

**BBK 65.04**  
**UDK 338.9**  
**L 85**

**L 85 Local Production Systems and Regional Economic Development /ed. by  
A.S. Novoselov and V.E. Seliverstov. – Novosibirsk, Sofia, Lodz, Ternopil,  
2014. – 352 p.**

This collection of papers contains the results of research carried out by the participants of the “International Project FOLPSEC № 295050 within the 7th EU Framework Program FP7-PEOPLE-2011 IRSES” “Functioning of the Local Production Systems in the Conditions of Economic Crisis (Comparative Analysis and Benchmarking for the EU and Beyond)”.

The papers study the following problems: sustainable development of local production systems, business strategies of LPS, innovativeness of clusters, critical infrastructure protection, corporate social responsibility, environmental protection, local production system management, governance of local production systems in Bulgaria, Poland, Ukraine and Russia, policy guidelines with some measures of general application, aimed at problems observed in all LPS, and some specific measures differentiated according to a typology of local production systems.

ISBN 978-5-89665-277-9

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ISBN 978-5-89665-277-9

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# **SOCIAL INFRASTRUCTURE OF SIBERIAN REGIONS: CURRENT SITUATION AND SOME PROBLEMS OF DEVELOPMENT**

*Tatyana G. Ratkovskaya*<sup>1</sup>

Amid globalization, the competition between countries and regions for the main factors of economic growth including highly skilled labor forces increases. The “winners” of the attraction of manpower resources and population become regions characterized by a high level of social spending, growing standards of a quality of life, which create a comfortable living environment for the population.

Human development is the basis of innovative economy. So it requires priority investments, including those state-financed, into the healthcare, education, culture and other social sectors.

Complexity in solution of the problems of social development in Russia is connected both with the large space of the country and its high heterogeneity, and with the case of Federal State’s delimitation of rights, responsibilities and financial resources between two levels of the state authorities and bodies of local government.

Siberia and the Far East are still problematic areas, where the level and quality of life of the population do not fully offset the impact of even more complicated natural - climatic conditions of life. This leads to the outflow of the population, including a highly skilled labor force, to the other regions of the country and abroad. Challenges and threats to the development of these areas largely lie in the socio-demographic plane.

Social infrastructure is a part of the broader concepts such as a social development of a region, conditions and a quality of life. It acts as the facilities to provide health care, education, sports and cultural activities; it is the place where social relations and contacts are being implemented.

There is no unique definition of the social infrastructure as the category of the regional economy. As a rule it means public health and social care facilities, education facilities, sports, cultural and recreational facilities. Investments in social infrastructure are a very important part of “investment in human capital”.

Social infrastructure “attached” to a particular area, to the place of residence of the individual. Production and consumption of most of the social services are highly localized.

To produce services, social infrastructure acts as a specifically local phenomenon. Firstly, the main part of the daily needs of the population is met on a compact territory within the pedestrian and transport accessibility. Secondly, local and regional authorities are the most important regulator of the social infrastructure development, as well as sources of financing and some other necessary resources. They incur major social expenses and are responsible for the provision of social, educational, cultural, recreational and other services for the population of a local system (municipal entities, constituent entities of the Russian Federation).

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In a market economy social infrastructure development and the availability of their services depend both on the income of the population and on the public authorities activity. Regional and municipal finances are major factors in the development of social infrastructure. Financial support for the regional and municipal initiatives can be provided by Federal funds and with the implementation of Federal targeted programs.

Governments in the majority of regions of the Russian Federation (RF) are subsidized. About 70 constituent entities of the Russian Federation of 83 permanently receive subsidies – differential (equalization) grants (which are unconditional grants) – from the Federal Fund for financial support of the entities of the Federation. Despite this, the existing differences in regional levels of social development are still very high, especially in regions with difficult natural and economic conditions. As a result a human potential in these regions is decreased, migration to the regions with better living conditions is increased.

Siberia has always lagged behind the European regions of the country in the development of the social sectors and as a residential environment. During Soviet times, the creation of large industrial enterprises in Siberia was accompanied by a lag in the development of social infrastructure held true for a long time.

The implementation of market reforms and the new economic and political conditions in Russia have revealed the following problems in the social infrastructure of Siberia:

- In the period 1990s – early 2000s investments in the social sectors were sharply decreased. As a result the volume of capital repairs declined, physical depreciation increased, till to the complete destruction of capacities sometimes.
- In many cases, service facilities are characterized by low quality of services provided (that is low level of improvement and of technical equipment), lagging behind the needs of the population and progressive standards of service.
- In most of the Siberian regions, the existing spatial network of facilities does not correspond to the changed allocation of productive forces and to the resettlement of population and demands in this regard, structural optimization.

