

FOR OFFICIAL USE ONLY

JPRS L/10039

8 October 1981

USSR Report

HUMAN RESOURCES

(FOUO 6/81)



FOREIGN BROADCAST INFORMATION SERVICE

FOR OFFICIAL USE ONLY

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

COPYRIGHT LAWS AND REGULATIONS GOVERNING OWNERSHIP OF
MATERIALS REPRODUCED HEREIN REQUIRE THAT DISSEMINATION
OF THIS PUBLICATION BE RESTRICTED FOR OFFICIAL USE ONLY.

FOR OFFICIAL USE ONLY

JPRS L/10039

8 October 1981

USSR REPORT
HUMAN RESOURCES
(FOUO 6/81)

CONTENTS

DEMOGRAPHY

Bilingualism in Community of Soviet Nations (M. N. Rutkevich; ISTORIYA SSSR, Jul-Aug 81)	1
Population Dynamics of Siberian Territorial-Production Complexes (V. I. Chudnova; GEOGRAFIYA I PRIRODNYYE RESURSY, Apr-Jun 81).	14

- a -

[III - USSR - 38c FOUO]

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

DEMOGRAPHY

BILINGUALISM IN COMMUNITY OF SOVIET NATIONS

Moscow ISTORIYA SSSR in Russian No 4, Jul-Aug 81 pp 22-32

/Article by Corresponding Member of the USSR Academy of Sciences M. N. Rutkevich:
"Bilingualism Is an Important Factor of the Development of the New Historical
Community"

/Text/ In the documents of the 26th CPSU Congress the task of broadening the studies on theoretical problems of mature socialism is set as one of the most important tasks in the area of the social sciences.¹

At the 25th CPSU Congress it was noted that "the indissoluble alliance of the working class, the peasantry and the intelligentsia with the leading role of the working class, the friendship of all the nations and nationalities of the country is" the basis for the new historical community of people--the Soviet people.²

Thus, the Soviet people have two inseparably interconnected attributes. First, there is the new social community which is characteristic only of socialism and in which there are no ruling, exploiting classes. The socialist community at the stage of maturity consists entirely of friendly classes and social groups, which base their labor on the public ownership of the means of production and are distinguished by the unity of basic economic and political interests. Second, there is the new international community which is characteristic only of socialism in a multinational country and in which there are no ruling nations. The Soviet people consist of tens of socialist nations, as well as nationalities and ethnic groups, and are distinguished by the unity of the basic economic and political interests of these nations, nationalities, groups and all the Soviet people.

Both the social unity, that is, the friendly alliance of classes, social groups and strata, and the international unity, that is, the friendship of the peoples of the USSR, are manifested in all spheres of public life: economics, politics, ideology and culture. We stress the indicated circumstance because the interpretation of the new social community only as a sociopolitical community is encountered at times in Soviet scientific literature.³ In our opinion, the social community is a sociopolitical community to the same extent that it is a socio-economic and sociocultural community.

Under the conditions of mature socialism the political alliance of the three main social forces with the leading role of the working class expresses in concentrated form the community of their economic interests, which is determined by their place

FOR OFFICIAL USE ONLY

in the system of production relations. The community of objective interests and political goals finds its reflection in the sphere of ideology as the realization of the social unity of Soviet society in political views, the norms of morals, world outlook and so on, as well as in the social psychological sphere.

The Soviet people as a multinational community, which was formed on the basis of the friendship of peoples, have a number of attributes which are characteristic of ethnic communities of various types: the tribe, the nationality, the bourgeois nation, the socialist nation, such as the community of territory, economic life and culture. The unity of the economic and political interests of all the peoples of the country, who are making their contribution to the functioning and development of the unified national economic complex with the intensifying division of labor among republics and regions, nations and nationalities, is reflected in the social consciousness of Soviet people. The community of economic life—such is the objective basis of political unity, the highest embodiment of which is the state unity of the USSR. Thus, the dialectics of the interrelationship of the economic, political and cultural ideological factors in the development of the Soviet people should be regarded simultaneously in the social and international aspects, which also interact dialectically.

Language is the most important means of communication of people. The community of language is a mandatory attribute of ethnic communities, including nations.

Let us emphasize first of all the need for a historical approach. The development of a unified national language was, as a rule, a very lengthy process, which took place at the same time as the development of nations and often continued within already formed nations. Among many nations, moreover developed nations, it has not been completed even in our times. The causes of this phenomena are varied. In some instances this is explained by the fact that an indigenous population, which has not rejected completely its native language, which has historical traditions, at times a system of writing and a literature, but is now used primarily in daily life, lives on a certain portion of the territory of the nation. Such is the situation with Provençal and Breton in France. In other instances the incompleteness of this process stems from the ethnic heterogeneity of immigration. Thus, in the formation of the North American nation the waves of immigrants from Europe (and then Asia and Latin America), which superseded each other during the 19th and 20th centuries, were gradually assimilated by the English-speaking nucleus, which formed back in the 18th century. However, even today bilingualism, that is, the speaking of two languages—the "state" language, English, and one's "own," native language, occurs in the United States.

It is possible to judge the degree of assimilation of emigrants to the United States from the following data of American statistics. In 1977 of the 199,310,000 people 4 years of age and older 15,354,000, that is, 7.7 percent, spoke English and some other language. However, of this number only 6,389,000 usually use the other language; for 8,965,000 English is the customary, that is, primary language. And, further, of the indicated 6,389,000 only 42.1 percent, that is, approximately 2,690,000, experience difficulties with English. Thus, only 1.3 percent of the U.S. population have not fully mastered English—they are almost entirely first-generation emigrants, in the overwhelming majority (1,780,000) people who have come from the countries of Latin America.⁴

FOR OFFICIAL USE ONLY

A historical approach is also needed in another respect. In exploitative multinational states the problem of the "state" language, which was used not only for the purposes of government, ensuring the political domination of a specific nation (nationality), but also for the purposes of economic and cultural exchange, arose repeatedly both in the past and in our times.

As is known, the many centuries of domination of the Romans led to the dissemination of Latin, which in a number of areas of the Roman Empire was used in the beginning along with the local languages, but later became the basis of a number of modern Romance languages (Italian, French, Spanish, Portuguese, Romanian).

The conquests undertaken by the Arabs in the Middle Ages led in a number of countries of the Near East and Northern Africa to the complete supplanting of the local languages, in some this process has not been completed (the Berbers in Algeria and others).

