

"School Choice, Mismatch, and Graduation" (JMP) with Maria Elena Ortega-Hesles

In all centralized education systems, some schools experience excess demand. A standard solution to the excess demand problem is to ration seats using admission priorities. This paper studies the effects of changing the priority structure in the centralized high school admission system in Mexico City. In this system, academically elite schools experience excess demand, and admission priorities are based on a standardized admission exam. The system ignores other skill measures such as Grade Point Average (GPA), which may better capture non-cognitive skills that are important for educational success. Using a Regression Discontinuity Design, we first show that marginal admission to an elite school decreases the graduation probability for students with below-median GPA and increases it for students with above-median GPA. Guided by this evidence, we then study the effects of a counterfactual admission policy wherein elite schools define a priority index that equally weights the admission exam score and GPA. In our counterfactual, more females and lower-income students are admitted to elite schools, and the graduation rate at elite schools increases eight percentage points. Our counterfactual also has effects on welfare. Females' welfare increases at the cost of males' welfare, and low-income students' welfare increases at the expense of high-income students' welfare. Overall, our findings show that including the information contained in GPA to define a priority structure improves equity of access, decreases mismatch, and increases graduation.

"Time-Varying Effects of Elite Schools: Evidence from Mexico City"

Studies examining the effects of elite school admission on test scores have found positive, null, and negative effects. One possible explanation for these seemingly inconsistent findings is that the population for which these effects are estimated varies over time. Another explanation is that school quality changes over time. In this paper, I take advantage of five years (2005-2009) of administrative data on the centralized high school admission system in Mexico City to study whether the academic effects of being marginally admitted to an elite science school depends on the year of admission. I find that the effect on mathematics test scores at the end of high school decreases each year, starting positive and statistically significant in 2005 and ending close to zero and not significant by 2009. I propose two mechanisms to explain this trend. The first is related to changes over time in the composition of marginally admitted and rejected students combined with heterogeneity in the effect of marginal admission. The second considers changes over time in the production functions of elite and non-elite schools. Together, these results highlight the limited external validity of estimates obtained at a single point in time as they may be systematically influenced by time-varying changes in the educational context.

"Perceived Ability and School Choices" with Matteo Bobba and Veronica Frisncho

This paper studies middle school students' choices between academic and non-academic high schools when they are uncertain about their academic skills. The paper has two parts. In the first part, we conduct a randomized control trial in which we provide some students with information about their academic skills and study how this affects subsequent school choices and trajectories. The information intervention induces a steeper gradient of the relationship between academic skills and the demand for academic schools. This reallocation of skills across school types improves the match between students and schools and increases on-time graduation. In the second part, using a school choice model, we examine how a scaled-up version of our experiment affects the sorting of students to schools when changes in the aggregate demand for academic schools, due to better-informed choices, move the education market to a new equilibrium.