

УДК 314.174(571.1/.5)

Social Support for Contemporary Modernization in the Regions of Siberia

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Received 21.07.2013, received in revised form 29.07.2013, accepted 01.08.2013

The article is devoted to the study of socio-economic, socio-demographic and socio-cultural characteristics of the economically active educated population of the regions of Siberian Federal District. The object of the study is residents of Siberia, who have high human capital and prospect of acting as a social support for contemporary modernization of their regions. Based on the analysis of official statistics and surveys of the population in the regions of Siberia, an assessment of the educational potential of internal migration and socio-cultural characteristics of potential agents of modernization in the population of these territories is made.

Keywords: modernization, human capital, the agents of modernization, immigration moods, the regions of Siberia.

The study was supported by the grant of the President of the Russian Federation for state support of young Russian candidates of sciences. The project “Socio-cultural and institutional aspects of social modernization of the regions of Siberia”, MK-3359.2013-6.

Introduction

Despite the intense focus of social and economic policy in Russia in recent years on modernizing the state, the extreme heterogeneity of the processes of social modernization in the regions of the country due to differences in the economic, demographic, social, cultural, geographical, and even climatic conditions can be registered. The regions of Siberian Federal District are no exception: some regions have the “resource curse”, and modernization there is to a great degree understood as continuation, intensification of industrial, technological development, and in other regions the predominance of agricultural

production and archaic way of life prevent even basic modernization, growth of human capital and standard of living. However, the resource-rich Siberian territories can play an important role in social modernization of the whole of the country. In the past, during the development and settlement of Siberia, they became a platform for forming new social institutions, social relations, regional communities. Whether it possible to talk about high human capital of Siberian regions, whether modernization is feasible in these areas precisely because of their human capital, what are the socio-demographic and educational characteristics of the economically active population, what is

the socio-cultural portrait of potential agents of social modernization in present day Siberia and what are their migratory moods – the answers to these questions are discussed in this article.

Methodological approaches and methods of research

The key factor in the contemporary modernization of a region of the country is its high human capital, defined by the Organization for Economic Cooperation and Development as knowledge, skills, competencies, personal characteristics that contribute to personal, social and economic well-being (Keely, 2007, p. 29). The concept of human capital, developed in detail in the work with the same name by Nobel laureate G. Becker, involves investment in formal education, vocational training, various kinds of knowledge, health, improvements in physical and emotional state of a person (Becker, 1993).

The concept of economic development and social well-being is associated with the growth of human capital, both at the individual and at the regional, national and global levels. Thus, the individuals that have high human capital – intelligence, knowledge, high level of education, good health, high qualification in their professional work, labour productivity and high living standard, – become the social basis for modernization.

As the authors of the report “The priority national projects – the ideology of a breakthrough into the future” note: the development of the economy of knowledge in Russia is facing two major challenges: the demographic problem – the size and quality of human capital, that determine competitiveness in the global market and the problem of reproduction of the creative class, because “in Russia, which has a huge intellectual potential, there are still enormous problems with cultivation of the creative class and creating innovative opportunities – both institutional and

organizational and political.”(Priority..., p. 59, 62).

A. Etkind contrasts human and financial capital in a resource-based state, showing on the example of Russia how the increase of the latter leads to de-modernization, devaluation of labor and knowledge, formation of a class society, growth of the influence of the “resource curse of a raw-material state”. On the contrary, “the idea of modernization is that human capital forces out – both in volume and value – all other types of capital” (Etkind, 2013). He notes that in Russia there are two groups of people, who particularly suffer from various kinds of inequality and dependence on raw materials – they are intellectuals and women. On the one hand, they are the creative class, intellectuals, highly educated professionals who are the drivers of modernization processes, but on the other hand, gender equality, especially in the labor market, is characteristic of the developed economies of the world.

Among the works devoted to the analysis of the subjective component of modernization in Russia, the research of A. A. Yakovlev should be mentioned, who pointed out big business and large corporations as leading agents of modernization, noting that the federal government and its representatives in general are the agents of modernization of the state itself (administrative reform, reform of local self-government), but “they are progressive regional leaders, seeking to ensure the conditions for the development of their regions, for their successful integration into the global market, who can become real agents of modernization” (Yakovlev, 2006, pp. 236-238).

However, the success of contemporary modernization of Siberia depends not only on the presence of the population, characterized by high human capital and the corresponding value orientations. It is important to point out the present socio-cultural constraints on modernization

processes in Siberia, as described in our recent studies on the material of the data of opinion polls in Krasnoyarsk Krai and the Republic of Khakassia (Nemirovskiy, 2011; Nemirovskiy, Nemirovsky, 2012). Professional and personal realization of that part of the population that could be an active agent of social and socio-cultural modernization in Siberia is being slowed down by the overall unfavorable socio-cultural conditions in these regions. Among the major socio-cultural barriers to modernization of Siberian regions, we have identified, compared to Russia in general, low self-identification in regional settlements, high institutional and interpersonal distrust, “clan” organization of social structure, low sense of security from crime, poverty, environmental threats, arbitrary law enforcement and prosecution for political beliefs, etc. (Nemirovskiy, Nemirovskaya, Khamidullina, 2011).

As demonstrated by the application of the methods developed by the Centre of studying modernization of the Chinese Academy of Sciences under the leadership of Ho Chuanqi, and tested for the peculiarities of Russian data by the team of the Center for the Study of socio-cultural changes in the Institute of Philosophy, the Academy of Sciences of the Russian Federation under the leadership of N.I. Lapin, the regions of Russia are at different levels of primary and secondary stages of modernization, moreover, they have different social resources for further modernization (Lapin, 2012, pp. 6-23). In particular, the regions of Siberian Federal District in general occupy a position, similar to the average Russian data, but at the same time modernization in Siberia is characterized extreme unevenness, varying in terms of secondary modernization (calculated by the data for innovation in knowledge, translation of knowledge, standard of living and quality the economy) from high level in Tomsk Oblast to below the average level

in the Republic of Buryatia, Zabaykalsky Krai, the Tyva Republic, Irkutsk Oblast, the Republic of Khakassia and Altai Republic (in descending order.)

In this connection, taking into account the resource and extracting industry profile of Siberian regions as an aggravating factor in the process of modernization, but at the same time their significant contribution to the economy of the country, fairly high level of technological development, presence of the sound educational and research base, there are good reasons to analyze the main components of forming human capital in the regions of Siberia in order to estimate the possibilities of social support for contemporary modernization in SFD, on the basis of analysis of the educational potential, internal migration and socio-cultural characteristics of the agents of modernization among the population of these regions.

The empirical base of research

The empirical base of the study is the data of the Russian national monitoring research “Values and interests of the population of Russia”, conducted by the Center for study of social and cultural changes of the Institute of Philosophy of the Russian Academy of Sciences in 2010 (n = 1163), and the data from representative surveys conducted by using the method of the standardized interview of the population in some regions of Siberia, performed by different research groups as part of the research program “The socio-cultural evolution of the regions of Russia” under the leadership of a corresponding member N.I. Lapin: in Krasnoyarsk Krai (n = 1000) and the Republic of Khakassia in 2010 (n = 600)¹, in Novosibirsk Oblast in 2010 (n = 500), in Altai Krai in 2010 (n = 1200), in Tomsk Oblast 2011 (n = 750) and Omsk Oblast in 2008 (n = 1230). The data of the Federal Service of State Statistics were also used in the analysis.

1. The educational potential of the population of Siberian Federal District

One of the most important indicators of socio-economic development, as well as a necessary factor for modernization, is the high level of education of population. Notably, in the whole of the world the demands on the educational status are increasing². Indeed, at the present time, for the modernization of the society, transition to a new stage of development, it is necessary to have a critical mass of educated people and in the case of our country, people with higher education.

The number of people with higher education or studying for it is growing rapidly in both developed and developing countries (in the states of Eastern Asia they already talk about universal higher education). And Russia is no exception: in our country for the period between the Censuses, the proportion of people with higher education increased by 7 percentage points – from 15.8 % to 22.8 %³ (Fig. 1 and 2). The growth tendency is observed in almost all regions of the country, including Siberian Federal District. In SFD increase in the proportion of highly educated people for the inter-census period was nearly

6 percentage points, i.e. from 13.8 to 19.7 %. However, as it can be seen, the total increase in the proportion of educated people in SFD was less than in Russia as a whole. Thus, the gap between Russia and Siberia, in the number of people with higher education increased over the period between the Censuses from 2 to 3.1 percentage points.

