APRIL BURRAGE
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Recommendation Letter Writer:
Dr. Ina Ganguli
Associate Professor of Economics
University of Massachusetts-Amherst

March 26, 2021
NBER Entrepreneurship Research Boot Camp
Virtual Workshop

To Whom it May Concern:

I am applying to attend the 2021 NBER Entrepreneurship Research Boot Camp. I am a third-year PhD student in economics at University of Massachusetts Amherst (UMass). My recommendation letter writer is Dr. Ina Ganguli, an Associate Professor of Economics at UMass, who is one my dissertation advisors and whose primary research field is the economics of innovation.

The ERBC lectures and the extensive reading list will increase my knowledge of the existing research in the field of entrepreneurship economics that is essential to developing a comprehensive research agenda for my dissertation topic. My dissertation research explores the sources and consequences of exclusion from innovative capital on the basis of race and gender and how that contributes to differences in wealth and earnings. The ERBC also provides me with the ability to network with other PhD Students with similar research interests which is extremely important for long term success.

In addition to my dissertation project, I have worked as a research assistant for Dr. Ina Ganguli (Economics) on a series of studies on gender gaps in STEM fields and entrepreneurship. For two years, I worked as a research assistant on an interdisciplinary project led by Dr. Nilanjana Dasgupta (Psychology and Founder of the UMass Institute for Diversity Science) and Ganguli investigating how opportunity framing affects the participation of women in entrepreneurship and commercialization. In November of 2020, I began a research assistantship at the Center of Critical Race and Digital Studies that examines racial equity in technology entrepreneurship. My work for these projects includes literature review of existing papers, data management, quantitative, and qualitative analysis in Stata and thematic qualitative coding of text. I have completed the PhD-level econometrics sequence as well as additional labor economics courses: Empirical Methods of Labor Economics and Labor Economics.

My research interests and experience position me well to apply what I learn at the ERBC to my current and future research of entrepreneurship and innovation.

Sincerely,



April Burrage

April Burrage

University of Massachusetts Amherst ▪ Department of Economics
Cell Phone: 773-623-9345 - Email: aburrage@umass.edu

Education

Ph.D. Economics, University of Massachusetts Amherst, 2018 – present

M.A., Economics, Roosevelt University, 2018

B.S., North Carolina Agricultural and Technical State University, Summa Cum Laude, 2013

Research Fields and Interests

Labor Economics, Economics of Innovation, Political Economy

Working Papers

"Gender Differences in Prosocial Motives and STEM Entrepreneurship: Evidence from NSF I-Corps" (with Ina Ganguli and Nilanjana Dasgupta)

"Cultivating Future Inventors: The Lemelson-MIT Student Prize" (with Ina Ganguli and Stephanie Couch)

Research Papers in Progress

"Racial Equity in Technology Entrepreneurship" (with Rachel Atkins)

Research Experience

Research Assistant at The Center for Critical Race and Digital Studies 2020 - present
Research Supervisor: Dr. Rachel Atkins

Research Assistant at The Lemelson-MIT Center Summer 2020
Research Supervisor: Dr. Ina Ganguli and Dr. Stephanie Couch

Research Assistant at the UMASS National Science Foundation I-Corps 2019 - 202
Research Supervisor: Dr. Ina Ganguli

Teaching Experience

Introduction to Macroeconomics 2018 - 2020
University of Massachusetts Amherst

Awards and Fellowships

Ford Foundation Predoctoral Fellowship Honorable Mention — 2021
Ford Foundation

American Economic Association Summer Program Fellow — 2020
American Economic Association

Research, Enhancement, and Leadership Fellow — 2018 - 2022
University of Massachusetts Amherst

Conference Presentations

Stanford Graduate School of Business Rising Scholars Virtual Conference — 2020

Boston University in Economics Virtual Workshop — 2020

International Association of Feminist Economicss — 2019

Technical Strengths

Statistical Packages: STATA (proficient), R (intermediate)

