

5. TRENDS IN KINDERGARTEN AND SCHOOL ENROLLMENTS IN HUNGARIAN-MEDIUM INSTITUTIONS



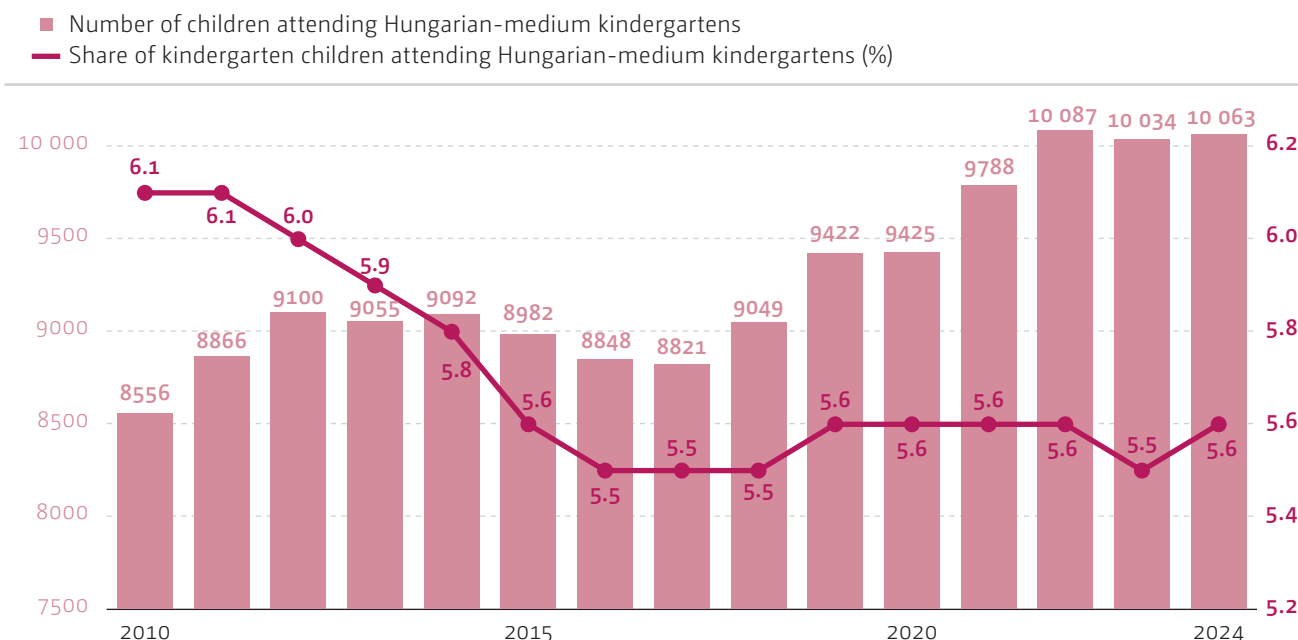
Kindergartens

Between the 2010/11 and 2024/25 school years, the number of children attending Hungarian-medium kindergartens, allowing for some fluctuations, followed a clear upward trajectory. In 2010, 8,556 children attended Hungarian-medium kindergartens and the Hungarian-medium groups within Slovak–Hungarian jointly administered institutions (hereafter, for the sake of simplicity, jointly referred to as Hungarian kindergartens); by 2024 this figure had increased to 10,063. This represents a substantial rise of 18%. The primary driver of this process, however, has not been particularly favorable

demographic reproduction among Hungarians, but rather the general expansion of kindergarten participation, especially in connection with the introduction of one compulsory year of pre-primary attendance prior to school entry. This is well illustrated by the fact that, over the same period, the total number of kindergarten children in Slovakia increased by 29%, resulting in an overall decline in the share of children enrolled in Hungarian-medium kindergartens (Figure 2). Changes in kindergarten enrollment were accompanied by marked regional inequalities. At the settlement level,

significant growth can be observed in the western and central parts of the Hungarian settlement area, whereas stagnation or decline is evident in the zone between these two regions (roughly between Komárno and Šahy) and in the easternmost parts of the Hungarian settlement area. Particularly strong growth occurred in major cities (Košice and Bratislava) and urban agglomerations (Senec district), as well as in districts with large populations of Hungarian native speaking Roma (Revúca, Košice-okolie, Rožňava, and Rimavská Sobota). Although proportionally the largest growth (more than

Figure 2: Number of children in Hungarian-medium kindergartens and their share among all kindergarten children, 2010–2024

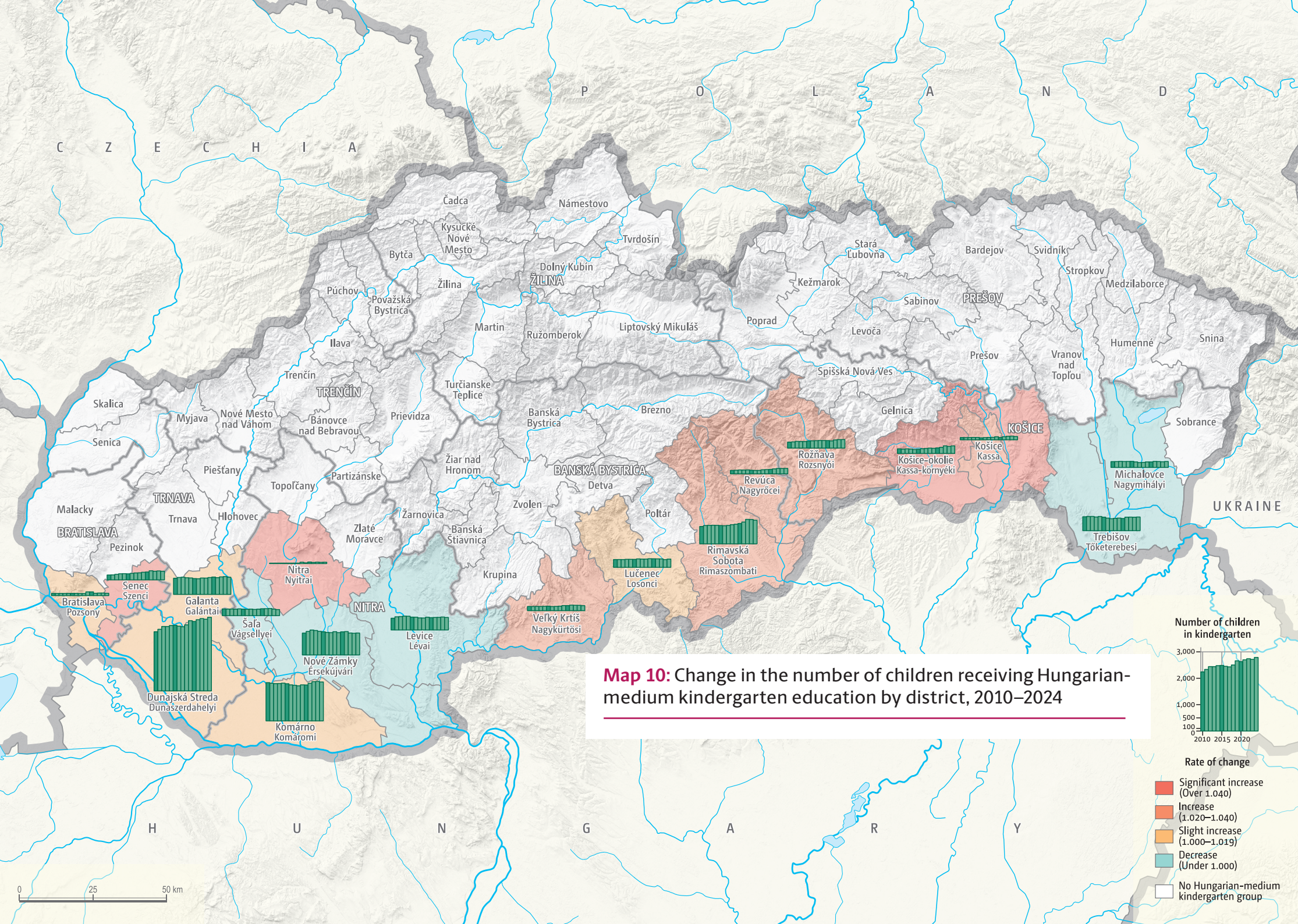


a fourfold increase) was recorded in the Nitra district, this was essentially due to a low baseline and the opening of a new institution. Elsewhere, a more “mosaic-like” pattern predominates, with institutions experiencing rising and declining enrollments often located in close proximity. An instructive case is Košice-okolie: on the basis of Map 9 it appears to be among the most unfavorable areas, since six of its eleven kindergartens ceased to operate during the period under study; nevertheless, overall kindergarten enrollments in the district increased substantially (by more than 60%) but now

concentrated in towns (more precisely, in a single town, Moldava nad Bodvou).

At the district level, the main trends of the past decade and a half become even clearer. The principal poles of growth correspond to the areas visible at the settlement level; however, unfavorable developments extend beyond the Trebišov District to the neighboring Michalovce District, and in the west a slight decline is characteristic from the Šaľa District through to the Levice District (Map 10).

Changes in kindergarten numbers differ not only between east and west, but also across the urban–rural cleavage. Growth was particularly pronounced in towns and cities (32%), whereas in rural areas, which account for two thirds of Hungarian kindergarten children, the increase was only 8% (Map 11). Several factors help explain this difference. First, an increasing number of families from rural areas (particularly those commuting to towns) enroll their children in urban kindergartens, not only for practical reasons but also due to the higher perceived prestige of urban institutions. Second, in the kindergarten stage the “stakes” of language choice are still lower than in school, so children from non-Hungarian or mixed families enroll in Hungarian-medium kindergarten provision in significant numbers, especially in larger cities. Third, in certain rural regions the growing proportion of Roma children contributes to patterns whereby non-Roma families move their children to other settlements or to Slovak-medium kindergartens. The international literature describes this phenomenon as “white flight,” which has been observed in multiple contexts across Central and Eastern Europe as well.³⁰ The term refers here to a situation in which, due to fertility and migration dynamics at the settlement or micro-regional level, the overwhelming majority of children in a Hungarian-medium kindergarten or school are of Roma origin and typically in disadvantaged socio-economic positions.



In such cases, a substantial share of non-Roma families with better resources and higher educational attainment seek alternative kindergartens or schools for their children. Where no Hungarian-medium institution regarded as suitable by these families exists nearby, many opt for Slovak-medium provision. In this sense, “white flight” constitutes a manifestation of educational segregation, appearing in this context primarily along a Roma–non-Roma divide.

The emptying of rural kindergartens and the rising popularity of urban kindergartens are particularly pronounced in Košice and the Košice-okolie District. While the number of kindergarten children in Košice increased by nearly one half, and in Moldava nad Bodvou it quadrupled over the past decade and a half, surrounding villages experienced a sharp decline of more than one third. Similar developments can be observed from Rimavská Sobota to Rožňava, where the enrollment of Hungarian urban kindergartens doubled or tripled (especially in the town of Tornaľa).

In eastern Slovakia, these processes often result in a segregated kindergarten network in which rural kindergartens increasingly enroll Roma children, while non-Roma families (regardless of their place of residence) opt for urban kindergartens or for segregated groups within them.

Ethnic composition of children attending Hungarian kindergarten

Although the number of children attending Hungarian-medium kindergartens increased, this did not translate into a comparable rise in the number of ethnic Hungarian kindergarten children. On the contrary, between 2010 and 2024 their number declined by 3.3%, from 10,002 to 9,676. This indicates that the favorable enrollment figures of Hungarian-medium kindergartens are not necessarily underpinned by favorable ethno-demographic processes for Hungarians. However, it should be emphasized that the recording of ethnicity at kindergarten enrollment is often inconsistent and may fluctuate sharply from one year to the next at the institutional level; therefore, these figures should be interpreted primarily as indicative.

Among the western districts (from Bratislava to Veľký Krtíš District), a positive trend in the number of ethnic Hungarian kindergarten children was observed only in Dunajská Streda District. Here, relatively favorable natural population change, combined with low levels of assimilation and internal migration towards the Bratislava agglomeration, contributed to growth. As a result of this latter process, the number of Hungarian children has not declined in Bratislava either, while relatively favorable figures can also be observed in the other

Hungarian-majority district, Komárno. Internal migration is likewise associated with the substantial 15% increase in the number of ethnic Hungarian kindergarten children in Košice. In contrast, in the eastern part of the country (districts located east of Veľký Krtíš), the pattern is reversed: the number of ethnic Hungarian kindergarten children declined only in Lučenec and Trebišov Districts, while it increased in all others. In Košice-okolie, Revúca and Rimavská Sobota Districts, the rate of increase exceeded 10%. In these eastern districts, more favorable figures are likely attributable to an increase in the number of Roma children registered as ethnic Hungarians, and possibly to earlier kindergarten enrollment (at ages three or four) (Map 12).

Overall, therefore, while the number of children attending Hungarian-medium kindergartens increased during the period under review, the number of ethnic Hungarian children declined simultaneously (Figure 3). This implies that a substantial share of children enrolled in Hungarian-medium kindergartens are not of Hungarian ethnicity. In the 2024/25 school year, 2,095 of the 10,063 children attending Hungarian-medium kindergartens (21%) were registered as non-Hungarian.³¹ The vast majority of these children (2,053) were registered as Slovak. Their presence in Hungarian-medium kindergartens can be explained by several factors. A significant proportion come from mixed

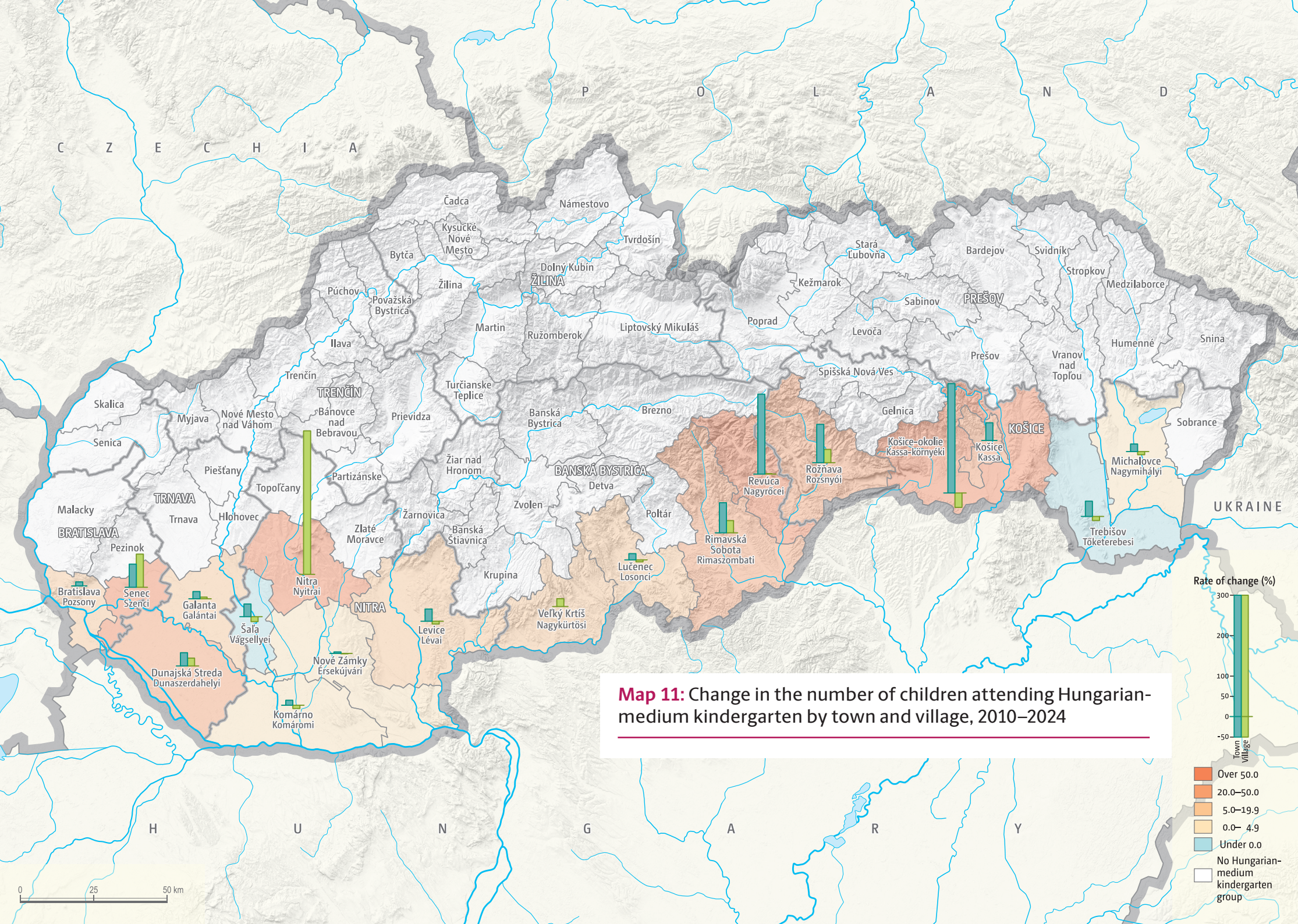
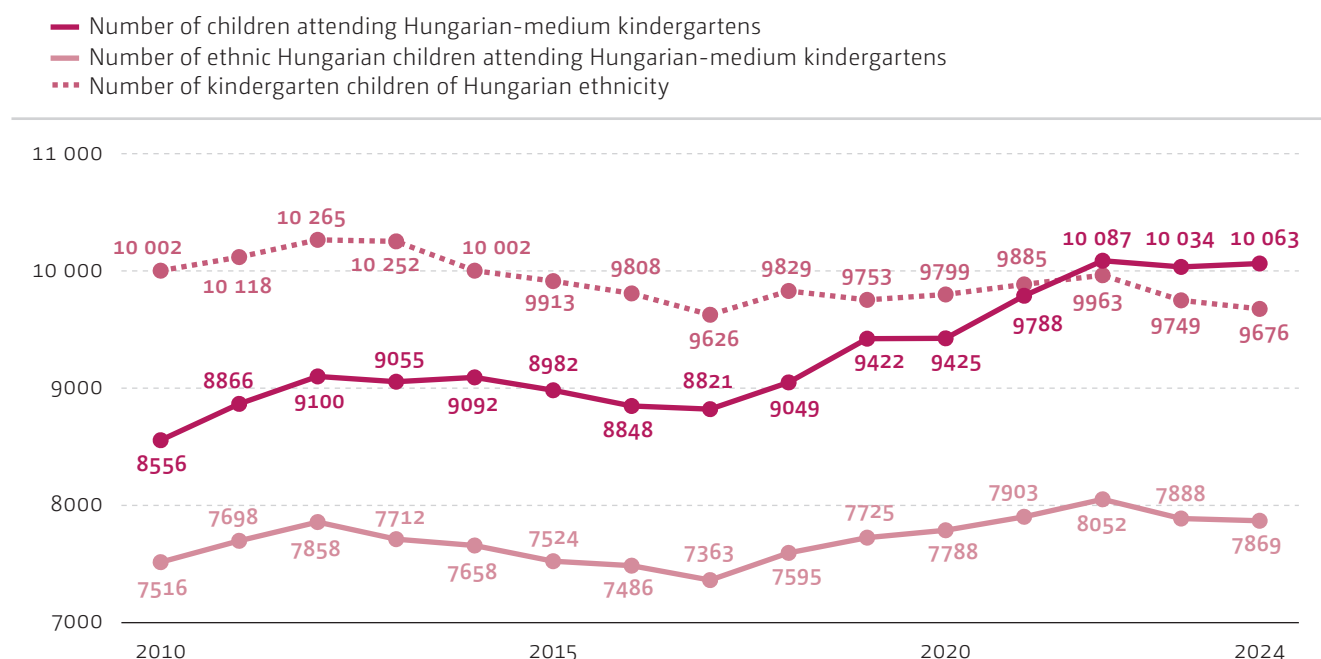


Figure 3: Trends in the number of children attending Hungarian-medium kindergartens and the number of ethnic Hungarian kindergarten children, 2010–2024

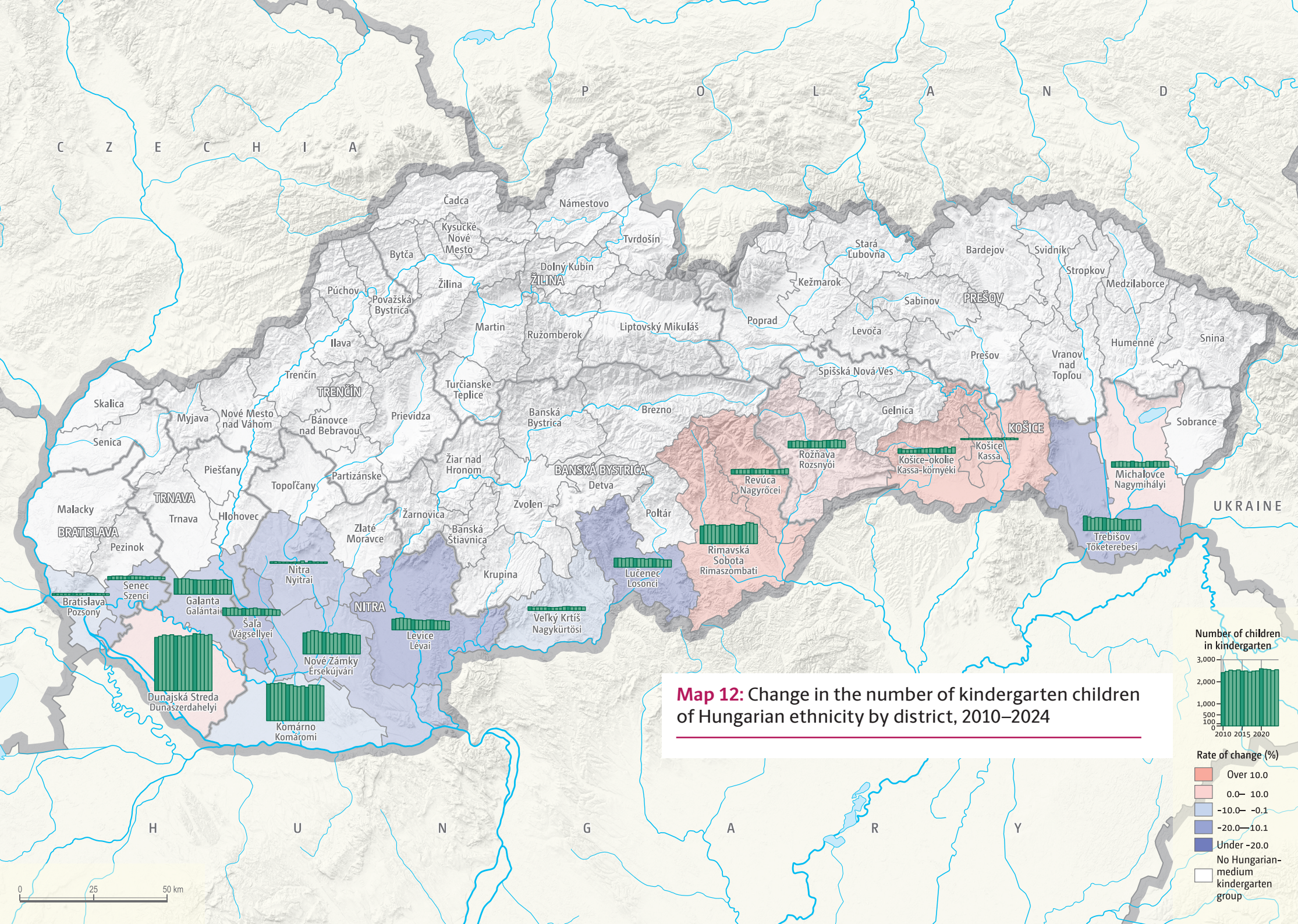


families, in which children have Hungarian as their native language or are at least proficient in Hungarian. It should be recalled that in Slovakia the number of individuals with Hungarian as their native language exceeds the number of those identifying as ethnic Hungarians by approximately 10%. Larger concentrations of non-Hungarian children are primarily observed in major cities, although smaller numbers may appear in any settlement where only a Hungarian-medium kindergarten is available.

