The Effect of the Increasing Demand for Elite Schools on Stratification

Ricardo Estrada (EUI)

 Higher demand for elite schools pushes up academic selectivity. And raises concerns about stratification and social mobility Because structural correlation between family income and: ability (at school entry) and schooling demand

This paper:

- Documents a case in which, contrary to prevailing concerns, increasing school stratification by ability co-existed with stable stratification by family income
- Develops a model that shows that the effect of an overall increase in the demand for elite schools on stratification by family income is a horse race between:
 - the correlations of family income and ability, and family income and demand
- Empirical analysis reveals an initial (and decreasing) demand gap by family income that explains the observed stability in stratification

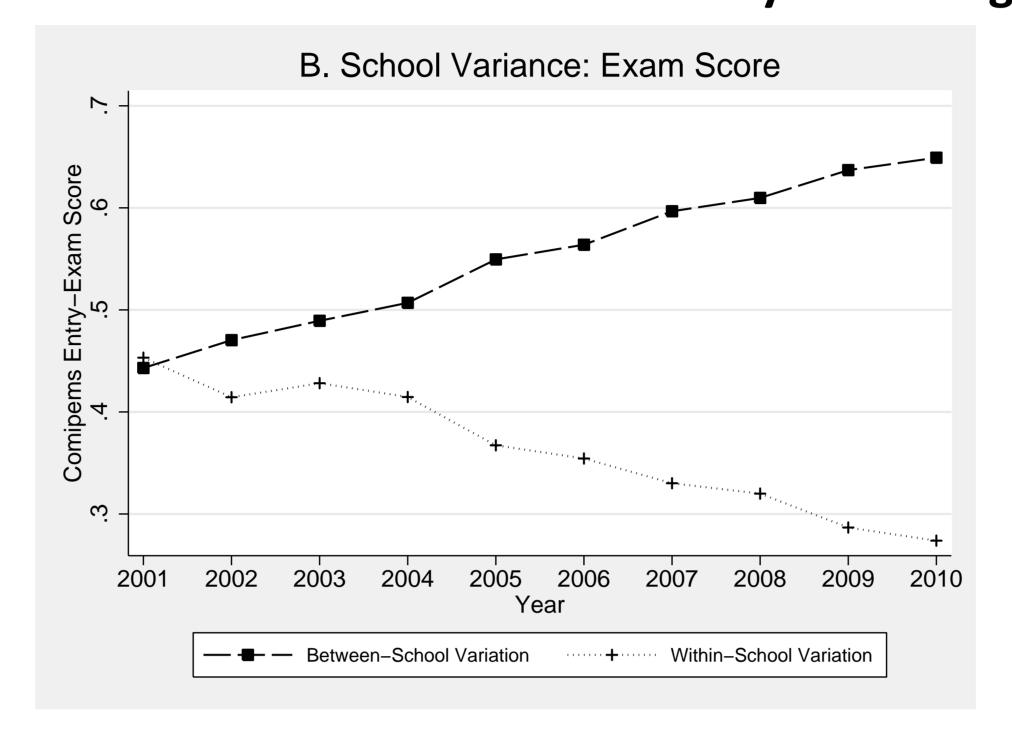
School Stratification in Mexico City Public High Schools

