National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138

Dear Selection Committee,

I am writing to express my enthusiastic interest in participating in the NBER Innovation Research Boot Camp. Currently, as a PhD student in Economics at the University of California, Berkeley, and a research assistant for Professor Heidi Williams through the Institute of Progress, I am keen to deepen my expertise in innovation and economic research.

During my undergraduate studies at the University of South Florida, I had the privilege of pursuing a dual degree, earning a B.S. in Quantitative Economics and Econometrics and a B.A. in Mathematics. My commitment to economic research further expanded during an internship at the Federal Reserve Bank of Chicago under the mentorship of economist Dr. Bhashkar Mazumder. This experience also marked the beginning of a long-term independent research project with Dr. Mazumder. Our collaborative work aimed to enrich the existing literature by examining the link between health outcomes and violence exposure.

Following graduation, I have worked as a pre-doctoral research fellow for Professor Amy Finkelstein, contributing extensively to health economics projects in different stages of the research process. One of my primary projects, with Professors Matthew Notowidigdo, Frank Schilbach, and Jonathan Zhang, seeks to exploit commuting zone unemployment variations to further understand the causal link between recessions and health outcomes. Here, I implemented models to estimate the effect of unemployment on mortality rates using publicly available data that I processed and prepared for analysis. On my other assigned projects, I created extensive literature reviews, supported data analysis.

Since 2022, I have been advancing my academic journey as a PhD student in Economics at the University of California, Berkeley. Currently in my second year, I am deepening my expertise through courses in Industrial Organization and Development Economics. My academic pursuits are deeply rooted in a keen interest in health, innovation, and development economics. This specific focus propelled me to collaborate with Heidi Williams through the Institute of Progress. In my capacity as a research assistant, I have been involved in projects that aimed to estimate the economic impact of immigration to the U.S. and analyze the effects of changes in immigration policy on immigration flow.

My interest in attending the NBER Innovation Research Boot Camp stems from my deep commitment to understanding and contributing to the field of development and health economics, where innovation plays a pivotal role in driving growth and addressing global economic challenges. The Boot Camp presents an invaluable opportunity for me to delve into foundational ideas, empirical evidence, and frontier questions under the guidance of esteemed experts in the field. I am eager to engage with and contribute to this vibrant community of scholars, enhancing my understanding and research capabilities in this crucial sphere of economics.

For any further information or discussions regarding my application, I can be reached at 619-587-2507 or collardpatrick@berkeley.edu. Additionally, Bhashkar Mazumder, with whom I have had the opportunity to work at the Federal Reserve Bank of Chicago, can provide further insights into my academic and research experience.

Sincerely,
Patrick Collard

Patrick Collard

collardpatrick@berkeley.edu • (619) 587 2507

Education

University of California - Berkeley — **Berkeley, CA**
(August, 2022-present)

- PhD in Economics

Dual Degree - University of South Florida — **Tampa, FL**
(August, 2016-May, 2020)

- Bachelor of Arts in Mathematics
- Bachelor of Science in Quantitative Economics & Econometrics

Research Experience

Research Fellow — **Washington, DC**
(June, 2023-present)

Institute For Progress with Professor Heidi Williams

- Supporting projects relating to innovation and talent identification.
- Performing reviews of the current state of the literature.
- Constructing estimates of the impact of certain immigration policies.

Pre-doctoral Research Fellow — **Boston, MA**
(June, 2020-June 2022)

Massachusetts Institute of Technology (J-PAL) with Professor Amy Finkelstein

- Provided research assistance on projects relating to the evaluation of a programs with goals ranging from reducing health care spending to preventing suicides among veterans.
- Implemented models to estimate effects from the Great Recession on health outcomes.
- Performed literature reviews on research related to topics of interest.

Independent Research — **Tampa, FL**
(January, 2019-July 2022)
(January, 2019-July 2022)

With Federal Reserve Economist Bhash Mazumder

- Created and implemented identification strategy to estimate impact of violence on health outcomes.
- Generated script in STATA performing cleaning, analysis, and result visualization.

Economic Research Intern — **Chicago, IL**
(June, 2019-August, 2019)

Federal Reserve Bank of Chicago – Microeconomics Department

- Built Python script that automatically web-scrapped, cleaned, and merged more than 80 data sets from the Urban Institute with more than 1.5 million observations each about educational charities.
- Used STATA to clean data sets and to reproduce research results of selected publications.