The proportion of educated people in most countries of the world and in our country in particular, among other things is related to the demographic composition of the population. Among urban population the proportion of educated people is higher than among rural population, and among young people higher education is more prevalent than among the elderly⁴. Thus, for a more accurate comparison of SFO, where, on the one hand, the proportion of rural population is a little higher than urban population (2 p.p.), and, on the other hand, the average age of residents is slightly lower (for example, the proportion of people of older retirement age⁵ is lower by about 2 percentage points), with Russia, we will use the data on prevalence of higher education among the working population as a whole, as well as among young people in the working age

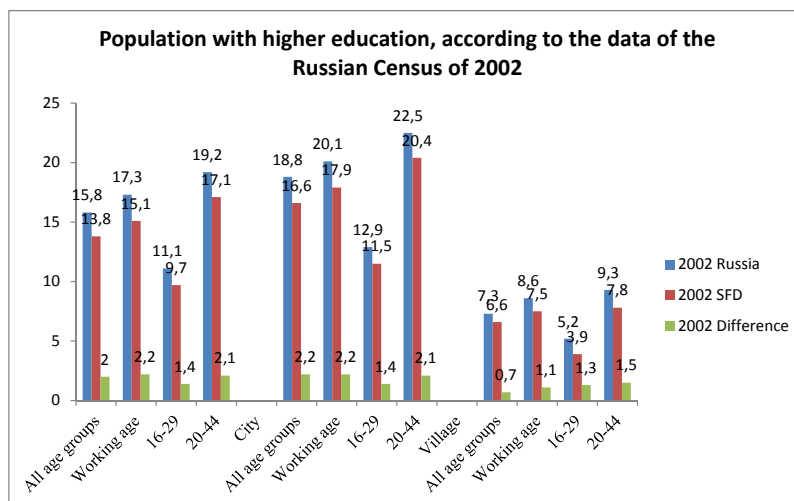


Fig. 1. The proportion of people with higher education among the population of Russia and SFD in 2002 (%)

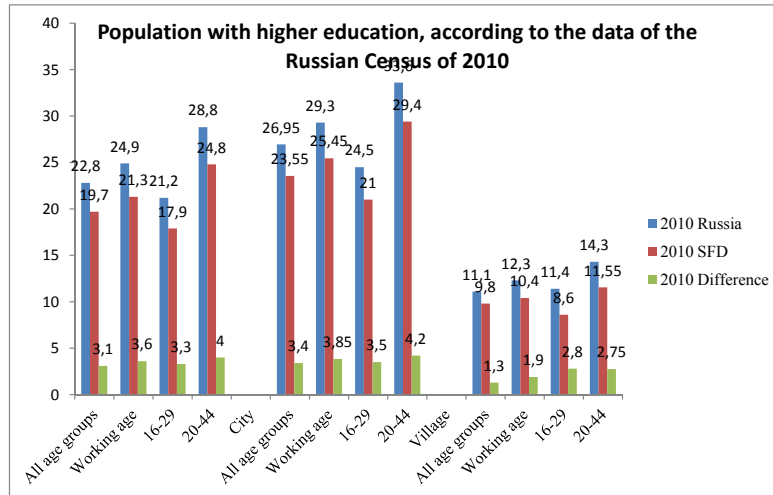


Fig. 2. The proportion of people with higher education among the population of Russia and SFD in 2010 (%)

(20 – 45 years). The use of such age limit can be justified by the fact that the agents of social and cultural modernization, as a rule, are younger, economically active population.

As it can be seen from the data presented in Figures 1 and 2, the gap cannot be explained by demographic characteristics of the population of Siberia. Rather, they somewhat brighten the overall situation, as the gap between the young working-age population and working-age population is increasing at a growing pace. The similar situation can be observed if urban and rural population of Russia and SFO are considered separately (Fig. 3 and 4).

The data presented in Fig. 3 and 4 describe the general situation in Siberian Federal District, but the regional distribution of people with higher education is very uneven: there are leaders and underperformers (Fig. 5). Among the leaders there are West – Siberian Tomsk and Novosibirsk Oblasti (these regions also have the above the national average level in terms of prevalence of higher education), Krasnoyarsk Krai and Buryatia are a bit lower; Omsk and Irkutsk Oblasti are somewhat behind on general indicators, but look good in terms of working age. The situation is

definitely unfavorable in Tyva and Zabaykalky Krai, this phenomenon is partly associated with a greater proportion of rural population in these regions, but in general, and according to the level of higher education of the citizens, these regions are among the underperformers, among them is also poorly urbanized Altai Republic.

When comparing regional data of the Censuses of 2002 and 2010, the situation is as follows: in general, in most regions of Siberia, lagging behind Russia in the number of people with secondary education and a slower rate of growth of the proportion of the population with higher education still takes place. However, there are exceptions: the growth of figures in Tomsk Oblast exceed the national average growth rate for the total population, as well as for the able-bodied part⁶ of it (is respectively 7.8 and 8.4 percentage points), in Novosibirsk Oblast the figures are a bit lower: 6.8 percentage points for the total population and 7.2 for the working-age population. A more detailed regional distribution of the population with higher education can be found in the tables of the Appendix (Table A1).

The reason for the lower proportion of highly educated people in the regions of SFD, compared

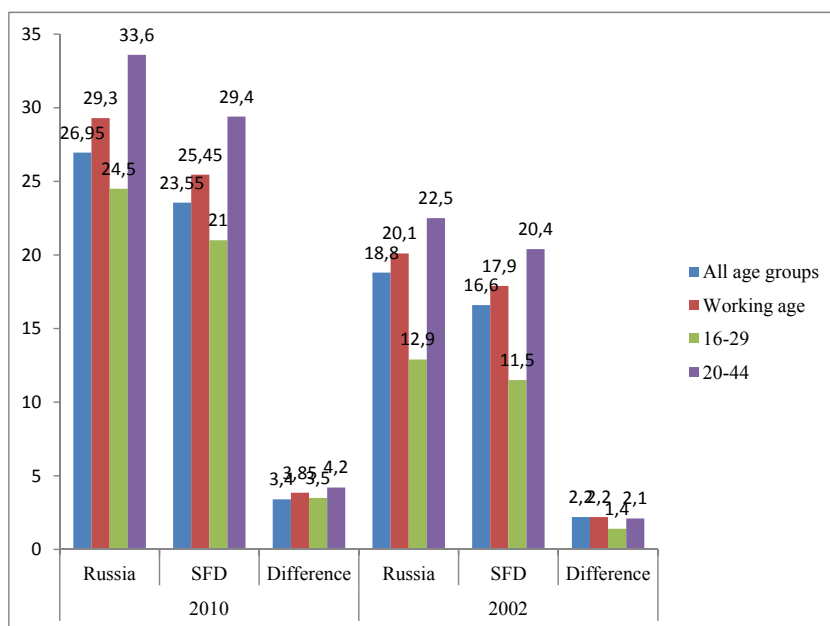


Fig. 3. The proportion of people with higher education among the population of Russia and SFD: city (%)

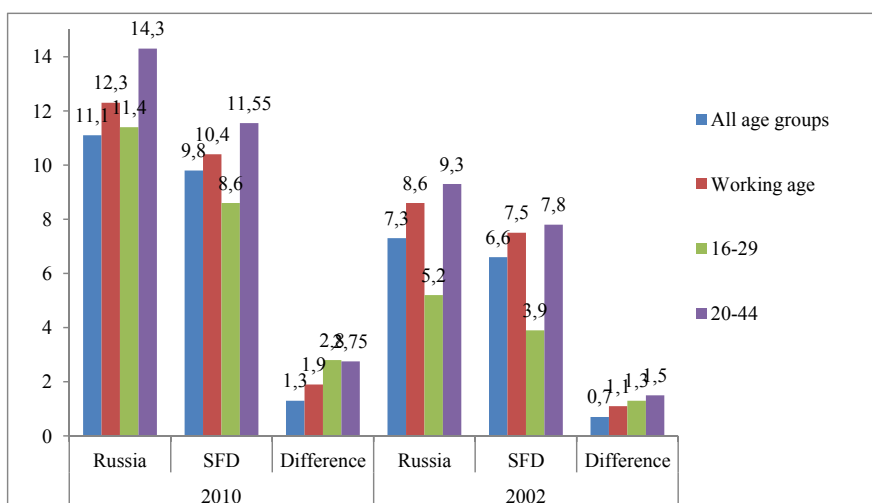


Fig. 4. The proportion of people with higher education among the population of Russia and SFD: village (%)

with Russia as a whole, may be associated with the following phenomena: 1) a smaller number of graduates of higher education institutions and fewer students per capita in SFD – in other words, “there is no one to teach and no one to be taught”; 2) active migration of educated people from Siberia (usually in European part of Russia) –

figuratively speaking, it is impossible to keep those who have been taught.

