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The Single-Industry Towns of Belarus: Differences in Demographic and Economic Development

Ekaterina A. ANTIPOVA[1], A. N. TITOV[1]

[1] *Belarusian State University, Faculty of Geography, Economic Geography of Foreign Countries Department, Minsk, BELARUS*

E-mail: antipovaekaterina@gmail.com, antitov@tut.by

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ABSTRACT

In this article we carried out an economic geographical analysis of socio-demographic and economic factors for the development of single-industry towns in Belarus over the period of 2000-2013. We pinpointed the role of the single-industry towns of Belarus in the system of settlement, analysed some of their most significant features, namely: functional typology, structure by population size and type of economic activity. Therefore, we introduced new typologies of single-industry towns in accordance with the dominant type of economic activity and predominance of type of developed food industry. In the context of the current modern economic situation of the key single-industry towns in Belarus, we have detected the centre-periphery polarization and also independent single-industry urban agglomerations, whereas the peripheral single-industry towns were found dominant, which proves their issues in the context of modern development.

1. INTRODUCTION

The development of the single-industry towns is a typical phenomenon for the industrialization process in any country of the world. There is one important fact when studying the Belarusian single-industry towns, representing 43% of the urban centres at national level where 19% of urban population resides.

The research on single-industry towns in Belarus shows problematic issues, mainly focusing on the low level of economic development of potential capacity, the availability of money-losing ventures or the significant number of urban newly formed low-margin enterprises, thus triggering a threat for social stability not only in the city but also in the contiguous areas.

Thereby the goal of our research is to carry out an economic geographical analysis of evolution factors of Belarusian single-industry towns over the period of 2000-2013 in terms of moving towards post industrialization phase.

In order to achieve the objective, we set the following tasks:

1). To generalize approaches on the definition of "single-industry town" and set the theoretical methodological fundamentals of the study on various aspects of their development (demographic, social, economic, spatial structure).

2). To form the checklist of single-industry towns of Belarus based on the available statistical data in the framework of chosen methodology, and subsequently to select the key single-industry towns and briefly characterize them over the period of 2000-2013.

3). To analyse the social demographic and economic development factors of single-industry towns of Belarus in the 20th century through the key single-industry towns.

2. THEORY AND METHODOLOGY

2.1. Definitions and theoretical foundation of the study

Scientific studies of company tows or single-industry towns date back further in time due to the long historic period of industrial development of world economy and the economy of specific countries. Thus, the analysis of company towns' development in the countries with the long history of industrial development is of high special interest within the framework of the present research.

The current scientific literature reveals a thorough analysis of the reasons for the shaping of company towns in the US since the formation of the state, as well as the role of such cities in the development of the American economy and capitalism [1], [2]. The features of development in the case of mining company towns in various regions of the US (New England, Northwest, Appalachia etc.) in early industrial era and up to the middle of the 20th century have been comprehensively described [3], [4], [5], [6], [7], [8], [9]. Studies on the consequences of closing down the industrial enterprises of the company towns, cutting down the number of working places and the ways of their sustainable development are also important while conducting the research of single-industry towns in Belarus [4], [10]. The comparative analysis of the similar economic and social functions of company towns of the several American countries (USA, Canada, Brazil, Argentina, Mexico and Chile) plays a significant part [11].

A critical part of the scientific publications are dedicated to the formation history and the problems of company towns' development in Canada as well as to their role in the global economy and the comparative analysis of the Canadian and the US company towns [12], [13], [14]. What deserves attention are the researches of the Canadian scientists who have focused on the demographic and social economic aspects of single-industry towns' development with identification of their specialization and classification by a variety of characteristics (dynamics of population size, the unemployment rate, share of people engaged in services area and etc.) [15].

For instance, Borges and Torres (2012), Gregotti (1997) have elaborated fundamental works by approaching the definition, stages, risks and problematic issues of company towns' development in various regions of the world, as well as analysing the new models of cooperation of business, society and regions in service company towns evolution in times of globalization [16], [17], which are of crucial importance in modern science.

A broad range of scientific papers are devoted to the particular aspects of the development of the single-industry towns in various countries like Australia, as well as oil producing countries of Asia and America, and India [18], [19], [20], [21].

Despite the problematic development of single-industry towns in Europe and post-socialist area there are gaps concerning theoretical and methodological approaches from the perspective of social economic geography. According to the definition of Russian geographers, single-industry towns are cities in the economic structure of which one branch is represented by one or a few enterprises belonging to one economy segment. The following criteria of single-industry towns are used: 1) share of working population in one economic sector (characteristics change from 20% to 50%) and/or 2) share of one economic sector in the structure of town's economy (as a rule more than 50%) [22].