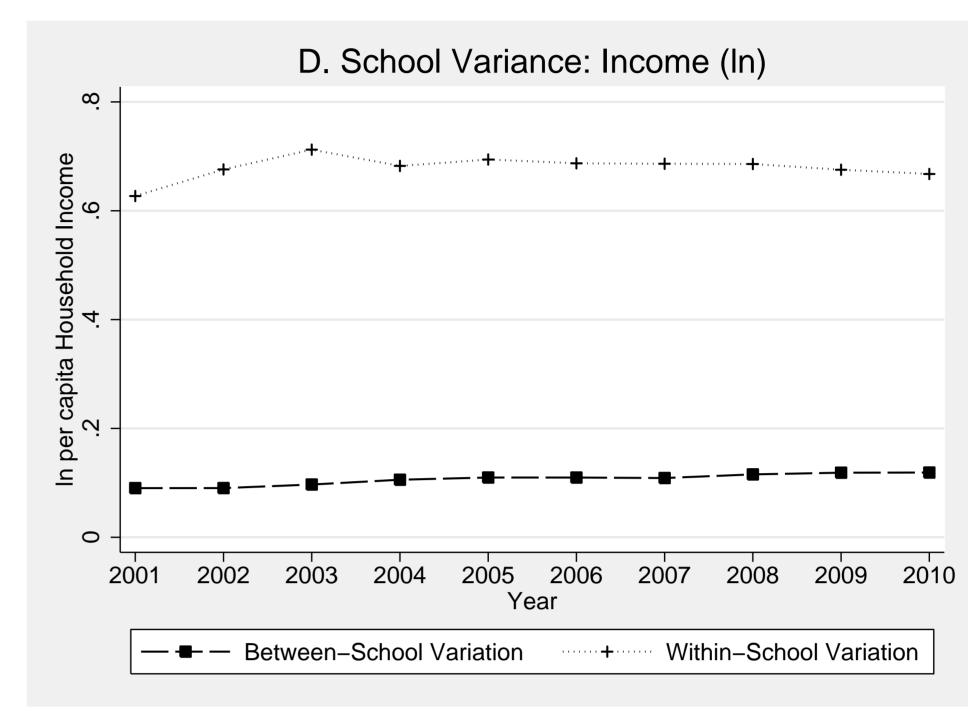
Stylized facts (2001-2010):

- Increasing stratification by ability, and
- Stable stratification by family income

Mexico City High Schools

- Centralized system
- Admissions based on demand and ability
- Serial dictatorship algorithm
- Two elite school systems standout
- Higher inputs and demand
- And increasing demand during period





See model in paper

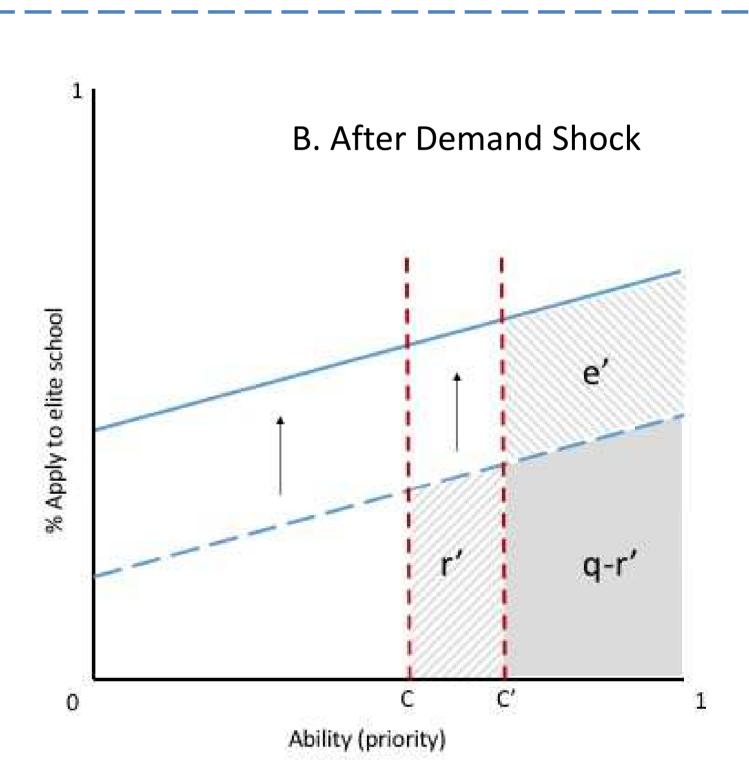
Toy (illustrative) model:

- Students apply to elite school (with q seats)
 - or stay at neighborhood school.
- Admissions (to elite school) based on ability. Assume positive correlation between:
 - Ability (a) and family income (m)
 - Demand for elite school and family income

(exogenous) Demand shock

- Applications to elite schools go up
 - Area under blue demand curve
- Change in stratification by family income depends on expected income of students in e' vs. r'

School Stratification by Family Income A. Status Quo Ability (priority)