Compared to children registered as Slovak, the number of children registered as Roma is strikingly low; in the most recent school year, they were concentrated primarily in Komárno District (24 out of 28 registered cases). In practice, however, substantially more Roma children attend Hungarian-medium kindergartens, but they are typically registered as ethnic Hungarians, as is also common practice in census figures. The presence of non-Hungarian children in Hungarian-medium kindergartens is most characteristic of areas

near the Slovak–Hungarian language boundary, particularly in dispersed minority areas and cities. These are settings where mixed marriages are more common. Accordingly, more children from mixed families appear in Hungarian kindergartens while being registered as ethnic Slovak. Their share is especially high in Senec District and in Košice, where the majority of children attending Hungarian-medium kindergartens are registered as Slovak (Map 13). By contrast, ethnic majority areas and eastern districts characterized by compact Hungarian settlement patterns display much lower proportions. In Revúca District, for example, the share of non-Hungarian children attending Hungarian-medium kindergartens remains below 10%, while in Michalovce and Komárno Districts it only slightly exceeds this threshold.

The fact that more than 20% of children attending Hungarian-medium kindergartens are registered as non-Hungarian may appear surprisingly high, prompting the question of how this proportion has evolved over time. In the 2010/11 school year, 12% of the 8,556 children enrolled in Hungarian-medium kindergartens (i.e. 989 children) were registered as non-Hungarian. Between 2010 and 2024, both the number and the proportion of non-Hungarian children therefore doubled. Whereas in 2010, 87% of non-Hungarian children were registered as Slovak, by 2024 this share



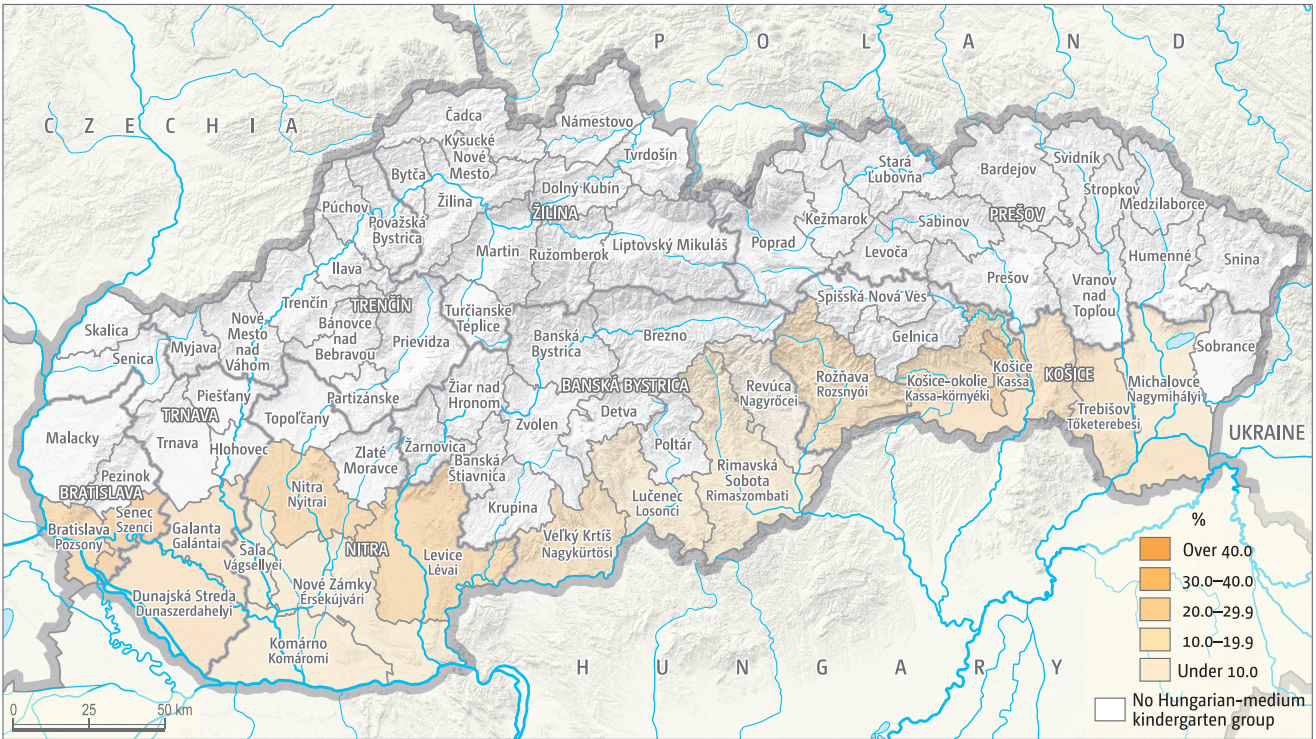
had risen to 98%. These trends highlight the growing role of mixed marriages in the recruitment base of Hungarian-medium kindergartens and underscore the limited suitability of these statistics for tracking the Roma population.

Changes between 2010 and 2024 unfolded in a territorially differentiated manner. In the two largest cities,

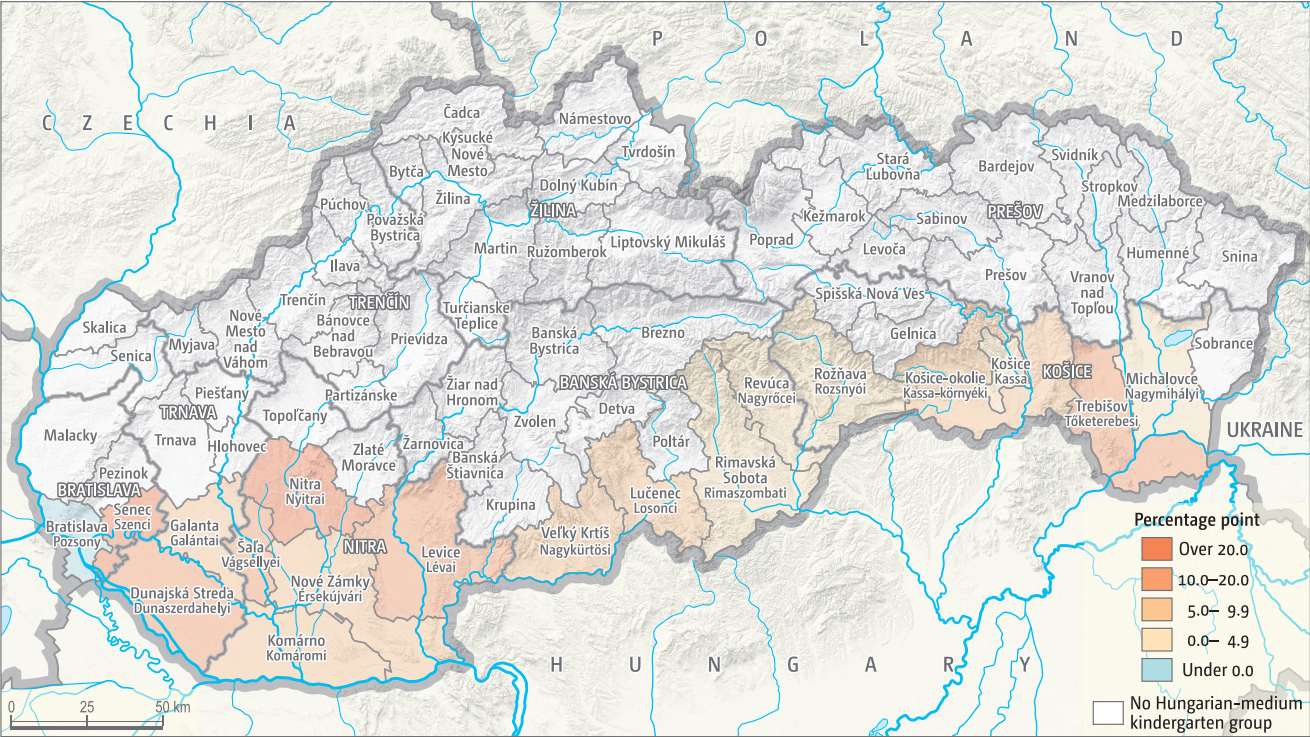
Bratislava and Košice, the share of non-Hungarian children (contrary to the overall trend) did not increase, reflecting the fact that non-Hungarian shares were already high in 2010 (Map 14). Similarly, in the Gemer (Hung. *Gömör*) region (comprising Rimavská Sobota, Revúca and Rožňava Districts) the proportion remained essentially unchanged, indicating that Roma children continue to be predominantly registered as Hungarian.

The largest increases occurred in areas along the Slovak-Hungarian linguistic boundary with low Hungarian population share, notably Nitra and Senec Districts, highlighting the role of assimilation and mixed family backgrounds in the operation of Hungarian-medium institutions. At the same time, registration practices can be highly volatile: for example, in Košice-okolie District the share of non-Hungarian children was recorded at 45% in 2023 but dropped to 30% in 2024. This does not reflect actual population turnover, but rather inconsistencies in registration, which significantly complicate the monitoring and interpretation of trends.

Map 13: Proportion of non-Hungarian children in Hungarian kindergartens, 2024/25



Map 14: Change in the proportion of non-Hungarian children attending Hungarian kindergartens, 2010–2024



As shown above, the number of non-Hungarian children attending Hungarian-medium kindergartens is substantial, many of whom are nevertheless likely to have strong Hungarian linguistic or cultural ties.

Conversely, not all ethnic Hungarian children attend Hungarian-medium kindergartens. In the 2024/25 school year, 1,768 ethnic Hungarian children attended non-Hungarian-medium kindergartens or

kindergarten groups. The highest numbers were recorded in larger towns: more than 120 children each in Dunajská Streda and Komárno, while in a further six towns more than 50 ethnic Hungarian children per settlement attended Slovak-medium kindergartens (Table 3). In many cases, Slovak-medium kindergartens are effectively sustained by Hungarian children: in 13 settlements, the proportion of ethnic Hungarian children exceeds 50% of total enrollment in Slovak-medium kindergartens.

The underlying reasons vary, ranging from Roma–non-Roma segregation dynamics to the absence of a local Hungarian-medium kindergarten, or factors not observable from the available data. Settlement-level data also indicate where the establishment of Hungarian-medium kindergartens would be most warranted. The highest numbers of ethnic Hungarian children registered in Slovak-medium kindergartens in settlements without a local Hungarian-medium institution were recorded in Turná nad Bodvou (29), Drnava (20), Číž (14), Drahňov (13) and Košúty (10).

Table 3: Ethnic Hungarian kindergarten children enrolled in non-Hungarian-medium kindergartens (top 10 settlements by category)

Municipality	Hungarian children in non-Hungarian kindergartens (persons)	Municipality	Proportion of Hungarian children in non-Hungarian kindergartens (%)	Municipality	Proportion of Hungarians among children attending non-Hungarian kindergarten (%)
Dunajská Streda	128	Nenice	66.7	Leles	92.3
Komárno	126	Zemplín	66.7	Drnava*	90.9
Rimavská Sobota	73	Šaľa	64.3	Kamenica nad Hronom	83.3
Šamorín	57	Čierna nad Tisou	63.9	Číž*	82.4
Nové Zámky	55	Plešivec	58.8	Hodejov	75.0
Tornaľa	54	Kamenica nad Hronom	55.6	Iža	72.7
Veľký Meder	53	Vyškovce nad Ipľom	55.6	Trstice	58.3
Štúrovo	53	Leles	54.5	Nenice	57.1
Kráľovský Chlmec	49	Somotor	50.0	Filakovské Kováče	56.3
Veľké Kapušany	46	Nána	48.1	Veľký Meder	55.2

*No Hungarian-medium kindergarten or kindergarten group is available in the settlement.



Hungarian kindergarten enrollment rates

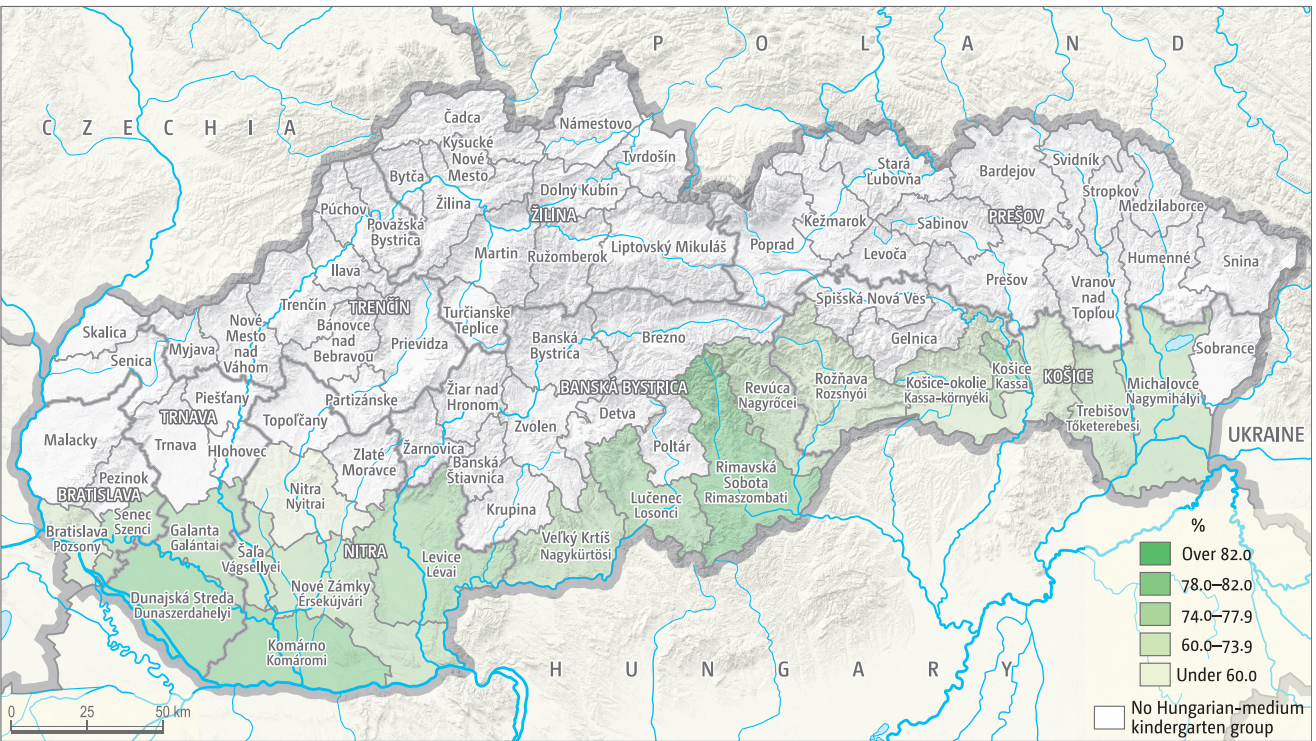
The patterns described above allow Hungarian kindergarten enrollment rates to be calculated, i.e. the proportion of ethnic Hungarian children attending Hungarian-medium kindergartens or kindergarten groups. In the 2024/25 school year, 7,828 ethnic

Hungarian children attended Hungarian-medium kindergartens, while 1,768 attended other (predominantly Slovak-medium) institutions. Overall, therefore, 81.6% of ethnic Hungarian children attended Hungarian-medium kindergarten provision. It should be noted that, among ethnic Hungarian children enrolled in non-Hungarian-medium institutions, children from

mixed families are present to a similar extent as among non-Hungarian children enrolled in Hungarian-medium kindergartens (and, indeed, among ethnic Hungarian children enrolled in Hungarian-medium kindergartens).

Variation in enrollment rates is shaped primarily by compactness of the Hungarian settlement, i.e. the block-dispersed divide. The highest values characterize the Hungarian ethnic majority areas (Map 15). Dunajská Streda District stands out (89%), while rates are also high in Rimavská Sobota (87%), Komárno (82%) and Galanta (80%) districts. At the other end of the spectrum is Nitra District, where most ethnic Hungarian children, partly because of the limited availability of Hungarian-medium kindergartens, attend non-Hungarian-medium provision. Low values are also recorded in Košice-okolie District, in Bratislava (both characterized by fragmented Hungarian settlement structure and low Hungarian population share), and in Rožňava District. Rožňava District is an outlier: relative to the district-level share of Hungarians and its relatively compact settlement pattern, the enrollment rate is exceptionally low. By contrast, Košice deviates in a positive direction: 78% of ethnic Hungarian children attend Hungarian-medium kindergartens, which is 15 percentage points higher than the value

Map 15: Proportion of ethnic Hungarian kindergarten children attending Hungarian kindergartens, 2024/25



for Bratislava, despite broadly comparable structural conditions.

Hungarian kindergarten enrollment rates have changed over time. In the 2010/11 school year, 75.3% of ethnic Hungarian children attended Hungarian-medium kindergartens; by 2024/25 this figure had increased to 81.6%. The most substantial changes occurred where institutional development took place from a low baseline (Nitra district: from 13% to 46%). Significant increases were also observed in the central part of the Hungarian settlement area, where the share of Roma within the Hungarian population is high (Revúca, Lučenec, Rožňava and Rimavská Sobota Districts, typically increases of around 15 percentage points), as well as (although to a lesser extent) in the two major cities, Košice and Bratislava, and in the Bratislava agglomeration (increases of 9–13 percentage points), where initial values were relatively low (Map 16).

