EXTENSION OF THE INDICATOR-SYSTEM ON THE HUNGARIAN PUBLIC EDUCATION RELEASED IN 2015

Final Version

Budapest, 2018. 01.20.

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Content

Education system in Hungary

The 2011 Act on Public Education and the 2011Act on Vocational Training - both entered into force in 2013 - restructured the education system in Hungary. *Figure A* shows the Hungarian education system before 2013, *Figure B* shows it after 2013.

Pre-school education is provided in ***kindergarten***s ("óvoda") for children between 3 and 6 years of age and is compulsory from age 3.

On completion of the pre-school education, children enter the 8-grade single structure ***general school*** ("általános iskola"). The general school comprises the primary or ISCED 1 level (Grade 1-4) and the lower secondary or ISCED 2 level (Grade 5-8). For children who cannot be integrated in mainstream programmes because of specific or multiple disabilities special education programmes and – for some types of disabilities – special institutions are available.

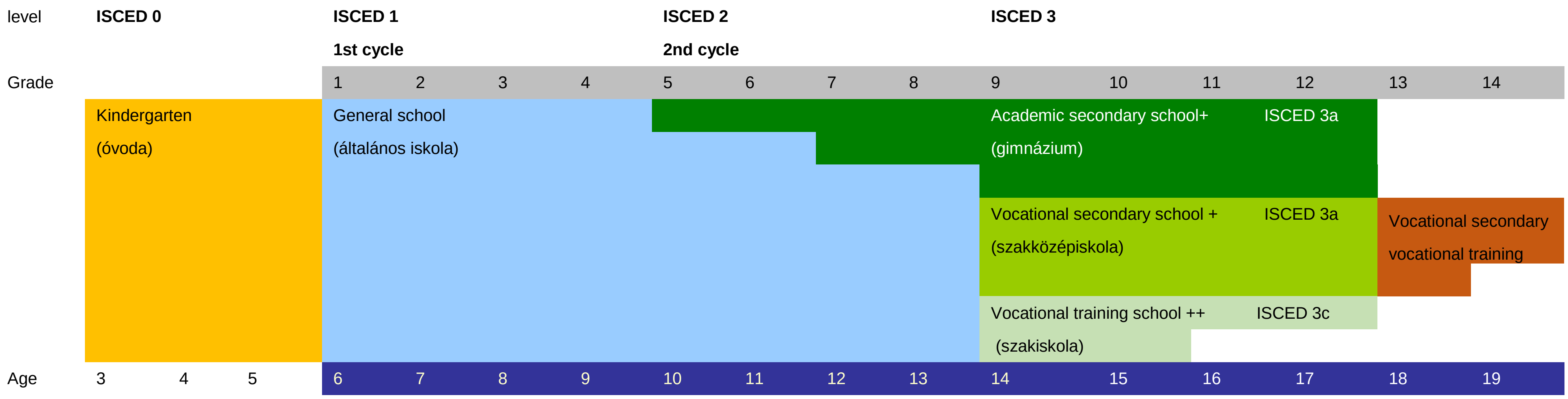
On completion of general school, students can choose between three main types of upper secondary education: ***academic secondary school*** ("gimnázium"); ***vocational secondary school*** ("szakgimnázium"); and ***vocational training school*** ("szakközépiskola").

The ***academic secondary school*** prepares for the secondary school leaving examination ("érettségi vizsga"). The academic secondary school is provided typically for pupils aged 14-18, usually covering grades 9-12. However, academic secondary schools are also allowed to offer longer programmes starting earlier (from Grade 5 or 7).

The ***vocational secondary school*** prepares for the secondary school leaving examination and also for post-secondary non-tertiary vocational education.

The ***vocational training school*** prepares for an ISCED 3 level vocational qualification but not for further education. At the secondary level, special vocational schools provide labour market-oriented programmes for those who cannot be integrated in mainstream upper secondary program.

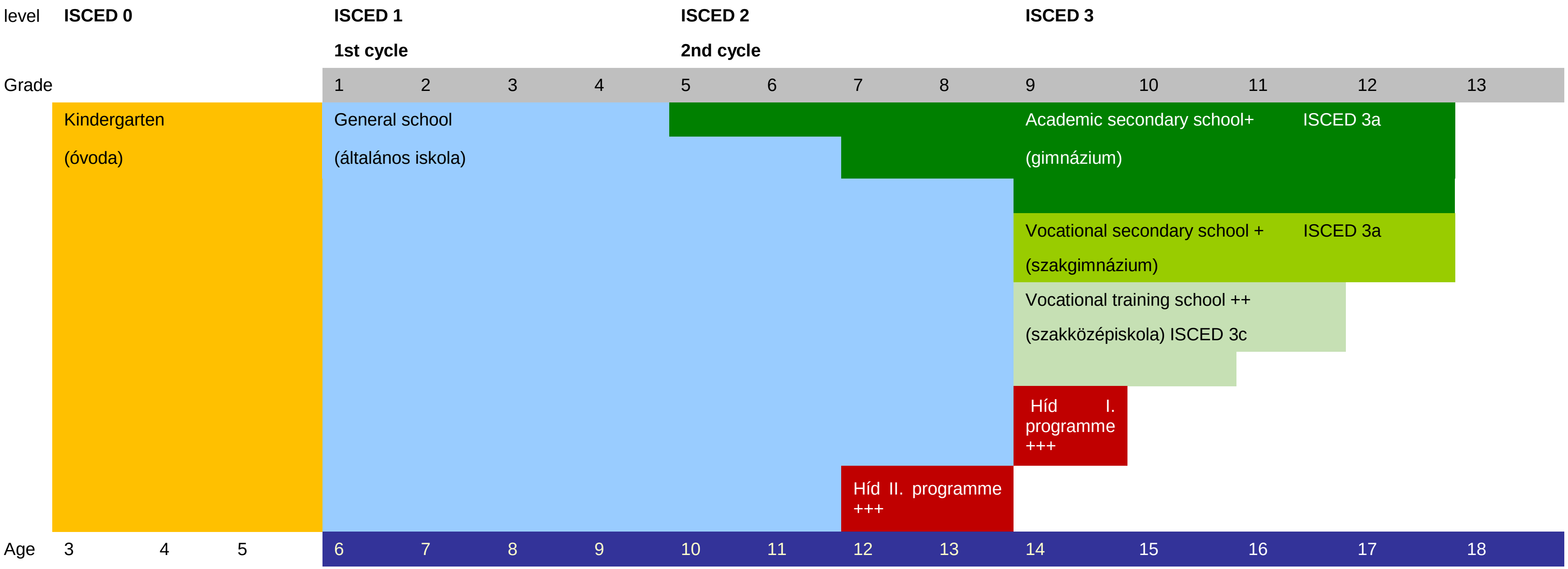
Figure A The education system in Hungary before 2013



+: Some schools offer an extra grade teaching a foreign language before secondary school education (i.e. between grade 8 and 9).

++: Shorter programmes are offered to students with special education needs.

Figure B. The education system in Hungary since 2013



+: Some schools offer an extra grade teaching a foreign language before secondary school education (i.e. between grade 8 and 9).

++: Shorter programmes are offered to students with special education needs.

+++: Second chance programmes for drop-out students, below the compulsory education age. The 1-year long programme is available for students who completed the general school. The 2 years long programme is offered for students who have completed grade 6 in the general school and reached age 15.

Indicator 1: Share of students dropping out of school

The European Union defines early school leavers as people aged 18-24 who have completed at most lower secondary education and are no longer involved in education or training.[1] The early school leaving rate of a certain cohort can be estimated once the vast majority of the cohort has completed secondary education. The share of students dropping out of school is a good predictor for the evolution of the early school leaving rate in the upcoming years and gives insight into the main factors behind early school leaving.

The indicator of the share of students dropping out of school describes the share of students in a given age group who drop out of a lower- or upper secondary school in a given academic year. We define dropping out as having been enrolled at the beginning of the academic year, but *not* successfully finishing the educational programme in that year, and then not being enrolled in secondary education at the beginning of the next academic year[2]. Dropping out does *not* include students shifting from one education programme or track to another one.

It is important to note the characteristics and limitations of this indicator. Most importantly, it does not measure the cumulative drop-out rate in a given cohort. Instead, it measures the flow from school enrolment into drop-out status in a given time period (one year). In other words, it measures how often an event of dropping out occurs within a one-year period. Also, the early school leaving rate in a given cohort cannot be directly derived from the data on dropping out of school for several reasons. First, some students drop out, but return to school at a later date and complete their studies. Second, some students drop out of an upper secondary programme, but they may have already obtained an upper secondary certificate before, in another programme. For example, after completing general secondary education in an academic or vocational secondary school at grade 12, many students enrol in a vocational programme in a vocational secondary or a vocational school, and some of these

[1] This definition was agreed by EU Education Ministers in the Council in 2003 (Council conclusions on "Reference levels of European Average Performance in Education and Training (Benchmarks)", May 2003.

[2] For example, a student dropping out from the academic secondary track is one who was enrolled in a general upper secondary school at the beginning of year t, is not enrolled in any secondary school at the beginning of year t+1 and did not take the final school leaving exam at the end of year t. The definition is closely related to that used in Fehérvári (2015). The so called HÍD programmes, a collection of second chance programmes, are taken into account when enrolment is considered, but their completion does not count as successfully finishing an upper-secondary programme.

then drop out. Another example is a student finishing vocational school and continuing in an academic or vocational secondary school in order to get an upper secondary certificate of full value. As in the available dataset educational attainment is not recorded, it is not possible to identify these groups. Finally, students from families moving abroad are also included among those not enrolled in the next year.

Table 1.1 represents the share of students dropping out by school type and the type of enrolment (full time and part time) for the years 2014-2016. The year 2014 denotes the academic year 2014-15, and so on. Note that, following the definition above, transfers from one track to another are not considered as dropping out.

The results show that dropping out of school occurs quite often in adult education (i.e. in part-time programmes) in every school type. At the same time, there are significant differences in dropping out by school type among full-time students. Dropping-out is rare in general schools up to 14 years (i.e. the expected age of completing general education) and academic upper secondary schools while it is significant in vocational secondary schools and alarmingly frequent in vocational training schools and HÍD programmes. Within the three-year period, no marked changes over time can be observed.

Figure 1.1a shows the share of students dropping out of school by age for the years 2014-2016. Age refers to their age at the beginning of the academic year. The figures indicate that the frequency of dropping out increases with the age of the student. While until the age of 15 dropping out is rare, between the age of 15 and 18 the share of students dropping out increases steadily from 5% to 10%. Note that students who are 15-year old at the beginning of the academic year reach the compulsory education age (16) in that year. After the age of 18 the share of students dropping out increases more sharply. Among the 20-year-olds, it is above 20%. However, above the age of 18, there are more and more students who already have an upper secondary school leaving certificate ("érettségi") and are enrolled in postsecondary vocational programmes. Moreover, a substantial share of these students is enrolled in part-time education to obtain a second qualification. Consequently, after age 18 the drop out indicator becomes a less strong predictor for early school leaving.

Figure 1.1b shows the number of students dropping out of school by age. Beyond the age of 19 the number of students dropping out decreases, though their share increases. This is due to the decreasing overall number of students enrolled in public education. As age increases, more students have already completed their studies or dropped out.

Importantly, the population for which dropping out is measured becomes more and more negatively selected with the increase of age because of the growing share of students who struggle to meet the standards set by the school and have repeated a grade once or more. Students having experienced school failure are more likely to drop out.

In the remaining part of this section, we will focus on dropping out within the 15-18 age group, which is the strongest predictor for early school leaving. As the shares are quite similar in the three years, we will look at 2016 in more detail.

Figure 1.2 shows the share of students dropping out of school in 2016 by age and gender. While the probability of dropping out at the age of 15 is the same, a 1 percentage point gap in favour of girls opens up by the age of 17.

Figure 1.3 represents dropping out by school type. Among students still enrolled in a general school and in HÍD programmes at the age of 15-18 the probability of dropping out is exceptionally high, ranging from 22 to 60 percent. Note that the students studying in a general school above the age of 15 have repeated a grade at least once. Those who have passed the age of 16 are most likely to take part in part-time education. In other words, this is a strongly selected group of students who have failed to complete lower secondary education in due time. This also holds for the HÍD programme, a collection of second chance programmes intended to provide remedial education for those who have dropped out from mainstream lower or upper secondary education. The results suggest that a substantial share of students participating in the HÍD programmes do not succeed in finding their way back to upper secondary education. However, it is important to note that the general school and the HÍD programmes cover only a minor share (1-3%) of students in these age groups.

Dropping out is also common in vocational training schools. From the age of 15 to 17 the frequency of dropping out increases from 10 to 22 %. At the same time, students in the academic secondary and vocational secondary track only seldom drop out[3].

Finally, *Figure 1.4* depicts dropping out by age and region. The results suggest that the poorer the region is, the more students drop out. Moreover, students in poorer regions tend to drop out at younger ages. The gap across the regions is the widest at the age of 15, when the

[3] Although the rate of dropping-out from the vocational secondary track in general, i.e. considering all age groups, is relatively high (more than 6 %, see Table 1.1), it is much lower in the age group below 18 (see Figure 1.3). This indicates that dropping out from the vocational secondary track most often occurs beyond the compulsory education age, in particular from the additional vocational training programmes, after taking the general school leaving exam in grade 12.

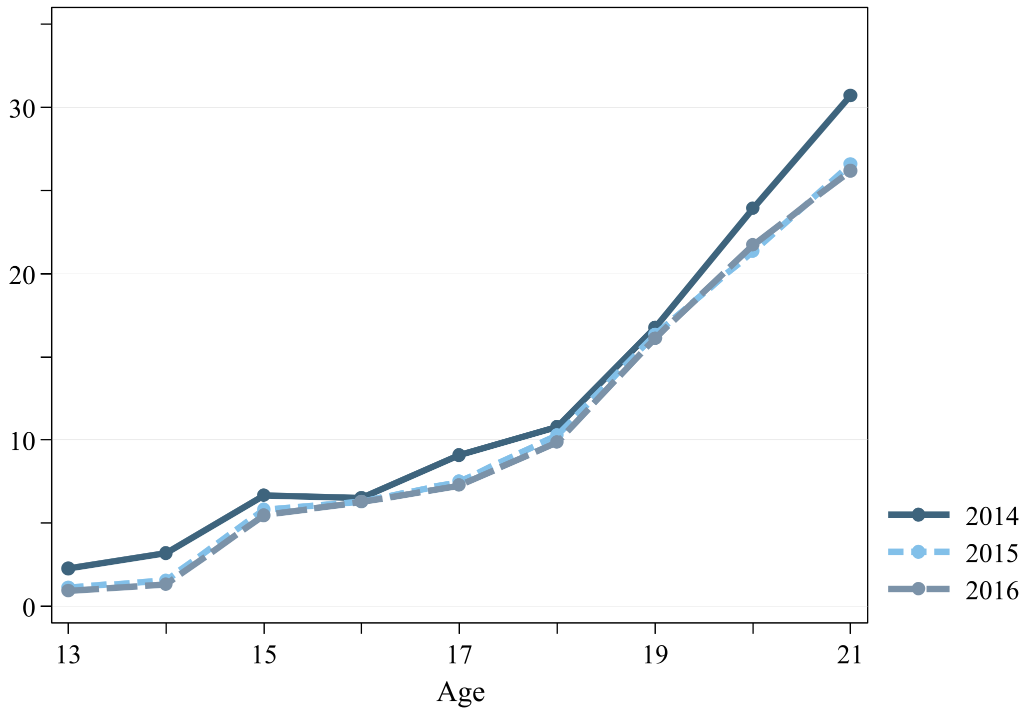
share of students dropping out in the two poorest regions, Northern Hungary and the Northern Great Plain, is the double of the average values of the most developed regions. At the same time, the age gradient is less steep in the Northern Great Plain, and it is even reversed in Northern Hungary. This pattern also indicates that many students drop out of schools ‘as soon as possible’, i.e. once they have reached the end of compulsory education age.

Table 1.1 The share of students dropping out of school by school type and the type of enrolment, 2014-2016, %

Type of enrolment	**Year**	**Share of students dropping out of school**				
		General school	Academic secondary	Vocational secondary	Vocational training school	HÍD programme
Full time	2014	1,59	1,36	8,21	17,32	28,05
Full time	2015	1,07	1,00	7,13	15,86	34,90
Full time	2016	0,93	1,06	6,52	15,27	36,69
Part time	2014	50,04	33,79	33,23	34,28	28,13
Part time	2015	71,40	31,87	29,57	31,42	55,00
Part time	2016	46,68	29,10	31,21	36,09	63,64

Figure 1.1 Dropping out of school by age, 2014-2016

The share of students dropping out of school



The number of students dropping out of school

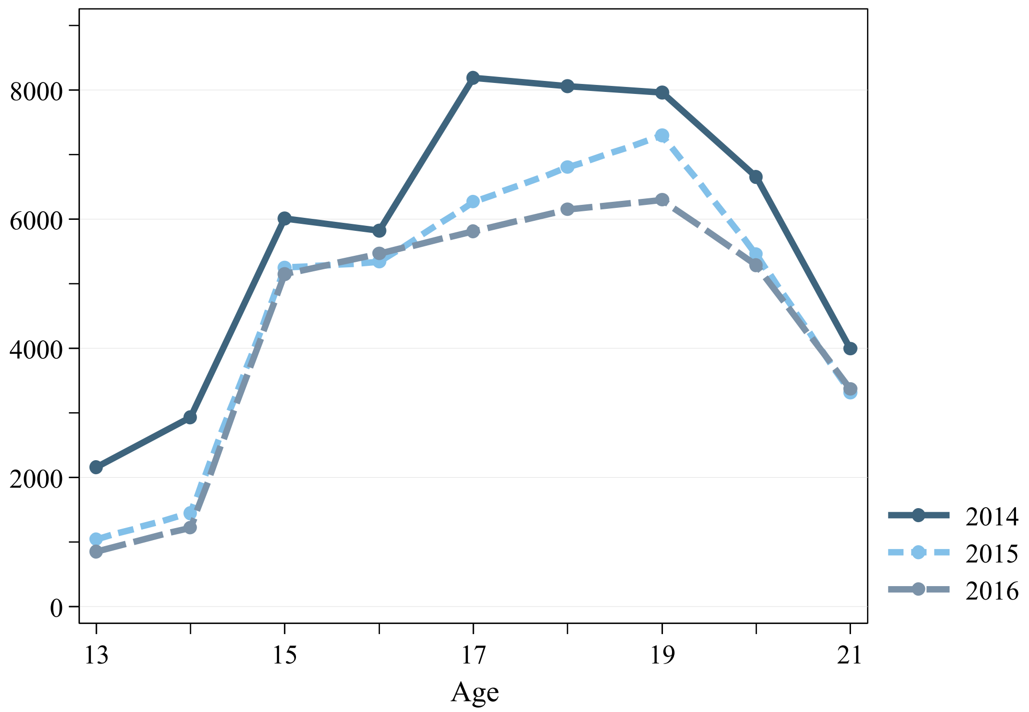


Figure 1.2 The share of students dropping out of school by age and gender, 2016

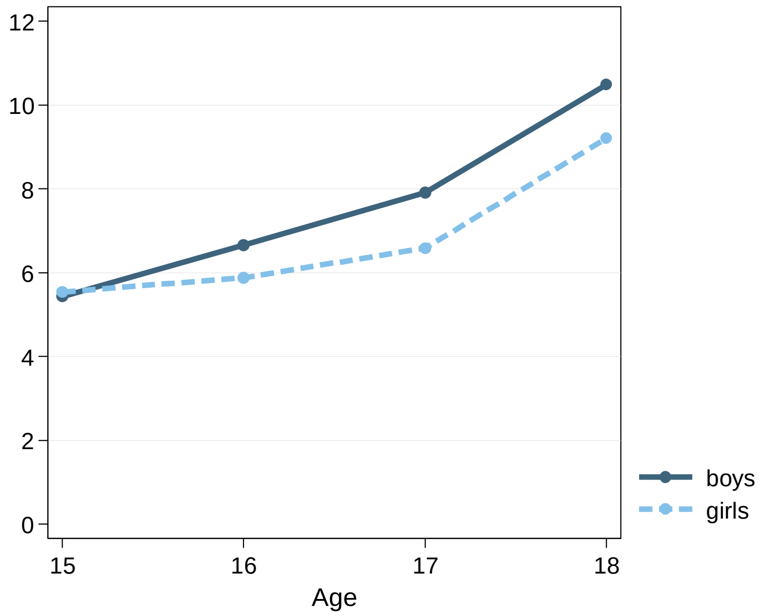


Figure 1.3 The share of students dropping out of school by age and school type, 2016

