School Education for the Indigenous Small-Numbered Peoples of the North: Between Cultural Preservation and Educational Quality

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Abstract Today, many ethnic minorities belong to the so-called "culture of poverty", and education can be a major vehicle of upward social mobility for such groups. This article explores the characteristics of school education in the indigenous small-numbered peoples of the North living in the Sakha Republic (Yakutia) of Russia, the educational trajectories pursued by indigenous youths, and how their preferences are influenced by national education policy and the ethnic component of education.

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Data from a sociological survey of youth in areas of compact settlement of the indigenous peoples of the North and Unified State Exam (USE) scores served as the empirical basis of this study. Analysis of indigenous education policy documents allows making an inference that, even though the problems of teaching indigenous languages and setting up nomadic schools have been widely discussed, approaches to solving them are rather formalistic. At the same time, little attention is paid to problems experienced by stationary schools located in areas of compact settlement of the indigenous peoples of the North, which has negative effects on children's starting opportunities and the development of their educational strategies. Interest in higher education has been noticeably decreasing among young people aged under 19, and educational inequality in the Sakha Republic (Yakutia) has been exacerbated by the COVID-19 pandemic. For the indigenous small-numbered peoples of the North, social mobility opportunities inhabited by indigenous peoples (compared to regional and national levels) predict a negative scenario for social wellbeing of this category of population.

- Keywords digitalization, ethnic minorities, ethnocultural education, indigenous small-numbered peoples of the North, school, secondary education, social inequality, social mobility, social structure.
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National development is largely contingent on the country's intellectual potential, so today national authorities closely monitor the state of the education system, in particular with respect to conditions for providing quality education to the populations of Arctic regions. However, organization of education for the indigenous small-numbered peoples of the North and Siberia rarely becomes a subject of substantive discussion. Meanwhile, education of those ethnic groups is critically important both from the perspective of indigenous youths' individual educational and career trajectories and for the purpose regional socioeconomic development. Education system is responsible, on the one hand, for the integration of the rising generation in the modern Russian society, and on the other hand, for the preservation of unique cultures of the indigenous peoples of the North and Siberia.

In this article, the experience of solving those problems and the impact of educational organization on indigenous peoples of the North's educational trajectories and life prospects are analyzed using the example of the Sakha Republic (Yakutia). Apart from the dominant ethnic groups of the Yakuts and Russians, this region is home to five more ethnicities classified as indigenous small-numbered peoples of the North (hereinafter in this article referred to as indigenous minorities of the North, or IMN): Evenks, Evens, Dolgans, Yukaghirs, and Chukchi.

Ethnic Education In international research on the relationship between ethnicity and in Today's World education, one of the most prominent areas is the assessment of inequality in access to various types of education among different ethnic and racial groups, and of the impact of ethnicity, nationality, and race on an individual's educational and career opportunities [Troyna, Rizvi 1997; Gillborn 1995]. This body of literature provides evidence for racial and cultural discrimination in education [Mickelson 2003] and a strong influence of race and ethnicity on educational attainment and career growth, mediated by social stratification. A relevant explication of the phenomenon is proposed by Balibar and Wallerstein: in accordance with their neo-Marxist research perspective, such categories as race, nation, and ethnicity were constructed and impressed in people's minds to ensure effective axial division of labor in the capitalist world-system, and they are designed to sustain inequality [Balibar, Wallerstein 2004]. Meanwhile, as racism transforms over time, racialization in the modern world is being based on cultural differences [Malakhov 2007]. Cultural reproduction theory [Bourdieu, Passeron 2007] also emphasizes the contribution of cultural and educational disparities across social groups to the inequality of educational opportunity.

Ethnic education can be approached from two different perspectives: integrationist and separationist. In the former case, ethnicity is regarded as a driver of inequalities, hence a barrier in the educational process and the development of individual life strategies [Tishkov 2003]. The most popular example is the so-called culture of poverty, a concept describing a vicious circle of poverty, which is typical of ethnocultural minority enclaves where standards of living are lower than the national average due to historical reasons. Nationalist movements in such enclaves often translate into renunciation of progress (e.g. by reducing or even abolishing official language teaching hours), disguising it as cultural identity. Adolescents in ethnocultural enclaves thus find themselves excluded to some extent from the contemporary system of elementary and secondary education [Klyucharev et al. 2014].

The separationist approach to ethnic education regards ethnicity as a value that its bearers would like to conserve, so the school should adjust to their demands. This vantage point is widely shared by critics of colonialism and its consequences for native tribes. In particular, they argue that Eurocentric models of scientific knowledge established through formal education devalue and reject indigenous knowledge systems, refusing to recognize indigenous beliefs and practices in knowledge construction and acquisition [Brayboy et al. 2012].

