

# EDUCATIONAL STRUCTURE

Zoltán Dóvényi

'The power of a nation lies in the multitude of cultivated human minds'; István Széchenyi (1791–1860), the great Hungarian statesman once wrote. The quality of human resources is still of great importance even today. An important indicator in each country is the level of education of the population, which entails not only the number and proportion of higher education graduates but also the rate of literacy (i.e. the reading and writing skills of the general population).

The level of education of the population improved considerably in Hungary at the time of the Austro-Hungarian Monarchy: whereas more than two-thirds of the population had been *illiterate* in 1869, by 1910 68.7% of the population over the age of 6 in the Kingdom of Hungary (and as much as 80.3% in the post-Trianon territory) was able to read and write. This basic education indicator had marked regional differences within the Carpathian Basin, and a definite west–east

gradient arose (VI.5.1). Literacy also differed greatly among the various ethnicities and religious denominations. In terms of knowledge of reading, the Germans were at the forefront in the Kingdom of Hungary (1910: 73%); they were followed by the Hungarians (1910: 70%), with the Romanians and Rusyns at the bottom (1910: 35% and 26%, respectively).

One of the greatest accomplishments of the inter-war period was that literacy became almost universal. Indeed, whereas 15.2% of the population aged over seven years was illiterate in 1920, the figure fell to less than 5% in 1949. Another important development in this period was the diminishing gap between men and women in terms of literacy.

The number and proportion of illiterate people have been declining ever since. By 2016, less than 1% of the population was illiterate. This meant, however, that the problem still affected more than 83 thousand people. Albeit at a low level, the legacy of illiteracy remains present in society (VI.5.2).

Knowledge of reading and writing is the basis of education; more knowledge can be obtained on this foundation. A long-term view reveals that the general population is reaching ever higher levels of educational attainment. Considering the level of education of the population aged over seven years, in 1920 the largest group were those who had completed six or seven grades of primary school, and this remained so for decades. The census of 1980 recorded an improvement, with the largest group being those who had completed eight grades of primary school. By 2011, secondary

school graduates formed the largest group, and this remained the case in 2016 (1). It should be noted that in 2016 there was little difference between the numbers and proportions of graduates of primary school, vocational training and higher education.

Even so, the proportion of the population aged over seven years who failed to complete eight grades of primary school was as much as 11.0% in 2016 (VI.5.3). The situation is significantly better and the impression more realistic if we look at the proportion of the population aged 15 or over that has failed to complete seven grades: in this case the proportion is only 3.2%. This group still comprises more than 270 thousand people, some 100 thousand of whom are of working

**2 NUMBER AND PROPORTION OF ILLITERATES (1910–2016)**

Year	Population older than 7 years of age	Illiterate persons	
		Number	Proportion (%)
1910	6,467,787	1,276,788	19.7
1920	7,197,923	1,092,850	15.2
1930	7,619,071	734,853	9.6
1941	8,225,493	523,849	6.4
1949	8,095,733	400,353	4.9
1960	8,737,124	334,957	3.8
1970	9,347,226	224,636	2.4
1980	9,512,019	161,430	1.7
1990	9,513,243	187,139	2.0
2001	9,487,187	164,163	1.7
2011	9,264,462	109,673	1.2
2016	9,165,428	83,284	0.9



1 An important milestone for young people: secondary school graduation



2 Students at a university graduation ceremony

women than among men (19.2% compared with 17.1%). The gap had widened even further by 2016 (23.0% compared with 20.3%). In that year, only among people aged over 65 was the proportion of graduates higher among men than it was among women.

The regional distribution of higher education graduates reveals a distinct difference between Budapest and the rest of the country. According to the 2016 data, in that year around a third of higher education graduates were living in the capital, where 40.7% of the population aged 25 and over had a college or university degree, with the national average being 22.8%. Most graduates live in urban areas (85.0%), and they are highly under-represented in rural areas.