Let us consider such indicator, as the number of students in higher education institutions in the region (Fig. 6). In general, the relative number of students in SFD is slightly below the average in Russia. However, there are considerably higher

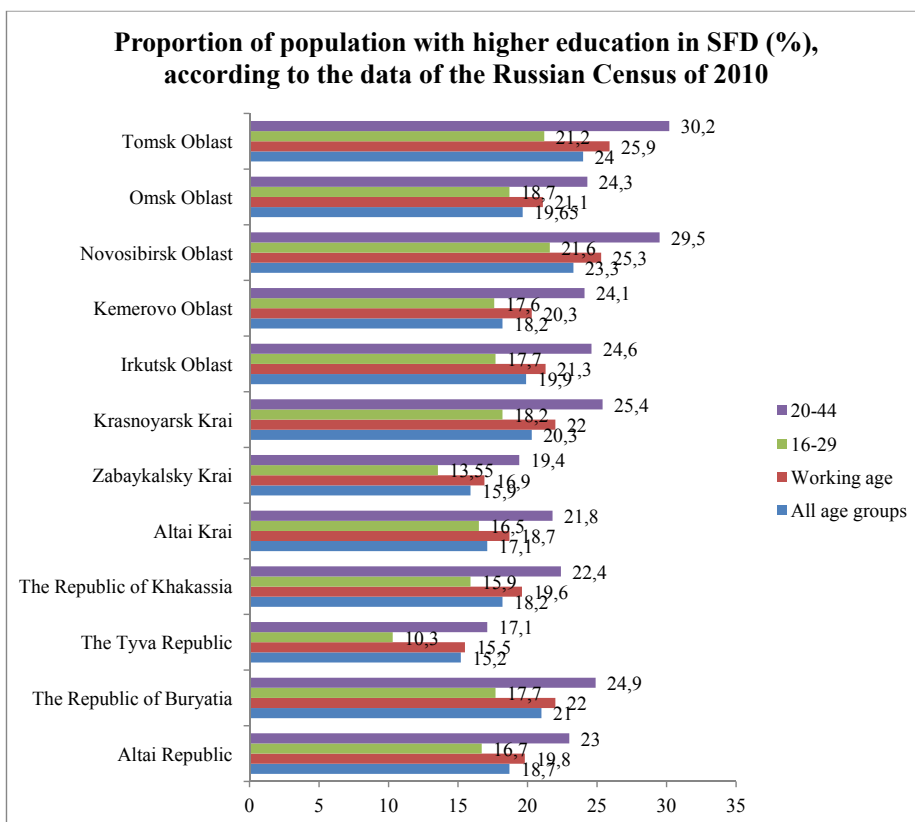


Fig. 5. Proportion of population with higher education in SFD (%)

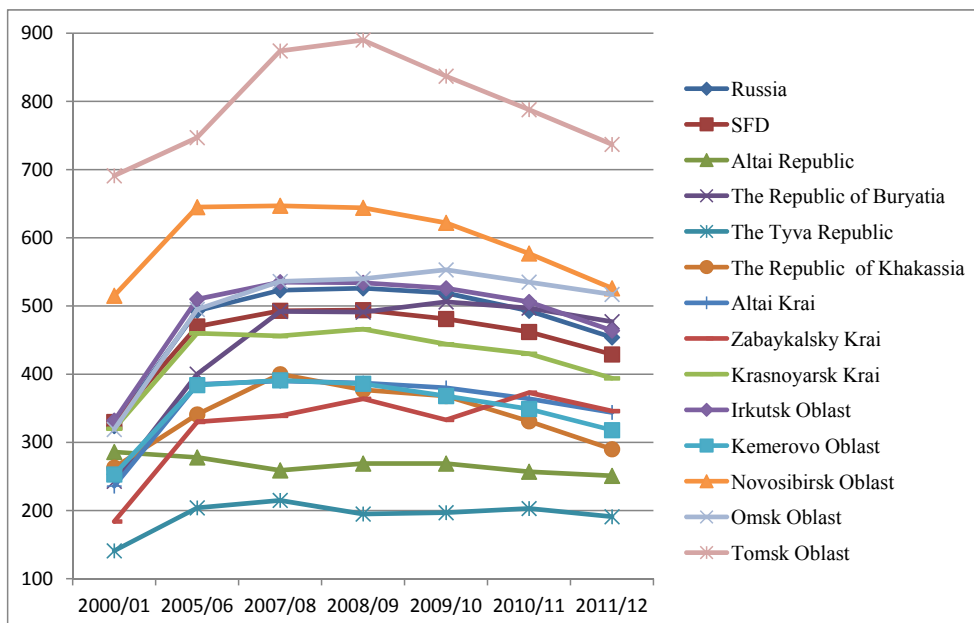


Fig. 6. The number of students in higher education (per 10,000 population) by academic years

figures in the most successful in this respect Tomsk and Novosibirsk Oblasti.

If we look at the data for the graduates of higher education, the picture will not change significantly (Fig. 7). The same leading positions are held by the city of students –Tomsk and academic Novosibirsk. However, the figures in SFD, on average, lag behind Russia in general, and the gap became most important in the late 2000s.

2. Internal migration of population as a factor of change in the educational potential of the region

We will refer to the factor of migration as a cause for SFD lagging behind Russia in the level of education of the population. It is important to note that this process has been observed for more than three decades. T.I. Zaslavskaya and

V. A. Kalmyk pointed out, that in the period from the mid 50s. to mid-70s the migration outflow from Siberia exceeded the inflow of migrants from other regions. Only for the period of 1960-1975 the loss in the population in Siberia due to the outflow to other regions of the country amounted to 800,000 people of working age (Zaslavskaya, Kalmyk, 1981, pp. 50).

As the data of the State Statistics show, the total migration population loss in SFD in the late 2000s. (see Appendix, Table A 2) decreased significantly and even gave way to a small migratory growth. This phenomenon was associated with some reduction in the internal migration from the regions of SFD to other regions of Russia, on the one hand and, on the other hand, with increased international migration (and, probably, with more thorough registration of international migrants). With regard to internal migration, we

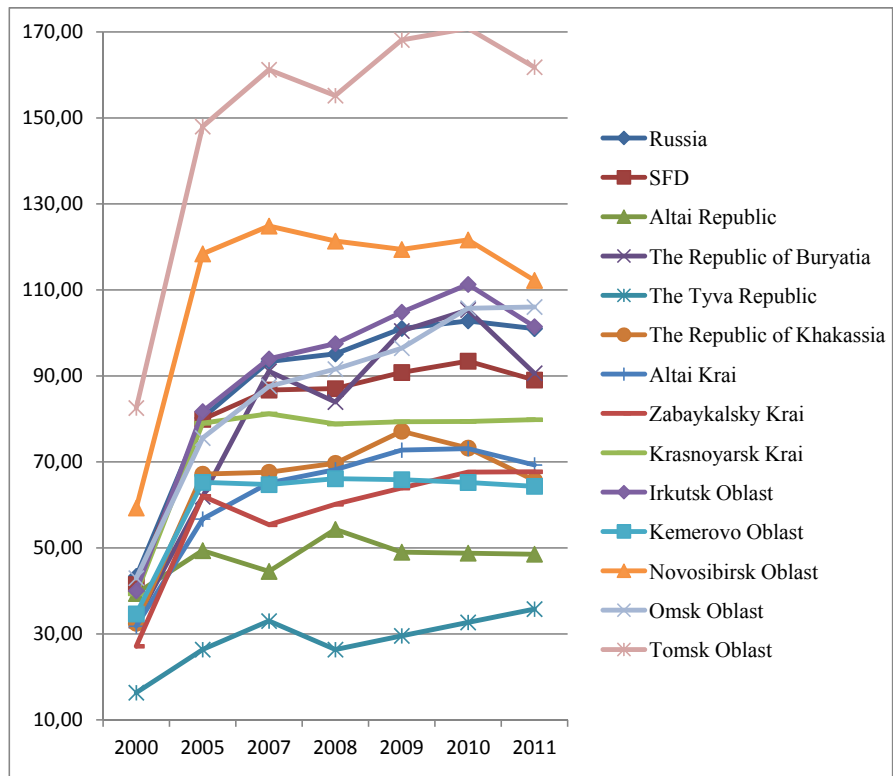


Fig. 7. Graduates of higher vocational education institutions (per 10,000 people)

note that in 2011 the migration loss in the region was only about 44 thousand people. The growth of the population is observed only in migration exchanges in the Far East and North-Caucasian Federal District. At the same time, people mostly leave for the Central Federal District, and come from the Far East and the Urals.

