

Research Statement – Konan Hara

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My research centers around policy-relevant issues building on the tools primarily developed in the field of industrial organization. The first project considers policies incentivizing renewable power investors to achieve the policymaker’s environmental objectives. The second project relaxes econometric assumptions in dynamic games to enhance the robustness of policy suggestions implied by the structural estimates. The third project explores how physicians and patients interact and how these interactions affect the productivity and disparities of the healthcare system.

The overarching philosophy of my topics has been to employ cutting-edge applied microeconomic approaches to answer important, policy-relevant questions. Particularly, environmental and health topics are suitable areas for applying frontier economic analysis because they involve intricate regulations and rapid technological changes. My background as a medical doctor with a Ph.D. in Public Health motivates me to tackle environmental and health issues and boosts my understanding of their institutional details. I was a research-oriented physician and chose public health to address policy-relevant issues as a clinician scientist. The idea of modeling individuals in economics perfectly aligned with my instinct of how I want to evaluate policies, and I decided to pursue my career in economics to establish a firm foundation.

In my job market paper, “Encouraging Renewable Investment: Risk Sharing Using Auctions,” I propose a structural framework of policymakers using risk-sharing contracts to support risk-averse investors’ new renewable energy projects. An astounding fact that inspired me to consider risk-averse investors and the consequences of this risk aversion is that renewable investors make interior portfolio choices in my data, which cannot be explained by risk-neutral investors. I successfully build and estimate a structural model of risk-averse bidders in Brazilian renewable energy risk-sharing contract auctions that embed bidders’ portfolio choices to uncover bidders’ risk aversion and costs.

In my work in progress with Yuki Ito, a Ph.D. candidate at the University of California, Berkeley, and Paul Koh, an economist at the Federal Trade Commission who has recently earned a Ph.D. at Columbia University, “Estimating Dynamic Games with Unknown Information Structure,” we study the identification of dynamic games when the underlying information structure is unknown to the researcher. Building on the recent development in game theory, we introduce Markov correlated equilibrium to tractably characterize a set of Markov perfect equilibrium predictions under weak assumptions on players’ information.

In another work in progress with Yuki Ito, “Primary Care Physician-Specialist Racial Concordance in Forming Referral Networks,” we find that primary care physicians refer patients to the same race specialists more than otherwise, especially when the patients are also the same race. We build on this fact to study the consequences of the organic interactions of people inside health organizations.

I will continue to think about how actors respond to uncertainties around technology adoption and how actors’ interactions affect productivity in environmental and health contexts. I also want to tackle associated econometric issues that might be applicable to broader contexts in applied microeconomics.