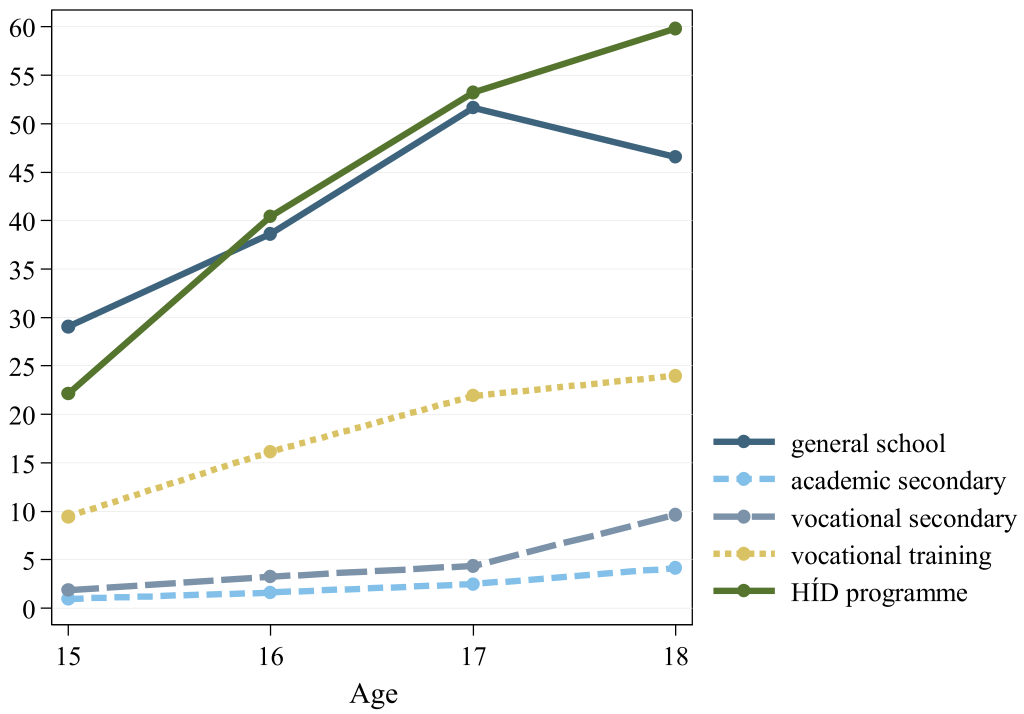
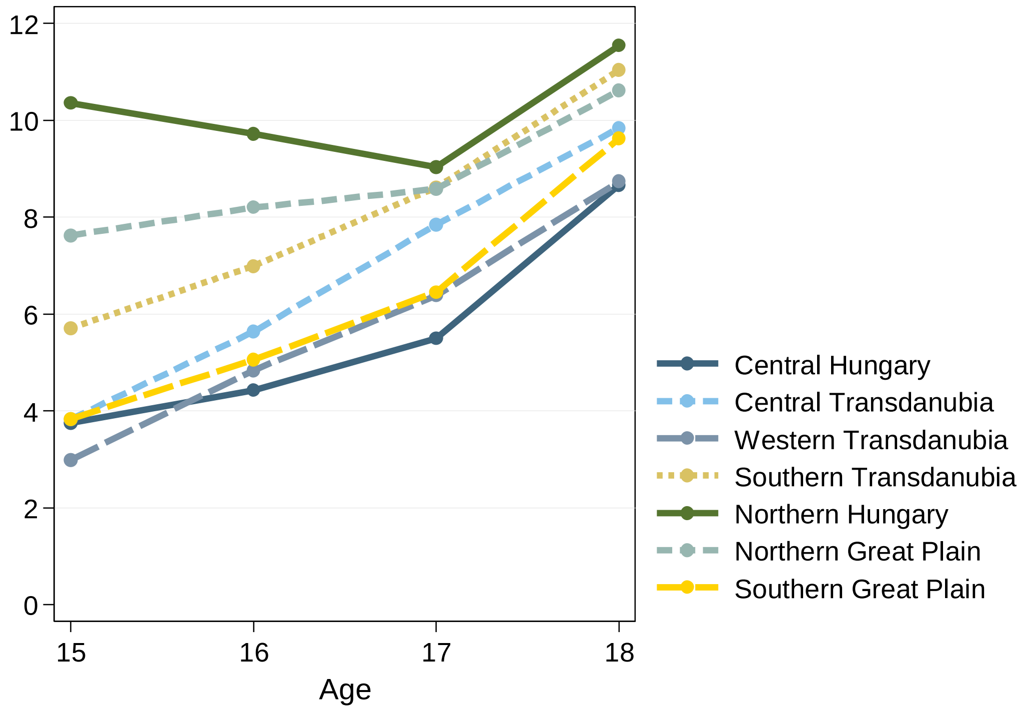


Figure 1.4 The share of students dropping out of school by age and region, 2016



Indicator 2: The ratio of students with psychological developmental disorders

Psychological developmental disorder (PDD) – the common name for students with (i) attention-deficit hyperactivity disorder, (ii) dyslexia, dyscalculia or dysgraphia and (iii) behavioural regulation disorder – has only been enumerated in official education statistics since 2012. Before 2012, behavioural and developmental disorders were recorded based on their cause (organic vs. non-organic) and not on their symptoms. Students with PDD are identified in the context of diagnosing students with special education needs (SEN). Their data are collected in a separate table describing the reasons for the SEN status as, for instance, the type or degree of disability. This requires a legal procedure in which an expert committee attempts to identify the reasons for the SEN status. If a student has multiple reasons for their SEN status, only the most acute one is recorded. That is, a student can only be included in the statistics once. As PDD is usually a disorder of a milder degree compared to many other reasons for which students are assigned SEN status (e.g. autism, other forms of intellectual disability or physical disabilities), this number is a lower bound estimate of all students in the education system with PDD.

Figure 2.1 shows that the share of students with SEN of all students has risen from 4.7% in 2012 to 5.4% in 2016. Less than half of these students are diagnosed with PDD (see Figure 4.2, right axis). As *Figure 2.2* shows, the increase in the share of students with SEN reflects the increase in the share of students with PDD from 2 to 2.6% of all students and from 44.5 to 49% of the SEN students.

Figure 2.3 depicts the percentage of these students by grade. Apparently, there are more and more students with PDD through the grades of primary and lower secondary education (1-8 grades), and there are significantly fewer students with PDD in secondary level (9-12 grades). In kindergarten (K. on the figure) or in grades over 12 there are hardly any students with PDD.

The most prevalent sub-categories of PDD are dyslexia, dysgraphia or dyscalculia. Their share has been increasing from 1.75% to 2.2%, while the share of students with "attention-deficit hyperactivity disorder" (ADHD) or "behavioural regulation disorder" (BRD) remained constant at around 0.22% and 0.15%, respectively (*Figure 2.4*).

Figures 2.5 to 2.7 show the same statistics by school type. All three types of disorder are much more common in the vocational training programs than in the other two upper secondary school types (vocational secondary and academic). Moreover, they are most common in the HID programs. In the case of dyslexia, dysgraphia or dyscalculia (*Figure 2.5*), the general schools have much higher average than the academic and the vocational secondary tracks, while vocational training tracks show higher numbers than the general schools. This suggests that students with these types of PDD are selected into vocational training (or later HID) programs. In the case of ADHD (*Figure 2.6*) and BRD (*Figure 2.7*), the average is higher in the general tracks than in the three upper secondary tracks. It may be that students with ADHD simply do not enroll into secondary education, or that their disorder is no longer recorded. It should be noted that, while this trend is obvious, the percentage of such cases is very small.

Figures 2.5b, 2.6b and 2.7b show the percentage of girls with PDD among all girls. Apparently, there are somewhat fewer girls diagnosed with these types of disorders than boys. This difference is the most obvious among students in vocational training programs (and the HID program), where the ratio of all students with dyslexia, dysgraphia or dyscalculia is around 4-5%, while it is only around 2-3.5% among girls.

Figure 2.1. Share of students with SEN of all students, all students (grades 1-12), percent

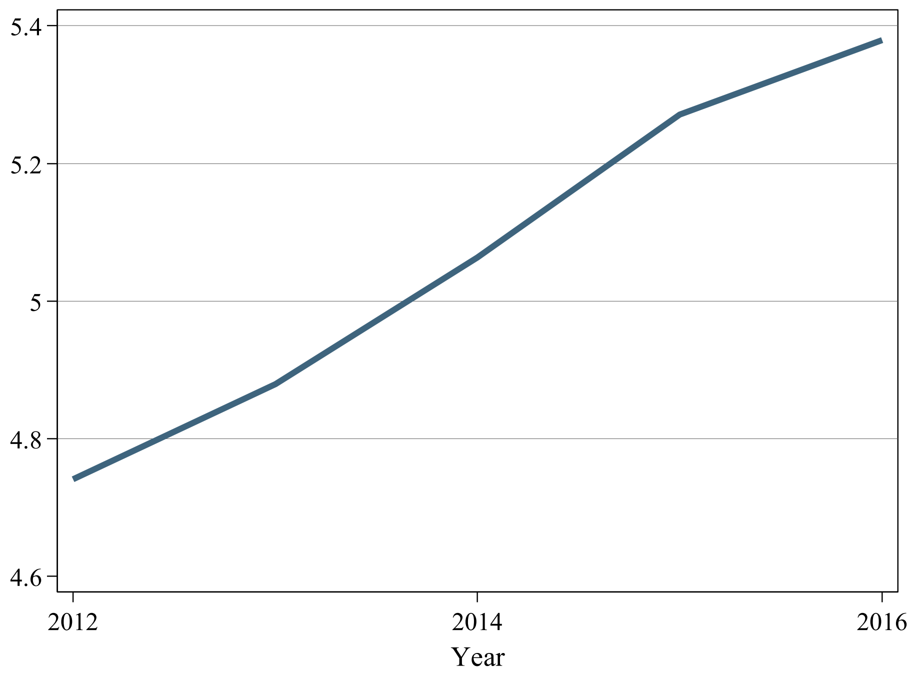


Figure 2.2. Share of students with PDD of all students and share of students with PDD of all students with SEN, percent

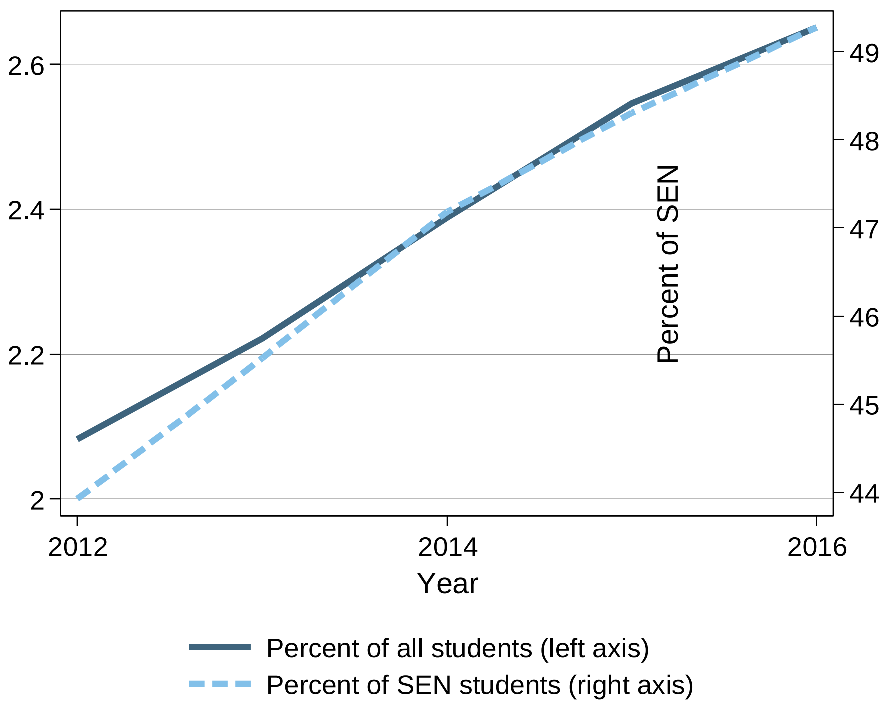


Figure 2.3. Share of students with PDD by grade and year, percent

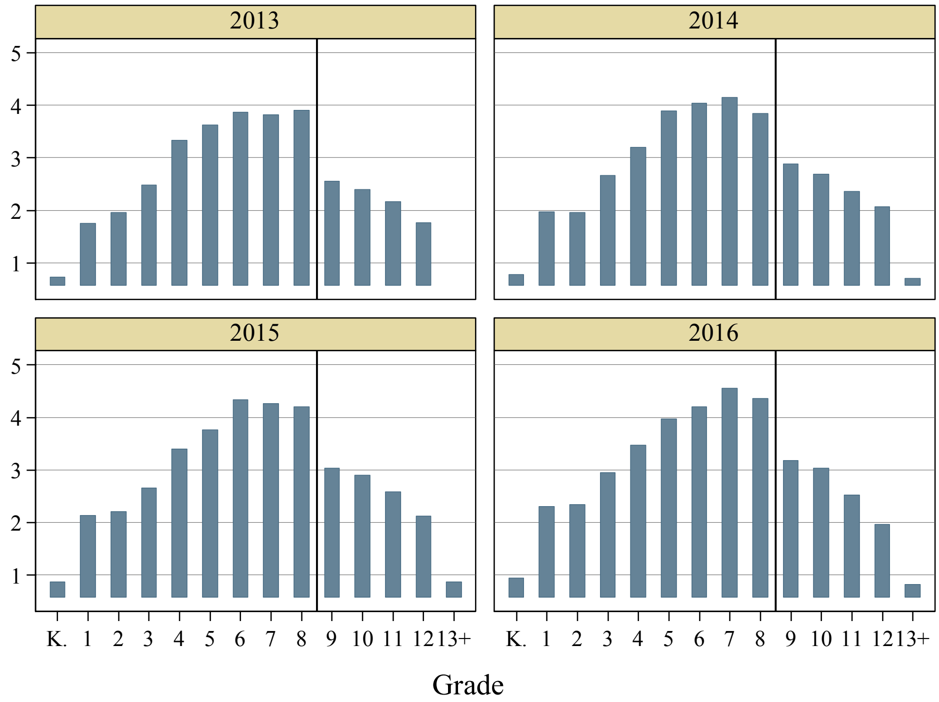


Figure 2.4. Share of students with PDD by type of disorder as a percentage of all students

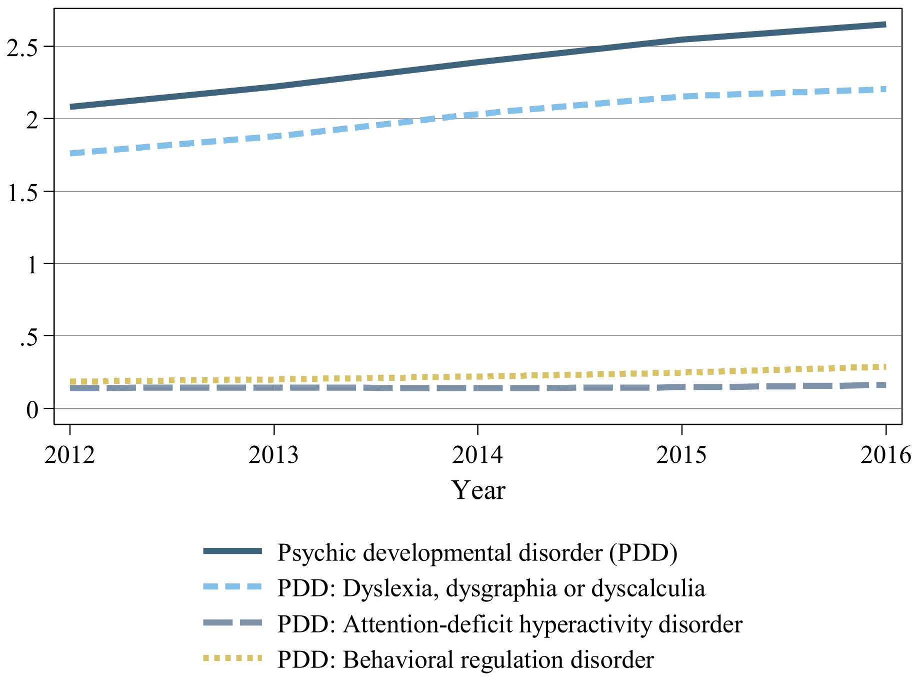
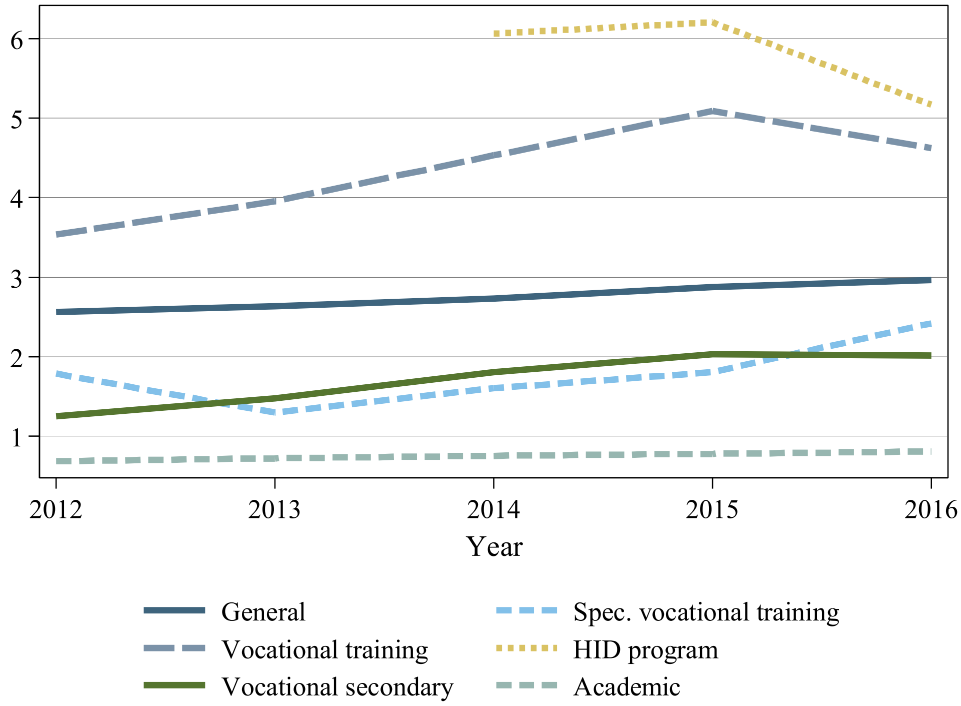


