NBER Entrepreneurship Research Boot Camp (ERBC) 2026

Name: Muhammad Bashir
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School / Program: University of California, Berkeley — PhD in Economics
Year of entry into PhD program: 2024
Year in program (as of July 2026): Completed 2 years of PhD coursework
Expected year of completion: 2029

Primary research interests Public Economics, Innovation, AI, Development, State Capacity:

- Entrepreneurship and firm growth in developing economies; barriers to scaling and formalization
- Complementarities between tangible and intangible capital and taxation of firm profits and R & D tax credits and deductions
- Regulation, taxation, and enforcement as constraints on entry, investment, innovation, and productivity
- State capacity and public institutions shaping private-sector performance and market access

Current and near-term projects:

- *Complementarities between tangible and intangible capital:* how tax policy affects firm investment in physical vs. intangible assets, and implications for growth and innovation.
- *Tax policy shocks and real outcomes:* how tax changes and enforcement affect firm activity, investment, and borrowing.
- *VAT thresholds and informality:* why/when firms formalize, how production changes post-registration, and welfare implications.
- *Administrative enforcement and compliance:* how institutional design affects compliance and service delivery (field experimental work).

Faculty recommender (letter writer): Prof. Danny Yagan, Economics Department, UC Berkeley
Recommender email: yagan@berkeley.edu

How I heard about ERBC: Signed up to receive updates on the NBER website, also shared by Ben Handel.

Research Agenda and Motivation for ERBC

My research agenda studies how entrepreneurial firms grow—or fail to grow—when they face regulatory frictions and enforcement risk. I am especially interested in settings where compliance costs are discontinuous, such as registration thresholds, licensing regimes, and tax notches. In these environments, small and young firms may remain informal, bunch below thresholds, or delay scaling because interacting with the state becomes costly and uncertain at specific sizes. I aim to contribute to entrepreneurship research by combining detailed administrative data with quasi-experimental variation in policy and enforcement, and by designing field-experimental interventions that isolate the mechanisms behind growth, investment, and innovation.

My current projects connect directly to core topics in entrepreneurship and entrepreneurial finance: entry and formalization decisions, investment and scaling, and how policy affects firm dynamics. One line of work examines how tax policy and enforcement shocks shape firm behavior, including investment and borrowing responses. Another examines VAT thresholds and informality, where firms face a discrete jump in compliance burdens and enforcement exposure once they register. This setting provides a clean framework to study how regulation affects the extensive margin (formal entry) and the intensive margin (post-formalization growth), and to quantify how enforcement and compliance costs distort firm size distributions, productivity, and market structure.

A central focus of my agenda is how these policy frictions shape firms' accumulation of both tangible and intangible capital. Beyond physical capital and inventories, scaling often requires intangible investments—management and organizational capability, product development and process innovation, branding and customer acquisition, software and data systems, hiring and training, and the routines that allow firms to replicate operations across locations and markets. I want to understand whether policy-induced "scale release" (when firms cross thresholds or face reduced marginal frictions) triggers these intangible investments, and whether those investments translate into sustained productivity growth rather than one-time formal compliance.

Looking ahead, I plan to build a broader research program on innovation and growth in developing countries organized around three questions. First, when firms are "released" from constraints by crossing thresholds, resolving regulatory uncertainty, or gaining access to finance, do they expand by finding new markets, introducing new products, adopting better management practices, or upgrading technology and processes? Second, is there consistently a productivity premium to being formal, or is formalization sometimes primarily a change

in reporting and tax status with limited real upgrading? Third, how do enforcement risk and compliance costs shape the composition of investment toward tangible assets versus intangible capabilities and the returns to each? Empirically, I will use bonus depreciation policies, tax enforcement shocks and rate changes, and VAT thresholds as quasi-experimental variation to identify the causal effects of policy on innovation and productivity.

I want to attend the NBER Entrepreneurship Research Boot Camp because it is the best setting to sharpen how I frame and execute these projects within the entrepreneurship and entrepreneurial finance literature. The boot camp will connect me to a community of innovation scholars, expose me to cutting-edge methods and research questions, and help me build strong relationships with other graduate students working on related topics. ERBC would also provide invaluable feedback and mentorship from scholars at the frontier of entrepreneurship research and help me build a network as I develop my dissertation agenda.

Muhammad Bashir

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Education

University of California, Berkeley — Aug 2024 – Present
Ph.D. Student in Economics — Berkeley, CA

University of Manchester — Sep 2021 – Sep 2022
M.Sc. in Economics (Distinction) — Manchester, UK

Honor: John Stewart Prize for outstanding performance across three Econometrics courses.

