

# PETER DEFFEBACH

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## EDUCATION

### Boston University, PhD in Economics

Expected Jun 2025

- Development, Macroeconomics, and Urban Economics | Advised by David Lagakos, Yuhei Miyauchi, and Masao Fukui

### Princeton University, AB in Economics

Sep 2013 – Jun 2017

- Economics Major, Spanish Minor, *Cum laude*

## SELECTED DISSERTATION RESEARCH

### Labor Market Churn, Development, and Quits: Evidence from Urban Ghana (Job Market Paper)

- Methods: Conducted a panel survey of job-seekers and a survey of firms in Accra, Ghana. Analyzed differences between Ghana and USA using administrative data in Stata. Built a model of job search in Julia
- Findings: Job-seekers find jobs easily, but then quit at enormous rates. Wage work is a temporary tool to get through hard times

### Development and the Spatial Distribution of Income in Cities (With D. Lagakos, Y. Miyauchi, and E. Yamada)

- Methods: Agglomerated 30 person-level travel surveys from developing countries in Stata. Compared with administrative geo-spatial data in R. Built a quantitative urban spatial modeling in Julia
- Findings: Cities in poor vs. rich countries have different income sorting patterns, driven by differences in state capacity

### Training Microentrepreneurs over Zoom: Experimental Evidence from Mexico (With D. McKenzie, E. Davies, and L. Iacovone)

- Methods: Analysis of RCT. Designed heterogeneous treatment effect estimation using machine learning methods
- Findings: Zoom training improves business practices and profits in the short run, but effects fade over time
- Published in *The Journal of Development Economics*

## WORK EXPERIENCE

### Research Assistant – Prof. Yuhei Miyauchi at Boston University

Jul 2020–present

- Managed a rotating team of four Master's degree students, teaching data analysis skills to each cohort
- Processed raw high-frequency smartphone location data into aggregate form to understand mobility patterns using R
- Built quantitative spatial urban model in R to assess effects of infrastructure improvements in Japanese cities
- Analyzed spatial spillovers in Danish public housing using difference-in-differences on restricted access Danish Data
- Project currently Reject and Resubmit, *Quarterly Journal of Economics*

### Short Term Consultant – Poverty and Equity Global Practice Group at The World Bank

Jul 2023 – Feb 2024

- Measured increases in poverty between 2019 and 2023 in Sri Lanka using the SWIFT poverty diagnostic tool set
- Employed machine learning techniques in Stata to predict household poverty across surveys and years

### Teaching Assistant – Prof. Yuhei Miyauchi at Boston University

Sep 2022 – Jan 2023

- Served as TA twice for first year PhD course on computational methods.
- Led recitations and office hours as only TA. Used GitHub Classroom to grade and give individual feedback via code reviews
- Taught students R, terminal, Git and Github, High Performance Cluster use, as well as computational methods such as optimization, iterative methods, dynamic programming, and bootstrapping

### Student Ambassador – Research Computing Services at Boston University

Sep 2022 – Sep 2023

- Met with students to begin and improve cluster-based workflows. Trained in HPC use by RCS staff

### Research Assistant – Institute for Economic Development at Boston University

Jun 2022 – Aug 2023

- Produced annual summary of all Development Economics research at Boston University for annual IED Research Review
- Summarized 20 papers each year for a general audience. Worked with authors to ensure papers were correctly represented

### Research Associate – Prof. Chris Blattman at U. of Chicago and Innovations for Poverty Action

Jun 2017– Jun 2019

- Analyzed household survey data, administrative crime data, censuses, GIS, and qualitative interviews in Stata, R, Python, and Matlab. Studied policy experiments with randomization inference, synthetic control, and partial identification
- Managed a team of Master's students to set project timelines and ensure code quality
- Traveled to Colombia to design and pilot surveys on role of criminal gangs in daily life of lower-income neighborhoods in Medellin. Met with policymakers and academics to design a non-policing intervention to improve security in Medellin
- Projects published in *The Review of Economic Studies*, *American Economic Review: Insights*, *The Journal of Development Economics*, and *The Journal of the European Economic Association*

## OTHER PROFESSIONAL ACTIVITIES

- **Journal Referee:** Review of Economic Dynamics, Journal of Development Economics
- **Grants and Awards:** Structural Change and Economic Growth (STEG) Small Research Grant (£15,000). International Growth Centre (IGC) Small Research Grant (£20,000), and Full Research Grant (£40,000). Manuel Abdala Award for IED Summer Fieldwork at Boston University
- Visiting student at Georgetown University for Fall 2023

## SKILLS AND PERSONAL

- Stata, R, GIS in R, Julia, Matlab, QGIS, Python, LaTeX, Terminal, Git
- Primary maintainer of the Julia language data manipulation package `DataFramesMeta.jl`
- Languages: English (native), Spanish (fluent)
- Citizenship: USA