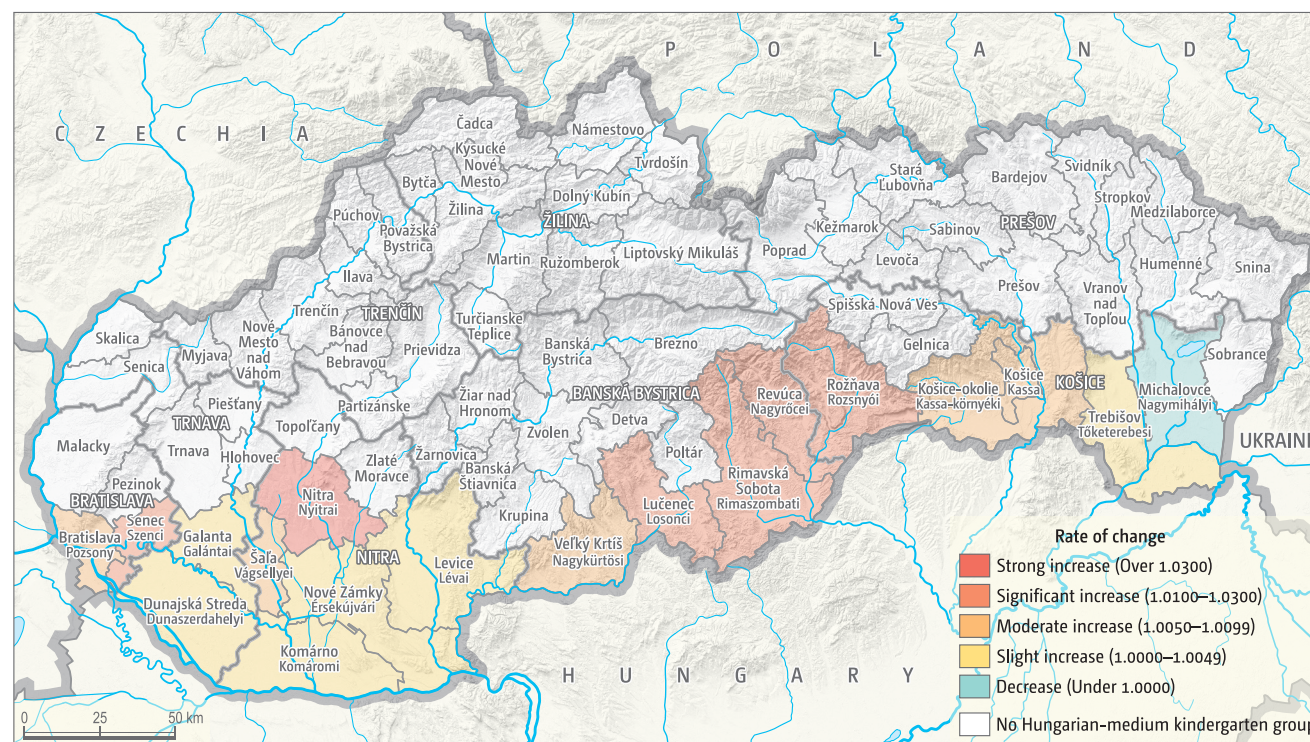
In the two Hungarian-majority districts, where values were already high in 2010, only modest increases of 3–4 percentage points were recorded. In Michalovce District, however, the Hungarian kindergarten enrollment rate declined, despite previously exceeding 80%. Overall, changes in enrollment rates are shaped primarily by the block-dispersed and Roma-non-Roma

divides. Over the longer term, the data suggest convergence, with the gap between ethnic majority and dispersed minority areas narrowing. This is partly driven by infrastructural factors (new institutions) and partly by legal changes (compulsory kindergarten attendance). There is also a growing alignment between Hungarian educational background and (self-)identifying as ethnic Hungarian.³²

Transition from kindergarten to primary school

From the perspective of participation in Hungarian-medium education (or exit from it) the most critical points are institutional transitions, typically associated with moves between educational levels. These include

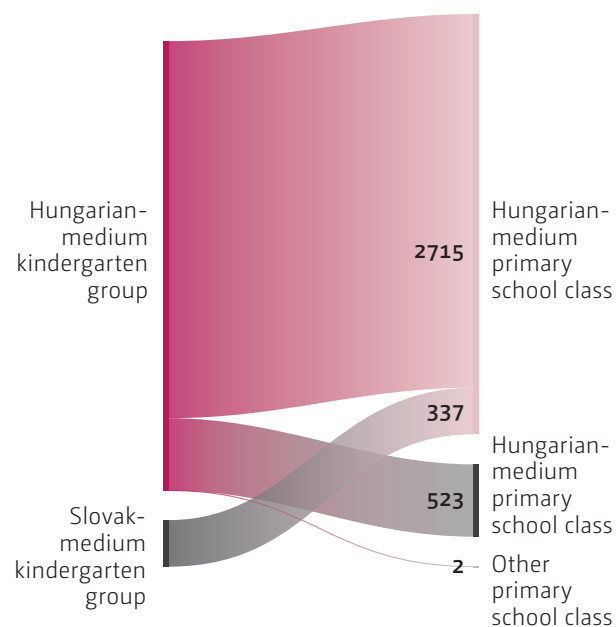
Map 16: Change in the Hungarian kindergarten enrollment rate, 2010–2024



the transition from kindergarten to primary school, from primary to secondary education (i.e. from grade 9 to upper-secondary), and, in some cases, the transition from primary to lower secondary (from grade 4 to 5), although systematic data on the latter are not available. By contrast, relatively detailed data are available for the transition from kindergarten to primary school. The following section examines how this transition unfolded, in terms of changes in the language of instruction, among those completing kindergarten in the 2023/24 school year and starting primary school in 2024/25.

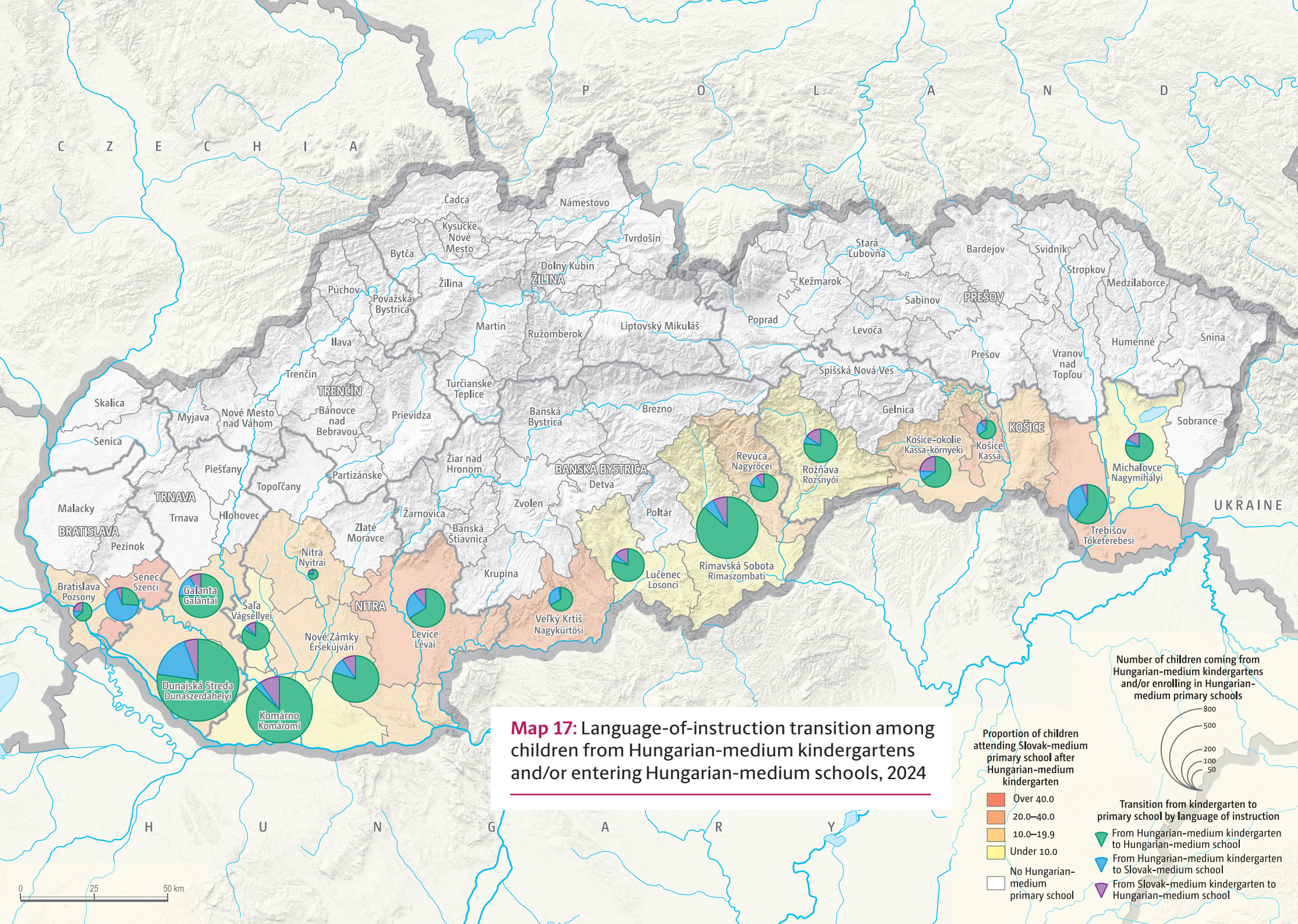
Overall, 3,240 children attending Hungarian-medium kindergartens completed kindergarten in 2024, and according to administrative statistics, 3,052 of them started primary school in Hungarian.³³ At first approximation, the “loss” is therefore 6%. This, however, represents only the net balance; the underlying picture is more complex. Only 84% of children completing Hungarian-medium kindergarten continue their education in Hungarian, while 16% switch to Slovak. At the same time, a surprisingly large share (11%) of those starting first grade in Hungarian arrive from Slovak-medium kindergartens (Figure 4). Language-of-instruction transition therefore affects 27% of those completing Hungarian-medium kindergarten and/or enrolling in Hungarian-medium primary school in 2024, and the net balance (unsurprisingly) does not favor Hungarian-medium education.

Figure 4: Transition in language of instruction: Hungarian-medium kindergarten to school, 2024



The transition displays clear territorial specificities. Language-of-instruction change is exceptionally high in Senec District, where three out of four children switch, typically from Hungarian-medium kindergarten to Slovak-medium primary school. High rates of enrollment in Slovak-medium primary schools are also observed in districts where the ethnic structure of the Hungarian population is less compact (Levice and Veľký Krtíš Districts), as well as in Košice, where,

despite a substantially higher Hungarian kindergarten enrollment rate than in Bratislava, transition towards Slovak-medium schooling is pronounced. In these districts, a common strategy among mixed families is to enroll children in Hungarian-medium kindergarten but choose Slovak-medium primary education thereafter.³⁴ Trebišov District stands out from the general pattern: its ethnic structure alone would not suggest such a high transition rate (close to 40%) (Map 17). In this case, based on local accounts and field experience, Slovak-medium school choice among ethnic Hungarian pupils is likely driven in part by white flight. Nitra District also merits mention: given the scattered settlement pattern of Hungarians, one might expect substantial exit from Hungarian-medium education already at this stage; however, the Hungarian-medium kindergarten network there is even less developed than the primary school network, which results in a relatively favorable transition profile. At the other end of the spectrum are districts where more than 80% of children move from Hungarian-medium kindergarten to Hungarian-medium primary school (Rimavská Sobota, Komárno and Šaľa Districts; Map 17). This reflects both the high share of Hungarians and a compact ethnic structure. Nevertheless, the figures are not entirely coherent: relative to Komárno District, Dunajská Streda District follows a remarkably different trajectory, while in Rimavská Sobota District the high share of Roma does



Primary schools

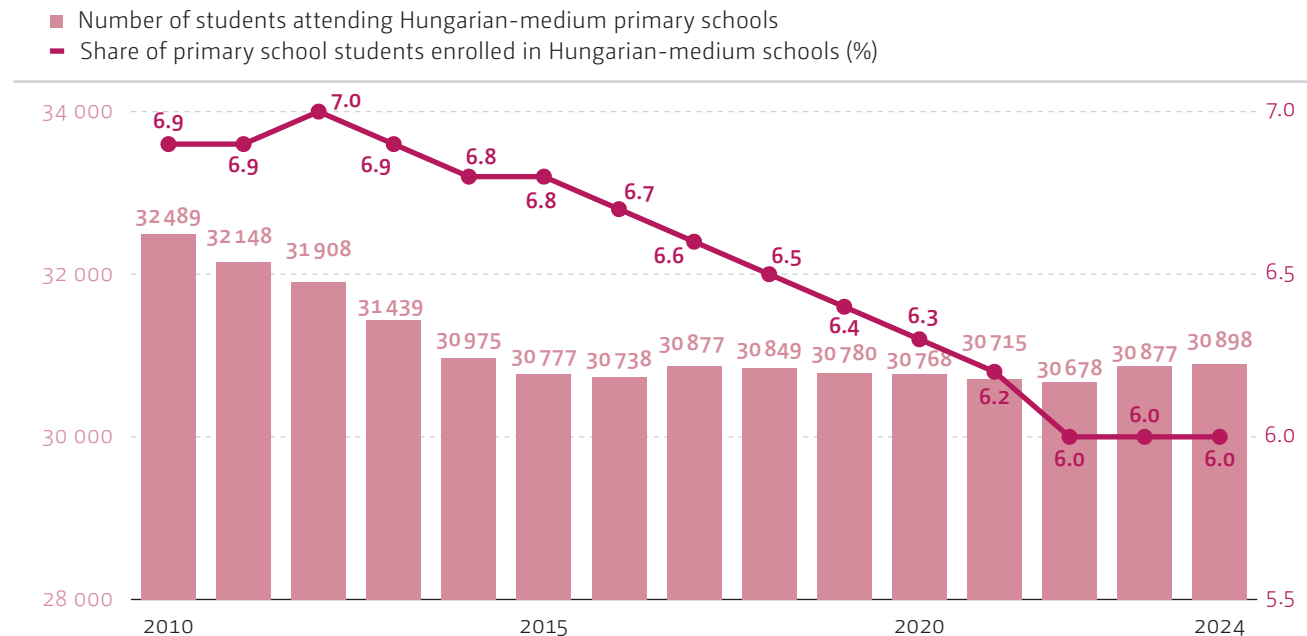
not translate, in the available data, into a clear pattern of segregation-driven language-of-instruction transition. Local and institutional factors are therefore crucial and may override structural conditions. It is also noteworthy that in roughly half of all districts, more children enter Hungarian-medium primary schools from Slovak-medium kindergartens than move in the opposite direction, from Hungarian-medium kindergartens to Slovak-medium primary schools. In some cases, this points to shortcomings in Hungarian-medium provision at the kindergarten level.

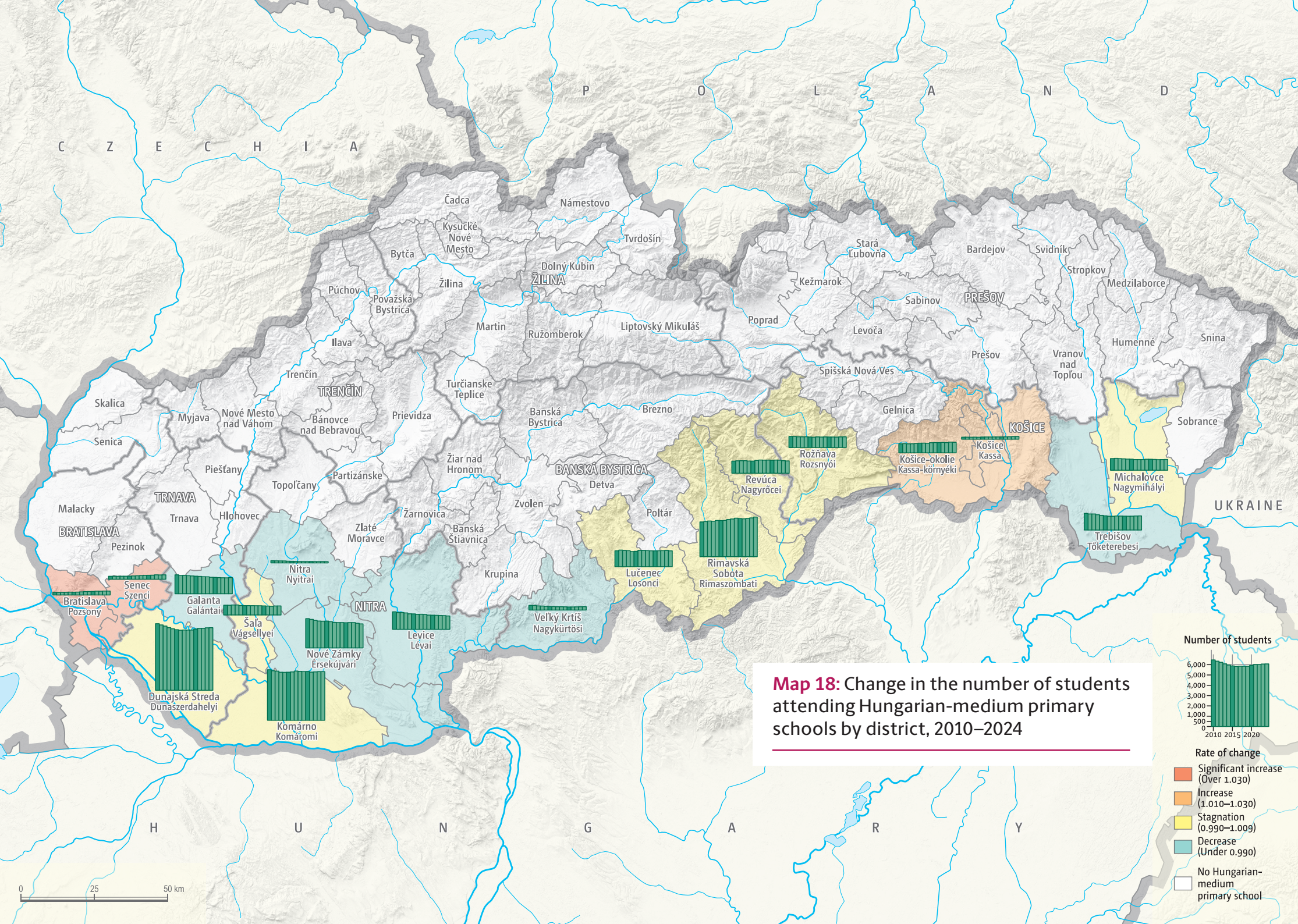
Between the 2010/11 and 2024/25 school years, the number of children attending Hungarian-medium primary schools or Hungarian-medium classes (hereafter jointly referred to as Hungarian schools) declined slightly, from 32,489 to 30,898 (a decrease of 5%). The declining trend in fact lasted only until the mid-2010s; since then, enrollments have stagnated, and in the last two school years the Hungarian primary-school

cohort has increased by roughly two hundred students relative to earlier levels (Figure 5). Despite this relatively moderate decline over one and a half decades, within Slovakia only 6% of primary-school students now attend Hungarian schools: a decrease of one percentage point over the examined period. Regional patterns in enrollment change illustrate the socio-demographic processes of Hungarians in Slovakia with particular clarity. The largest increase (>40%) occurred in the Bratislava agglomeration (Bratislava and the Senec district), which are the primary destinations of internal migration; the other major city, Košice, also stands out (30%), indicating that urban Hungarian schools have become highly attractive in recent years. In addition, a general east–west difference is observable, rooted in demographic differences: most notably the presence in southeastern Slovakia of a higher-fertility population of Roma origin. In the western part of the Hungarian-language area, the block–dispersed duality is especially decisive: in ethnic majority areas (e.g., Dunajská Streda and Komárno) the number of students attending Hungarian schools declined only slightly, while in dispersed minority areas it decreased sharply (e.g., by 40% in the Nitra district) (Map 18).

The role of urban schools is not only prominent in major cities. The number of students in Hungarian schools actually increased in urban areas (by 2%),

Figure 5: Number and share of students attending Hungarian-medium primary schools in Slovakia, 2010–2024





while it decreased substantially in villages (-10%). In several cases, the growth of urban schools occurred at the expense of rural schools (Dunajská Streda, Šaľa, Komárno, Rožňava Districts), pointing towards a polarizing school system. In some instances, however, such as the Košice-okolie District, rural school enrollment also grew despite the “draining” effect of Moldava nad Bodvou. The opposite pattern can be observed in Michalovce District: in Veľké Kapušany, the only town in the district’s Hungarian-inhabited parts, enrollment declined significantly, while it increased remarkably in villages. The attractiveness of urban schools and their student-retention effect is also reflected in the fact that the largest declines were recorded in districts where no urban Hungarian school exists (Nitra and Veľký Krtíš Districts) (Map 19).

At the settlement level, as with kindergartens, a mosaic pattern predominates; there are no extensive, contiguous zones of growth or decline (with the possible exception of the area between Nové Zámky and Lučenec Districts). This mosaic pattern also highlights that as

a result of school closures, neighboring settlements often experienced growth in their school enrollment. This is particularly striking in the Dunajská Streda and Košice-okolie districts (Map 20).

We also examined changes in the number of Hungarian school students between 2010 and 2024 through several analytical lenses in order to identify the main structural factors behind these shifts. Settlements with Hungarian schools were grouped by: (1) total population size and (2) the number of Hungarian native speakers; as well as (3) the share of Hungarian native speakers within the settlement and (4) the proportional change in the number of Hungarian native speakers between 2011 and 2021. Along these dimensions we analyzed both changes in the number of students attending Hungarian schools and, within that, changes in the number of ethnic Hungarian students.

The first two dimensions indicate that the number of students in Hungarian schools increased in the smallest and the largest settlements/Hungarian

communities, while it decreased in those in between. The growth in settlements under 1,000 inhabitants is particularly striking: greater even than in settlements with more than 10,000 inhabitants. This somewhat contradicts the earlier-described phenomenon of the exceptional attractiveness of urban schools and the regression of rural schools. However, most of these small settlements are located precisely in the eastern part of the Hungarian-inhabited area (predominantly in Gemer region), where this settlement size is dominant and the share of Hungarian Roma is high. In the small villages of Gemer, the number of Hungarian school students increased by more than 20%, whereas in small settlements in south-western Slovakia student numbers even declined slightly. The conclusion is therefore that in settlements under 1,000 inhabitants the growth is driven mainly by higher child numbers among the Hungarian population, particularly Hungarian Roma (i.e. natural increase), while in cities above 10,000 inhabitants, growth is driven by the attractiveness of urban schools in their catchment-area (Table 4).