The ethnocultural situation in Russia differs quite essentially from what is observed in Europe and the United States. Indigenous peoples in Russia are mostly integrated into the dominant culture's social environment: according to ethnographers, very few families live isolated from the cultural context [Sokolovsky 2008]. Still, researchers report differences in the educational attainment and its dynamics across ethnic groups [Drobizheva 2002:103], although no essential ethnic disparities are observed in the academic success of school students [Tenisheva, Alexandrov 2016].

Education remains the most popular vehicle of upward social mobility in Russia, and cultural orientations to receive education as well as the socioeconomic status (SES) of ethnic groups become powerful factors of population differentiation.

In the literature on IMN education systems, organization of school education for specific ethnic groups is associated with ethnic culture revitalization and preservation opportunities [Zhozhikov 2017; Pimenova 2012; Martynova 2012]. School education is recognized as one of the most effective tools for the social construction of ethnic identity, so development of ethnic models of education becomes part of the agenda. In the case of IMN, such models imply nomadic educational institutions, which are designed to contribute to the conservation of traditional northern lifestyles. Forms and content of ethnocultural education have a number of specific features [Neustroev 1999; Matis 1999; Borisov 1998; Robbek 1995]. When considering educational trajectories, indigenous school students and their parents in the Russian North have to choose between education quality and the ethnocultural component in education [Markin, Silin, Voronov 2019; Rudakov 2021; Borgoyakov 2016], a significant proportion of them being not interested in the latter [Rudakov 2021:83].

Ethnocultural education in Russia's national republics remains a live issue [Vinokurova 2020], its role in the construction of youth educational trajectories still being largely understudied.

Data This article looks into the indigenous education policy documents of regional governments, statistics describing the socioeconomic and demographic characteristics of IMN, and the Unified State Exam (USE) scores in the localities of the Sakha Republic (Yakutia) classified as areas of compact settlement of IMN.

The study also makes use of the results of a sociological survey carried out in March–April 2021 in Yakutia among indigenous youths (n=261) as part of the project "Identity, Language, and Culture of Indigenous Small-Numbered Peoples of the North in the Sakha Republic (Yakutia) as a Resource: Current State and the Local and Global Contexts of Transformations".¹

Sociodemographic Status of IMN in Yakutia

Indigenous minorities of the North in Yakutia are mostly rural dwellers (70.8%).² As for administrative divisions, areas traditionally inhabited and used by IMN are represented by 71 rural localities in 21 *uluses* (districts).³ Most often, these are the least accessible localities at the farthest periphery of the region (relative to the regional center) with no year-round transportation access. As of January 1, 2018, those rural localities were home to 42,100 people (4.4% of total Yakutia population), most of them being representatives of IMN [Ignatyeva 2020:109]. Indigenous minorities of the North living in urban areas are mostly concentrated in Yakutsk, the regional center of the republic.

According to economic statistics, the probability of being poor is four times higher among rural dwellers in Yakutia, which is direct consequence of the lack of jobs [Popova 2020]. Because 70% of IMN pop-

¹ Funded by a grant from the Institute for Humanities Research and Indigenous Studies of the North (Siberian Branch of the Russian Academy of Sciences) as part of the Fundamental and Applied Research Project.

² The 2035 Agenda for Sustainable Development of Indigenous Small-Numbered Peoples of the North in the Sakha Republic (Yakutia): <u>https://arktika.sakha.gov.ru/</u><u>dokumenty/normativnye-pravovye-akty/normativno-pravovye-akty-v-oblasti-raz-</u><u>vitija-arkticheskih-i-severnyh-territorij</u>

³ Law of the Sakha Republic (Yakutia) No. Z 167-II "On the List of Indigenous Small-Numbered Peoples of the North and Areas of Their Compact Settlement in the Sakha Republic (Yakutia)" of April 11, 2000.

ulation lives in rural areas—usually in the most remote and hard-toaccess localities—it would be logical to suggest that the poverty rate is higher in this category than in more urbanized ethnic groups. As of the 2010 census, 83.9% of IMN population aged 15–72 was economically active, which is lower than the republic's average (96.2%).⁴ According to regional data of the Federal State Statistics Service (Rosstat), 169,200 people (17.4% of total population) in Yakutia lived in poverty in 2020. Of them, 45% were children and adolescents aged 7 to 16.⁵

In addition to the lack of jobs in rural areas, multiple-child parenting is another factor of poverty among indigenous peoples of the North. As of the 2010 census, IMN children and adolescents aged 0–19 accounted for 40.6 to 47.2% of rural population.⁶

Researchers suggest that poverty among indigenous minorities of the North is caused to some extent by the predominance of traditional occupations [Gavrilyeva et al. 2019:44] that do not require high levels of skills. However, statistics on the average number of employees in organizations located in the areas traditionally inhabited and used by IMN in Yakutia, by type of economic activity, shows that only 12.6% of working population (1,687 people) are employed in agriculture, forestry, fishing and hunting.