This is also shown by the fact that in 2016 there were 34 districts spread around the country where higher education graduates accounted for less than 10.0% of the population (VI.5.5). In contrast, the proportion of graduates in the Budapest agglomeration was outstandingly high, with the rate in Budakeszi District even exceeding that of the capital (43.9%). It is worth mentioning that there are significant differences between districts within Budapest: while higher education graduates make up nearly two-thirds (64.9%) of the population aged 25 and over District XII, the rate is only 22.3% in District XXIII.

The traditional method for assessing the level of education of the general population is to examine the successful completion of each type of school (i.e. to analyse data for completed school grades and obtained higher education degree). However, such analysis ignores uncompleted education and training, even though these also contribute to the 'polishing' of individuals and the broader education of the population. The statistics can, however, record some of these 'lost years', facilitating the creation of an indicator expressing education in terms of the number of years spent (and successfully completed) at the school desk. In this case, it is still worth limiting the analysis to people aged 15 and over. At the settlement level, we can then show spatial differences in more detail. This, however, is only feasible using census data, so it is only possible to present the conditions in 2011.

The census of 2011 recorded that the nearly 8.5 million people aged 15 and over had successfully completed more than 97 million school grades (i.e. 11.4 grades on average). This is very close to the 12 grades needed for secondary school graduation.

Like so much else, the level of education (in this case the number of school grades completed) is not evenly distributed in space, for there are significant regional differences. The spatial variation at settlement level is high, with the average figure ranging from 6.2 in Csenyété (a village in northeastern Hungary inhabited entirely by Roma) to 14.1 in Telki (a village in the Budapest agglomeration). As with higher education graduates, there is a marked dichotomy between villages and towns: the lower level of education in rural areas

### 3 NUMBER AND PROPORTION OF THE POPULATION OLDER THAN 7 YEARS OF AGE BY HIGHEST EDUCATIONAL ATTAINMENT (1920–2016)

Year	Not completed the first year of primary school	Primary school				Secondary school without graduation, with vocational certificate	Graduation	University, college, etc. with diploma	Total
		Grade							
		1–3.	4–5.	6–7.	8.				
<b>Number</b>									
1920	667,940	1,156,556	1,934,149	2,866,493	551,315	—	190,274	84,774	7,451,251
1930	593,072	1,023,964	1,963,146	3,590,798	788,145	—	179,279	87,089	8,225,493
1941	458,924	974,364	1,608,481	3,598,114	1,099,272	—	263,343	93,235	8,095,733
1949	348,130	950,017	1,440,439	3,489,551	1,893,360	—	445,982	169,645	8,737,124
1960	224,636	743,600	1,145,110	2,953,210	2,662,178	446,338	877,605	294,549	9,347,226
1980	161,430	674,013	876,612	2,189,493	2,821,456	922,004	1,382,165	484,846	9,512,019
1990	187,139	530,697	659,759	1,588,852	3,046,077	1,233,732	1,543,951	723,036	9,513,243
2001	164,163	431,701	413,235	888,372	2,911,369	1,581,315	2,162,996	934,036	9,487,187
2011	109,673	316,651	272,917	449,959	2,319,319	1,805,051	2,551,276	1,439,616	9,264,462
2016	83,284	327,311	250,894	351,807	1,987,418	1,749,792	2,699,261	1,715,661	9,165,428
<b>Proportion (%)</b>									
1920	13.5	15.6	26.9	34.8	6.1	—	1.9	1.0	100.0
1930	9.0	15.5	26.0	38.5	7.4	—	2.6	1.1	100.0
1941	7.2	12.4	23.9	43.7	9.6	—	2.2	1.1	100.0
1949	5.7	12.0	19.9	44.4	13.6	—	3.3	1.2	100.0
1960	4.0	10.9	16.5	39.9	21.7	—	5.1	1.9	100.0
1980	1.7	7.1	9.2	23.0	29.7	9.7	14.5	5.1	100.0
1990	2.0	5.6	6.9	16.7	32.0	13.0	16.2	7.6	100.0
2001	1.7	4.6	4.4	9.4	30.7	16.7	22.8	9.8	100.0
2011	1.2	3.4	2.9	4.9	25.0	19.5	27.5	15.5	100.0
2016	0.9	3.6	2.7	3.8	21.7	19.1	29.5	18.7	100.0