In Belarus, the following definitions are used for the towns, whose economy is fully depending on one or two township-forming enterprises – single industry town, monostructural, sector-specific town, monospecialised town [23].

Results of post-socialist towns studies played an important role when analyzing the Belarusian single-industry towns in the context of moving towards the post-industrial society: intensive market-type reforms of the space of Prague and setting up the standards of the western town [24]; rapid development of tertiary and quaternary sectors spaces and socially special segregation in Lodz [25], [26]; dynamics of urban spaces of Europe and Poland [27], [28], specialization of industrial spaces and dynamics of urban regions' functions in Torun [29], [30]; characteristics of functional zones of Kiev [31]; spatial shifts of southern region of Wroclaw [32].

The papers studying regional competitiveness and the reorganization of single-industry towns in Europe (Central and Eastern Europe and Russia in particular) are valuable to the modern development of Belarusian single-industry towns [33], [34].

The researches of Russian scientists that can be highlighted here are the ones focusing on the directions for the development of single-industry towns in Siberia [35], problems of classified approaches and development of single industry settlements in terms of emerging economy based on integrated geographic analysis [36], [37], [38], [39], [40], [41], [42]. The most fruitful years for the Belarusian economists and geographers working on analysis of urban settlement including single-industry towns were the 1960s [43]. Particularly, Mytskyh (2012) is one of the most visible researchers focusing on the current issues of transformation and development of single industry settlements in Belarus [23].

2.2. Methodology and data for study

Based on the foregoing criteria in the study of Belarusian towns, the cases of towns in which no less than

25% of the total working population is employed at township enterprises and the production volume of township enterprises is more than 50% in the total industrial production, and the economy of the town is currently based on a single industry, we then designated them as single-industry towns.

The main research stage was based on the official data provided by The National Statistical Committee of the Republic of Belarus, when we created the list of single-industry towns, and subsequently selected the key single-industry towns. The use of "key" method was validated by the need of obtaining representative results about the full range of current types of Belarusian single-industry towns. Therefore, population number became the criterion for the selection of key-towns i.e. one single-industry town was selected from every class by population size (Soligorsk – more than 100 thousand people, Zhodino – 50,000-100,000, Krichev – 20,000-50,000, Mikashevichi – 10,000-20,000, David-Gorodok– 5,000-10,000, Kossovo – less than 5 thousand people) [47].

At this stage, data based on single-industry towns of the Republic of Belarus over the period of 2000-2013 was created which is represented by two key indicator blocks:

1). Socio-demographic (population size, crude birth rate, crude death rate, crude rate of natural increase/decrease, share of working population in production field, national wage paid, level of recorded unemployment).

2). Economic (industrial output, volume of export of goods, volume of net profit of companies).

In the final stage, the socio-demographic and economic factors of development of Belarusian single-industry towns in 21st century were analyzed in terms of key-towns. Overall, the methodological framework of the study represents a combination of basic methods of scientific knowledge (historical, statistical, descriptive analysis) and economic-geographical (score method, classifications, comparative-geographical, generalization method, geographic systematization, cartographic method with the use of GIS technologies).

3. RESULTS AND DISCUSSION

3.1. General characteristic of single-industry towns of the Republic of Belarus

Historically, a few stages in the development of single-industry towns on the post-soviet area can be distinguished.

The first stage is the mass upraise of single-industry towns, which is connected to the industrialization of the 18th – 19th centuries and it is characterized by the appearance of manufactories and ironworks, consumer goods industry in the Russian Empire.

The second stage is the period of soviet industrialization in the 1930s, when the rise of single-industry towns occurred in the framework of development of the largest territorial production complex of USSR.

The third stage is represented by the period of the Great Patriotic War (1941-1945) – upraise of single-industry towns occurred by the relocation of industrial enterprises from Central Russia into other regions of USSR.

The fourth stage, over the period of 1950-1980s, is characterized by the active formation of single-industry towns comprising township enterprises in the fields of medium-tech and high-technology branches of mechanic engineering, chemical production and energy sector.

The fifth stage, from the beginning of 1990s and to the present day, is characterized by shutdowns of many plants, search of support means for the single-industry towns, which gives the reason to refer them to the number of depressing settlements [37].

The place of the single-industry towns in the territorial organization of Belarus. We designated 49 Belarusian towns as single-industry towns. It means that more than 40% of all urban settlements in the settlement system of Belarus (out of 113 towns) are single-industry towns, which makes them important to be studied. In accordance with State scheme of complex territorial organization of The Republic of Belarus (SSCTO) the single-industry towns of Belarus can have national, regional and local importance by *their role in the settlement system*. More than 70% of them are referred to as regional centres: single-industry towns of national and local significance are relevant approximately in equal shares (Fig. 1).