Still, IMN communities feature higher rates of poverty and low-educated population than other ethnic groups. According to census data, indigenous minorities of the North have on average lower levels of educational attainment compared to other ethnic groups in Yakutia. In 2010, professional qualifications were held by 46.4% of IMN population (as compared to 63% of the Sakha people and 66% of Russians in the region). Educational attainment differs not only across ethnic groups but also between urban and rural areas. In 2010, professional qualifications were held by 19,490 IMN rural dwellers, which is only 41% of total rural population, including 43.4% of all Evenks, 42.3% of Dolgans, 38.1% of Evens, 34.7% of Yukaghirs, and 28.3% of Chukchi [Vasileva 2020:151].

Therefore, indigenous minorities of the North are mostly integrated in Russia's sociocultural environment, only a small proportion maintaining the traditional ways of life. At the same time, IMN communities feature higher rates of socioeconomically disadvantaged population. In present-day Russia, poverty is often reproduced across consecutive

⁴ Indigenous Small-Numbered Peoples of the Russian Federation Aged 15–72 Living in Private Households by Area of Usual Residence and Economic Activity. Rosstat's official website: data from the 2010 census of the Russian Federation population: <u>https://www.gks.ru/free_doc/new_site/perepis2010/croc/Documents/Vol4/</u> pub-04–33.pdf

⁵ Poverty Rate in the Sakha Republic (Yakutia). Statistical Bulletin No. 104/208. Yakutsk: Sakha Republic (Yakutia) Regional Office of the Federal State Statistics Service, 2020. P. 31.

⁶ Results of the 2010 Census of the Russian Federation Population. <u>https://www.gks.</u> <u>ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm</u>

generations within a family [Yaroshenko 2010], parental social status being directly correlated with young people's academic performance [Ibragimova, Frants 2021], so the sociodemographic profile of IMN described here offers quite pessimistic socioeconomic prospects for this ethnic group.

One of the most effective ways to decrease economic inequality is to raise skill levels of the lowest-skilled population categories, recent findings suggest [Maskin 2015]. The present article addresses the school stage of education for indigenous minorities of the North, as this is where starting opportunities for social mobility are shaped and the ethnocultural focus is preserved. In our study, we intend to evaluate to what degree the IMN's demand for quality education is satisfied by school education policies and to find out how indigenous youths construct their educational trajectories.

Education System in Yakutia

The system of school education in Yakutia is represented by 642 schools, including seven part-time schools, 27 boarding schools, 102 schools with boarding options,⁷ and 207 ungraded schools.⁸ In the 2010/21 academic year, comprehensive schools of all types in Yakutia had an aggregate population of 145,100 students. Of them, the absolute majority (144,100) attended full-day schools. According to statistics, public full-day schools in Yakutia are employers to 14,348 teachers, of whom 86% have college degrees (81% in rural areas and 90.1% in urban localities).

In 2019, 61.2% of rural schools in Yakutia lacked wastewater disposal systems, 67.6% had no running water, 20.3% functioned without central heating, 72.2% occupied wooden facilities, and 27.6% of school buildings needed overhaul.⁹ Wooden structures are more prone to wear, present greater fire risk, and are seriously limited in digital infrastructure development [Zair-Bek, Mertsalova, Anchikov 2020]. By these indicators, Yakutia is one of the most disadvantaged regions in Russia.

Yakutia is now witnessing a migration of skilled workers from rural to urban areas, which leads, coupled with dispersed settlement, to a shortage of teachers in a number of rural schools. The greatest reduction in the number of teachers between 2020 and 2019 was observed in the following districts: Allaikhovsky (by 42.5%), Verkhnekolymsky

⁷ Data as per Federal Statistical Monitoring Form No. OO-1 "Information about educational institutions providing education programs in elementary, lower and upper secondary education" for the Sakha Republic (Yakutia) at the beginning of the academic year 2020/21.

⁸ Resolution of the Government of the Sakha Republic (Yakutia) No. 314 "On Approving the List of Ungraded Educational Institutions in the Sakha Republic (Yakutia)" of August 27, 2015.

 ⁹ Consolidated reports on Form No. OO-2 "Information about material and information resources and financial and economic activities of educational institutions in the Russian Federation and its federal subjects in 2019".

