ANALYSIS

Russia's Policies for Arctic Cities

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Abstract

Although the population of Russia's Arctic has shrunk notably in the past two decades, the region continues to be highly urbanized. The process of developing sustainable, economically self-sufficient, and socially resilient urban centers requires the implementation of informed and directed policy at the federal and local level. In order to assist in informing better policy, this article establishes several categories of northern urban centers based on their economies, political situation, and social networks. The efficacy of policy is analyzed through two case studies, the cities of Muravlenko and Gubkinsky, which have experienced divergent outcomes despite their proximity and organization. Finally, some general policy recommendations are proposed for the different urban categories, based on their varying needs and characteristics.

Introduction (a short statistical review of Russian Arctic cities)

Russian Arctic cities are known for the large size of their populations relative to the Arctic region in general. By far, the majority of the biggest Arctic cities are located in Russia. Their large size stems from the Soviet era's "triumph of the cities," and continues to be centered on a new knowledge economy oriented predominantly towards modern urban centers.

Archangelsk is the largest of Russia's Arctic and subarctic cities, followed by Murmansk and Norilsk. Two more cities, Noyabrsk and Novy Urengoy, have populations of over 100,000. It is typical that cities in the western part of the Russian Arctic are larger by population than cities in the eastern regions.

According to employment indicators, there are two distinct groups of polar cities. In the first category, the number of employed nearly equals the number of shift workers on the local labor market. Prominent examples of this type are the cities of Novy Urengoy, Salekhard, Naryan-Mar, Anadyr, Bilibino, and Pevek. In the second category, the number of employed is less than one third of the general population—in this case, many local residents work in the labor markets of neighboring big cities. Primary examples of this second category are Olenegorsk, Kirovsk, Muravlenko, Monchegorsk, and Apatity.

A special group is comprised of big urban centers like Archangelsk, Murmansk, Norilsk, and Vorkuta, in which the number of employed is a bit larger than the population. Cities in the first group mainly include workers who have migrated there to work in extracting energy and metals from nearby deposits, while the larger cities traditionally host a larger share of retired persons and children in comparison with single-industry cities.

Cities with the highest average salaries are the Yamal oil and gas cities, the single-industry city of Polyarnye Zori (Murmansk Oblast), and the administrative centers of Salekhard, Anadyr, Bilibino, and Naryan-Mar. In the biggest cities of the Arctic, the ratio of the maximum to minimum salaries is often a factor of three. The most attractive sectors in terms of salary are usually public policy, finance, and mining. In the single-industry cities, differentials between maximum and minimum salaries are usually greater, sometimes by a factor of six, but in extreme cases the difference between the best and worst paid can be as much as 13 times. In the smallest cities, financial service firms can extract monopoly rents (high profits) easily because they are the only players in a small local market.

The cities of Norilsk and Novy Urengoy have the largest municipal budgets, followed by big regional centers like Archangelsk and Murmansk. It is instructive to measure the level of entrepreneurial energy by indicators of small business development. The most neutral indicator here is the level of entrepreneurial taxes in the local budget per resident. The leaders here are the cities of Gubkinsky, Naryan-Mar, Salekhard, Labytnangi, and Anadyr. These cities give the greatest support to their small business communities. The cities that serve as the big administrative centers receive relatively less official budget revenue from small business because these cities have larger shadow economies.

Typology of Arctic Cities

In addition to contrasting the varying types of employment in cities, we can develop a three-part typology of Arctic cities based on their industrial function. The first category comprises large administrative centers that boast a university, diversified economy, medium-sized industrial firms, a large municipal budget, active commuting by some workers to the nearest resource deposits, and modest levels of salary inequality on the local labor markets.

The second type is the most numerous and is made up of single-industry cities of different sizes. These cities generally employ a considerable number of shift workers, are centered around one large industry, and suffer from high salary inequality on the local labor mar-

ket. The future development of such cities is dependent upon world prices for natural resources and public support measures to diversify the local economy.

Two Arctic single-industry cities make for an interesting case study. The cities of Muravlenko and Gubkinsky are located in the southern part of the Yamal-Nenets Autonomous Okrug, are similar in their age (they were founded in 1984 and 1986, respectively), their industrial specialization (oil production), their population (25,000 and 33,000 inhabitants), the size of their municipal budgets (3.9 billion rubles and 3.3 billion rubles), and the falling oil production volumes over the last decade. However, the trajectories of the diversification of these cities' economies differ radically.

The key factor generating the differences is the ***geographic location*** of these cities relative to the subregional center, the city of Noyabrsk (109,000 inhabitants): Muravlenko is located just 120 km from Noyabrsk (a 1.5 to 2 hour auto journey), while Gubkinsky is about 240 km away (a 3.5 hour journey). This seemingly small geographical difference resulted in a major ***institutional*** difference: Muravlenko has become an *institutional periphery*, and Gubkinsky has become an independent *subcenter*.

The key oil-producing enterprise of Muravlenko was managed by the Noyabrsk Neftegaz company headquarters in Noyabrsk up to 2008 when a local branch, "Muravlenkovsk-neft," was formed. During the first six years of its existence, the city itself was an administrative part of the city of Noyabrsk, despite the distance of 120 km between them.

Initially, the main oil-producing enterprise of the city of Gubkinsky was also directed from headquarters in Noyabrsk, but due to the inconvenience of managing such geographically remote assets, it was converted in 1986 into an independent company with headquarters in Gubkinsky (Rosneft-Purneftegaz); the settlement almost immediately (in 1988) became an independent administrative unit.

