

Strategic manipulation induced by moral hazard: the “aim for rejection” problem in Japanese daycare allocations

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Abstract

This paper focuses on a particular type of strategic manipulation observed in Japanese daycare allocations. Some parents intentionally apply to a highly demanded daycare and are rejected, because a certificate indicating that they were rejected is required to extend the parental leave period. This behavior, which we term “aim for rejection” behavior, induces several negative effects such as efficiency loss. To fix this problem, the Japanese government has proposed modifying the priorities over parents depending on the intensity of their desire to secure a slot. Using game-theoretic models, we analyze and propose a solution to this problem. First, using a two-sided matching model, we show that even after the modification of priorities, the “aim for rejection” problem persists. Second, using a two-stage bargaining game model, we demonstrate that a parental leave policy adopted in Germany is more efficient than the Japanese policy. Our results indicate that game theory is a useful tool for designing a social security system.

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