(by 32.3%), Ust-Yansky (by 25%), Olyokminsky (by 17.45%), Ust-Maysky (by 17.45%), Abyysky (by 13.75), and Bulunsky (by 13.4%).¹⁰ All these regions are inhabited by indigenous minorities of the North. Naturally, the observed trend is part of the centripetal migration that has concentrated one third of Yakutia population in the regional capital over the past three decades.

Digitalization of education in Yakutia is impeded by the great extent of the region and dispersed settlement. Regional statistics report that only 86.1% of the population have access to fiber-optic networks; 454 organizations have Internet connection, but its speed is not always adequate; and Internet speeds higher than 1 Mb/s are only available to 47% of those organizations.¹¹ Arctic *uluses*, accounting for only 6.9% of the republic's population and for the majority of areas of compact settlement of IMN, currently have virtually no access to fiber-optic networks. In particular, according to the Arctic Zone development policy documents, 13 Arctic districts use 2G networks, which only allow making phone calls and sending text messages, while Internet access is provided through communication satellites.¹²

Education digitalization in Yakutia is focused in the first place on monitoring the quality of education, organizing enrollment campaigns in schools and preschool institutions, evaluating teachers, and providing information and advice services. For example, the "E-Services. Education" system is designed to keep records on children waitlisted for preschool and to arrange online application to schools, summer camps, and institutions of vocational education. The stated paramount objective of this portal is to provide maximum access to public services on both national and municipal levels for all citizens while ensuring full protection of personal data in compliance with Federal Laws of the Russian Federation No. 152-FZ "On Personal Data" and No. 149-FZ "On Information, Information Technologies and the Protection of Information".

As we can see, education development indicators in rural areas of Yakutia are essentially below the regional and national averages, fostering the reproduction of social inequalities.

¹⁰ Estimates are based on: Activities of Secondary Education Institutions in the Sakha Republic (Yakutia). Statistical Digest of the Sakha Republic (Yakutia) Regional Office of the Federal State Statistics Service. Yakutsk, 2020. P. 30.

¹¹ Consolidated reports on Form No. OO-2 "Information about material and information resources and financial and economic activities of educational institutions in the Russian Federation and its federal subjects in 2019".

¹² The 2035 Strategy for Socioeconomic Development of the Arctic Zone of the Sakha Republic (Yakutia): <u>https://minimush.sakha.gov.ru/news/front/view/id/3205069</u>

Academic year	2016/17	2017/18	2018/19	2019/20	2020/21
Dolgan	-	-	-	-	-
Chukchi	-	-	-	-	-
Even	135	195	-	160	164
Evenk	66	143	98	117	98
Yukaghir	23	-	-	28	27
Yakut (Sakha)	55,530	55,706	52,168	51,035	51,688

Table 1. Number of children in Yakutia by language of instruction.

Source: Data as per Federal Statistical Monitoring Form No. OO-1 "Information about educational institutions providing education programs in elementary, lower and upper secondary education" for the Sakha Republic (Yakutia) in the academic years 2016–2021: <u>https://edu.gov.ru/activity/statistics/gener-</u> al_edu

Specifics of IMN Education Policy

The specific and most significant problems in indigenous education are native language instruction and nomadic education. Three language-of-instruction models are currently in place in Yakutia:

- 1. Native speakers of Russian are taught in Russian throughout school.
- 2. Native speakers of indigenous languages are taught in their native language from 1st through 4th/7th/9th grade (depending on the sociocultural situation and teaching practices in the particular school) with subsequent transition to instruction in Russian. In high school (10th-11th grades), instruction is delivered in Russian. This model is predominantly applied in schools with the Yakut (Sakha) language as the language of instruction located in rural areas and Yakutsk.
- 3. Instruction is delivered in Russian, while native (indigenous) languages are taught as second languages.

Most often, indigenous children of the North learn to speak their native languages within separate subjects or elective courses. Not many children receive education in the IMN languages (Table 1). Indigenous languages as a subject are taught in 49 schools, both nomadic and stationary (Table 2).¹³

The state republican program "The 2020–2024 Agenda for Preserving and Developing the National and Official Languages of the Sakha Republic (Yakutia)" projects an increase in the percentage of children

¹³ The 2019 Report of the Commissioner for Human Rights of the Indigenous Small-Numbered Peoples of the North in the Sakha Republic (Yakutia): <u>https:// iu-upkm.sakha.gov.ru/news/front/view/id/3205611</u>

Academic year	2016/17	2017/18	2018/19	2019/20	2020/21
Dolgan	95	115	137	0	0
Chukchi	51	59	51	2	2
Even	608	375	755	717	332
Evenk	677	562	713	745	277
Yukaghir	94	85	83	40	41
Yakut (Sakha)	19,720	25,674	30,253	28,528	30,255
As an elective course (all lan- guages)	1,567	1,923	2,337	2,095	1,388

Table 2. The number of children learning their native language as a separate subject in the public schools of the Sakha Republic (Yakutia).

