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Education planning and school segregation in Barcelona

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Residential segregation, a school-access system with considerable freedom to choose an educational centre and a real lack of free programmes have all increased school segregation in Barcelona. Education policies still have the means to reduce it.

Public policy and school segregation

School segregation is a problem found in many large and medium-sized cities around the world. Separation between various social groups in vulnerable situations during their schooling (owing to their low-income, immigrant or special-needs status, and so on) occurs in several forms and degrees. Such segregation is largely the result of a growing urban fragmentation (Musterd *et al.*, 2017; Tammaru *et al.*, 2015). The distribution of economic growth associated with the process of economic and technological globalisation has been visibly unequal in cities, while lower-income social groups have been hit significantly harder during periods of crisis. The difficulties governments face or their inability to correct these trends have been evident even in the most developed welfare states (Atkinson, 2015).

Barcelona is no exception here. The urban polarisation and fragmentation process has led to increased urban segregation according to income level in the city (Nel-lo and Blanco, 2015; Bonal *et al.*, 2019). At the same time, the arrival of over 300,000 immigrants within a decade (Galeano and Bayona, 2015: 119) changed the social and ethnic composition of the city's ten districts and its metropolitan area. Between 2000 and 2016 the foreign-national population rose from 46,091¹ to 284,907 residents², a 518% increase taking it to 16.6% of the total. This population is mainly from Asia (25.2%), South America (21.7%), southern Europe (12.6%) and North Africa (5.6%) (Barcelona City Council, 2016). Immigrant groups in particular have been hit by the crisis, with rising unemployment, material deprivation and reduced housing access (Alonso *et al.*, 2015).

But school-segregation processes are affected by other phenomena as well. In recent years, Barcelona's education system has been affected by such issues as rising demand for state schooling at the expense of state-assisted schooling, changes in school-choice strategies in a context of economic crisis, the transfer of demographic pressure from pre-school and

1. Data from the Catalan Institute of Statistics

(IDESCAT), <http://www.idescat.cat/poblacioestrangera/?b=0&geo=mun:080193&nac=d208>

2. Statistical reports. Barcelona, City Council. Municipal Population Register on 1 January 2017.

<https://www.bcn.cat/estadistica/catala/dades/anuari/cap02/C020107.htm>

primary-school to secondary-school levels, changes in the structure and composition of education provision, changes in school zoning and new educational expectations resulting from important regulatory changes such as the Catalan Education Act (LEC) and, above all, the Framework Act for Improving Education Quality (LOMCE).

Such processes are inevitably altering the social and geographic opportunities available to all the city's children. The distribution of education provision, the balances between state and state-assisted schools and the social composition of schools and their education projects cannot be understood merely in statistical terms. They change in line with changes in the geographic mobility of the population, social composition of the neighbourhoods, dynamics of the education market and family priorities in choosing a school.

Education planning in this changing context is key to ensuring effectiveness, efficiency and fairness in access to and throughout schooling. Decisions relating to the make-up of education provision (number of schools, number of lines), its nature (state or state-assisted) and on a series of mechanisms in the hands of the public authorities for correcting and consolidating education planning strategies, are key to ensuring equal educational opportunities in the city and regularly supervising compliance.

Education policy measures here face a series of external determining factors as well as the specific and sometimes conflicting expectations, goals and interests of the various groups that make up the education community. Opening or closing schools or groups, taking decisions on reserving places or changing enrolment between primary and secondary school are examples of invariably controversial decisions that often lead to conflicting responses depending on the interests of the groups concerned. In this context the education authority faces the difficult task of finding a balance between educational fairness (and meeting the schooling needs of the most vulnerable groups) and the system's governance (Bonal, 2012).

School segregation of foreign-national students in Barcelona did not increase noticeably between 2006 and 2016, although it has remained at significantly high levels throughout the city, with dissimilarity indexes of nearly 50% in some districts³ (Ombudsman, 2016). Meeting the challenge of reducing it requires, first of all, having as accurate a diagnosis as possible of the situation that the various groups in different parts of the city face with regard to school segregation. The diversity of the neighbourhoods, the differing distribution of education provision and other causes may explain the special features of segregation in the city's various education areas and the various reasons for it. Such knowledge is crucial if we wish to apply effective policy strategies to the various areas. A report entitled "Territorial Equivalence in Education Planning in Barcelona: diagnosis and proposals", commissioned by the Barcelona Education Consortium (CEB) and co-authored with Adrián Zancajo, provides a detailed analysis of several aspects of territorial educational inequality in the city. It identifies the most important aspects which show there is an unequal structure of educational opportunities in the different parts of the city and which are intended to serve as a basis for coordinating specific policies for reducing that inequality.