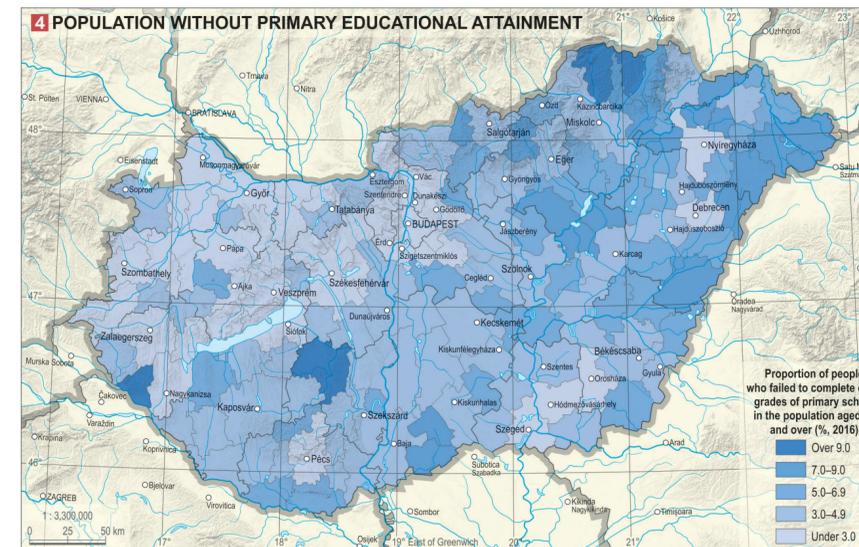
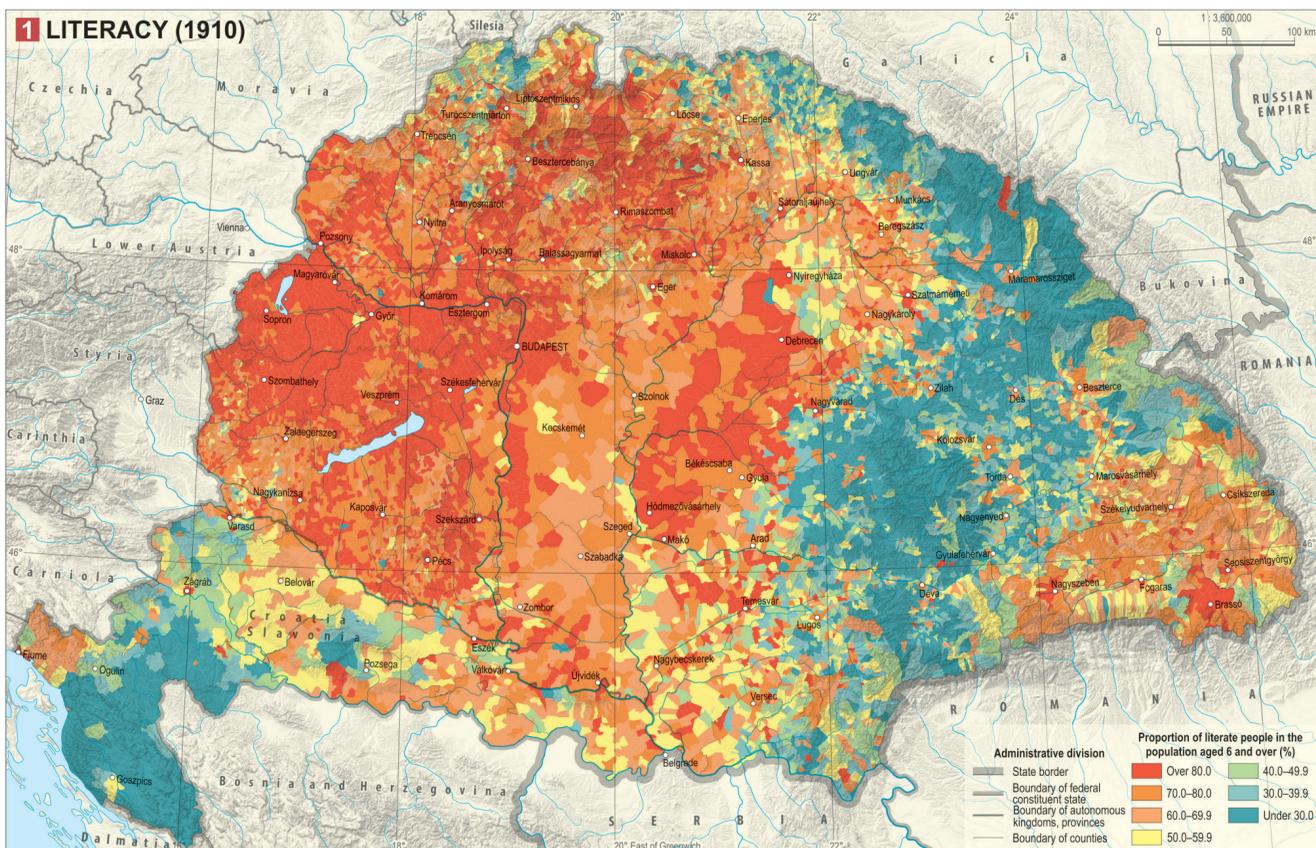
age, resulting in problems in the labour market. Women are more likely than men to have a low level of education: whereas 4.2% of women aged 15 and over lack a basic level of education, the corresponding figure among men is just 2.1%.