Source: Data as per Federal Statistical Monitoring Form No. OO-1 "Information about educational institutions providing education programs in elementary, lower and upper secondary education" for the Sakha Republic (Yakutia) in the academic years 2016–2021: <u>https://edu.gov.ru/activity/statistics/general_edu/</u>

learning their native IMN languages from 1.17% of the overall school student population in 2020 to 2.1% by 2024. However, given yearly fluctuations in school student enrollment, such an increase may not exceed statistical error.

Teaching indigenous minorities' languages is hindered by the fact that the federal list of curricula and textbooks recommended for use and requiring governmental approval prior to use include curricula and complete series of textbooks only for Yakut Language and Yakut Literature. The Federal State Education Standard features no exam requirements for IMN languages—development of such requirements would involve working out the standards for teaching the official languages of Russia's republics.

In addition to native language learning, indigenous education policy of the first post-Soviet decade involved creating a network of nomadic schools, the earliest nomadic schooling experiences dating back to the Soviet Union. However, as indigenous peoples of the North switched more and more to sedentary lifestyle, nomadic schools would get closed, giving way to stationary and boarding schools all over the areas of compact settlement of IMN.

Nomadic schooling resurged in the 1990s, with the opening of Kueneleken Nomadic School in Olenyoksky District (1990), School No. 38 in Ugut tribal community of Aldansky District (1992), School No. 39 in Amma tribal community (1992), Ulakhan-Kyuyol School in Anabarsky District (1995), Even Nomadic School in Kobyaysky District (2002), a nomadic school in Verkhoyansky District (2004), a school in Nutendli tribal community of Nizhnekolymsky District (2004), a school in Urodan community of Srednekolymsky District (2004), and a school in Cheroda community of Olekminsky District (2004) [Robbek 2011:546].

Instruction in the areas traditionally inhabited and used by IMN as well as in base schools¹⁴ is centered on individualized learning plans as prescribed by the Law of the Sakha Republic (Yakutia) "On Nomadic Schools in the Sakha Republic (Yakutia)" of July 22, 2008.¹⁵ Today, seven *uluses* of the republic have nomadic schools, which are attended by 103 children (147 in 2017), including 35 preschoolers (45 in 2017).¹⁶ Nomadic schools provide elementary and lower secondary education. Leaders of IMN ethnic movements believe that, in theory, nomadic schools could provide upper secondary education as well but will hardly realize this potential due to low and declining enrollment. In their opinion, the decline in nomadic school enrollment has to do with the decreasing number of domestic reindeer livestock and the overall downturn in the reindeer herding industry in Yakutia. Indeed, over 80% of IMN students in Yamalo-Nenets Autonomous Okrug, which is home to the largest reindeer livestock population in Russia, attend nomadic schools.

However, the practices of Yamalo-Nenets Autonomous Okrug, in which nomadic education has gained a more widespread use, cannot be regarded as absolutely positive. Nomadic schools were expected to produce educational outcomes comparable in quality to those of regular schools, but research findings show that teachers find arguments against nomadic schooling as a way of receiving elementary and lower secondary education. Teachers believe that children attending nomadic schools experience more difficulties with school examinations than students of boarding schools and are more likely to have socialization issues. Therefore, some teachers of base schools are convinced that nomadic schools are less effective than regular and boarding schools [Lyubimova, Semenov 2017].

A very small proportion of IMN children attend nomadic schools in Yakutia, yet such schools have been a top priority. Stationary and boarding schools attended by indigenous children receive much less research attention and government funding. Of the 72 stationary schools in the rural localities classified as areas of compact settlement of IMN, only 55 offer upper secondary education programs. The rest provide only elementary and lower secondary education, so if their graduates want to proceed to high school, they will have to move to the regional center and live in a boarding school.

¹⁴ Base schools are comprehensive schools on the basis of which nomadic schools or ungraded nomadic classrooms operate.

¹⁵ http://docs.cntd.ru/document/445029377

¹⁶ The Ministry of Education and Science of the Sakha Republic (Yakutia)'s Report on Performance in 2020 and Goals for 2021. Yakutsk, 2021.

