

Juan C. Yamin

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2026–27 Economics Job Market Candidate

Fields: Econometrics, Development Economics
Research interests: Statistical decision theory, empirical Bayes, experimental design, causal inference
Dissertation committee: Toru Kitagawa, Soonwoo Kwon, Jonathan Roth

EDUCATION

Brown University, Providence, RI

Ph.D. in Economics Expected May 2027

M.A. in Economics May 2022

Universidad de los Andes, Bogotá, Colombia

M.Sc. in Economics March 2019

B.Sc. in Economics October 2017

JOB MARKET PAPER

Poverty Targeting with Imperfect Information

Submitted

How should an antipoverty transfer budget be allocated when policymakers observe noisy income estimates rather than true income? I formulate targeting as a statistical decision problem, show that the standard plug-in rule is inadmissible, and develop a nonparametric empirical Bayes rule that allocates a fixed budget using posterior distributions of poverty gaps. In simulations using household surveys from nine African countries, the rule reaches 45.6 poor households per 1,000 people, compared with 25.5 under standard targeting, while systematically improving poverty reduction relative to plug-in OLS and machine-learning benchmarks.

OTHER WORKING PAPERS

When and How to Pilot: Design Rules for Two-Wave Experiments

Small pilots can inform main-wave treatment assignment, but treating noisy pilot variance estimates as exact can make the resulting design less precise than balanced assignment. I develop a Conditional Minimax Regret rule that minimizes worst-case regret over a finite-sample confidence set for treatment and control variances. The rule retains balance's worst-case protection with high probability, converges to Neyman allocation as the pilot grows, and attains the minimax-regret rate up to constants. Simulations calibrated to four field experiments show that it avoids feasible Neyman's severe small-pilot losses while capturing most of its large-pilot gains.

Two-Way Effects Models: A Nonparametric Empirical Bayes Approach

with Cole Davis

Draft available upon request

We develop a nonparametric empirical Bayes framework for decomposing outcomes into unit and cluster components, such as workers and firms, teachers and schools, or individuals and regions. Unlike existing empirical Bayes methods that impose parametric structure or independence between the latent components, the framework allows the distribution of unit effects to vary with latent cluster effects and studies the resulting shrinkage rules.

PUBLICATIONS

Birds of a Feather Collude Together: Subnational Alignment and Corruption

with Leopoldo Fergusson, Arturo Harker, and Carlos Molina

Conditionally accepted at the American Political Science Review

Using close elections in Colombia, we study how partisan alignment between municipal mayors and departmental governors affects corruption and public-service delivery. Alignment increases reported ghost enrollment, discretionary hiring, patronage-based outsourcing, and electoral-fraud risk, without improving genuine enrollment or student performance.

SOFTWARE

cmrdesign

Open-source R and Python software for pilot-informed experimental design

Given pilot outcomes and treatment labels, the package implements Conditional Minimax Regret design rules, returns a recommended main-wave treatment share, and reports a finite-sample regret certificate.

SELECTED PRESENTATIONS

World Congress of the Econometric Society, Seoul <i>Poverty Targeting with Imperfect Information</i>	2025
Advances with Field Experiments, Chicago <i>When and How to Pilot: Design Rules for Two-Wave Experiments</i>	2025

AWARDS AND FELLOWSHIPS

Merit Dissertation Fellowship, Department of Economics, Brown University	2026
International Travel Fund, Graduate School, Brown University	2025
Conference Travel Fund, Graduate School, Brown University	2025

TEACHING EXPERIENCE

Brown University

Teaching Assistant, <i>Applied Econometrics II</i> (Ph.D.), Peter Hull	Spring 2026
Teaching Assistant, <i>Applied Econometrics I</i> (Ph.D.), Toru Kitagawa	Fall 2024
Teaching Assistant, <i>Using Big Data to Solve Economic and Social Problems</i> , John N. Friedman	Fall 2022, Fall 2023

Universidad de los Andes

Teaching Assistant, <i>Advanced Econometrics</i> (graduate), Raquel Bernal
Teaching Assistant, <i>Political Underpinnings of Prosperity and Poverty</i> (graduate), James A. Robinson
Teaching Assistant, <i>Thinking Problems</i> (undergraduate), Tomás Rodríguez

PROFESSIONAL SERVICE

Organizer, Brown Metrics Coffee	2024–25
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SELECTED RESEARCH AND INDUSTRY EXPERIENCE

Amazon, Delivery Experience <i>Economist Intern, Bellevue, WA</i>	May–August 2025
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Developed difference-in-differences and shift-share strategies to estimate the direct and geographic spillover effects of a U.S. delivery-speed program. Combined the estimates to measure the program's total effect on customer delivery experience.

Brown University, Department of Economics <i>Research Assistant to Soonwoo Kwon</i>	June 2023–present
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Conducted simulation analyses and empirical applications for research on shrinkage estimation of fixed effects, inference in regression discontinuity designs under monotonicity, and bias-aware inference in regularized regression models.

Universidad de los Andes, Department of Economics <i>Research Assistant to Leopoldo Fergusson and James A. Robinson, Bogotá, Colombia</i>	August 2017–July 2021
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Conducted empirical research on political economy, conflict, corruption, and state capacity using administrative, archival, geographic, and text data. Contributed to a project subsequently published in the *Review of Economic Studies* and coauthored the conditionally accepted *American Political Science Review* paper listed above. Coordinated large-scale data collection, digitization, econometric analysis, and replication work across multiple projects.

TECHNICAL SKILLS AND LANGUAGES

Programming:	R, Python, Stata, MATLAB, SQL, Git, LaTeX
Languages:	Spanish (native), English (fluent), French (fluent)

REFERENCES

Toru Kitagawa Professor of Economics Brown University toru_kitagawa@brown.edu	Soonwoo Kwon Groos Family Assistant Professor of Economics Brown University soonwoo_kwon@brown.edu	Jonathan Roth Professor of Economics Brown University jonathan_roth@brown.edu
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