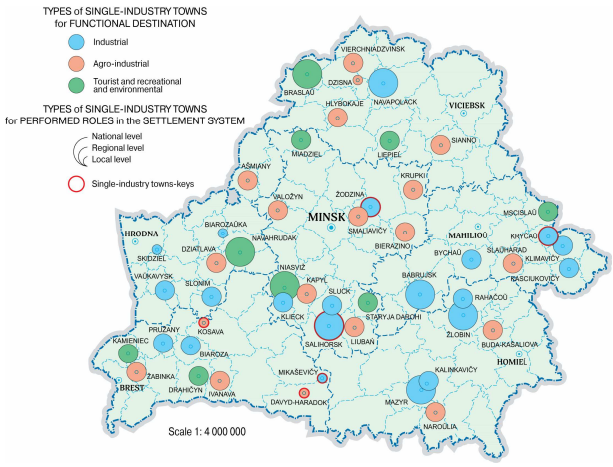

Fig. 1. The distribution of single-industry towns of Belarus by performed role in the settlement system and by functional destination.

A town of regional significance is an industrially developed town, mostly an administrative centre with population size of more than 100 thousand people, which accomplishes a function of centre for

other subordinate settlements and areas. It gets the additional significance from the viewpoint of regional interests.

By *functional destination,* the single-industry towns of Belarus are divided into the following classes: industrial, agro-industrial, tourist-recreational and environmentally-oriented. Out of 49 single-industry towns, 40 of them are industrial or agro-industrial, 9 are tourist-recreational and environmentally-oriented (Fig. 1).

The demographic structure and population migration of the single-industry towns. A class of small towns (42.1%) prevails in the structure of single-industry towns, which is caused by the dominance of current class in the settlement system of Belarus. Small single-industry towns amount to approximately 25%. The third position belongs to the 7 semi-middle towns, with a share of 14.3%.

The urban structure of single-industry towns of the country is characterized by macropolization – concentration of population in large towns. There are also 4 towns with population size more than 100 thousand people, holding a share of 38% of the population size (Table 1).

Table 1. Distribution of the single-industry towns of Belarus, by population size.

Classes of town by population size, thousand people	Number of towns	Share of towns (%)	Share of population (%)
Large (100-500)	4	8.2	38.1
Middle (50-100)	3	6.1	13.9
Semi-middle (20-50)	7	14.3	19.3
Small towns (10-20)	21	42.9	21.6
Smaller towns (5-10)	12	24.4	6.8
Smallest towns (less than 5)	2	4.1	0.3
Total	49	100.0	100.0

Own compilation based on Population of Belarus: statistical digests 2014 [44].

Nowadays, the natural population dynamics of Belarus is characterized by natural decline (0.7‰, 2013) with a decrease trend. However, there is another situation in the towns of the country, which is the demographic revitalization and natural increase (2.1‰) [45]. The natural increase is evident in most of the Belarusian single-industry towns (Fig. 2).

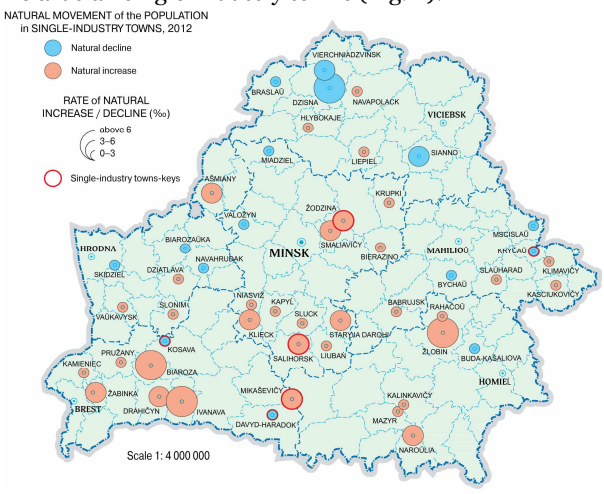

Fig. 2. The distribution of single-industry towns of Belarus, by natural movement of population.

Currently, the population migration in Belarus is characterized by positive balance (12 thousand people in 2013). The strong predominance of internal migration over the external one, in the ratio of 95.5, is observed in the structure [46]. The intraregional migration is dominant over the internal one. As compared to the average situation registered in Belarus, the negative migration balance is observed in most of the single-industry towns, which is the evidence of certain social economic issues of their development (Fig. 3).