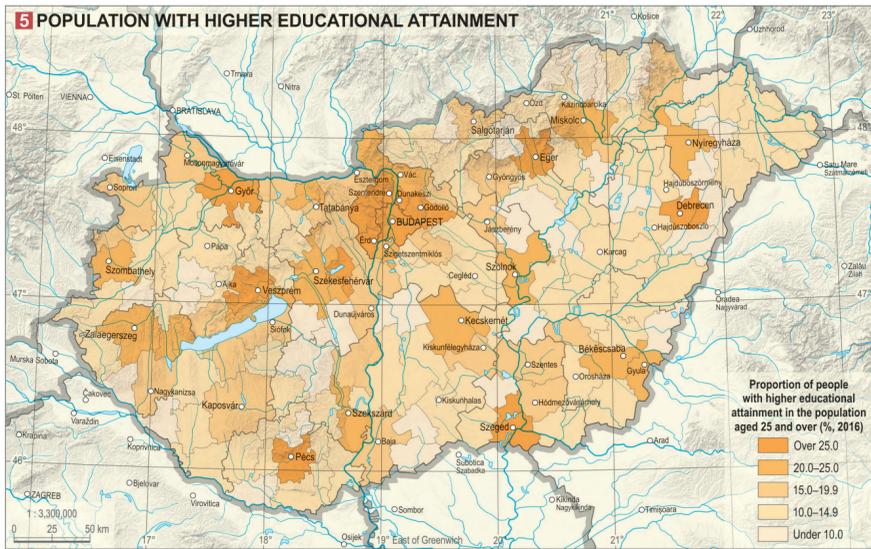
This indicator also has significant regional differences, varying between 1.3% (Budapest and Érd District) and 16% (Edelény District). Outside Budapest, there were, in 2016, 16 further districts where the rate was below 2%. Most of these districts lie in the Budapest agglomeration and northern Transdanubia. Districts with the highest rates (especially those inhabited by a high proportion of Roma people) are concentrated in the northeastern part of the country and in the Central Tisza Region. In total, there were 13 districts where the rate exceeded 8.0% in 2016 (VI.5.4).

