

# Do outside options matter in school choice? A new perspective on the efficiency vs. strategy-proofness trade-off\*

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## Abstract

This paper studies a general school choice problem in which outside options do not necessarily exist. The Gale-Shapley student-proposing deferred acceptance mechanism (DA) has played a critical role not only in theory but also in prominent practical applications. An important debate centers around whether it is possible to improve upon DA via alternative strategy-proof mechanisms. We show that on a general domain of preferences where all students are able to credibly rank-list their outside or pseudo-outside options, no strategy-proof mechanism improving upon DA exists. It is however possible to construct natural subdomains allowing for positive results, where student preferences are in part induced by an exogenous hierarchy of quality tiers. We then identify maximal domains on which it is possible to improve upon DA without sacrificing strategy-proofness. These results may help better assess the underpinnings of the three-way tension among efficiency, stability, and strategy-proofness.

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