

School Segregation in Argentina. Reconstructing the Evidence

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Motivation

General Perception:

- The cohesive role of state education has weakened over time
- Increasing migration of the less economically disadvantaged groups from public to private schools

Motivation

There are no studies that provide systematic measures of school segregation in Argentina.

This is important at least for 2 reasons:

- **Cohesion:** Segregation has weakened the cohesive role of state education
- **Equity:** The groups formed in schools affect individual results; therefore school segregation could generate persistent inequalities

Concept and Measure

- **School Segregation:**

- Unequal distribution of the student population of different socio-economic strata between public and private schools

- **Measure:**

- Traditional indexes (Dissimilarity, Isolation)
They required the division of students into groups based on their socioeconomic status. On this basis, students were classified into poor and non-poor according to whether they belonged to the first quintile of household per capita income or not.
- Centil Gap Index

Concept and Measure

Dissimilarity:

$$D = \sum_{i=1}^k \left| \frac{x_{1i}}{X_1} - \frac{x_{2i}}{X_2} \right|$$

It reflects the proportion of poor students that should change from public to private school in order to achieve a homogeneous distribution of poor and non poor students between the two types of educational institutions.

Concept and Measure

Isolation:

$$I = \sum_{i=1}^k \frac{x_{1i}}{X_1} \frac{x_{1i}}{T_i}$$

It can be interpreted as the probability of a poor student meeting in the school other members of his group.

Concept and Measure

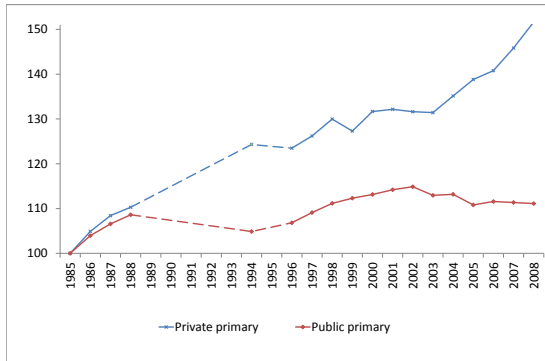
Centil Gap Index:

$$CGI = \frac{0.25 - \frac{1}{N} \sum_{j=1}^N | p_j - p_{jmed} |}{0.25}$$

It assesses the average percentile differences between the attendees at each type of school and the median percentile in each of them.

Preliminary Evidence

Primary School Enrollment Growth in Public and Private Schools



Empirical Evidence

- **Two basic inputs:**

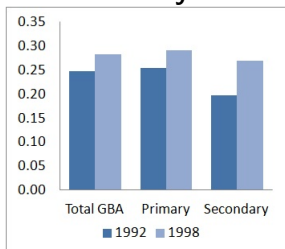
- To be able to distinguish between the type of educational institution (public or private)
- To have an indicative measure of the individual social stratum, in our study, the household per capita income

- **Household surveys analyzed:**

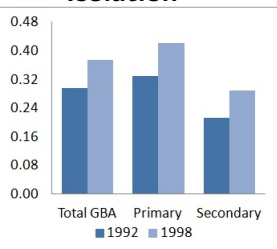
- ① EPH, 1992 and 1998 (special modules)
- ② ECV, 1996 and 2001
- ③ EPH, 2003-2009