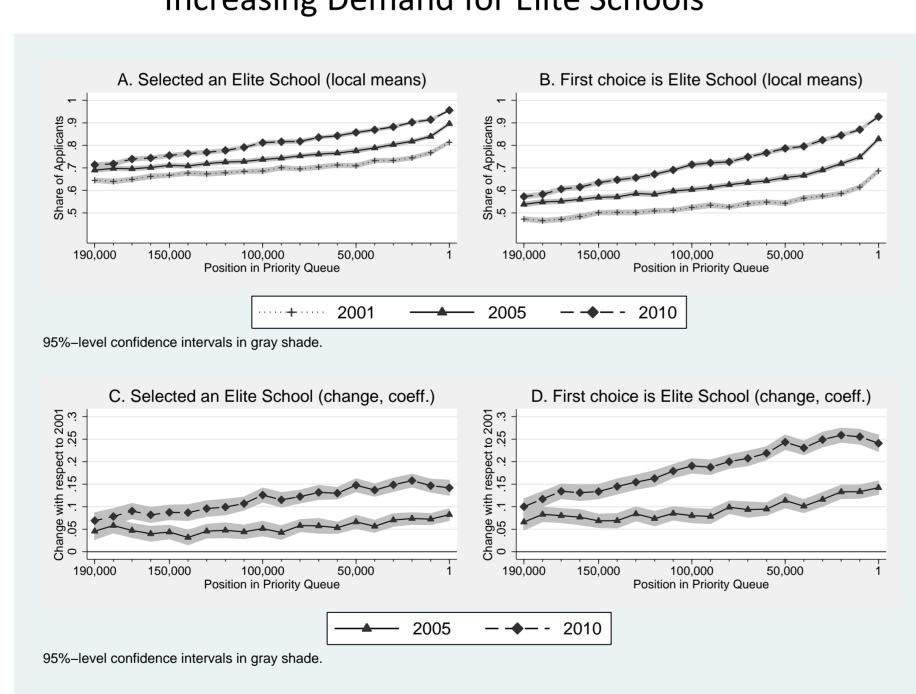


Empirical Analysis: Demand and Admission Outcomes

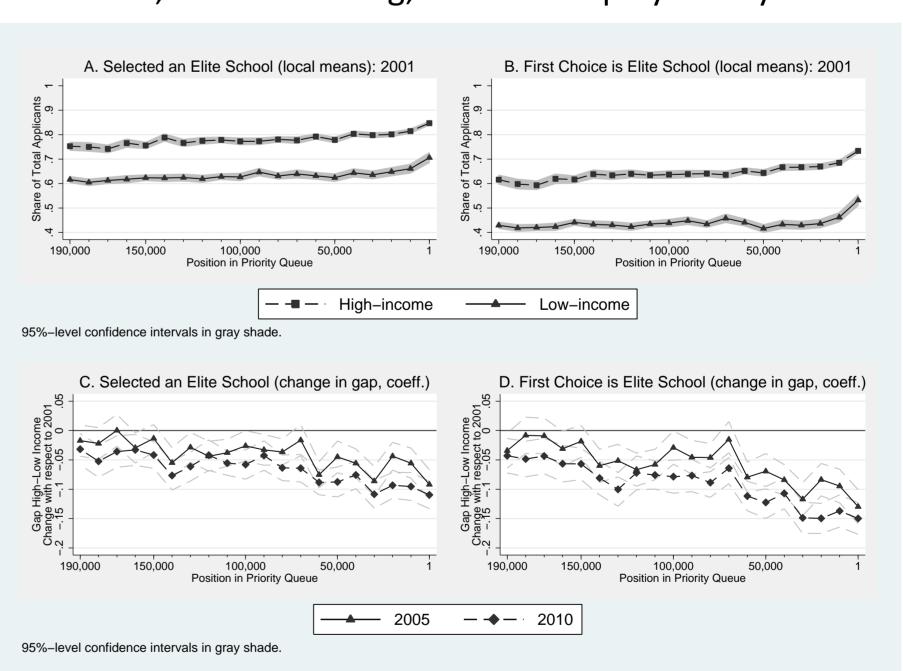
200000

95%-level confidence intervals in gray shade.