Awards & Honors

- Impact Fellowship (2023)
- NSF Graduate Research Fellowship (2022)
- Paul & Daisy Soros Fellowship (2022)
- UC Berkeley Chancellor's Fellowship (2022)
- Duke Economics Pre-Graduate Fellow (2021)
- Outstanding Scholar Award - The Honorary National Mathematics Society (2020)
- Robert H. Burton Endowed Memorial Scholarship Recipient (2018)

Summary of Skills

Technical: Python, Stata, R
Languages: English and Spanish

Class	Title	Term
ECON 201A	Economic Theory	Fall 2022
ECON 202A	Macroeconomics	Fall 2022
ECON 240A	Econometrics	Fall 2022
ECON 295	Survey of Research in Economics	Fall 2022
ECON 201B	Economic Theory	Spring 2023
ECON 202B	Macroeconomics	Spring 2023
ECON 210A	Introduction to Economic History	Spring 2023
ECON 240B	Econometrics	Spring 2023
ECON 295	Survey of Research in Economics	Spring 2023
ECON 220A	Industrial Organization	Fall 2023
ECON 237	Seminar in Advanced Macroeconomics and Money	Fall 2023
ECON C270A	Microeconomics of Development	Fall 2023
ECON 281	Seminar in International Trade and Finance	Fall 2023
ECON 220B	Industrial Organization	Spring 2024
ECON 220C	Special Topics in Industrial Organization	Spring 2024
ECON 270B	Development Economics	Spring 2024
ECON 270C	Development Economics	Spring 2024

Current and Future Research

My research endeavors are driven by a deep interest in the intersection of development, innovation, and health economics. I am currently engaged in two projects, each addressing a specific aspect of this intersection.

The first project delves into the economic implications of long-term care expenditures, particularly within nursing homes. My central hypothesis posits that the substantial costs associated with long-term care may have a significant impact on depleting the savings of patients, potentially influencing intergenerational mobility. To investigate this hypothesis, I currently plan to employ a unique instrumental variable – veterans' exposure to Agent Orange and subsequent diagnosis with Parkinson's disease, which qualifies them for additional benefits from Veterans Affairs, including free long-term care. This scenario creates a natural experiment where some individuals receive free long-term care, while others do not, offering a plausible exogenous variation. Using social security data, we could then link these veterans to their descendants and examine whether the descendants of veterans who obtained the additional benefit in the form of free long-term care had higher economic mobility.

Simultaneously, I am engaged in a project exploring the efficacy of teachers as a tool for identifying talented students in low-information environments. This research, set in the context of Mexico's education system, challenges the traditional mechanisms of talent identification by proposing a novel methodology where teachers' insights are utilized to recognize potential in students who might otherwise be overlooked due to systemic limitations. We aim to ask teachers about their most talented students in the last few years. We hope that by greatly extending their selection sample, we'll allow teachers to point at outliers that may not be recognizable through grades or exams, which have an upper bound in performance. We hypothesize that teachers can predict students' performance in real stake scenarios such as college admissions and job market success.

In the future, I aim to keep focusing on healthcare economics, with a particular interest in understanding the key drivers of innovation within the healthcare sector. Healthcare presents complex incentive challenges and I intend to explore the mechanisms that drive progress in this critical domain. Additionally, I plan to investigate the determinants of healthcare technology adoption in developing countries, where unique challenges and opportunities exist. Participating in the NBER Innovation Research Boot Camp would offer a valuable opportunity to advance my research goals. It will provide exposure to the latest developments in innovation economics and enable me to explore cutting-edge questions in the field.

Through this experience, I anticipate enhancing my understanding of innovation dynamics and establishing collaborations that can lead to impactful research. The Boot Camp will equip me with the knowledge and connections needed to address vital questions in the intersection of my interests.

FEDERAL RESERVE BANK
OF CHICAGO

February 1, 2024

Dear Sir or Madam,

I highly recommend Patrick Collard for the NBER Innovation bootcamp. I am a senior economist and research advisor at the Federal Reserve Bank of Chicago, and I have known Patrick for more than four years.

I first worked with Patrick when he was a summer intern at the Chicago Fed in 2019. He did an outstanding job for me and as a result of that success we continued to work together and have collaborated on a research project that is still in progress that examines how exposure to violence during the *in utero* period impacts birth outcomes in Mexico. Patrick came up with the identification strategy and conducted all of the empirical analysis. I was highly impressed with Patrick's exceptional work on all phases of the project.

We continue to talk about research ideas and I am always impressed with Patrick's creativity. He continues to come up with innovative ideas that are always coupled with a highly practical focus on how to execute them. He is an exceptionally promising young scholar and is an ideal fit for this boot camp. You will not regret providing Patrick with this opportunity.

Sincerely



Bhashkar Mazumder
Senior Economist and Research Advisor
Federal Reserve Bank of Chicago