	District	Rural locality	2016	2017
1	Abyysky	Kubergene	51.9	58.6
2	Aldansky	Khatystyr	60.4	61.1
3	Aldansky	Kutana	47.8	54.5
4	Aldansky	Ugoyan	48.8	47.2
5	Allaikhovsky	Olenegorskaya	46.0	52.0
6	Allaikhovsky	Nychalakh		
7	Allaikhovsky	Chkalov		
8	Allaikhovsky	Russkoye Ustye		
9	Allaikhovsky	Oyotung		•
10	Anabarsky	Saskylakh, Saskylakh School	55.3	50.7
11	Anabarsky	Saskylakh, Anabar Ulus Gymnasium	67.3	65.4
12	Anabarsky	Yuryung-Khaya	47.6	51.9
13	Bulunsky	Kyusyur	47.7	50.7
14	Bulunsky	Namy	26.0	40.6
15	Bulunsky	Nayba	51.9	56.0
16	Bulunsky	Taymylyr	51.2	53.8
17	Bulunsky	Siktyakh		
18	Bulunsky	Bykovsky	35.2	56.5
19	Bulunsky	Ust-Olenyok		
20	Eveno-Bytantaysky	Kustur	48.8	57.2
21	Eveno-Bytantaysky	Dzhargalakh	43	47
22	Eveno-Bytantaysky	Batagay-Alyta	56	54.9
23	Kobyaysky	Sebyan-Kyuyol	50.4	49.7
24	Kobyaysky	Segyan-Kyuyol	57.2	51.9
25	Mirninsky	Syuldyukar	61	49.5
26	Momsky	Sasyr	42.8	35.8
27	Momsky	Kulun-Yelbyut	61.7	54.5
28	Momsky	Chumpu-Kytyl	54.5	74
29	Momsky	Buor-Sysy	49.5	49.5
30	Momsky	Khonuu	53.2	62.8
31	Momsky	Sobolokh	62.8	58
32	Neryungrinsky	Iyengra	53	55.5

Table 3. USE Russian scores in the areas of compact settlement of IMN in the Sakha Republic (Yakutia) (mean scores).

	District	Rural locality	2016	2017
33	Neryungrinsky	Arktika Experimental Boarding School	57.4	60.1
34	Nizhnekolymsky	Kolymskoye	50.3	59
35	Nizhnekolymsky	Pokhodsk	45.0	
36	Nizhnekolymsky	Andryushkino	48	44.4
37	Olekminsky	Tokko	57.7	57.8
38	Olekminsky	Tyanya	51.0	81.0
39	Olekminsky	Byas-Kyuyol		
40	Olekminsky	Kundu-Kyuyol		
41	Olekminsky	Uolbut		-
42	Olenyoksky	Olenyok	54.1	55.1
43	Olenyoksky	Kharyyalakh	37.7	42.4
44	Olenyoksky	Zhilinda	48.9	43.8
45	Olenyoksky	Eyik	43.3	53.3
46	Oymyakonsky	Tomtor	59.4	60.7
47	Oymyakonsky	Orto-Balagan	37	56.5
48	Oymyakonsky	Yuchygey	51.3	56.3
49	Srednekolymsky	Berezovka	56	69.7
50	Srednekolymsky	Urodan		•
51	Tomponsky	Topolinoye	58	47.9
52	Ust-Maysky	Kyuptsy	54.0	47.0
53	Ust-Maysky	Ezhantsy	55.3	56
54	Ust-Maysky	Petropavlovsk	58	70.4
55	Ust-Maysky	Troitsk		•
56	Ust-Maysky	Tumul		•
57	Ust-Yansky	Khayyr	54.1	62.7
58	Ust-Yansky	Tumat	61.5	53.4
59	Ust-Yansky	Sillyanyakhskaya School	41.6	39.7
60	Ust-Yansky	Kazachye	54.2	49.3
61	Ust-Yansky	Ust-Yansk	50.3	56.3
62	Ust-Yansky	Uyandi		-
63	Ust-Yansky	Yukagir		
64	Verkhnekolymsky	Nelemnoye	54.4	54.3
65	Verkhnekolymsky	Utaya		

	District	Rural locality	2016	2017
66	Verkhnekolymsky	Verkhnekolymsk	-	
67	Verkhnekolymsky	Usun-Kyuyol	43.0	
68	Verkhoyansky	Ulakhan-Kyuyol	50.7	51.8
69	Zhigansky	Zhigansk	57.7	62.5
70	Zhigansky	Kystatyam	44.0	49.0
71	Zhigansky	Bakhynay	•	
72	Zhigansky	Bestyakh		

Table 4. Mean USE Russian scores.

	2016	2017
Areas of compact settlement of IMN	51.2	54.6
Sakha Republic (Yakutia)	54.6	59.5
Russia	64.3	69.1

Table 5. Mean USE Mathematics scores (advanced level test).

