NBER Entrepreneurship Research Boot Camp
2016 Application

Rachel Harris
The University of Toronto
Rachel.harris@rotman.utoronto.ca
(416)992-2386
Recommendation letter provided by: Ajay Agrawal

Rachel Harris

416-992-2386 | rachel.harris@rotman.utoronto.ca

EDUCATION

2012-2016 York University
- PhD in Economics — Toronto

2011-2012 York University — Toronto
- Masters in Economics

2007-2011 Wilfrid Laurier University — Waterloo
- Honours economics with a minor in philosophy

RESEARCH EXPERIENCE

The Mariel Boatlift- A Natural Experiment in Low-Skilled Immigration and Innovation *(In progress)* — 2016
- Using the Mariel Boatlift as a natural experiment to test if a large influx of low skilled labour can have positive implications for patenting behavior

ACADEMIC POSITIONS

Teaching Assistant — 2011-present
- Holding office hours and helping students understand course material
- Marking assignments, exams and essays
- Holding tutorials
- Covering lectures

RELEVANT EXPERIENCE

Creative Destruction Lab Associate Director — 2015-present
- Coordinating the entire MBA experience within the lab
- Leading the recruitment process for new ventures
- Ensuring venture and MBA satisfaction with our program

Creative Destruction Lab Fellow — 2014-2015
- Helping to mark MBA assignments
- Setting up ventures with chief economists
- Organizing a North American tour for alumni ventures to meet with VCs

Research Assistant — Summer of 2012 & 2014
- Assisting a professor with data collection

COURSES

York University — 2012-present
- Advanced Econometric Theory 1
- Topics in Macroeconomic Theory

- Microeconomics Theory
- Advanced Econometric Theory 2
- Advanced Macroeconomic Theory
- Topics in Microeconomics Theory
- Advanced Topics: Microeconomic Research
- Advanced Topics: Macroeconomic Research
- PhD Research Seminar

University of Toronto 2014-present

- Strategy Research Methods
- Economics of Innovation
- Corporate Strategy

CONFERENCES

May 2015 The Organisation, Economics and Policy of, Scientific Research Torino, Italy

- The Mariel Boatlift- A Natural Experiment in Low-Skilled Immigration and Innovation

November 2015 Roundtable for Engineering Entrepreneurship Research Atlanta, GA

- The Mariel Boatlift- A Natural Experiment in Low-Skilled Immigration and Innovation

January 2016 DRUID Academy Conference for PhD Students Bordeaux, France

- The Mariel Boatlift- A Natural Experiment in Low-Skilled Immigration and Innovation *(note: I was invited but did not get to participate due to an injury)*

Why I Would Like to Attend the NBER Boot Camp

My name is Rachel Harris and I am currently in the fourth year of my PhD in Strategy at the University of Toronto, with a specialization in entrepreneurship and innovation. However, entrepreneurship is much more than a research topic for me.

Through my work as the associate director at the Creative Destruction Lab, I have gained a love and appreciation for all things innovative and the young people driving these ideas. I believe that this provides me with a very unique perspective. I am not only able to identify the problems that these entrepreneurs face that prevent them from scaling, but I also have the potential to address this in my research.

The first project that I am working on involves taking advantage of my position at The Creative Destruction Lab to collect data from our pre-seed ventures. Along with two well respected professors, we are in the process of collecting all available data from the last 4 years that the lab has offered this program. Once collected, I believe that we will have the only comprehensive data on a set of pre-seed ventures. This unique data set will allow us to investigate many issues that were previously unattainable.

In addition, I am currently in the final stages of is exploring a link between low-skilled immigration and innovation. My paper finds that shocks of low-skilled immigration indirectly cause individual inventors to increase their patenting behavior on the intensive margin. The mechanism I argue for is the following: low-skilled immigrants cause the wage among low-skilled workers to drop, this makes these low-skilled workers more hirable and individual inventors thus hire them to do domestic type support work around the house (for example, taking care of children, house cleaning, gardening, etc.). This allows these individual inventors to substitute away from tasks that they are not well suited for and allows them to spend more time inventing and thus, producing more patents. This result is fairly counter intuitive but I hope it provokes more research on this link.