Figure 2.5. Share of students with Dyslexia, dysgraphia or dyscalculia by school-type, percent

a) **All students**



b) Girls only

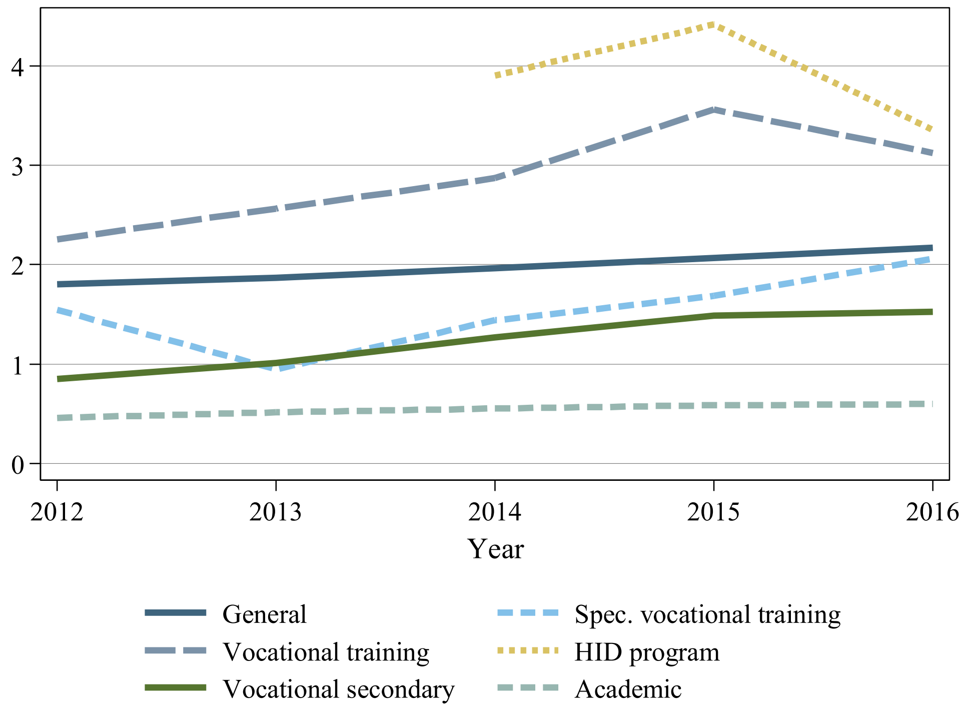
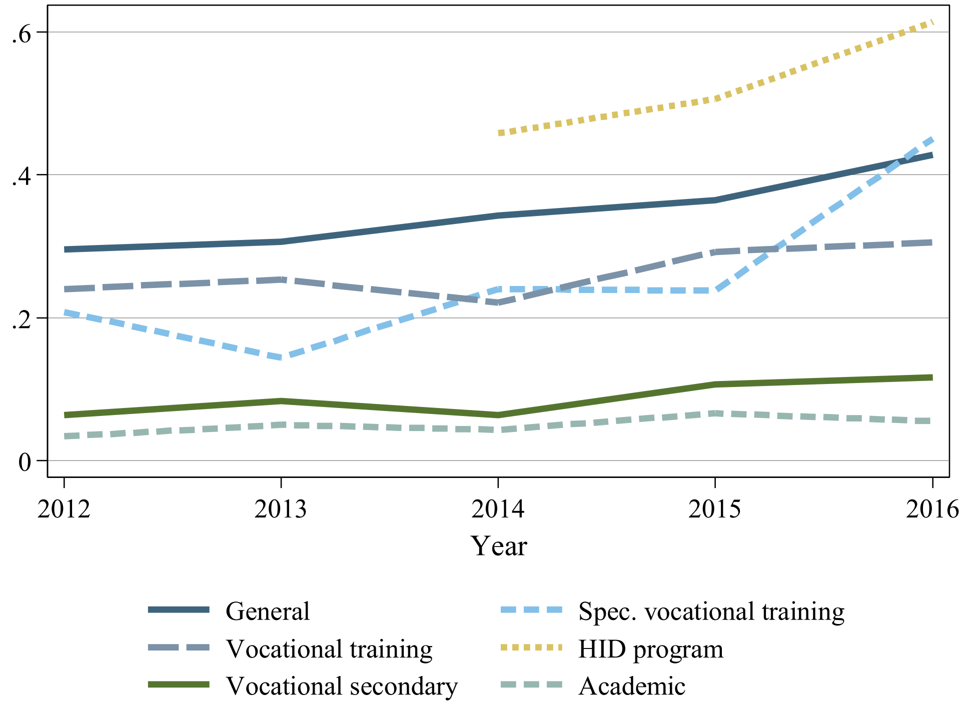


Figure 2.6. Share of students with attention-deficit hyperactivity disorder by school-type, percent

a) All students



b) Girls only

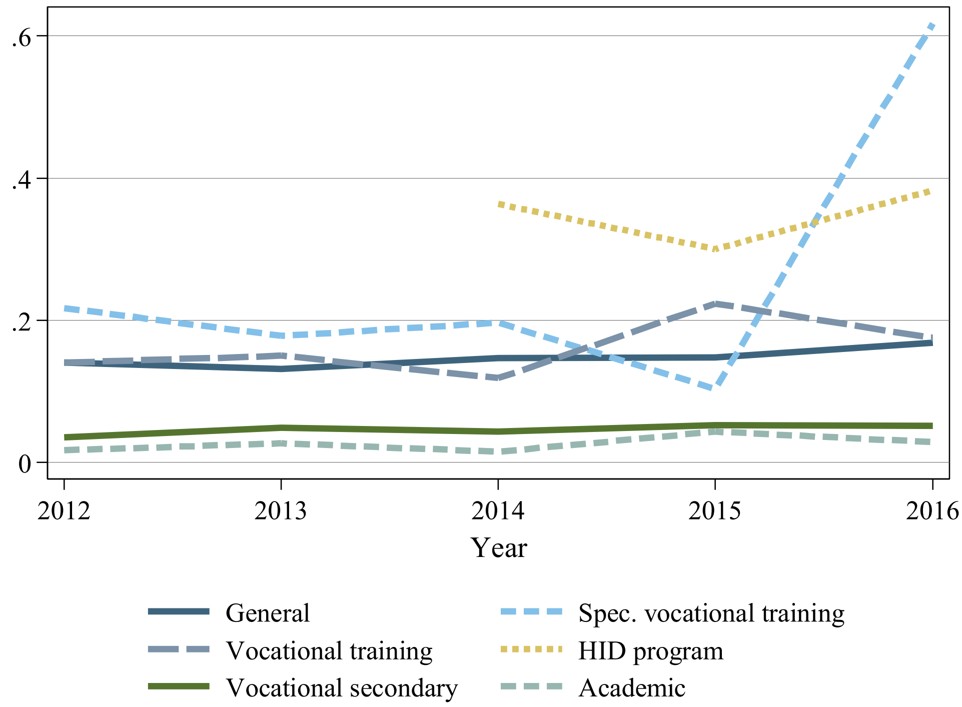
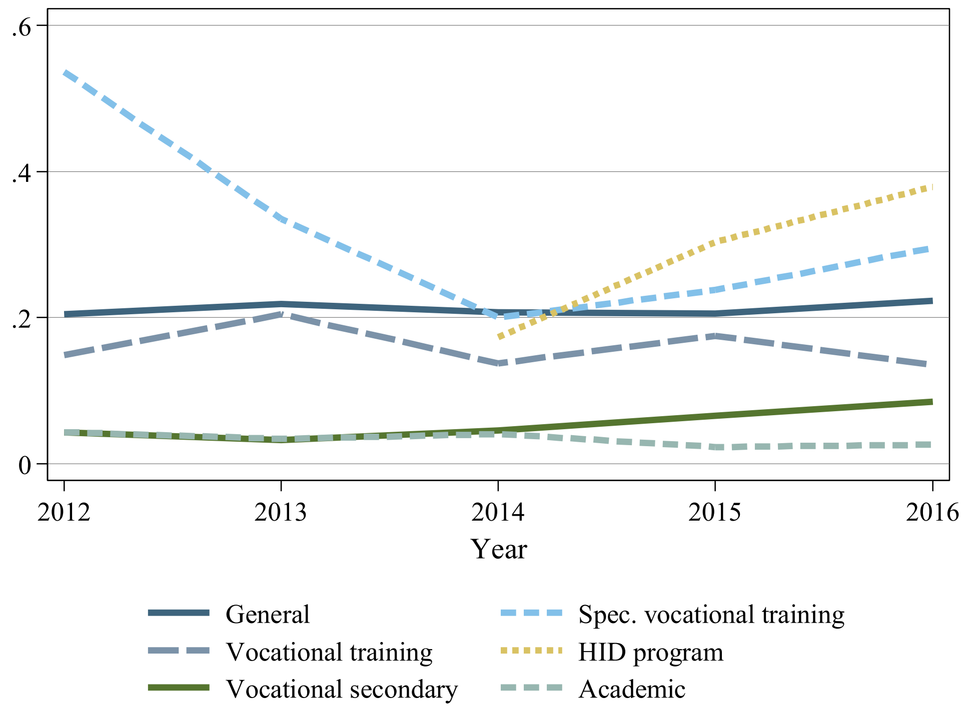
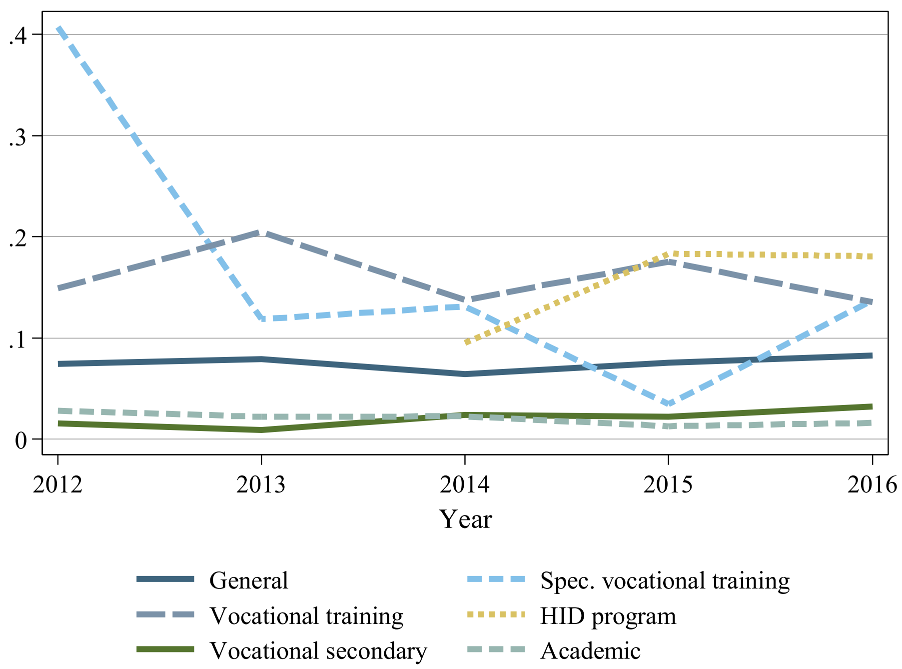


Figure 2.7. Share of students with behavioural regulation disorder by school-type, percent

a) All students



b) Girls only



Indicator 3: Ratio of higher education applicants with at least a B2 level language exam and Indicator 4: Ratio of students admitted to higher education with at least a B2 level language exam

Indicator 3 shows the share of applicants to higher education who have at least one intermediate (level B2) language exam, while *Indicator* 4 shows the share of students admitted with at least one intermediate (level B2) language exam.

These indicators reflect the efficiency of language teaching at secondary schools and may also be used as indicators of equity. Obtaining a language exam increases the chances of admission to higher education, as extra points are given for language exams, and consequently the total admission score of the applicant increases. Differences in the shares of applicant and admitted students with a language exam over the years, by type of secondary schools and gender reflect differences in the probability of applying and being admitted to higher education for these groups.

According to the Government Decree on higher education admission procedures (No. 423/2012. (XII. 29.), from 2020 at least one B2 level language exam will be required for admission to higher education. This change in the minimum requirement for admission to higher education degree programmes might affect both the demand for and equal access to higher education.

Every year there are three admission rounds to higher education. The main, autumn, or “normal procedure”, for programmes starts in September; an additional round takes place at the end of summer for vacant places on programmes starting in September; and there is a third round in the winter for programmes starting in February. The second and third rounds are less significant, and concern only a small number of institutions and programmes.

The indicators were calculated in two different ways, in each using data from a different sample of applicants. First, data for all admission rounds were used, for both full time and part time education, and including all applicants applying for higher vocational training, bachelor or so-called undivided (“osztatlan”) programmes[4], that is, those who were applying for their

[4] An undivided one-tier programme leads to a master’s degree with no bachelor level. e.g.: law, medicine, forest engineering and teacher training.

first degree. Second, we used data from the autumn, or “normal” round of applicants, both for full time and part time education, for students who had passed the matriculation exam in the year of application, and who applied for higher vocational training, bachelor or undivided programmes. The aim of calculating the indicators using the second method was to exclude the double counting of the language exams and to capture the changes in the efficiency of language education at the secondary school level. In our calculations, all language exams were taken into account for which the applicants get extra admission scores. That is language exams at an advanced level as part of maturity exam was also taken into consideration because prospective students get extra admission scores for these advanced level maturity exams (“emelt szintű érettségi vizsga”) in foreign languages too. The double counting of language exams in the case of the first method might occur in the case of a student who had already applied in the first, “normal round” to higher education, but having failed in that round, then makes a fresh application in the second or third rounds. Using the first method, a student who has a language exam, but who applies in all rounds is counted three times, although they have only one language exam. In all years, students who have passed language exams in different years and are from different cohorts apply for higher education. The language exams of those who have passed their matriculation exam in the year of the application approximate the changes in the effect of language teaching of secondary education better than using the data for all applicants.

Figure 3.1 shows the share of applicants who have language exams based on calculations using the two described samples. As for all applicants (applying for full time or part time, at any admission rounds), the share of applicants who have a language exam increased between 2007 and 2016 by nine percentage points, reaching nearly 44 %% in 2016. The share of applicants with a language exam among students who passed their matriculation exam in the year of application increased by six percentage points and was about 48 %. In spite of the increase, this means that in 2016, 52 % of students who passed their matriculation exam in 2016 would not have had the necessary qualification to apply for higher education because of the lack of language exam, had the new regulation on higher education admission come into force. Among all applicants, this share would have been 56 %.

Among all students admitted, the share of students who have a language exam increased from 40 to 55 percent between 2007 and 2016, while among students who had passed their maturity exam in the year of application, it was from 48 to 61 percent *(Figure 4.1).*

Between 2007 and 2011 a higher share of admitted women applicants had a language exam than men. After 2011, men outperformed women, and there is an increasing difference between genders to the advantage of men (*Figures 3.2 and 4.2*).

The share of applicants who have a language exam is much higher among graduates of academic secondary schools than among graduates of vocational secondary schools (Figure 3.3). This indicates the difference in the results of language teaching between the two types of secondary schools. In 2016, among applicants in the normal admission round who passed their matriculation exam in the year of application from academic secondary schools, 54% had a B2 language certificate, while among applicants from vocational secondary schools this was the case for only 25%. From those admitted 64.5% had a B2 language certificate among students from academic secondary schools, and 40 percent among students from vocational secondary schools (*Figure 4.3*).

This means that in 2016 about 46 % of students who passed their matriculation exam in 2016 and who finished their studies in 2016 in academic secondary schools would not have had the necessary qualifications when applying to higher education because of the lack of language exam, had the new regulation on higher education admission already been in force. Among students from vocational secondary schools, 75 % would not have had the necessary qualifications to apply to higher education.