The languages of the European conquerors, who founded colonial empires, in a number of regions supplanted the local languages. That is the situation in Latin America where, however, a portion of the indigenous Indian population (the Quechua in Peru and others) was able to preserve its language. In Africa and Asia English, French and Portuguese functioned in the colonies along with the local languages. And now, when after World War II the colonial empires have declined under the blows of the national liberation movement, the "state" language of the former colonial power still plays a certain role. As the result of the multinational composition of the population of the freed states, as in India, or the multitribal composition, as in a number of countries of Africa, in most cases it continues to remain the "state" language, in some cases sharing this function with the most prevalent local language (Hindi in India, Swahili in Tanzania and so on).

The Russian Empire, which gradually formed on the basis of the Russian national state, was distinguished from the colonial empires, which were created by the naval powers, by two essential features. First, it was a single territorial block which embraced the entire northern part of Eurasia, one-sixth of the dry land. On this truly boundless territory the Russians along with the Ukrainians and Belorussians, who are close to them in language and culture, owing to the unity of origin, made up seven-tenths of the total population. The East Slavs in the course of a millennium settled the European North, the Cis-Ural region, the Urals, Siberia, the Far East, the southern and, in part, the Kazakh steppes, mixed with the people who had previously settled these expanses, and by the time of the October Revolution had partially assimilated them. Second, the cruel national oppression, to which the non-Russian people were subjected on the part of landowners, merchants and capitalists of the ruling nation, could not prevent the convergence of the working classes, that is, the bulk of the peoples of Russia. Not only the reunification in a single state of the fraternal Russian, Ukrainian and Belorussian peoples, but also the entry into the Russian centralized state of many other nationalities were of extremely progressive historical importance. It created the conditions for the emergence and strengthening of the alliance of the workers of different peoples in the liberation struggle against the exploiting classes. The leading role in this alliance belonged to the progressive social forces of the Russian nation.

In Russia before the revolution a number of bourgeois nations formed. Among tens of nationalities this process was not completed. But already by that time, as a

FOR OFFICIAL USE ONLY

result of the requirements of economic development, national-Russian bilingualism had spread to a certain extent, although the forced spreading of Russian and the assimilation policy, which were pursued by tsarism, hindered this objective process.

At the proletarian stage of the liberation movement, starting in the late 19th century, the combination of cruel class and national oppression in its most diverse forms brought about the national liberation movement of the peoples of the outlying regions, the allies of the Russian working classes in the revolutionary struggle against the autocracy. The leading and guiding force of the working class movement--the Bolshevik Party founded by V. I. Lenin--proclaimed as its goal the complete liberation of all the peoples of Russia from social and national oppression, the granting to them of the right to self-determination, up to secession and the formation of an independent state. At the same time, while consistently implementing the principle of proletarian internationalism, the party envisaged not only the possibility, but also the desirability of preserving state unity on a voluntary basis with the establishment of the complete equality of peoples.

The social liberation achieved in October 1917 truly opened the way for the complete elimination of national oppression and inequality in all its forms. In our country socialism was built for the first time in the world, the prediction of K. Marx and F. Engels: "Along with the antagonism of classes within nations the hostile relations of nations with each other will also disappear,"⁵ was transformed into reality for the first time.

The accomplishment of this world historical task in a gigantic country, in which more than 100 nations, nationalities and ethnic groups lived together, was complicated by the fact that the regions and peoples of Russia by the time of the October Revolution were at the most diverse stages of historical development: from a communal system to developed capitalism.

The building of socialism in the USSR signified the radical transformation of the social class structure of society. The social nature of the working class, the peasantry and the intelligentsia changed. For the peoples who had not passed through the stage of capitalism (and in some instances the stage of a class antagonistic society in general), the transition to socialism signified that transformation of society, in case of which the kolkhoz peasantry was formed directly on the basis of tribal society with the gradual isolation from its midst of the working class and the intelligentsia as social groups which were socialist in their nature.

The rapid transformation of social relations in the outlying regions of the country was impossible without a development of their economy and culture, which led the central regions in pace. The legal equality of the peoples, which was proclaimed after October and was consolidated by the creation of the USSR, became actual equality owing to the assistance which was given to the nations and nationalities, which had been oppressed in the past, on the part of the more developed peoples and first of all on the part of the Russian people and their working class.

Such are the historical prerequisites, which had formed by the late 1930's and created the immediate basis for the formation of the Soviet people as a new social community and at the same an international community.

The most difficult ordeals of the period of World War II promoted the further unification of all the nations and nationalities of the USSR around the Russian people,

FOR OFFICIAL USE ONLY

who bore on their shoulders the main burden of the struggle against the invaders at the front and in the rear. On the other hand, the reunification of the Ukrainians and Belorussians in 1939-1945 and the restoration of Soviet power in the Baltic republics and Bessarabia enlarged the family of Soviet peoples and required the solution of many social and national questions.

That is why the assertions, which are encountered at times, that the Soviet people formed as a new historical community in the 1930's or even the 1950's, seem unjustified to us, since all the complexity of the historical process is not fully taken into account in them.

The notion of the Soviet people as a fundamentally new historical community of people became firmly established in the late 1960's. This, too, in our opinion, did not coincide by chance with the advancement of the thesis, which substantially enriched Marxist-Leninist theory, that the USSR had entered the stage of a mature socialist society. Under present conditions the development of the entire set of social relations of socialism is taking place on its own, collectivistic basis. The process of the consolidation of the Soviet people as an economic, political and cultural community of people is continuing. And in this process the further spread of the language of international communication, which the Russian language has historically become, is an important factor.

After the October Revolution this process accelerated and acquired qualitatively new traits. First, the extension of the use of the language of international communication is taking place in the USSR at the same time as the flourishing of national languages and national culture, enriching the language and culture of each Soviet nation and nationality. Second, this process is based on complete voluntariness. In the CPSU Program adopted in 1961 it was noted: "The process taking place in life of the voluntary study, along with one's native language, of the Russian language is of positive importance, since this is conducive to the mutual sharing of experience and the familiarization of each nation and nationality with the cultural achievements of all the peoples of the USSR and with world culture."⁶ The CPSU has always proceeded and is proceeding from Lenin's statement of the issue: we "insist that every inhabitant of Russia would have the opportunity to study the Great Russian language. We do not want but one thing: the element of /compulsoriness/ /in italics/."⁷

How far has this process advanced? Are there sufficient grounds to consider the existence of an international language one of the attributes of the historical community in question?

