



Working together  
www.rcis.ro

## **Revista de Cercetare și Interventie Sociala**

ISSN: 1583-3410 (print), ISSN: 1584-5397 (electronic)

---

**SCHOOL SEGREGATION AND EDUCATIONAL EQUITY.  
INSTITUTIONALIZATION OF SCHOOL SEGREGATION MONITORING,  
A SINE QUA NON PREREQUISITE FOR POLICIES TO PROMOTE  
EDUCATIONAL EQUITY**

*Luminita COSTACHE, Eugen CRAI, Claudiu IVAN*

---

Revista de cercetare și intervenție socială, 2022, vol. 76, pp. 137-153

<https://doi.org/10.33788/rcis.76.10>

Published by:  
Expert Projects Publishing House



On behalf of:  
„Alexandru Ioan Cuza” University,  
Department of Sociology and Social Work  
and  
HoltIS Association

# **School Segregation and Educational Equity. Institutionalization of School Segregation Monitoring, a Sine Qua Non Prerequisite for Policies to Promote Educational Equity**

Luminita COSTACHE<sup>1</sup>, Eugen CRAI<sup>2</sup>, Claudiu IVAN<sup>3</sup>

## **Abstract**

The article presents a public education policy tool as a model with international applicability designed for monitoring, analysing and assessing school segregation phenomenon. This instrument, developed by a UNICEF team that continued the pioneering efforts of a Romanian NGO (Advocay and Human Rights Center), has special importance for educational equity and social welfare. The paper argues that the widespread adoption of this tool in the institutionalization of education systems is a necessary prerequisite for equalizing educational opportunities. A systematic, administrative use of such an instrument sets the premises for an adequate assessment of school segregation level, defined in accordance with the most relevant criteria and the various forms thereof. Moreover, due to such an instrument, public intervention means for systemic school desegregation can also be put forward. Conclusions of the paper argue about certain conditions, precautionary measures and risks associated with the process of implementing and using such a model.

*Keywords:* school segregation, educational equity, school segregation indicators, educational policies, social stakes of school desegregation.

## **Introduction**

The stakes of school desegregation are enormous, with far-reaching benefits for society and its sustainable socioeconomic development (Council of Europe, 2017). Data reviewed by the OECD for the 2012 edition of PISA study in Mathematics show that the level of cultural and social heterogeneity correlates positively

---

<sup>1</sup> UNICEF, Bucharest, ROMANIA. E-mail: lcostache@unicef.org

<sup>2</sup> UNICEF, Bucharest, ROMANIA. E-mail: ecrai@unicef.org

<sup>3</sup> Research Centre for Education and Life Chances, Bucharest, ROMANIA; UNICEF, Bucharest, ROMANIA. E-mail: claudiu.ivan@access.ro

with the students' academic standing (Council of Europe, 2017). The analysis of 2018 edition of PISA study also shows that "*an increase in the isolation of high achievers from other students is associated with lower scores in PISA amongst socioeconomically disadvantaged students, without any significant impact on advantaged students*" (OECD, 2019: 12). In brief, the more desegregated the school system, the better the overall academic results as a whole (Palardy, 2013; Palardy, Rumberger, & Butler, 2015; Valenzuela, Bellei, & de los Ríos, 2013).

## Literature review

### *School segregation: what is at stake?*

The school segregation topic is not new, as it became a focus of the education policy stakeholders since 1954 when the U.S. Supreme Court decision in the case *Brown v. Board of Education of Topeka* declared unconstitutional the law in effect at the time that regulated racial segregation in the American public schools in some states (especially in the south) (Clotfelter, 2004; McGrew, 2019). However, concerns for adopting school desegregation measures came on top public agenda, especially amid the debate over the organization and publication of the well-known "Coleman Report"<sup>4</sup> released in 1966, which was also reinforced by the 1968 ruling of U.S. Supreme Court in "*Green v. County School Board of New Kent County*" case through which effective measures were taken for school desegregation. In fact, the question that was the driving force behind the study led by James Coleman was: "*Is public education in America fair?*" At the beginning, one sought to evaluate the phenomenon of school segregation of white students in relation to African-Americans, but this matter proved to be intrinsically related to the educational inequity and school inequality phenomenon. The interest of policymakers in America at the time (i.e. in 1964 when Coleman was commissioned to conduct the study) was rather to confirm with clear data the suspicion that schools located in south states of U.S. were funded based on ethnicity criterion, with racial segregation being a means of which resources were oriented especially in schools where white students formed the majority. By the time when Coleman was put in charge with conducting the study, the decision makers aimed at obtaining the necessary data to substantiate measures to level the funding for schools - equity in funding. The suspicion of the decision-makers was only partially confirmed; in fact Coleman went beyond expectations or in a direction even unexpected by those who commissioned him, showing that it is not the level of funding of the school that matters most in explaining the academic results of student, but the type of family the student's originates from or the proximity in classroom/ school with students from different social backgrounds, including environments that provide

<sup>4</sup> <https://hub.jhu.edu/magazine/2016/winter/coleman-report-public-Education/> (25.03.2021)

better chances in educational attainment (high level of parent education, values oriented towards better schooling and higher educational attainment, high standard of living). Basically, Coleman, through his study, open the Pandora's box of the large field of study of inequality of opportunity in success at school and in life.