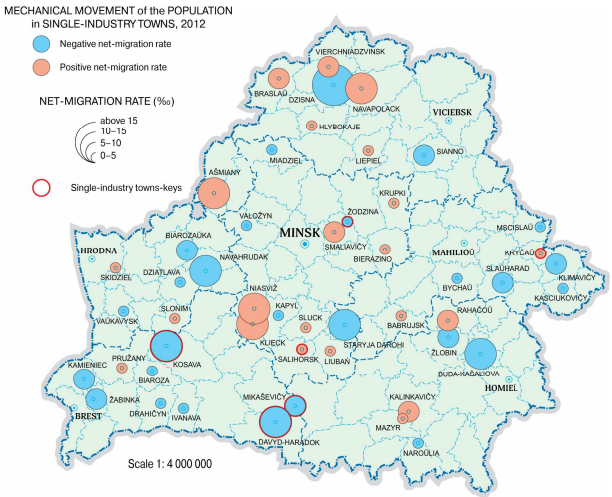

Fig. 3. The distribution of single-industry towns of Belarus, by the migration movement character.

The economic activity of Belarusian single-industry towns. The analysis of single-industry towns' structure by dominant types of economic activity revealed that in 78 % of single-industry towns the main type of economic activity is food production, including drinks and tobacco.

The production of other non-metallic mineral commodities is on the second place in the structure. This branch is developed in Krichev,

Kostyukovichi and Berezovka where the enterprises specializing in the production of construction materials are located. The production of coke, petrochemicals and nuclear materials takes the third place in the structure, in which case two Belarusian centres of petroleum refining – Novopolotsk and Mozyr hold 4% of the industrial activity.

Single-industry towns with production of rubber and plastic goods (Bobruysk), chemicals (Soligorsk), metallurgical production and production of finished metal products (Zhlobin), production of machinery and equipment (Zhodino), extraction of minerals apart from fossil fuels (Mikashevichi), wood processing and production of wood articles (Kossovo) hold a share of 2% in the structure (Fig. 4).

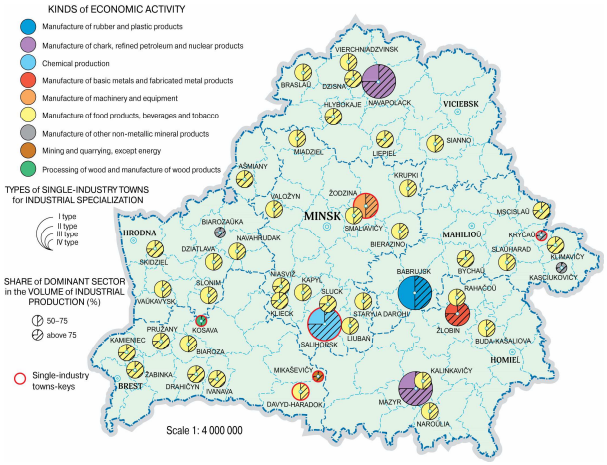

Fig. 4. The distribution of single-industry towns of Belarus by economic activity, 2013.

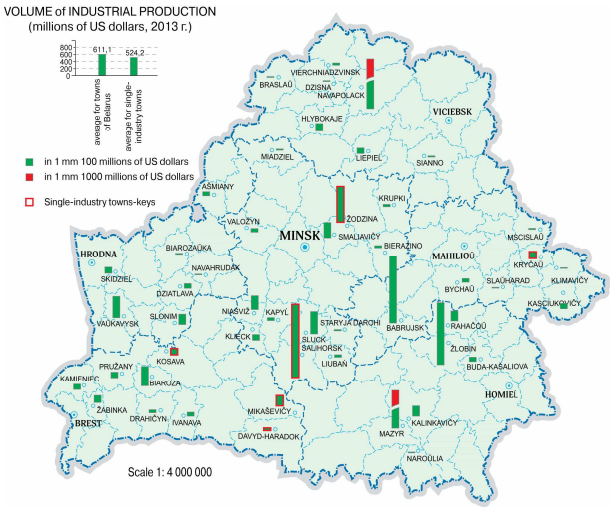

Fig. 5. Distribution of the single-industry towns of Belarus by volume of industrial production.

Since 2009, the dynamics of industry production volume of Belarus has been characterized by the decrease of pace of most types of economic activity, which is explained by the consequences of global financial crisis. At the same time, in the case of petroleum refining, fertilizer manufacturing, and timber industry in single-industry towns, the decrease of volumes is lesser or does not exist due to the export of these goods.

