

SCHEDULING AND STAFFING STRATEGIC SERVERS

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Traditionally, research focusing on the design of scheduling and staffing policies for service systems has modeled servers as having fixed (maybe heterogeneous) rates. However, in reality, service systems are often staffed with people, and thus the rate a server chooses to work may be impacted by the scheduling and staffing policies used by the system. In this paper, we present a model for such ‘strategic servers’ that choose their rate in order to maximize a tradeoff between an ‘effort cost’, which captures the idea that servers exert more effort when working at a faster rate, and a ‘value of idleness’, which captures the idea that servers would prefer to be idle as much as possible. With this model, we revisit classic scheduling and staffing questions in multi-server service systems and highlight that policies designed to be optimal for non-strategic servers need to be adjusted when strategic servers are considered.