One of the lessons learned then was that we cannot discuss about school segregation without talking about inequities in education, the way in which the two phenomena intertwine and condition each other. Equity in education is a multifactorial issue, conditioned by a set of interconnected premises. In order to achieve educational equity, it is required to ensure, at the same time, a levelled playing field in at least five key dimensions, which are interconnected, such as: (1) resources (material and symbolic), (2) respect and recognition (of diversity), (3) love, care and solidarity (a friendly school milieu, generating positive emotions, supported by the solidarity of the stakeholders involved i.e. parents, teachers, public bodies, etc. in achieving the educational equity goal), (4) power (in decision-making and education authority), (5) employment and learning (employment and learning opportunities on a fair basis) (Lynch & Baker, 2005).

School segregation is, in essence, the cross-cutting axis of all five dimensions aforementioned that are prerequisites for equal opportunities in education. In fact, school segregation may be acknowledged here as the set of "*practices and procedures that prevent students from learning, thus harming them*" (Epp & Watkinson, 1996), a fact generated rather unintentionally, often accompanied by the belief that it acts in the best interests of students.

School segregation essentially captures the degree of "uniformity" or the manner of "disproportionate exposure" in the schooling of certain categories of students (Gutierrez, Jerrim & Torres, 2019), having the following cumulative characteristics:

- It represents an unnecessary and unjustified separation, either intentional or unintentional, of students in the provision of the education service (public, private or mixed) in physical or virtual format (online / remote), so in a physical or virtual schooling context;
- It occurs according to schooling related relevant criteria, as defined by the physical, psychological or social characteristics of the student (such as gender, socioeconomic status, ethnicity, disability, place of residence, academic standing etc., ISE & UNICEF, 2004);
- It is a vulnerability in the student's schooling (generating a higher risk of dropping out and/ or a level of educational attainment below the student's potential) (Reardon, 2015).

In order to compare the degree of school segregation among certain social constituencies (i.e. countries, regions, specific areas) several formulas for the calculation and measurement thereof were developed in time, such as the Index

of Dissimilarity (also called the Duncan Segregation Index) (Clotfelter , 1999; Clotfelter, 2004; Clotfelter *et al*, 2021), the square root index (also called the Hutchens Index) (Gutierrez, Jerrim & Torres, 2019) or the Segregation Index (Kertesi, & Kézdi, 2013). All segregation related operationalization and diagnosis approaches abovementioned have as starting point the analysis of the probability of interaction between members of certain disadvantaged groups (e.g. a certain ethnicity, lower socioeconomic status, disabled) and others. To capture this reality, both the ratio and comparison between the weights of the categories considered are used (e.g. the share of Roma children enrolled in school in relation to their share in the corresponding school district vs. the share of non-Roma children within the same area). As a rule, standardization methods are used to allow the comparison of the degree of segregation in time and by different areas, which allow a zero threshold (total lack of segregation) and a maximum threshold (full segregation) to be set. Both the Index of Dissimilarity and the Segregation Index have these defined limits measured between 0 (minimum possible segregation value) and 1 (maximum possible segregation value) (García, 2020).

Statistical data on school segregation, using the assessment methods described above, provide an overview of school segregation for the education system or the geographical constituencies, but do not offer any concrete information at the level of school unit or of the disproportions between the shares of vulnerable students enrolled in that school, so that to allow the development of a map of school segregation vulnerabilities and to identify the school units with cases of school segregation. Furthermore, school segregation monitoring methods used so far do not provide information on the school unit space in which the separation takes place (not even at the overall level of the school unit, not to mention various subdivisions school buildings, classrooms (Clotfelter *et al.*, 2020) or school segregation through placement of vulnerable students in the last two benches of the classroom).

Therefore, there is a need for a modality of institutionalizing a systematic collection of data, at administrative level, at the level of the school unit (defined in relation to the corresponding catchment area – *circumscripția școlară*) which would allow - using one of the alternative calculation methods mentioned - to formulate a diagnosis of school segregation (based on all segregation criteria and forms thereof) so that the desegregation intervention to be implemented be as targeted, effective, efficient and relevant as possible. This is paramount in educational policies. Such a method provides an X-ray scan with good granularity and regularity of information at the level of the school unit, based on which relevant and adequate school desegregation intervention can be operationalized; it also provides a continuous monitoring of school segregation followed in its dynamics, at school unit level, and, at the same time, the data/ evidence generated can inform effectively system-based school desegregation policies.