Generally, the characteristic of single-industry towns of Belarus is the severe differentiation of industrial products by volume. The single-industry towns, the industrial giants of the country, (Novopolotsk with JSC NAFTAN, Mozyr with JSC "Mozyr Oil Refinery"), Soligorsk with JSC "Belaruskali", Zhlobin with JSC "Belarusian Steel Works", Bobruysk with the Belarusian bus-based plant JSC "Belshina", Zhodino with JSC "Belarusian Autoworks") are characterized by more than tenfold excess in comparison with other single-industry towns (Fig. 5).

These towns represent the main producers of export products of the country despite the difficult social economic situation. The rest of the single-industry towns are mostly vulnerable economically and face difficulties due to the low competitiveness and output profitability, storage of products, etc. Single-industry towns are spatially distributed in all regions of Belarus. Most of them (26.5%) are located in the capital region of Minsk, which is explained by the strong industrial potential of the region and the distribution of small satellite towns around the capital. There are 9 single-industry towns (18.4%) in Brest region. Equal distribution of single-industry towns is characteristic of Vitebsk, Grodno and Mogilev regions (by 7) or 14.3% for each region. The least number of them is found in Gomel region – 6 towns (12.2%). As a result of systematization of the above mentioned data, we developed a typology of single-industry towns by the dominant branch in industrial production. Based on the combination of share of dominant branch in the volume of industrial production and share of working population in dominant branch of industry, 4 types of single-industry towns were distinguished (Table 2, Fig. 4). The first type includes 4 single-industry towns (8.2% in the structure), industrial towns with developed chemical and petrochemical industry (Soligorsk, Mozyr, Novopolotsk, Bobruysk). The second type includes 2 towns (4.1 % in the structure), middle single-industry towns with developed machinery and metal working (Zhodino and Zhlobin). The third type consists of 38 single-industry towns (77.5%) from medium to the smallest by population size with developed food industry and they are distributed all over Belarus. Most of the towns of this type are characterized by a share of working population in the dominant branch of industry equalling to 25-50%, but at the same time with different proportions of the dominant branch in the volume of industrial production. The relative share of working population in food industry in such towns as Glubokoye, Ivanovo, Zhabinka and Klimovichi is more than 50%. The fourth type includes 5 towns (10.2%) with the resource forming factor (the presence of raw material stocks in the form of mineral resources and

also wood resources) playing an important role in the economy. In such single-industry towns as Krichev, Kostyukovichi and Berezovka a key role belongs to the deposits of mortar sands, cement clays, chalks and marl, which allowed for the development of production of construction materials, mainly of cement and fibre cement. RUMC "Granite" emerged in Mikashevichi due to the deposits of construction stone. The specialization of Kossovo is wood processing and furniture production based on the available timber.

Table 2. Typology of the single-industry towns of Belarus by dominant branch in industrial production, 2013.

Types	Share of dominant branch in the volume of industrial production of the town (%)		Share of working population in dominant branch of industry (%)
	50-75	more than 75	
I. Large single-industry town with developed chemical and petrochemical industry	Bobruysk	Mozyr, Novopolotsk	25-50
	–	Soligorsk	more than 50
II. Middle single-industry town with developed machinery and metal working	Zhodino	Zhlobin	more than 50
III. Single-industry town with developed food industry	Slonim, Volkovysk, Kalinkovichi, Rogachev, Bereza, Novogrudok, Smolevichi, Berezino, Lyuban, Staryye Dorogi, Volozhin, Kopyl, Braslav, Buda-Koshelevo, Krupki, Narovlya, Senno, Slavgorod, Dyatlovo, Verkhnedvinsk, Myadel, David-Gorodok	Slutsk, Pruzhany, Lepel, Bykhov, Drogichin, Oshmyany, Nesvizh, Skidel, Mstislavl, Kletsk, Kamenets, Disna	25-50
	–	Glubokoye, Zhabinka, Klimovichi, Ivanovo	more than 50
IV. Single-industry town with key-role of recourse generating factor	Kossovo	–	25-50
	–	Berezovka, Kostyukovichi, Krichev, Mikashevichi	more than 50

3.2. Economic geographic analysis of key single-industry towns

Social demographic and economic factors of developments of key single-industry towns. As it was mentioned above, six towns were designated as key-towns – Soligorsk, Zhodino, Krichev, Mikashevichi, David-Gorodok and Kossovo. Soligorsk became a town of national significance by playing important role in the settlement system. Zhodino and Krichev are towns of regional significance, whereas Mikashevichi, David-Gorodok and Kossovo are towns of local significance. Soligorsk, Zhodino, Krichev, Mikashevichi are industrial towns with functional significance, and David-Gorodok and Kossovo are agro-industrial.

