Different Patterns of School Segregation in Public Schools in Brazil: The Case of Rio de Janeiro

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Research Questions

• What are the trends in segregation between Municipal Public School in Rio de Janeiro, for all available indicators of potential pupil disadvantage? Do the trends for each indicator represent part of an overall pattern, or are there several?
Why to Measure Between School Segregation?

• Clustering pupils and overall level of attainment: what do we know?

• Segregation and overall educational opportunities.
Research Design 1

Levels of Between Schools Segregation

a) Municipal Educational System;
b) Educational Authorities in the City (10 CREs);
c) School’s Polo (142).
What Do We Know so Far?

1) Both measures of Segregation Index (GS) and Dissimilarity Index (D) show same patterns, suggesting that both indicators are measuring the same phenomenon;

2) Each trend of segregation, using different indicators such as poverty, show distinctive trajectories over time;
What Do We Know so Far?

• 3) Comparing different Educational Authorities the levels of segregation can vary up to 50%;

• 4) The levels of segregation in all four variables were higher when comparing the segregation measured in different “school shifts” with the figures of the “school building”.
<table>
<thead>
<tr>
<th>Indicators</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS Parents’ Educ/ D Parents’ Educ</td>
<td>0.997</td>
</tr>
<tr>
<td>GS Ethnic Background/ D Ethnic Background</td>
<td>0.955</td>
</tr>
<tr>
<td>GS Poverty/ D Poverty</td>
<td>0.978</td>
</tr>
<tr>
<td>GS Retention1/ D Retention1</td>
<td>0.750</td>
</tr>
<tr>
<td>GS Retention2/ D Retention2</td>
<td>0.941</td>
</tr>
</tbody>
</table>
Trends of Segregation

- GS Poverty
- GS Ethnic Background
- GS Parents' Educ
- GS Retention2
- GS Retention1
Trends of Segregation Educational Authorities

GS Poverty CRE1
GS Poverty CRE2
GS Poverty CRE3
GS Poverty CRE4
GS Poverty CRE5
GS Poverty CRE6
GS Poverty CRE7
GS Poverty CRE8
GS Poverty CRE9
GS Poverty CRE10
Trends of Segregation Educational Authorities

![Graph showing trends of segregation educational authorities from 2004 to 2010. The graph indicates a decrease in segregation across different educational authorities over the years.](image)
## Change GS “School Shift” and “School Building”

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GS Poverty</strong></td>
<td>+ 17%</td>
<td>+ 15%</td>
<td>+ 15%</td>
<td>+ 16%</td>
<td>+ 16%</td>
<td>+ 15%</td>
<td>+ 18%</td>
</tr>
<tr>
<td><strong>GS BP</strong></td>
<td>+ 9%</td>
<td>+ 9%</td>
<td>+ 13%</td>
<td>+ 10%</td>
<td>+ 11%</td>
<td>+ 15%</td>
<td>+ 11%</td>
</tr>
<tr>
<td><strong>GS EducFS</strong></td>
<td>+ 11%</td>
<td>+ 8%</td>
<td>+ 6%</td>
<td>+2%</td>
<td>+ 7%</td>
<td>+ 8%</td>
<td>+ 8%</td>
</tr>
<tr>
<td><strong>GS Retent1</strong></td>
<td>+ 52</td>
<td>+ 41%</td>
<td>+ 45%</td>
<td>+ 36%</td>
<td>+ 41%</td>
<td>+ 32%</td>
<td>+ 38%</td>
</tr>
<tr>
<td><strong>GS Retent2</strong></td>
<td>+ 36%</td>
<td>+ 34%</td>
<td>+ 37%</td>
<td>+ 27%</td>
<td>+ 33%</td>
<td>+ 27%</td>
<td>+ 30%</td>
</tr>
</tbody>
</table>
So, What Next?

1) Explain the different trends of segregation observed;

2) Estimate “School Mix Effect” using Segregation Index;