These differing institutional positions resulted in the formation of different ***relations of ownership and power***: in Muravlenko a *colonial model* developed (real control over local property and power are located in Noyabrsk), while in Gubkinsky an *embedded model* has developed.

In Muravlenko, in the conditions of the colonial model of ownership, an authoritarian ***model of local government*** has formed. Its characteristic feature is that it is oriented on interaction with counterparts in Noyabrsk, meaning that it devotes minimal attention to the ***local community***. In Gubkisky, a more democratic ***model of local government has developed.*** This is reflected, for example, in the number of public councils under the local government and its departments (17 in Muravlenko and 54 in Gubkinsky), better funding for the local museum (the museum in Muravlenko has 1 researcher, while the museum in Gubkinsky has 6 researchers which results in 3.6 visitors per 10,000 inhabitants a year in Muravlenko and 9.1 in Gubkinsky, as of 2011). The local authorities of Gubkinsky are accountable to the local community, while the local authorities of Muravlenko are accountable to their counterparts in Noyabrsk.

The most important indicator of whether the local authorities pay greater attention to external (Noyabrsk-based) bosses or to the local community is their attitude to ***small business***: in Muravlenko, public support for small business is significantly lower than in Gubkinsky. Thus, in Gubkinsky, budget expenditures on the development of small businesses in 2011 were 25,500 rubles per enterprise and 1,700 rubles per city inhabitant; in Muravlenko the corresponding figures were much lower: 2,200 rubles per enterprise and 100 rubles per inhabitant.

With its colonial model, Muravlenko's local government policy-making narrowed the window of opportunity for the diversification of the economy of the single-industry city. Conversely, in the conditions of an embedded model in Gubkinsky, the local authorities actively contribute to the development of the small business sector, which has become an important tool in diversifying this single-industry city.

Finally, the third type in the typology is port cities along the Northern Sea Route such as Dudinka, Tiksi, Pevek, and some others. According to many indicators, these port cities have the weakest economies among Russia's Arctic cities.

Policy for Arctic Cities

In the contemporary era, all Russian Arctic cities are attempting to meet the challenge of transforming their economic profile from industrial to service, modernizing old industrial enterprises, and becoming innovation centers for the surrounding area.

The restructuring of the urban economy for each type of Arctic city follows its own path. For the big administrative centers, it is important to become innovative university centers capable of diffusing innovation to neighboring territories. For single-industry cities, it is crucial to overcome the industrial legacy and diversify the local social sphere and economy to create sustainable local development. For port cities, it is necessary to create intelligent logistical complexes, search and rescue centers that ensure maritime safety, and other marine services along the Northern Sea Route.

For cities of the first type and large industrial cities of the second type, a promising prospect can be to create Arctic urban agglomerations. Such a scenario is relevant for Murmansk, Archangelsk, Bilibino, Anadyr,

Salekhard, Norilsk, and Vorkuta. Common world practice is to create mega-cities by integrating neighboring cities within a 60–90 minute car drive. These new agglomerations can create larger integrated markets of labor, housing, and differentiated products.

The question is not only about stimulating inter-municipal cooperation, but doing so in a more powerful way, namely, by forming a common set of institutions (norms) for small businesses, unified rules for housing markets, credit markets, and a coordinated schedule of office hours in the municipal governments of one agglomeration.

Urban agglomerations can decrease the number of duplicative functions and save costs in the provision of services, for instance, by creating common service centers, specialized medical centers, and logistical centers. Integrative forces towards agglomeration depend upon local conditions, and can be further stimulated by innovative zones, logistical complexes, or common recreation zones.

Another possibility for restructuring the economy of Russian Arctic cities is connected with business services and intellectual services, that is to add elements of the information economy, resource management, and consulting firms to the local economy. Increasingly, the future of the Arctic relies on developing the region's intellectual resources.

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ANALYSIS

Intercity Networks as a Factor Promoting Arctic City Sustainability

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Abstract
The migration flows of Russia's northern cities are often blamed for many of the problems associated with urban Arctic centers, yet the development of social networks resulting from these flows, an often-ignored consequence, is a notable factor contributing to their sustainability. Due to Russia's unique geography and political landscape, social networks are particularly essential in building economic and social sustainability. Using data describing youth migration compiled from the social networking site Vkontakte made it possible to establish the patterns of specific migration flows between a number of northern urban centers. Rather than being purely economic, migration flows appear to be strongly influenced by social networks. These networks help furnish northern cities with a number of return migrants, as well as influencing business networks. The typology and initial findings of this research helps to develop a platform from which further research into these trends can be launched.

Introduction
Northern Russian cities, especially the largest ones, always experience significant migration outflows. However, inflows usually compensate for the outflows. This "flowing migration regime" is typically interpreted as a cause of instability in Arctic cities. In this paper, we will rethink emigration flows out of northern cities. Such flows do not destabilize the cities, but help to include northern cities into wider social networks. Accordingly, this dynamic helps to improve the sustainability of these urban centers.

Theoretical Approach
Social networks are even more important in shaping economic interactions in Russia than they are in Europe or the U.S. The vast size of the country, in conjunction with relatively low infrastructural and institutional development, makes connections between the regions much more expensive than in Europe and the United States. Moreover, as is typical for countries with economies in transition, Russia is characterized by the large role for informal communications and contracts. The transitional nature of the economy compels economic actors to use their social capital to reduce their transaction costs. Consequently, the involvement of urban residents in different social networks facilitates economic contacts for the city as a whole. Social networks shape inter-company contacts, innovation, and knowledge flows, and also influence local identity and the adoption of modern living standards.