### *How can school segregation monitoring be institutionalized?*

The key issue that has not been clearly highlighted so far in the literature and in public policies worldwide is precisely how monitoring and evaluation of school segregation can be institutionalized and systematically evaluated. Research carried out so far on this topic has captured school segregation using data available at a certain time moment (a cross-sectional approach) or, in happier cases, data collected longitudinally (i.e. successive series of data), but which were not permanent, by integrating them within an institutionalized routine, at the level of the education system administration (Reardon, 2015; Clotfelter, 1999; Clotfelter, 2004; Gutierrez, Jerrim & Torres, 2019; Kertesi & Kézdi, 2013). In addition, studies targeting segregation addressed and questioned only certain aspects or forms of this phenomenon (usually segregation at school unit level), not the multitude of relevant segregation possibilities (at the level of school unit, school buildings (there are school establishments that operate in several wings, were educational resources allocated and processes might differ), classrooms, classroom seating arrangement) combined with the various relevant segregation criteria (i.e. students' ethnicity, socioeconomic status, disability, student academic standing or area of residence, etc.).

There have been some attempts in this regard, in some projects, but which failed to define an objective, comprehensive system capable of providing reliable, unquestionable data on segregation cases<sup>5</sup>. The school segregation reality is an ongoing process, dynamic, with a constant self-replication tendency (Clotfelter, 2004): as long as there is pressure and the desired option of a wide category of stakeholders (e.g. better-off parents, teachers, private companies active in providing educational services for a fee, etc.), we are never able to state that school segregation has been eradicated or has become a marginal phenomenon. The measures that followed the Coleman Report's conclusions on school desegregation had a short-term effect, but in time the phenomenon of school segregation was resumed through various mechanisms - such as privatization of educational services, expanding the possibility for parents' choice of the school, etc.

What was missing from the educational policies aimed at combating school segregation was the development of a permanent, institutionalized administrative system for monitoring and evaluating school segregation, amid the steady development of a general culture conducive to school desegregation.

We will describe below the design of such a model of systematic monitoring of school segregation that can become an effective public policy tool to support the educational equity and the efficient use of resources allotted in this regard. There are two key components that need to be established regarding the school segregation monitoring system:

---

<sup>5</sup> <http://www.dare-net.eu/cms/upload/file/guide-for-monitoring-and-documenting-school-segregation-romania-english-2014.pdf> (02.11.2021)

- Operationalisation of the school segregation concept through indicators in order to measure the phenomenon and formulate a diagnosis of the extent of its manifestation,
- Organizing the process to ensure a steady, year-over-year, flow of data, for the calculation of indicators and the diagnosis of the degree of school segregation.

UNICEF, together with a team of experts, developed and put in place such a monitoring school segregation system, operationalizing key concepts of the phenomenon and finding a way to continuously collect the data needed for the ongoing assessment of school segregation. In this way, premises can be developed for combating this undesirable phenomenon and, implicitly, its negative effects described in detail in the previous section of the paper. It is worth mentioning that almost the same experts worked on the first methodology for monitoring school segregation in Romania, developed at the initiative of an NGO<sup>6</sup>; a methodology that considered a single criterion of segregation, namely ethnicity, and within this criterion only one aspect was taken into account: Roma vs. non-Roma.

## Methodology

### *Operationalization and school segregation indicators*

In order to make segregation operational, it is necessary to consider all aspects that make the student vulnerable in education or, in other words, all aspects impacting school equity and opportunities for school success.

The literature leads us to the idea that we may consider at least six criteria for defining segregation and, for each of these criteria, there are at least four forms of segregation (at school unit level, at school building level, at classroom level and at the last two benches of the classroom level) - see *Table 1* below. In each case, we may put forward a score to indicate the segregation level. Segregation can also be analysed by different levels of education.

---

<sup>6</sup> *Centrul de Advocacy și Drepturilor Omului* (Advocacy and Human Rights Center). Project description can be accessed at: <https://www.cado.org.ro/scoala-pentru-totii-copiii/> (26.02.2022)

Table 1. Types and forms of school segregation

Segregation type	Segregation form	Score	Early education	Primary education	Lower-secondary	Upper-secondary
By ethnicity	At the level of school unit (vs. catchment area or territorial-administrative unit / vs. aggregated school unit)	0-10				
	At the level of school buildings (vs. school unit)	0-10				
	At classroom level (vs. educational level)	0-10				
	At the level of the last two benches (vs. classroom level)	0-10				
By disability and special educational needs	At the level of school buildings (vs. school unit)	0-10				
	At classroom level (vs. educational level)	0-10				
	At the level of the last two benches (vs. classroom level)	0-10				
By family socioeconomic status	At the level of school buildings (vs. school unit)	0-10				
	At classroom level (vs. educational level)	0-10				
	At the level of the last two benches (vs. classroom level)	0-10				
By academic success/ academic standing rate	At the level of school buildings (vs. school unit)	0-10				
	At classroom level (vs. educational level)	0-10				
	At the level of the last two benches (vs. classroom level)	0-10				
By student's place of residence	At the level of school buildings (vs. educational establishment)	0-10				
	At classroom level (vs. educational level)	0-10				
	At the level of the last two benches (vs. classroom level)	0-10				