Finally, I have recently become interested in machine learning, and how it is changing the world. For one of my next projects, I would like to start investigating which industries are adopting this new technology, which firms within these industries are more likely to adopt this technology, how machine learning is changing their business, and finally, as the algorithm learns from existing data, how is this affecting firms. The three projects I have described are the ones that are currently on the go, however, I am always on the lookout for the next big question.

Recently, I attended the NBER Digitization boot camp and I cannot express how great of an experience this was for me. For me, the most meaningful thing that I got out of this was meeting 50 other PhD students in the digitization field. Meeting these students from all over North America was truly inspiring and motivating. Post

meeting, I even set up a group for all of us to join in order for us to easily contact each other in the future.

Attending the digitization boot camp has made me realize how important these workshops are. To not only meet the leaders in the field but to meet the *future* leaders in this field. Since, I am especially interested in innovation and entrepreneurship, I am desperate to go to the entrepreneurship boot camp. I believe that my unique experiences working with entrepreneurs every single day, will allow me to benefit all students in the workshop by providing comments to existing papers, provoking new ideas for future papers and validating new ideas with anecdotes and existing trends.

In closing, I ask that you please consider me as one of the 2016 NBER Entrepreneurship Research participants as I think that including me would not only benefit my own research but would also allow me to help others.

Thank you for your consideration,

Rachel Harris

March 28, 2016

Re: Recommendation Letter for **Rachel Harris** - NBER Entrepreneurship Research Boot Camp

Dear Selection Committee,

I am writing in support of Rachel Harris' application to participate in the ERBC. I am the Peter Munk Professor of Entrepreneurship at the University of Toronto's Rotman School of Management, a Research Associate at NBER, and delivered a seminar on the geography of entrepreneurship at the ERBC for the past few years. I have known Rachel since she approached me for feedback on her dissertation research in June 2014. Her performance as a doctoral student has been strong in all dimensions so far. As her academic supervisor, I am happy to provide a reference for her application to the ERBC. Rachel is an excellent candidate for the summer boot camp.

Rachel's current research examines the impact of low-skilled immigration on entrepreneurial innovation as measured by the generation of patents not assigned to corporations. She exploits a sudden and unexpected surge in low-skilled labor as a source of exogenous variation to examine this relationship. Specifically, she utilizes the Mariel Boatlift – an unauthorized migration of 125,000 Cubans to South Florida in 1980 – as a natural experiment. She employs a difference-in-differences empirical strategy comparing patents per capita produced in Florida compared to other states in the period before and after the immigration shock. She reports that Florida experienced a significant jump in entrepreneurial innovation relative to other states after the shock. She posits that the effect is due to entrepreneurial inventors hiring immigrants to do housework and child care so that they can substitute away from domestic chores and spend more time inventing. She reports that the effect observed in Florida is on the intensive rather than extensive margin (prior inventors doing more inventing rather than an increase in the overall set of inventors) as well as other evidence that is consistent with her interpretation. I was surprised at the magnitude of the effect she estimates and that the results are reasonably robust to a wide range of tests. This is a creative and well-executed empirical paper that will make a meaningful contribution to the entrepreneurship, innovation, and labour market literatures. Rachel was invited to present this work at the LEI-BRICK Workshop "The Organization, Economics, and Policy of Scientific Research" in Italy as well as at the REER conference at Georgia Tech last year.

Overall, Rachel is a hard worker and a high potential young scholar who I believe will benefit greatly from the opportunity to participate in this year's ERBC. Furthermore, Rachel is friendly, generous, and genuinely interested in entrepreneurship as evidenced by her outstanding contributions to our applied entrepreneurship program at the Creative Destruction Lab. Due to her extensive work with entrepreneurs and investors at the Lab, she is unusually knowledgeable about how entrepreneurship actually works, which, along with her proficiency as a skilled econometrician, is a powerful combination for a bright future in this field. She will make a significant contribution to the intellectual and collegial atmosphere typical of this annual gathering. Thank you for considering her application.

Sincerely,

Ajay K. Agrawal
Peter Munk Professor of Entrepreneurship
Rotman School of Management
University of Toronto and NBER
105 St. George St., Toronto, Ontario, M5S 3E6
Voice: +1.416.946.0203
ajay@agrawal.ca
http://www.rotman.utoronto.ca/Ajay.Agrawal/