At present, the problems of improving the quality of life of the population are solved on the whole territory of Russia, including the modernization of the social infrastructure. In 2004–2005 the priority national projects (PNP) “Education” and “Health” gave the beginning of these processes. Then some national initiatives for sports facilities came, and let the smaller, but certainly significant. New approaches to the modernization of cultural facilities are being developed (called as “road map” of development).

Discussing the first results of the modernization reform, Health Minister of Russia Mrs. V. Skvortsova noted that the PNP “Health” and regional programs of modernization of health care have brought the huge contribution to development health facilities, particularly obstetrics and pediatrics. However taking into account the huge depreciation of the facilities of obstetric and childhood services (it exceeded 70% in 2010, and in some regions reached 80–100%) a need to upgrade more than 85 thousand obstetric and pediatric hospital beds as well as need to construct new perinatal centers and children's hospitals remained by the beginning of 2013<sup>1</sup>.

Along with the results achieved a number of significant shortcomings, including unjustified closure of feldsher-midwifery posts (feldsher and obstetrical stations), rural hospitals, and maternity hospitals are observed. This caused discontent of the population in many regions, including Siberian regions. President of the National medical Association Professor L. Roshal said: “Such restructuring is not needed for Russia. Economics in health care is necessary, but not that way”<sup>2</sup>. We need to rectify these shortcomings.

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<sup>1</sup> Meeting of the Council for priority national projects and demographic policy on February 26, 2013, Moscow region, Novo-Ogarevo. (<http://state.kremlin.ru/face/17586> )

<sup>2</sup> Op.cit

During 2000–2011 the situation with education facilities has also improved. Availability of pre-school educational establishments increased; the number of pupils of general educational establishments in second and third shifts (as percent of total number of pupils) declined. However the relative position of the Siberian entities of the Russian Federation on the background of other regions has practically not changed. Most of them occupy in the Russian Federation entities ratings the positions in the sixth-seventh (eighth) dozens among the 83 constituent entities of the RF (Table 1).

Table 1

**Some indicators of education facilities availability in Siberian entities of the Russian Federation, 2000, 2011\***

Regions	Availability of places at pre-school educational establishments, percent of total number of children				Number of pupils in second and third shifts, percent of total number of pupils			
	2000		2011		2000		2011	
	%	rank in RF(1-83)	%	rank in RF(1-83)	%	rank in RF(1-83)	%	rank in RF(1-83)
Russian Federation	55,0		60,6		20,8		13,8	
North of Western Siberia								
Tumen Region	59,7	32	65,1	31	32,8	77	19,9	68
including:								
Khanty-Mansiysky Autonomous Area – Yugra	62,5	30	58,0	56	38,9	81	24,4	76
Yamalo-Nenetsky Autonomous Area	68,8	19	67,4	23	35,1	80	24,7	77
Siberian Federal District	48,0		55,7		24,6		18,4	
South of Western Siberia								
Omsk Region	40,7	75	56,5	62	22,3	49	13,2	43
Tomsk Region	55,6	40	60,4	48	24,4	59	23,1	74
Novosibirsk Region	46,4	66	59,1	52	21,5	44	16,4	56
Kemerovo Region	51,2	56	57,6	57	32,8	78	23,9	75
Altay Territory	44,6	71	55,1	66	23,1	53	18,8	61
Republic of Altay	33,9	80	40,4	78	25,6	63	25,4	78
Yeniseisk region								
Krasnoyarsk Territory	53,7	46	56,0	64	18,3	28	10,2	26
Republic of Khakasia	47,0	64	57,4	59	24,6	60	16,1	54
Republic of Tuva	46,2	68	38,4	80	34,2	79	31,2	80
Baikal region								
Irkutsk Region	55,8	38	57,2	61	29,8	76	22,0	73
Republic of Buryatia	36,7	79	49,7	74	19,4	32	18,0	59
Zabaikalsk Territory	40,6	76	54,6	67	23,9	57	19,4	65

\* In our study, the Russian Federation entities geographically appropriated to the notion of «Siberia» (as West-Siberian and East-Siberian economic areas) are considered. For our purposes, fifteen entities of the Russian Federation are grouped in four groups according their economic-geographical location: 1) the North of Western Siberia, 2) the South of Western Siberia, 3) Yeniseisk region of Eastern Siberia and 4) Baikal region of Eastern Siberia.