L. I. Brezhnev noted in 1972: "Under the conditions of mature socialism the Russian language /has already become the language of mutual intercourse of all the nations and nationalities of the Soviet Union/ /emphasized by interspacing/."⁸ This authoritative statement provides an affirmative response to the question posed above. It is clear that at this moment not all USSR citizens without exception speak Russian fluently, that the process of learning it as a second language has not been accomplished in full among all the Soviet peoples. Processes of this sort, as the experience of the formation of nations in general attests, requires some time--if only because the second language is learned by the bulk of the people usually in childhood and youth, while the change of generations takes decades. It is important to note that at the stage of mature socialism the process of learning Russian is accelerating owing to the intensive increase of economic and cultural exchange

FOR OFFICIAL USE ONLY

between regions, the rapid development of the means of mass communication, especially radio and television, the implementation of a universal secondary education and the increase of migration flows and tourism.

So far considerable work has been done on the study of the process of the spread of the Russian language and its influence on the languages of the peoples of the USSR. The results of empirical studies and interesting attempts at theoretical generalizations are contained in a number of scientific works of historians, ethnographers, linguists and sociologists.⁹

While referring the reader to these works, we want to make here in addition a comparative analysis of the results of the 1959, 1970 and 1979 censuses.

The changes which occurred in the spread of the Russian language by the late 1970's have been reflected in Table 1. In 20 years, in spite of the slight decrease of the proportion of Russians in the population of the country (by 2.2 percent, as a result of the comparatively low birth rate), the percentage of people speaking Russian fluently (as a native and second language) steadily increased.

Table 1

Spread of the Russian Language in the USSR

	1959		1970		1979	
	millions of people	percent	millions of people	percent	millions of people	percent
Total population	208.8	100.0	241.7	100.0	262.1	100.0
including:						
Russians	114.1	54.6	129.0	53.4	137.4	52.4
people of non-						
Russian nationali-						
ty, for whom Rus-						
sian is their na-	10.0	4.8	12.8	5.3	16.1	6.1
tive language						
speak Russian flu-						
ently as a second	23.7	11.4*	41.9	17.3	61.3	23.4
language						
Total who speak	147.8	70.8	183.7	76.0	214.8	81.9
Russian fluently						

* The estimate of the 1959 census for this item was obtained by the author by extrapolation of the process in retrospection.

In order to create a more complete picture it is necessary to take into account the entire set of circumstances, which both are established by the census and are not established by it.* First of all, to the question about "fluency in Russian" the

* Strictly speaking, it is impossible to confine ourselves to the examination of only the data of censuses, since censuses do not always give a direct answer to questions which are of interest to the researcher. It is necessary to enlist the data of current statistical reporting and concrete sociological studies.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

people being surveyed often give an inadequate response: some people, who know the language well, answer it negatively, and vice versa. The distinction of different degrees of fluency in the second language is necessary. The differentiation of thought and psychology, language and speech can serve as the theoretical basis of such a distinction. Therefore specialists usually differentiate three things: 1) linguistic competence (the degree of fluency in any of the languages); 2) speech activity (the frequency of use of each of the languages in different situations); 3) linguistic orientation (the social psychological orientation toward the use of each of the languages or, in other words, the psychological attitude in relation to the language and its use for the purposes of communication).¹⁰

Simpler gradations are usually used in empirical studies. For example, when conducting a survey in Moldavia the following degrees of fluency of the Moldavian population in Russian were distinguished: "I think in Russian"; "I think in Moldavian, but speak Russian fluently"; "I speak Russian with some difficulties"; "I do not speak it." Other approaches, of course, are also possible, but the overall conclusion from the set of sociological studies of bilingualism is unquestionable: /a considerably larger number/ /emphasized by interspacing/ of representatives of the indigenous nationalities in the republics understand Russian and speak it to a certain degree, which is sufficient to read a newspaper, understand the content of radio and television, converse on everyday themes and so on, than is established on the census sheets. For example, according to the 1970 census, 45.2 percent of the Latvians living in the territory of Latvia speak Russian fluently; according to the data of concrete sociological studies, about 80 percent of the Latvians speak the language of international communication (at a varying level of its knowledge), while in some socio-occupational and demographic groups nearly 100 percent do.¹¹ This is especially characteristic of the urban population, which is more mixed in national composition. According to the data of a comprehensive study of the Institute of Ethnography of the USSR Academy of Sciences, 87.6 percent of the Tatars of Kazan'--practically the entire able-bodied population--speak Russian.¹²

In this connection we should especially speak about Ukrainians and Belorussians. As a result of the closeness of the East Slavic languages and the activeness of the intercourse between the three fraternal peoples, in our opinion, it is possible to consider as already realized the prediction made in 1913 by V. I. Lenin: "more than seven-tenths of the population of Russia belongs to kindred Slavic tribes, who with free school in a free state would easily obtain, owing to the requirements of economic circulation, the opportunity to come to an agreement without any 'state' privileges to one of the languages."¹³

Let us try to represent this general conclusion in numerical terms on the basis of the data of the last two censuses. In 1970 85.7 percent of the Ukrainians indicated Ukrainian as their native language (it can be assumed that for the remaining 14.3 percent Russian is their native language, although in a few instances it might be Polish, Belorussian and so on), and, moreover, 36.3 percent noted that they were fluent in Russian. In all 49.4 percent of the Ukrainians did not belong to these categories, which amounts to 20.1 million people. A similar calculation for the Belorussian population provides 17.2 percent or 1.6 million people. In all 21.7 million people did not indicate that they spoke Russian fluently, but in practice they know it to a degree sufficient for communication. If we add their number to 183.7 million (see Table 1), we will obtain 205.4 million, that is, 85 percent of the population of the country in 1970.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

For 1979 the similar calculations of the people, who did not indicate that they spoke Russian fluently, yield respectively 33 percent of the Ukrainian population and 17.2 percent of the Belorussian population, that is, 14 million and 1.6 million people. As a result this comes to 15.6 million people--data which were not included in Table 1. Adding this figure to 214.8 million people (see Table 1), we will obtain 230.4 million people, that is, 87.9 percent of the population of the USSR in 1979.¹⁴