Lahore University of Management Sciences (LUMS) — Aug 2017 – Jun 2021
B.S. in Economics and Mathematics (Joint), High Distinction — Lahore, Pakistan

Work Experience

Prime of Pakistan, Tax Policy Office — Jan 2026– Present
Research Support for Optimal Tax Design — Islamabad, Pakistan

University of California, Berkeley — Spring 2026 – Present
Graduate Student Researcher (Prof. Danny Yagan) — Berkeley, CA

University of California, Berkeley — Fall 2025
Graduate Student Instructor, ECON 100B — Berkeley, CA

Columbia University in the City of New York — Sep 2022 – Jul 2024
Predoc for Michael Best and Jack Willis — New York, NY

Research Interests

Public Economics; Labor Economics; State Capacity; Development Economics; Innovation and AI

Working Papers

Size-Based Policies and Firm Growth: Evidence from Pakistan (with Zehra Farooq (Tulane), Usama Jamal (Manchester), and Mazhar Waseem (Manchester, CEPR, IFS))

Intended and Unintended Consequences of Anti-avoidance Rules: Evidence from Uganda (with Usama Jamal (Manchester), Kyle McNabb (ODI), and Mazhar Waseem (CEPR, IFS, Manchester))

Research Grants

IGC: "Understanding Firms' Behavioral Response to Increased Compliance Cost and Advance Taxes: Theory and Evidence from Pakistan" (with Shaheryar and Zehra Farooq), Dec 2024 – Dec 2026, £24,424

IGC: "Intended and Unintended Consequences of Anti-avoidance Rules: Evidence from Uganda" (with Usama Jamal, Kyle McNabb, Mazhar Waseem), Jan 2024 – Jan 2026, £29,000

ICTD: "Intended and Unintended Consequences of Anti-avoidance Rules: Evidence from Uganda" (with Usama Jamal, Kyle McNabb, Mazhar Waseem), Jan 2024 – Jan 2026, £25,000

UNU-WIDER: Grant for "Intended and Unintended Consequences of Anti-avoidance Rules: Evidence from Uganda" (with Usama Jamal, Kyle McNabb, Mazhar Waseem), Sep 2022 – Dec 2023, $10,000

Fellowships and Honors

Feb 2026 NBER Digital Economics and AI Tutorial (

Jun 2025 IGC Summer PhD Fellowship, IGC Office Lahore (Pakistan), £5,000

Jun 2025 Stone Center Summer Institute on Inequality, UC Berkeley

Mar 2025 Fulcrum Project Fellowship for Future Economic Thinkers (with Heidi Williams and Paul Niehaus)

Dec 2022 John Stewart Prize for Econometrics, University of Manchester

Sep 2022 Weiss Fund for Development Economics (Kabir Banerjee Predoctoral Fellowship) Finalist, University of Chicago

Sep 2021 School of Social Sciences Scholarship, University of Manchester (tuition waiver + £15,600 stipend)

Skills

Programming	Python, R, Stata, Julia, SQL, Bash, C#
Tools	Git, Slurm, LaTeX, AWS, VSCode & Copilot

Languages

English (Fluent); Punjabi (Native); Urdu/Hindi (Fluent)

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Dear Colleague:

I write on behalf of Muhammad Bashir, an outstanding stellar and extremely promising second-year Berkeley Ph.D. student who is applying to the NBER Innovation Bootcamp program. To cut to the chase: Muhammad is a very top student with broad interests and creativity. From my public economics angle, I could absolutely see him integrating innovation into public economics in his job market paper. He's a great investment for you. I very highly recommend him.

I first met him while visiting Columbia where he was working as a research assistant applying to graduate school. We were able to attract him to Berkeley and I am now very happy to be advising him.

He has terrific ideas and outstanding potential. He earned an A+ in my second-year public economics course. I hired him to help revise my graduate and undergraduate lecture notes, and he has had excellent insights at every turn.

His research proposals are very interesting. For example, in one project, he works to use a policy shock in Pakistan to identify the effect of bank taxes and other shocks to bank balance sheets on the firms they lend to. Such projects have been used dramatically effectively in developed countries, such as Harvard's Gabriel Chodorow-Reich's and others' work in the United States. That work has spawned thousands of citations. Banks may be even more important in developing countries, where alternative sources of financing may be less available. Muhammad and his coauthors are trying to test that in a terrific context, most notably the 2015 retroactive bank tax in Pakistan. That tax was assessed on banks heterogeneously based on past profits. As a result, banks with similar balance sheets in 2015 received heterogeneous balance sheet shocks via the tax system, yielding a natural research design in which he compares outcomes at firms with relationships to heavily shocked banks to firms with relationships to lightly shocked banks.

Muhammad is an extremely bright student with great creative potential. I support his candidacy with tremendous enthusiasm. Please do not hesitate to contact me if I can be of any further assistance.

Sincerely,



Danny Yagan