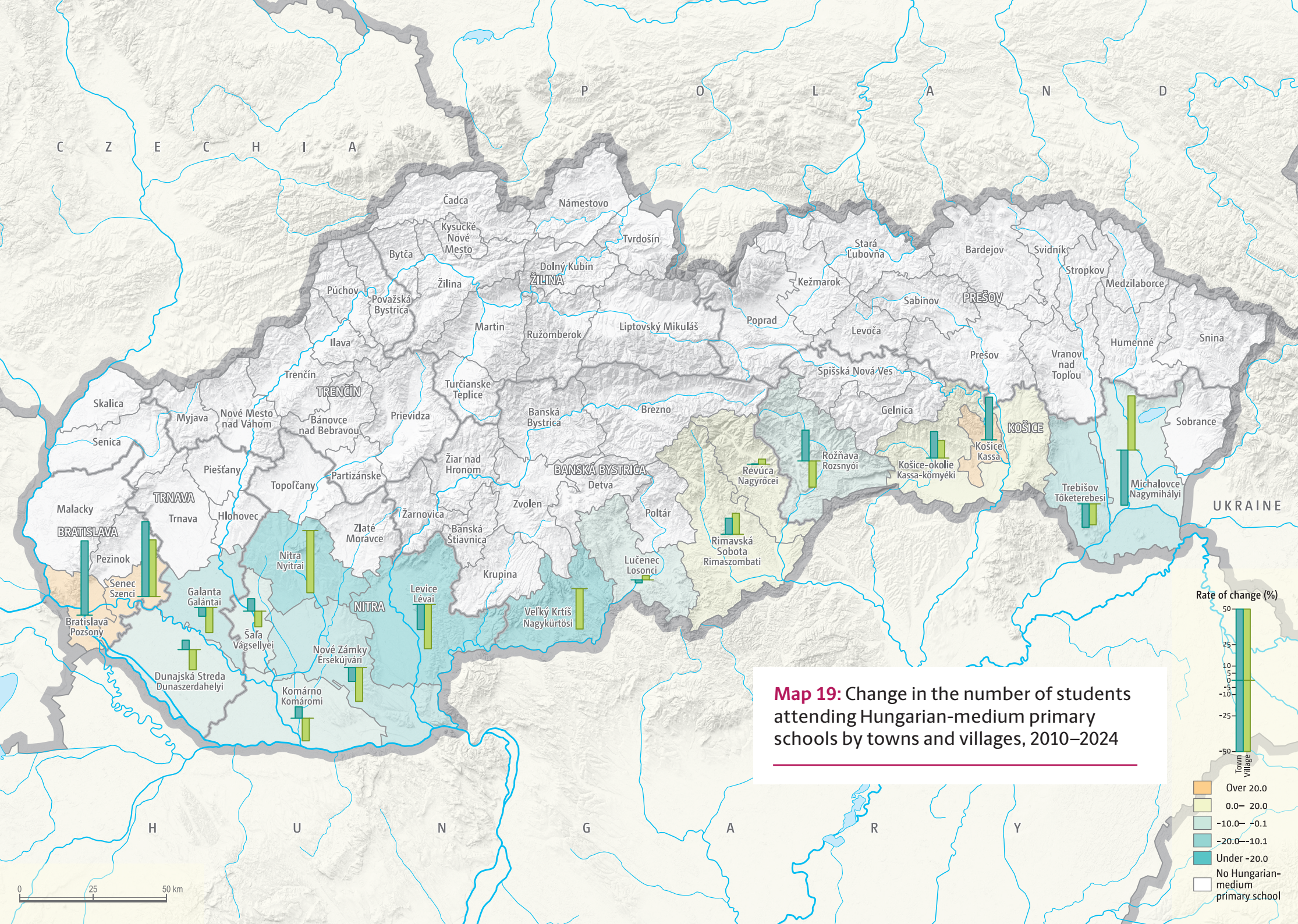


Table 4: Changes in the number of students attending Hungarian schools and the number of ethnic Hungarian students within Hungarian schools, by settlement groups defined by Hungarian native speakers and total settlement size

	Category	Number of students attending Hungarian-medium schools			Ethnic Hungarian students in Hungarian-medium schools		
		2010 (persons)	2024 (persons)	Change, 2010–2024 (2010 = 100%)	2010 (persons)	2024 (persons)	Change, 2010–2024 (2010 = 100%)
Number of people of Hungarian mother tongue, 2021	0–999	5701	5884	103.2	5251	5341	101.7
	1000–1999	7716	7018	91.0	7490	6543	87.4
	2000–4999	7178	7070	98.5	6931	6478	93.5
	5000–9999	5649	5491	97.2	5501	5109	92.9
	over 10000	3753	3961	105.5	3633	3719	102.4
Population of the municipality, 2021	0–999	3404	3765	110.6	3088	3385	109.6
	1000–1999	6063	5691	93.9	5870	5280	89.9
	2000–4999	6699	5920	88.4	6478	5599	86.4
	5000–9999	5747	5290	92.0	5608	4925	87.8
	10000–19999	2368	2710	114.4	2244	2400	107.0
	over 20000	5716	6048	105.8	5518	5601	101.5

If we examine change by settlement groups defined according to the share of Hungarians, we find that the higher the Hungarian share, the more inversely

proportional the change in student numbers, whereas the correlation is less linear when focusing specifically on ethnic Hungarian students. At first glance this is

surprising, as it is well known that between the last two censuses the higher a settlement's Hungarian share, the smaller the decline in the Hungarian population. Yet the result is in fact logical: Hungarian schools in settlements with less than 20% Hungarians are primarily found where the Hungarian community is large enough to sustain a school: these are predominantly towns; and, as noted above, student numbers increased in towns. This is especially true for Senec and Bratislava in the under-20% category, where student numbers grew by more than 50%, the largest increase among towns, and by 30% in Košice. These three settlements account for two thirds of the students in the 0–20% category shown in Table 5.

In addition to the Hungarian share, we also examined how changes in the number of Hungarian native speakers affected changes in the number of Hungarian school students. Here there is no surprise: the smaller the decline (or the larger the growth) in the number of Hungarian native speakers, the smaller the decline (or the larger the growth) in the number of students attending Hungarian schools (Table 5). This confirms the role of ethno-demographic processes in shaping student numbers.

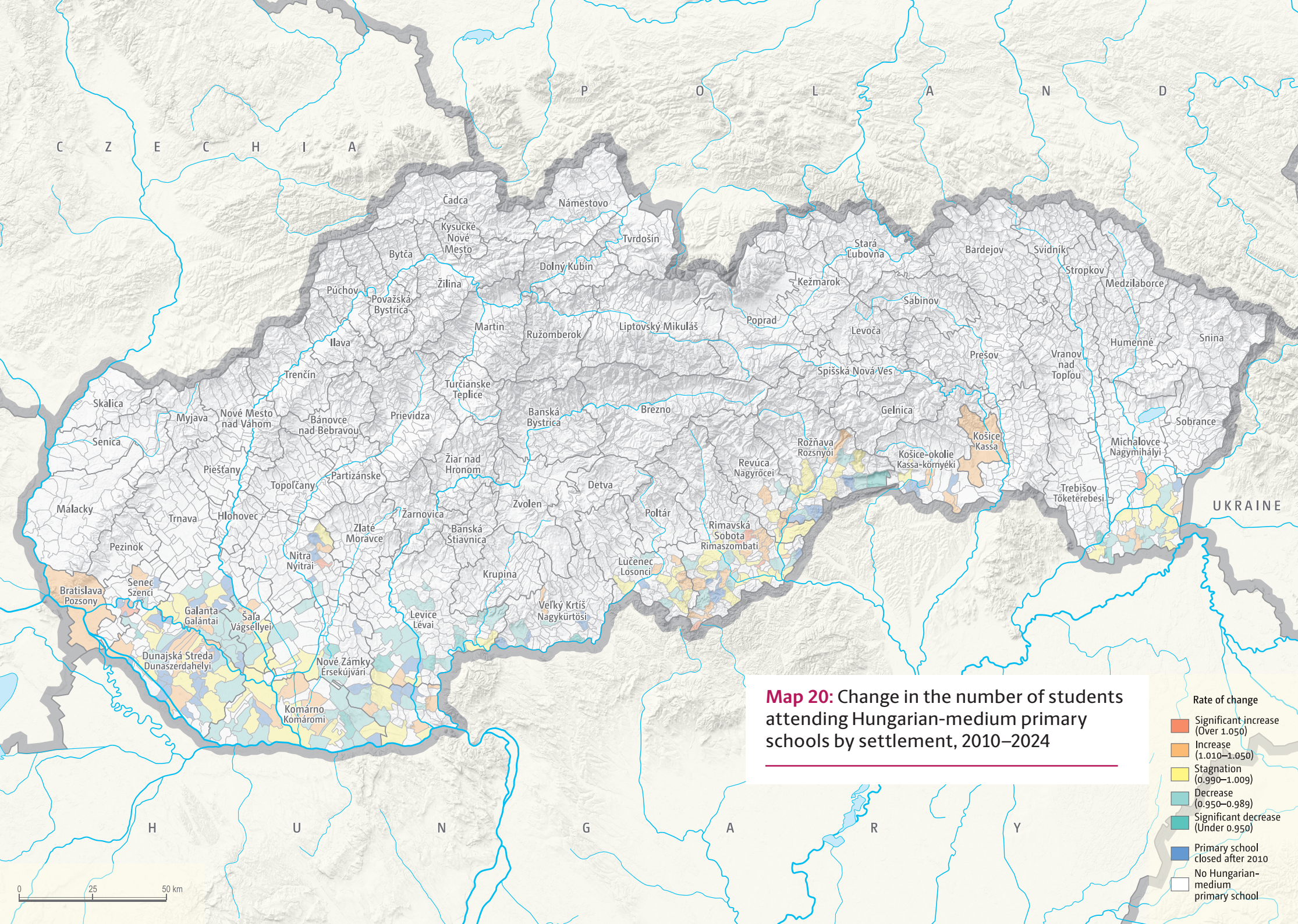


Table 5: Change in Hungarian school enrolment by settlement groups defined by the share and change of Hungarian native speakers

	Category	Number of students attending Hungarian-medium schools			Ethnic Hungarian students in Hungarian-medium schools		
		2010 (persons)	2024 (persons)	Change, 2010–2024 (2010 = 100%)	2010 (persons)	2024 (persons)	Change, 2010–2024 (2010 = 100%)
Proportion of people of Hungarian mother tongue, 2021 (%)	0–20	1168	1342	114.9	1078	1088	100.9
	20–40	2377	2484	104.5	2217	2303	103.9
	40–60	2990	3088	103.3	2854	2604	91.2
	60–80	10460	9787	93.6	9945	9148	92.0
	80–100	13002	12723	97.9	12712	12047	94.8
Change in the number of people of Hungarian mother tongue, 2011–2021 (2011 = 100%)	0–80	1520	1363	89.7	1397	1121	80.2
	80–90	7789	6780	87.0	7405	6021	81.3
	90–100	16369	16499	100.8	15944	15542	97.5
	100–110	3408	3603	105.7	3174	3404	107.2
	over 110	911	1179	129.4	886	1102	124.4

Beyond these dimensions, we also examined the impact of the settlement-level share of Roma on student number change in rural Hungarian primary

schools. Since census figures for the Roma population fall short of local perceptions, we used the values from the Atlas of Roma Communities in Slovakia

as a baseline. The comparison makes clear what the main factor is behind student growth in certain small settlements: the higher the estimated share of Roma in a rural settlement, the more student numbers increased between 2010 and 2024 (Table 6). However, an important additional point concerns the internal diversity of Roma communities, including linguistic differences.

The Atlas of Roma Communities specifies, for surveyed settlements, the primary language used within the Roma community. Results clearly show that there is a major difference in the change of student numbers in Hungarian schools depending on the primary language of Roma in a given village: Hungarian (+12%), Slovak (–6%), or Romani (–17%). It must be emphasized that these are not direct causal correlations, since the model does not control for the share of Roma in the settlement, but it does appear clear that growth in Hungarian school student numbers is primarily supported by Hungarian-speaking Roma, and that tools for integrating other minority-language groups (most notably Roma) seem to be lacking.

Table 6: Number of students in rural Hungarian-medium schools by estimated local Roma share, 2010–2024

Proportion of Roma (%)	Students in Hungarian-medium schools, 2010 (persons)	Students in Hungarian-medium schools, 2024 (persons)	Change in the number of students attending Hungarian-medium schools, 2010–2024 (2010 = 100%)
50–100	2426	2590	106.8
25–50	2910	3116	107.1
10–25	1698	1661	97.8
1–10	727	682	93.8
below 1*	8773	7748	88.3

*Not included in the Atlas of Roma Communities in Slovakia (2019)

Overall, changes in primary school student numbers display patterns similar to those observed for kindergartens, but they align more closely with demographic processes and are less shaped by institutional factors. In the background, block–dispersed, urban–rural and Roma–non-Roma differences interact and operate simultaneously.

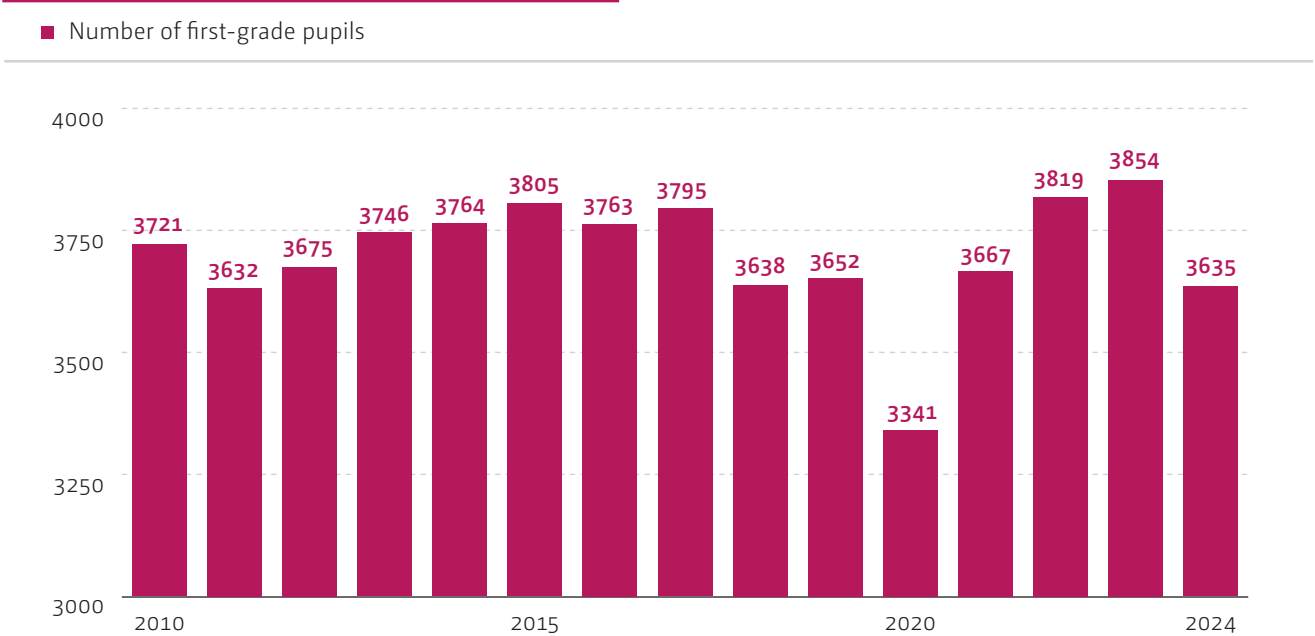
First-grade pupils

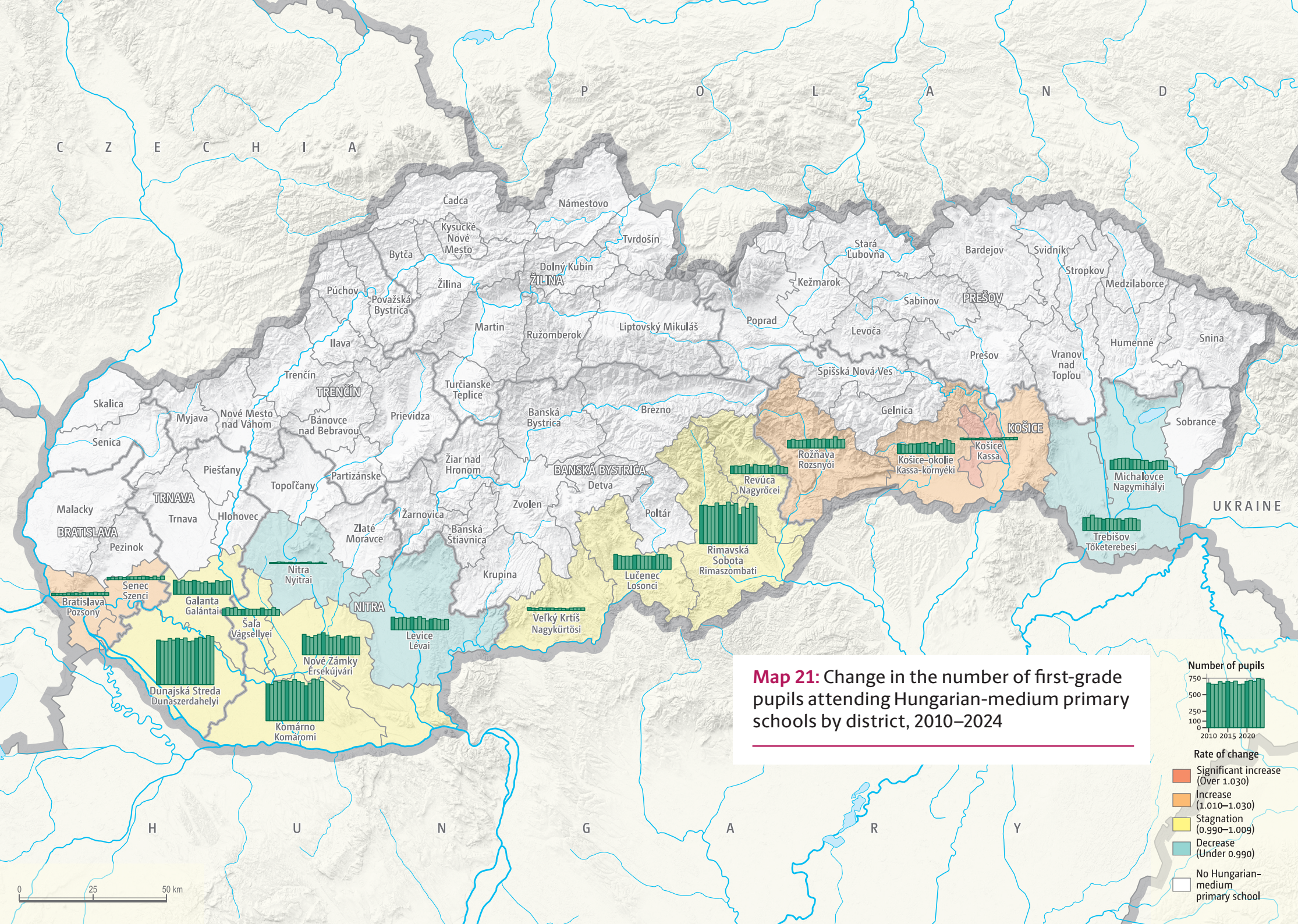
The current dynamics of Hungarian-medium primary education (and near-future trends) can best be tracked through changes in the number of first-graders. Between 2010/11 and 2024/25, their number declined by around 2% (from 3,721 to 3,635). This decline, however, occurred with substantial fluctuations. In the 2010s, first-grade numbers mostly stagnated, and then significantly dropped in the first year of Covid, followed by a notable increase likely driven by delayed

enrollments due to Covid. After 2023, a decline is again evident, now in line with demographic trends and falling birth numbers (Figure 6).

The territorial pattern of change resembles that of the overall primary-school cohort, although some differences are also visible for first-graders. In addition to the largest increases occurring primarily where total Hungarian primary enrollment also grew, i.e. the growing attractiveness of the two major cities and their agglomerations, the Hungarian-majority

Figure 6: Number of first-grade pupils attending Hungarian-medium primary schools in Slovakia, 2010–2024





districts of Dunajská Streda and Komárno show more favorable values than when considering the entire primary-school cohort. Interestingly, in the eastern districts with a high share of Hungarian Roma, first-grade numbers mostly stagnated across the period; moreover, in recent years a clear decline is visible in Revúca and Lučenec Districts. In addition to declining child numbers, the growing share of majority-language schooling also plays a role here. By contrast, first-grade numbers declined sharply in the Nitra District, characterized by particularly unfavorable demographic and educational indicators, and in districts where Hungarian fertility has traditionally been low (Levice, and to a lesser extent Nové Zámky District). Unfavourable trends also characterise Trebišov and Michalovce Districts, likely driven by similar factors as in Revúca and Lučenec Districts (Map 21).

For first-graders, the town–village divide is again visible, and the differences are slightly larger than for the overall primary-school cohort. The number of first-graders enrolling in urban schools increased by 6% between 2010 and 2024, while the corresponding figure for rural schools was -8%. At the same time, even in towns we cannot speak of universal growth: outside the two major urban agglomerations, first-grade numbers in urban schools increased mainly in Hungarian

majority areas (and in Galanta District). Among rural schools, positive change was observed only in Senec District, fueled by suburbanization and agglomeration, along with Michalovce, Rožňava and Dunajská Streda Districts (Map 22). The sharpest declines occurred where demographic trends were unfavorable, especially near the Slovak–Hungarian language boundary and in low-fertility areas (most notably Nitra, Levice and Nové Zámky Districts).

Special schools

Nearly 5% of students studying in Hungarian attend special schools or special classes within primary schools. These classes are designed for students with special educational needs who face social, health-related, etc. disadvantages (and the resulting learning difficulties, disabilities, or other developmental needs), and thus they require additional educational support. It should be noted that in several cases ethnic segregation may also be realized through special classes. Disadvantaged Roma children are likely overrepresented in special education, although precise statistical data are not available. What we do have robust data for is a marked east–west difference in the number of students attending Hungarian-medium special schools, with an

imaginary boundary drawn between Veľký Krtíš and Lučenec Districts: aligning to the regional distribution of Roma people. In the west, 3% of the students attend special education, whereas in the east the figure exceeds 7%. This is also linked to the fact that in districts with few Hungarian students (Bratislava, Košice, Senec District, Nitra District, Veľký Krtíš District) there is no Hungarian-medium special school: these are also districts where the share of Roma students is low and, with the exception of Veľký Krtíš, the proportion of socially disadvantaged children is also low.

Between 2010 and 2024, the number of students attending special schools declined slightly, by 6%. The east–west inequality described above is clearly visible here as well. West of Lučenec District, enrollment in special classes fell by more than 20%, while in the east it increased by nearly 10%. This indicates that Hungarian public education is also split in this respect: the already more favorable western areas show improvement, while the situation is significantly worse in the east (especially east of Rimavská Sobota District) than it was in 2010. The three easternmost districts (Košice-okolie, Trebišov and Michalovce) stand out negatively: more than 10% of Hungarian primary students attend special classes there (nearly 20% in Košice-okolie District) (Table 7).