Source: *Regiony Rossii: Sotsial'no-Ekonomicheskie pokazateli* (Regions of Russia: Social-Economic Indicators), Moscow: FSGS, 2012. – 990 p. [http://www.gks.ru/bgd/regl/b12\\_14p/Main.htm](http://www.gks.ru/bgd/regl/b12_14p/Main.htm)

Furthermore the dynamics of indices of life expectancy in Siberian entities of the Russian Federation (in 2000, 2005 and 2011) was considered. This is one of the most important indicators characterizing the quality of life.

For the considered period the life expectancy of Russians has increased. However Siberian Federal district is still in the penultimate place within the Federal districts of the Russian Federation. The last place of the life expectancy takes Far East Federal district. Within the entities of RF, Zabaikalsk Territory, Irkutsk Region and Republic of Buryatia, situated on the territory of Baikal region, are characterized by especially low life expectancy (in addition to the republics of Tuva and Altai) (Table 2). It should be noted positive dynamics of the Krasnoyarsk territory moved with 74-th on the 58-th place in the Russian Federation. However, in 2011, the indicators of life expectancy of none of the twelve entities of the Siberian Federal district did not exceed the average Russian level.

Table 2

### Life expectancy at birth (number of years)

The regions	Number of years			Rank in RF		
	2000	2005	2011	2000	2005	2011
Russian Federation (RF)	65,34	65,37	69,83			
North of Western Siberia						
Tumen Region	65,90	66,66	70,45	26	20	17
including:						
Khanty-Mansiysky Autonomous Area – Yugra	65,87	67,82	70,91	28	12	14
Yamalo-Nenetsky Autonomous Area	66,71	67,58	70,16	16	16	23
Siberian Federal District	63,66	62,70	67,72			
South of Western Siberia						
Omsk Region	66,20	65,15	69,50	24	32	34
Tomsk Region	64,94	65,11	69,53	42	34	32
Novosibirsk Region	66,30	65,11	69,68	23	33	30
Kemerovo Region	62,69	61,43	66,18	70	72	72
Altay Territory	66,58	64,62	68,97	18	40	44
Republic of Altay	62,83	60,38	65,40	66	76	79
Yeniseisk region						
Krasnoyarsk Territory	62,45	63,02	68,27	74	55	58
Republic of Khakasia	62,75	61,11	67,75	69	73	63
Republic of Tuva	55,16	55,84	61,39	83	83	83
Baikal region						
Irkutsk Region	61,23	60,32	65,93	80	77	76
Republic of Buryatia	62,68	60,96	66,09	71	74	73
Zabaikalsk Territory	61,49	59,33	65,75	79	80	77

Source: Regiony Rossii: Sotsial'no-Ekonomicheskie pokazateli (Regions of Russia: Social-Economic Indicators), Moscow: FSGS, 2012. – 990 p. [http://www.gks.ru/bgd/regl/b12\\_14p/Main.htm](http://www.gks.ru/bgd/regl/b12_14p/Main.htm)

No doubt, the improving of the quality of life, considered as a large-scale structural maneuver, requires significant capital investments into the service facilities.

Investments used to finance the development of the social infrastructure have many sources: federal budget, budgets of constituent entities of the Russian Federation (sub-federal or “regional” budgets), municipal (local) budgets, state non-budget funds of the Russian Federation, corporate finances, and business finances. The main sources of financing remain sub-Federal and local budgets, with funding from the Federal budget.

In our studies the methodical approach to the comparative regional analysis of the financial resources for the development of regional social infrastructure was proposed. It includes joint calculation of the groups of investment and fiscal indicators, allowing inter-regional and cross-sectoral mapping and to explore the dynamics of the processes.

This approach makes it possible:

- to reveal the degree of regional differentiation of investment costs (fixed capital costs) used for the development of three groups of the social services (three types of economic activities according to the budget classification): 1) education; 2) health and social work; 3) other community, social and personal service activities;
- to quantify the amounts of budget funds – both from the Federal budget and the consolidated regional budgets – within the fixed capital investments of the constituent entities of the RF on the territories of Federal districts of the Russian Federation;
- to calculate and compare the share of capital investment expenditures in total expenditures of consolidated budgets of constituent entities of the Russian Federation on the territories of Russia's Federal districts.