It is more difficult to give an accurate quantitative appraisal of the phenomenon noted above for the other nationalities. For this it would be necessary, first, to estimate the number of those who know Russian (but have not mastered it) among the representatives of the indigenous population of the union and autonomous republics, especially city residents. Second, it would be necessary to appraise quantitatively the knowledge of Russian in practice by nearly all the representatives of those nationalities which have been settled apart entirely (or for their most part) over the entire territory of the country. Such is the situation with Germans, Poles (except some regions adjacent to Poland), Jews, Bulgarians, Koreans and so on. To a certain extent this also applies to the Armenian population; in 1970 38 percent of the Armenians and in 1979 34.4 percent lived outside the territory of the Armenian SSR.¹⁵ For some nationalities the method described above is quite admissible for such a calculation. Thus, in 1970 85 percent of the Bulgarian population living in the USSR named Russian as their native language or noted that they spoke it fluently; thus, 15 percent (about 50,000 people) did not belong to both of these categories; in 1979 these people already made up 10 percent of the total number of Bulgarians in the USSR. But practically all the Bulgarians living permanently in our country understand Russian. It is also possible to make similar calculations for the other nationalities which are dispersed in various regions of the country.

If we take into account both things indicated above and appraise them approximately, the following conclusion seems reliable: /on the threshold of the 1980's more than eight-tenths of the population of the USSR has a command of Russian to a degree which as a whole is sufficient for international communication/ */in italics/*. And this means that the existence of a common language (either as the native language or as the second language) has already become an attribute of the new historical community of people--the Soviet people. But what has been said--and this has already been stressed by us--must not be interpreted in the sense that this attribute of the new historical community of people has formed absolutely, completely.

"The dynamics of the development of such a large multinational state as our state gives rise to many problems which require the sensitive attention of the party," L. I. Brezhnev said in a report at the 26th CPSU Congress. In the report it was also noted that "in recent years in a number of republics the number of citizens of the nonindigenous nationalities has increased considerably."¹⁶ The indicated factor is conducive to the intensification of international intercourse, and therefore to the increase of the use of Russian. But the still unsolved problems require so much more attention. One of them consists in the inadequate mastering of Russian by the young generation while studying in school. In this connection it is expedient to recall how this question was posed back in the later 1930's, that is, during the period when the task of implementing a universal incomplete secondary education arose. At that time it was decided that "The students who have graduated from the incomplete secondary school (the seventh grade) should know how to express their thoughts fluently and correctly in Russian both orally and in writing...."¹⁷

FOR OFFICIAL USE ONLY

More than 40 years have passed since that time and in the USSR the next landmark task--the acquisition by all young people of a complete secondary education--has basically been accomplished in the USSR. In 1977 more than 98 percent of the graduates of the eighth grade continued their studies at a secondary school and at other educational institutions giving a secondary education.¹⁸ The universal secondary education of the young generation has been implemented in all the union and autonomous republics. The remaining differences in the number of people who have a complete and incomplete secondary education (for the USSR on the average 663 per 1,000 people over the age of 10, with the minimum figures for Lithuanian--558, and the maximum figures for Armenia--731)¹⁹ are formed due to people of older ages.

However, so far in many national schools, especially in rural areas, the instruction in Russian has been organized unsatisfactorily. As a result the increase of the proportion of people who speak Russian fluently in a number of republics lags significantly behind the increase of the general educational level of the population.

The comparative data of the 1970 and 1979 censuses by regions are cited in Table 2.

As the cited data attest, during the 1970's the increase of the proportion of the population speaking Russian fluently (as the main or the second language) is characteristic of all the indigenous nationalities (except Estonians) which live on the territory of the union and autonomous republics. Especially significant changes occurred during this decade in Uzbekistan. In the autonomous republics, which are located in the central part of Russia and are distinguished by a mixed composition of the population, 7-9 out of every 10 representatives of the indigenous nationalities speak Russian fluently; it should be added that among the urban population practically everyone does. The process of the emergence of national-Russian bilingualism among these nations is coming to an end.

At present approximately 5 out of 10 representatives of the indigenous nationalities, which live in the union republics of the Soviet Baltic region, 4 out of 10 in the republics of Central Asia and 3 out of 10 in the republics of Transcaucasia note on the census sheets that they speak Russian fluently.

The question of the increasing importance of the mastery of Russian for the solution of economic and political problems and the education of all citizens in the spirit of proletarian internationalism is justly posed in the documents of the Central Committees of the Communist Parties of the union republics and in the speeches of their executives. First Secretary of the Central Committee of the Communist Party of Georgia E. A. Shevardnadze says: "In our republic we pose the question as follows: along with the native language, everyone should master Russian--the language of the brotherhood of all the peoples of the USSR, the language of October, the language of Lenin."²⁰ First Secretary of the Central Committee of the Communist Party of Uzbekistan Sh. R. Rashidov writes "that the Soviet people of all nationalities are studying the Russian language voluntarily, that this study has become their fundamental need."²¹

In a number of union republics in recent years steps have been taken, which conform to local conditions and are aimed at the improvement of the teaching of Russian in national schools, at the increase of the opportunities for cultural exchange, and thereby the familiarization of the broadest strata of workers of the indigenous nationalities with the Russian language and Russian culture, and through their mediation with the culture of all the peoples of the USSR and world culture.

FOR OFFICIAL USE ONLY

Table 2

Fluency in Russian of People of the Indigenous Nationalities
Living on the Territory of the Union Republics*
(percent)

Nationality	1970			1979		
	native lan- guage is Russian	speak Russian fluently	total	native lan- guage is Russian	speak Russian fluently	total
a) Volga - Cis-Ural region						
Tatars.	1.5	54.7	56.2	2.3	65.9	68.2**
Chuvash.	5.5	58.3	63.8	10.2	68.1	76.3
Mordvinians.	3.8	75.6	79.4	5.7	81.0	86.7
Udmurts.	12.3	68.4	80.7	17.6	70.6	88.2
Mari.	4.1	66.5	70.6	6.6	77.7	84.3
Komi.	13.3	64.7	78.0	20.0	66.8	86.8
Bashkir.	1.5	47.9	49.7	2.7	62.5	65.2
Average for region.			68.3			79.7
b) Baltic region						
Lithuanians.	0.2	34.8	35.0	0.2	52.2	52.4
Latvians.	1.8	45.3	47.1	2.2	58.3	60.5
Estonians.	0.7	27.6	28.3	1.0	23.1	24.1
Average for region.			36.8			45.7
c) Kazakhstan-Central Asian region						
Uzbeks.	0.3	13.1	13.4	0.4	52.9	53.3
Kazakhs.	1.1	41.6	42.7	1.4	50.6	52.0
Tajiks.	0.4	16.6	17.0	0.5	27.8	28.3
Turkmens.	0.6	14.8	15.5	0.7	24.2	24.9
Kirghiz.	0.2	19.8	20.0	0.4	28.5	28.9
Average for region.			21.7			37.5
d) Transcaucasian region						
Georgians.	0.4	20.1	20.5	0.5	25.5	26.0
Azerbaijanis.	0.8	14.9	15.7	1.0	27.9	28.9
Armenians.	0.2	23.3	23.5	0.6	34.2	34.8***
Average for region.			19.9			29.9