It should be noted that the statistics of migration control, particularly departures (especially in internal movements in Russia) is not completely reliable⁷, in fact, the “real” numbers of arrivals and departures will be significantly higher. However, the authors have reason to believe that people with higher education are more likely to report to the current register both at arrival and when leaving (transfer of highly educated specialist is often associated with obtaining proposals for the work, followed by a change of place residence). Unfortunately, in the data of the current register of interregional arrivals and departures it is impossible to Fig. out the departures outside SFD, so that part of the movements that is registered by statistics can

be attributed to movements inside Siberian regions. In addition, the rules of registering migrants changed in 2011, so there may be sharp fluctuations in numbers in this year compared to previous ones⁸.

Thus, despite the fact that there observed the growth in educated population in Russia due to migration, in SFD, despite favorable changes in migration processes (quantitative) in the last few years, negative migration of highly educated population has been taking place and even has been accelerating (Fig. 8). Thus, the increasing number of migrants is not accompanied by increase in the quality of human capital. As was pointed out in the comments, the level of education of unregistered international migrants tend to be lower than that recorded, so, it is most likely, that the real picture is even less favorable.

As a result, we are compelled to note that both factors: the smaller amount of students and graduates of higher education institutions and out-migration of educated people affect the

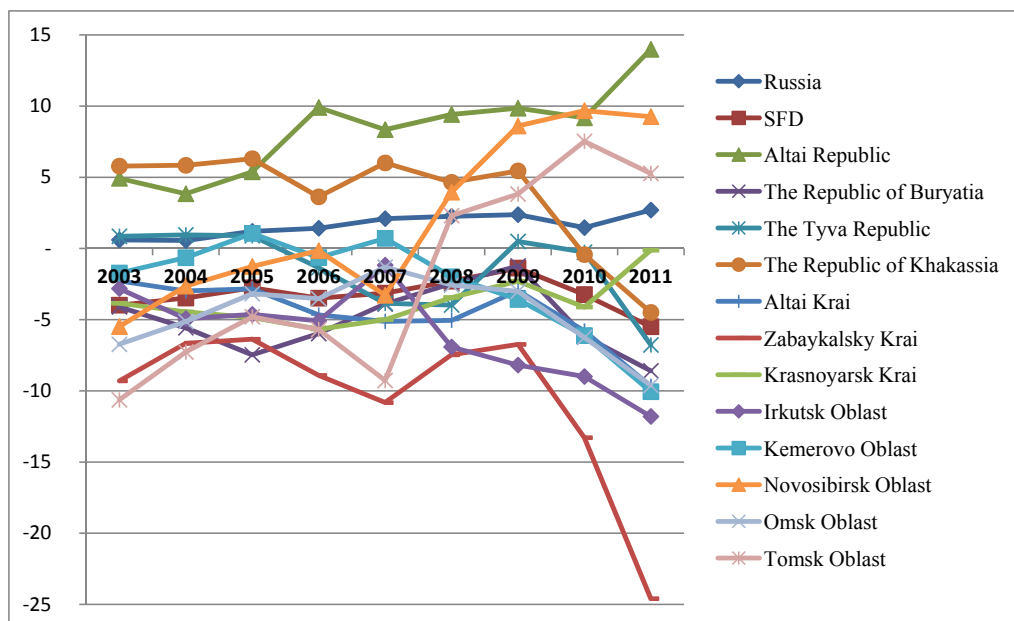


Fig. 8. The balance of migration of population with higher education (per 10,000 people)

increasing lagging of SFD in education level behind the national average indicators.

Obviously, this situation is to a large extent related to the characteristics of the labor market SFD, which does not require a large number of qualified specialists with higher education. It might seem that in the regions of Siberia there is high proportion of industry that requires highly skilled workers. But it is not really so: SFD is different from the average Russian rate of employment in the industry in the opposite direction: 13.2 % of the working population is employed in the manufacturing sector versus 15.2 % in the Russian Federation, at the same time, the macro-region is ahead of the average Russian index on employment in the mining -2.9 % vs. 1.6 %. SFD is also ahead of Russia in the number of employed in agriculture and forestry: 10.7 % vs. 9.9 %. Both mining and agriculture are industries that require lower qualifications.

As a result, the structure of employment in the district shows that Siberian regions are lagging

behind Russia in the level of education of labor (Fig. 9). Among the regional differences it should be noted that the proportion of people with higher education is high in the labor markets of Tomsk and Novosibirsk, Altai Republic. In fact, in all the regions where there is no mass migration of such specialists.

At the same time, if we consider the migratory flows of persons with higher, incomplete higher and secondary special education (qualified specialists), the picture will not change significantly (Fig. 10). The lowest rates were observed in 2009, which is probably due to the financial and economic crisis, when in the situation of uncertainty the population preferred not to change the place of residence.

After the stabilizing of situation, in the second half of the 2000s, Siberian Federal District started to lose qualified professionals, it happened almost everywhere (Fig. 11). A notable exception is Novosibirsk Oblast.

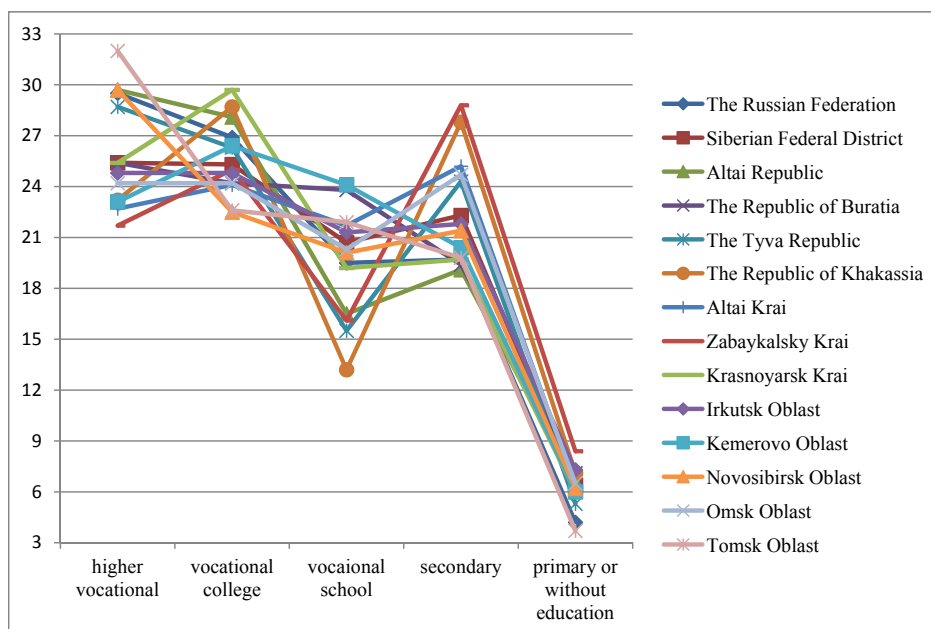


Fig. 9. The composition of employed population by level of education, according to the data of the Surveys on problems of employment of the population by the Russian Federation State Statistics for 2011 (%)

