky District and Izhemy District) and southern rural areas. They are characterized by high registered unemployment rates and significant pressure on job vacancies of enterprises. The most favourable situation is in Usinsk, Syktyvkar and Ukhta, which are characterized not only by low unemployment rates, but also the number of vacancies that are sufficient to provide everybody with job – it is obvious that unemployment is structural here.

Unemployment naturally covers mostly young people, who have no sufficient experience and who are characterized by high requirements for working conditions and wages. If the total unemployment rate of the economically active population was 8.5% in 2011, then it was 12.5% among young people aged under 30. A registered unemployment rate is also higher among young people.

There are more than half of women among the registered unemployed population (by the way, the share of women in the unemployed population has reduced recently). At the same time, the total women unemployment rate is traditionally lower than that of men: 6.9% vs. 10%,

Table 5. Dynamics of population's employment rate in the Republic of Komi *

| Year | Employed in economy | | | Unemployed | |
|------|---------------------------------------|------------------------------------------------------|---------------------------------------------|-----------------------------------------|------------------------------------------------------|
| | Employed population size, thsd. pers. | in % from the size of economically active population | in % from the number of people aged 15 – 72 | Unemployed population size, thsd. pers. | in % from the size of economically active population |
| 2000 | 481.8 | 88.0 | 59.1 | 65.9 | 12.0 |
| 2001 | 473.8 | 86.2 | 58.4 | 75.8 | 13.8 |
| 2002 | 486.8 | 90.8 | 60.3 | 49.3 | 9.2 |
| 2003 | 484.3 | 88.1 | 60.3 | 65.4 | 11.9 |
| 2004 | 465.5 | 87.6 | 58.1 | 65.9 | 12.4 |
| 2005 | 483.9 | 88.5 | 60.4 | 63.1 | 11.5 |
| 2006 | 479.7 | 87.6 | 60.5 | 67.6 | 12.4 |
| 2007 | 492.3 | 90.0 | 62.7 | 54.9 | 10.0 |
| 2008 | 528.2 | 92.7 | 67.8 | 41.6 | 7.3 |
| 2009 | 477.6 | 88.2 | 61.9 | 63.9 | 11.8 |
| 2010 | 490.9 | 89.7 | 64.1 | 56.2 | 10.3 |
| 2011 | 485.8 | 91.5 | 64.1 | 45.2 | 8.5 |

* According to sample population employment surveys.

respectively, in 2011. Women's economic activity is also lower than that of men: 66.1% vs. 74.6%. I.e. in 2011, about a third of women aged 15 – 72 (including 17.2% of working-age women) are referred to the economically inactive population. However, it should be noted that the increased economic inactivity of women is primarily caused by the large share of full time students as compared with men.

The total unemployment rate in the Republic of Komi, as always, is much higher than in Russia as a whole. Thus, these figures were 8.5 and 6.6% in 2011. However, the difference has been reduced in recent years. The registered unemployment rate in the republic, which was above the national average during the 1990s,

has been practically equal to the average nationwide rate in recent years – about 2% of the economically active population.

Summarizing all the above, we can note that the labour potential of the Republic of Komi is characterized by progressive narrowing of the demographic base of its reproduction, which has been largely caused in recent years by demographic history reinforcing the negative impact of the migration outflow; increased level of forced population unemployment with its high economic activity; reduced economic activity and employment of the rural working-age population; reducing, but still significant, degree of stagnant rural unemployment's transition to the stage of economic inactivity.

References

1. RSFSR age composition according to the 1989 All-USSR Population Census. Moscow, 1990. P. 4.
2. Age and sex composition and marital status. Results of the 2002 All-Russian Population Census. Vol. 2. Moscow: Federal State Statistics Service, 2004. P. 15.
3. Demographic Yearbook of the Republic of Komi. 2010: Stat. Col. Syktyvkar: Komistat, 2010. P. 142-146.
4. Results of the 1970 All-USSR Population Census. Age, sex and marital status of the population in the USSR, union and autonomous republics, territories and regions. Vol. 2. Moscow, 1972. P. 16-17.
5. Results of the 1970 All-USSR Population Census. Age, sex and marital status of the population in the USSR, union and autonomous republics, territories and regions. Vol. 2. Part I: Stat. Col. Moscow, 1989. P. 38-39.
6. Main results of the population employment surveys in the Republic of Komi in 2011: Stat. Bull. No. 47-53-58/5. Syktyvkar: Komistat, 2012.
7. Size, distribution, age and sex composition of population. Results of the 2010 All-Russian Population Census. Republic of Komi. Vol. 1: Stat. Col. Syktyvkar: Komistat, 2012.
8. Demoscope. Available at: <http://demoscope.ru/weekly/2011/0491/perep01.php#1>.