## Stable Outcomes and Information in Games: An Empirical Framework<sup>\*</sup>

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## Abstract

This paper develops an empirical framework for estimating static discrete games with weak assumptions on players' information. Our framework applies to empirical settings characterized by stable outcomes; when players' decisions are publicly observed but no deviation occurs, we call such decisions a *stable outcome* of a game. We propose *Bayes stable equilibrium* as a solution concept for empirical analysis, and show that it facilitates computationally tractable econometric analysis while allowing the researcher to be agnostic about the underlying information structure or equilibrium selection mechanism. We also propose a simple approach to constructing confidence sets. We apply the framework to study the strategic entry decisions of McDonald's and Burger King in the US and the role of informational assumptions in identification. We also examine the impact of increasing access to healthy food in food deserts.

Keywords: Estimation of games, stability, informational robustness, partial iden-

tification, entry models, burger industry, food deserts

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