	2016	2017
Areas of compact settlement of IMN	35.4	38.5
Sakha Republic (Yakutia)	42.2	41.3
Russia	46.3	47.1

USE Scores and the Desired Level of Educational Attainment among IMN

In order to assess the effectiveness of schools located in areas of compact settlement of IMN and the competitive positioning of their graduates, we will look at the USE Russian scores (Table 3).

In schools located in the areas of compact settlement of IMN, on average only eight students per school take the exit examinations. Smaller numbers of graduates translate into a greater influence of random factors and, as a result, a greater variance of the scores. Nevertheless, mean USE Russian scores in such schools have been consistently 3–5 points below the regional average and 13–15 points below the national average (Table 4). In mathematics, mean scores are 9–11 points lower than the national average (Table 5).

USE performance demonstrates that graduates from schools located in areas of compact settlement of IMN have comparatively low chances of going to college, becoming a professional, and improving their quality of life. Such schools do not provide conditions for using education as a vehicle of upward social mobility or as a tool for increasing indigenous minorities' SES.

Educational inequality for IMN has often been regarded as the result of their disposition toward traditional farming and rather low levels of educational ambition. The most recent data on the desired level of educational attainment among indigenous youths and their attitudes toward the need for ethnocultural education, language competencies, and the role of ethnic identity is provided by a study carried out in Yakutia in March–April 2021.

It was a formalized questionnaire survey covering rural localities classified as areas of compact settlement of IMN in seven districts of Yakutia: Bulunsky, Verkhnekolymsky, Verkhoyansky, Mirninsky, Momsky, Ust-Yansky, and Eveno-Bytantaysky. All the respondents (n=261) belonged to indigenous minorities of the North—Evenks, Evens, Yukaghirs—or came from mixed-ethnicity families of biethnic identity. Quota sampling by age and gender was performed for the survey. The sample consisted of IMN people at the age of 14–40 divided into two age categories: school students aged 14–19 (51.7%) and adults aged 20–40 (48.3%). Selection of these two age cohorts is explained by our interest in how perceptions differ between present-day school students and people who built their educational trajectories during the post-Soviet years. Males accounted for 44.1% of the sample.

Raw data was processed using SPSS software, results being represented as descriptive statistics; in-depth analysis was performed using the chi-squared statistic (χ^2).

The item on educational ambitions is formulated as follows: "Which level of educational attainment do you consider sufficient for yourself?" Responses show the following distribution: 13% would be satisfied with a high school diploma, 36% would like to obtain a vocational certificate, 48.7% aspire for a college degree, and 2.3% would only be content with a postgraduate degree.

Contrary to the assumption that school students tend to have inflated expectations, educational ambitions in the younger group of respondents turned out to be lower than among adults. School students were more likely to select high school as the sufficient level of educational attainment, while respondents aged 20 and older intended more often to get at least a Master's degree (χ^2 = 8.511, p < 0.075).

Among IMN youths, females are more likely to aspire for higher levels of educational attainment than males (χ^2 = 18.266, p < 0.019), which is consistent with the national trend—according to the Trajectories in Education and Careers cohort panel study [Kondratenko, Kiryushina, Bogdanov 2020], girls in Russia have overall higher educational ambitions than boys.

Representatives of different age cohorts differ in their attitudes toward the traditional occupations of their ancestors: reindeer herding, hunting, and fishing. Among school students, 52.3% perceive such occupations as prestigious and respectable, 37.7% say that they used to be respectable but have lost their importance, and 10% believe that those occupations are in low demand and offer no career prospects. Among respondents aged 20–40, only 32.2% regard traditional occupations as prestigious, while 47.9% are convinced that they have lost their importance, and 19.8% see them as a blind alley (χ^2 = 11.766, p < 0.008).

To answer the question, "Do you think school education for indigenous minorities of the North should have an ethnocultural component?", respondents were to choose between two response options: "School education should be standardized to ensure better competitiveness of graduates" or "Education should be ethnocultural, designed to preserve the language and culture and develop ethnic identity and domestic skills in children while at the same time introducing them to global cultural values".

Ethnocultural focus in school education of IMN was supported by 47.1% of the respondents. The standardized curriculum response option was selected by 63.8% of school students and by only 40.3% of adults (χ^2 = 14.079, p < 0.000). No gender differences were observed (χ^2 = 1.336, p < 0.513).

Rural school students were more likely to have vocational orientations and vote for standardized school curricula, but those intending to enroll in college favored the ethnocultural component in school education.

To measure the significance of ethnic identity for the respondents, they were asked to compare two statements and choose the one that better described their attitude: "I care more about my own and my family's wellbeing, achievement of my personal goals and interests" or "I care more about the interests of my people, first of all the preservation of our culture and traditions and the protection of my people's rights even if it runs counter my own goals".