The concrete model for monitoring school segregation, developed in Romania and described herein, was designed considering two particularities of the Romanian education system:

- A very limited freedom of choice of parents for the selection of the school through a regulated school catchment area, and
- The curricular uniformity applied in Romanian schools through the centralized adoption of the national curriculum (which is also compulsory for the private and confessional schools, according to art. 65, para. 8 of the Law on National Education).

A restricted freedom of choice of parents for school selection secures a greater equity in the system but at the same time ossifies residential segregation (the only educational interventions with impact on residential segregation, where possible, are those meant to reshape the school catchment areas on a fair basis, which together with the policies of local authorities targeting residential desegregation,



could balance the educational opportunities for vulnerable students). The curricular uniformity of the Romanian schools is beneficial for the equity of education and prevents cases of segregation on the curricular criterion among schools. However, in Romania, as in other education systems within the European Union (Demesue & Friant, 2010), the school segregation among schools should be monitored in relation to the curricular criterion in the upper-secondary education level, when specialized curricular routes start (academic, professional or vocational routes). It is for this reason too that, in order to prevent segregation between schools, at the level of diversified curricular routes, the OECD recommends avoiding early tracking of students on these educational routes before reaching upper-secondary education, along with taking corrective measures at upper-secondary education level to balance educational opportunities for vulnerable students (OECD, 2012).

Ethnicity is a first protected criterion against school segregation. The literature abounds in evidence of the gap in school attendance and academic standing between white and African-American children in the U.S.A. (Reardon, 2015) or between Roma and non-Roma children in Europe (Kertesi & Kézdi, 2010; Harvard FXB, 2015; Kertesi & Kézdi, 2013; Ivan si Rostas, 2013).

The second criterion is that of disability and special educational needs. International data show that disabled form one of the human population categories most affected by school exclusion (World Health Organization, 2011; Plan International London School of Hygiene and Tropical Medicine 2013). A study conducted in 22 countries around the world shows, for example, that people over the age of 25 who are without disabilities completed an average of 7 years of schooling compared to people in the same age group but disabled who completed only 4.8 years of schooling (UNESCO, 2009; 2018).

The third criterion is the socioeconomic status of the student's family. Socioeconomic status is a broader concept that includes, non-exhaustively, the degree of well-being/ poverty of the family, the educational level of the parents, quality of housing, etc. In this regard, too, there is strong evidence of the vulnerability of students with low socioeconomic status compared to other better-off students. It is an unequivocal fact that parent education is one of the key factors that explain the level of academic performance of their children (Graaf & Ganzeboom, 1993; Esping-Andersen, 2004). The parent education level impact the student's skills from the time of birth, through adequately stimulating the development of the child's cognitive (and emotional) skills by living together, by engaging the child in cultural activities specific to his/her age (Lareau, 2003; Heckman, 1999; Esping-Andersen, 2004). In this respect, the parental cultural capital (OECD, 2014; DiMaggio, 1982; Erikson, & Jonsson, 1996) is also closely linked to the educational status, which Bourdieu encompassed in the concept of "habitus" (Bourdieu & Passeron, 1990). Low economic status, or poverty, is also an element that impacts a student's education path (Duncan *et al.*, 1998). The effect of the financial situation of the family on the academic performance of a student can

be interpreted also from the perspective of the rational action theory launched by Boudon, of the primary and secondary effects of the social stratification (Boudon, 1974). Simply put, the parental decision to support the child's education results from a cost/ benefit ratio analysis and the probability of academic success.

The last two criteria we put forward are that of academic standing (learning results), respectively the criterion of the student's area of residence. It is obvious the clustering students according to their performance means, in fact, granting those who are already in a favourable position the best learning conditions, and those who need more support, as already have lower academic performance, receive less. This is because the best resources of the education systems (teachers, investments, extracurricular opportunities) usually are channelled towards those who have already high academic standing. This is explained either by belonging to a better-off socioeconomic group, from families who support them and are able to navigate the education system efficiently in order to place their children in the best available school units, and have the resources to do so; this happens because the teachers prefer to work with high-performing students since it is easier and more advantageous for them. The pedagogical work of a teacher is greater in a class of disadvantaged students, lacking adequate family support, than in a class with high-performing students - of course, if the teacher takes his role seriously. Moreover, the rewards are significantly lower when teaching to a class with disadvantaged students as against teaching in a class of top-performers.

