Selene Cueva Madrid
Ph.D. Student, Strategy and Innovation
Boston University Questrom School of Business
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Dear Members of the Selection Committee,

I am writing to apply to the NBER Innovation Research Boot Camp 2026. I am currently a second-year Ph.D. student in Strategy and Innovation at Boston University, with research interests at the intersection of innovation, science policy, and development.

I believe I would benefit from and contribute to the Boot Camp for three main reasons.

First, I have developed a clear and focused research agenda centered on science and innovation policy in emerging economies. My work examines how human capital, incentives, and institutions shape innovation outcomes, particularly in contexts where scientific systems are still developing, as described in my research statement. This trajectory builds on my prior research experience in Latin America and Africa and now informs my doctoral work in innovation.

Second, my interdisciplinary training is closely aligned with these research interests. I have completed advanced Ph.D.-level coursework in microeconomics, econometrics, industrial organization, and innovation strategy at Boston University, and I am currently taking doctoral courses in international trade and growth at MIT, as well as entrepreneurship at HBS. This combination of economics and strategy training supports my goal of studying innovation from both theoretical and empirical perspectives. It is further enriched by the development-focused perspective I gained through my pre-Ph.D. research experience.

Third, I am strongly motivated to engage with and contribute to research communities. I actively participate in seminars and reading groups in the Boston area, including the Sloan Geography of Innovation Reading Group. I am also a co-founder and director of EconThaki, a nonprofit organization that supports talented students from public and regional universities in Peru, Bolivia, and Ecuador by connecting them with Ph.D. mentors from leading economics programs in the United States and Europe. I value the openness that underpins scientific progress and, while I greatly appreciate the innovation community in the Boston area, I would welcome the opportunity to connect with a broader network of Ph.D. students across the United States.

I would be grateful for the opportunity to refine my research within the Boot Camp and to engage with faculty and peers working on related questions in innovation and development. One letter of recommendation in support of my application will be submitted by Professor Jeffrey Furman (furman@bu.edu)

Thank you very much for your consideration,
Selene Cueva Madrid

Selene Cueva Madrid

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MA 02215, USA
scueva@bu.edu
github.com/selenedelpi

Education

Boston University — Boston, USA
Ph.D. in Strategy and Innovation — 2024-2029 (Expected)

Boston University — Boston, USA
M.A. in Economics — 2022

Pontificia Universidad Católica del Perú — Lima, Perú
B.A. in Economics — 2016

Research Experience

Development Innovation Lab, BFI, University of Chicago — Chicago, USA
Predoctoral Research Fellow - Michael Kremer, Pascaline Dupas, Elisa Maffioli, Akito Kamei — 2022-2024

Abdul Latif Jameel Poverty Action Lab (J-PAL LAC) & PUC-Chile — Santiago, Chile
Senior Research Associate - Claudia Martínez A. — 2019 - 2021

Abdul Latif Jameel Poverty Action Lab (J-PAL LAC) — Lima, Perú
Research Associate - Francisco Gallego and Ofer Malamud — 2017 - 2018

Group of Analysis for Development - GRADE — Lima, Perú
Research Assistant - Juan León and Martín Benavides — 2014 - 2017

Work in Progress

- **"Talented migrants and Globally Appropriate Technology? How Skilled Immigrants Shape What US Firms Invent"** Using firm–inventor matched patent data, this project studies how skilled immigration (Indian H-1B holders) shapes the direction and market relevance of inventions in the U.S. IT sector.
- **"Cash for Papers: Publication Incentives and Research Quality in Emerging Science Systems"** with H. Park. We compile a new cross-country database of incentive schemes and study how publication-linked cash incentives affect research output, journal choice, and scientific quality in universities in emerging economies.
- **"Role Models, Gender, and Entry into Technical STEM Tracks"** with C. Madero & P. Sevilla. Randomized evaluation of a low-cost video-based role model intervention in public high schools in Chile. We study effects on enrollment in technical STEM tracks and assess scalability of the intervention. See AEA Registry 11902

Working Papers

- "Entendiendo la paradoja de la maternidad adolescente en Lima Metropolitana. Un análisis de los efectos de vecindario en el 2013." Avances de Investigación 40, GRADE, 2020
- "La ciencia avanza, ¿avanzan sus científicas?: barreras y oportunidades para la participación de la investigación científica en mujeres miembros de los grupos de investigación de ingeniería de la PUCP". with J. Mezarina, 2018
- "Expansión y diversificación de la educación superior universitaria, y su relación con la desigualdad y la segregación" with M. Benavides, J. León & F. Haag. Documentos de Investigación 78, GRADE, 2015.