The number and proportion of people with higher education as the highest level of education have risen intermittently over the decades. Whereas 73 thousand

higher education graduates were living in Hungary in 1920, by 2016 the number had risen to more than 1.7 million people (2). Yet the number of higher education graduates barely increased between the two world wars, and even under communism the gates of universities and colleges were closed to many people who wanted to study. The real breakthrough came after the collapse of communism. Indeed, the number of higher education graduates increased nearly two-and-a-half fold between 1990 and 2016 (VI.5.3).

For a long time (until 1894), higher education was essentially a privilege of men, and the woman graduate was a rarity even between the two world wars. In 1949, 3.5% of men aged 25 and over were graduates, but only 0.6% of women. The advantage of men started to decline around 1980, but the difference was still measurable in 2001 (13.8% and 11.6%). However, as the number of female students was persistently higher, by 2011 the proportion of graduates was higher among





Budapest only slightly worse, as the compensating effect of immigration also emerged. Behind the average for the capital (12.8), differences among the districts can also be found, yet these are far less significant than in the case of higher education graduates: the frontrunner is District XII (14.5) while districts XXI and XXIII are at the tail end (11.7) **VI. 5. 6.**

As mentioned before, specific characteristics pertain to the *education of men and women*. Some of these features are considered almost traditional, but others are the consequence of changes over the past few decades. Among the former is the fact that the level of educational attainment is lower among women than among men. This was confirmed by data from the micro-census of 2016, at which time the proportion of women aged 7 or over with no more than 8 completed grades of education was 35.5%, while the corresponding figure for men was just 29.6%. The different schooling habits and strategies of men/boys and women/girls reflect the fact that a much higher proportion of men complete their secondary school education without a graduation certificate (26.1% compared with 12.8% of girls). Under communism, boys tended to attend vocational training, while girls went to grammar school instead. However, it has taken longer for women to overtake men in terms of the proportion with a secondary school graduation certificate. Consequently, even in 2016 the difference between the two sexes in this field was not substantial (31.6% and 27.1% respectively). Moreover, among higher education graduates, the shift towards women is even more recent (20.1% and 17.2% respectively).

Evidently, there are significant regional differences behind the national averages. However, there is little or no regional difference in terms of the higher pro-

portion of men with vocational qualifications; women, however, lead in all other groups.

This indicator also reflects the low level of education of the general population in *underdeveloped areas*. In such areas, the proportion of people aged seven and older with no more than 8 completed grades of education is much higher than the national average, with the share being around 50% for men and even higher for women, sometimes even exceeding 60%. The proportion of those with skilled worker qualifications is the closest to the national average, which applies to both men and women. For secondary school graduates, the differences between men and women are roughly the same as the national value, but the percentages are noticeably lower. This applies even more to higher education graduates: in both cases, their proportion is below 10% (Sellye District: 4.4% and 6.9%).