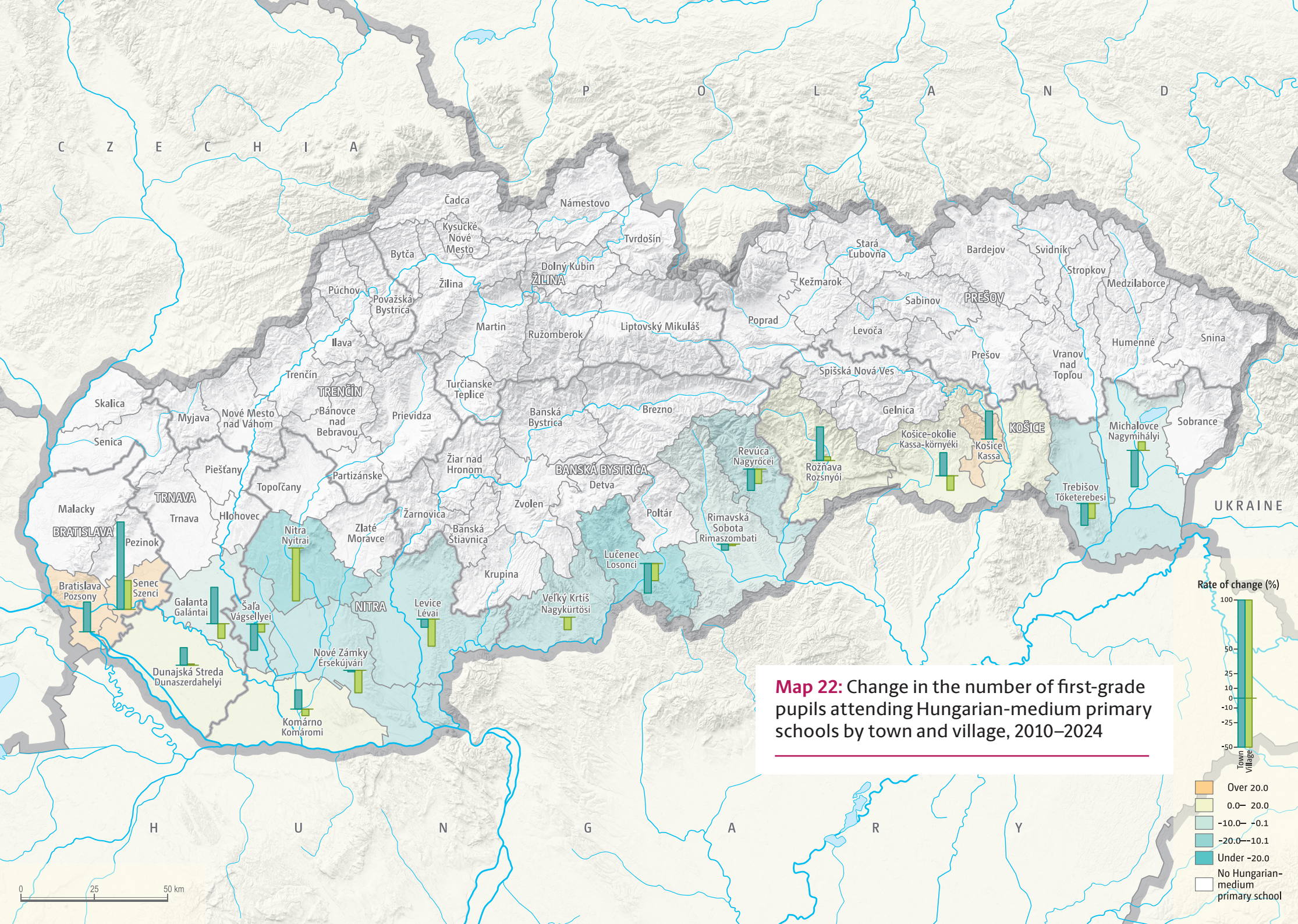


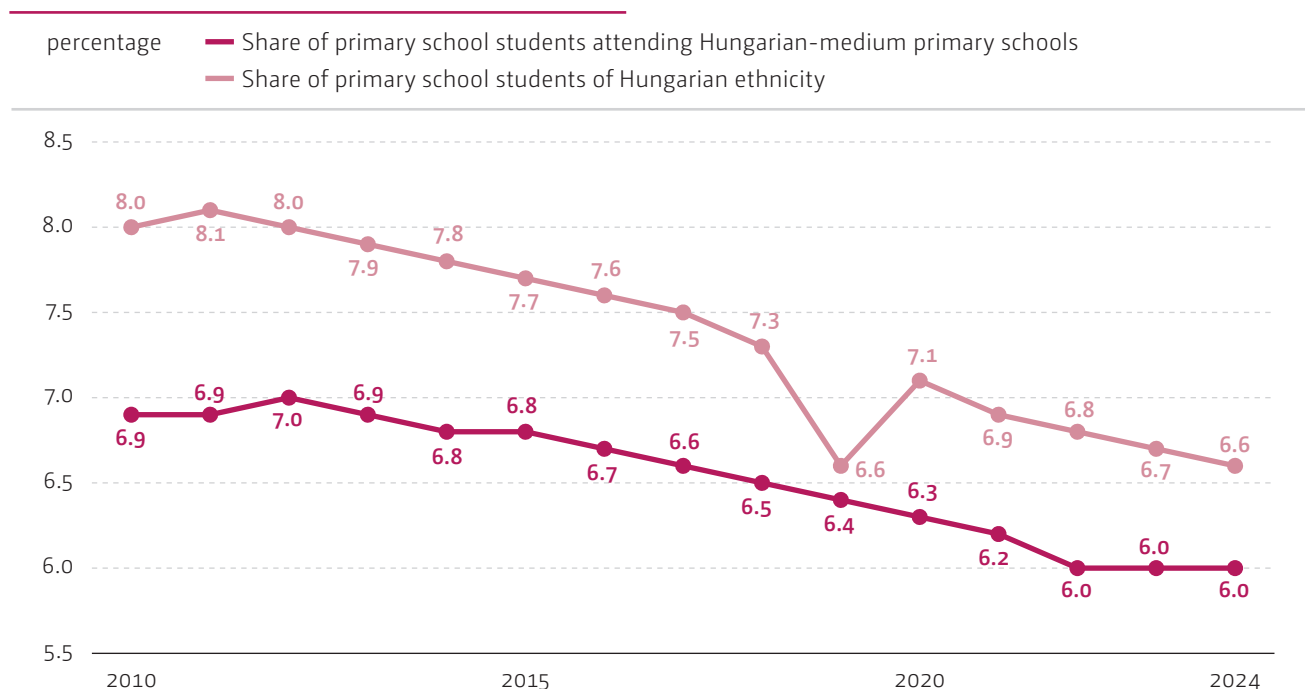
Table 7: Spatial distribution of students attending Hungarian-medium special classes, 2010–2024

District	Number of students in Hungarian-medium primary schools, 2010 (total)	Number of students in Hungarian-medium primary schools, 2024 (total)	In special classes, 2010	In special classes, 2024	Proportion of students in special classes, 2010 (%)	Proportion of students in special classes, 2024 (%)	Change in the number of students in special classes, 2010–2024 (%)
Bratislava	251	382	0	0			
Dunajská Streda	6684	6242	230	174	3.4	2.8	-24.3
Galanta	1894	1579	56	13	3	0.8	-76.8
Komárno	5216	5012	318	302	6.1	6	-5
Košice	200	260	0	0			
Košice-okolie	1025	1253	144	231	14	18.4	60.4
Levice	1747	1321	46	23	2.6	1.7	-50
Lučenec	1679	1616	130	74	7.7	4.6	-43.1
Michalovce	1240	1163	109	117	8.8	10.1	7.3
Nitra	220	124	0	0			
Nové Zámky	2929	2397	91	69	3.1	2.9	-24.2
Revúca	1210	1237	32	44	2.6	3.6	37.5
Rimavská Sobota	3632	4045	262	200	7.2	4.9	-23.7
Rožňava	1102	1073	24	38	2.2	3.5	58.3
Šaľa	957	883	6	5	0.6	0.6	-16.7
Senec	291	429	0	0			
Trebišov	1755	1576	136	205	7.7	13	50.7
Veľký Krtíš	457	327	0	0			

Ethnic composition of primary-school students

As outlined above, the number of students attending Hungarian-medium primary schools has declined slightly over the past one and a half decades. The question is how closely this trend aligns with the demographic processes of Hungarians, i.e. how the number of ethnic Hungarian students in Slovakia's primary schools has changed. National-level data show that the demographic situation is less favorable than the school indicators: between 2010 and 2024 the number of ethnic Hungarian primary-school students fell by 12%, from 37,633 to 33,204, compared to the 5% decline recorded in Hungarian schools. As a result, the national share of students attending Hungarian schools and the national share of ethnic Hungarian students have moved closer to each other; the difference narrowed from 1.1 percentage points to 0.6 percentage points between 2010 and 2024 (Figure 7). It is noteworthy that the 2021 census found far fewer (30.3 thousand) ethnic Hungarian 6–14-year-olds than the 34 thousand ethnic Hungarian students registered in the 2020/21 school year, while the latter figure corresponds closely to the census number of those children having Hungarian as their mother tongue (33.8 thousand).

Figure 7: National share of students attending Hungarian-medium primary schools and national share of ethnic Hungarian students, 2010–2024

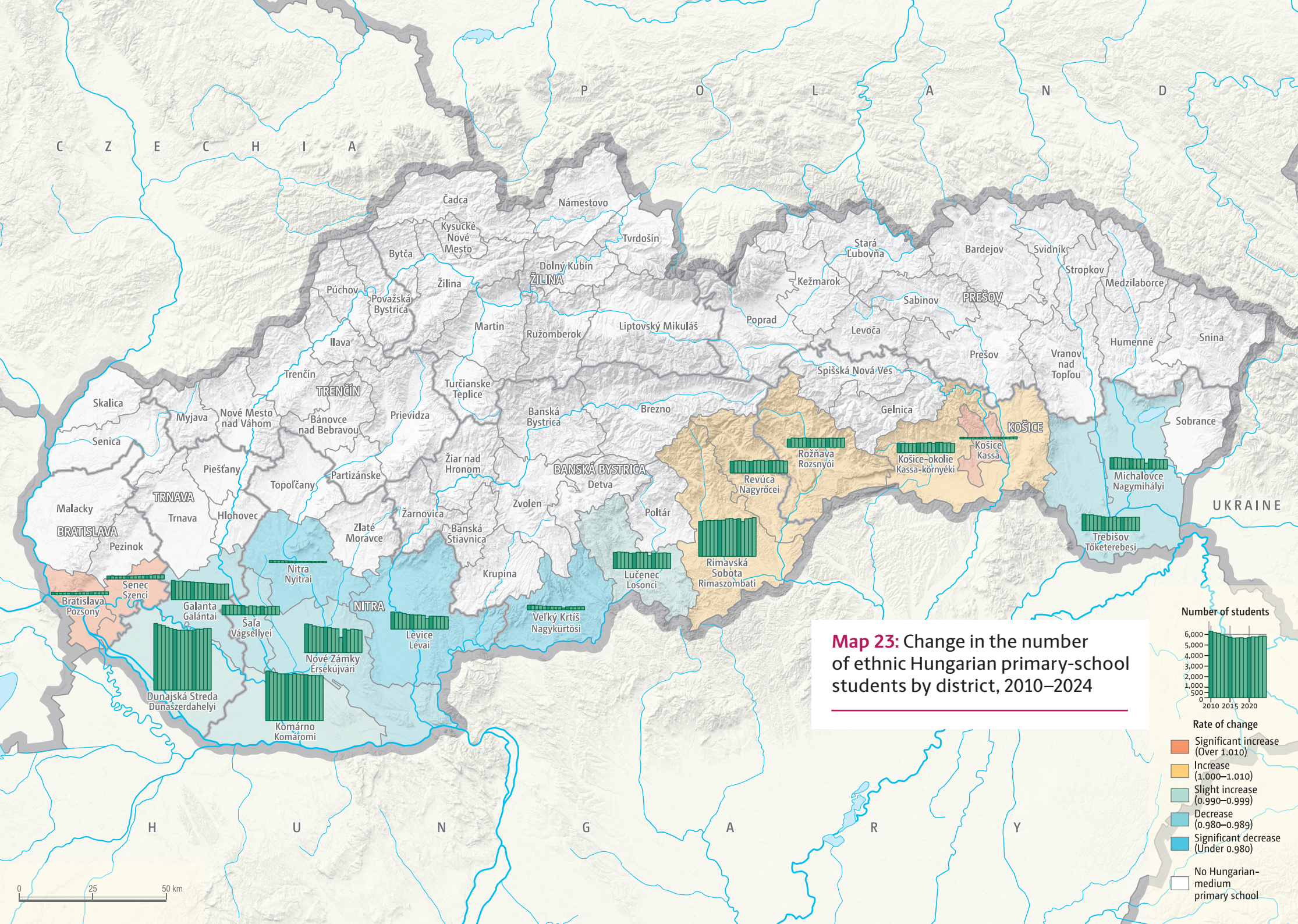


Obviously, the process unfolded unevenly, and the territorial distribution closely resembles the patterns of change in the number of students attending Hungarian schools. The reasons are largely the same: internal migration toward major cities (Bratislava, Košice) and their agglomerations somewhat reshaped the internal distribution of Hungarians within Slovakia.³⁵ Alongside migration, differences in natural increase also played a role, resulting in higher child numbers in eastern districts. Assimilation must also be considered, particularly in

dispersed Hungarian communities, leading to lower ethnic reproduction among Hungarians (i.e. fewer children of Hungarian parents are registered as Hungarian). However, it should be noted that although trends in the number of ethnic Hungarian students align with census results, in exactly those administrative units where the number of ethnic Hungarian students increased most (Senec District, Bratislava and Košice), the number of ethnic Hungarians declined between 2011 and 2021 (in Bratislava and Košice at a rate above

the national average). At the other end of the spectrum, in the most rapidly declining districts there is full consistency: Nitra, Veľký Krtíš and Levice Districts are the places where the largest declines are observed simultaneously in (1) students attending Hungarian schools, (2) ethnic Hungarian students, and (3) the census count of the Hungarian population. Rožňava District merits special mention: uniquely, trends in the number of ethnic Hungarian students are more favorable there (Map 23) than trends in the number of students attending Hungarian schools, even though the Hungarian population declined sharply between 2011 and 2021. This is most likely linked to situational ethnic identification among the Roma population and highlights the importance of methodological issues related to registration.³⁶ Significant divergences also occur in the opposite direction: for example in Michalovce District, where a stagnating school cohort is paired with declining numbers of ethnic Hungarian children, implying that an increasing number of students registered as non-Hungarian attend Hungarian schools.

Overall, analysis of the number of ethnic Hungarian students indicates that demographic processes fit the main trends of change in Hungarian student numbers quite well, although in some cases, especially in the major urban agglomerations that attract population, the processes may diverge to some extent.



The different pace of change in Hungarian school enrollment and in the number of ethnic Hungarian students (similarly to kindergartens) highlights that Hungarian-medium primary schools enroll substantial numbers of non-Hungarian children. In the 2024/25 school year, excluding foreign citizens, 6.5% (2,021 students) of those attending Hungarian schools were registered as

non-Hungarian. Three quarters of these two thousand students were registered as Slovak, and one fifth as Roma. The share of non-Hungarian students in Hungarian primary schools is therefore far lower (around one third) than in Hungarian kindergartens. This suggests that while Hungarian kindergartens enroll many children from mixed marriages who are not registered as

Hungarian, at the primary-school stage the perceived “stakes” are higher and many parents see Slovak schooling as a better path of advancement; often viewing it as more effective for acquiring Slovak language.³⁷

Non-Hungarian students appear in Hungarian schools primarily in major cities, which already suggests why Hungarian school enrollment grew most strongly precisely in those locations. This also indicates that the share of mixed families is relatively high in large cities, providing a larger recruitment base of students of non-Hungarian ethnicity for Hungarian schools. Outside major cities, the share of non-Hungarian students is higher where students registered as Roma appear (Rožňava, Michalovce and Košice-okolie Districts), mainly reflecting the nature of registration practices, since Hungarian Roma are not confined to these districts. At the other end of the scale is the “most Hungarian” district, Dunajská Streda, where the share of non-Hungarian students is only 3.1% (Map 24). Somewhat surprisingly, the Nitra District, located at the edge of the Hungarian settlement area, also shows a distinctly low value (4%), indicating that here almost only children from homogeneous Hungarian families are enrolled in Hungarian schools.

In addition to non-Hungarian students, it is also worth briefly addressing the category of foreign citizens attending Hungarian schools. Their number rose substantially

Map 24: Proportion of non-Hungarian students in Hungarian-medium primary schools, 2024/25

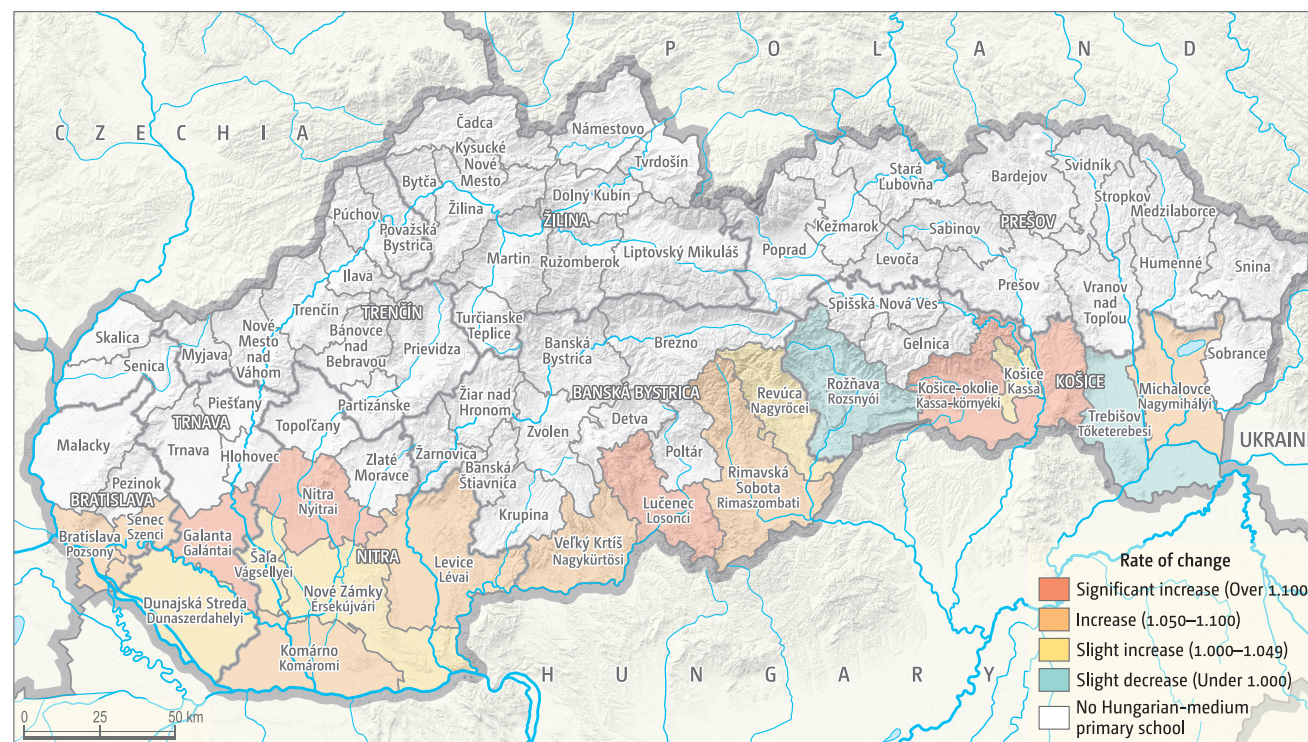


between 2010 and 2024, from 73 to 362, meaning that 1.2% of students attending Hungarian schools are now foreign citizens. Since no further information is available (citizenship, ethnicity), it can only be assumed that they are primarily Hungarian citizens. In numbers exceeding 10, they appear in the two major cities (Bratislava, Košice), in border towns (Komárno, Štúrovo), and in border-adjacent villages, where daily commuting from Hungary could explain the presence of foreign students.

The number of non-Hungarian students attending Hungarian schools increased significantly over the period: in the 2010/11 school year the figure was 1,151 (3.9%), meaning the number of non-Hungarians nearly doubled. Another major change is that whereas in 2010 only half of non-Hungarians were registered as Slovak, today three quarters are; while the number and share of those registered as Roma within Hungarian schools has declined. It would be careless, however, to conclude from this that fewer Roma attend Hungarian schools; rather, changing self-identification (or external classification) is likely the key driver. The substantial (2.5-fold) increase in the number of Slovaks points to the growing role of children from mixed marriages entering Hungarian schools.