* Calculated according to "Itogi Vsesoyuznoy perepisi naseleniya 1970 goda" /Results of the 1970 All-Union Census/, Vol IV, Moscow, 1973, Tables 5-29; VESTNIK STATISTIKI, Nos 8-11, 1980.

** Of the total number of Tatars, 26 percent live in the Tatarskaya ASSR. Among them (for the USSR as a whole) 83 percent of the population (1979) speaks Russian fluently (as the native or second language).

*** In all two-thirds of the Armenians live in the Armenian SSR. Among them (for the USSR as a whole) 47.9 percent of the population (1979) speaks Russian fluently (as the native or second language).

FOR OFFICIAL USE ONLY

In some republics the Russian language is studied starting in the first grade in all the national schools. The scale of the training of instructors in this discipline is being expanded at the pedagogical higher educational institutions of the republics. Schools, at which parallel classes are in operation, are becoming more and more widespread; the instruction in these classes is conducted in Russian and the national language, which creates additional opportunities for contact between children, promoting both the mastery of Russian and the mastery of the national language of the republic by the children of the Russian population living on its territory. Thus, 15.5 percent of the Russians living in Georgia indicated that they speak Georgian fluently; 35.2 percent of those living in Lithuania and 20.1 percent of those living in Latvia indicated that they speak Lithuanian and Latvian fluently.²² Among the Russian population living permanently in the republics this percentage is higher. The Russian population in the Ukraine and Belorussia understands Ukrainian and Belorussian owing to their closeness.

The national policy of the CPSU, which takes into account both the general laws of the flourishing and convergence of the socialist nations and the specific nature of their manifestation in different regions and republics, is a mighty factor of the acceleration of the process of the further strengthening of the unity of the Soviet people. L. I. Brezhnev, speaking about such interconnected traits of Soviet people as Soviet patriotism and internationalism, noted that "they are being cultivated among the workers by Soviet life itself, by all our reality. But the conscious efforts of the party, of all workers of the political and ideological front are also needed here."²³ What has been said also fully applies to the sphere of "language building," including the task examined here of the more and more complete mastery of the language of international intercourse. The extension and intensification, which is cultivated by all of Soviet life, of international intercourse and of the knowledge of the language, which in practice ensures this intercourse, are at the same time a process which is consciously directed by the party.

FOOTNOTES

1. "Materialy XXVI s"yezda KPSS" [Materials of the 26th CPSU Congress], Moscow, 1981, p 145.
2. "Materialy XXV s"yezda KPSS" [Materials of the 25th CPSU Congress], Moscow, 1976, p 81.
3. See, for example, "Osnovnyye napravleniya izucheniya natsional'nykh otnosheniy v SSSR" [The Main Directions of the Study of National Relations in the USSR], Moscow, 1979, p 76.
4. "Statistical Abstract of the United States, 1979, National Data Book and Guide to Sources," Washington, 1979, p 39.
5. K. Marx and F. Engels, "Soch." [Works], Vol 4, p 445.
6. "Programma KPSS" [The CPSU Program], Moscow, 1961, p 115.
7. V. I. Lenin, "Pol. sobr. soch." [Complete Works], Vol 24, p 295.

FOR OFFICIAL USE ONLY

8. L. I. Brezhnev, "Leninskim kursom. Rechi i stat'i" /By the Leninist Course. Speeches and Articles/, Vol 4, Moscow, p 60. The interspacing is mine--M.R.
9. See, for example, Yu. L. Desheriyev, "Zakonomernosti razvitiya i vzaimodeystviya yazykov v sovetskom obshchestve" /The Laws of the Development and Interaction of Languages in Soviet Society/, Moscow, 1965; I. K. Beloded, "Leninskaya teoriya natsional'no-yazykovogo stroitel'stva v sotsialisticheskom obshchestve" /The Leninist Theory of National Language Building in Socialist Society/, Moscow, 1972; Yu. Kakhk, "Cherty skhodstva" /Traits of Similarity/, Moscow, 1974, and others. Of the articles of late let us note: M. N. Guboglo, "Toward the Study of the Prospects of the Development of Bilingualism Among the Peoples of the USSR," ISTORIYA SSSR, No 1, 1978; K. Kh. Khanazarov, "An Important Direction of CPSU Policy in the Area of the Solution of the National Problem and the Development of National Relations," VOPROSY ISTORII KPSS, No 1, 1978; Ya. V. Garipov, K. D. Argunova, "The Analysis of the Factors of the Spread of Bilingualism in the USSR," SOTSIOLOGICHESKIYE ISSLEDOVANIYA, No 3, 1980; S. I. Bruk, "Ethnodemographic Processes in the USSR (According to Materials of the Postwar Censuses)," ISTORIYA SSSR, No 5, 1980. See also the materials of the round table on the theme "The Emergence and Development of the New Historical Community--the Russian People," ISTORIYA SSSR, No 6, 1980.
10. See on this "Osnovnyye napravleniya izucheniya natsional'nykh otnosheniy v SSSR," p 105.
11. A. I. Kholmogorov, "International Traits of the Socialist Nations in the USSR," "Sotsializm i natsii" /Socialism and Nations/, Moscow, 1973, p 292.
12. See "Sotsial'noye i natsional'noye" /The Social and the National/, Moscow, 1973, p 235.
13. V. I. Lenin, "Poln. sobr. soch.," Vol 23, p 317.
14. Calculated on the basis of the data of the USSR Central Statistical Administration. See "Naseleniye SSSR" /The Population of the USSR/, Moscow, 1980, pp 23-25.
15. See "Itogi Vsesoyuznoy perepisi naseleniya 1970 goda" /Results of the 1970 All-Union Census/, Vol IV, Moscow, 1973, pp 9, 15.
16. "Materialy XXVI s'yezda KPSS," pp 56, 57.
17. See NARODNOYE OBRAZOVANIYE, No 12, 1972, p 80.
18. "SSSR v tsifrakh v 1977 g." /The USSR in Figures in 1977/, Moscow, 1979, p 224. For the RSFSR in 1979 it was 99.2 percent (SOVETSKAYA ROSSIYA, 3 August 1980).
19. See VESTNIK STATISTIKI, No 6, 1980, pp 43-46.
20. KOMMUNIST, No 13, 1977, p 49.
21. Sh. R. Rashidov, "On the Path of Unity and Fraternity," PRAVDA, 23 May 1980.