Awards, Grants & Fellowships

- Manuel Abdala Fieldwork Grant for graduate students, BU (USD 3,000). 2022–2023
- Full Scholarship, "Generación del Bicentenario" for Peruvian graduate students, PRONABEC. 2021–2022
- Merit Scholarship, M.A. in Economics, BU 2021–2022
- Research in Color Foundation Fellow 2021
- National Prize for the best social research paper by young researchers - DSGE-MIDIS, CIES, OTT 2020
- Research Grant "Young Researchers" Think Tank Initiative - IDRC/GRADE (USD 3,000) 2018–2020
- Research Grant "Mujeres en la Ciencia", CONCYTEC & CIES & OEI (USD 5,000) 2016–2017
- Winner of Research Contest "Voces que rompen el silencio de la violencia", GIZ (USD 500) 2015
- Winner of the "Support Program for Academic Research Initiation (PAIN)", DGI-PUCP (USD 1,500) 2014–2015

Teaching Experience

- **Lecturer** at J-PAL LAC's Workshop for Transforma Uruguay Sept 2018
  Statistical Power in Experimental Designs; Stata Workshop; Process evaluation; Measurement: Operationalization of concepts for developing instruments.
- **Teaching Assistan** at J-PAL LAC's Workshops in Peru Feb 2018
  Impact Evaluation Workshops for the Ministry of Education, Peru; and AyniLAB, Ministry of Development and Social Inclusion, Peru.
- **Undergraduate Teaching Assistant** at Pontificia Universidad Católica del Perú Aug 2013 - Jul 2016
  Introduction to Economics (x1), Economic History (x3), History of Economic Thought(x1), Applied Statistics.(x1)

Service

- **BFI Research Professionals Board**, Member 2022 –2023
- **EconThaki** Non-profit, Co-Founder & Director 2021-
- **J-PAL LAC. Diversity, Equity and Inclusion (DEI) Group** Collaborator 2020
- **Plataforma Comadres/Revista Quehacer** Ocassional columnist 2018 –2020
- **<Laboratoria>**. Mentor of a young woman entering the technology labor market 2016
- **Economica**, *Undergraduate Journal of Economics* Co-Founder & General Director 2014 –2015
- **PUCP Federation of Students** Secretary of University Rights 2013
- **PUCP Association of Students of Economics** President 2012

Other

Languages: Spanish (Native), English (Fluent), Portuguese (Basic)
Tech. Skills: Python, Stata, R, LaTeX, Git, ArcGIS, SurveyCTO

This version: February 2026

Research Statement and Motivation for the NBER Innovation Research Boot Camp

My research examines how institutions, incentives, and human capital shape the direction and quality of innovative activity, with a particular emphasis on emerging and global contexts. I study how individuals enter innovation-relevant fields, how incentive structures influence scientific production, and how global talent flows affect firms' technological choices.

My current work spans three related projects. First, I analyze how skilled immigration affects firms' innovation strategies using firm–inventor matched U.S. patent data. Focusing on Indian H-1B holders in the IT sector, this project examines how global talent inflows shape the direction and market relevance of technological change. Second, in joint work with Heather Park, I construct a new cross-country database of publication-linked cash incentives and study how these policies affect research output, journal choice, and scientific quality in universities across emerging economies. Third, I contribute to a randomized evaluation of a low-cost role model intervention in public high schools in Chile, which studies effects on female enrollment into technical STEM tracks and evaluates the scalability of the intervention.

Going forward, I aim to connect early-stage human capital formation, institutional incentives, and global talent mobility to longer-run innovation outcomes. Substantively, I am interested in understanding when international exposure and knowledge spillovers enhance innovation and when they generate coordination frictions or incentive distortions. Recent evidence on large productivity spillovers from public R&D investments—such as agricultural innovation linked to Brazil's EMBRAPA (Akerman et al., 2025)—raises further questions about how major public research investments reshape broader scientific trajectories within countries and across emerging economies. Building on my training in international trade and my engagement with research on the geography of innovation, I seek to develop empirical strategies capable of measuring cross-sectoral and cross-border spillovers. In parallel, I have been developing tools in computational text analysis to measure more precisely the direction of innovation across patents and scientific publications. More broadly, I am interested in contributing to conceptual frameworks that clarify how we measure spillovers and evaluate their welfare implications.

The NBER Innovation Research Boot Camp would be particularly valuable at this stage of my Ph.D. as I refine the positioning of my projects within the broader innovation and growth literature. I would especially benefit from feedback on measuring innovation outcomes, identifying spillover effects, and clearly articulating contributions across adjacent literatures in economics and strategy. Engaging with faculty and peers working on related questions would meaningfully shape the next stages of my research agenda.