

A Better School but a Worse Position? The Effects of Marginal School Admissions in Mexico City

Dr. Raissa Fabregas
LBJ School of Public Affairs
The University of Texas at Austin

Background/Context:

Families often want to send kids to the best available school. This is not surprising, because it is commonly assumed that attending schools with more resources and higher-achieving peers can improve students' human capital and labor market opportunities. After all, children who attend better schools might be exposed to higher-achieving teachers or peers. However, these more selective schools can also be more challenging environments. Students might face higher academic standards and find themselves in a lower position in the school ability distribution.

A growing empirical literature has tested whether attending better schools (as proxied by school inputs or peer performance) can boost student achievement. This literature has found that for students at the margin of admission, attending a better school has either no effect (Clark, 2010; Lucas and Mbiti, 2014; Ajayi, 2014; Abdulkadiroglu et al., 2014; Dobbie and Fryer Jr, 2014; Duflo et al., 2011) or modest positive impacts on standardized scores (Pop-Eleches and Urquiola, 2013; Kirabo Jackson, 2010; Hoekstra et al., 2016; Park et al., 2015). However, we have less evidence on how other outcomes might be affected. This is important to understand, since other work has found that long-run outcomes may be influenced by features not captured by standardized exams and have emphasized the need to consider behavioral responses to interpret reduced form estimates.

This paper examines the hypothesis that attending a better school might affect students through channels other than performance on standardized tests, by also estimating impacts on (non-standardized) school-level assessments, measures of students' non-cognitive skills, aspirations, and subsequent high school choices. The project contributes to our understanding of how exposure to schools and peers can affect academic and non-academic outcomes and it informs a broader debate around the quality-fit trade-off in education, which is prevalent in discussions of gifted schools and affirmative action policies.

Purpose/Objective/Research Question:

This paper asks whether receiving an offer for a more selective school affects learning, academic achievement, socio-emotional outcomes, aspirations and subsequent schooling choices for those students who were at the margin of admission.

Setting:

The question is answered in the context of public middle schools in Mexico City. School assignment is centrally managed by the Secretariat of Education and depends on families'

preferences and the results from a placement exam. The majority of middle school buildings operate on the basis of double-shifts, each shift operating like an independent school. The morning shift in double-shift schools is often oversubscribed, leading to the stratification of school shifts by placement exam results. This leads to a situation where the morning shift is more selective than the afternoon shift within the same school building.

Population/Participants/Subjects:

The paper uses data for all students in Mexico City who applied for a public middle school slot in 2011 and 2012. Since identification ultimately relies on students who are at the margin of admission to the more selective shift, I analyze the subsample of students whose placement score left them within 5 points of the cutoff that determined whether they got an offer for the morning or the afternoon shift within a given school building.

Intervention/Program/Practice:

The comparison is between students who barely placed in a more selective school (morning shift) vs. those who did not (afternoon shift). I show that there are significant differences between the two shifts: students who get an offer to the morning shift have more educated principals, more incentivized teachers and peers who have significantly higher placement exam scores.

Research Design:

To make causal statements and overcome selection bias, I rely on a regression discontinuity design that compares barely-admitted and barely-rejected students across hundreds of oversubscribed morning-shift schools in double-shift school facilities. The identification assumption is that for those students who are at the margin of admission placement is essentially as good as random.

Data Collection and Analysis:

In partnership with the Secretariat of Education in Mexico City, I link the school placement data with individual level records of standardized test performance and a high school entrance questionnaire that includes questions about students' aspirations, grades, measures of perseverance, and their perceived ability. This database is also linked to administrative records indicating whether the student earned a middle school certificate and what types of high school programs they applied for at the end of middle school.

Findings/Results:

There are three sets of results. First, an offer to the more selective morning shift improves students' performance on language scores by 0.04-0.06 standard deviations as measured by standardized tests. Second, applicants who score just above the admission threshold have worse average performance on non-standardized school-based assessments. Their grade point average in 8th grade is 0.2 points lower (out of 10 points) than that of students of similar ability who had an offer for the less selective school. In addition, they are one percentage point less likely to receive a middle school certificate within two years of the predicted graduation date (corresponding to a

25% increase relative to the counterfactual group). Third, those who barely placed into a more selective school are more likely to report that they feel academically weaker relative to their peers and obtain lower scores in self-reported measures of perseverance. Importantly, their subsequent educational choices are also affected. In Mexico, students can choose among vocational and academic tracks in high school. Using data from students' high school application portfolios, I find that the offer to attend a more selective middle school increases the share of vocational high schools that students apply for by one percentage point.

Conclusions:

One limitation of the study is that I cannot fully disentangle the causal chain that explains these effects. However, the results suggest that there might be tradeoffs between attending a better school and having a worse position in the school ability distribution. The results are also consistent with the hypothesis that relative position within a school matters because it might affect how students are assessed by others and how they perceive themselves.

These results have a number of implications. Policymakers might want to experiment with interventions that could either motivate or provide students with broader frames of reference. In addition, they should be careful when using school-based assessments to evaluate students in competitive processes, as well as when creating systems that might 'lock' students into long-term educational pathways.

References

Abdulkadiro glu, Atila, Joshua Angrist, and Parag Pathak, "The elite illusion: Achievement effects at Boston and New York exam schools," *Econometrica*, 2014, 82 (1), 137–196.

Ajayi, Kehinde F, "Does school quality improve student performance? New evidence from Ghana," 2014.

Clark, Damon, "Selective schools and academic achievement," *The BE Journal of Economic Analysis & Policy*, 2010, 10 (1).

Dobbie, Will and Roland G Fryer Jr, "The impact of attending a school with high-achieving peers: Evidence from the New York City exam schools," *American Economic Journal: Applied Economics*, 2014, 6 (3), 58–75.

Duflo, Esther, Pascaline Dupas, and Michael Kremer, "Peer effects, teacher incentives, and the impact of tracking: Evidence from a randomized evaluation in Kenya," *The American Economic Review*, 2011, 101 (5), 1739–1774.

Hoekstra, Mark, Pierre Mouganie, and Yaojing Wang, "Peer quality and the academic benefits to attending better schools," Technical Report, National Bureau of Economic Research 2016.

Jackson, C Kirabo, "Do Students Benefit from Attending Better Schools? Evidence from Rule-based Student Assignments in Trinidad and Tobago," *The Economic Journal*, 2010, 120 (549), 1399–1429.

Lucas, Adrienne M and Isaac M Mbiti, "Effects of school quality on student achievement: Discontinuity evidence from kenya," *American Economic Journal: Applied Economics*, 2014, 6 (3), 234–263.

Park, Albert, Xinzhen Shi, Chang tai Hsieh, and Xuehui An, "Magnet high schools and academic performance in China: A regression discontinuity design," *Journal of Comparative Economics*, 2015, 43 (4), 825–843.

Pop-Eleches, Cristian and Miguel Urquiola, "Going to a better school: Effects and behavioral responses," *The American Economic Review*, 2013, 103 (4), 1289–1324.

Sacerdote, Bruce, "Peer effects with random assignment: Results for Dartmouth roommates," *The Quarterly journal of economics*, 2001, 116 (2), 681–704.