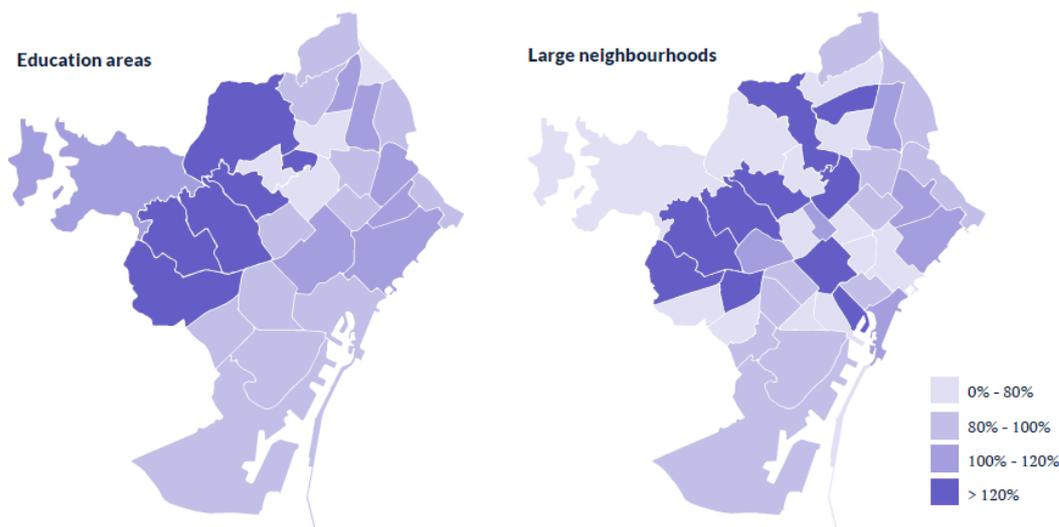
A snapshot of territorial educational inequalities in Barcelona

We can get an initial idea of the territorial imbalance of education provision by observing the distribution of school places. As Figure 1 confirms, the provision of P3 places for resident children is far from balanced. This imbalance manifests itself as surplus provision in the city's higher-income areas, which are also notable for offering an extensive range of state-assisted

3. A dissimilarity index of 0.5 or 50% of foreign-national students means that 50% of such students would have to change school for a perfectly balanced distribution to be achieved.

school places. In Area 14 alone (Font d'en Fargues), the surplus is due to a surplus of public sector places. It is also necessary to highlight the insufficient number of places in some of the city's education areas, such as EA15: El Carmel - La Teixonera, with only 32% of state-school places covered, or EA17: Porta - El Turó de la Peira - Vilapicina i la Torre Llobeta - Can Peguera, with only 25%.

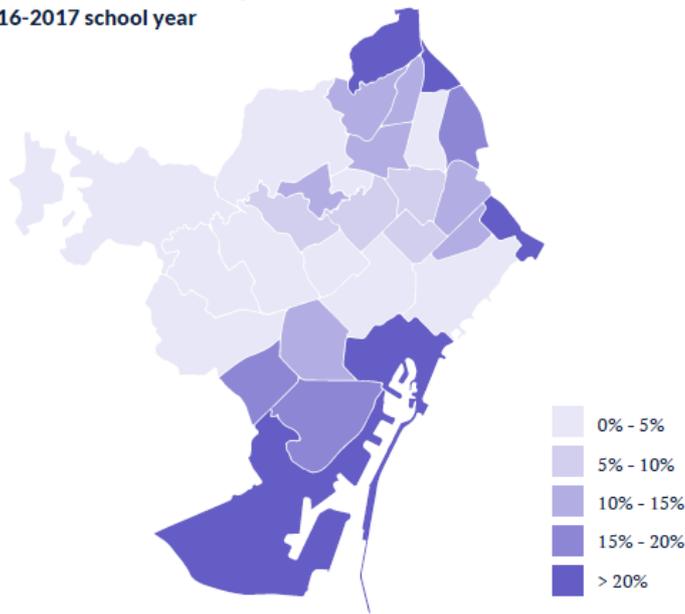
Figure 1. Education areas and large neighbourhoods showing the level of place of P3 provision compared to the resident population. Barcelona from the 2016-2017 school year



Source: Based on data provided by the Barcelona Education Consortium (CEB).