-
FOR OFFICIAL USE ONLY

22. VESTNIK STATISTIKI, No 10, 1980, pp 67, 71, 72.

23. L. I. Brezhnev, "Leninskim kursom," Vol 4, p 64.

- COPYRIGHT: Izdatel'stvo "Nauka", "Istoriya SSSR", 1981

7807

CSO: 1828/147

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

DEMOGRAPHY

POPULATION DYNAMICS OF SIBERIAN TERRITORIAL-PRODUCTION COMPLEXES

Novosibirsk GEOGRAFIYA I PRIRODNYE RESURSY in Russian No 2, Apr-Jun 81
(manuscript received 28 Oct 80) pp 84-90

[Article by V. I. Chudnova, Institute of the Geography of Siberia and the Far East (Irkutsk), Siberian Department of the USSR Academy of Sciences: "Development and Distribution of Productive Forces"]

[Text] Geographic Research on Shaping the Population of Siberian TPC's [territorial production complexes].

Shaping the population of territorial-production complexes (TPC's) is a complex socioeconomic process determined by changes in the dynamics and structure of the population, in indicators of natural reproduction, migratory movement and the settlement system (1). It is inseparably connected with stages in the economic development of the TPC (start of construction and putting enterprises of specialization branches into operation, functioning of the system which has evolved, its further interlinking and improvement). The time boundaries on each stage depend on the production specialization of the complex, the use of raw materials, degree of utilization of the territory, and the priority tasks of the country's national economy. As the complex is created and shifts to a different level (stage), substantial changes occur in the dynamics, structure and movement of the population. Both regional factors (natural movement and structure of the population, status of labor resources, intraregional migrations) and external migration ties with other parts of the country influence formation of the TPC population. The overall labor resources situation, degree of employment in the country and in adjacent areas, as well as in regions similar in terms of production profile exert a significant influence on the nature of external migration ties.

Population formation can be studied by utilization area (zone), urban agglomeration, manufacturing center and [administrative] center. The most significant results for practical planning and forecasting are provided by analysis of the basic elements of a complex's territorial structure, the industrial centers or junctions.

This work generalizes geographic research on the population of TPC's developing in Siberia (West-Siberian, Sayanskiy, Bratsk - Ust'-Ilinskiy, KATEK). As a result, we have revealed the features of population formation for these complexes which characterize their stage of development as determined by the creation of basic enterprises of specialization branches. For certain TPC's (Sayanskiy, Bratsk - Ust'-Ilinskiy), we succeeded in analyzing trends in this process of change during the course of establishment of the TPC's.

FOR OFFICIAL USE ONLY

Depending on the degree of utilization and settlement of the territory in which the TPC's being studied are located, they can be divided into two types. The first (West-Siberian, Bratsk - Ust'-Ilimskiy) are being developed in northern Siberia, in regions with harsh natural conditions, little settlement or utilization. The creation of a TPC in this instance is associated with the necessity of building up the territory, demanding the attraction of considerable labor resources from other regions of the country. The harsh natural conditions complicate population formation and create an unfavorable living and working atmosphere for settlers. For a majority of migrants, such territories turn out to be a sharp contrast, in terms of natural and socioeconomic conditions, from their previous places of residence, which negatively affects settlement levels.

A second type of TPC evolved in the southern regions of Siberia (Sayanskiy, KATEK), which are well-populated, long settled and utilized, in direct proximity to the industrial centers of Western and Eastern Siberia, and characterized by conditions favorable to development of the economy and people's lives.

Population formation was studied using the main centers of TPC's of different functional types and with different levels of development. In the Bratsk - Ust'-Ilimskiy TPC, they included the cities of Bratsk, Ust'-Ilimsk and Zheleznogorsk-Ilimskiy; in the Sayanskiy -- Sayanogorsk, Abakan, Chernogorsk and Minusinsk; in the West-Siberian -- Surgut, Nefteyugansk and Nizhnevartovsk, in the KATEK -- Nazarovo, Sharypovo and Achinsk. We traced the dependence among indicators determining the formation of population and the functional typology of the center: national economic structure, features of the economic-geographic situation, number of people and time of settlement, role in forming the region and place in the settlement system.

Our study of population formation in TPC industrial centers was based on combining materials from current statistical records, the results of processing primary data sources (tear-off coupons from arrival and departure address lists) and surveys of the composition and movement of workers at leading enterprises. The forms of statistical reporting enabled us to obtain only the most general idea of the size of population migration in the cities and rural administrative regions. The development of data on the direction of migration ties is ordinarily done for the whole aggregate of urban settlements and rural regions of oblasts, krais and autonomous republics. Such generalization of statistical materials does not correspond to the tasks of a geographic study of population formation. Particular difficulties arise when analyzing the migration ties of complexes whose boundaries do not coincide with statistical reporting units. This is observed when the territory of a complex occupies a portion of an oblast, kray or is situated within various administrative subdivisions. Studying the formation of population in individual industrial centers is connected with the necessity of processing primary sources of migration records using a special program whose content is determined by the goals and tasks of the research. The same types of materials for every 3-5 years must be available to analyze the dynamics of migration processes.

Work on collecting initial data and preparing it for analysis consisted of several stages. The first was associated with forming the actual aggregate for study. It was necessary to select arrival and departure sheets relating to the centers being studied and to verify their completeness and the accuracy of the entries. The number of sheets obtained was monitored by comparing them with current statistical reporting data. Sheets not relating to population migration were excluded from the total.