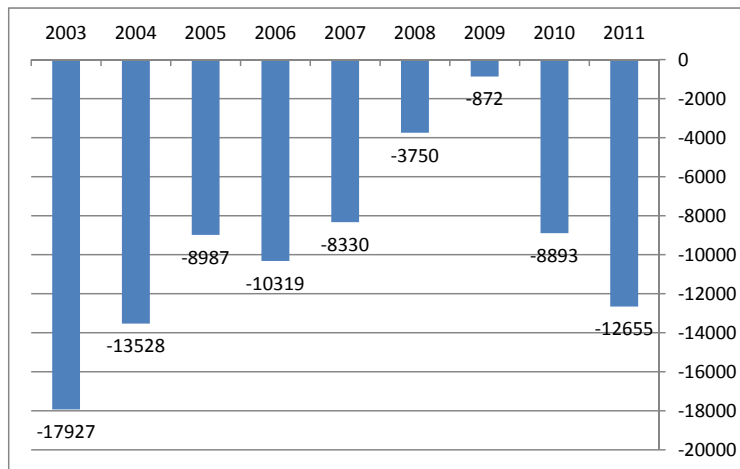


Fig. 10. Indicators of migration decline of population with secondary vocational and higher education in SFD as a whole

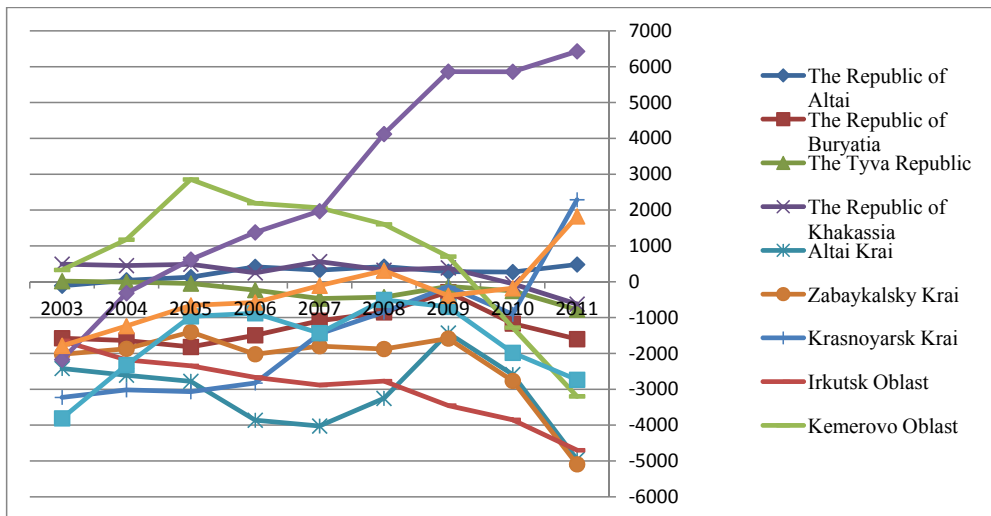


Fig. 11. Indicators of migration loss and growth of population with secondary vocational and higher in some regions of Siberian Federal District

Therefore, at present the prospect of creating a modern innovation economy with attracting qualified migrants from other countries and regions of the country, into the region of the country, which is losing educated population at such pace, appears to be groundless. At the present time it is only possible to start the development of relatively prosperous regions: Tomsk and Novosibirsk Oblasti. In other cases,

it is necessary first to improve the overall quality of life for the retention of local specialists in the regions of SFD.

3. Socio-cultural characteristics of the population with higher education in the regions of Siberian Federal District

To make the socio-cultural portrait of potential agents of modernization in the regions

of SFD, data analysis was made of population surveys conducted in Omsk, Tomsk and Novosibirsk regions, Krasnoyarsk and Altai Krai, the Republic of Khakassia and Russia as a whole.

First of all, from the point of view of the prospects of innovative development of the region, we were interested in the fact whether the respondents participated in creation of new products and whether there is any significant difference between respondents with higher education and with lower levels of education (Table 1). In all the studied regions more educated respondents (in the table marked as “above”) are more involved in creation of innovations. T-test revealed no differences in the respondents’ participation in creation of new firms in Krasnoyarsk Krai, in other cases there are some differences. The degree of involvement of the respondent in the creation of new products is

estimated on the 3-point scale (1 – participated as an organizer, 2 – was on a par with the others, 3 – did not participate). The higher the score, the less is the probability of the respondents’ participation in the creation of a new product. The answers of the respondents who found it difficult to answer the question or who skipped this question were not considered in the survey.

Thus, more educated population is more prone to develop new products and may contribute to development of the innovative economy. It should be noted that a very small proportion of respondents in the sample frame really participated in creation of certain products, so it is difficult to make final conclusions.

The attitude of groups of population with different levels of education to their region deserves attention. (Table 3). Migration intentions are clearly expressed by more educated respondents from Krasnoyarsk and Altai Krai. To

Table 1. The degree of involvement of the respondents in creation of any innovation in the last 12 years (for regions where innovations are specified)

	Firm		Product		Technology		Service	
	With higher education	Without higher education	With higher education	Without higher education	With higher education	Without higher education	With higher education	Without higher education
Krasnoyarsk Krai	2,91*	2,92*	2,83	2,93	2,91	2,81	2,68	2,87
The Republic of Khakassia	2,86	2,97	2,89	2,96	2,79	2,95	2,82	2,94
The RF	2,91	2,97	2,97	2,99	2,96*	2,99*	2,96	2,97

Table 2. The degree of involvement of the respondents in creation of any innovation over the past 5 years (for regions where innovations are not specified)

	With higher education	Without higher education
Altai Krai	2,61	2,86
Omsk Oblast	2,54	2,73
Novosibirsk Oblast	2,68	2,83

Note: the symbol * indicates no significant (5 % – and lower) difference in Tables 1 and 2.

Table 3. Distribution of answers to the question “What are your feelings towards your region?” (%)

	I am glad to live here		I would like to move (to another region or country) ¹⁰		I do not like living here, but I am accustomed to	
	With higher education	Without higher education	With higher education	Without higher education	With higher education	Without higher education
Krasnoyarsk Krai	22,3	24,9	14,7	7,8	6,1	4,1
The Republic of Khakassia	27,8	34,1	2,4	3,4	10,3	11,9
Altai Krai	16,1	20,5	13,7	7,4	8,2	9,9
Omsk Oblast	19,9	28,3	8,5	7,5	6	7,1
Tomsk Oblast	47,3	33,5	7,7	8,2	8	4,3
Novosibirsk Oblast	33,9	31,1	6,9	3,6	8,5	5
The Russian Federation	43	40,2	4,7	3,7	4,7	5

a lesser extent – in Tomsk, Omsk and Novosibirsk Oblasti. In the Republic of Khakassia the situation is opposite. At the same time, respondents with a lower level of education more often say that despite the disadvantages, they are accustomed to living in the region. Perhaps this is due to the difficulty in mobility because of age or less competences, which can be used in the new location.

For a more detailed evaluation of social attitudes and the attitudes of potential agents of modernization in the regions of Siberia, in each of the regions in which the surveys were conducted by the method of CISI IF RAN, a group of surveyed population possessing the capital in the form of higher, incomplete higher or post-graduate education was picked out.

As shown by a comparative analysis of the distribution of responses of the respondents from the regions of the Siberian Federal District, against the background of the nationwide sample, in Siberia, the proportion of well-educated population who want to leave their region is much higher than in Russia as a whole. (Fig. 12). For example, in Krasnoyarsk and Altai Krai the number of respondents who want to leave their region, as well as to leave Russia, is three times

higher (in the Republic of Khakassia – twice higher), compared to the nationwide sample. The percentage of the surveyed population, who responded that “they have no particular feelings towards their region” is very different – only 6 % of the population of Russia as a whole and from 13 % to 21 % in the regions of Siberian Federal District. Accordingly, in almost all regions of SFD shown in Fig. 12 the proportion of respondents experiencing positive feelings about their place of residence is twice as low: 44 % of the respondents from total Russian sample said that “they are happy to live here,” and only 16 % in Altai Krai, 20 % in Omsk Oblast, 23 % in Krasnoyarsk Krai, 28 % in the Republic of Khakassia and slightly higher – 34 % in Novosibirsk Oblast chose this answer. Similarly, only in Novosibirsk Oblast less respondents than in other regions of Siberia, said that “in general, I am satisfied, but I do not like many things” – 37 %, which is even lower than the overall Russian 40 %.