The "negative side" of the place provision map can be seen by observing the education level distribution in the city. Low education levels are concentrated on the city's outskirts, especially in La Marina del Prat Vermell - Marina de Port (EA5), Ciutat Vella (EA1), Torre Baró - Vallbona - Ciutat Meridiana (EA20), Trinitat Vella (EA21) and El Besòs i el Maresme (EA27). Except for Ciutat Vella, they are all areas with a lack of places. By contrast, the surplus is concentrated in the most well-to-do part of the city, in particular in the districts of Les Corts and Sarrià - Sant Gervasi.

Figure 2. Distribution of the average number of students from families with low education levels by education area (%). Barcelona from the 2016-2017 school year

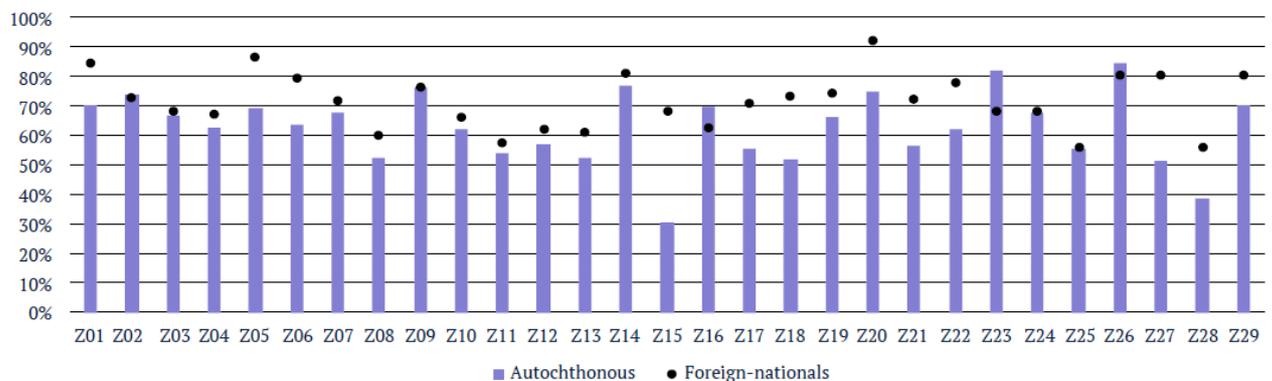


Source: Based on data provided by the CEB.

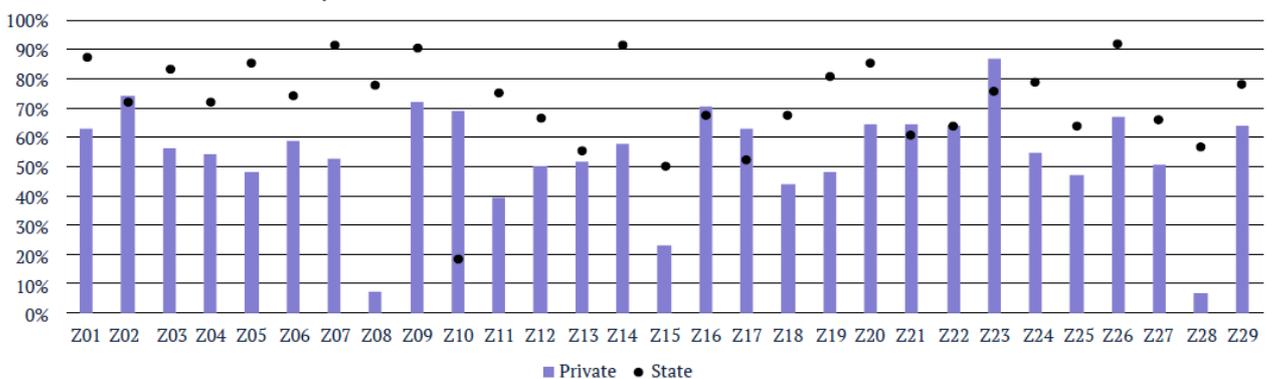
NB "Low education level" includes categories of parents or guardians who cannot read or write, who have a level below that of a school graduate and who have no formal education.