EPH (Special Modules), 1992-1998

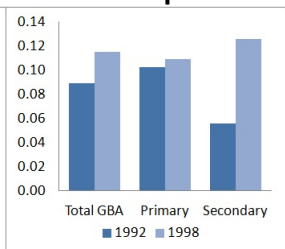
Dissimilarity



Isolation

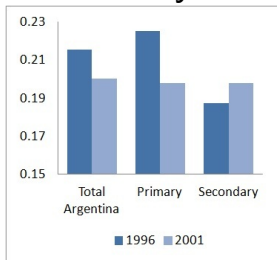


Centil Gap Index

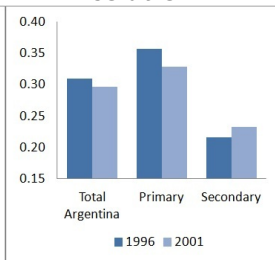


ECV, 1996 - 2001

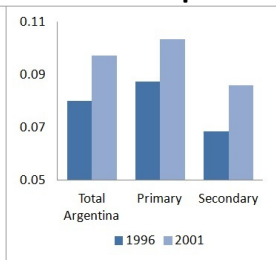
Dissimilarity



Isolation

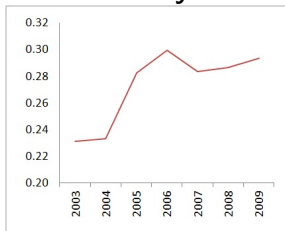


Centil Gap Index

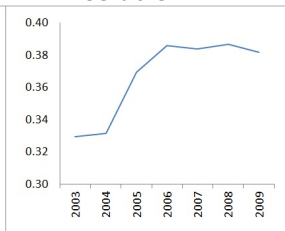


EPH, 2003-2009

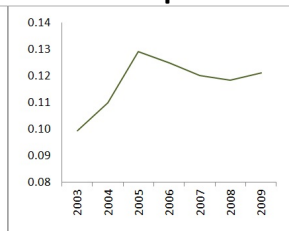
Dissimilarity



Isolation

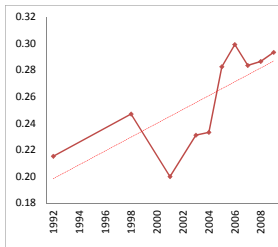


Centil Gap Index



Reconstructing the Evidence

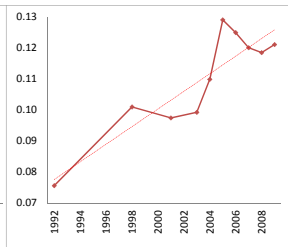
Dissimilarity



Isolation

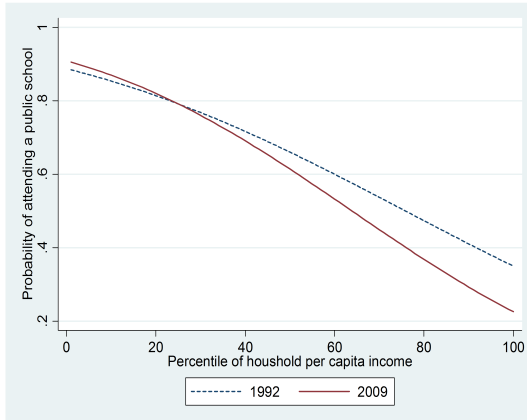


Centil Gap Index



Reconstructing the Evidence

Total students (Gran Buenos Aires)



Dissimilarity Segregation Curve

The *Dissimilarity Segregation Curve* is defined as the relationship between $D(p)$ and p so that

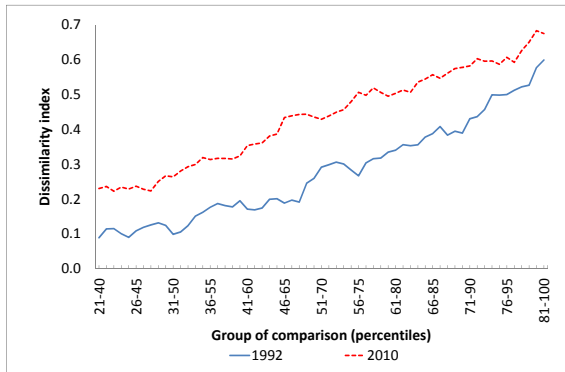
$$D(p) = \sum_{i=1}^k \left| \frac{x_{iv}}{X_v} - \frac{x_{i[p,p+z]}}{X_{[p,p+z]}} \right|, \forall p = (v + 1, \dots, 100 - z)$$

It calculates the dissimilarity indexes of poor students vs. 60 different groups if $v = 20$ and $z = 19$. Groups: 1) percentiles 21 to 40; 2) percentiles 22 to 41;... ; 60) percentiles 81 to 100

It allows calculate the dissimilarity index of poor students in comparison to others socioeconomic groups of 20 consecutive percentiles of the population.

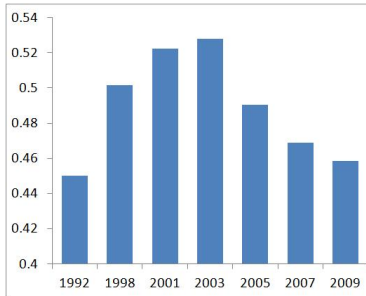
Dissimilarity Segregation Curve

Primary students

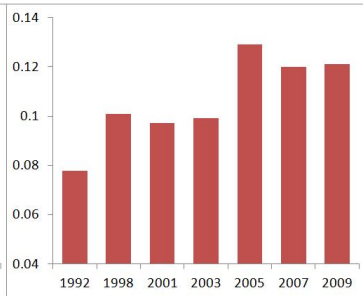


Inequality and Segregation

Gini Index



Centil Gap Index



Final Remarks

- Between 1992 and 1998 there was a migration of students from not disadvantaged families from public to private schools, leading to an important increase in school segregation.
- Since 1998 to 2001, there was a change in the trend: school segregation decreased during these years. Apparently, this reduction is due to the fact that to non-poor students went back from private to public school.
- Over the last decade, this phenomenon has the largest increase over the studied period, deteriorating the integrative role of public schools in the educational system.

Final Remarks

- As a result, poor students were more segregated in 2010 than in 1992 not only respect to higher social strata, but also with respect to the middle and lower middle strata.
- Segregation is not a simple reflection of the level of inequality: It increased in periods of rising inequality (1992-1998) as well as in periods of strong reduction of inequality (2003-2009).

Future Research

- To investigate the determinants of segregation.
- To extend the study using other measures of wellbeing as well as alternative definitions of socioeconomic groups to assess the robustness of these results.
- To analyze heterogeneity within each type of school.

Future Research

- To explore whether the phenomenon of segregation is closely linked to the distribution of educational opportunities.
- To examine the relationship between school and residential segregation.
- To extend the study of school segregation to other Latin American countries using the information included in several household surveys in the region.