It should be noted that the data given in Table 3 and in the chart in Fig. 12 indicate high immigration attitudes among people with higher education, which could result in increasing of their migration from SFD to the regions of Central

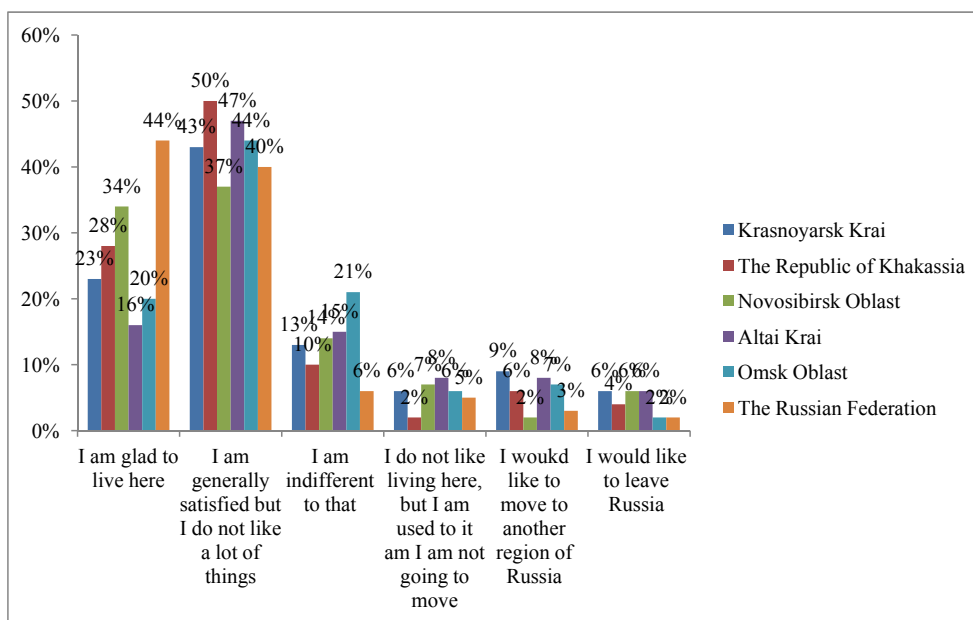


Fig. 12. Distribution of answers to the question “What are your feelings to your region?” among the respondents with higher, incomplete higher and postgraduate education

Russia and abroad. The regional distribution of intentions coincides with the data on region statistics on distribution of migration loss of educated people.

Another important aspect to consider is social well-being of the groups of population who could become agents of modernization in their region. The quality of life in the region is estimated as the least satisfactory by the population of Altai Krai – more than a half (56 %) of highly educated respondents said that “in our region people live worse than in all neighboring regions” (Fig. 13). The same answer was given by 18 % of the population of Omsk Oblast; by 15 % of the inhabitants of Novosibirsk Oblast, 10 % of the population of the Republic of Khakassia and 9 % of the residents of Krasnoyarsk Krai. At the same time, the percentage of respondents who believe that in their region of Siberia people live better than in the neighboring regions is small – only 2 % in Altai Krai, 7 % in Omsk Oblast, 10 % in Krasnoyarsk Krai, 19 % in the Republic of

Khakassia and much more – 30 % in Novosibirsk Oblast.

Also, satisfaction with life among the well-educated population of Siberia as a whole is much lower compared to Russia (Fig. 14). Only Novosibirsk Oblast appears to be an exception. The survey results reflect the migration situation in the region, according to the Rosstat: as it was previously shown in Fig. 11, in Novosibirsk Oblast, in contrast to other regions of SFD, in recent years there has been growth in migration of educated population of the economically active age. It is not surprising that educated people from other Siberian regions, dissatisfied with their lives, leave them in search of a better life.

Highly educated Siberians often find it difficult to assess their confidence in the future (Fig. 15), in general, their social optimism is lower than that of the Russians on average: the number of the responses “pretty sure” and “more confident than not” in all regions of Siberia is lower than in Russia as a whole. The respondents

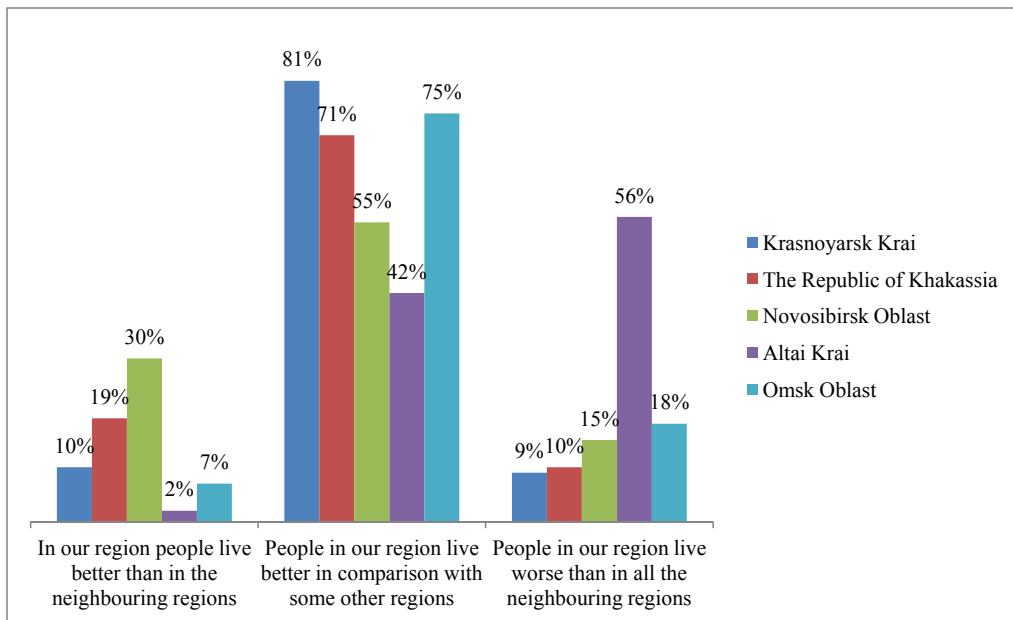


Fig. 13. Distribution of responses to the question “Do you think the residents of our region live better or worse than people in the neighboring regions?” among the respondents with higher, incomplete higher and postgraduate education

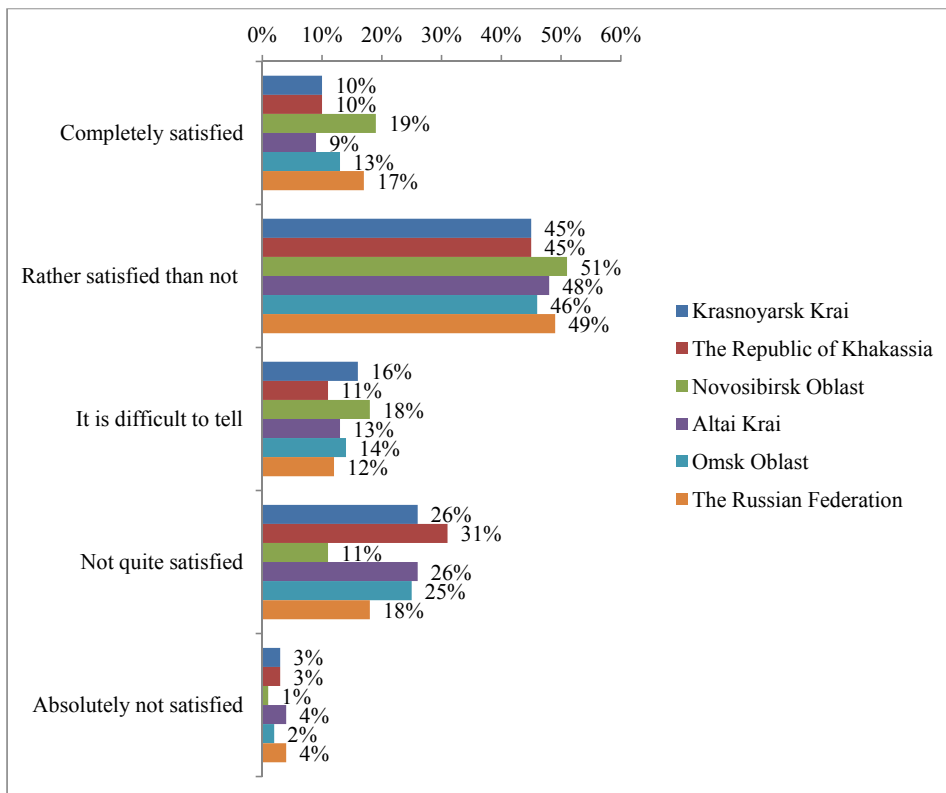


Fig. 14. Distribution of responses to the question “How satisfied are you with your life in general?” among the respondents with higher, incomplete higher and postgraduate education