This imbalance in places partially explains the significant level of educational mobility in the city. Journeys between areas for schooling are high compared to other cities. The percentage of students going to school in the area where they live is often below 70%. In fact, there are only three education areas where it is above 80%. Retention is high in EA20 (Torre Baró - Vallbona - Ciutat Meridiana), owing to its geographic isolation, as well as in EA23 (Sant Andreu) and EA26 (El Parc i la Llacuna, La Vila Olímpica and Diagonal Mar i el Front Marítim del Poblenou) areas, noted for their attractive state-school provision. At the other extreme, there are some areas that have particularly high exclusion levels. Such is the case with EA15 (El Carmel), which only retains 36% of its resident students and EA28 (Provençals-Poblenou), which retains 41%. The insufficient number of places is made worse in these cases by a demand that tends to avoid schooling in the area given its access to attractive provision in neighbouring education areas. A clear example of this is in the El Carmel - La Teixonera area, close to EA14 (Font d'en Fargues), which has a big surplus of state-school places. Education area retentions also according to the type of the students and ownership of the destination school. Graph 1 and 2 reflect these differences. It can be seen that, with few exceptions, local schooling is considerably higher among foreign-national students than it is among autochthonous students. Local schooling is likewise more frequent where the destination school is a state one rather than a state-assisted one. With some exceptions, state-assisted schools attract more students from outside the area and are therefore a factor that accentuates mobility.

Graph 1. Retention in the educational area according to the nationality. Barcelona from the 2016-2017 school year



Graph 2: Retention in the educational zone according to the sector of ownership of the center where students are enrolled by statistical zones. Barcelona from the 2016-2017 school year



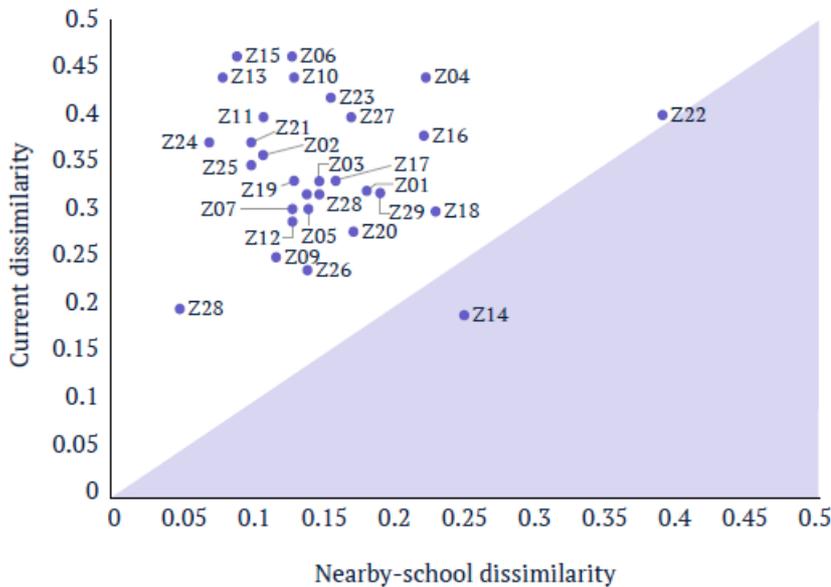
Source: Based on data provided by the CEB.

These differences in schooling guidelines caused by an unequal distribution of school provision and by school-choice strategies distinguished according to territory are consolidating levels of school segregation in the city that are appreciably above what would have been expected had we only taken residential segregation into account.

Graph 3 shows the relationship between the school segregation of foreign-national students in the second cycle (3-6) of infant education and primary-school education and the segregation associated with a hypothetical schooling of students at the closest school to their home. It can be seen that school segregation is noticeably higher than residential segregation in 28 of the 29 education areas. Only the above-mentioned EA14 presents a lower level of school segregation than residential, largely due to the surplus of school places and the attraction capacity of nearby areas with higher concentrations of foreign-national students. It should be noted that, with the exception of EA22 (Baró de Viver - El Bon Pastor), the residential segregation of foreign-national students is very low (with indexes of less than 0.3). In general terms, therefore, local schooling would notably reduce the school segregation of foreign-national students.

These simulations present the same behaviour when the variable observed are students receiving school meals subsidies or emergency social funds.

Graph 3. Dissimilarity index of foreign-national students by education area. in a real scenario and in a simulated scenario for closest-school allocation. Barcelona from the 2016-2017 school year



Source: Based on data provided by the CEB.