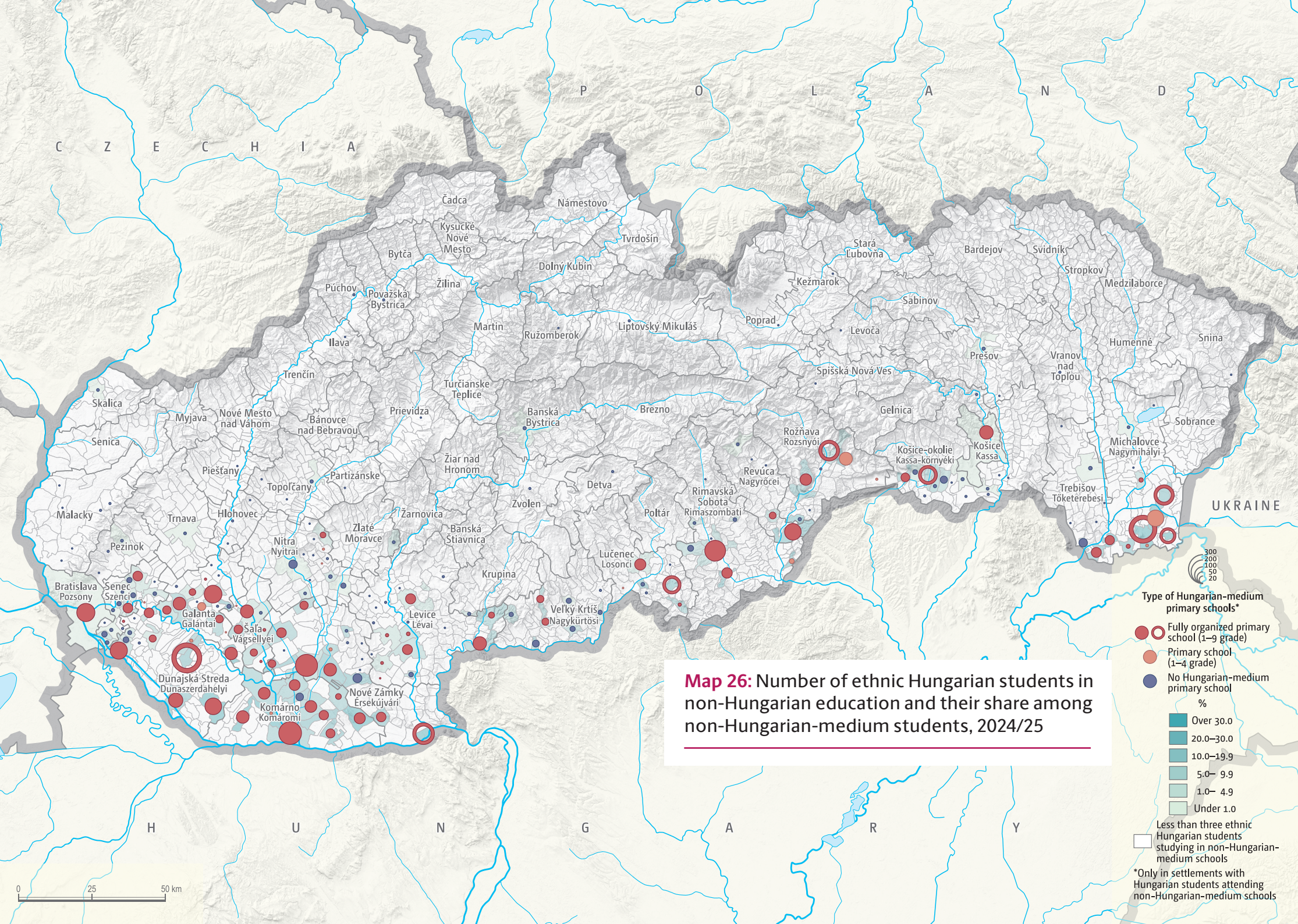
Territorial differences in change are only weakly explained by the block–dispersed or urban–rural divides

Map 25: Change in the number of non-Hungarian students attending Hungarian-medium primary classes, 2010–2024



(Map 25). Everywhere, the main effect comes from the growing number of students registered as Slovak. In eastern districts and in Komárno District, changing Roma identification (registration) also plays a role, but this meaningfully increases the number of non-Hungarians only in Komárno, Michalovce and Košice-okolie Districts. The same factor appears (although

in the opposite direction) in Rožňava District, where the significant decline of over 10% is due to the fact that 245 students were registered as Roma in 2010, but only 32 in 2023. A similar phenomenon is observed in Trebišov District, where until 2018 the number of students registered as Roma typically exceeded 100, but from 2019 onward it has been zero every year.



Overall, change in the number of non-Hungarians is therefore driven by two main processes: growth in the number of Slovaks within the Hungarian education system and the registration of children of Roma origin as non-Roma. The latter, although most likely registered as Hungarian in most cases, may in some instances also increase the number of Slovaks.

While ethnic Slovak students do not display extreme concentration in particular Hungarian primary schools, the reverse is not true. Ethnic Hungarian students are clearly distributed non-randomly across Slovak schools, at both settlement and institutional levels. Map 26 presents, at the settlement level, the number of ethnic Hungarian students studying in Slovak-medium primary education, and shows what share these students represent among students in the local Slovak school(s).

In the 2024/25 school year, 4,689 ethnic Hungarian students were registered across the nine grades of Slovak-medium primary schools. (Of these, 454 were first-graders; the average per grade is higher than this because in some cases change in the language of instruction occurs in upper grades.) Our data support the earlier observation³⁸ that ethnic Hungarian children most often choose Slovak schools in towns where Hungarian-medium education is also available. In

Dunajská Streda, 325; in Kráľovský Chlmec, 282; and in Komárno, 186 ethnic Hungarian children attended Slovak schools (Table 8). There are 27 settlements where 50 or more ethnic Hungarian students attend Slovak primary schools (a total of 3,181 children) and

where Hungarian-medium education is available without exception. In other words, relatively few ethnic Hungarian children are enrolled in Slovak schools in places where no Hungarian education exists locally (e.g. Dubník: 29, Nitra: 26 ethnic Hungarian children).

Table 8: Ethnic Hungarian students in non-Hungarian primary schools (top 10 settlements by category)

Municipality	Ethnic Hungarian students in non-Hungarian schools (persons)	Municipality	Proportion of ethnic Hungarian students attending non-Hungarian schools (%)	Municipality	Proportion of ethnic Hungarians among students attending non-Hungarian schools (%)
Dunajská Streda	325	Leles	75.8	Leles	78.2
Kráľovský Chlmec	282	Krásnohorské Podhradie	64.2	Pribenik	75.0
Komárno	186	Čebovce	47.5	Zemianska Olča	50.4
Nové Zámky	175	Čierny Brod	47.1	Kráľovský Chlmec	50.2
Štúrovo	170	Veľký Kýr	45.5	Bátorove Kosihy	41.9
Rimavská Sobota	155	Čierna nad Tisou	40.8	Veľký Meder	41.3
Rožňava	155	Kráľovský Chlmec	38.1	Trstice	40.3
Veľké Kapušany	148	Nenice	37.5	Čierna nad Tisou	37.5
Moldava nad Bodvou	129	Veľké Úľany	37.3	Somotor	36.5
Filakovo	120	Somotor	33.7	Kameničná	33.3

Although there are “only” four settlements where the absolute majority of students in Slovak-medium primary schools are ethnic Hungarian, it is clear that in some places ethnic Hungarian students are present in Slovak-medium schools in such numbers and proportions that Slovak education in practice relies substantially on ethnic Hungarian students. In two settlements (Leles and Krásnohorské Podhradie), the extent of Slovak school choice among ethnic Hungarian students is so large that a majority of Hungarian students attend non-Hungarian schools. The most extreme example is Leles, where 12 students attend the Hungarian-medium school, while 97 of the 124 students in the Slovak-medium school are ethnic Hungarian.

There are 11 settlements (typically in eastern Slovakia) where at least one third of ethnic Hungarian students choose Slovak schools despite the availability of a local Hungarian school. In these cases, Slovak school choice is partly driven by the previously mentioned “white flight” phenomenon. From the perspective of Hungarian education in Slovakia, it is crucial that this is a regional process and, even within a region, not characteristic of all settlements, so it clearly does not explain Slovak school choice in places like Dunajská Streda or Bratislava. It is also important to note that existing data refer to the settlement where the school

is located; they do not account for commuting, which may introduce inaccuracies. It is entirely possible that Slovak school choice is accompanied by a change of settlement (e.g. parents choose an urban Slovak school instead of the local Hungarian school).

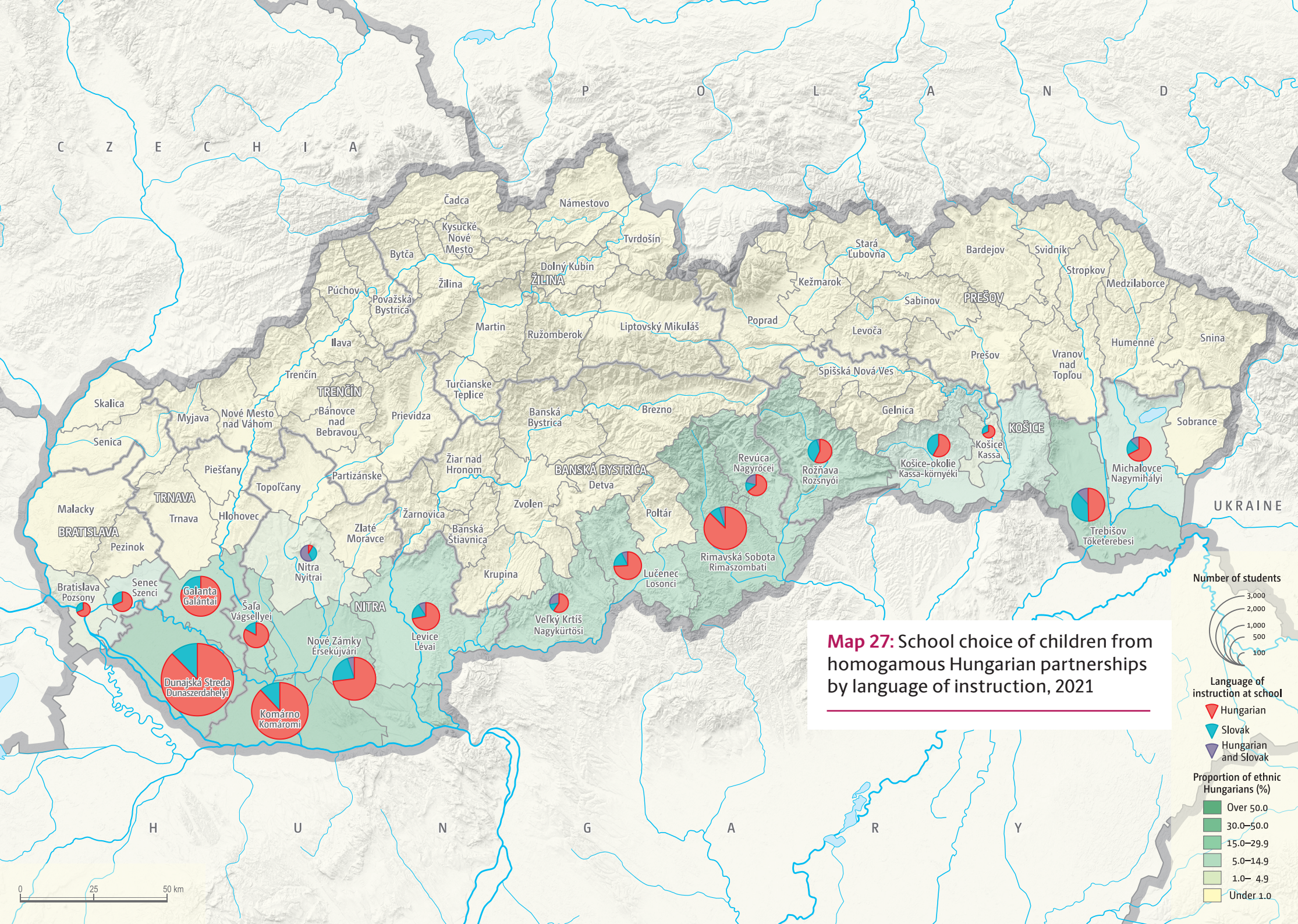
Census figures allow school choice to be analyzed not only through the child’s ethnicity, but also through the ethnicity of both parents. This is essential because most children growing up in mixed families already appear in school-enrollment statistics as Slovak by ethnicity, similarly to children raised by two Slovak parents. As a result, relying only on standard enrollment statistics leads us to underestimate the share of children of (partly) Hungarian origin within Slovak-medium education.

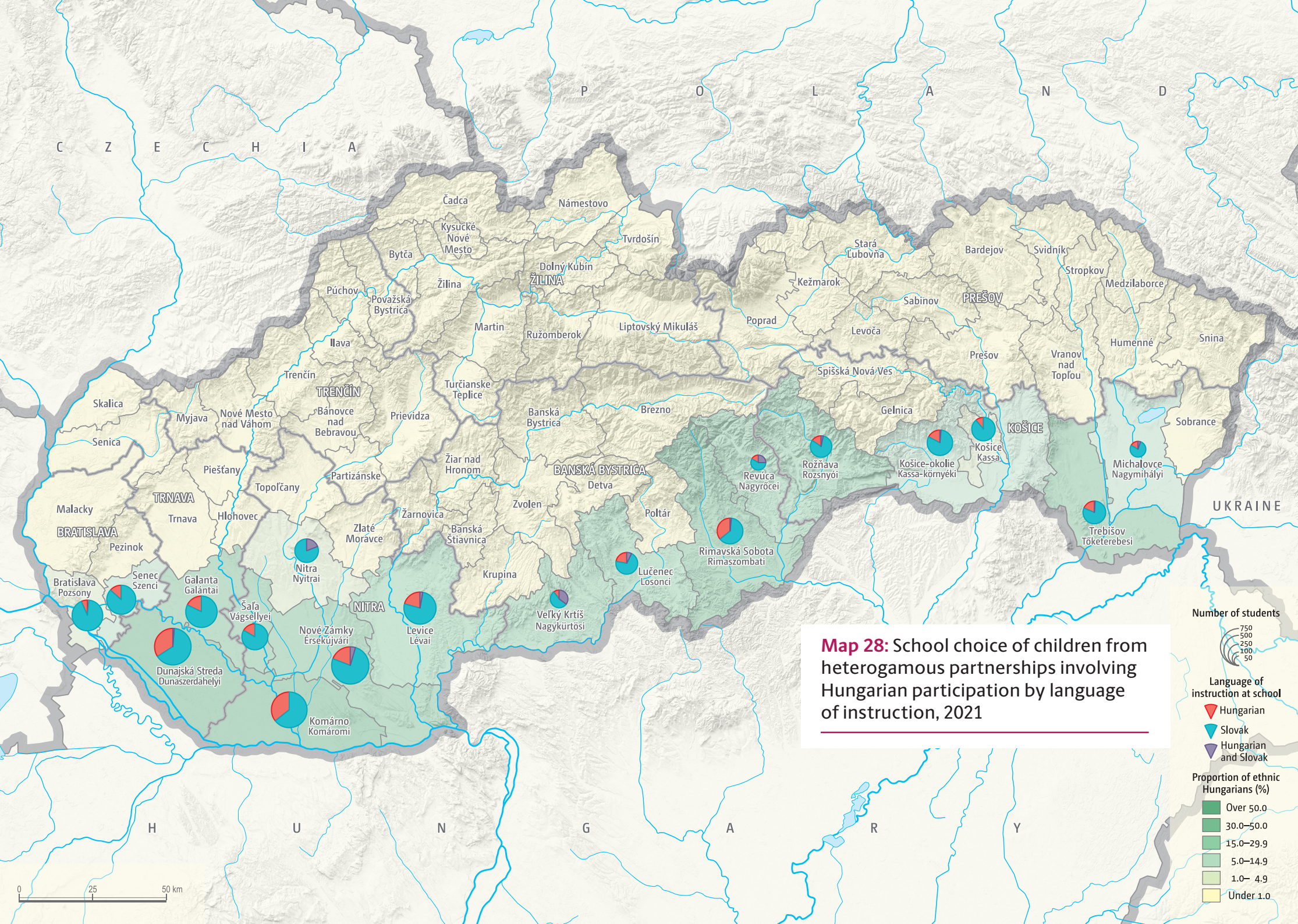
Map 27 presents, by district, the school-choice of children of homogamous Hungarian couples (both father and mother primarily ethnic Hungarian) based on the 2021 census data for primary-school-aged children, regardless of what ethnicity the parents reported for the child.³⁹ Results show that homogamous Hungarian couples enroll their children in Hungarian-medium primary schools at the highest rates (around 87%) in the Hungarian-majority districts. Choice of Slovak schools increases in districts with lower Hungarian shares in south-western Slovakia, but typically remains

below one quarter. In Bratislava, where Hungarians live as a dispersed minority, 68% of children of homogamous Hungarian couples attend Hungarian primary schools. In south-eastern Slovakia, by contrast, Slovak primary school choice among homogamous Hungarian families becomes more pronounced, with values around 40% typical east of Revúca District.

For children of Hungarian–non-Hungarian partnerships, fundamentally different proportions are registered: with the exception of the three “most Hungarian” districts, more than three quarters of such children attend Slovak schools. Even in those three districts (Dunajská Streda, Komárno, Rimavská Sobota), roughly two thirds of children from mixed families attend Slovak schools (Map 28).⁴⁰

These data suggest that outside the Hungarian-majority areas, the stable/primary target group of Hungarian education consists mainly of children growing up in homogamous Hungarian families. Due to the prevalence of mixed marriages,⁴¹ this group is substantially smaller than the number of children born to Hungarian native-speaking/ethnic Hungarian women. According to the census database, for example, 12,603 primary-school-aged children living in homogamous Hungarian families correspond to 7,816 primary-school-aged children living in mixed, partly





Hungarian families. Per grade this represents roughly 800–900 children, of whom about 650–700 may enter Slovak schools: typically children who already appear in enrollment statistics as Slovak by ethnicity. Accordingly, the recruitment base of Slovak-medium education in southern Slovakia is far more heterogeneous than that of Hungarian-medium education. It draws simultaneously on children from homogenous Slovak families, on children born into homogenous Hungarian families who are registered as Hungarian at school entry, and on children born into the above-mentioned mixed families.

Hungarian enrollment rates in primary education

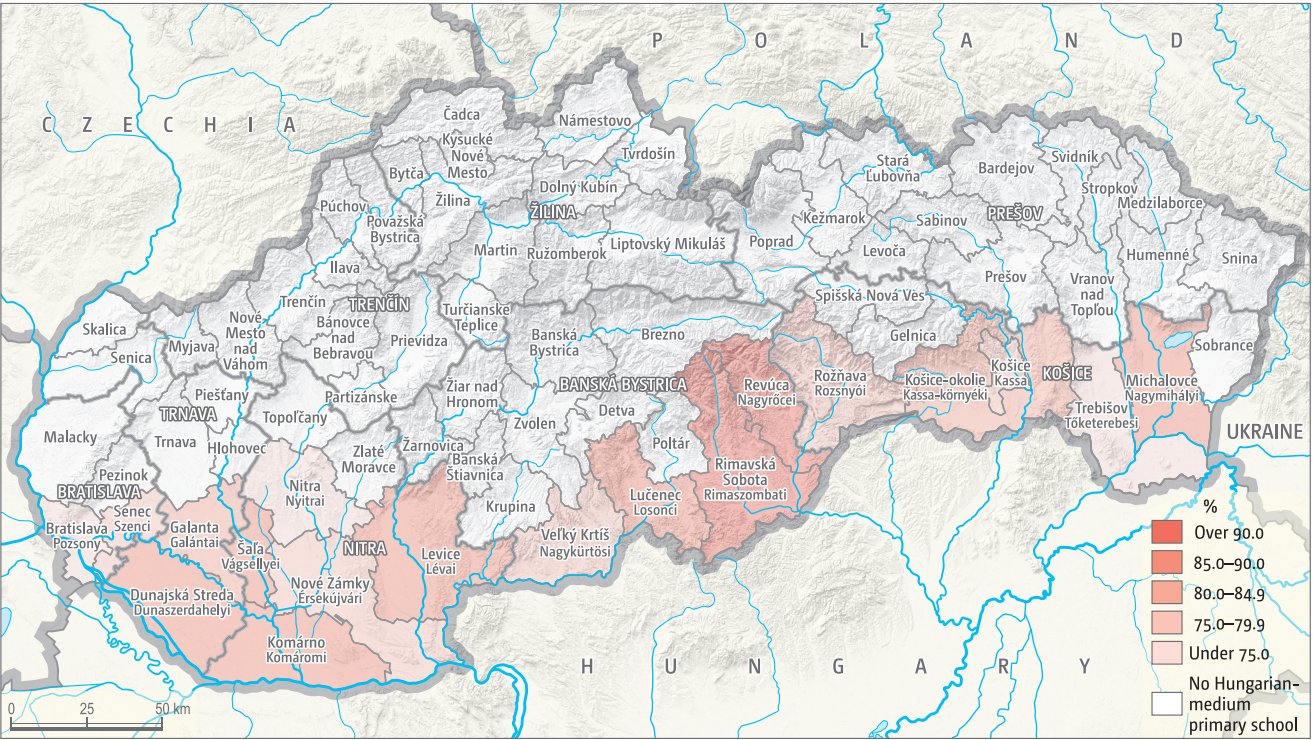
We have seen above that the number of ethnic Hungarian students exceeds the number attending Hungarian schools; moreover, many students in Hungarian schools are registered as non-Hungarian, and some ethnic Hungarians attend non-Hungarian schools. This raises the question: what share of ethnic Hungarians attends Hungarian schools? In the 2024/25 school year, 28,515 ethnic Hungarian children attended Hungarian-medium primary schools, while 4,689 attended other schools. Overall, therefore, out of 1,000 students registered as ethnic Hungarian, 859 attended Hungarian-medium primary education.

The Hungarian enrollment rate is shaped largely by the block–dispersed divide, and, importantly, the presence of Hungarian native-speaking Roma.

The most favorable enrollment rates are found precisely in those districts where the share of Roma with in the Hungarian population is highest (Rimavská Sobota: 947, Revúca: 903, Lučenec 896), followed by

Hungarian-majority districts (Dunajská Streda: 898, Komárno: 893). This is not coincidental: the compactness of the ethnic settlement area and the high share of Hungarians both support adequate institutional provision and reduce the prevalence of mixed marriages; moreover, within mixed families children are more often registered as Hungarian in these areas.⁴² At the other end of the scale is, once again, Nitra District

Map 29: Proportion of ethnic Hungarian students attending Hungarian primary schools, 2024/25



(661), where one third of ethnic Hungarian children attend non-Hungarian schools and the Hungarian institutional network is therefore continuously shrinking. The value is also low in Trebišov District (693), which is surprising given its ethnic structure, especially since the comparable Michalovce District stands at 873 (Map 29). This anomaly may be explained by large-scale language-of-instruction shift driven by ethnic segregation and/or local institutional factors. Overall, however, Hungarian enrollment rates broadly align with the district-level share of Hungarians and the compactness of the ethnic structure; the block-dispersed continuum is thus the primary determinant.

The enrollment rate has shown an upward trend over the past 15 years. While in the 2010/11 school year 830 out of 1,000 ethnic Hungarian students attended Hungarian-medium primary schools, today this figure has risen to 859. Rising values can be traced to two main factors. First, the share of Hungarian dispersed regions within the overall Hungarian community in Slovakia has gradually declined, and these are precisely the regions where ethnic Hungarian children entered Hungarian schools at lower rates (Table 9). Second, the dynamically growing number of Hungarian native-speaking Roma attending Hungarian-medium schooling (especially in the Gemer region) also improves the rates significantly.

