

# The social benefit of priority service

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## **ABSTRACT**

In most cases, society is indifferent to the specific order in which homogeneous customers are served. Hence, it is only the server who may benefit from selling priority service. The revenue from such activity comes at the expense of reduced consumer surplus. In this work, we show that when strategic customers are faced with an additional decision, on top of whether to pay for priority service, selling priority service by revenue-maximizing servers may not only improve social welfare but even maximize it in some cases. We exemplify this principle by studying two models. In the first, a monopolistic server charges for priority while customers decide whether to join the queue, and if they do, whether to pay for priority. In the second, multiple revenue-maximizing servers compete on the priority service price, while customers decide which queue to join and whether to pay for priority at the queue they join.