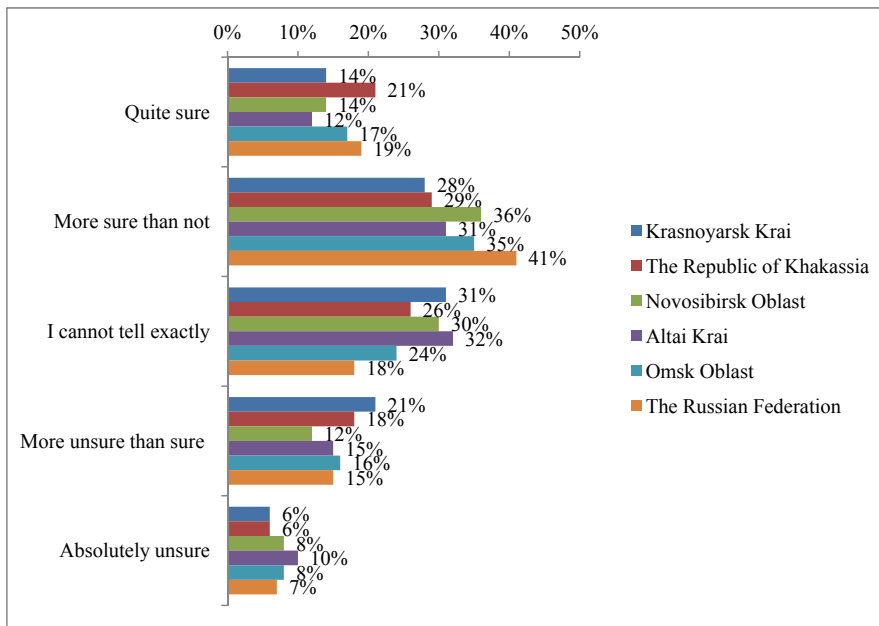


Fig. 15. Distribution of responses to the question “to what extent are you confident or unconfident about your future?” among the respondents with higher, incomplete higher and postgraduate education

who are most uncertain about their future reside in Krasnoyarsk Krai (the sum of the responses “more unsure than confident” and “not at all sure” equals 27 %), in Altai Region (25 %) and Omsk region (24 %).

It is believed that the middle class is the support of the modern economy. If people refer themselves to the middle class in their region, it may be indicative of evaluating one’s life as stable, one’s economic situation as firm, imply property ownership, possession of sufficiently high human capital, a certain level of consumption, etc. As pointed out by N.E. Tikhonov, it is the middle class that is the main subject of modernization of Russian society, as it is the only social force that is directly interested in its modernization due to its objective place in the system of division of labor, on the one hand, and is characterized by certain socio-cultural modernization (formation of a new type of personality, system of values), which is fundamental to successful formation of the role of the subject of modernization, on

the other hand (Tikhonov, 2010, pp. 42-43). We can say that in general the proportion of the population identifying themselves with the middle class indirectly reflects the overall socio-economic situation in the region. As seen from the data presented in the diagram in Fig. 16, in the regions of SFD significantly less highly educated respondents identified themselves as the middle class, compared with Russia as a whole – the difference is from 12 % (Omsk Oblast) to 21 % (Altai Krai). And almost in all Siberian regions, represented in the analysis, the interviewed residents said twice as often that they belong to the lower middle and lower class, in comparison with the whole country.

Conclusion

For efficient modernization at the regional level, the question is still problematic of whether there is enough population for this at the present time in Siberia, that will be able to become an active force of modernization – the percentage of

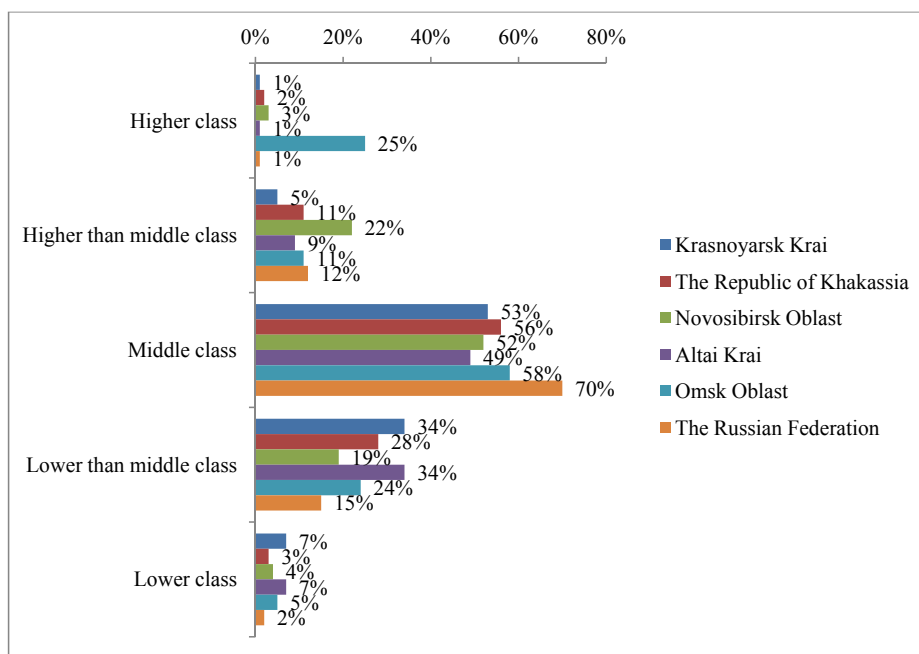


Fig. 16. Distribution of responses to the question “What social class do you think you belong to?” among the respondents with higher, incomplete higher and postgraduate education

highly educated professionals, skilled workers, entrepreneurs and, in general, active people of working age. Meanwhile, we can conclude that modernization is hardly possible in the regions with unfavorable climatic conditions and difficult labor conditions, by the efforts of the population, who, as the results of surveys in a number of Siberian regions have revealed, is characterized by social pessimism, low social self-esteem, lack of satisfaction with their lives, does not experience positive feelings towards their place of residence and even states that they plans to change their place of residence.

Taking into account that the object of our analysis was a highly educated, economically active population, which could act as a basis for modernization in the regions of SFD, such social attitudes, which are a reflection of the insufficient level of socio-economic conditions and standard of living of these social groups, as well as non-compliance of their level of live

with their expectations, will be a serious socio-cultural barrier to independent modernization and innovation in Siberia.

According to the analysis, the data of migration statistics for the highly educated and economically active population in general correspond to social attitudes of the population in the regions of Siberian Federal District revealed in surveys. It can be concluded that, above all, social policy in these regions should be directed at ensuring full development of human capital, and, first of all, at improving the socio-economic conditions of the population, development of upward social mobility, expanding of labor market for highly skilled workers, which might help to keep the potential agents of modernization in Siberian regions, or, in other words, that part of the population, which could act as an active conductor of contemporary modernization – in business, industry, education, management, and other spheres.