Table 9: Distribution of ethnic Hungarians, Hungarian native speakers, and those enrolled in Hungarian-medium primary education by district (%)

District	Distribution of ethnic Hungarians		Distribution of people of Hungarian mother tongue		Distribution of Hungarians aged 5–14		Distribution of births to Hungarian mothers		Distribution of students attending Hungarian-medium primary schools		Distribution of ethnic Hungarian students attending primary schools	
	2011	2021	2011	2021	2011	2021	2011–2015	2016–2020	2010	2024	2010	2024
Bratislava	3.1	2.7	3	2.6	0.8	1.3	2.2	2	0.8	1.2	0.9	1.2
Dunajská Streda	19.3	20.5	18	19.2	20.1	20.9	19.9	21.3	20.9	20.2	20.1	20.6
Galanta	7.2	7.1	6.6	6.6	7.1	6.3	5.9	6.4	5.9	5.1	6.4	5.7
Komárno	14.6	14.9	14	14.4	15.1	14.8	15.8	16.4	15.8	16.2	15	15
Košice	1.4	1.4	1.7	1.7	0.6	0.8	0.8	0.6	0.6	0.8	0.6	0.8
Košice-okolie	2.6	2.5	3.4	3.2	2.6	2.8	2.5	1.6	2.9	4.1	2.9	3.4
Levice	6.2	5.6	6	5.4	5.5	4.2	4.3	3.8	5.5	4.3	5.4	4.3
Lučenec	3.8	4	3.9	4.1	4.6	4.9	4.7	4.4	5	5.2	5.1	5.1
Michalovce	2.7	2.7	2.8	2.9	3.4	3.7	3.6	3.3	3.7	3.8	3.7	3.3
Nitra	2	1.6	2.1	1.6	1.7	0.8	1.1	0.9	0.7	0.4	0.9	0.6
Nové Zámky	10.7	10.6	10.4	10.2	9.4	8.7	8.4	8.4	9.2	7.8	9.7	8.4
Revúca	1.7	1.8	1.8	1.8	2	2.4	2.1	2.3	3.8	4	3.5	4
Rimavská Sobota	6.7	7.7	7.1	7.9	9.9	12.9	12.6	13.4	10.9	13.1	10.1	12.3
Rožňava	3.6	3.3	3.5	3.3	3.3	2.7	3.1	2.9	3.5	3.5	3.3	3.6
Šaľa	3.7	3.5	3.4	3.2	3.2	2.8	3.1	2.9	3.1	2.9	3.1	2.9
Senec	2	2.1	1.9	1.9	1.3	1.6	1.8	1.7	0.9	1.4	1.2	1.7
Trebišov	6.2	6	6.4	6.4	7.6	7	6.2	5.6	5.2	5.1	6.5	5.9
Veľký Krtíš	2.4	2.2	2.5	2.3	1.9	1.5	1.3	1.4	1.5	1.1	1.7	1.2
<i>Slovakia total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

At the district level, clear regularities in change do not emerge, although it is evident that the largest increases occurred where baseline values were low: Rožňava and Senec Districts (+10 percentage points each), and Bratislava (+8 percentage points). However, low baseline values did not necessarily imply significant growth: the Trebišov District increased by only 2 percentage points. Moreover, in two places the enrollment indicator declined: in Nitra District and in Košice (by 1.5 and 3.7 percentage points), likely linked to the low share of Hungarians and the increasing prevalence of ethnic mixing.⁴³ In fact, the typical educational path from mixed families leads toward Slovak schools. Obviously, the growth is smaller in districts where values were already relatively high, such as Hungarian-majority Dunajská Streda and Komárno Districts (Map 30).

However, enrollment statistics are retrospective data and cannot be used for forward planning of the primary education system. They do, nonetheless, allow birth-ethnicity statistics to be compared with enrollment-ethnicity statistics six years later, broken down by language of instruction, also taking into account census-based native-language data (see Figure 8). Of course, this comparison is not at the individual level and is not fully precise (not everyone enters school at age six; school cohorts do not correspond exactly to

calendar years, etc.), but averaging across several cohorts/school years appears useful.

For south-western Slovak districts (Bratislava plus seven districts), the data resemble a “traditional” minority community education system. Annual birth numbers correspond fairly well to enrollment numbers (average 2,107 vs. 2,059 ethnic Hungarian children). About one eighth

(12%) of ethnic Hungarian children, however, appear in Slovak-medium rather than Hungarian-medium education. This “loss” is only partially compensated by around 163 children per year who appear in Hungarian education as non-Hungarian by ethnicity. About two third of this compensating group consists of ethnic Slovak children distributed relatively evenly across classes (typically one or two per class) presumably from mixed marriages.

Map 30: Change in the Hungarian primary school enrollment rate, 2010–2024

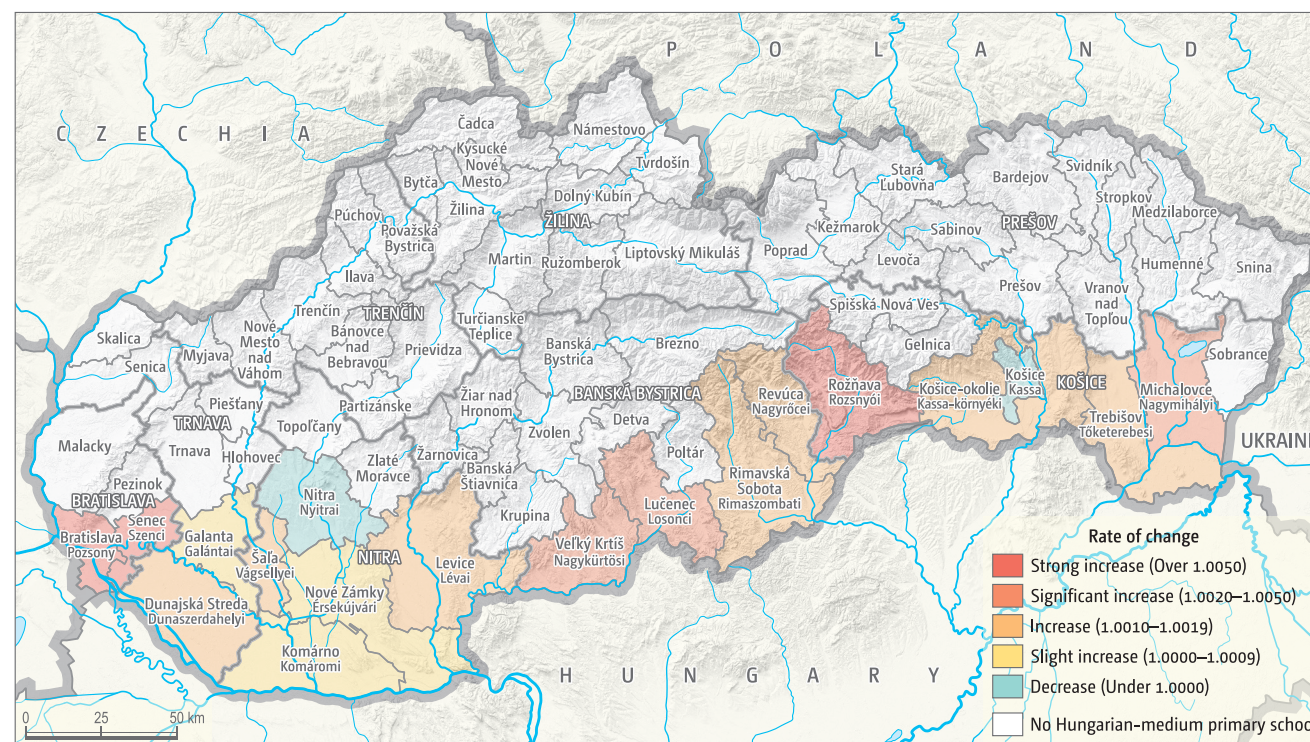
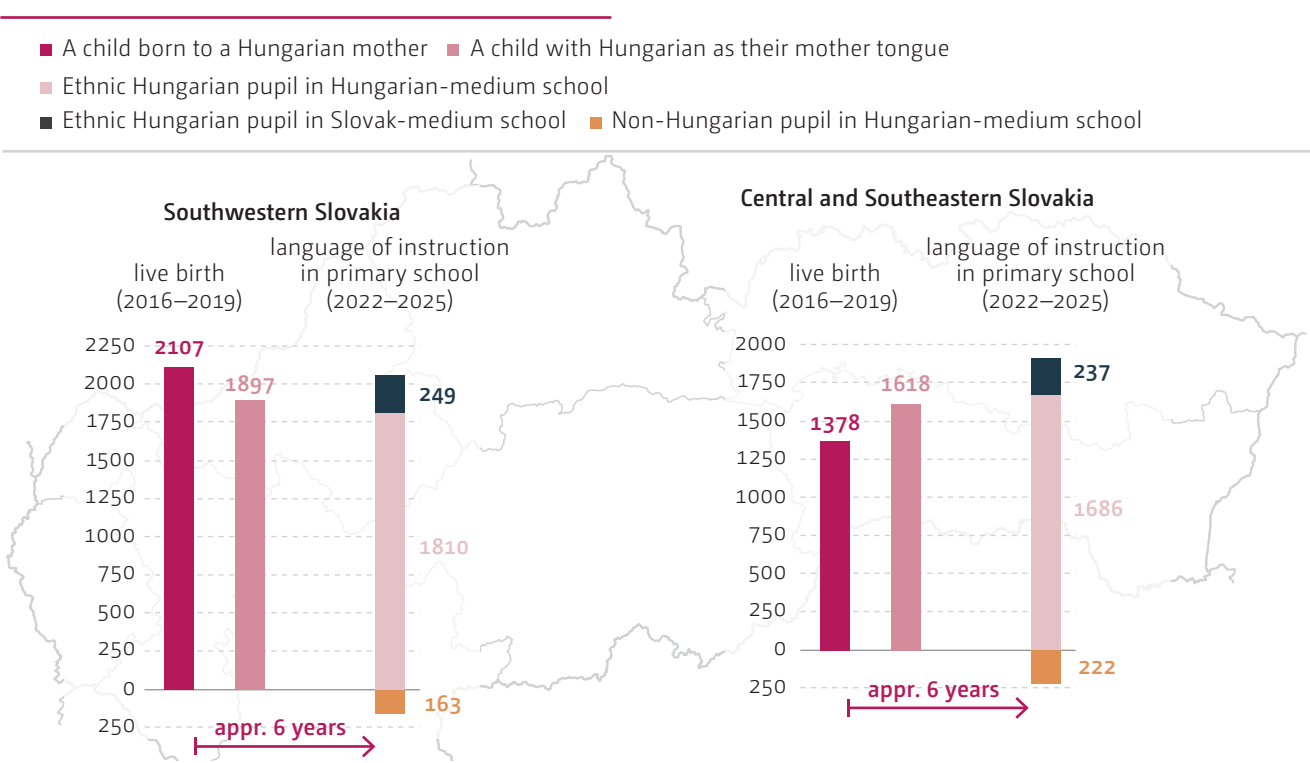


Figure 8: Enrollment numbers relative to Hungarian birth numbers in two regions of Slovakia



Beyond this, in Hurbanovo and Kolárovo, larger numbers of Roma-registered children appear in Hungarian school statistics in one primary school each.

In central and eastern Slovakia, different dynamics are observed. Relative to the number of births to ethnic Hungarian mothers, substantially more ethnic Hungarian children appear six years later in Hungarian public education. The surplus exceeds 500 children

per year: 40% in proportional terms. If, instead of maternal ethnicity at birth, we compare to census native-language data, the surplus still exists but is smaller (300 children, 19%). This statistical surplus does not mean that language switching toward Slovak schooling does not exist. On the contrary, relative to birth numbers, 17% of ethnic Hungarian students appear in Slovak-medium education in the region, higher than in south-western Slovakia. However, there are also more

first-graders of non-Hungarian ethnicity studying in Hungarian, who can compensate for more than 90% of the former group. Crucially, they are typically registered as ethnic Slovak students, similarly to western regions. Interestingly, despite local perceptions that up to half of Hungarian-medium first-graders in the region may be of Roma origin, Roma students appear in larger numbers in statistics in only two Hungarian schools (in Moldava nad Bodvou and in Veľké Slemence).

If we compare birth statistics by district with the number of ethnic Hungarian first-graders studying in Hungarian six years later (Map 31), results are logical and coherent in south-western Slovakia, while elsewhere we observe inconsistent outcomes. In the two traditionally Hungarian-majority districts (Dunajská Streda and Komárno), for every ten ethnic Hungarian births, roughly nine ethnic Hungarian first-graders studying in Hungarian appear six years later. In other districts with significant Hungarian communities (Galanta, Nové Zámky, Šaľa), this value is around eight, while in dispersed settings (Bratislava, Senec District, Nitra District) it is remarkably lower: in Bratislava four, and in Nitra District three first-graders per ten ethnic Hungarian births.

This raises the possibility that, just as overall birth numbers can support planning of future enrollment, ethnic birth numbers might help forecast future enrollment

in minority education. Our results indicate that in western Slovakia birth statistics can at most serve as an upper bound for predicting the potential maximum of ethnic Hungarian student numbers later appearing in Hungarian education, and they also highlight a proportional correlation between ethnic share and the attractiveness of Hungarian education.

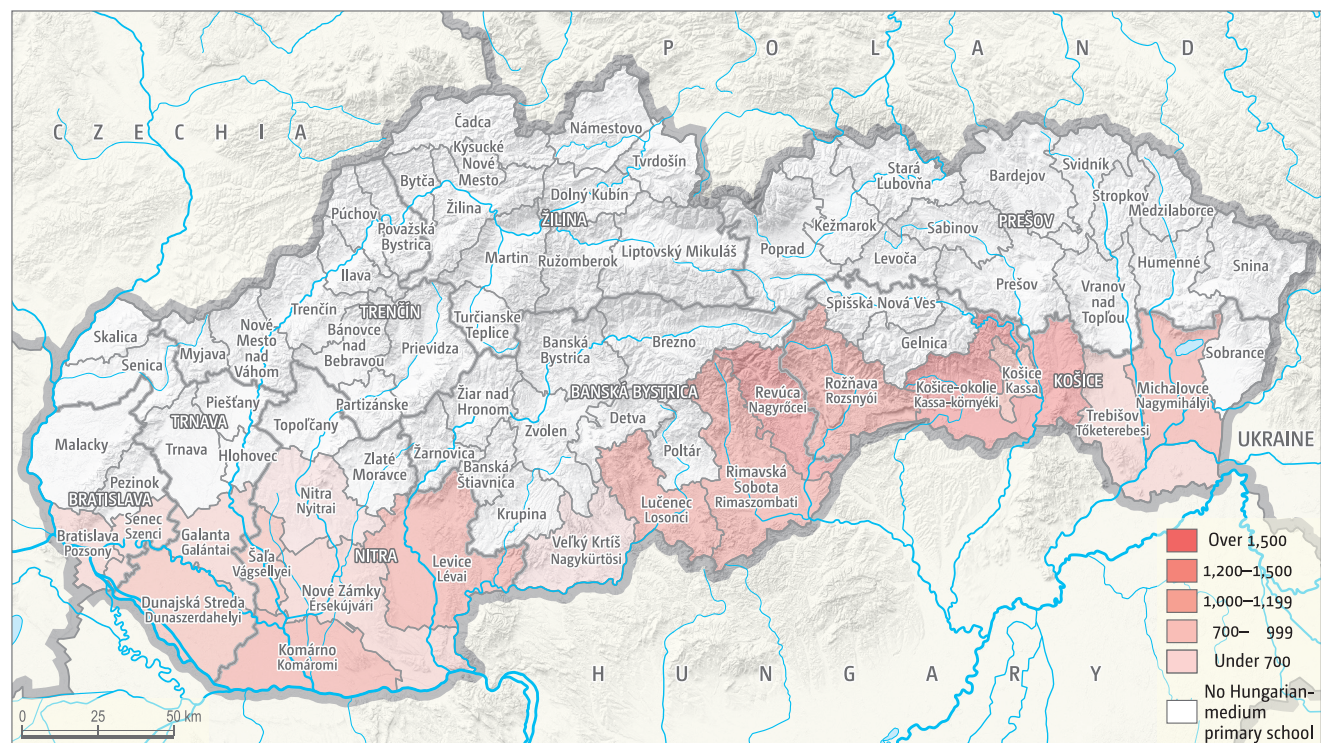
For the rest of the country, where a non-negligible share of Hungarian children are born, this does not apply. The number of ethnic Hungarian births shows little correlation with the number of ethnic Hungarian first-graders later enrolled in Hungarian education; in many districts more ethnic Hungarian first-graders are enrolled in Hungarian classes than the number of

children born to ethnic Hungarian women six years earlier. In some cases, ethnic Hungarian birth numbers fluctuate extremely from year to year, yet this volatility does not appear in enrollment statistics. In these areas, the future number of Hungarian first-graders is therefore difficult to estimate from ethnic birth statistics; kindergarten statistics may be more suitable for forecasting Hungarian education's child numbers a few years ahead.

Map 31: Number of ethnic Hungarian first-graders later enrolled in Hungarian education per 1,000 births to ethnic Hungarian mother



Map 32: Number of Hungarian-medium first-graders per 1,000 ethnic Hungarian children



The census database also provides the number of ethnic Hungarian children in the relevant age group, which can likewise be compared with subsequent enrollment data. Map 32 compares the average annual number of ethnic Hungarian children born in 2016–2019 (as recorded in the 2021 census) with

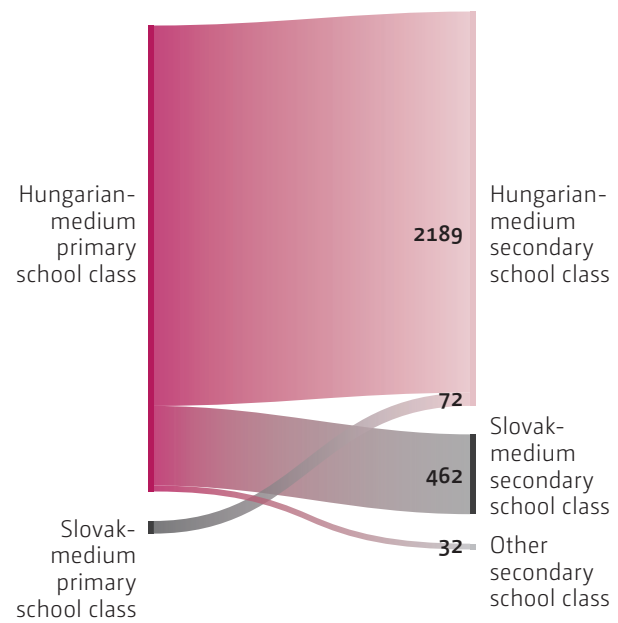
the average number of ethnic Hungarian first-graders in the 2022–25 school years. The inconsistency observed for birth statistics is present here as well; therefore, the census dataset does not provide meaningful help for planning enrollment numbers either.

Transition from primary to secondary education

Unlike the kindergarten–school transition, the move from primary (ISCED2) to secondary (ISCED3) education can result in exit from Hungarian-medium education through three mechanisms: non-continuation of education, language-of-instruction switching, and studying abroad.

In the 2023/24 school year, 2,830 students started Grade 9 in Hungarian-medium primary schools; in 2024/25, 2,683 of them continued their studies in some secondary school in Slovakia. However, 18% chose Slovak-medium secondary education (Figure 9). The reasons vary; among the most important are the local unavailability of Hungarian-medium secondary options and the absence of certain study tracks in Hungarian. Unlike at the kindergarten–school transition, enrolling in Hungarian secondary school from Slovak primary school is not typical at this stage, indicating that at key drop-out points, language switching generally does not run in the minority's direction.⁴⁴

Figure 9: Transition in language of instruction: from Hungarian-medium primary to secondary school, 2024



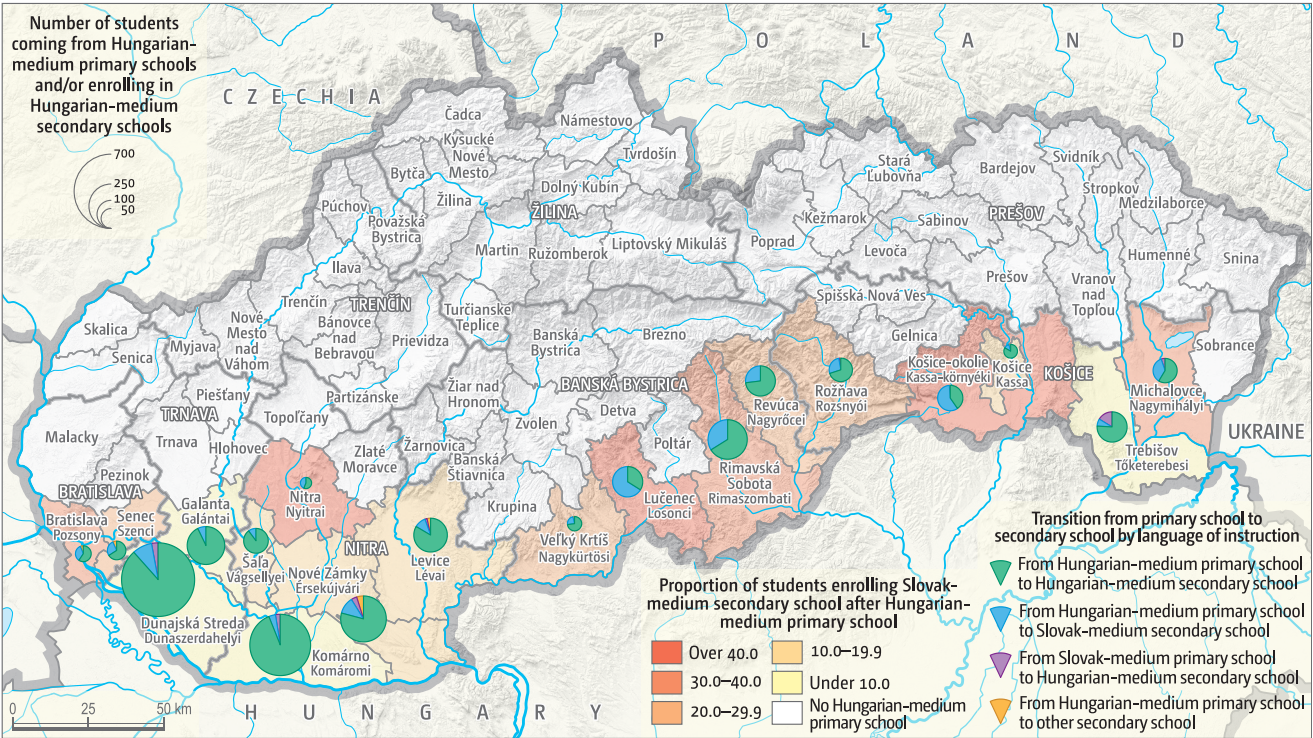
The territorial pattern partly reflects what would be expected, namely differences between ethnic block and dispersed minority areas. Accordingly, the share switching from Hungarian to Slovak is lowest in Hungarian-majority Komárno and Dunajská Streda Districts, in Galanta District, and in Trebišov District. The case of Trebišov is particularly interesting: not only is the share switching toward Slovak below 10%, but more than a quarter of those switching toward

Hungarian are also registered here. Taken together with the substantial Hungarian→Slovak switch after kindergarten and the low Hungarian participation of ethnic Hungarian students in Hungarian-medium primary education, it suggests that a (not very large) share of Hungarian-speaking students return to Hungarian-medium education at secondary level in Trebišov

District. It seems plausible that these students did not switch earlier for better advancement or for improved Slovak acquisition, but as part of “white flight”.