Figure 3.1.Share of applicants to higher education who have a B2 language certificate, %

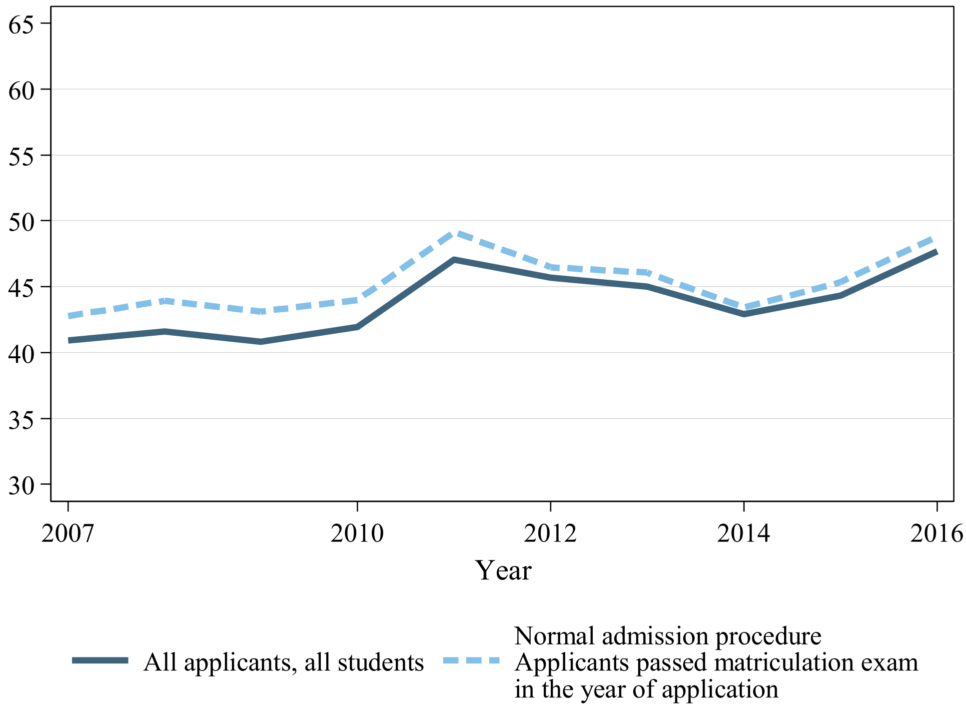


Figure 4.1. Share of admitted students who have a B2 language certificate, %

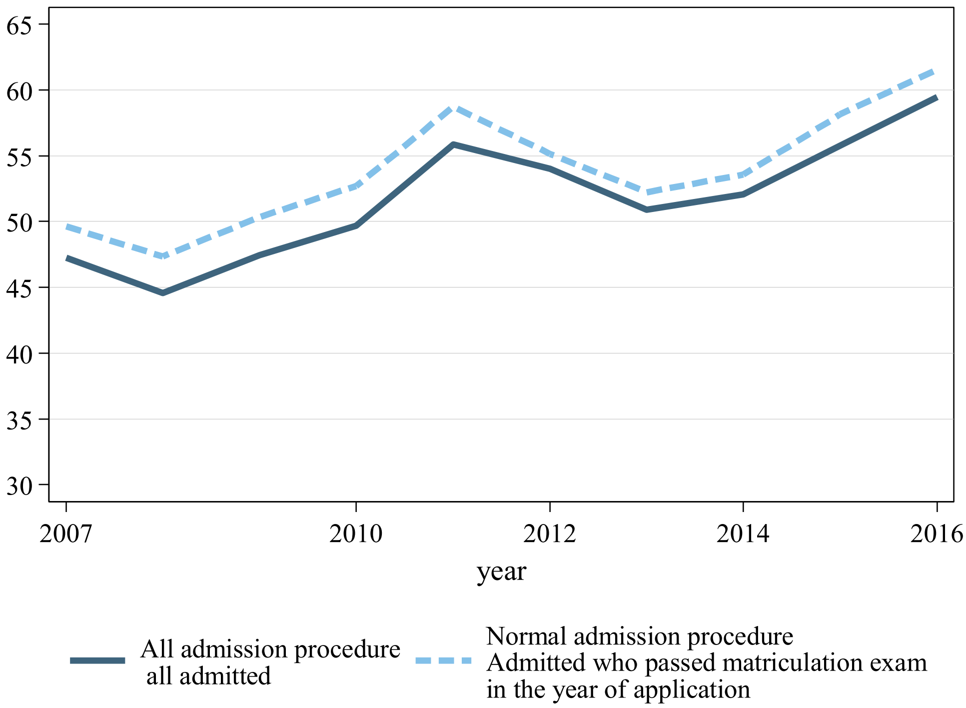


Figure 3.2. Share of applicants to higher education who have a B2 language certificate by gender. Normal admission procedure. Applicants who passed the matriculation exam in the year of application, %

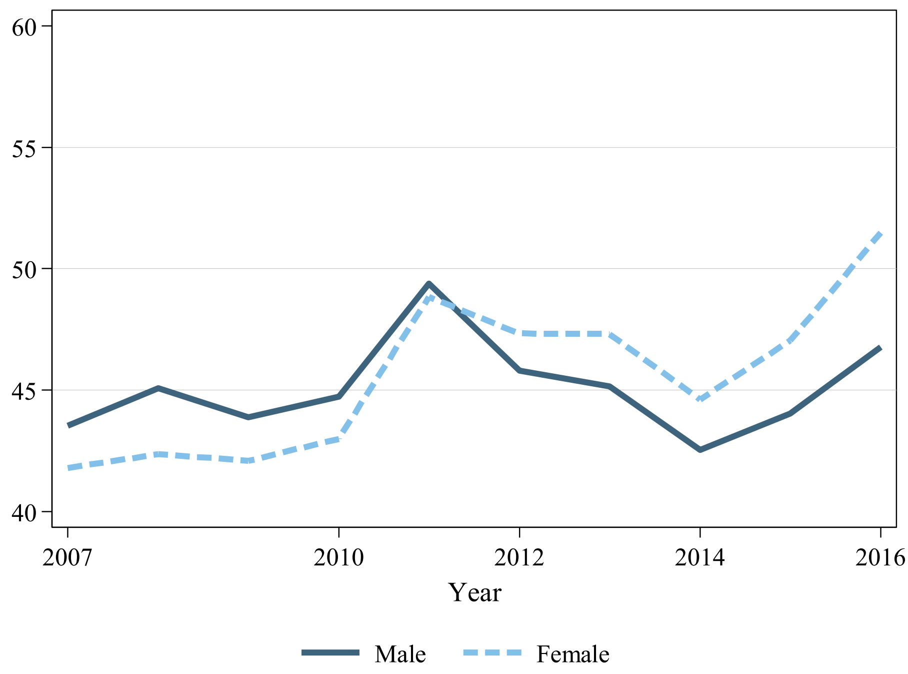


Figure 4.2. Share of admitted students who have a B2 language certificate by gender. Normal admission procedure. Applicants who passed the matriculation exam in the year of application, %

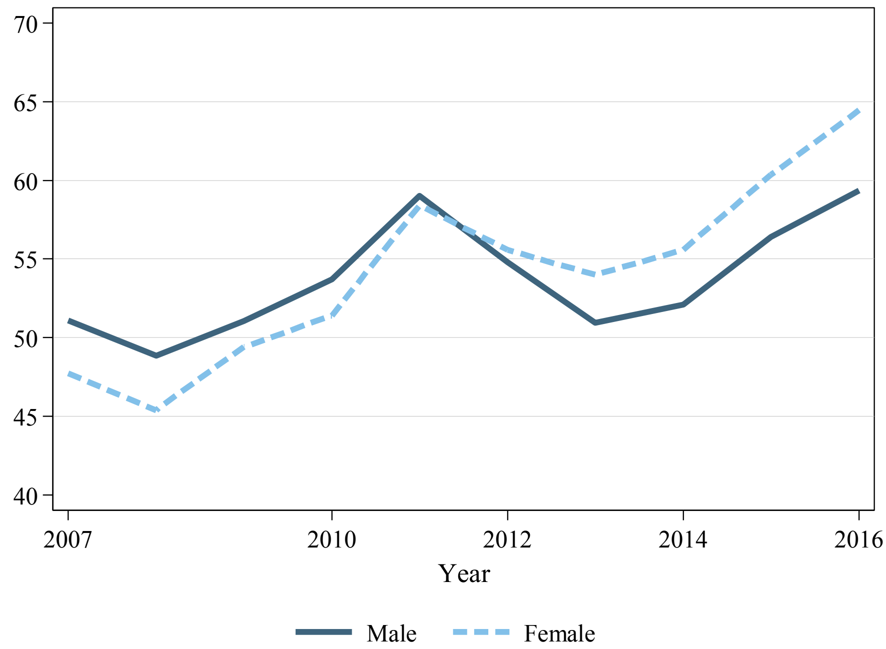


Figure 3.3. Share of applicants to higher education who have a B2 language certificate by type of secondary school. Full time education. Normal admission procedure. Applicants who passed the matriculation exam in the year of application, %

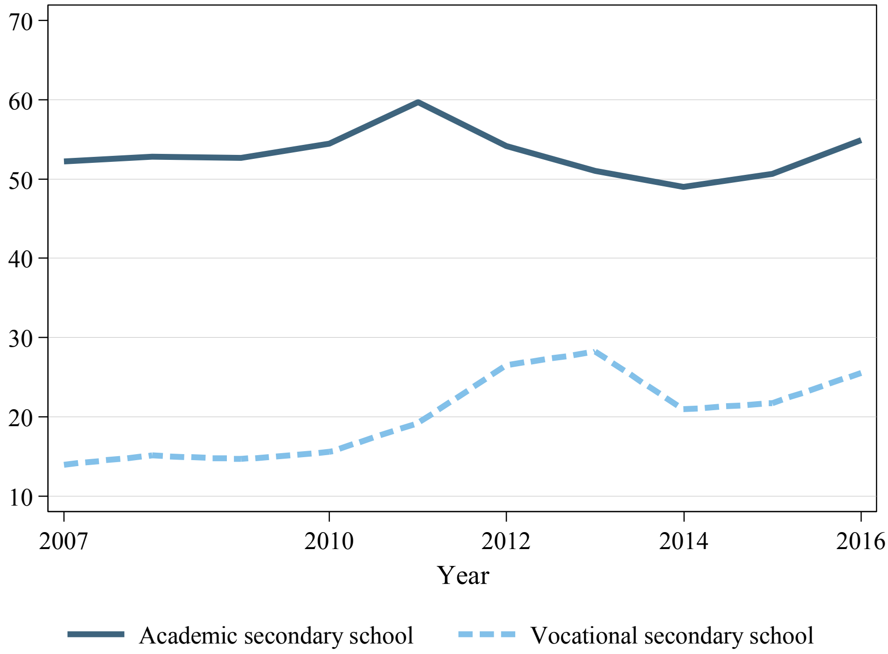
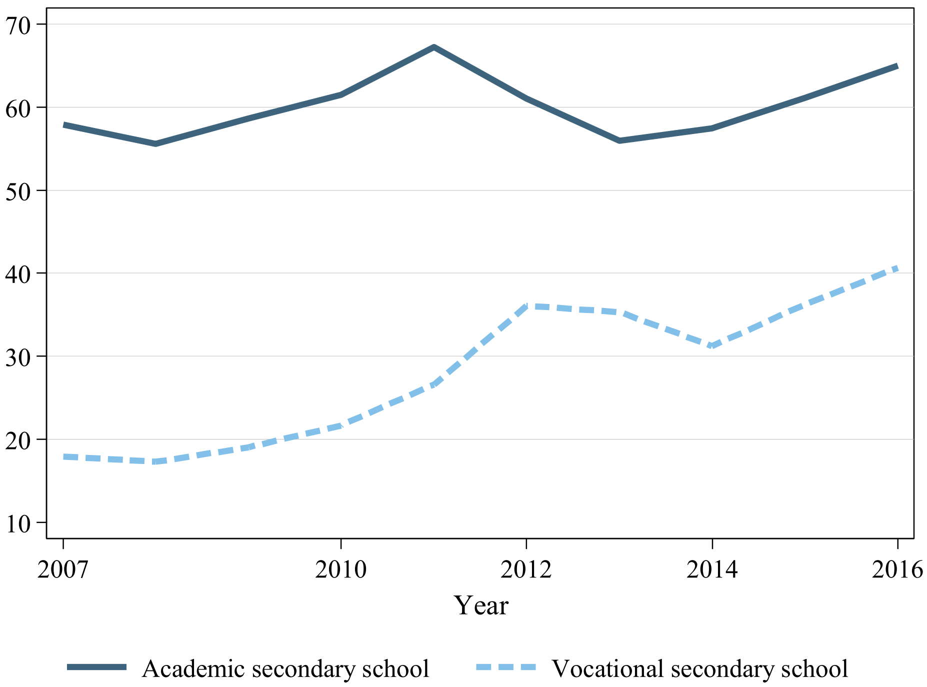


Figure 4.3 Share of admitted students who have a B2 language certificate by type of secondary school. Full time education. Normal admission procedure. Applicants who passed the matriculation exam in the year of application, %



Indicator 5: Segregation index

The segregation index (S) is a widely used measure of school segregation. It is based on the exposure rate of majority students to minority students (E):

$$E = \sum_{i=1}^{I} p_i \times \frac{N_i - K_i}{N - K},$$

where i denotes schools, p is the ratio of minority students, N is the number of students, and K is the number of minority students. In other words, the exposure index is the weighted average of the composition of schools, where the average is taken with weights equal to the shares of majority student enrolment. The minimum value of E is 0, and the maximum value of E is p (the ratio of minority students in the whole country).[5] The segregation index is intended to solve the problem that the maximum value of E depends on p. S takes the exposure index and normalizes it to its theoretical maximum. Formally,

$$\mathrm{S} = 100 \times \frac{\mathrm{p} - \mathrm{E}}{\mathrm{p}}.$$

The higher level the index, the higher level is segregation. Specifically, S is represented by a value between 0 (perfect integration, even distribution of minority students) to 100 (complete segregation, separate schools/classes for minority and majority students). The segregation index can be interpreted as the percentage of possible contacts between minority and majority students that are made impossible by segregation.

Since students' ethnicity is not recorded in the Hungarian administrative datasets, three different definitions of minority student status are used to describe the segregation process in Hungary: (i) disadvantaged student, (ii) cumulatively disadvantaged student, and (iii) student with special educational needs. [6] The segregation index is calculated for primary

5 If minority and majority students attend separate schools (schools where the share of minority students is either 100% or 0%), E would be 0. It would indicate that an average majority student attends a school with no minority schoolmates. If the distribution of minority students is even (every school has the same majority-minority composition), E would be equal to p.

[6] Students with special educational needs: students requiring special treatment who, based on the expert opinion of the committee of experts, are handicapped or have perceptual, mental deficiency or speech disorder, or have multiple disabilities in case of the simultaneous occurrence of several deficiencies or have autism spectrum disorder or any other psychic disorder (serious disorder concerning learning or the control of attention or behavior) (Act CXC of 2011 on National Public Education).

Disadvantaged students: children entitled to permanent child protection allowance who meet one of the following conditions: a) the parents have at most primary education, b) the parents have been registered as job-seekers for at least 12 months within the last 16 months, c) the family lives in inadequate housing conditions or neighborhood (for the details see Article 67/A, Act XXXI of 1997 on the Protection of Children and the. Administration of Public Guardianship).

school level students (grade 1-8), and between-school segregation is primarily reported using information from the administrative dataset of KIRSTAT.

Using the grade-8-student data of the Hungarian National Assessment of Basic Competencies (NABC), we can also illustrate the importance of the within-school segregation. It should be noted that the results based on *NABC and KIRSTAT data are not directly comparable*, since the two datasets cover different student populations. In addition, the NABC dataset contains information at the school site level ("telephely"), whereas the KIRSTAT contains information at the school site-program type level ("feladatellátási hely")[7]. For convenience, throughout the analysis of the segregation index the term "school" is used, but it refers to school site or school site-program depending on the data source.[8]

Depending on the definition of minority status, the segregation index follows different trajectories between 2008 and 2016 (*Figure 5.1*). The segregation of disadvantaged and cumulatively disadvantaged students increased in this period, from 27.7 to 38.6 and 26.6 to 36.4, respectively. The increase is probably related to the change in the legal regulation of the disadvantaged student status. From September 2013, the disadvantaged student status is more strictly regulated: students are required to meet stricter criteria to be classified as disadvantaged or cumulatively disadvantaged. As a result, at the primary level the share of disadvantaged students declined from 33.7% to 16.7% between 2012 and 2014 (i.e. a decline of around 50%), whereas the share of cumulatively disadvantaged students decreased from 12.9% to 9.7% (i.e. a decrease of around 25%). Both shares decreased slightly further during the following two years. In 2016, the share of disadvantaged students was 15.3% and the share of cumulatively disadvantaged students was 8.6%. The least disadvantaged students lost their status due to the law change. If these students are more likely to attend schools with an above average share of non-disadvantaged students, the change in the classification may have caused a significant increase in the segregation index without any "real" change in the composition of the schools. However, more appropriate data would be needed to properly analyze the causal effect of the 2013 law change, which is beyond the scope of this report.

Cumulatively disadvantaged students: 1) children entitled to permanent child protection allowance who meet tow of the conditions listed above; 2) children under foster care; 3) young adults receiving aftercare, (for the details see Article 67/A, Act XXXI of 1997 on the Protection of Children and the. Administration of Public Guardianship).

[7] Program type = general primary track or 6/8-year academic track.

[8] In 2015, the number of the school site-program type units ("feladatellátási hely") was 3773 in the KIRSTAT dataset at primary school level, whereas the number of the school sites ("telephely") was 2806 in the NABC dataset.

The segregation index of the SEN students decreased from 36.5 to 29.9 between 2008 and 2016. The decline is closely related to the significant decrease in the share of schools with a special educational programme and the share of the SEN students who attend these schools despite the increase of the share of students with SEN (see Indicator 2.).

In the next step, the segregation index is decomposed by geographical/institutional levels. The lowest level explored is the school, and the other two levels studied are the settlements and the micro-regions. The decomposition procedure of the segregation index by geographical/institutional levels is only performed for cities and towns (or more precisely, for schools in cities and towns). Villages are excluded since almost all of them have only one primary school, and therefore within-settlement segregation cannot be studied. Since village schools are excluded the total segregation (S) calculated in the decomposition exercise is different from the total segregation that is calculated for all Hungarian schools and was discussed above.[9]

Since the distribution of minority students at the level of larger geographical/institutional areas (e.g. micro-regions) strongly influences the possible distribution of minority students at the lower levels (e.g. settlements, or in practice, cities and towns), the aim of the decomposition is to measure the segregation at the lower levels conditioned on the distribution of minority students at the higher geographical/institutional level. For example, between-school segregation within cities and towns would be 0 if each school had the same degree of diversity (proportion of minority students) as its city/town. Since S can be additively decomposed, the sum of the segregation index attributed to each geographical level can be added up to get the total segregation index:

$$S = S^{mic} + S^{set} + S^{s},$$

where S is the total segregation, S^{mic} is the segregation attributed to the micro-regional level, S^{set} is the segregation between settlements (in practice, cities and towns), and S^{s} is the segregation within settlements. In other words, the decomposition sheds light on to what extent the total segregation index is attributable to (i) the between-school segregation within cities and towns, (ii) the between-cities/towns segregation within micro-regions, and (iii) the

[9] For example, the share of the (cumulatively) disadvantaged students and the standard deviation of this share across schools are much higher in villages. In contrast, the standard deviation of the share of the SEN students are much lower in villages than in cities and towns. Therefore, the segregation index of the (cumulatively) disadvantaged students is lower and the segregation index of the SEN students is higher for cities and towns. However, the temporal trends of the indices are not altered by the exclusion of the villages.