Memberships/Affiliations

American Economic Association, Graduate Women in STEM, National Economic Association

(Please see next page for a list of current and completed coursework)

Current Coursework

ECON 701	Microeconomic Theory
ECON 797UD	Political Economy of Urban Development

Completed Coursework

ECON 700	Microeconomic Coordination and Conflict
RES-ECON 702	Econometric Methods
ECON 703	Introduction to Economic History
RES-ECON 703	Advanced Econometrics
ECON 705	Macroeconomic Theory I
ECON 708	Political Economy I
ECON 709	Political Economy II
ECON 751	Math Methods for Economics
ECON 764	United States Economic History
ECON 781	Labor Economics
ECON 797LB	Empirical Methods of Labor Economics
ECON 797P	Political Economy of Public Health

III. Why I would like to attend the 2021 NBER Entrepreneurship Research Boot Camp

NBER Entrepreneurship Boot Camp. As a PhD student that is transitioning from coursework to writing my prospectus, I intend to apply what I learn from the NBER Entrepreneurship Boot Camp (ERBC) to strengthen my research skills and dissertation topic. The extensive reading list and lectures at the ERBC would support my aim to contribute to existing literature in understudied areas in the field of entrepreneurship. The invaluable insights provided from the ERBC on entrepreneurship research, will be used to improve how I approach my research during my doctoral program and beyond. The entrepreneurship research field is small compared to other research fields. Currently, I have not had the opportunity to connect with other PhD students who have similar research interests. The ERBC would provide the exposure and ability to network with PhD students and researchers across disciplines with similar research interests. Expanding my network with other PhD students could potentially lead to future collaborations and co-authorship opportunities that would increase my chances of having a productive economic research career.

Current Research. My current research examines motivations and potential efforts to increase diversity in participation in the commercialization and innovation process. I have worked with Dr. Ina Ganguli on two interdisciplinary projects that span the disciplines of economics, social psychology, and entrepreneurship. We examine if women faculty and graduate students have differing motivations to pursue entrepreneurship development programs. Our motivation for the paper was to determine if subtle changes in the framing of commercialization opportunities increases women's interest and participation in the commercialization process. (Guzman et. al, 2020) The methodology we used consisted of a three study research design including a randomized control experiment, qualitative thematic coding and regression analysis. I have presented results from the project to seminars at Boston University's Women in Economics Workshop and the Stanford University Graduate School of Business Rising Scholars Conference in 2020. The project has resulted in a working paper that we plan to submit to a journal this year.

III. Why I would like to attend the 2021 NBER Entrepreneurship Research Boot Camp

The second research project with Dr. Ina Ganguli is with the MIT-Lemelson (LMIT) center examines if outreach increases women's interest in innovation development programs and how gender and team composition correlate with type of inventions. contributes to the research on professional and social networks' impact on women participating in the innovation process.

Currently, I work as a research assistant at the Center for Critical Race and Digital Studies. This four year study, funded by the Kauffman Foundation, investigates technology utilization and innovative activity of business by race of the business owner. Our research methodology uses meta-narrative literature review (Wong et. al , 2013) and statistical analysis of group differences. We will conduct thematic analysis to identify and analyze themes of current academic literature of racial equity in entrepreneurship. We are developing theoretical perspectives to identify perspectives that are missing from the existing body of literature. This research project will be developed into a foundational research working paper on racial equity in technology focused entrepreneurship.

Future Research. My dissertation research explores the sources and consequences of exclusion from innovative capital on the basis of race and gender and how that contributes to differences in wealth and earnings. My dissertation topic combines my interest in motivations to pursue innovation and entrepreneurship and the institutional structures that hinder successful participation from underrepresented groups. My analytic framework will combine the theory of segmented labor markets with stratification economics. I will use empirical methodology to examine the existing structures of racial and gender differences in and access to intellectual property in cities with and without tech clusters, or MSAs distinguished by a high concentration of patenting (Kerr et. al, 2020). I would focus on industries that are innovative and have long term economic growth such as renewable energy, healthcare, and technology. The boot camp would help me expand my knowledge of various research methodology and literature in the field that would contribute significantly to my dissertation writing and future research.