The area of residence is a variable relevant to the Romanian educational context considering that students from rural areas have significantly lower chances to continue their studies in upper secondary or tertiary education level (Voicu & Vasile, 2010). It is also well known that in Romania teachers are not attracted to teaching in rural areas.

Given the educational vulnerabilities of the different categories of students defined by the criteria presented above, their segregation in various school contexts jeopardise, once again, their educational opportunities, and their ability to make the most of their native endowments. The manifestation of segregation, according to the aforementioned criteria, represents, in short, educational inequity and, implicitly, a loss of human capital vital to the socioeconomic development of a country (Esping-Andersen, 2002).

For each of the criteria for evaluating school segregation mentioned above, at least four forms of school segregation or school contexts can be found in relation to which this phenomenon manifests itself. We present them next while mentioning in parentheses the reporting/ comparison landmark in order to evaluate the school segregation: (1) At the level of school unit (vs. catchment area or territorial-administrative unit / vs. aggregated school unit); (2) At the level of school buildings (vs. school unit); (3) At classroom level (vs. educational level); (4) At the level of the last two benches in the classroom (vs. classroom level).

*Segregation level scoring*

Given the interest in obtaining an evaluation as intuitive as possible (but allowing an objective comparison between different situations), and at the same time easy to understand and apply by practitioners, education partners (i.e. teachers, principals, parents) or policy-makers, we propose a way alternative for calculating a segregation score - an index that was conceived in the Romanian context, that is why we call it the *R score of school segregation*.

Thus, in calculating the *R score of school segregation*, the difference between two percentages, found in two spaces or contexts of comparison, is considered.

*R score of school segregation for criterion "X"/ form "Y"* = |(percentage of students from the category defined by the criterion "X" in the space defined by the form "Y") - (percentage of students in the category defined by the criterion "X" in the LANDMARK space defined by the form "Y")| / 10. We describe below an example applied in the case of school segregation by ethnic criterion, form of segregation: school buildings level (if the school unite has several school buildings where the courses are held – we consider the school unit as the structure defined by a catchment area, either the unit with legal personality or the satellite school units. In the Romanian system of education an „aggregated” school unit consists of the school unit with legal personality and several satellite school units. School segregation is monitored at each individual unit (as „aggregated” data risks levelling out disparities).

Score *R school building segregation* for students with ethnic background Q = |(percentage of children with ethnic background Q learning in the school building) – (percentage of children with ethnic background Q enrolled in the entire school unit)| / 10

We can thus notice that the percentages of students from disadvantaged areas are compared between two educational spaces - in our example, the school building where the school courses take place and the school unit as a whole. Specifically, this situation only makes sense if the educational services in the school unit are provided in several school buildings and the pupils who learned in each buildings are enrolled in the same education cycle. The difference between the percentages of vulnerable students learning in educational spaces is always marked with a plus sign (should the result obtained is marked with minus sign –, the form will be considered in modulus<sup>7</sup> ( $|-X| = X$ ). The segregation score is obtained by dividing by 10 the result thus obtained (X:10) In this way, since each percentage of the difference mentioned above can take values from 1 to 100, the segregation score can take values from 1 to 10.

A special situation is the placement of students in the last two benches of a classroom (if spatial organization of the classroom follows the tradition rows of

<sup>7</sup> The absolute value of a real number (regardless of the algebraic sign).

double or individual benches). The analysis of segregation only makes sense if the percentage of vulnerable students placed in the last two rows of benches is higher than the percentage of the same category in the whole classroom (otherwise the segregationist imbalance does not create a disadvantage for vulnerable students, so no assessment is required).

We thus obtain a score with values from 0 to 10, where 0 sign a situation of non-segregation, and value 10 shows a situation of total, maximum segregation (absolute separation between vulnerable students, defined by a certain criterion, and the rest of the students). We obtain 0 value when the two percentages are equal; we get 10 value when the percentage of one space is 0 and the percentage of another space is 100, i.e. the maximum possible difference is 100. This score is calculated for each educational space considered, which means that we will have several possible R segregation scores for a given school unit, including by the same form of segregation (if there are more buildings or several classes for the same year of study). A practical solution for setting a segregation alert in this case is to pick the R score with the highest value found in the case of the school unit surveyed.

### *Collection of data needed to make a school segregation diagnosis*

In order to be able to calculate the values of the indicators described above, it is necessary to have a set of data for each student enrolled in education, i.e. a set of individual characteristics specific to that student (these were included and regulated as such by the Order of the Romanian Ministry of Education no. 5633/2019 for the approval of the methodology for monitoring school segregation in pre-university education). We present below the type of data needed to be inputted for each student so that school segregation can be assessed and diagnosed according to certain criteria.