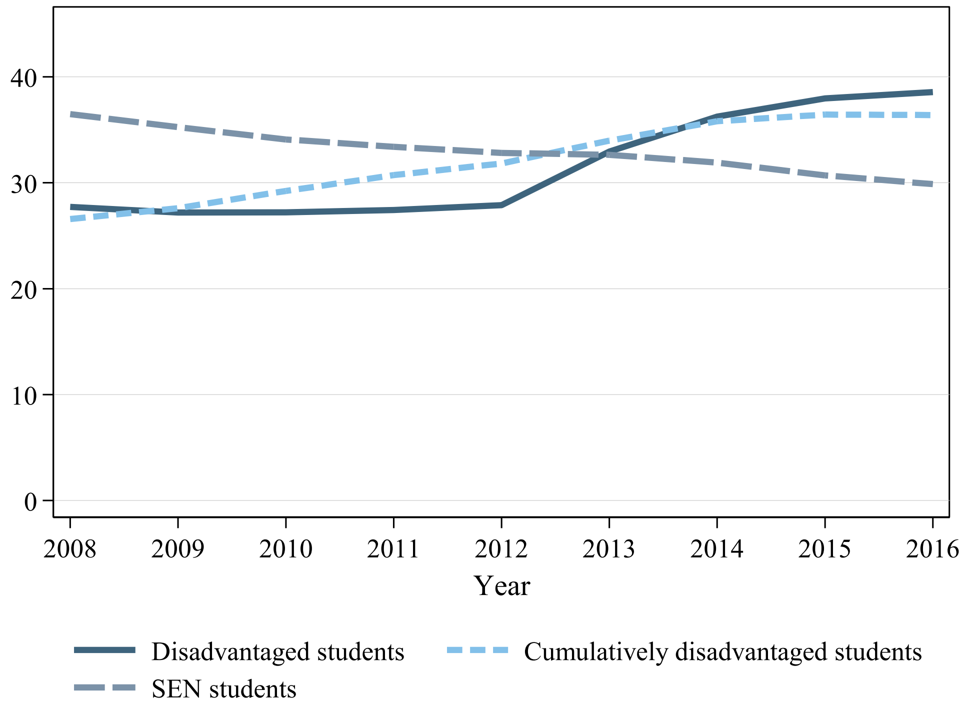
between-micro-region segregation. The latter two components might be due predominantly to residential segregation patterns, but the free school choice can also influence them.

The results of the decomposition are shown in *Figure 5.2*. In 2016, the total segregation (S) of the disadvantaged and cumulatively disadvantaged students calculated for schools in cities and towns are 29.8 and 28.7, respectively. According to the decomposition, a sizeable part of these segregations reflects that the disadvantaged and cumulatively disadvantaged students cluster in different micro-regions (S^{mic}). However, only a small part of the segregation can be attributed to the separation of the disadvantaged and cumulatively disadvantaged students between cities and towns within the micro-regions (S^{set}). This means that even if the share of the disadvantaged and cumulatively disadvantaged students in each city and town were equal to their micro-region's average, the segregation index would not be significantly lower. The between-school segregation within cities and towns represents a large component of the overall degree of segregation (S^{s}): a sizeable part in the segregation index is due to the fact that disadvantaged and cumulatively disadvantaged students attend different schools within cities and towns.

Decomposing the segregation index of SEN students gives a different result. In 2016, the total segregation of SEN students calculated for schools in cities and towns is 37.5. The distribution of SEN students is quite even across micro-regions, and across cities and towns within micro-regions, so, the contributions of these levels (S^{mic} and S^{set}) to the total segregation index are small. Separation between schools within cities and towns (S^{s}) is the main determinant of the segregation index.

Finally, we analyzed the within-school segregation using the NABC data for grade 8 students. Schools with only one class were excluded, since for these schools within-school segregation, by definition, is not measurable; to be able to compare between-school and within-school segregation, we need at least two classes per school. An important feature of the NABC dataset is that a significant share of the SEN students is missing (and therefore some of the cumulatively disadvantaged students as well), as they are not obliged to fill out the tests. Although this could influence the findings, nevertheless, the results suggest that the within-school segregation of the cumulatively disadvantaged students adds little to the between-school segregation, whereas the within-school segregation of the SEN students seems to be more important (*Figure 5.3*).[10] In other words, the cumulatively disadvantaged students are distributed more or less evenly across classes within the schools, but the distribution of SEN students across classes is more uneven. However, it should again be noted that the NABC data are incomplete, and these results are therefore rather indicative. In addition, since the NABC and the KIRSTAT datasets cover different student populations and schools with only one class (grade 8) were excluded, the between-school segregation in this exercise is not equal to the between-school segregation depicted in *Figure 5.1* or *Figure 5.2*.

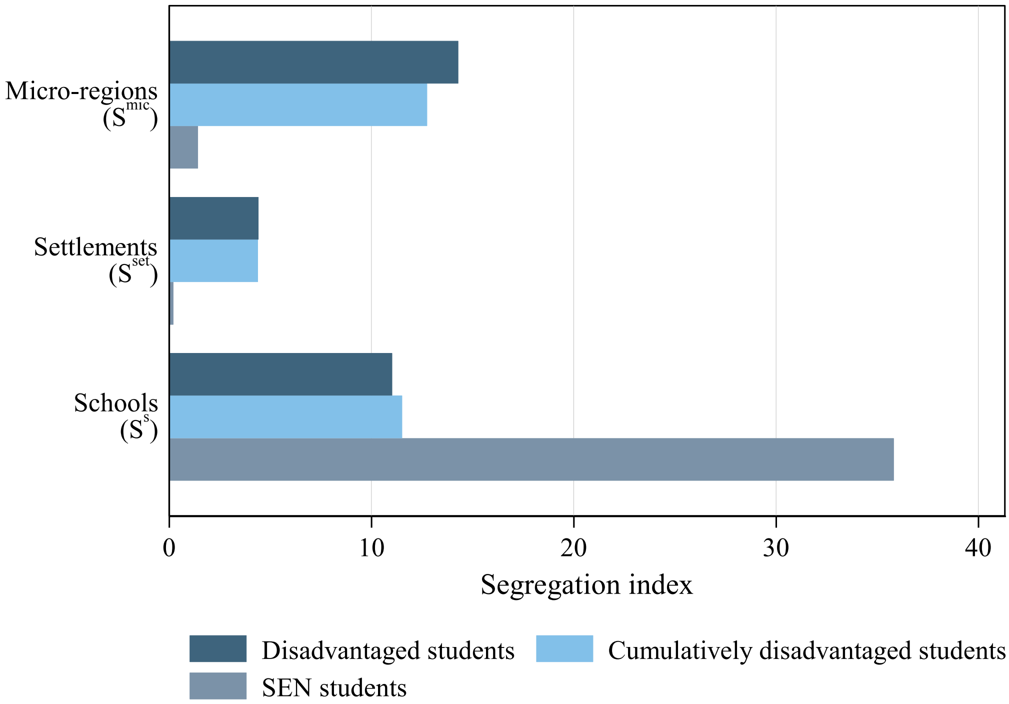
Figure 5.1 The segregation index between 2008-2016



Notes: From September 2013, the disadvantaged and cumulatively disadvantaged student status is more strictly regulated. As a result, the share of disadvantaged and cumulatively disadvantaged students declined. The change in the classification, in itself, may have caused an increase in the segregation index.

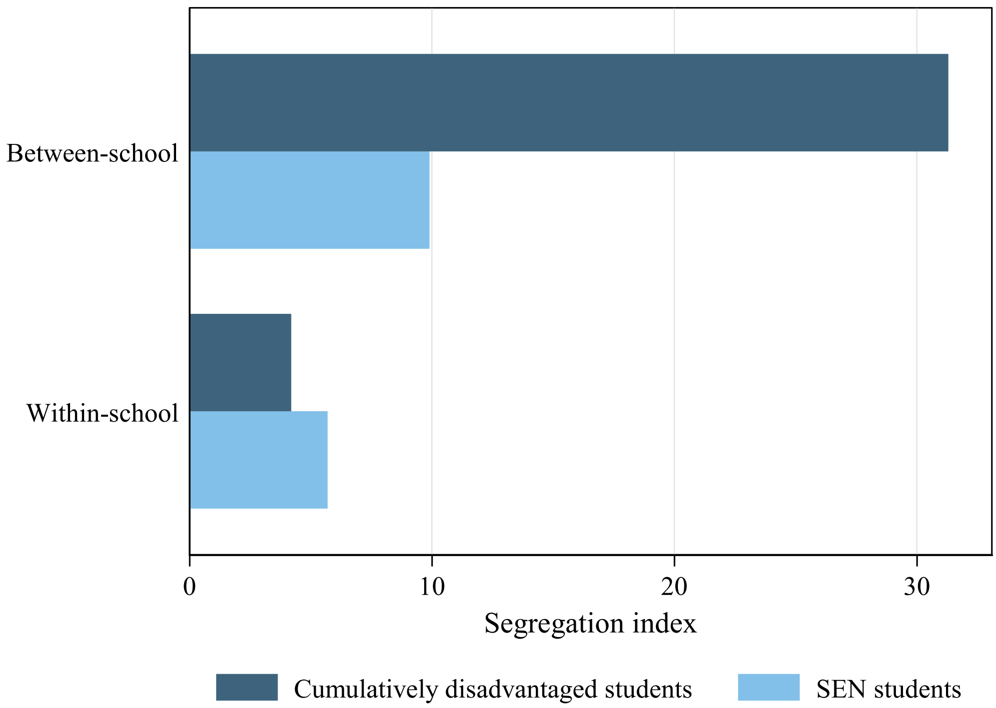
[10] The NABC data do not contain information on the disadvantaged status, therefore within-school segregation of the disadvantaged students can not be calculated.

Figure 5.2 Decomposition of the segregation index, 2016



Notes: Village schools are excluded; therefore, settlements consist of cities and towns.

Figure 5.3 Between-school and within-school segregation, 2015



Notes: Schools with only one class are excluded. Based on grade 8 students (NABC data).

Indicator 6: Ratio of private students

Indicator 6 measures the ratio of private students as a percentage of full-time students in public education. We distinguish between private students which enjoy this status (i) due to parental initiative/choice and (ii) on the basis of the recommendation of an expert committee or medical specialist.

Between 2004 and 2008, the ratio of private students increased from 0.47% to 0.64%, but it was relatively stable after that (*Figure 6.1*). Whereas the ratio of private students who have this status due to the decision of an expert committee did not change significantly 2004 and 2016, the ratio of private students who have the status due to parental initiative increased from 0.33% to 0.52%. Most of this increase happened between 2005 and 2008.

If we look at the ratio of private students by program level and school type in 2016, we see the highest figures in primary education *(Figure 6.2*). At the secondary level, the ratio of private students who have this status due to the recommendation of an expert committee is similar between the tracks, whereas the ratio of private students due to parental choice is highest in academic secondary schools.

The ratio of private primary school students is highest in Nógrád, Veszprém, Baranya and Borsod-Abaúj-Zemplén counties, and the lowest in Vas and Győr-Moson-Sopron counties (*Figure 6.3).*

Figure 6.1 The ratio of private students between 2004-2016

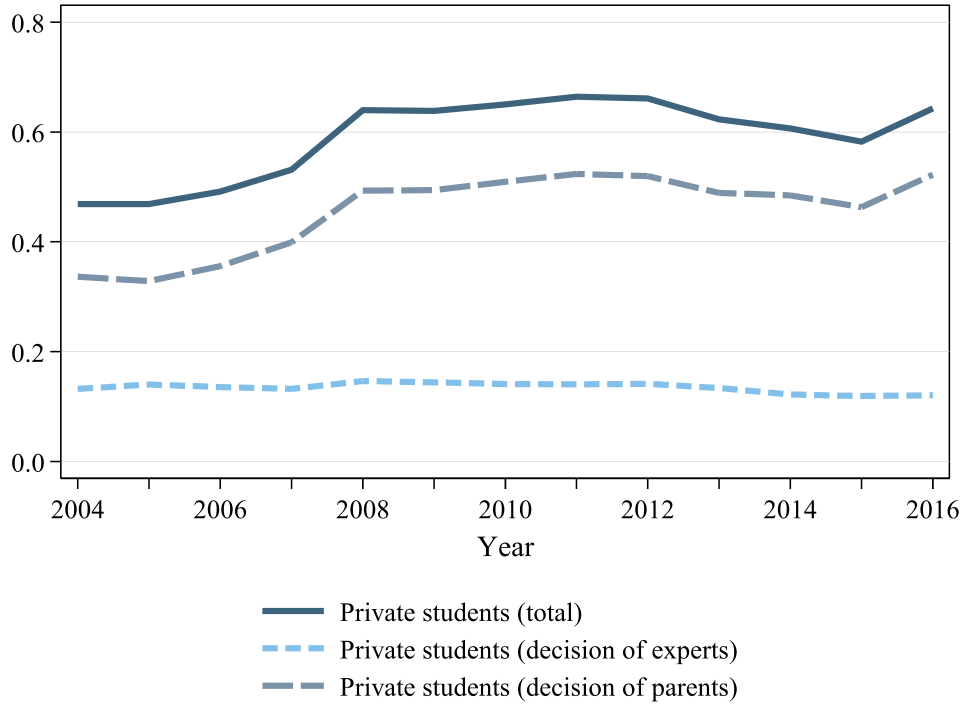
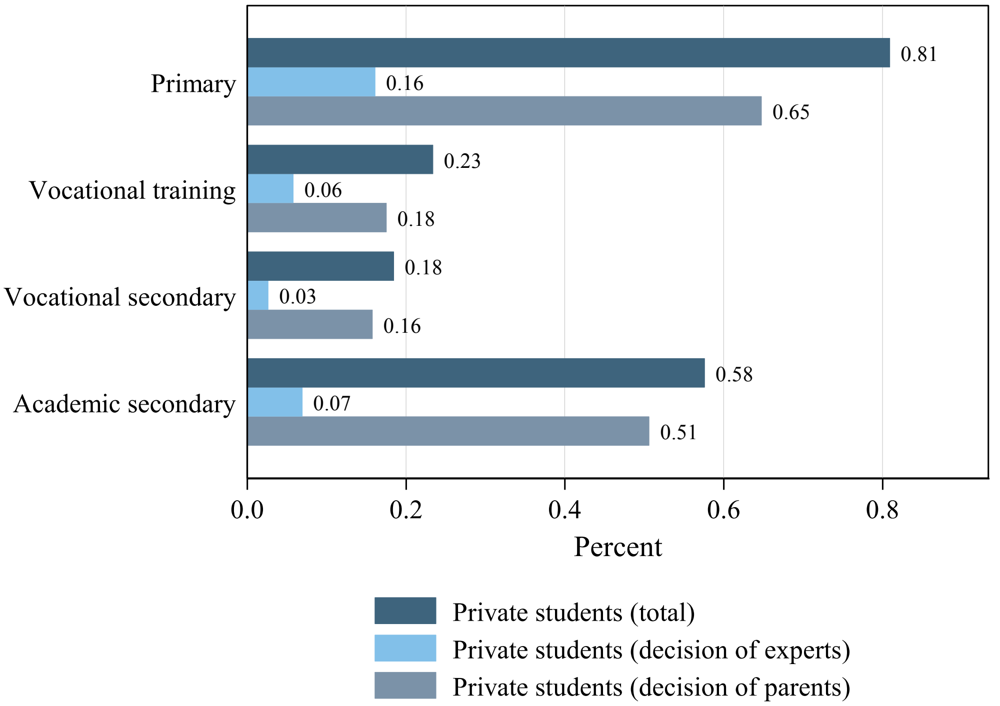
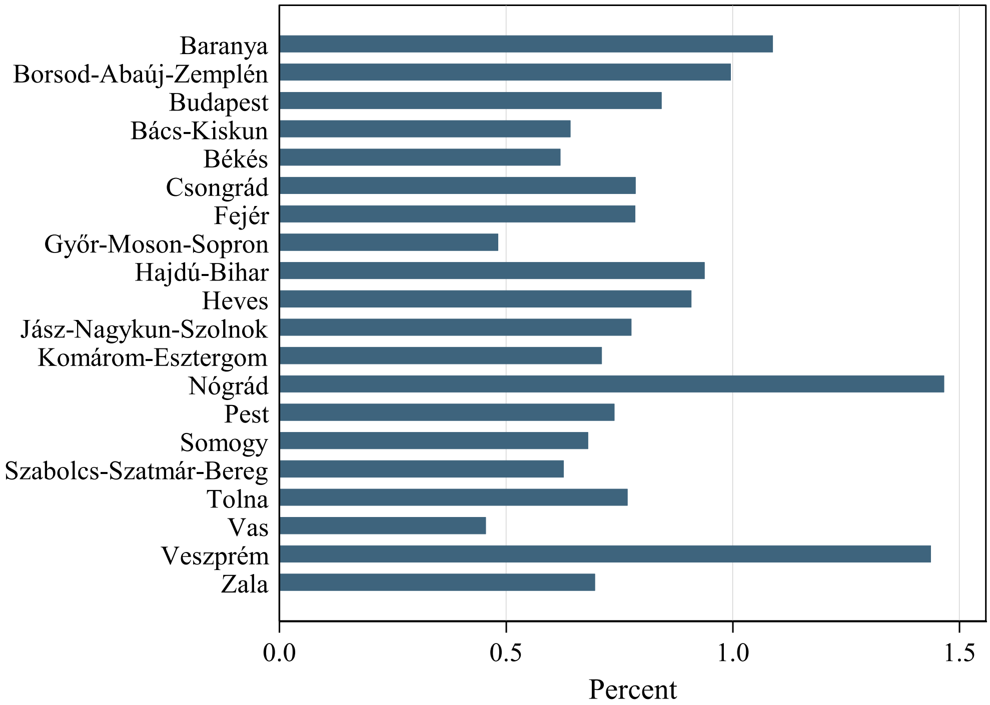


Figure 6.2 The ratio of private students by school type, 2016



Notes: Students in the 6- and 8-year academic track are in the "academic secondary" category (regardless their grade level). Special vocational training schools are in the vocational training category.

Figure 6.3 The ratio of private students in primary schools by county, 2016



Notes: Primary school students only.

Indicator 7: Ratio of students with more than 30 hours' absence without leave

Indicator 7 measures the percentage ratio of students with more than 30 hours' absence without leave at the end of the academic year. Between 2010 and 2016 the indicator decreased from 3.6% to 1.7% (*Figure 7.1*). This decline is especially significant at the secondary level, and it might be related to the fact that the share of the students beyond the compulsory education age who are expelled from schools due to their extensive absence without leave increased after 2011 by 0.5-0.9 percentage points.

In 2016, at the primary level the ratio of students with more than 30 hours' absence without leave was practically zero in the 6- and 8-year academic track, whereas in the general primary track the indicator had a value of 1.4% (*Figure7.2*). At the secondary level, the ratio of students with more than 30 hours' absence without leave was remarkably high in vocational training schools (7.9%) and in special vocational training schools (4.8%). In the vocational secondary schools and in the general secondary schools it was 1.8% and 0.5%, respectively.