Personal and family wellbeing was selected by 80.7% of the respondents. Preservation of the people's culture and traditions and protection of its rights even if it runs counter personal goals were preferred by 19.2% of the survey participants. Among school students, personal wellbeing was chosen by 89.7%, as compared to 70.4% among adults aged 20–40 (χ^2 = 13.399, p < 0.000).

Of those who prioritize personal wellbeing, 55.9% believe that education for IMN should be standardized. Among those prioritizing their ethnic group's interests, standardized education is favored by only 27.9%, while 72.1% advocate for the ethnocultural component (χ^2 = 10.842, p < 0.001).

A sociological survey revealed that only 3.4% of the respondents living in areas of compact settlement of IMN perceived their access to Internet as adequate, while 67.4% reported low-quality Internet connection, and 29.1% had no access to the Internet at all.

Efficiency of IMN Education Policy

The policy of integrating the indigenous minorities of the North into the dominant culture's social environment has taken effect: modern IMN communities differ dramatically in their SES from their predecessors who mostly engaged in natural resource management. At the same time, within the predominantly Russian society, IMN represent a socioeconomically disadvantaged social group, mainly due to dispersed settlement and low access to information.

The lower the urbanization rate in the locality of school graduation, the lower an adolescent's chances of obtaining a college degree, so rural school graduates become outsiders in the race for education [Konstantinovsky 2020:215]. A school leaver from a remote village who wants to go to college encounters a number of barriers—geographic, economic, sociocultural, and information—all interacting, mediating and amplifying the effects of one another [Ibid.]. However, little attention in education policy is paid to this objective factor and ways of reducing its impact on school students' educational trajectories.

Indigenous education policymakers are mostly focused on the needs of nomadic peoples, overlooking the problems of school education for IMN living in rural areas, in particular the problems of remote stationary schools and their teaching quality. With regard to this category of IMN, it is only ways of preserving traditional lifestyles that have been discussed, while the ethnic-oriented approach has been implemented somewhat superficially.

Educational ambitions of IMN school students are quite consistent with the overall Russian trend of the past decade toward an increase in demand for vocational education. Research shows that the growing popularity of this track is the product of mutually reinforcing factors in the education system, the downward economic cycle, and the labor market. The shrinking real disposable household income—the key trigger for an increase in demand for vocational education programs coupled with the decreasing access to higher education "push out" low-SES students from the academic track [Maltseva, Shabalin 2021].

In Yakutia, with its outflow of skilled teachers from rural schools and multiple barriers in education (from geographical to technological), students curtail their own educational ambitions under the pressure of socioeconomic factors. Besides, the labor market in Yakutia is rather tight for skilled workers: since the 1980s, more and more college graduates have been overeducated for their jobs [Drobizheva 2002:47], and finding a job matching one's skills today is even harder. In this situation, traditional occupations are perceived as attractive. A recent study of educational and career trajectories of IMN in Yamalo-Nenets Autonomous Okrug showed that being college-educated is associated with much more interest in occupations other than traditional industries [Markin, Silin, Voronov 2019].

Great hopes were staked on information technology to break the geographical barriers in education. However, Internet speed is extremely low in the majority of Arctic schools, making it impossible to use web-based supplementary materials or distance-communication services such as Zoom, Google Meet, etc.

The lockdown measures imposed to prevent the spread of the SARS-CoV-2 coronavirus infection shifted part of educational responsi-

bility, specifically for access to the Internet, to the population. According to survey data, only 3.4% of the IMN respondents have access to high-quality Internet connection, so self-learning was substituted for distance learning during the pandemic. A learning process organized this way will lead to a substantial degradation of education quality in rural areas within the Arctic Zone of the Russian Federation in the Sakha Republic (Yakutia), widening the gap in youth access to professional education.

Conclusion Education policy for indigenous minorities of the North is focused on ethnocultural development, while social and community aspects of educational organization are left virtually unattended, which has a substantial impact on indigenous peoples' wellbeing and social mobility opportunities.

If policymakers retain their performative approach to indigenous education with a focus on ethnocultural identity preservation, the urban-rural socioeconomic divide in the region will widen, decreasing the level of educational attainment among rural IMN population and inflating the groups dependent on social transfers for their income. Centripetal migration has become an important factor in the republic's education system: between 2001 and 2018, rural schools lost 23% of their student population, while school enrollment in Yakutsk increased by 27%. That is to say, college opportunities have been reduced for rural IMN school graduates. Under the pressure of the factors described above, school students adjust their educational and career intentions by curtailing their demand for education. Today, vocational orientations are much more prevalent among indigenous youths than among indigenous adults aged 20–40.

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