Increasing Demand for Elite Schools

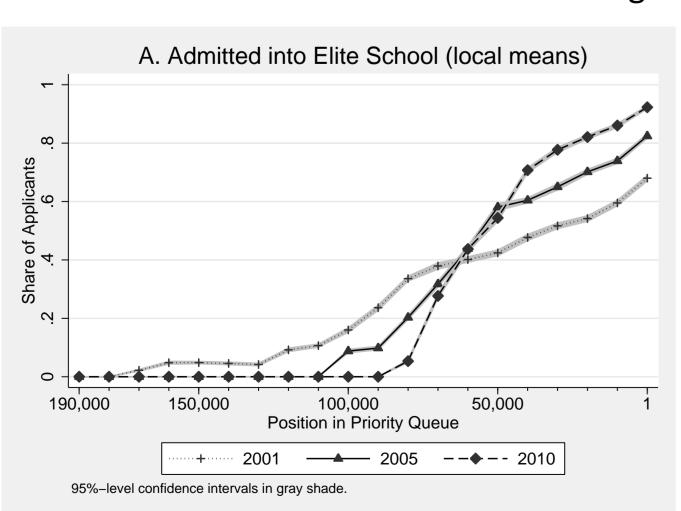


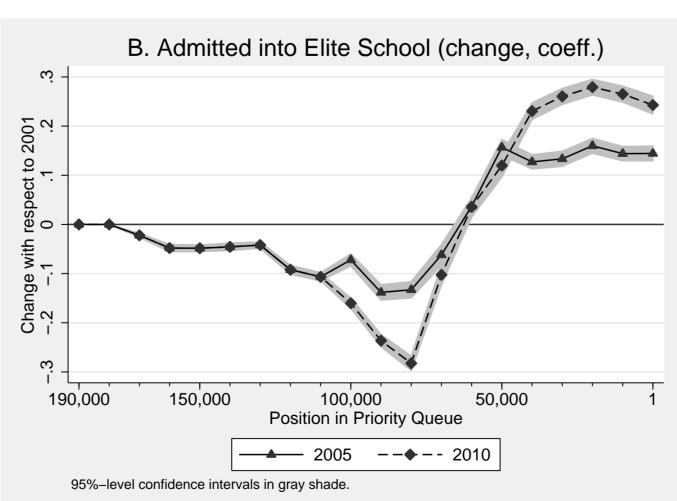
Initial, and Decreasing, Demand Gap by Family Income



Initial and Decreasing Admission Gap by Family Income

Admission to Elite Schools: Increasing for High-Ability, Decreasing for Mid-Ability

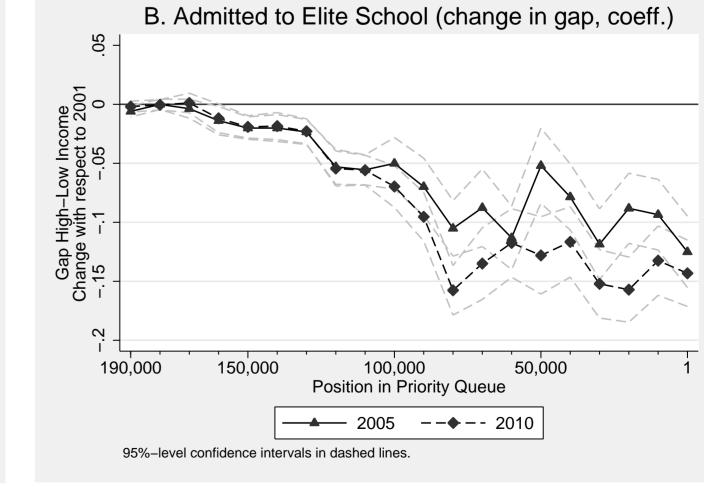




A. Admitted to Elite School in 2001 (local means)

Position in Priority Queue

---- Low-income Low-income



Data

•Micro-data from Comipems admission system.

- Detailed information on:
 - Applications.
 - Assignment.
- Student characteristics. ■Full data for 2001-2010 period.

Admission to elite schools depends on:

•Elite school capacity - **fixed** during the period.

50000

- ■Student position in the queue (test scores) (I) **fixed**.
- ■and choices (e.g. demand). •Hence: all changes in admission outcomes must come from changes in demand.

Identification of Demand Effects