Population size is one of the most important characteristics of a town. The annual growth rate of urban population of Belarus over the period of 2000-2013 was of 0.26%. The positive dynamics maintains in the single-industry towns but the growth rate is much lower, of only 0.04% over the entire period, which can be explained by less favourable demographic situation (Table 3).

A growth of population size in key-towns has been indicated only in two of the largest towns, Soligorsk and Zhodino. In all other towns negative population growth rate was observed.

As most of the European countries, the Republic of Belarus is characterized by low birth rate and ageing taking toll on birth rate, death rate and natural increase in towns particularly in single-industry towns. The crude birth rate of population in single-industry towns is higher than urban population of the country in general (13.0 and 12.5‰ accordingly) explained by the location of most of key single-industry towns in demographic "centre" or "semicentre" of Belarus [47]. Three out of the six key single-industry towns are located in Brest region, with a more favourable demographic situation than can be indicated in the whole country [45]. An increase in the crude birth rate in all key single-industry towns was noticed over the period of 2000-2013. In 2013 it exceeded 13‰ in the largest by population size towns of Soligorsk and Zhodino and maximum value was reached in David-Gorodok (15‰).

The most stable situation of the birth rate is registered in Mikashevichi. The worst situation is found in Krichev of Mogilev regions, which refers to demographic and social economic periphery and Kossovo, which is one of the smallest towns in the

country by population size. In both towns, crude birth rate was below the average in the whole country – 12‰.

The analysis of death rate in Belarus showed decrease while keeping higher values in comparison with other European countries (13.2 against 11‰). At the same time, death rate of population in single-industry towns as compared to the birth rate is higher than the average value of urban population of Belarus (13.9 and 10.4‰). Most of the key single-industry towns are characterized by increase of death rate. The most favourable situation is found in Zhodino (less than 10‰). In all other towns, the crude rate was less than 13‰. The worst situation is in Krichev (more than 19‰) which confirms the status of demographic periphery of the town. The natural decrease of population is a characteristic of Belarus nowadays, being the feature of the second demographic transition. However, since 2007, the natural increase has stabilized in all towns of the country.

Table 3. The main social demographic indicators of development of key single-industry towns of Belarus.

Indicators	Years	Key single-industry towns						Average by single-industry towns	Average by towns of Belarus
		Soligorsk	Zhodino	Krichev	Mikashevichi	David-Gorodok	Kossovo		
Population size, thousand people	2000	101.5	59.5	29.5	13.8	7.2	2.5	35,669	62,370
	2013	104.7	62.7	26.5	12.9	6.2	1.97	35,841	64,472
Population growth rate (%)	2000-2013	0.24	0.41	-0.83	-0.51	-1.13	-1.86	0.04	0.26
Share of working population (%)	2000	63.1	69.4	63.3	63.2	58.6	64.1	63.6	62.8
	2013	62.3	65.2	60.2	59.2	55.5	61.8	60.7	62.4
Crude birth rate (‰)	2000	10.1	9.3	9.4	12.0	12.8	9.4	10.5	9.8
	2013	13.4	13.6	11.7	12.3	15.0	11.9	13.0	12.5
Crude death rate (‰)	2000	10.6	7.5	16.8	12.4	13.2	14.8	12.6	10.0
	2013	12.7	7.9	19.2	13.9	14.2	15.4	13.9	10.4
Natural increase / decrease (‰)	2000	-0.5	1.8	-7.4	-0.4	-0.4	-5.4	-2.1	-0.2
	2013	0.7	5.7	-7.5	-1.6	0.8	-3.5	-0.9	2.1
Share of working population in industrial sphere (%)	2000	50.1	50.8	25.5	27.2	10.4	23.3	31.2	17.9
	2013	45.1	53.3	19.5	23.5	11.8	17.6	28.5	15.8
Level of recorded unemployment (%)	2000	3.6	2.9	3.1	4.5	4.7	3.4	3.7	2.1
	2013	0.5	0.5	0.4	0.7	0.4	0.7	0.5	0.5

Single-industry towns are characterized by the opposite tendency – natural population decrease remaining representative for the whole country, which is the evidence of demographic ageing and social economic problems. There is differentiation of natural movements at the micro-level. The increase has been observed in three towns, Soligorsk, Zhodino and David-Gorodok, whereas all of the other towns being characterized by decrease (Table 3).

The share of working population is one of the social indices that are characterized by labour force (for Belarus – at the age of 16-55(60) years old) in many cases defining labour capacity. Both in Belarus overall and particularly in the single-industry towns the share of working population remains relatively favourable, exceeding 61%.