*A. Segregation - Ethnic Criterion:* In order to be able to evaluate school segregation from the perspective of this criterion, it is necessary to record the following characteristics specific to each student: (1) The educational level of the student - the group/ class in which s/he is enrolled (the academic year the student is enrolled); (2) Self-declared ethnicity of the student (it is recommended to use self-identification by the student or parent to prevent errors caused by the process of hetero-identification (Rughinis, 2010) and to respect the right of the person to decide on his/her ethnicity); (3) Placement of the student in school benches (if s/he is placed in the last two benches, in those cases where the spatial arrangement of the classroom adopts the rows of benches); (4) The building in which the student is learning (if the school unit has several buildings where the same educational cycles learn); (5) Is the student a graduate? 1. YES, s/he is a graduate 2. NO, s/he repeats grade or has to go in for a second exam.

B. *Segregation - Disability Criterion / Special Educational Needs*: Does the child have disabilities / special educational needs? 1. YES 2. NO

C. *Segregation - Socioeconomic Status of The Family Criterion*: (1) What is the level of formal education of the child's parents/ tutors? (e.g. the highest educational level completed by a parent/ tutor living with the child within the same family will be considered); (2) Does the student benefit of social aid? In this case, the indicator used in Romania is whether a social file was prepared for the child to benefit from social scholarship, for the free provision of school supplies or for other forms of assistance, regardless of whether they benefit from them or not (financial restrictions) 1. YES 2. NO; (3) Is the child in institutional or foster care? 1. YES 2. NO; (4) Does the child live in a single-parent family? 1. YES 2. NO; (5) Is the child left in the grandparents' care or in the care of other family members? 1. YES 2. NO.

D. *Student's Performance at School Criterion / Student's Area of Residence*: (1) Did the student repeat grade? 1. YES 2. NO; (2) Did the student attend kindergarten? 1. YES 2. NO; (3) FOR 9<sup>TH</sup> GRADE STUDENTS: What was the student's high school admission average grade? (4) FOR 9<sup>TH</sup> GRADE STUDENTS: Does the student come from a rural area? 1. YES 2. NO; (5) FOR 9<sup>TH</sup> GRADE STUDENTS: What field of study, academic profile, specialization/ qualification/ study program does the student attend?; (6) FOR 12<sup>TH</sup> GRADE STUDENTS: Is the student a high school graduate? 1. YES 2. NO; (7) Does the student participate in a study program (e.g. "intensive", "bilingual", sports profile, etc.), which involved exams/ selection procedures for students entering the preparatory class or the 5<sup>th</sup> grade, at the level of school unit? 1. YES 2. NO.

Based on the data above, we can calculate the shares of disadvantaged students in different school spaces and we can calculate the R score of school segregation as defined above.

## **Conclusions and implications. Policy recommendations**

We have presented above a model for monitoring, analysing and evaluating school segregation with wide international applicability, both for those who aim to address academically the topic and especially for decision-makers.

The debate around this topic showed the major importance of school desegregation for the contemporary education, the way in which this phenomenon is closely related to educational equity, and the strive for equitable educational opportunities and socioeconomic development. The most important resource to produce social welfare is the human resource, and the process of school desegregation fully contributes, as we have shown, to this endeavour.

Amid this background, we proposed a model for monitoring, analysing and diagnosing school segregation at the level of each school unit; this model can be tailored, used and applied successfully, as an educational policy tool, anywhere in the world. It is only through the systematic and administrative use of such an instrument that the premises for an adequate assessment of the level of school segregation, defined in accordance with the most relevant criteria and in its various forms, are created. Moreover, thanks to such an instrument, the means of public intervention for systemic school desegregation can also be identified.

We say it bluntly: the role of such an educational policy tool is not to strain the relations between the relevant stakeholders or to name and shame. School segregation often occurs as a result of a complex set of factors, following a beaten institutional path, and being often the outcome of the actions of relevant actors, who are most likely unaware of the negative repercussions of long-term school segregation. The role of this tool is to contribute to the emergence of an improved model of organizing education generating development, social peace and well-being for all members of a community.

The model proposed here is unique, to our knowledge, in the dedicated literature. Although there have been studies that have reviewed and evaluated school segregation, no model of systematic monitoring of this process at school unit level with the administrative means of education policy makers has been put forward so far. In Romania, this tool for monitoring school segregation has been launched, and the results are to yet be seen in the forthcoming period.

The launch of such a model for monitoring school segregation will allow the institutionalization and perpetuation of the process of organizing education on the basis of increased effectiveness and efficiency, with effects consisting in reducing school inequities and inequalities and significantly improving the learning outcomes for all students.

Of course, this process will face difficulties, stumbling blocks, and opposition from the very beginning. It is very important, in this context and precisely for that reason, that the whole process and its stakes be well explained to all the stakeholders involved i.e. parents, teachers, school inspectors, educational experts involved in providing educational services.