FOR OFFICIAL USE ONLY

The second stage is the actual processing of the information indicated on the sheets. The main task in this stage is to select the most appropriate groupings and classifications of criteria being analyzed and to develop model output tables. They are determined according to the goals and tasks of the research. In order to establish the features of migration ties of the centers and changes in them as the complex develops, the data processing program anticipates the receipt of data characterizing the zones of migration exchange and the flow structure. The following criteria recorded in the primary reporting sources were used for the analysis: migrant's place of departure (settlement), place of birth, sex, age, nationality, employment branch, length of stay (for those leaving).

Particular attention was paid to obtaining data describing in detail the migration ties of each center. For convenience of analysis, the migration flows were subdivided into external and internal relative to the city being studied. This division is also determined conventionally by the boundaries of the administrative-territorial units which are the basis of the analysis. The necessity for this is dictated by the significant differences in near and far migration flows in terms of volume, intensiveness, structure and role in shaping population. External migration ties mean population exchange with other parts of the country (excluding one's own oblast or kray). They can be examined at the oblast, kray, autonomous or union-republic, migration exchange zone or large economic region level. As experience in studying population formation for various TPC centers has shown (2, 3), it is appropriate to analyze external migration ties in terms of fractional units of the country's administrative-territorial divisions (oblasts, krays, autonomous and union republics). This approach will subsequently make it easier to establish migration exchange zones. Internal (intraoblast, intrakray) migration ties characterize population exchange between a given center and cities, settlements and rural population centers within that oblast (kray).

Processing arrival and departure sheets results in the compilation of tables which enable us to calculate the basic parameters of migration ties. In addition to simple tables reflecting migrant distribution by sex, age, place of birth, place of departure or settlement, branch employment and length of stay, we also compiled combined tables which provide an opportunity to reveal differences in the qualitative composition of migration flows. Tables showing the degree of permanent settlement of migrants as a function of place of birth, former residence, anticipated next move and the composition of the migrants, comprise a separate group.

The third and most important stage in collecting and preparing the data is to convert the materials obtained into a form suitable for economic-geographic study. The results of processing primary migration reporting sources can properly be represented in the form of matrices, graphs and maps. Maps occupy a special place in geographic research on population formation. Their subject matter is diverse. They ordinarily show the size, intensiveness and results of migration exchange and the structure of the flows. When studying population formation in TPC centers, maps using a single legend are compiled for the migration ties of each center for different dates which mark characteristic stages of development. The amounts of direct and return flows (or migration volume) and an overall migration ties intensiveness factor are used as indicators. Such maps were developed individually to show external and internal migration ties. The compilation and conjugate analysis of migration ties maps enabled us to establish the general features of population formation for various centers, as well as the features of each center as a function of number of people, functional type, level of development and place in the settlement system.

FOR OFFICIAL USE ONLY

When studying migration ties, both their spatial differences and their temporal changes are of important significance. Analysis of maps reflecting the migration ties of centers on different dates enables us to reveal changes in the size and structure of the flows and the boundaries of zones of different levels of migration exchange intensiveness in connection with continued development of the complex and its settlement system. It is possible, using such maps, to compile maps of the dynamics of migration ties which show the degree of stability and trends in change in the size, intensiveness, direction and results of external and internal migration exchange. Materials thus prepared served as the base for geographic research on the process of population formation in the main centers of the West-Siberian, Sayanskiy, Bratsk - Ust'-Ilimskiy TPC's and KATEK.

The creation and development of TPC's is usually accompanied by urban population growth (especially in the large industrial centers) and reduction in rural population. This feature of population dynamics is typical of a majority of the regions of present industrial utilization. However, the initial stage of TPC formation in the southern and more settled regions of Siberia (Sayanskiy, for example) did not cause so pronounced a jump in population as compared with the northern regions now being utilized. Moreover, in individual TPC's developing in sparsely populated regions, the rural population often increases as a result of the siting of nonagricultural enterprises there.

Graphic analysis of population dynamics and the role of its components (natural increment and migration results) enables us to group urban settlements and rural regions of TPC's into four types most commonly encountered, based on these indicators. The first is characterized by population growth with migration influx playing the decisive role. This type is inherent foremost to centers of present TPC industrial development. Migration influx often comprises 60-90 percent of the total population increment there. In the second and third types of dynamics, a slight increase in population is noted, with natural increment of leading importance, and in the third -- a population outflow. The fourth type of dynamics is distinguished from the previous types by a reduction in population as a consequence of significant migration outflow. This relationship of dynamics elements is observed most often in rural regions and old urban settlements with poorly developed industry.

The population of the main industrial centers of the TPC's is shaped under the influence of a migration influx which introduced substantial changes into the age structure of the population and natural reproduction indicators. The level of natural population increment in these centers reaches the highest values for the given region. The most favorable relationship of natural reproduction components evolves in them: birth rate indicators are considerably above the average level for the territory and mortality rates are considerably lower. Migration intensiveness coefficients are also highest in the centers of present TPC industrial development. Graphs depicting three indicators -- birth rate, mortality and natural increment or arrival, departure and migration results -- are a convenient method of analyzing territorial differences in natural movement and migration mobility. Graphs of dynamic types, natural movement and migration mobility enable us to establish the place and role of TPC industrial centers in the TPC sociodemographic system.

The highest amount of migration is noted in the developing industrial centers, which also determine the level of TPC population migration mobility. It results from the significant direct (arrival) and return (departure) migration flows. Migration ordinarily is appreciably higher in the initial development period in

FOR OFFICIAL USE ONLY

connection with the intensive construction. Subsequently, migration stabilizes, relatively speaking, although the nature of change in it is dissimilar from year to year.

One feature of population formation in TPC industrial centers is the broad range of migration ties. Migration exchange occurs in nearly all the economic regions of the country. Five zones of migration exchange are delineated for each center on the basis of indicators of direct and return flows (or amount of movement) and the general migration ties intensiveness factor (4): extremely high level of intensiveness, high, above-average, below-average and low.

1. Zone of significant amounts and an extremely high level of migration ties intensiveness: includes an oblast (or kray) within which a given center is located and describes its internal migration ties. It is distinguished by a very sharp contrast in all migration indicators as compared with other migration exchange zones. The intensiveness of internal migration ties is highest and exceeds the average level 10-fold. As a result of migration exchange with this zone, a perceptible migration influx of population to the center is observed.

2. The zone of high migration ties intensiveness level includes territories bordering an oblast (kray) in which a TPC is being created and often comprise with it one large economic region (Eastern or Western Siberia). Participation of this zone in the overall migration exchange of the center is substantial, and the intensiveness of migration ties is 2.5- to 5-fold higher than the average indicators. The results of migration exchange are positive, especially for the large centers.