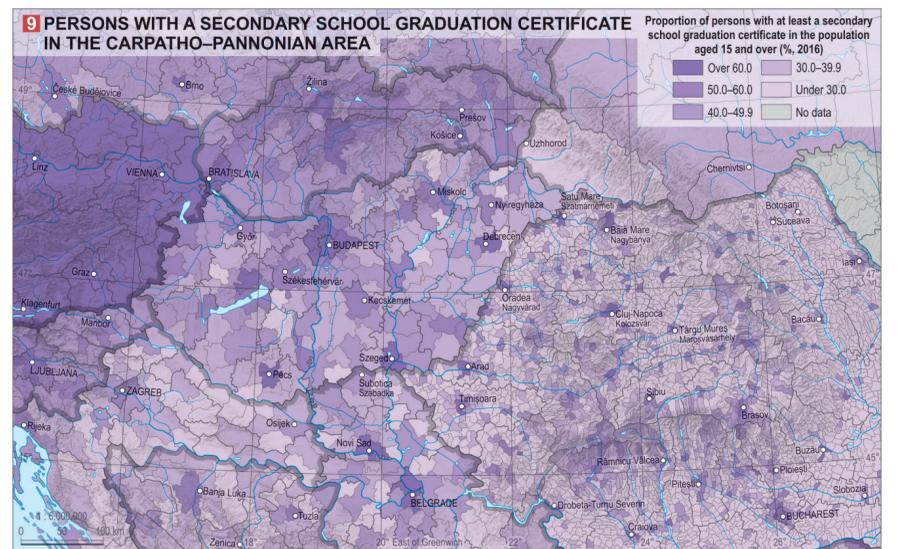
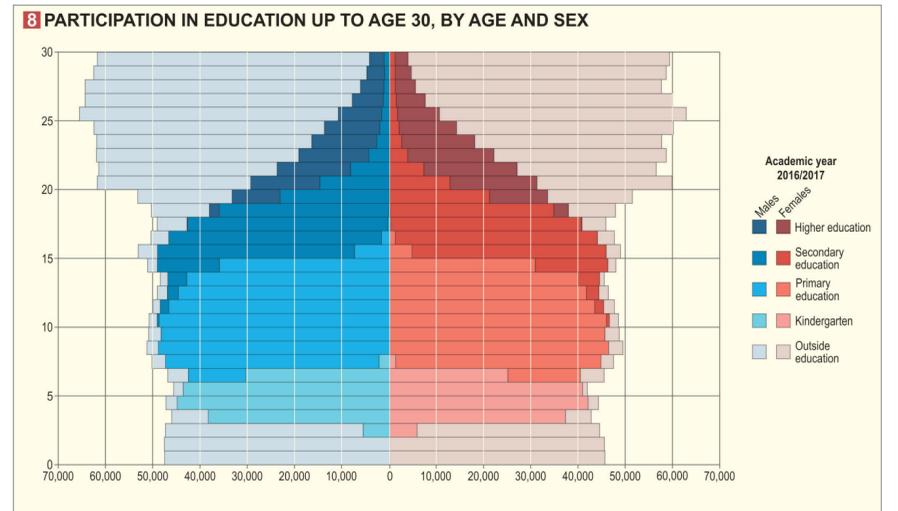
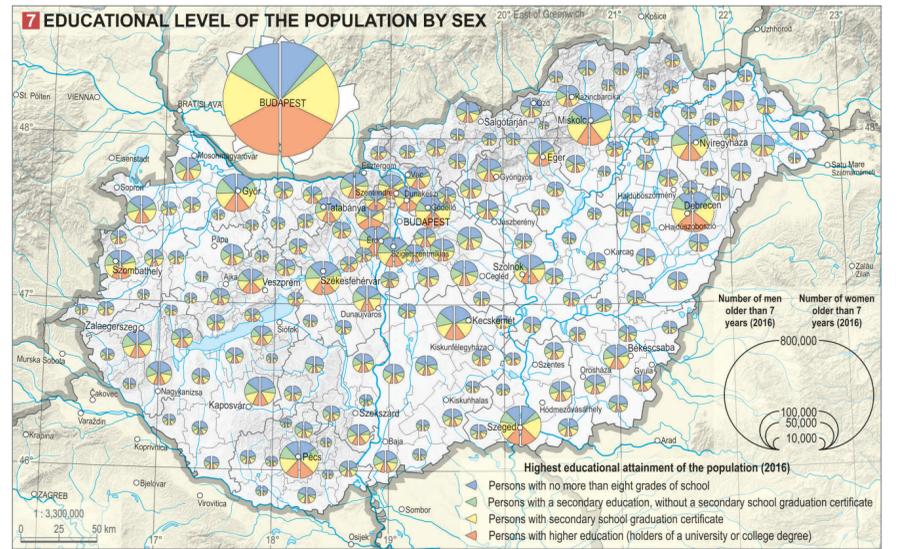
A completely different picture unfolds in the *highly urbanised districts* and, of course, in Budapest. In the case of the capital, the proportions of the two lower categories are well below the national average, but the share of secondary school and higher education graduates is high above it. The proportion of people with at least a secondary school graduation certificate in the population aged seven years and older is 66.5% for men and 71.6% for women. By comparison, it is worth noting that in the districts of underdeveloped areas, the share is generally less than 30% **VI. 6. 7.**

In every country, the *school system* has a significant impact on social attitudes to education, on educational efforts and even on whether it is worth studying at all. The general experience is that participation in organised education lasts until about 30 years of age. Thus, it is worth examining the proportion of individuals participating in education at each stage of life up to this age. The following overview was based on data from the 2016/2017 academic year.

