MATTHEW M. HONG

270 Bay State Road
Boston MA 02215 USA
Cell: +1 (617) 987-7917
Email: hongmatt@bu.edu
Website: https://matthew-hong.github.io

EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2025 (expected)
Dissertation Title: *Essays on Econometrics and Distributional Analysis*
Dissertation Committee: Ivan Fernandez-Val, Hiroaki Kaido and Jean-Jacques Forneron

M.Phil., Economics, University of Oxford, UK 2019

B.Sc., Economics, Mathematics and Statistics *(High Distinction)*, University of Toronto, Toronto, ON, 2017

FIELDS OF INTEREST

Econometrics, Labor Economics, Health Economics

WORKING PAPERS

"Heterogeneous Treatment Effects Analysis through Distribution Regression based Changes-in-Changes," Sep 2024. Job Market paper.

WORK IN PROGRESS

"Flexible Distribution Regression using Neural Networks" (with Victor Chernozhukov, Ivan Fernandez-Val and Victor Quintas-Martinez)
"Panel Data Quantile Regression with Grouped Fixed Effects"

FELLOWSHIPS AND AWARDS

Dean's Graduate Fellowship, Boston University, 2019-2024
Optimization-Conscious Summer School Travel Grant, University of Chicago, 2023
Finalist, Best Second-Year Paper Award, Boston University, 2021
Dean's List Scholar, University of Toronto, 2013-2017
Winner, Waterfront International Quant-a-thon Challenge, Toronto, 2016
Essay Prize in Economic Policy, University of Toronto, 2015
Leonard McLaughlin Scholarship, University of Toronto, 2013-2014

WORK EXPERIENCE

Research Assistant for Prof. Ivan Fernandez-Val, Boston University, Spring & Summer 2022, Spring 2023, Spring & Summer 2024
Research Assistant for Prof. Sarah Armitage, National Bureau of Economic Research and Boston University, Summer 2024
Research Assistant for Assoc. Prof. Hiroaki Kaido, Boston University, Summer 2020
Summer Analyst at CIBC Global Investment Banking, Toronto, Summer 2016

TEACHING EXPERIENCE

Teaching Fellow, Advanced Statistics for Economists, Department of Economics, Boston University, Fall 2021, Fall 2022, Fall 2023, Fall 2024

Teaching Fellow, Macroeconomic Theory I, Department of Economics, Boston University, Fall 2020

DEPARTMENT SERVICE

Co-Organizer, BU Econometrics Reading Group, Fall 2022-Spring 2023

LANGUAGES: English (Native), Korean (Native), Mandarin (Conversational)

PROGRAMMING SKILLS: R, Python, MATLAB, Stata/Mata, LaTeX, Git, Cluster Computing

CITIZENSHIP/VISA STATUS: Canada/F1

REFERENCES

Professor Ivan Fernandez-Val
Department of Economics
Boston University
Phone: (617) 353-9670
Email: ivanf@bu.edu

Professor Hiroaki Kaido
Department of Economics
Boston University
Phone: (617) 358-5924
Email: hkaido@bu.edu

Professor Jean-Jacques Forneron
Department of Economics
Boston University
Phone: (617) 353-4824
Email: jjmf@bu.edu

MATTHEW M. HONG

Heterogeneous Treatment Effects Analysis through Distribution Regression based Changes-in-Changes (Job Market Paper)

The changes-in-changes method, developed by Athey and Imbens (2006), is a powerful tool for identifying the distributional effects of a policy intervention, allowing for endogenous treatment assignment and full counterfactual distribution identification. However, challenges with incorporating control variables to address concerns akin to differential parallel trends in the difference-in-differences literature, and accommodating mixed continuous-discrete outcomes such as censored outcomes persist. In this paper, I propose a semiparametric approach to changes-in-changes based on distribution regression that can flexibly account for observed confounders. This approach can be applied to continuous and/or discrete outcome variables. I derive functional central limit theorems for the distribution regression based changes-in-changes estimator and for functionals thereof. These include unconditional distributional and quantile treatment effects, average treatment effects, and decompositional treatment effects for the treated group. Bootstrap validity result is also provided for conducting inference in practice. Lastly, I apply the approach to study the heterogeneous effects of Earned Income Tax Credit on infant weights and find that the policy had higher concentrated benefits for lower birth weights and more muted effects across the birth weight distribution than previously reported.

Quantile Regression in Panel Data with Grouped Fixed Effects

This paper considers the estimation and inference of panel quantile regression with unobserved grouped heterogeneity. The method assumes a finite number of groups in the underlying population, while group membership is not assumed to be known a priori and is allowed to vary across quantiles. The paper provides informative inputs for clustering and illustrates selection rules for the number of groups. An extensive Monte Carlo study suggests strong estimation properties and fast computational speed of the proposed method relative to existing methods. Lastly, an empirical application of the estimator to Acemoglu et al. (2019) finds heterogeneous impact of democratization on growth.