The highest values of secondary-level language switching are clearly found in the eastern part of the Hungarian settlement area, where in some cases the majority of

Map 33: Language-of-instruction transition among students from Hungarian-medium primary schools and/or entering Hungarian-medium secondary schools, 2024



Hungarian primary students pursue their studies in Slovak (Lučenec District: 67%, Košice-okolie District: 60%). The reasons do not emerge clearly from the data, but the pattern is not random: in the west (including Veľký Krtíš District) language switching characterizes 11% of those continuing their studies, whereas in the east it affects 37% (Map 33). In the west, the block-dispersed dichotomy explains the model well: as the district-level Hungarian share declines, so does the share continuing in Hungarian. In the east, this factor does not explain the data, similarly to the correlation between birth and student figures. It is also worth noting that the local availability of Hungarian-medium secondary options does not necessarily explain the extent of language switching: for example, in Šaľa District, where no Hungarian secondary school has existed since 2012, and in Veľký Krtíš District, where there is likewise no Hungarian secondary option, only 10% and 24%, respectively, of those moving from Hungarian primary to secondary education switched to Slovak.

The replenishment of Hungarian-medium secondary education in Slovakia may also be weakened by studying abroad; primarily in Hungary, due to linguistic, cultural and geographic proximity. Tracking this precisely is difficult, but the issue is present in public discourse and media coverage about Hungarian secondary schools in Slovakia.⁴⁵ Hungarian statistics, however,

nuance the picture: while in some small regions of southern Slovakia Hungarian secondary schooling in Hungary may indeed pose a problem, overall it is not the main factor reducing enrollment in Hungarian secondary schools in Slovakia. In the 2024/25 school year, roughly 400 Slovak citizens were registered in Hungarian secondary schools,⁴⁶ which is less than 5% of secondary students, although it should also be considered that some are likely not of Hungarian ethnicity.

Secondary schools

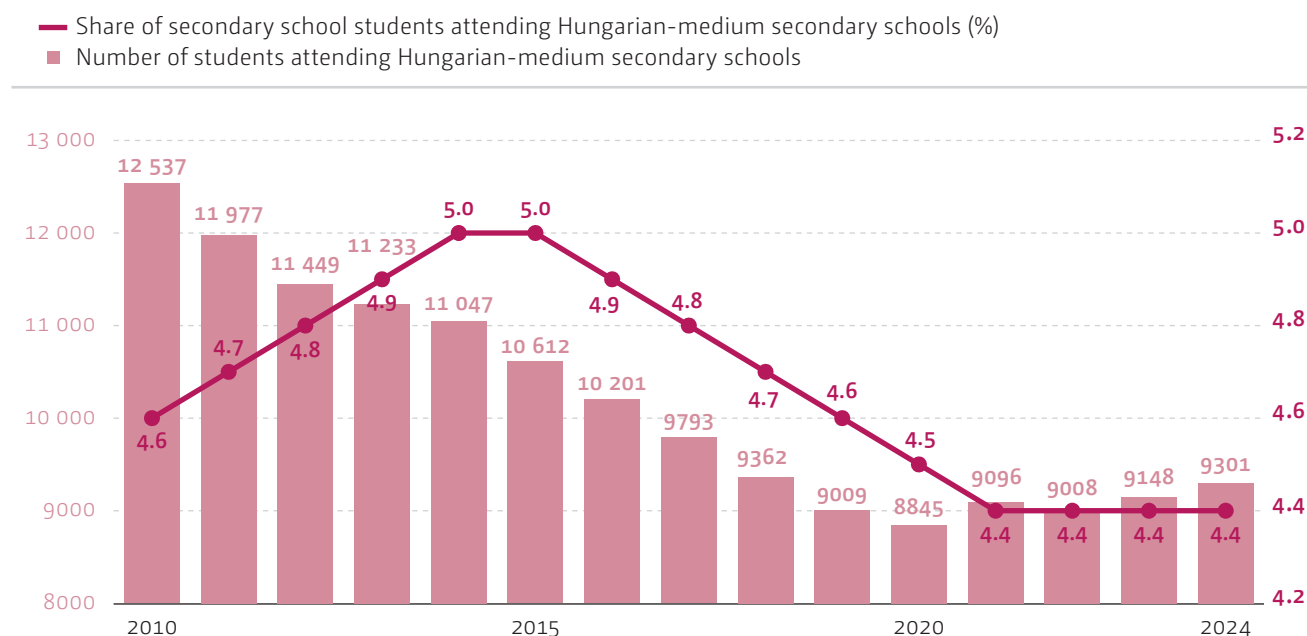
Moving upward through educational levels, student number decline becomes increasingly pronounced. The drop in enrollment in Hungarian secondary schools in Slovakia has been highly visible over the past one and a half decades: the number of students in Hungarian-medium secondary education fell by more than one quarter (from 12.5 thousand to 9.3 thousand). One positive note is that since 2019 student numbers have stagnated (and even slightly increased), meaning the steep decline has halted (Figure 10). Nevertheless, Hungarian-medium secondary education faces extensive problems, among which the most important may be “economies of scale”: in many secondary schools there are not enough Hungarian students for Hungarian-medium

programs to launch across multiple specializations.⁴⁷ This is primarily a challenge in central and south-eastern Slovakia, where, apart from a few towns and institutions, the number of students is insufficient to sustain an adequately broad educational offer. The difficulty is twofold: too many institutions compete for a limited pool of Hungarian students, while the demand for locally available provision effectively precludes institutional specialization and any spatial “division of labor” among educational institutions.

Although detailed data are also available for secondary education, interpretation and capturing precise territorial patterns and changes is complicated by factors such as the establishment, closure or relocation of schools, and the opening or closure of branch campuses. The breaks visible in Map 34 (e.g. in Galanta District and Rimavská Sobota District between 2014–2015) can be attributed to such reasons. It is also evident that with the closure of the vocational secondary school in Šaľa in 2012 and the private vocational secondary school in Dolné Obdokovce in 2023, there are now three Hungarian-inhabited districts where Hungarian-medium secondary education is not available.

The pattern of change in secondary student numbers differs substantially from the processes observed in primary education. A key factor is that only a smaller

Figure 10: Number and share of students attending Hungarian-medium secondary schools in Slovakia, 2010–2024



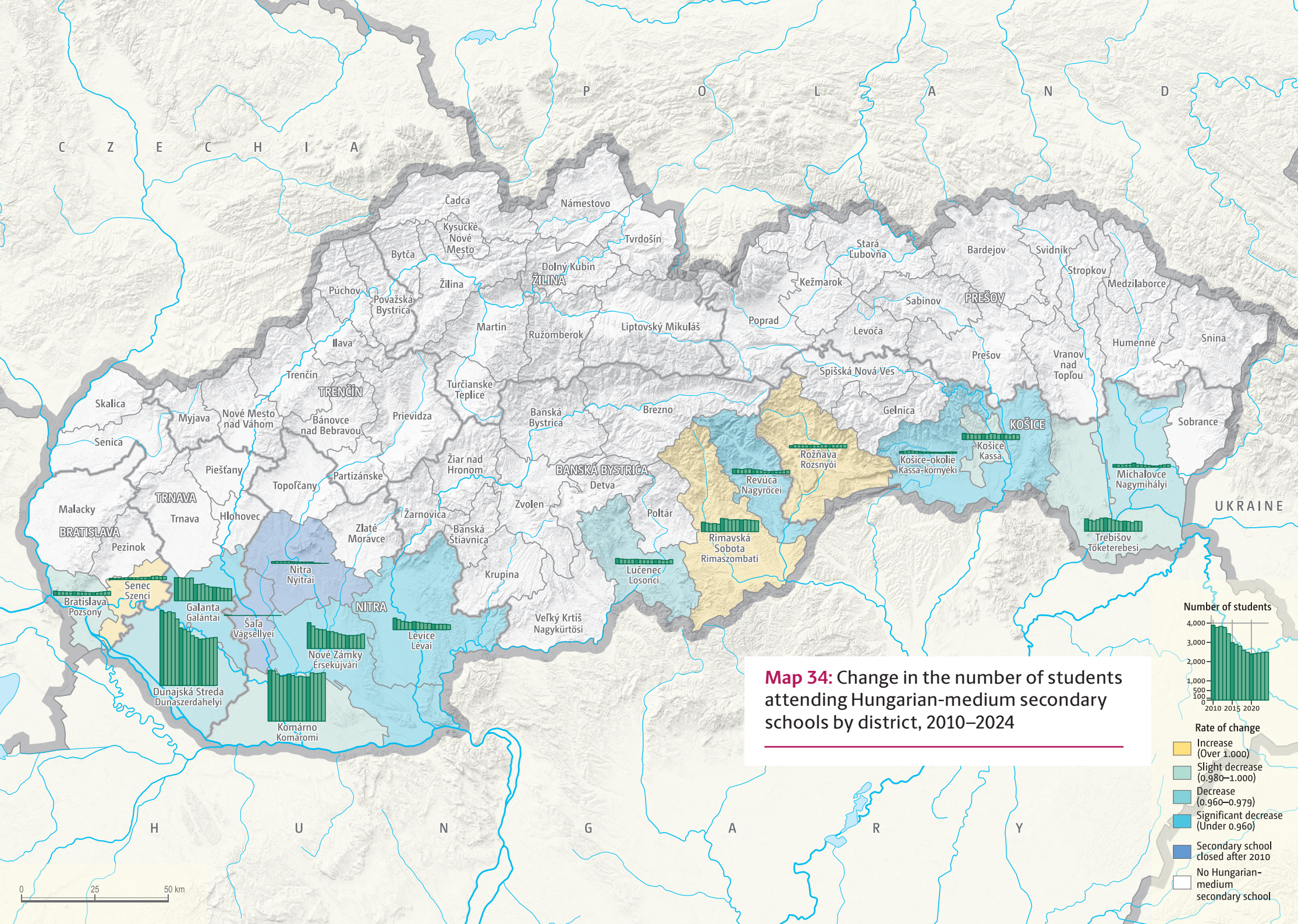
share of Hungarian native-speaking Roma progress to secondary level, and those who do often drop out early. Nevertheless, some territorial characteristics, such as the impact of Bratislava suburbanization on Senec District, remain relevant here as well. Accordingly, the number of Hungarian secondary students in Senec District doubled during the examined period. Apart from this and Komárno District, however, the decline is very large in the western half of the Hungarian settlement area, particularly along the Slovak–Hungarian language-boundary. Komárno’s

relatively favorable values may also be linked to the possibility of Hungarian-medium higher education in the town. In the eastern half, clear trends are harder to identify, as student numbers fluctuate considerably from year to year.

Therefore, secondary student numbers are influenced by block-dispersed differences to a lesser extent than in primary education, and there is a slight indication that higher levels in the settlement hierarchy (major cities) have greater pull: although student numbers

decreased in both Bratislava and Košice, the decline was smaller than the average. However, the type of secondary school (grammar school vs. vocational secondary school) does not affect overall student numbers: the decline is of similar magnitude in both, and the share of grammar-school students among Hungarian secondary students remains around one third (2,935 students in 2024).⁴⁸

These dynamics also contribute to the relatively low share of Hungarians in Slovakia who complete secondary education in Hungarian. In the early 2010s, Attila Papp Z. estimated that 67% of Hungarian secondary students studied in their mother tongue;⁴⁹ by 2024, register data place this at 69%.⁵⁰ However, regional differences are enormous: in Bratislava only one quarter of ethnic Hungarian students attend Hungarian secondary schools; in Košice the figure is 40%; and in Košice-okolie and Lučenec Districts it is just below 50%. By contrast, in Hungarian-majority districts nine out of ten ethnic Hungarian students attend Hungarian programs (Map 35). Two districts stand out with somewhat unexpected figures. First, Senec District, whose indicators often move together with Bratislava’s, differs sharply here, likely due to local specifics such as the attractiveness of the Senec secondary school. Second, in Trebišov District the secondary-level Hungarian enrollment rate is higher (!) than



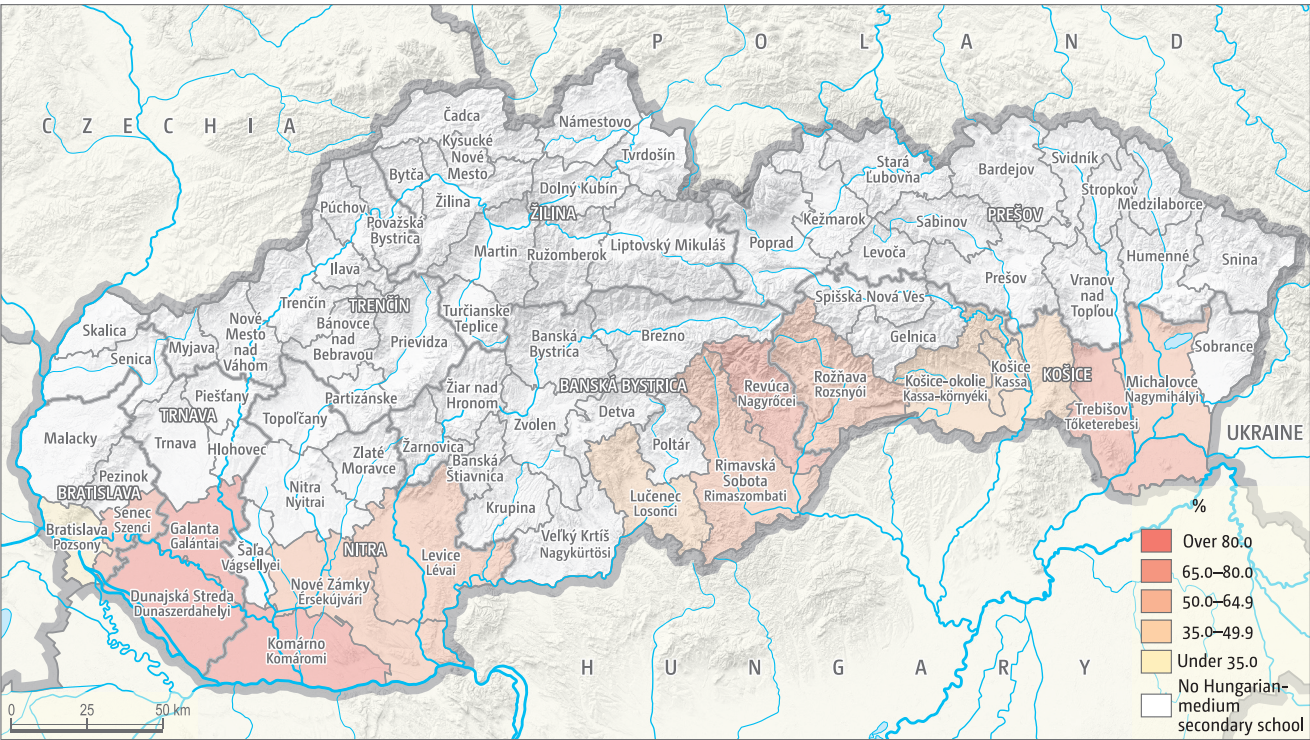
the primary-level rate (72% vs. 69%), which is a clear curiosity and points to a specific strategy in which segregation-related language switching occurs at primary level, followed by a switch back to Hungarian at secondary level, apparently adopted by a significant share of non-Roma Hungarians. In other districts, differences between primary- and secondary-level Hungarian

enrollment rates can be very large, suggesting that language-of-instruction decisions at these two levels are only loosely linked.

It is also worth comparing secondary-school data with age-group census data. This suggests that, in 2021, 59% of Hungarian native speakers aged 16–19 attended

Hungarian-medium secondary schools. The difference between the two figures (59 vs. 69) can be attributed to several factors: delayed school entry, actual non-continuation, drop-out, grade repetition leading to extended primary schooling, studying abroad, minor incoherence in data (the census timing does not coincide with the start of the school year), and differences in program length (vocational training often lasts three years rather than four; students in eight-year grammar schools finish a year earlier; five-year programs finish a year later).

Map 35: Proportion of ethnic Hungarian students attending Hungarian-medium secondary schools, 2024/25 (%)



Hungarian-medium “vertical” educational pathways

The examination of public education from kindergarten to secondary level, and especially the transitions, has revealed that Hungarian-medium public education narrows progressively as we move up the educational levels, with an increasing shift toward majority-language instruction. This is illustrated by the fact that within Slovakia, between 2010 and 2024 the share of kindergarten children choosing Hungarian-medium provision declined from 6.1% to 5.6%; for primary students from 6.9% to 6%; and for secondary students from 4.5% to 4.2%. Above all, the gap between primary and secondary values shows that the Hungarian educational pathway is not necessarily an attractive alternative. Mobility exists between Hungarian and Slovak-medium education, but it is primarily in the direction of the titular ethnic group, reflecting asymmetric majority–minority relations.

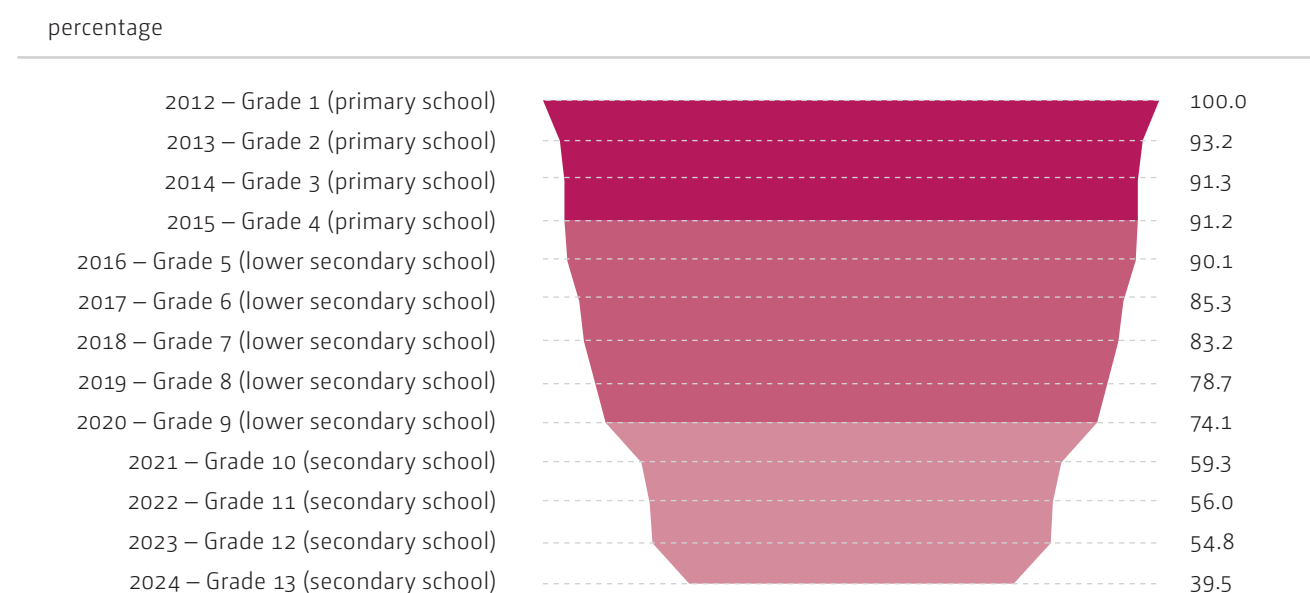
As noted earlier, exit from Hungarian-medium education does not occur only through language switching. Drop-out is also substantial already in primary schools; many, especially in disadvantaged settlements, typically

among children from marginalized, mostly Roma families, do not complete even nine grades. At the national level, Figure 11 illustrates the extent of students leaving Hungarian-medium schooling. Obviously, the student-number decline shown between grades does not necessarily indicate drop-out, since grade repetition also occurs, but the main breakpoints are visible in terms of magnitude. These occur after Grade 1 of primary school, after Grade 5 and Grade 9.

This clearly shows that while the cohort’s enrollment decline is relatively moderate in primary (grades 1–4), it

increases in lower-secondary (grades 5–9), and the transition into secondary education represents a major break. In many cases this may coincide with reaching the age of 16, when compulsory schooling ends. (The decline in Grade 4 of secondary school rather reflects the weight of three-year secondary programs.) In this cohort, around 60% reached Hungarian-medium secondary education, which is significantly (by 10 percentage points) lower than Papp’s figures from one and a half decades earlier.⁵¹ Overall, only around half of the analyzed cohort reached the point of completing secondary studies in Hungarian.

Figure 11: Year-by-year enrollment changes of the cohort who were first-graders in 2012



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