Differences in schooling costs

Notable social inequalities in the city are not just mirrored in the schooling process but also often accentuated owing to the structure of school place provision and the behaviour patterns of educational demand. One of the features that certainly tends to aggravate the differences are schooling costs. Despite the existence of a regulatory framework that ensures free education supported by public funds it is well known that schools are not free. In fact, Spain is one of the Organisation for Economic Cooperation and Development (OECD) countries with the highest private expenditure on education. This is an aspect that not only affects state-assisted schools, which traditionally ask families to pay for certain activities, but increasingly diverse state schools too. The study on educational inequalities in Barcelona included a comparison of schooling costs between several areas, based on data obtained from the CEB through a survey sent to all of Barcelona's schools. Although the questionnaire was not answered by all the schools (there was less representation from state-assisted schools), the data enable us to observe several very pronounced territorial differences, both in average costs and especially in the dispersion of costs within the same areas.

The information on costs was gathered under four distinct categories: annual fees, summer camps, school meals and AMPA (parent-teacher associations). In the case of state-assisted schools, contributions to foundations were added, a key funding mechanism, especially for the private religious sector. The dispersion in school accounting practices probably explains, in some cases, the differences of some entries between schools, though from an aggregate point of view, significant differences can be observed in average cost levels.

Table 1 presents the data of private schooling costs by district for each of these entries, including the state and private sectors. It presents the average costs of each entry among the district's schools, as well as typical deviation (t.d.) as an expression of internal inequality within each district. Territorial differences are very pronounced and closely associated with the income level of each city district which, moreover, are the districts with a higher presence

of state-assisted schools. They can be seen in particular in the annual fees and the contributions to the foundations (but note the lack of information available on the state-assisted sector). It is likewise clear that there are also internal differences in the districts with the highest schooling costs. The dispersion of costs in all the entries is especially high in the districts of Les Corts and Sarrià - Sant Gervasi and is much lower in Nou Barris and Sant Martí. On the other hand, it is interesting and surprising that despite presenting very high average school costs, the Eixample district shows low dispersion levels.

Table 1. Annual private costs associated with second-cycle infants and primary education, by city district (state and state-assisted sector), in current euros. Barcelona from the 2016-2017 school year.

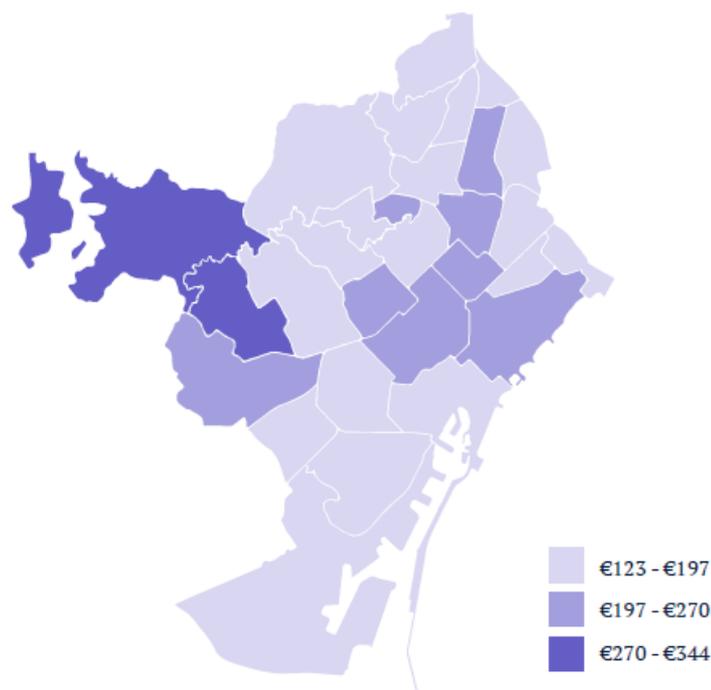
	Annual fee		School-holiday camps		School meals		MPA		Foundation	
	Average	t.d.	Average	t.d.	Average	t.d.	Average	t.d.	Average	t.d.
Ciutat Vella	286.0	75.6	131.9	23.7	6.78	0.23	21.9	2.9	195.0	60.6
L'Eixample	725.2	74.9	174.9	11.5	7.04	0.19	42.8	2.8	181.7	42.2
Sants-Montjuïc	375.0	70.3	132.7	13.1	6.73	0.17	24.9	1.9	15.0	-
Les Corts	454.7	120.2	180.7	17.3	6.94	0.27	30.8	3.9	38.0	6.9
Sarrià - Sant Gervasi	1.062.9	153.6	183.5	17.1	7.43	0.29	41.4	6.6	352.4	102.7
Gràcia	470.4	80.5	150.7	9.6	6.73	0.15	40.1	4.0	192.8	59.4
Horta-Guinardó	388.4	67.9	156.3	11.2	6.74	0.27	42.1	4.9	422.0	144.4
Nou Barris	298.9	42.5	182.2	15.8	6.51	0.13	25.9	2.2	162.3	22.7
Sant Andreu	352.3	58.9	163.7	10.3	6.38	0.13	31.4	2.2	109.3	51.2
Sant Martí	329.9	41.8	148.3	11.0	6.39	0.22	35.4	2.8	758.7	28.7