Participation in the Hungarian education system is mandatory from three years to 16 years of age, above which it is voluntary. In Hungary, kindergarten is part of public education, and the age group concerned exhibits a high attendance rate of 96%. Equally high (94-97%) is the participation in primary school education. The rate among those aged 18, is only 77.3%. Less than 50% of those aged 20, and 22.8% of those aged 25 are in formal education, and the percentage declines to 6% among those aged 30, indicating the process of participants gradually leaving higher education.

Until the age of 29 men were the majority in each age group, covering kindergarten, primary and even secondary education. Women, on the other hand, are the majority in higher education, indicating their stronger demand for education.

In addition to the high participation rates in primary and secondary education, it should also be mentioned that, for various reasons, several thousand people are absent from education in each academic year. This is partly what leads to what is called early school leaving. This category includes those who leave the education system aged 18-24 with no more than eight completed grades of education. In 2018, their proportion was higher than the EU average in Hungary (12.5%), which amounts to around 95 thousand people **VI. 6. 8.**



education in Hungary (52.7%) resembles the proportions in Slovakia and Slovenia (both 53.1%), but it is significantly below that of Austria (73.8%). At the same time, the general level of education is significantly higher in Hungary and Slovakia than in Zakarpattia (29.2%), Vojvodina (36.6%) and Transylvania (44.5%). Regional differences are also significant here: a mo-