- ¹ The data was collected with the financial support of the Russian Foundation for the Humanities as part of the research project "Features of socio-cultural portrait of Krasnoyarsk Krai" № 10-03-00001a.
- ² The parameter of literate population is gradually disappearing from the main indicators of human development, being replaced by more complex parameters: the number of years of studying (revision of the main parts of HDI), functional literacy (human poverty index for developed countries) etc.
- ³ Here and below, the data of the Censuses are provided on respondents who stated their education.
- ⁴ One of the reasons for the raise of education in Russia for the period between the Censuses (2002 and 2010) is withdrawal of older and less educated population, which did not get into the "wave" of special public (in Soviet times the secondary, and in Russia – higher) education.
- ⁵ The proportion of children, which in SFO is a little higher than the average, was not taken into account, since the question about education was asked to the population aged 15 and older.
- ⁶ In Russia as a whole the proportion of educated population of working age has increased by 7.6 percentage points from 17.3 to 24.9 %.
- ⁷ Currently, the population has few stimuli to officially remove from the register thus allowing the services to identify the fact of moving.
- ⁸ Something similar is occurring in Krasnoyarsk Krai.
- ⁹ Here and below, the concept of "more educated" includes higher, incomplete higher and postgraduate education.
- ¹⁰ In this column of the table the answer "would like to move to another oblast, republic, krai" are combined with the answers "would like to leave the country".

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Социальная поддержка современной модернизации в регионах Сибири

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Статья посвящена исследованию социально-экономических, социодемографических и социокультурных характеристик экономически активного образованного населения регионов Сибирского федерального округа. Объект исследования – резиденты Сибири, обладающие высоким человеческим капиталом и перспективой действия в качестве социальной поддержки современной модернизации их регионов. На основе анализа официальной статистики и изучения населения в регионах Сибири сделана оценка образовательного потенциала внутренней миграции и социокультурных характеристик потенциальных агентов модернизации среди населения этих территорий.

Ключевые слова: модернизация, человеческий капитал, агенты модернизации, иммиграционные настроения, регионы Сибири.

Настоящее исследование проводилось при поддержке гранта Президента Российской Федерации для государственной поддержки молодых российских ученых – кандидатов наук. Проект «Социокультурные и институциональные аспекты социальной модернизации регионов Сибири» МК-3359.2013-6.

Table A.1. The proportion of population with higher education (%)

	Altai Republic			The Republic of Buryatia			The Tyva Republic			The Republic of Khakassia			Altai Krai			Zabaykalsky Krai		
	2002	2010	increase	2002	2010	increase	2002	2010	increase	2002	2010	increase	2002	2010	increase	2002	2010	increase
All age groups	12,5	18,7	6,2	15,1	21	5,9	10,8	15,2	4,4	12,6	18,2	5,6	12,1	17,1	5	11,1	15,9	4,8
Working age	13,7	19,8	6,1	16,4	22	5,6	11,1	15,5	4,4	14	19,6	5,6	13,6	18,7	5,1	12,1	16,9	4,8
16-29	9,4	16,7	7,3	9,8	17,7	7,9	5,9	10,3	4,4	8,8	15,9	7,1	8,9	16,5	7,6	7,1	13,55	6,45
20-44	15,1	23	7,9	18,2	24,9	6,7	12,3	17,1	4,8	15,6	22,4	6,8	15,4	21,8	6,4	13,5	19,4	5,9
<i>City</i>																		
All age groups	20,8	28,8	8	18,8	26,3	7,5	14,6	19,8	5,2	14,6	21,7	7,1	16,1	22,6	6,5	14	19,8	5,8
Working age	22,4	36,3	13,9	19,9	27,4	7,5	14,9	20,1	5,2	16,1	23,5	7,4	17,6	24,6	7	15	21	6
16-29	14,3	21,6	7,3	12,1	21,4	9,3	7,8	12,9	5,1	10,3	19,1	8,8	11,7	20,7	9	8,8	16,2	7,4
20-44	27,3	30,5	3,2	22,6	31	8,4	16,7	22,3	5,6	18,1	26,8	8,7	20,5	28,7	8,2	17,1	24	6,9
<i>Village</i>																		
All age groups	9,3	14,7	5,4	9,4	13,2	3,8	6,4	9,6	3,2	7,3	10,7	3,4	7,35	10,3	2,95	6,1	8,2	2,1
Working age	10,2	15,5	5,3	10,5	13,9	3,4	6,6	9,9	3,3	8,3	11,4	3,1	8,4	10,9	2,5	6,8	8,7	1,9
16-29	6,8	14	7,2	5,6	11,55	5,95	3,4	6,8	3,4	4,4	8,8	4,4	4,4	9,4	5	3,7	7,6	3,9
20-44	10,7	17,6	6,9	11,1	15,4	4,3	7,1	10,7	3,6	8,8	12,5	3,7	8,8	12	3,2	7,2	9,8	2,6

Table A 1 (continued)

	Krasnoyarsk Krai			Irkutsk Oblast			Kemerovo Oblast			Novosibirsk Oblast			Omsk Oblast			Tomsk Oblast			
	2002	2010	increase	2002	2010	increase	2002	2010	increase	2002	2010	increase	2002	2010	increase	2002	2010	increase	
All age groups	14,2	20,3	6,1	14,2	19,9	5,7	12,1	18,2	6,1	16,5	23,3	6,8	14	19,65	5,65	16,2	24	7,8	
Working age	15,6	22	6,4	15,3	21,3	6	13,6	20,3	6,7	18,1	25,3	7,2	15,4	21,1	5,7	17,5	25,9	8,4	
16-29	10,2	18,2	8	9,5	17,7	8,2	9,2	17,6	8,4	11,9	21,6	9,7	9,4	18,7	9,3	11	21,2	10,2	
20-44	17,6	25,4	7,8	17	24,6	7,6	15,4	24,1	8,7	20,6	29,5	8,9	17,1	24,3	7,2	20,5	30,2	9,7	
<i>City</i>																			
All age groups	16,7	23,9	7,2	16,2	22,4	6,2	13,1	19,9	6,8	19,9	27,6	7,7	17,6	24,2	6,6	20,2	29,2	9	
Working age	18,1	25,8	7,7	17,3	24	6,7	14,7	22,2	7,5	21,5	29,8	8,3	19,1	26	6,9	21,4	31,3	9,9	
16-29	11,9	21,1	9,2	10,9	19,95	9,05	10	19,3	9,3	14	24,7	10,7	11,8	21,8	10	13,1	24,6	11,5	
20-44	20,5	29,6	9,1	19,3	27,8	8,5	16,7	26,3	9,6	24,6	34,2	9,6	21,5	29,8	8,3	25,2	36	10,8	
<i>Village</i>																			
All age groups	6,2	8,7	2,5	7	10,1	3,1	5,3	8,3	3	5,7	9	3,3	5,6	8	2,4	7,5	11,6	4,1	
Working age	7	9,1	2,1	7,8	10,5	2,7	5,9	8,8	2,9	6,6	9,9	3,3	6,4	8,4	2	8,4	12,6	4,2	
16-29	3,3	6,7	3,4	3,4	8,3	4,9	3,1	7,5	4,4	3,6	8,7	5,1	3	7	4	4,55	10,4	5,85	
20-44	7,1	9,7	2,6	8,1	11,5	3,4	6,1	9,9	3,8	7	11,5	4,5	6,5	9,1	2,6	9,1	14,4	5,3	

Table A 2. Migration increase of population by 10000 people

	2003	2004	2005	2006	2007	2008	2009	2010	2011
Russia	18	18	20	22	25	25	24	19	22
SFD	-44	-45	-41	-34	-12	-4	2	-18	1
Altai Republic	-34	-36	-49	-24	-5	-16	-52	-28	-14
The Republic of Buryatia	-32	-22	-26	-27	-22	-21	-12	-24	-45
The Tyva Republic	-71	-96	-93	-89	-81	-93	-84	-126	-125
The Republic of Khakassia	-10	-21	-17	-23	2	1	1	-21	-19
Altai Krai	-67	-77	-78	-70	-43	-32	-13	-33	-24
Zabaykalsky Krai	-53	-54	-47	-57	-37	-36	-25	-46	-84
Krasnoyarsky Krai	-55	-63	-64	-54	-15	-8	-1	-15	28
Irkutsk Oblast	-53	-70	-76	-71	-47	-38	-45	-59	-28
Kemerovo Oblast	-31	-30	-17	-11	24	20	14	-13	-10
Novosibirsk Oblast	-4	15	12	18	16	43	59	26	81
Omsk Oblast	-69	-49	-37	-21	-21	-9	-10	-31	-9
Tomsk Oblast	-34	-49	-17	12	40	51	81	75	79