## Head Starts in Contests

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## Abstract

This paper studies equilibrium behavior in a class of games that models asymmetric multiprize competitions in which players' costs are not necessarily strictly decreasing. Such costs accommodate head starts, which capture incumbency advantages, prior investments, and technological differences. I provide an algorithm that constructs the unique equilibrium in which players do not choose weakly-dominated strategies, and apply it to study multiprize all-pay auctions with head starts. A comparison to the standard all-pay auction shows that the strategic effects of head starts differ substantially from those of differing valuations.

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