However, in view of ageing, steady decrease of this rate is observed. If the share decreased from 62.8% to 62.4% over the analysed period in Belarus on the whole, in the case of single-industry towns it decreased more significantly – from 64% to 61%. Zhodino is characterized by the most favourable situation, where the share of working population exceeds 65%, the worst situation being registered in David-Gorodok (55.5%).

The level of industrialization is characterized by population size and share of working population in the industrial field. Observing the dynamics of working population in industry in key single-industry towns showed decrease both in the whole country and in all single-industry towns, which is not a surprise in the terms of shifts to the post-industrial stage of economy management. The key single-industry towns were divided into three groups, according to the share of population working in the industrial field.

The first group is represented by the industrial giant towns of Belarus where the working population exceeds 50% (Soligorsk, Zhodino).

The second group corresponds to the single-industry towns with typical industrial function of regional significance with a share of working population

from 15 % to 30% (Krichev, Mikashevichi and Kossovo). The smallest share is registered in David-Gorodok town, characterized by agricultural processing.

As a rule, the high level of unemployment is an essential part of single-industry town in the period of significant decline of township-forming enterprise but not only in the case of Belarusian single-industry towns. According to the studies, the level of recorded unemployment decreased in all key single-industry towns (on average in Belarus and all over single-industry towns) and was of less than 1 % in 2013. It should be noted that the highest unemployment rate was registered in David-Gorodok in 2000 and 2005 but in 2013 it decreased in all single-industry towns. The short analysis of economic factors of key single-industry towns gives the evidence of government control of situation. A number of state programs of support and special purpose incentives were implemented over the period of 2000-2013 in the country in the framework of the National strategy of sustainable social economic development of The Republic of Belarus over the period till 2020, the National program of demographic security over the period of 2011-2015, the State program of sustainable development of village over the period of 2011-2015, the State complex program of development of regions, small and middle urban settlements over the period of 2007-2010. As the result of these programs such economic factors as: volume of industrial production, export of goods, net profit and capital investments in single-industry towns increased over the period of 2000-2013 (Table 4).

Table 4. The main economic indicators of development of key single-industry towns of Belarus.

Indicators	Years	Key single-industry towns						Average by single industry towns	Averageby towns of Belarus
		Soligorsk	Zhodino	Krichev	Mikashevichi	David-Gorodok	Kossovo		
Volume of industrial production, billion BYR	2000	373	100	22	35	11	20	93	98
	2013	18,391	9,058	1,819	2,736	749	1,722	5,746	5,408
Export of products, mil. USD	2000	568	155	10	15	0,4	4	125	65
	2013	2,148	620	42	68	4	75	493	332
Net profit, billion BYR	2000	131	8	2	2	3	2	25	17
	2013	1,879	389	-150	261	100	129	435	544
Capital investments, billion BYR	2000	96	44	3	6	8	5	27	16
	2013	5,945	1,215	1,339	1,121	865	662	1,858	1,871

The tendency of growth is a characteristic of volume of industrial production in all single-industry towns. The top position belongs to Soligorsk because of the leading role of JSC “Belaruskali” production nationwide. Zhodino was ranked on the second place due to the significant role of township-forming enterprise JSC “Belarusian autoworks” and the production of dump trucks. Mikashevichi took the third place because of the presence of huge enterprise “Granite” producing granitic stones. The subsequent positions belong to Krichev, Kossovo and David-Gorodok. Over the period of 2000-2013, two of the largest single-industry towns, Soligorsk and Zhodino, had the leading positions because of export-oriented production output at their township-forming enterprises. Export indices of other single-industry towns did not have any statistical significance for the country. The consequences of global financial crisis brought their own influences on the economic situation in the country which eventually affected the activity of enterprises in single-industry towns.

In the case of volume of net profit, towns were characterized by both increase and decrease over the period of 2000-2013. Soligorsk was distinguished by the volume of net profit; the second place belonged to Zhodino. In 2013 this index was changing for all other towns, from -149.8 in Krichev to 261.3 billion BYR in Mikashevichi. Overall, besides the social, demographic and economic factors of development of key single-industry towns of Belarus, a number of special characteristics can be introduced.

1). Key single-industry towns are characterized by similar trends of most demographic processes occurring in Belarus – decrease of population size, insignificant birth rate in terms of natural decrease of population, which are the main characteristics of these towns. However, compared to the average indices of Belarusian towns, the key single-industry towns are distinguished by their own parameters. Although generally, the urban population of the country is characterized by positive annual dynamics and natural increase, most of the key single-

industry towns are characterized by negative dynamics and natural decrease. Death rate of population in key towns is much higher than this figure is for all urban population of the country. In general, the demographic factor exerts detrimental effect on the development of key single-industry towns.