There are substantial geographical differences as well (*Figures 7.3 and 7.4*). Both among the primary school and the secondary school the indicator has the highest values in the Eastern counties. E.g. the ratio of primary school students with more than 30 hours' absence without leave is above 3% in five counties, and all of them are from the Eastern part of the country: Nógrád, Heves, Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg, and Jász-Nagykun-Szolnok.

Figure 7.1 The ratio of students with more than 30 hours' absence without leave between 2010-2016

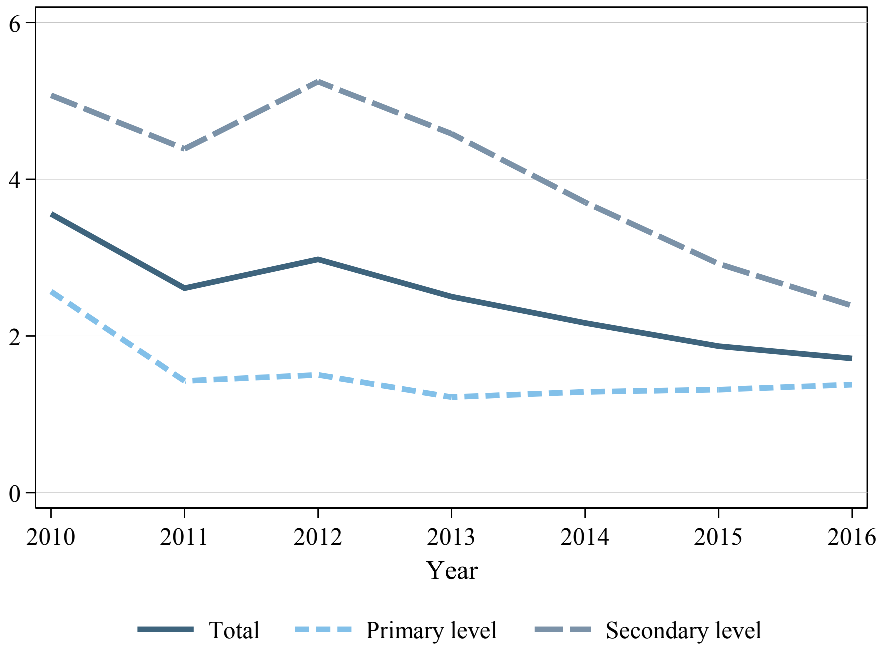


Figure 7.2 The ratio of students with more than 30 hours' absence without leave by school type, 2016

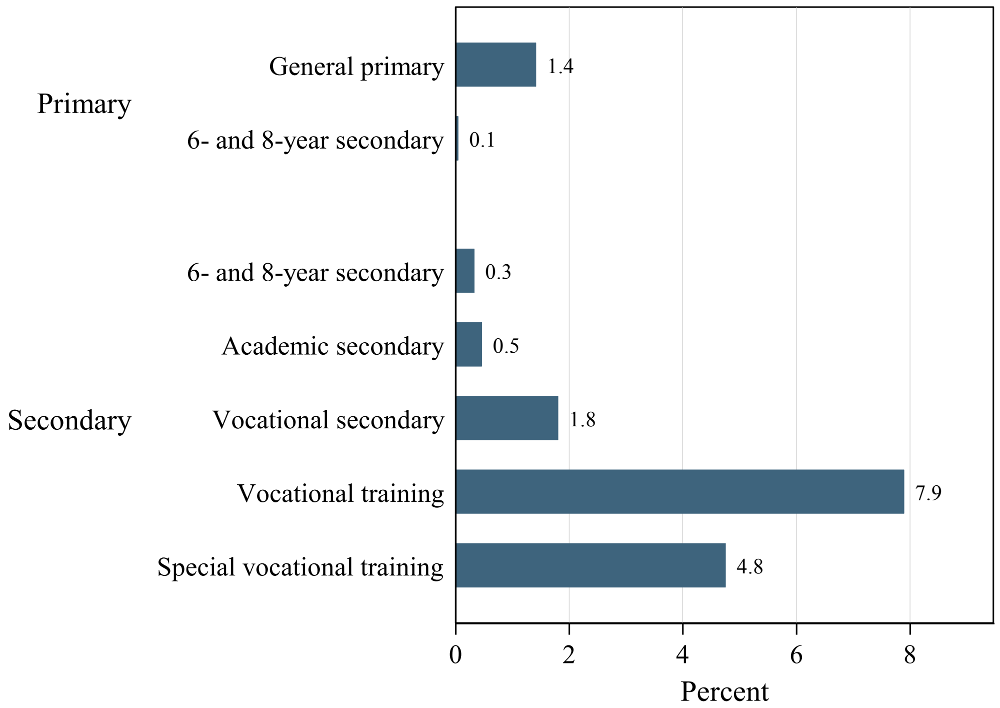


Figure 7.3 The ratio of students with more than 30 hours' absence without leave by county, 2016 (primary school students)

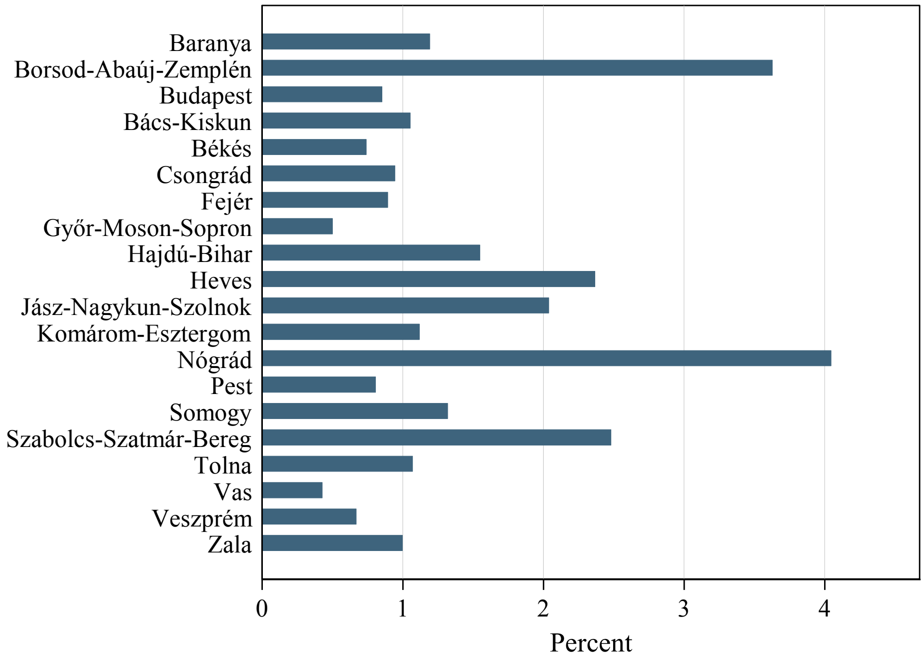
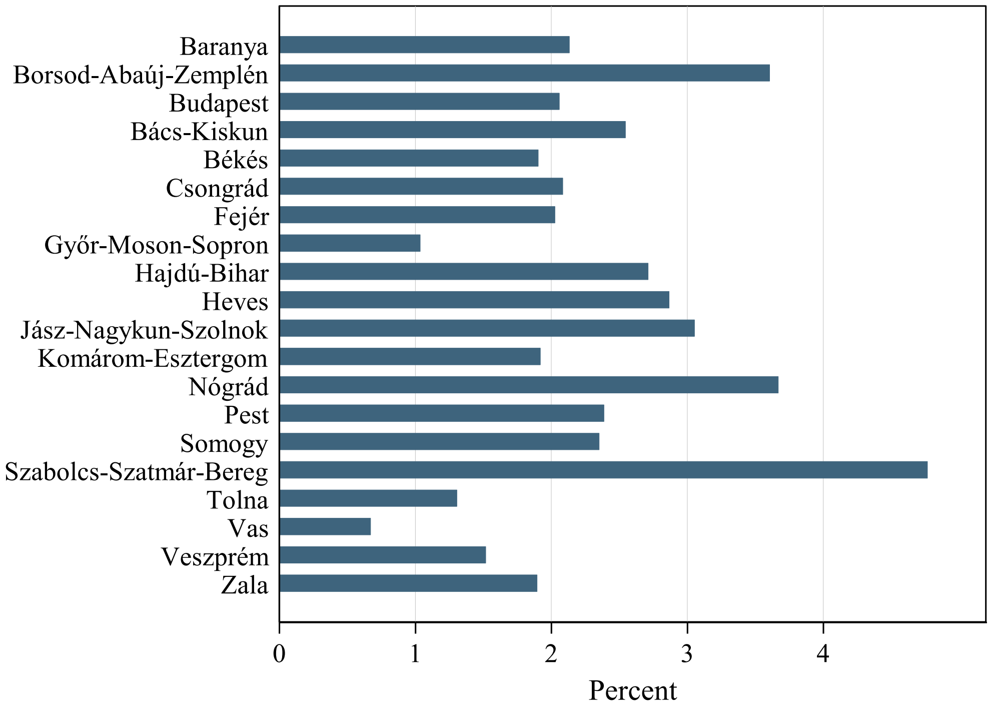


Figure 7.4 The ratio of students with more than 30 hours' absence without leave by county, 2016 (secondary school students)



Indicator 8: Ratio of SEN students receiving special and mainstream education

Indicator 8 measures the ratio of SEN students as a percentage of full-time students who (i) receive special education and (ii) study in mainstream classes (receive mainstream education).

Figure 8.1 shows that the percentage of the SEN students increased from 3.6% to 6.5% between 2001 and 2016. There is a striking difference between the change in the ratio of SEN students receiving special and mainstream education. In 2001, the percentage share of SEN students receiving mainstream education was 0.7%, but it increased to 4.5% by 2016. Over the same time period, the share of SEN students receiving special education decreased from 3% to 2%, but in the last three years it seems to be unchanged.

The shares of SEN students receiving special and mainstream education substantially differ by school type (*Figure 8.2*). At the primary level the share of SEN students is below 1% in the 6- and 8-year academic track, and all of them receive mainstream education. In the general primary schools 5.2% of the students are SEN students receiving mainstream education and 2.2% are SEN students receiving special education. At the secondary level the share of SEN students receiving special education is 0% or almost 0% in the academic tracks, in the vocational secondary schools, and in the vocational training schools, but 100% in the special vocational training schools. The share of SEN students receiving mainstream education is much higher (8.8%) in the vocational training schools than in the other tracks where it varies between 1% and 3%.[11]

Examining the indicator by grade level, one can see that the share of SEN students receiving a special educational program is quite stable from grades 1 to 8 (around 2%, slightly higher at the higher grades), but the share of SEN students receiving mainstream education increases by almost 60% between grade 1 and 8: it is 3.8% in grade 1 and 5.9% in grade 8 (*Figure 8.3*). Screening and diagnosing the SEN students can be challenging and requires expertise and time, and some of the SEN students are not identified during the preschool years, but only later, during their first years of the primary school. This might be the main reason why the total share of the SEN students increases until grade 5-6 and levels off after that until grade 8. From grade 8 to 9, the total share of SEN students falls by 1 percentage

[11] Except the special vocational training schools, where the share of SEN students receiving mainstream education is 0%, as, „by definition”, all students receive special education.

point, the share of SEN students receiving a special educational program becomes larger (3.0%), whereas the share of SEN students receiving mainstream education becomes lower (4.1%).

One can observe a substantial difference in the share of SEN students by school provider among the primary school level students (*Figure 8.4*). Both the share of SEN students receiving special or mainstream education are the lowest in church schools. The total percentage share of SEN primary school students is 4.5% in the church schools, whereas it is 7.6% and 9.2% in the public schools and in the "other" (non-public, non-church) schools, respectively.

Figure 8.1 Ratio of SEN students receiving special and mainstream education between 2001 and 2016

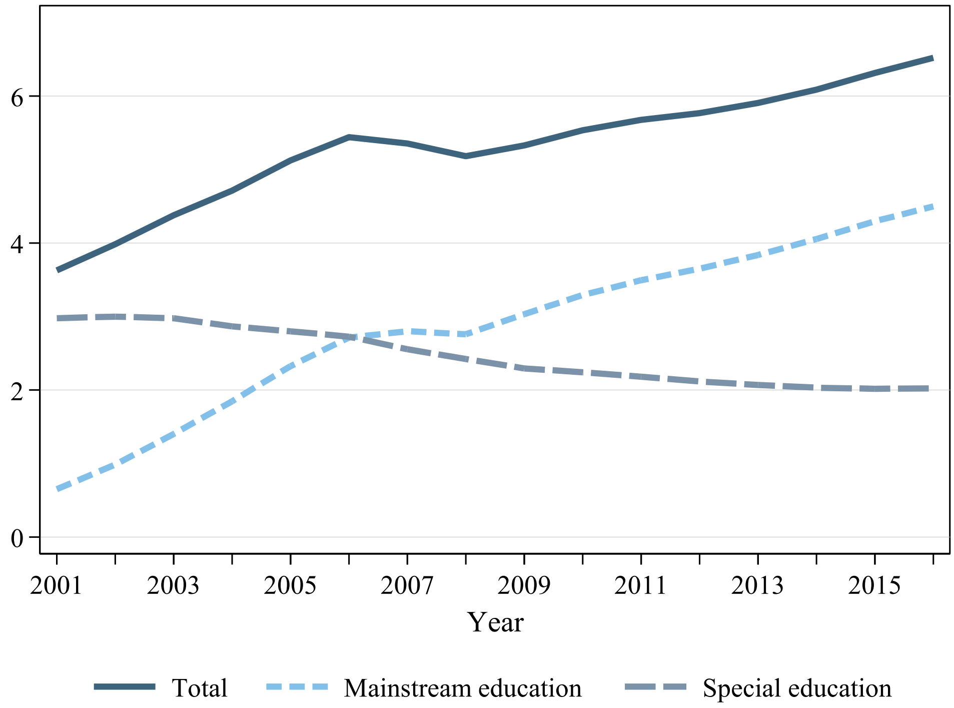
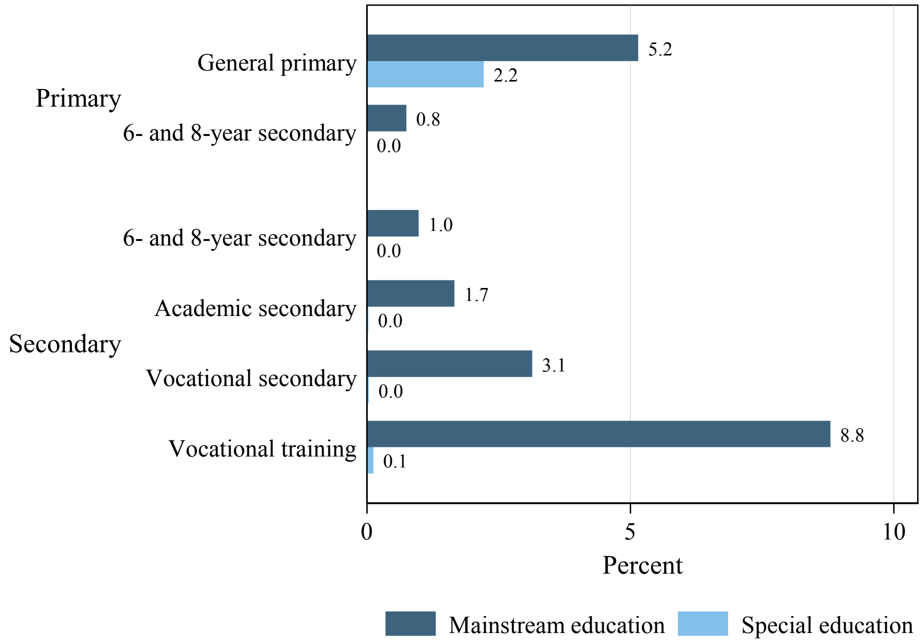


Figure 8.2 Ratio of SEN students receiving special and mainstream education by school type, 2016



Notes: Special vocational training schools are not shown, since 100% of their students are SEN students who receive special education.

Figure 8.3 Ratio of SEN students receiving special and mainstream education by grade level, 2016

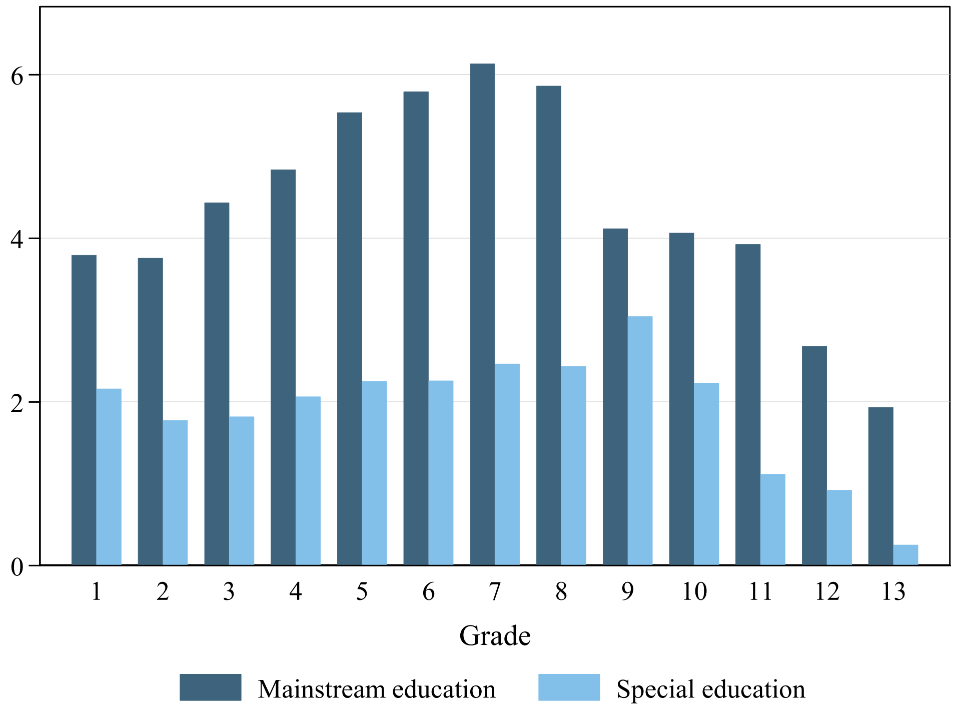
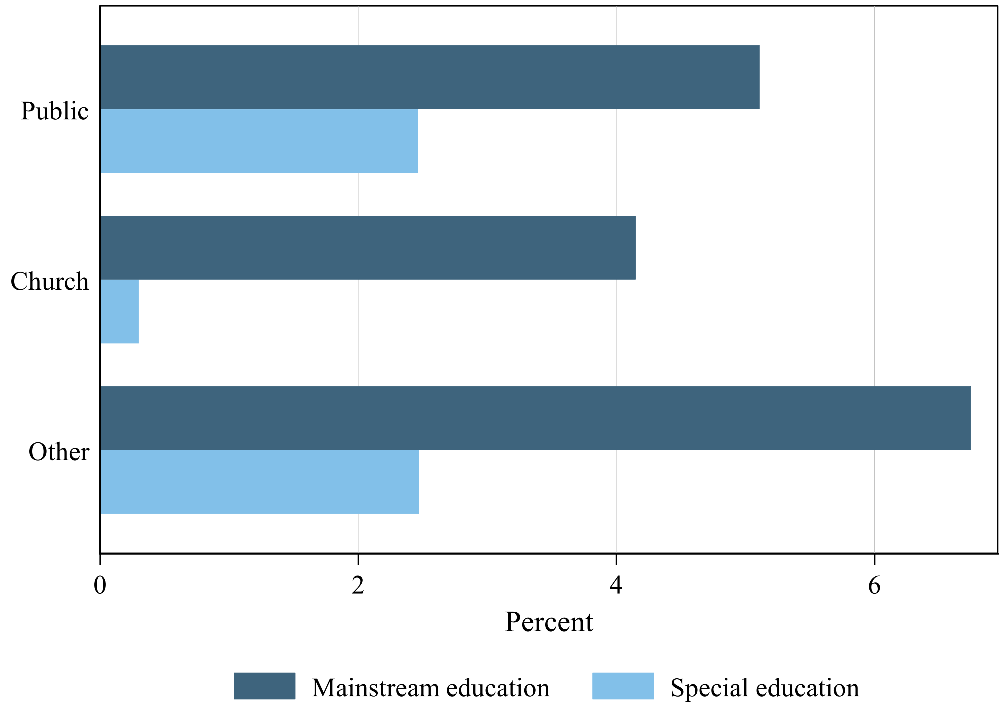


Figure 8.4 Ratio of SEN students receiving special and mainstream education by school provider, 2016 (primary level)



Notes: Primary school level only.