Source: Based on data provided by the CEB.

Aggregately observed differences are also shown when we only analyse the differences within the state schools by area. Figure 3 displays the territorial dispersion of annual fees in state-run infant and primary schools. Although the differences are less pronounced than those aggregately observed for both sectors, the hierarchy per district can be confirmed in the differences per area where only the public sector's costs are analysed. The EAs of districts 4 and 5 have high costs, appreciably higher than the average of all EAs (€190). EA14 (Font d'en Fargues), with a high density of schools, also has a high average of schooling costs, as well as a very high internal dispersion. At the other extreme, the annual fees in the more socially underprivileged EAs are below the city average. Such is the case with Ciutat Vella, the EAs of Nou Barris and the EAs of Sants-Montjuïc. The map also reflects the contrasts in costs between the same district's areas. So, EA26 (El Parc i la Llacuna, La Vila Olímpica, Diagonal Mar i el Front Marítim del Poblenou) presents appreciably higher costs than the other areas in Sant Martí and Baró de Viver - el Bon Pastor has much lower costs compared to the other areas in Sant Andreu.

Spatial inequalities in the city can also be seen in AMPA fees (not reflected in the map). This is an especially interesting indicator as it acts as a proxy for the volume of complementary activities that the AMPAs mobilise (educational excursions, extra school hours funded by AMPA, hiring of specialists for pre-school levels). Given a context where acquiring personal and professional skills goes well beyond school curricula, it is clear that this constitutes one of the main sources of educational inequality.

Figure 3. Average annual second-cycle fees at state infant and primary schools, by education area. Barcelona from the 2016-2017 school year



Source: Based on data provided by the CEB.

The fight against school segregation in Barcelona: priorities and proposals

The results of the Territorial Equivalence and Educational Inequalities in Barcelona study provide a complete diagnosis of territorial inequalities in the city. These inequalities are caused by different factors in the various areas. Reducing them requires general measures for improving a balanced schooling in all schools and specific measures aimed at specific areas for the purposes of redressing the various factors of inequality. The CEB has recently launched its Shock Plan against Segregation and for Equal Opportunities in Education in the city. This involves, for the first time, launching an ambitious programme with the aim of achieving balanced schooling in the city, detecting the learning needs of vulnerable children, prioritising and focusing resources for equal opportunities, advancing towards education-quality equivalence in all schools by promoting innovation and improving family-information and assistance policies.

It is worth highlighting what better coordination with the city's social services means for detecting children with educational-support needs, the reservation of places in proportion to each area's needs (that is, advance application of Article 48 of the LEC) at primary P3 and first-year compulsory secondary education (ESO) levels, the distribution of dynamic enrolment irrespective of existing school vacancies, the possible closing of lines or groups owing to surplus provision or to reverse existing school segregation or the increase or decrease of ratios according to schooling needs and regardless of the vacancies that are available at each school. The Plan also guarantees free school meals and exemption from voluntary fee payments for the most vulnerable school children, as well as extracurricular sports activities and summer activities (summer-holiday camps, day centres, etc.) The Consortium likewise provides for the Team Advice and Counseling Psychology (EAP) advice and guidance teams to implement plans for individual monitoring of the most vulnerable

students, as well as promoting school social committees, area reference units and focusing curricular diversification programmes on the most vulnerable students. It also provides for the extension of information meetings to families in the various areas, the support in particular for the most vulnerable families during the schooling process and the consolidation of schooling offices in the city districts with a higher vulnerability index.