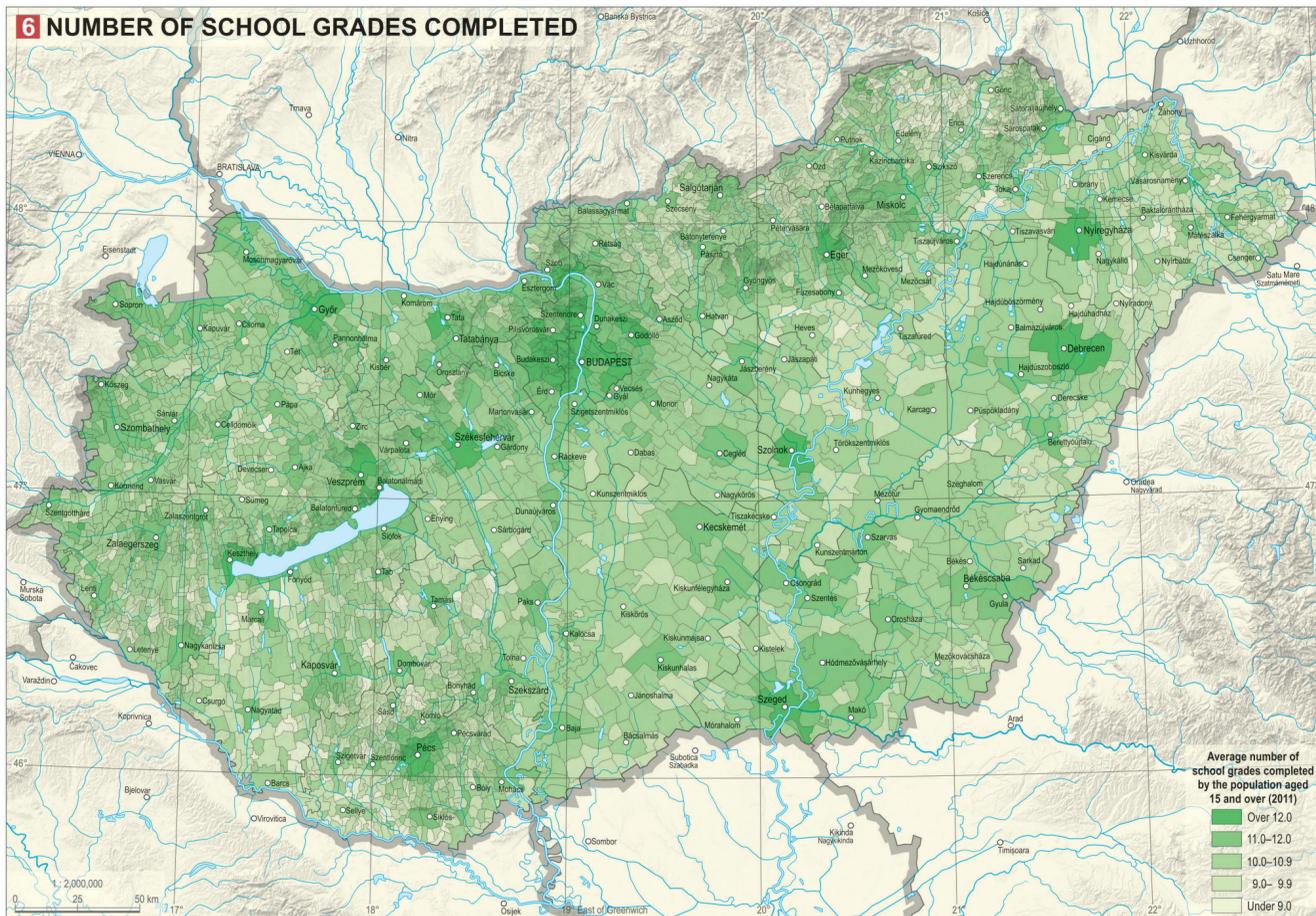
saic impression is formed everywhere except for in Austria, and a rural-urban dichotomy is also typical in this field **VI. 6. 9.** The Austrian average is attained by such major cities in the region as Budapest, Cluj-Napoca/Kolozsvár and Bratislava (72-75%). Meanwhile, Timișoara, Braşov, Szeged, Debrecen, Košice, Novi Sad, Pécs and Zagreb (60-69%) are not far behind.

lying between areas with higher urbanisation is evident. Using the data for the average number of grades completed, we can identify areas with structural problems (and a high Roma population share), such as the Cserhát Hills, the Central Tisza Region, southern Transdanubia and some areas adjacent to the border.

At settlement level, there were 17 municipalities where the average number of completed grades did not even reach eight. Most of them have a high Roma population share, as is the case with Csenyété, which had the lowest value (6.2). The number of settlements with noticeably higher than average figures is much greater. In some cases, the suburbanisation processes

of recent decades account for the favourable figures. This is true in several municipalities in the Budapest agglomeration, to which people with a higher level of education have moved. This has led to much higher than average figures for completed grades in municipalities with relatively small populations (e.g. Nagykovács: 13.4, Remeteszőlős: 13.9, Telki: 14.1). The same phenomenon is evident in the suburban zones of other major cities, including Győrújbarát and Győrújfalú (12.3 and 12.4 respectively) near Győr, Kozármisleny (12.3) in the agglomeration of Pécs.

Suburbanisation, moving out of the capital to its agglomeration, has made the education indicators of



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### *Design and typography*

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### *Printing*

Pannónia Nyomda Kft. (Budapest)

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Publisher: László Kiss (Director general)  
Eötvös Loránd Research Network (ELKH), Research Centre for Astronomy and Earth Sciences (CSFK), www.csfk.org  
© Geographical Institute, CSFK www.mtafki.hu, Budapest, 2021

The publication is supported by:

Government of Hungary  
Ministry for Innovation and Technology (ITM)  
Eötvös Loránd Research Network (ELKH)  
Hungarian Academy of Sciences (MTA)

Closing date of editing: 1st May 2021

ISBN 978-963-9545-58-8ö  
ISBN 978-963-9545-64-9

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