2). Two key-towns, Soligorsk and Zhodino, with shares of working population in industrial sector exceeding 50%, are characterized by higher typical social qualities of single-industry town. The same towns are distinguished by positive tendencies of economic indicators.

3). The influence of the economic factor has differentiated character. It gives positive influence in large industrial key-giants with formed system of links and potential (Soligorsk, Zhodino) and negative in key-towns of lower economic class (Krichev, Mikashevichi, David-Gorodok, Kossovo). The score of their social economic level of development became the result of the estimation of key-towns of Belarus. The towns were ranked from one to three in accordance to low, middle and high level of taken index. After scoring the values, they were calculated by blocks of socially demographic indices and of economic indices (Table 5).

Table 5. Score of level of social economic development of single-industry towns of Belarus, 2013.

Indicators	Soligorsk	Zhodino	Krichev	Mikashevichi	David-Gorodok	Kossovo
I. Demographic indicators						
Population size, people	3	2	1	1	1	1
Annual rates of population growth (%)	2	3	1	1	1	1
Share of working population in the age of 16-55(60) years old (%)	2	3	2	1	1	2
Crude birth rate (‰)	3	3	1	1	3	1
Crude death rate (‰)	2	3	1	2	1	1
Natural increase / decrease (‰)	2	3	1	1	2	1
The level of recorded unemployment (%)	2	2	3	1	3	1
Average	*2,3*	*2,7*	*1,4*	*1,1*	*1,7*	*1,1*
II. Economic indicators						
The volume of industrial production, billion BYR	3	3	1	1	1	1
Export of products, million USD	3	3	1	1	1	1
Net profit of enterprises, billion BYR	3	2	1	1	1	1
Capital investments, billion BYR	3	2	2	2	1	1
Average	*3*	*2,5*	*1,25*	*1,25*	*1*	*1*
General average estimate	**2,7**	**2,6**	**1,3**	**1,2**	**1,4**	**1,1**

Soligorsk and Zhodino are leaders according to all considered indices. They have relatively high level of socially economic development and their single-industry specialization does not make it difficult but it rather facilitates their successful functioning. The development of single-industry town depends directly on the number of sold products which were produced at its township-forming enterprise. That is why towns as Krichev and Mikashevichi go through recession at the period of world market crisis. David-Gorodok and Kossovo are in the worse situation and do not have any benefits from their single-industry function, which stops the development of these towns in this case. According to integral scoring, the key single-industry towns are ranked from the most favourable to the most difficult situation as follows: Soligorsk, Zhodino, David-Gorodok, Krichev, Mikashevichi and Kossovo.

Thus, the analysis of social demographic and economic characteristics of key single-industry towns of Belarus showed their significant differentiation which allows for the delineation of a prominent centre (Soligorsk, Zhodino), periphery (Kossovo, David-Gorodok) and semiperiphery (Krichev, Mikashevichi) by a set of indices.

4. CONCLUSION

Thus, the single-industry towns of Belarus represent a numerous class of urban settlements in the country settlement that formed an independent niche in territorial administrative and social economic structure of the country.

Whilst towns of regional significance dominate in settlement system by their role, small

towns dominate by population number, and the highest concentration of population is found in large urban centres. Industrial and agroindustrial single-industry towns take equal positions in the structure with a smaller majority by functional significance.

Demographic trends of Belarusian single-industry towns in the 21st century coincide with trends of urban population of Belarus, being mostly indicated by annual positive dynamics, increase of birth rate, and overall a natural increase of population. The growth of death rate is a demographic trend of single-industry towns different from the country pattern and urban scenario. Positive demographic balance of the single-industry towns has contrast-factorial type resulting from the dominance of natural increase over migration loss. The single-industry town with developed food industry is the most common type of single-industry towns of Belarus by dominant branch. Keeping similar average indices of volume of industrial production of single-industry towns with Belarusian towns, the economic situation of single-industry towns is characterized by expressed differentiation, which comes out in single industrial monogiants - leaders of national significance - and variety of mono-semiperipheral and monoperipheral towns - of regional and local significance - with problematical economic situation. The analysis at microscale on the formation of key-towns showed coincidence or light digression of trends of their development with trends of the main processes in the single-industry towns of Belarus, intensification of differentiation of their social demographic and economic development. Thus, it allowed the setting up of uniform structure of the single-industry towns with central peripheral characteristics, of which two towns with characteristics of centre, other two with semiperipheral characteristics and two more with peripheral characteristics.

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