UNIVERSITY OF MASSACHUSETTS
AMHERST

Crotty Hall
412 North Pleasant Street
Amherst, MA 01002-2900

Economics Department

March 24, 2021

Dear Selection Committee:

I would like to highly recommend April Burrage for the NBER Entrepreneurship Research Boot Camp 2021. I have known April since the spring of 2019 and am currently one of her dissertation advisors. We have been working together on two projects focused on ways to increase diversity among inventors and entrepreneurs. She was also a student in my Labor Economics PhD course in the Spring of 2020.

April's dissertation addresses an extremely important topic concerning racial disparities in wealth and employment. She is particularly interested in understanding how differential participation in employment and entrepreneurship in innovative, high growth sectors is contributing to these gaps.

April's proposed dissertation research is exciting as it contributes to an understudied but important question regarding who benefits from the returns to innovative activities and particularly the relationship with racial disparities in earnings and wealth. There is growing attention on these issues in the economics literature and April's work would make a significant contribution to this nascent literature, particularly as she plans to combine careful empirical work with theoretical work on the institutions that have shaped the existing structure of employment and racial disparities across regions.

I am confident that April has the skills and initiative to complete the proposed research successfully, and I believe attending the ERBC this summer will help her make progress on her dissertation research. From my Labor Economics course and other courses in our department, April has a solid foundation in the empirical and theoretical labor literature that her dissertation will be contributing to. In my class, April was one of the most active participants in class discussions and was diligent in mastering the methods and theories we covered.

I have been able to work closely with April for almost 2 years and have observed her careful data analysis skills and her dedication to research and issues of diversity. In one project, April has worked with me and an interdisciplinary team of UMass faculty working as a research assistant on the NSF Innovation Corps (I-Corps) site at UMass, the NSF's entrepreneurial training program for science and engineering faculty and doctoral students. Our research is focused on understanding whether it is possible to bolster diversity and inclusion of women and underrepresented minorities in the program, and more generally in science-based entrepreneurship and commercialization activities by studying which types of messaging can

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diversify student recruitment into the I-Corp program. Using a randomized controlled trial, we have been experimentally testing whether randomly varying the framing of the I-Corp program in outreach emails to potential participants in terms of either an opportunity to use science to tackle a social challenge, or as an opportunity to translate science into business projects, can increase the participation of women and minorities in the program.

In another project that we began more recently, April and I have been working with staff at the Lemelson-MIT Program (L-MIT). We are collaborating on research related to the L-MIT Student Prize, which honors a small number of promising student inventors in the United States each year, to understand how the program's pre-competition efforts to attract applicants can be used to increase diversity in the applicant pool. Again, April has been working on analyzing a variety of datasets and has worked closely with the program staff.

I anticipate that both projects will lead to coauthored papers with our collaborators. For both projects, April had to work with many different data sources that came in many different formats, and she has been able to do this work efficiently and carefully. These experiences will be extremely valuable for her dissertation work, which also involves combining several micro-level datasets. These experiences have also given her very valuable exposure to the real-world issues being discussed about innovation and entrepreneurship policy and efforts to diversify who is involved in these activities.

April is very committed to diversity, in both her research and involvement in other activities on campus. In addition to the focus of her research, she is active in efforts to increase diversity in STEM fields in her extra-curricular activities. For example, she is an active member the UMass Graduate Women in STEM organization, which aims to broaden the participation and increase the retention of women in Science, Technology, Engineering, Mathematics.

I believe she is an excellent candidate for the ERBC and would take full advantage of this unique opportunity. Please do not hesitate to contact me if I can provide additional information. I can be reached by email at iganguli@econs.umass.edu or by phone at 617-230-2045.

Sincerely,



Ina Ganguli
Associate Professor of Economics
Associate Director, Computational Social Science Institute
University of Massachusetts Amherst