Indicator 9: Share of disadvantaged and cumulatively disadvantaged students among applicants to higher education and

Indicator 10: Share of disadvantaged and cumulatively disadvantaged students among those admitted to higher education

Indicator 9 shows the share of disadvantaged and cumulatively disadvantaged students among applicants to higher education, while *Indicator 10* shows the share of disadvantaged and cumulatively disadvantaged students among students admitted to higher education.

The indicators were calculated in the same ways as in the case of Indicators 3 and 4, using data from a different sample of the applicants or those admitted in the different calculations. First, data for all admission rounds was used, that is, of all applicants who applied for higher vocational training, or to BA or undivided programmes, i.e. those who applied for their first degree in both full time and part time education. Second, data from the autumn, or "normal" round of applicants was used, and these were students who had passed the matriculation exam in the year of application, and who applied to higher vocational training, BA or so-called undivided *("*oszt*a*tlan*")* programmes both in full time and part time education.

Figure 9.1 shows the share of disadvantaged and cumulatively disadvantaged students among applicants to higher education using the two described samples, while *Figure 10.1* shows the share of disadvantaged and cumulatively disadvantaged among students who were admitted.

Between 2007 and 2011 the share of disadvantaged and cumulatively disadvantaged students among applicants and admitted students increased in both samples. In 2012 the share of disadvantaged students among all applicants (all admission procedures) was about 7 %, while among students who made their application in the 'normal' admission procedure, the share was about 10 %. This difference suggests that disadvantaged and cumulatively disadvantaged students were less likely to make an application in the second and third admission rounds. The ratios are similar among admitted students, indicating that disadvantaged applicants had similar chances of being admitted to higher education as non-disadvantaged applicants. After 2012, there was a sharp decline in the share of disadvantaged and cumulatively disadvantaged students, both among applicants and those admitted. By 2016, the ratio of disadvantaged and cumulatively disadvantaged applicants among all applicants was only 1.3. percent and among applicants who applied in the ‘Normal’ admission round and who passed their matriculation exam in the year of application was 2 percent. Among those admitted, the ratios were 1.4 % and 2.1. %, respectively.

Between 2007 and 2013 a larger share of disadvantaged female students applied to and was admitted to higher education than male students, but after 2013 the decrease in this share was sharper for women than for men, and by 2016 the difference between female and male students had disappeared (*Figures 9.2. and 10.2.*).

Between 2007 and 2012, there was a slight difference in the share of applicants and disadvantaged students by secondary school type (*Figures 9.3.* and 10.3.). A larger share of students who had finished their secondary school studies in vocational secondary school applied for and was admitted to higher education than students who studied in academic secondary school, but following 2012, this difference decreased.

These changes might have different reasons: changes in the secondary school studies of disadvantaged students, changes in their aspirations for further studies due to changes in costs and admission possibilities of higher education, and also because the changes in the official classification of students in the disadvantaged and cumulatively disadvantaged categories. There was a sharp decrease in the share of disadvantaged and cumulatively disadvantaged students at secondary schools. At grade 12 the share of these students decreased from 15 percent in 2012 to 5 percent by 2016 (See Indicator 10).

Figure 9.1Share of disadvantaged and cumulatively disadvantaged students among applicants to higher education %

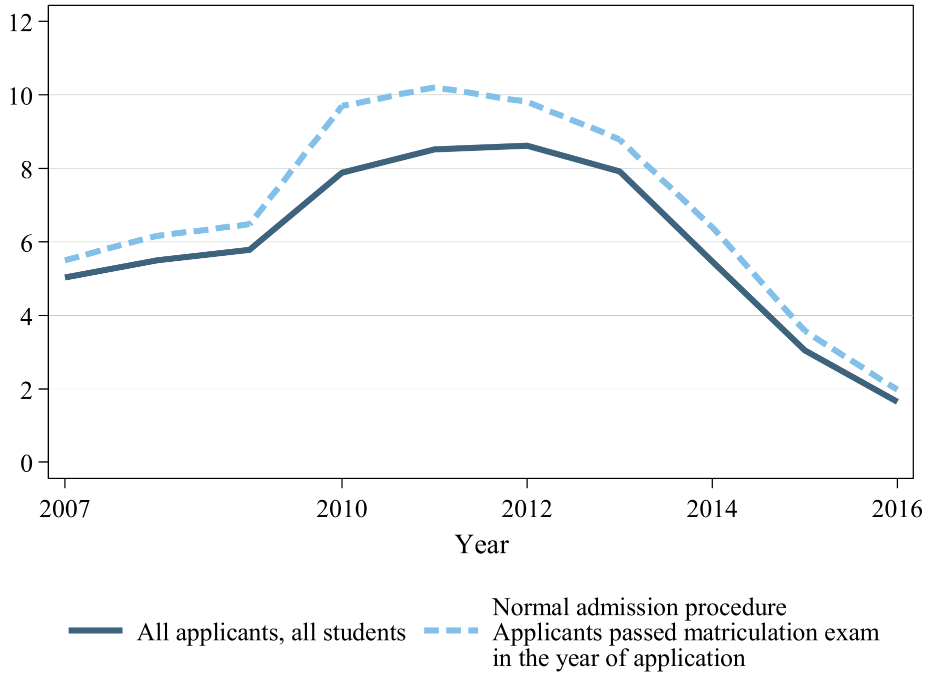


Figure 10.1 The share of disadvantaged and cumulatively disadvantaged students among those admitted to higher education %

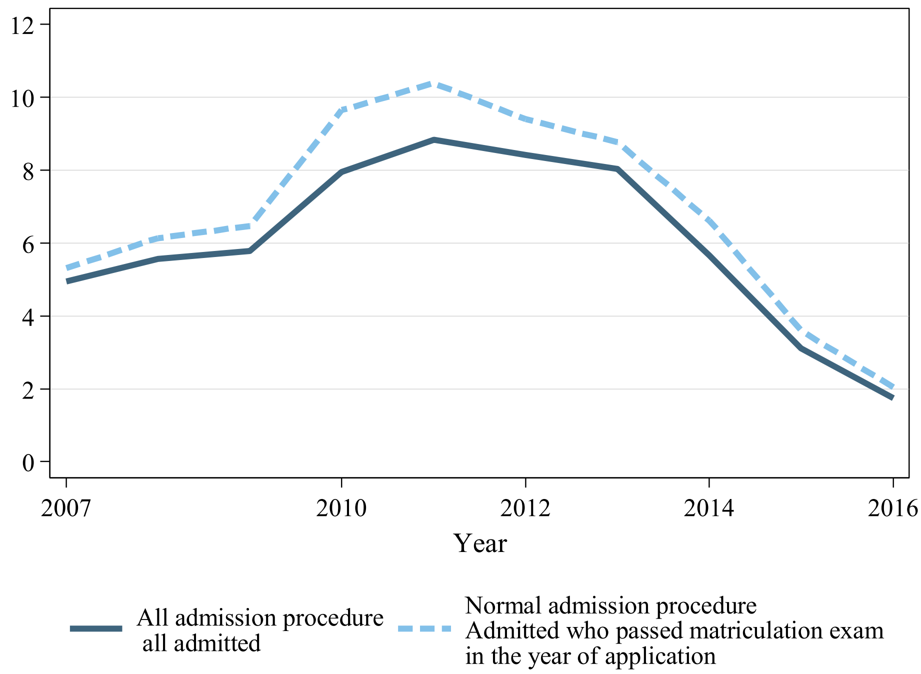


Figure 9.2. The share of disadvantaged and cumulatively disadvantaged students among applicants to higher education by gender. All procedures all students. %

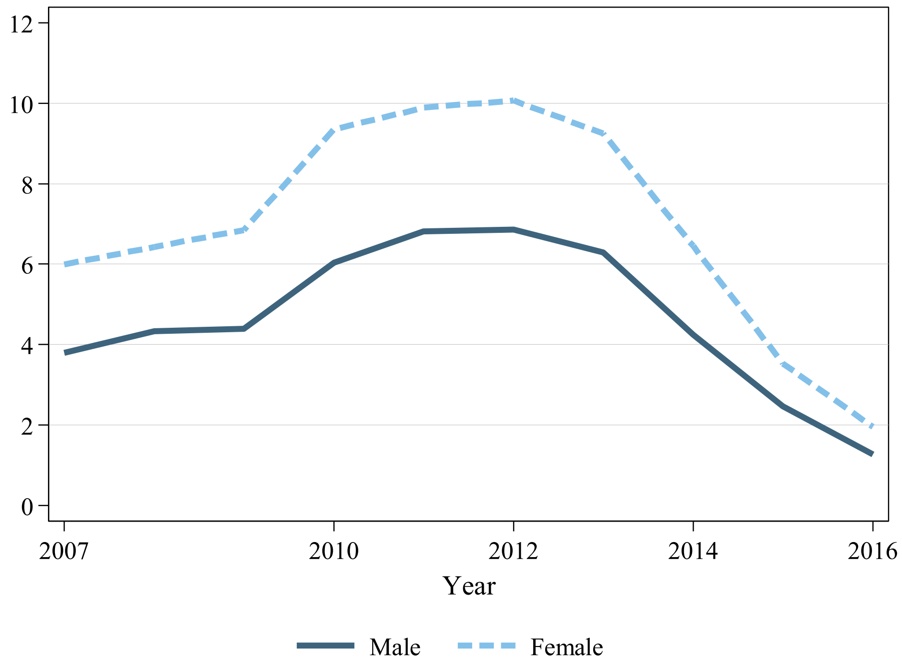


Figure 10.2. The share if disadvantaged and cumulatively disadvantaged students among admitted to higher education by gender. All procedures, all students %

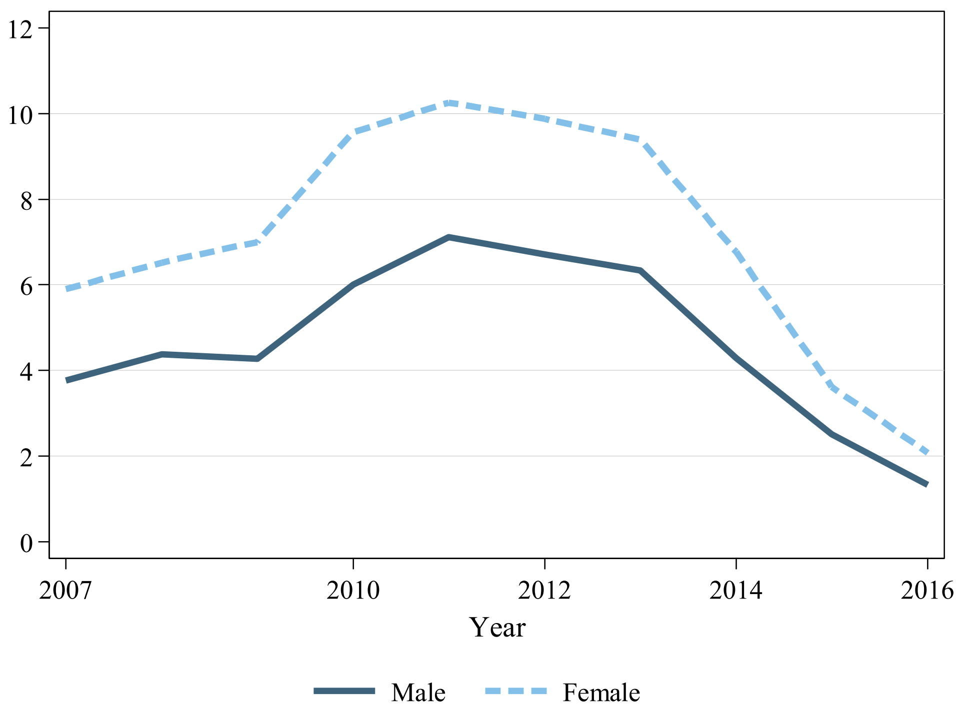


Figure 9.3. The share of disadvantaged and cumulatively disadvantaged students among applicants to higher education by type of secondary school. All procedures, all students %

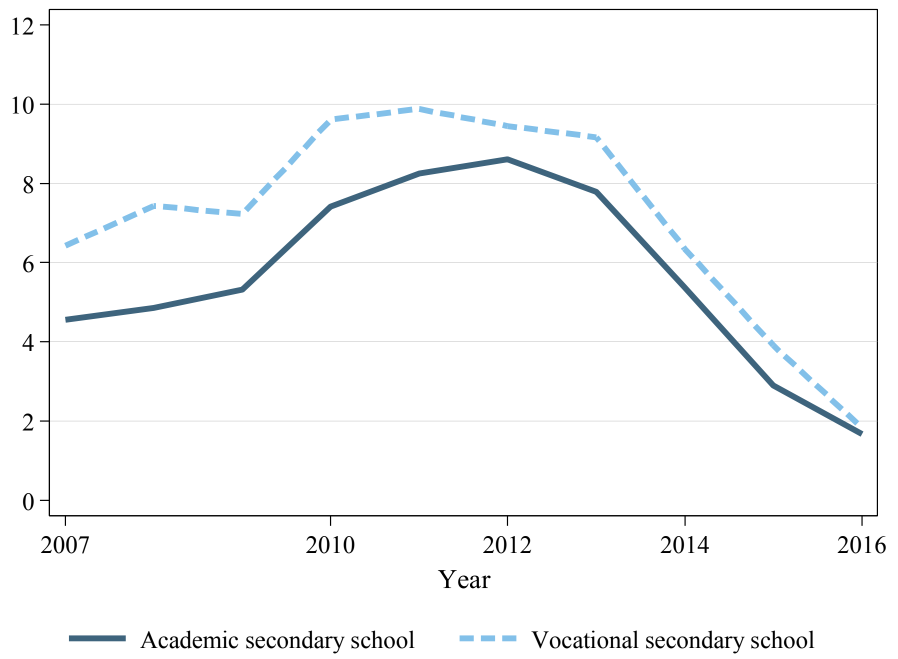
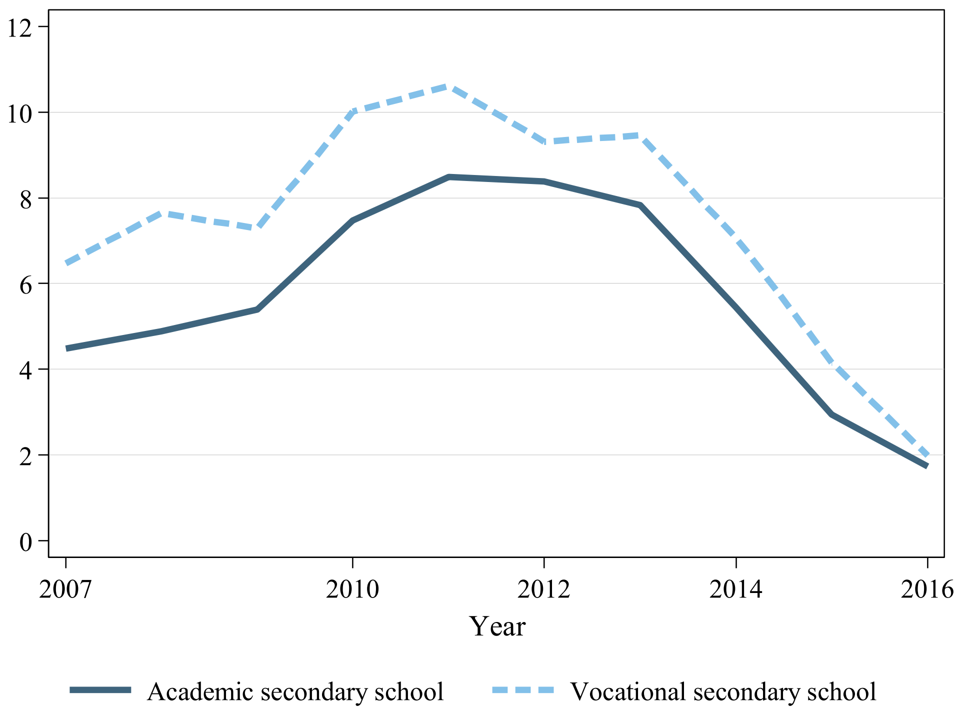


Figure 10.3. The share of disadvantaged and cumulatively disadvantaged students among those admitted to higher education by type of secondary school. All procedures, all students %



Indicator 11: The share of disadvantaged and cumulatively disadvantages students in public education

Indicator 11 shows disadvantaged and cumulatively disadvantaged students in public education as a share of all students and according to different disaggregation.

Figure 11.1. shows changes in the share of disadvantaged and cumulatively disadvantaged students between 2008 and 2016 by school types.

There was a sharp decrease in the share in all school types following 2012, most likely as a consequence of the changes in the official classification of students in the disadvantaged and cumulatively disadvantaged categories. The drop was the largest in general schools and was less pronounced in vocational secondary schools and 6-year, 8-years and academic secondary schools, most likely because disadvantaged students are less likely to follow their secondary school studies in academic orientation secondary education, or in vocational secondary schools than students who do not belong to this group. After 2014 the share of disadvantaged and cumulatively disadvantaged students began to increase in vocational schools, indicating that the probability of following secondary school studies in vocational schools increased more for disadvantaged students than for other students.