3. The zone of above-average level of migration ties intensiveness includes other territorial subdivisions of Siberia, and the Far East to some extent, not in the first or second zones. The intensiveness of migration exchange with this zone is 1.5- to two-fold higher than average. The zone plays an appreciable role in the volume of movement and provides a slight population influx.

4. The zone of below-average level of migration ties intensiveness occupies a large portion of the European USSR. Along with the first zone, it plays an important role in migration movement, but a population outflow is often observed in exchange with it. It is quite an extensive zone in terms of area and is the most settled part of the country. Reverse migration flows are distinguished by significant amounts. Along with this, some oblasts in the zone, especially ones similar in terms of production profile with the developing oblasts in Siberia, provide the necessary amount of skilled personnel.

5. The zone with a very low level of migration ties intensiveness includes the Baltic republics, Transcaucasus, Central Asia, Belorussia and Moldavia. This zone occupies a small proportion of the overall migration exchange of the centers, and the intensiveness of migration ties with it is extremely weak.

Internal migration ties deserve particular attention, inasmuch as they play an important role in population redistribution and transforming the settlement system. The relationship of internal to external migrations evolves for each center as a function of the settlement, utilization and migration opportunities of the surrounding territory. Thus, external migration ties, which were especially pronounced in the initial development period, have predominated in exchange in centers of the Bratsk - Ust'-Ilimskiy and West Siberian TPC's. For the industrial centers of TPC's

FOR OFFICIAL USE ONLY

being formed in the southern and central portions of Krasnoyarskiy Kray (Sayanskiy, KATEK), internal migrations of significant volume are characteristic.

The internal migration ties of the centers are the most intensive and stable, especially with the rural population of adjacent administrative regions. Migration ties between urban and rural areas are direct and unilateral in nature and facilitate population influx (a small number of residents leave in the return migration flow). Population formation in the centers is also associated with the migration of urban residents. This type of movement has recently occupied an appreciable place in migration exchange. The leading migration ties in terms of volume are ordinarily established with the oblast (kray) center and the closest urban settlements. In this regard, territorial proximity and similarity of economic specialization are of important significance. Another direction of displacement is from old urban settlements of lesser rank in terms of number of people into newer, rapidly developing, multiple-function centers. The intensiveness of internal migration ties diminishes with distance from the center.

The effectiveness of migration exchange is relatively low. A migration influx is formed as a result of large direct and return flows. A significant portion of those arriving are migrants without jobs ["unsecured"], who will live in the center for less than a year. Comparing the initial point of departure for those migrants leaving a given city and their new place of settlement enables us to trace the continuing territorial redistribution of the population. In this regard, movement through three points is recorded: place of departure, city, place of new settlement. More than half the return-flow migrants return to their previous place of residence. Some of those arriving from other regions of the country participate in internal migrations, leaving for other cities or settlements of the same oblast (or kray). And only a small number of migrants plan to move to a new place of residence in Siberia. At the same time, local residents leave their own oblast (kray), including for places outside Siberia.

Forecasting TPC population formation relies on a knowledge of the initial status of migration ties and their tendencies as the complex develops. In order to purposefully influence migration, we need to establish not only the role of various factors influencing this process, but also the nature of change in migration ties over time. Using centers of the Bratsk - Ust'-Ilimskiy and Sayanskiy TPC's as an example, we succeeded in tracing the dynamics of migration ties parameters over several years.

Migrations are the most effective and dynamic component of population movement. As analysis has shown, the basic parameters of migration for TPC centers change significantly in the course of their development. An increase in one of the components of migration movement (arrivals) invariably involves growth in another (departures). The results of migration exchange can change within considerable limits in a brief period of time. Maximum migration volumes coincide with the start of construction, putting large industrial facilities into operation and expanding production.

In the course of development of a complex, the relationship of components of population dynamics of TPC centers also changes. Whereas in the initial period a migration influx dominates significantly, its size then decreases and stabilizes somewhat. The importance of natural increment in population formation increases. The old cities which had been further developed thanks to the creation of a TPC change the type of population dynamics.

FOR OFFICIAL USE ONLY

The basic directions of the migration ties which have evolved are distinguished by their stability. Changes consist not so much in the range of migration exchange as in the size and significance of the corresponding flow direction. With time, migration ties with specific regions can intensify or abate, but the leading importance of ties with the closest and adjacent regions is retained. A comparison of migration ties maps of individual TPC centers which were compiled using a single legend for different dates shows that only the role of internal migrations has intensified significantly. The importance of external migration ties with other parts of Siberia remained unchanged. The proportion of regions in the European portion of the country in overall migration exchange has decreased. External migration ties ordinarily predominate for a while at the start of TPC formation in sparsely settled territories. As a city develops, its functions become more complex and social and personal services are developed, the role of internal migration ties increases. In the concluding stage of creation of a complex, they have become the determining ones.

Changes in the overall demographic situation in the country, and especially the migration opportunities of the population of regions with which close migration ties have evolved, exert a substantial influence on the direction and structure of migration ties.

BIBLIOGRAPHY

1. Vorob'yev, V. V., "Naseleniye Vostochnoy Sibiri (sovremennaya dinamika i voprosy prognozirovaniya)" [Population of Eastern Siberia (Present Dynamics and Forecasting Problems)], Novosibirsk, Izd-vo Nauka, 1977, 160 pp.
2. Misevich, K. N. and Chudnova, V. I., "Naseleniye rayonov sovremennogo promyshlennogo osvoyeniya severa Zapadnoy Sibiri" [Population of Newly Utilized Regions in Northern Western Siberia], Novosibirsk, Izd-vo Nauka, 1973, 209 pp.
3. Chudnova, V. I. and Kozhukhovskaya, N. F., "Naseleniye Sayanskogo TPK (formirovaniye i rasseleniye)" [Population of the Sayanskiy TPC (Formation and Settlement)], Novosibirsk, Izd-vo Nauka, 1979, 120 pp.
4. Rybakovskiy, L. L., "Metodologicheskiye voprosy prognozirovaniya naseleniya" [Methodological Questions of Forecasting Population], Moscow, 1978, 208 pp.

COPYRIGHT: Izdatel'stvo "Nauka", "Geografiya i prirodnyye resursy", 1981

11052

CSO: 8144/1615

END