At the same time, it is recommended that the use of the resulting records on the level of school segregation lead to measures of gradual desegregation, which do not strain and short-circuit the education system. For instance, in the case of finding segregated classes according to a certain criterion, the solution is not the urgent and sharp, bureaucratic re-allocation of students who may have established relationships and emotional attachments between them. We emphasize a basic aspect: *the school desegregation policies framework should not be applied dogmatically but considering at all times the best interests of the child*. There may also be situations where there is a justification for a certain disproportion (in the case of twin, triplets who are recommended to be in the same class; they will

not be separated just to have a lower segregation score); the monitoring system should be able to raise a red flag and provide adequate justifications, when and where appropriate. The approach must be future oriented, in order to prevent the formation of segregated school structures in the future, starting with each school year corresponding to the beginning of an educational cycle (lower preschool group, preparatory class, 5<sup>th</sup> grade, 9<sup>th</sup> grade) but also in the key moments of the transition from one educational cycle to another.

Finally, it is worth mentioning one last aspect: the data reporting accuracy and honesty by schools. Ultimately, the correct diagnosis of school segregation depends on the accuracy and completeness of the data provided by the school. In this process, it is advisable, once again, to explain the stakes of the school desegregation, and transform the school units into the agents and supporters of social and educational well-being, including through school desegregation. It is also necessary that the reports be based fundamentally on the well-informed statements of the parents, which are the ones who provide data on the socio-demographic characteristics of the family and the student, and on the basis of which school segregation is assessed.

That is why the stakes of the process and of the partnership for school desegregation must be explained not only to the school representatives but, especially, to the parents who are also beneficiaries of the educational services. Furthermore, the authorities and schools are called upon to organize general information and awareness raising campaigns for all parents, targeting especially (but not exclusively) vulnerable groups of parents. In theory, in a society deeply reluctant to the idea of achieving school education in fair conditions, based on the desegregation principles, parents would eventually find ways to guide their children's education path separately, opting for alternatives such as private education or home-schooling. Therefore, in this equation, it is very important to increase the quality of educational services in all schools and to invest in the training of school managers and teachers for quality inclusive education, so that the preferential search for a certain teacher, a certain school unit or a certain class becomes meaningless as long as the desired educational standard is reachable in any school.

## References

- Boudon, R. (1974). *Education, Opportunity, and Social Inequality: changing prospects in Western Society*. New York: Wiley-Interscience.
- Bourdieu, P., & Passeron, J.C. (1990). *Reproduction in Education, Society and Culture*. Second edition. London: Sage Publications.
- Clotfelter, C.T. (1999). *Public School Segregation in Metropolitan Areas*. Land Economics. Vol. 5. No. 4. pp. 487–504;
- Clotfelter, C.T. (2004). *After Brown. The Rise and Retreat of School Desegregation*. Princeton University Press. Princeton, Oxford.
- Clotfelter, C.T., Hemelt, S.W., Ladd, H.F., & Turaeva, M. (2021). *School Segregation in the Era of Color-blind Jurisprudence and School Choice*. (EdWorkingPaper: 21-101). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/wc3k-ht80>;
- Clotfelter, C.T., Ladd, H.F., Clifton, C.R., Turaeva, M. (2020). *School Segregation at the Classroom Level in a Southern 'New Destination' State*. Working Paper No. 230-0220. National Center for Analysis of Longitudinal Data in Education Research (CALDER) – available <https://files.eric.ed.gov/fulltext/ED605741.pdf>
- Council of Europe. (2017). *Fighting school segregation in Europe through inclusive education: a position paper*.
- Demesue, M. & Friant, N. (2010). *School segregation in the French Community of Belgium*. University of Mons.
- DiMaggio, P. (1982). Cultural Capital and School Success: The Impact of Status Culture Participation on the Grades of U.S. High School Students. *American Sociological Review*, 47(2), 189-201.
- Duncan, G.J., Brooks-Gunn, J., Yeung, J.W., Smith, J.R. (1998). How much does childhood poverty affect the life chances of children?. *American Sociological Review*, 63(3), 406-423.
- Epp, J.R. & Watkinson, A.M. (1996). *Systemic Violence: How Schools Hurt Children*. London: Falmer Press.
- Erikson, R. & Jonsson, J. O. (1996). *Can education be equalized? The Swedish case in comparative perspective*. Oxford: Westview Press.
- Esping-Andersen, G. (2002). *Why We Need a New Welfare State?* Oxford: Oxford University Press.
- Esping-Andersen, G. (2004). Untying the Gordian knot of social inheritance. In: Arne L. Kalleberg *et*
- García, Emma. (2020). *Schools are still segregated, and black children are paying a price*. Economic Policy Institute: Washington, DC. Available at <https://files.epi.org/pdf/185814.pdf> (25.11.2021)
- Graaf, P. M și Ganzeboom, H. B. G. (1993). *Family background and educational attainment in the Netherlands for the 1891–1960 birth cohorts* in Blossfeld, Hand-Peter and Shavit, Yossi, 'Persistent inequality. Changing educational attainment in thirteen countries'. Oxford: Westview Press.
- Gutierrez, G., Jerrim, J., & Torres, R. (2019). School Segregation Across the World: Has Any Progress Been Made in Reducing the Separation of the Rich from the Poor? *The Journal of Economic Inequality*, 18, 157-179; DOI: 10.1007/s10888-019-09437-3.