The results obtained indicate the level of fixed capital investment into the development of social infrastructure in Siberian Federal district (SFD) (per capita) in all three groups of service activities below the national average in those groups. (The level of investment by economic activity “health care and social services” in SFD in 2011, which was 118% of the average for the Russian Federation this year, was as an exception).

It is especially high backlog of capital investment expenditures by economic activities “other community, social and personal services”. This includes sport and cultural activities, recreational activity and others. The level of such capital expenditures invested within the territory of SFD (per capita) for all the years considered (2004–2011) didn't rise above 41–53% of the Russian average.

In other words the share of the Siberian Federal district in the capital investment expenditures by social services activities is permanently significantly lower than the share in the population of Russia.

Speaking about the first two groups of activities (“education” and “health and social work”) we should note the appearance of more than seven years ago such effective complementary tool to its development as priority national projects (PNP). With regard to the sports and cultural activities such projects have not been used. Investment opportunities in these activities are largely defined by financial opportunities of sub-federal (regional) and local budgets. Budgets of the most Siberian regions are subsidized from the federal budget. The problems of development of social infrastructure in Siberia indicate that existing forms and instruments of such support are insufficient.

The results obtained also indicate that the shares of capital investment in expenditures of consolidated budgets of the entities of the Russian Federation in the Siberian and Far East Federal districts throughout the period 2004–2010 were the lowest in the country. In 2010 these shares amounted to 6.9% and 7.1%, respectively, while the average level for the Russian Federation was 9.5%. In 2008, the figures in these districts were 8.9% and 8.6%, while the average share in the country became 13.8%. The volume of investments (in absolute and relative terms, per capita) in the Siberian Federal district, funded by

consolidated budgets of the constituent entities of RF, was one of the lowest among the Federal districts of the Russian Federation.

In our opinion, one of the reasons for this is the objective need of the higher share of *current expenditures* in the expenditures of regional and municipal budgets in areas with complicated economic-geographical features (severe climate, small and scattered settlements, poor transportation network, etc) than in the most areas of the European part of the country. Accordingly, the fewer opportunities for the implementation of *capital investment spending* including the development of social infrastructure are available.

Within the standard technique of regional differential (equalization) granting by Ministry of Finance of Russia only some of such special regional characteristics are taken into account. Furthermore the technique aims primarily to support for current rather than capital investment expenditures of regional budgets. As a result, in 2005–2011 the level of expenditures of the consolidated budgets of the entities of the Russian Federation (per capita) on the territory of Siberian Federal district amounted to 89, 88, 87, 83, 86, 88 and 87 per cent to an average level of expenses (Table 3). However, the level of capital investment spending of the consolidated budgets of the entities of the Russian Federation (per capita) on the territory of Siberian Federal district was much lower: only 48, 48, 49, 53, 51, 64 and 75 per cent of the average for the Russian Federation in the same years.

Table 3

**Some budgetary and capital investment indicators of the consistent entities of the Russian Federation on the territory of Siberian Federal district (per capita, RF = 100%)**

Indicators	2004	2005	2006	2007	2008	2009	2010	2011
Total expenditures of the budgets of the entities of the Russian Federation	91	89	88	87	83	86	88	87
Fixed capital investments, total	65	70	75	78	79	77	79	84
<i>including:</i>								
Budget funds, total	53	53	56	57	65	72	72	75
<i>including:</i>								
of the federal budget	62	62	70	68	83	91	79	75
of the budgets of the consistent entities of the RF	48	48	48	49	53	51	64	75

*Source:* Calculated on the basis of: Regiony Rossii: Sotsial'no-Ekonomicheskie pokazateli (Regions of Russia: Social-Economic Indicators), Moscow: FSGS, 2012.

To complete a brief overview of the problems of development of social infrastructure of Siberian regions, let us make some conclusions.

In order to effectively create a comfortable conditions of life for the population of Siberian regions the only comprehensive system approach to solving problems of social infrastructure development, covering all levels of public administration, state and municipal, is needed.

The improving of budgetary and regional policy of the Federal government in supporting the development of social infrastructure of the entities of the Russian Federation should play a special role. It is necessary to continue the development of mechanisms to diversify the conditions of the Federal support subsidization for the development of social infrastructure in various regions. Thus, it means strengthening state support for the regions with unfavorable economic-geographical conditions, such as: low population density, large distances between settlements, higher costs for construction of facilities because of the severe climatic conditions, poor transportation infrastructure, and others. For this purpose the development and application of specific quantitative indicators, reflecting the spatial characteristics of the various territories, will be required.