The Shock Plan's measures are certainly ambitious and can have a positive impact in terms of reversing school segregation in the city over the coming years. Assessing its impact will enable its effectiveness in that time to be determined. The Shock Plan therefore corresponds to the measures that can generally reduce territorial inequalities in the city. At the same time account will have to be taken of some specific territorial inequalities in the city requiring focused responses in certain areas or city districts. To sum up, we shall identify several complementary measures that would help to redress the current territorial inequalities in certain areas⁴.

- Situations of insufficient numbers of state-school places are evident in certain areas in the city, especially in El Carmel and Nou Barris. We need to expand the number of places available in some areas by opening up new groups or creating new schools.
- By contrast, there are parts of the city with a large surplus of places, especially in the education areas of Sarrià - Sant Gervasi and Font d'en Fargues. The surplus provision in these areas ought to be corrected by paying special attention to the situation in schools with a long-term surplus of places. Likewise, a review of groups agreed prior to the pre-enrolment process at schools with low structural demand would need to be carried out.
- Many of the city's state-assisted school places do little to redress the inequalities. This ought to become a decisive criterion both for the opening of new groups and for granting or renewing state assistance.
- In general, the low retention capacity of education areas reduces local schooling (which, as we have already seen, considerably reduces school segregation). We should revise the current zoning model which enables a large capacity for school choice and likewise allows consideration as local schools those that are a considerable distance from the place of residence and even outside the school area.
- The measures included in the current shock plan for ensuring balanced schooling have considerable potential. We should also consider the possibility of redistributing NESE (specific educational support needs) students between state and state-assisted schools even after the enrolment process has been completed, along the line followed by other Catalan municipalities.
- Finally, we need to consider specific intervention plans in especially vulnerable areas from an educational point of view. Redressing inequalities also requires adopting priority-action measures in areas in a worse situation (especially in the Nou Barris district) and planning initiatives not just aimed at correcting inequalities in access but also in schooling conditions and in education results.

4. A summary of the measures proposed for the various education areas can be consulted in the report Territorial Equivalence in Education Planning in Barcelona.

Bibliography

- STATISTICAL REPORTS: THE FOREIGN PEOPLE IN BARCELONA". Barcelona City Council, 2016. <http://www.bcn.cat/estadistica/catala/dades/inf/pobest/pobest16/pobest16.pdf>.
- ALONSO, X.; PAJARES M. AND RECOLONS, L. *Inmigración y crisis en España*. Barcelona: MigracStudium Foundation, 2015.
- ATKINSON, A. *Inequality. What Can Be Done?* Cambridge, MA: Harvard University Press, 2015.
- BONAL, X. "Education policy and school segregation in Catalonia: the politics of non-decision making". *Journal of Education Policy*, nº. 27(3) (2012), pp. 401-421.
- BONAL, X.; ZANCAJO, A. AND SCANDURRA, R. *Residential segregation and school segregation of foreign students in Barcelona*. *Urban Studies*, doi: 10.1177/0042098019863662. 2019.
- BONAL, X. I ZANCAJO, A. *Equivalència territorial en la planificació educativa a Barcelona. Diagnòstic i propostes*. Barcelona Education Consortium, 2019. https://www.edubcn.cat/rcs_gene/extra/01_documents_de_referencia/Equivalencia_BCN_final_v2_20190320.pdf.
- GALEANO, J. AND BAYONA, J. "Segregación territorial y transformación del espacio residencial al inicio del siglo XXI: el caso del Área Metropolitana de Barcelona". A: de la Riva, J., Ibarra, P., Montorio, R. and Rodrigues, M. (eds.) *Análisis espacial y representación geográfica: innovación y aplicación* (pp. 119-128). Zaragoza: University of Zaragoza-AGE, 2015.
- MUSTERD, S.; MARCIŃCZAK, S.; VAN HAM, M. AND TAMMARU, T. "Socioeconomic segregation in European capital cities. Increasing separation between poor and rich". *Urban Geography*, nº. 38(7) (2017), pp. 1062-1083.
- NEL·LO, O. AND BLANCO, I. *La segregació urbana a la regió metropolitana de Barcelona. Pla estratègic metropolità de Barcelona*. <https://pemb.cat/public/docs/41lc12.pdf>.
- OMBUDSMAN. *La segregació escolar a Catalunya (I): la gestió del procés d'admissió d'alumnat*. Barcelona: The Ombudsman of Catalonia, 2016.
- TAMMARU, T.; MARCIŃCZAK, S.; VAN HAM, M. AND MUSTERD, S. *Socio-Economic Segregation in European Capital Cities: East meets West*. London: Routledge, 2015.