Contact Information
Connie Xu (conniexu@g.harvard.edu)
Reference
Amitabh Chandra (Amitabh_Chandra@harvard.edu)

Dear NBER Innovation Research Boot Camp Review Committee,

I am writing to express my interest in participating in the 2025 Innovation Research Boot Camp. As a fourth-year PhD student in the health policy and economics program at Harvard University, my research explores the intersection of labor and health economics, focusing on innovation within the healthcare and life sciences sectors.

With the program's emphasis on cross-disciplinary concepts in innovation economics and exposure to cutting-edge data and methods, I believe that the boot camp will provide me with the training to refine my research projects as well as connect with peers working in this field.

My doctoral research during the PhD has been supported by the Agency for Healthcare Research and Quality (T32 Training Grant), National Institute of Aging (NBER Pre-Doctoral Fellowship in Aging & Health), and the National Science Foundation (Graduate Research Fellowship Program).

My CV, list of courses taken, and research statement are attached. Thank you for considering my application!

Sincerely,
Connie Xu

Connie Xu

conniexu@g.harvard.edu • (240) 429-2307

Contact Information

8 Story Street, Suite 380
Cambridge, MA 02138

Education

Harvard University 2021–present
PhD in Health Policy and Economics

University of Chicago 2015–2019
B.A. in Economics (with Honors); B.A. in Statistics

Teaching Experience

Harvard Kennedy School 2024
Teaching Fellow for Professor Timothy Layton, Empirical Methods II (Econometrics)

Research Assitance

Harvard Business School 2022–present
Graduate Research Assistant to Professor Amitabh Chandra

Harvard Medical School 2022–2024
Graduate Research Assistant to Professor Timothy Layton

Massachusetts Institute of Technology 2019–2021
Pre-doctoral Fellow to Professor Amy Finkelstein

University of Chicago Law School 2018–2019
Research Assistant to Professor Anup Malani

Federal Reserve Bank of Chicago 2018
Economic Research Intern - Microeconomics Team

Research in Progress

Universities and the Production of Fundamental Knowledge in the Life-Sciences (with Amitabh Chandra)
Selected for presentation at NBER Place-Based Policies and Entrepreneurship, Fall 2024

Who Benefits from FDA Deregulation? (with Yunan Ji and Parker Rogers)

Price Shifts, Budget Rifts: Equipment Costs and University Research Productivity (with Ruby Zhang)

The (Direct) Impacts of Indirect Costs on Productivity and Equity (with Ruby Zhang)

Nursing Home Value-Added: Evidence from Nursing Home Closure (with Amitabh Chandra and Timothy Layton)

Presentations

NBER Place-Based Policies and Entrepreneurship December 2024

Academic Service

Organizer: Harvard Health Care Policy Health Economics Seminar 2023–present

Awards and Grants

Harvard Kennedy School Distinction in Student Teaching Award 2024

NSF Graduate Research Fellowship Program 2024–2026

NBER Center for Aging and Health Research Pilot Grant (with Amitabh Chandra and Timothy Layton) 2023–2024
Project: *Nursing Home Value-Added: Evidence from Nursing Home Closure*

NBER Pre-Doctoral Fellowship in Aging & Health 2023–2024

Agency for Healthcare Research and Quality T32 Training Grant 2021-2023

Phi Beta Kappa 2019

UChicago Careers in Health Professions Health Policy Scholar 2016–2019

PhD Courses Taken

HLTHPOL2000A/B: Core Course in Health Policy
ECON2020A/B: Microeconomic Theory
ECON2110/2115: Econometrics
ECON2245: Empirical Research in Labor and Public Economics
14.472: Public Economics II
ECON2810A: Labor Market Analysis
14.662: Labor Economics II
ECON2880: Economics of Science
ECON2465: Health Economics
HLTPOL3070: Health Economics Reading Course
ECON3017: Research in Health Economics

Research Statement

My research combines topics from labor and health economics to study innovation in the life sciences, with a focus on how institutional environments and market structures shape scientific productivity. Drawing on my training in health policy and economics, my current research uses quasi-experimental methods to examine the causal mechanisms driving research output, knowledge creation, and the diffusion of scientific discoveries across institutions.

A project that I have been working on with Professor Amitabh Chandra since the start of my PhD examines how institutions shape scientific productivity through a movers research design. By gathering rich affiliation data from *OpenAlex* and identifying scientists who change institutions, we find that place-based factors—such as funding structures, collaboration networks, and local research culture—explain 40-50% of the observed productivity differences among scientists. These findings demonstrate how institutional environments critically influence the trajectory of scientific discovery and highlight the importance of organizational design in fostering research productivity.

In another project with Professors Yunan Ji and Parker Rogers, we are analyzing how regulatory reform affects innovation and market competition for medical devices. Exploiting an FDA policy change that deregulated certain device categories, we use comprehensive private data on manufacturers, hospitals, insurers, and patients to trace how reduced regulatory barriers affect market entry, pricing, and healthcare costs. By examining the full healthcare value chain, from manufacturer decisions to patient outcomes, the results from this project will provide key evidence for debates on balancing innovation incentives with safety oversight in healthcare markets.

My dissertation, in collaboration with my classmate Ruby Zhang, extends these themes and examines how capital constraints shape scientific production by studying an exogenous price shock in the scientific equipment market. Using a major supplier merger as a natural experiment, we analyze how rising equipment costs influence researchers' experimental design choices, research productivity, and grant success rates. This research fills a crucial gap in understanding how physical capital access affects research capabilities and output—insights that are essential for effective science funding policy.

Being able to attend the NBER Innovation Research Boot Camp would greatly strengthen my empirical toolkit and deepen my engagement with frontier research in innovation economics. The program's emphasis on rigorous methods and novel data applications would enhance my ongoing work while sparking new research directions. The opportunity to learn from leading scholars in innovation economics and engage with peers studying related questions would create valuable opportunities for collaboration and help advance my broader research agenda on innovation in healthcare and the life science.

Dear Brett,

I am sending you a short letter of recommendation for Connie Xu, who is a PhD student at Harvard. Connie wishes to attend the NBER innovation bootcamp and would be an excellent choice for three reasons. First, her PhD dissertation explicitly focuses on innovation and the role of institutions (like universities and hospitals in shaping innovation). Second, she has already presented our joint work on the causal effect of institutions on the discovery of fundamental knowledge to at a recent NBER innovation group conference that Josh Lerner organized where it was very well received— it would benefit her enormously to know the community of scholars who work in this space. Finally, Connie is a terrific citizen— she gives more than she receives and always offers terrific suggestions and feedback to others. She's a lot like Heidi Williams, which is the highest form of praise!

Thank you for considering her application.

-Amitabh

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Amitabh Chandra

Ethel Zimmerman Wiener Professor of Public Policy

Harvard Kennedy School of Government