- Hajdu, T., Kertesi, G., & Kézdi, G. (2021). Ethnic Segregation and Inter-Ethnic Relationships in Hungarian Schools. *Journal for Research and Debate*, 4(11); DOI 10.17899/on\_ed.2021.11.5.
- Harvard FXB. (2015). *Strategies and Tactics to Combat Segregation of Roma Children in Schools. Case studies from Romania, Croatia, Hungary, Czech Republic, Bulgaria, and Greece*. Center for Health and Human Rights, Harvard University.;
- Heckman, J. (1999). Doing it right: job training and education. *The Public Interest*, pp. 86–106;
- ISE & UNICEF.(2004). *Perspective asupra dimensiunii de gen în educație*. Buzau: Vademonde.
- Ivan, Claudiu & Rostas, Iulius. (2013). *Early School Leaving: causes and consequences*. Research Report. Roma Education Fund Romania - [https://romaeducationfund.ro/wp-content/uploads/2015/03/Parasirea-timpurie-a-scolii-cauze-si-efecte\\_EN1.pdf](https://romaeducationfund.ro/wp-content/uploads/2015/03/Parasirea-timpurie-a-scolii-cauze-si-efecte_EN1.pdf) (4.11.2021);
- Kertesi, G. & Kézdi, G. (2010). The Roma/Non-Roma Test Score Gap in Hungary. *Budapest Working Papers On The Labour Market*. Institute of Economics, Hungarian Academy of Sciences, Corvinus University of Budapest.
- Kertesi, G. & Kézdi, G. (2013). Ethnic segregation between Hungarian schools: Long-run trends and geographic distribution. *Hungarian Statistical Review*, 16, 18-45.
- Kertesi, G., & Kézdi, G. (2013). *School segregation, school choice and educational policies in 100 Hungarian towns*. Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences.
- Lareau, A. (2003). *Unequal Childhoods: Class, Race, and Family Life*. University of California Press, Berkeley.
- Lynch, K & Baker, J. (2005). *Equality in education: An equality of condition perspective*. *Theory and Research in Education*, 3; 131; DOI: 10.1177/1477878505053298.
- McGrew, W. (2019). *U.S. school segregation in the 21st century. Causes, consequences, and solutions*. Washington Center for Equitable Growth.
- OECD. (2012). *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*. <https://www.oecd.org/education/school/50293148.pdf>
- OECD. (2019). *Balancing School Choice and Equity: An International Perspective Based on PISA*, PISA, OECD Publishing, Paris: DOI: 10.1787/2592c974-en.
- Palardy, G.J. (2013). High school socioeconomic segregation and student attainment. *American Education Research Journal*, 50(4), 714-754;
- Palardy, G.J., Rumberger, R.W., Butler, T. (2015). *The effect of high school socioeconomic, racial, and linguistic segregation on academic performance and school behaviors*. *Teach. Coll. Rec.* 117(12), 1–53.
- Plan International London School of Hygiene and Tropical Medicine. (2013). *Include us! A study of disability among Plan International's sponsored children*. Surrey, UK; Lena Morgon Banks & Sarah Polack.
- Reardon, S.F. (2015). School Segregation and Racial Academic Achievement Gaps. *CEPA Working Paper No.15-12*. Retrieved from Stanford Center for Education Policy Analysis: <http://cepa.stanford.edu/wp15-12>.

- Rughiniș, Cosima. (2010). The forest behind the bar charts: bridging quantitative and qualitative research on Roma/Tigani in contemporary Romania. *Patterns of Prejudice*, 44(4), 337-367.
- UNESCO. (2009). *Towards inclusive education for children with disabilities: a guideline*. Bangkok: Calderbank, Daniel.
- UNESCO. (2018). *Education and Disability: Analysis of Data from 49 Countries*. Information paper no. 49.
- Valenzuela, J.P., Bellei, C., & de los Ríos, D. (2013). Socioeconomic school segregation in a market-oriented educational system. The case of Chile. *Journal of Education Policy*; DOI: 10.1080/02680939.2013.806995.
- Voicu, B. & Vasile, M. (2010). Rural–urban Inequalities and Expansion of Tertiary Education in Romania. *Journal of Social Research & Policy*, 1(1), 5-24.
- World Health Organization. (2011). *World report on disability: World Health Organization*. Available from: [http://whqlibdoc.who.int/publications/2011/9789240685215\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789240685215_eng.pdf).