

# The value of information in centralized school choice systems (JOB MARKET PAPER)

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## Abstract

Centralized assignment mechanisms based on the deferred acceptance algorithm (DA) are used by many school districts around the world to assign students to schools. Theoretical analyses of the DA consider that students are allowed to list all the alternatives of the choice set in their application rankings. However, in virtually all places where these mechanisms are implemented, students are restricted to list only a small number of choices. As a consequence, students need to take into account their admission chances to the programs, and be strategic in their choice. This paper uses administrative data from Tunisia, where high school graduates are assigned to university programs using a sequential variant of the DA, to empirically examine the effect of enabling students to update their expectations about their admissions probabilities. The sequential implementation induces quasi-experimental variation in the information available to students about remaining vacancies, and grounds the identification of students' preferences and expected admission probabilities. When students cannot revise their expectations, and relative to a benchmark situation in which students are given perfect information about which programs would admit them, their average indirect utility is decreased by the equivalent of a 41km-increase in the distance home-university  $-40\%$  of the median distance traveled by students in the data. While easy to implement, the sequential implementation of the DA procedure reduces this expected utility loss by  $67\%$  in Tunisia. The increase in expected welfare is driven by a decrease in the share of students rejected by all their listed choices. Gains disproportionately accrue to low-ability and low-SES students, and counterfactuals suggest that a better targeting of low-priority students by the information provision would increase welfare gains.

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