Figure 11.2. shows the share of disadvantaged and cumulatively disadvantaged students at grade 12. The share of these students decreased from 15 % in 2012 to 5 % by 2016.

Figure 11.1. The share of disadvantaged and cumulatively disadvantaged students in public education by school types

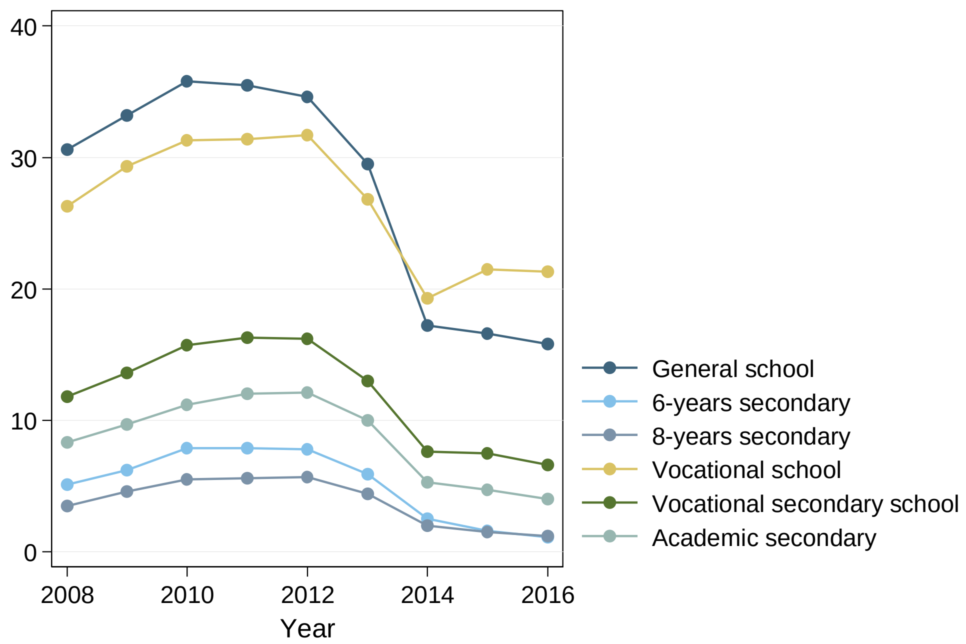
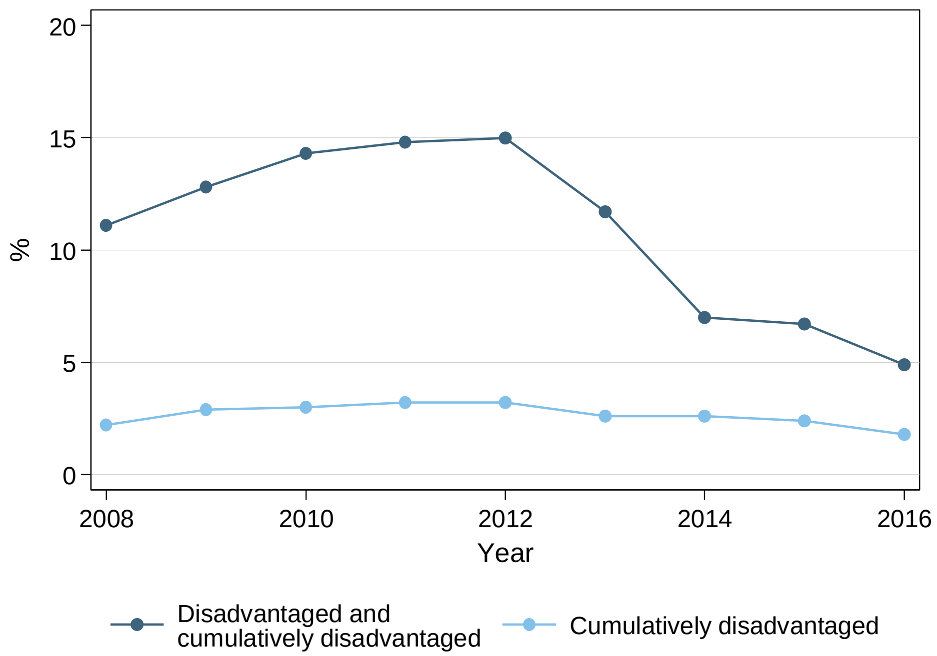


Figure 11.2. The share of disadvantaged and cumulatively disadvantaged students at grade 12



Annex

Calculation Methodology

Indicator 1 Share of students dropping out of school

Number and name of indicator	I1. Share of students dropping out of school
Method of calculation	ratio
Formula	$$R^{c}_{t,sept} = \frac{SE^{c}_{t,sept} - (SE^{c}_{t+1,sept} + SG^{c}_{t})}{SE^{c}_{t,sept}} * 100$$ where R : the share of students dropping out of school (%) SE: the number of students enrolled in school SG : the number of students successfully finishing an upper-secondary programme t : academic year sept : the first month of the academic year c : birth cohort (defined with respect to the academic year)
Disaggregation	age, gender, school type, type of enrolment (full time part time)
Time interval, Periodicity	2014-2016, yearly
Required data	detailed student level data on school enrolment
Data source	KIR dataset

Note	Years refer to the beginning of the academic year, e.g. 2015 denotes those who dropped out during the 2015-16 academic year. The indicator covers students in both full time and part time education. Part time education is defined as either being enrolled in a part time education programme or being older than 22 years. HÍD programmes are taken into account when enrolment is considered (SE), but not counted in the case of those successfully completing an upper-secondary programme (SG). Students successfully completing the final year of an upper-secondary programme, but not taking the secondary school-leaving exam are considered as successfully completing an upper-secondary programme (SG). Students who died in a particular year t are not included in $SE^{c}_{t,sept}$. Some students who drop out of school in year t without finishing the programme they were pursuing at the beginning of that year might already have an upper secondary qualification (e.g. having a general qualification and dropping out of a vocational programme). Other students might return to school later.

Indicator 2 Ratio of students with psychological developmental disorders

Number and name of indicator	I2. Ratio of students with psychological developmental disorder
Method of calculation	Students with three different types of psychological developmental disorder as a percentage of all students. The three types of disorder: a. dyslexia, dysgraphia or dyscalculia b. attention-deficit hyperactivity disorder c. behavioural regulation disorder
Formula	$RM = \frac{M}{N} \times 100$ RM: Ratio of students with a specific disorder M: Number of students with a specific disorder N: Number of full-time students
Disaggregation	year, school type, gender, grade
Time interval, Periodicity	2012-2016, yearly
Required data	Number of students with a specific disorder based on the opinion of an expert committee by school type. Number of full-time students (at the beginning of the academic year).
Data source	KIRSTAT
Note	all students (including adult and part time students)

Indicator 3 The ratio of students with a language exam among students applying to higher education

Number and name of indicator	I3. The ratio of students with a language exam among students applying to higher education
Method of calculation	Percentage of those among all applicants who got extra points for having a language exam in any of their applications in their application order.
Formula	$$LANG^{APP} = \frac{N^{LA}}{N^{APP}} * 100$$ $LANG^{APP}$ – Ratio of applicants with a language exam. N^{LA} – Number of applicants with a language exam. N^{APP} – Number of applicants.
Disaggregation	- All admission procedures, all students applying for a higher vocational or a BA or an 'undivided' programme in full time or part time education. - Normal admission procedure, students who passed their matriculation exam in the year of application. - Gender. - Type of secondary school.
Time interval, Periodicity	- 2007-2016; Annual.
Required data	- Number of applicants to higher education applying for a higher vocational or BA or "undivided" programme, all admission rounds, full time and part time education. - Number of students applying for a higher vocational or BA or "undivided" programme who received extra points for having passed a language exam, all admission rounds, full time and part time education. - Number of applicants to higher education for a higher vocational or BA or "undivided" programme who passed matriculation exam in the year of application, normal admission round, full time and part time education. - Number of applicants to higher education who received extra points for having passed language exam applying for a higher vocational or BA or "undivided" programme who passed matriculation exam in the year of application, normal admission round, full time and part time education.
Data source	FELVI (Higher Education Application/Admission) database 2001-2016
Note	

Indicator 4 The ratio of students who have a language exam from students admitted to higher education

Number and name of indicator	I4. The ratio of students who have a language exam from students admitted to higher education
Method of calculation	Percentage of students admitted of all those admitted and who had received extra points for having passed a language exam in any of their applications in their application order
Formula	$$LANG^{ADM} = \frac{N^{LA}}{N^{ADM}} * 100$$ $LANG^{ADM}$ – Ratio of admitted students with a language exam. N^{LA} – Number of admitted students with a language exam. N^{ADM} – Number of admitted students.
Disaggregation	- All admission procedures, all students admitted to a higher vocational or a BA or an "undivided" programme in full time or part time education. - Normal admission procedure, students who passed their matriculation exam in the year of application. - Gender. - Type of secondary school-
Time interval, Periodicity	- 2007-2016; Annual
Required data	- Number of students admitted to higher education who were applying for a higher vocational or BA or "undivided" programme all admission rounds, full time and part time education. - Number of students admitted who were applying for a higher vocational or BA or "undivided" programme and who had received extra points for having passed a language exam, all admission rounds, full time and part time education. - Number of students admitted to higher education who were applying for a higher vocational or BA or "undivided" programme and who passed the matriculation exam in the year of application, normal admission round, full time and part time education. - Number of students admitted to higher education who had received extra points for having passed a language exam applying for a higher vocational or BA or "undivided" programme and who passed matriculation exam in the year of application, normal admission round, full time and part time education.
Data source	FELVI (Higher Education Application/Admission) database 2001-2016
Note	

Indicator 5 Segregation index

Number and name of indicator	I5. Segregation index
Method of calculation	Step 1: Calculating the ratio of minority students in each school (class) averaged over schools (classes), where the average is taken with weights equal to the majority students in the school (class) divided by all majority students in the area (Exposure index: E) Step 2: Normalizing the value calculated in Step 1. Comparing it to its attainable maximum (the ratio of minority students in the whole area).

Formula	$S = 100 \times \frac{p - E}{p} = 100 \times \frac{p - \sum_{i=1}^{I} p_i \times \frac{N_i - K_i}{N - K}}{p}$ $E = \sum_{i=1}^{I} p_i \times \frac{N_i - K_i}{N - K}$ S: Segregation index E: Exposure index p: the ratio of minority students in the whole area (e.g. country) p_i: the ratio of minority students in school/class i I: number of schools/classes N: total number of students N_i: number of students in school/class i K: total number of minority students K_i: number of minority students in school/class i Decomposition by geographical/institutional levels $S = S^{mic} + S^{set} + S^{s}$ S: the total segregation S^{mic}: the segregation attributed to the micro-regional level S^{set}: the segregation between settlements S^{s}: the segregation within settlements $S = 100 \times \frac{p - E}{p} = 100 \times \frac{p - \sum_i \sum_j \sum_k p_{ijk} \times \frac{N_{ijk} - K_{ijk}}{N - K}}{p}$, where *i*, *j* and *k* denote schools, settlements and micro-regions, respectively. $S^{mic} = 100 \times \frac{p - E^{mic}}{p} = 100 \times \frac{p - \sum_k p_k \times \frac{N_k - K_k}{N - K}}{p}$ $S^{set} = 100 \times \frac{E^{mic} - E^{set}}{p} =$ $100 \times \frac{\sum_k p_k \times \frac{N_k - K_k}{N - K} - \sum_j \sum_k p_{jk} \times \frac{N_{jk} - K_{jk}}{N - K}}{p}$ $S^{s} = 100 \times \frac{E^{set} - E}{p} =$ $100 \times \frac{\sum_j \sum_k p_{jk} \times \frac{N_{jk} - K_{jk}}{N - K} - \sum_i \sum_j \sum_k p_{ijk} \times \frac{N_{ijk} - K_{ijk}}{N - K}}{p}$
Disaggregation	year, decomposition by geographical level
Time interval, Periodicity	2008-2016, yearly

Required data	Number of minority students by school/class. Total number of students by school/class.
Data source	KIRSTAT (between-school segregation) NABC (within-school segregation)
Note	Minority students: (i) disadvantaged students (ii) cumulatively disadvantaged students (iii) students with special educational needs The segregation index shows the %age share of contact possibilities made impossible by segregation. The higher the level of the index, the higher the levels of segregation. The maximum value is 100, the minimum value is 0. The index is based on the distribution of grade 1-8 students (between-school segregation) and the distribution of grade 8 students (within-school segregation). Full-time students.

Indicator 6 Ratio of private students

Number and name of indicator	I6. Ratio of private students
Method of calculation	Percentage of private students at the beginning of the academic year.
Formula	$RM = \frac{M}{N} \times 100$ RM: Ratio of private students M: Number of private students N: Number of full-time students
Disaggregation	year, school type, county
Time interval, Periodicity	2004-2016, yearly
Required data	Number of private students (i) due to parental initiative/choice (ii) based on the opinion of an expert committee or medical specialist Number of full-time students (at the beginning of the academic year).
Data source	KIRSTAT
Note	full-time students

Indicator 7 Ratio of students with more than 30 hours' absence without leave

Number and name of indicator	I7. Ratio of students with more than 30 hours' absence without leave
Method of calculation	Percentage ratio of students with more than 30 hours' absence without leave at the end of the academic year.
Formula	$H_{30} = \frac{N_{30}}{N} \times 100$ H_{30}: Ratio of students with more than 30 hours' absence without leave N_{30}: Number of students with more than 30 hours' absence without leave N: Number of students (at the end of the academic year)
Disaggregation	year, school type, county
Time interval, Periodicity	2010-2016, yearly
Required data	Number of students with more than 30 hours' absence without leave. Number of students (at the end of the academic year).
Data source	KIRSTAT
Note	full-time students

Indicator 8 Ratio of SEN students receiving special and mainstream education

Number and name of indicator	I8. Ratio of SEN students receiving special and mainstream education
Method of calculation	Ratio of SEN students, as a percentage of full-time students, who (i) receive special education and (ii) study in mainstream classes (receive mainstream education)
Formula	$R_{SEN}^{x} = \frac{N_{SEN}^{x}}{N} \times 100$ $x \in$ {receiving special education; receiving mainstream education; total} R_{SNE} : Ratio of students with special educational needs N_{SNE}: Number of students with special educational needs N : Number of students
Disaggregation	year, school type, county, grade, school provider
Time interval, Periodicity	2001-2016, yearly
Required data	Number of students with special educational needs who (i) receive special education and (ii) receive mainstream education. Number of students.
Data source	KIRSTAT
Note	Full-time students.

Indicator 9 The ratio of disadvantaged students among applicants to higher education

Number and name of indicator	I9. The ratio of disadvantaged students among applicants to higher education
Method of calculation	Percentage ratio of admitted students from among all admitted who had received extra points for being disadvantaged or cumulatively disadvantaged in any of their applications in their application order.
Formula	$DIS^{APP} = \frac{N^{DIS}}{N^{APP}} * 100$ DIS^{APP} – Ratio of disadvantaged and cumulatively disadvantaged students among applicants to higher education. N^{DIS} – Number of disadvantaged and cumulatively disadvantaged students applying to higher education. N^{APP} – Number of applicants.
Disaggregation	- All admission procedures, all students applying for a higher vocational or a BA or an 'undivided' programme in full time or part time education. - Normal admission procedure, students who passed their matriculation exam in the year of application. - Gender. - Type of secondary school.
Time interval, Periodicity	- 2007- 2016, Annual
Required data	- Number of applicants to higher education applying for a higher vocational or BA or "undivided" programme, all admission rounds, full time and part time education. - Number of applicants applying for a higher vocational or BA or "undivided" programme who had received extra points for being disadvantaged or cumulatively disadvantaged, all admission rounds, full time and part time education. - Number of applicants to higher education for a higher vocational or BA or "undivided" programme who passed matriculation exam in the year of application, normal admission round, full time and part time education. - Number of applicants to higher education who had received extra points for being disadvantaged or cumulatively disadvantaged applying for a higher vocational or BA or "undivided" programme, who passed matriculation exam in the year of application, normal admission round, full time and part time education.
Data source	FELVI database 2001-2016
Note	

Indicator 10 The ratio of disadvantaged students among those admitted to higher education

Number and name of indicator	I10. The ratio of disadvantaged students among those admitted to higher education
Method of calculation	Percentage of students admitted to higher education from among all those admitted who had received extra points for being disadvantaged or cumulatively disadvantaged in any of their applications in their application order
Formula	$$DIS^{ADM} = \frac{N^{DIS}}{N^{ADM}} * 100$$ DIS^{ADM} – Ratio of disadvantaged and cumulatively disadvantaged students among those admitted to higher education. N^{DIS} – Number of disadvantaged and cumulatively disadvantaged students among those admitted to higher education. N^{ADM} – Number of all those admitted.
Disaggregation	- All admission procedures, all students admitted to a higher vocational or a BA or an ‘undivided’ programme in full time or part time education. - Normal admission procedure, students who passed their matriculation exam in the year of application. - Gender. - Type of secondary school.
Time interval, Periodicity	- 2007-2016; Annual
Required data	- Number of those admitted to higher education applying for a higher vocational or BA or “undivided” programme, all admission rounds, full time and part time education. - Number of those admitted to higher education applying for a higher vocational or BA or “undivided” programme and who had received extra points for being disadvantaged or cumulatively disadvantaged, all admission rounds, full time and part time education. - Number of those admitted to higher education applying for a higher vocational or BA or “undivided” programme who passed the matriculation exam in the year of application, normal admission round, full time and part time education. Number of those admitted to higher education who had received extra points for being disadvantaged or cumulatively disadvantaged applying for a higher vocational or BA or “undivided” programme, who passed matriculation exam in the year of application, normal admission round, full time and part time education.
Data source	FELVI database 2001-2016
Note	

Indicator 11 The share of disadvantaged and cumulatively disadvantaged students in public education

Number and name of indicator	I11. The share of disadvantaged and cumulatively disadvantaged students in public education
Method of calculation	Percentage of disadvantaged and cumulatively disadvantaged students among all students.
Formula	$$DIS^{T} = \frac{N^{DIST}}{N^{T}} * 100$$ T – School type or grade DIS^{T} – Ratio of disadvantaged and cumulatively disadvantaged students N^{DIST} – Number of disadvantaged and cumulatively disadvantaged students N^{T}– Number of all students at grade
Disaggregation	- Type of secondary school. - Grades
Time interval, Periodicity	- 2008-2016; Annual
Required data	Total number of students; Number of students by school type and grade; Total number of disadvantaged and cumulatively disadvantaged students; Number of disadvantaged and cumulatively disadvantaged students by school type and grade
Data source	KIRSTAT database
Note	