

**Targeted Priority Reserve Policies**  
**by**  
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Abstract

Affirmative action prioritizes minority students, often by using minority quotas. Since affirmative action policy is aimed at guaranteeing representation for minority students, it typically prevents a higher number of minority students from being admitted than the minority reserve quota. Even the attractive DA-MiR matching rule proposed by Hafalir et al. (2013) essentially places a cap on minority student admission. This policy serves the goals of diversity and minority representation well, but if the objective of the priority policy is to effectively help the agents to be prioritized (the "priority agents"), for example, to make a difference for refugees in emergency zones, then it is not an appealing policy, since priority agents who would qualify without relying on their priority status may take up some or most of the reserved positions.

We propose an alternative policy with targeted priority reserves, the DA-TPR rule, along with a corresponding new stability concept, which serve the goal of targeting those priority agents who are in need of a reserved position, recognizing that not all agents in the priority group need such help. By giving an opportunity to priority agents to be matched without using up reserved positions, this matching rule allows for a higher number of priority agents to be selected by an entity than the reserve quota set aside for them, provided that there are priority agents who would be selected regardless of their status, while maintaining appropriate rights for non-priority agents. We show that the DA-TPR rule is optimal among matching rules that are stable with targeted priority reserves and prove that this rule is weakly group-strategyproof.

We also study a general class of matching rules with priority reserve policies which includes both the DA-TPR and the DA-MiR rules. The DA-TPR is the most targeted and the DA-MiR is the least targeted policy in this class of rules, which we characterize by a weak priority reserve stability axiom and strategyproofness. While direct comparisons are not always possible, we demonstrate that more targeted policies are preferable for priority agents, and also show that the DA-TPR policy is the only priority reserve policy within this class which satisfies an intuitive criterion for providing preferential treatment to members of the priority group. Finally, we focus on a subclass of these rules which stand out due to their consistent selection policies. These rules are transparent and offer a range of policies between the DA-TPR and DA-MiR policies, allowing the designer to have clarity and flexibility when choosing a priority reserve policy.