

Iterative Versus Standard Deferred Acceptance: Experimental Evidence

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Abstract:

We run laboratory experiments where subjects are matched to colleges, and colleges are not strategic agents. We test the Gale-Shapley Deferred Acceptance (DA) mechanism versus the Iterative Deferred Acceptance Mechanism (IDAM), a matching mechanism based on a new family of procedures being used in the field, in which students make applications one at a time. We consider two variations of IDAM: one in which students are only informed about whether they have been tentatively accepted or not (IDAM-NC) and one in which they are additionally informed at each step of the tentative cutoff values for acceptance at each school (IDAM). A significantly higher proportion of stable outcomes is reached both under IDAM and IDAM-NC than under DA. The difference can be explained by a higher proportion of subjects following an equilibrium strategy akin to truthful behavior under IDAM and IDAM-NC than the truthful behavior itself under DA. Moreover, the provision of intermediate cutoff values in IDAM leads to higher rates of equilibrium behavior than in IDAM-NC. We associate the benefits of iterative mechanisms relative to DA with the feedback of the outcome of applications provided between steps of the iterative mechanisms. This feedback allows subjects to learn that the deviating strategies from truthful do not work in an intended way. Our findings provide substantial support for the rising practice of using iterative mechanisms in centralized college admissions in practice