Harvard Business School

FROM: Haiyang Zhang

Harvard Business School
700 Soldiers Filed Road
Boston MA 02163

February 10, 2026

Dear Professors Ben Jones and Heidi Williams,

Thank you for organizing the NBER Innovation Research Boot Camp 2026. I am a doctoral candidate at Harvard Business School, preparing for the upcoming 2026-27 job market.

Please find my contact information below:

Applicant: **Haiyang Zhang**

Email: hzhang@hbs.edu

Institution: Harvard Business School

Phone: 215-824-9400

Letter writer: **Shane Greenstein**

Email: sgreenstein@hbs.edu

Institution: Harvard Business School

Sincerely,

Haiyang Zhang

Haiyang Zhang

Updated February 10, 2026

hzhang@hbs.edu || Boston, MA || haiyangzhang.org

RESEARCH INTERESTS

Corporate Strategy, Competitive Strategy

EDUCATION

Harvard Business School — Cambridge, MA
PhD, Strategy — 2022 –

Harvard Kennedy School — Cambridge, MA
MPA/ID — 2016 – 2018

Columbia University — New York, NY
MA in Economics — 2015 – 2016

University of Virginia — Charlottesville, VA
BA in Philosophy Politics and Economics (Distinction) — 2009 – 2013

DISSERTATION

Beyond Price: Essays on Competition and Entry in Foundational Markets

- WMDRG **Dissertation Award** by Strategy Research Foundation of the Strategic Management Society (SMS) 2026
- Chapter 1. **Best Paper** Designation at AOM Annual Meeting 2025

COMMITTEE

Juan Alcácer, Shane Greenstein, Dennis Yao, Maria Roche, Arkadiy Sakhartov, Jay Barney

WORKING PAPERS

[1] **Haiyang Zhang**. "Strategic Focus, Innovation, and Productivity: Evidence from the U.S. Power Generation Sector." Job market paper.

[2] **Haiyang Zhang**, Jay Barney. "Sustained Advantage Without Barriers to Entry or Costly to Imitate Resources and Capabilities: The Role of Invisible Markets." Preparing for submission.

[3] **Haiyang Zhang**, Shane Greenstein, Roberto Fontana, Do Yoon Kim. "Regulatory Reform and Market Evolution in the Spectrum Commons." Working paper in draft.

[4] **Haiyang Zhang**. "When the Storm Hits: Climate Shocks and Multi-Unit Firm Location Strategy." Data collection and analysis.

[5] **Haiyang Zhang**, Aticus Peterson, and Andy Wu. "Entrepreneurial Projection Strategy." Under review.

[6] **Haiyang Zhang**, Scott Counts. "Entrepreneurship and AI: Evidence from GPT-Powered Bing." Under Microsoft Research internal review.

[7] **Haiyang Zhang**. "Incorporating Google Trends Data in Predicting Consumer Confidence." Working paper available online.

OTHER PUBLICATIONS

Shelley Stewart III, Michael Chui, James Manyika, JP Julien, Dame Vivian

Hunt, Bob Sternfels, Jonathan Woetzel, and **Haiyang Zhang**. "Economic State of Black America." McKinsey & Company, June 2021.

Haiyang Zhang. "Cross-Country GDP Comparison: Purchasing Power Parity Sexennial Update." The Financial Times (FT), June 2020.

Marion Laboure, **Haiyang Zhang**, and Juergen Braunstein. "The Rise of Silicon China." Project Syndicate, April 2018.

Haiyang Zhang. "The Low U.S. Unemployment Should Not Be Celebrated." Harvard Kennedy School Review, August 2017.

Haiyang Zhang. "U.S. Manufacturing Jobs Are Not Coming Back." Harvard Kennedy School Review, February 2017.

PRESENTATIONS

2026: IIOC* (Boston, MA)
2025: SMS Annual Conference (San Franscico, CA)
AOM Annual Conference (Copenhagen, Denmark)
2024: Strategy Science Annual Conference (Ann Arbor, MI)
DRUID (Nice, France)
SMS Annual Conference (Istanbul, Turkey)
2023: AOM Annual Conference (Boston, MA)
* scheduled

INVITED CONSORTIA & WORKSHOPS

2025: AOM STR Doctoral Consortium (Copenhagen, Denmark)
DRUID PhD Academy (Aalborg, Denmark)
2024: Strategic Management Society (SMS) Doctoral Workshop (Istanbul, Turkey)
2023: Theoretical Organizational Models Society Summer School (Boston, MA)
Wharton Innovation Doctoral Symposium (Philadelphia, PA)

TEACHING

2024, 2025: Instructor for Ec970 Economics of Strategy, Harvard University
2024: Teaching Fellow for Josh Lerner and Shai Berstein (**Doctoral**), HBS
2023: Teaching Fellow for Andy Wu (**MBA**), HBS
2018: Teaching Fellow for Carmen M. Reinhart (**MPP**), Harvard Kennedy School
2018: Teaching Fellow for Laurence H. Summers (**MPP**), Harvard Kennedy School

AWARDS

Strategic Management Society Will Mitchell Dissertation Research Grant, 2026 – 2027
Doctoral Fellowship, Harvard Business School, 2022 – 2027
Frédéric Bastiat Graduate Fellowship, Mercatus Center, 2024
Research Grant, Ash Center for Democratic Governance and Innovation, HKS, 2018
Degree Programs Student Affairs Research Grant, Harvard Kennedy School, 2018
NG Teng Fong Graduate Fellowship, Harvard University, 2016-2018
Harvard International Development Internship Fund, Harvard University, 2017
Research Grant, Mossavar-Rahmani Center for Business & Government, HKS, 2017
Marco Polo Fellowship, Harvard University, 2016-2017
Travel Grant, Central European University, 2016
Pforzheimer Fellowship, Pforzheimer Foundation, 2016
Toyota Scholarship, Toyota Motors Scholarship Fund, 2015

SKILLS	Language: Chinese, Portuguese, English
	Computing: Python, R, Stata, SQL, MATLAB, Colab, TensorFlow
	Data visualization: JavaScript, Tableau
	Other: FAA Private Pilot License
INDUSTRY POSITIONS	McKinsey & Company, Senior Engagement Manager
	McKinsey Global Institute, Author
	Microsoft Research (MSR), Researcher
	World Bank Group, Researcher
	Nodal Exchange, Researcher (Market Design)

Harvard University

Cambridge, Massachusetts 02138

Harvard Kenneth C. Griffin Graduate School of Arts and Sciences

Zhang, Haiyang

HUID: **51244729**

Good Academic Standing

Beginning of Harvard Kenneth C. Griffin Graduate School of Arts and Sciences Record

2022 Fall

Program: Doctor of Philosophy
Subject: Business Administration

Course	Description	Earned	Grade
ECON 2020A	Microeconomic Theory I	4.000	A-
ECON 2110	Econometrics I	4.000	A-
HBSDOC 3000	Reading and Research	4.000	
HBSDOC 4110	The Foundations of Strategy	4.000	A

2023 Spring

Program: Doctor of Philosophy
Subject: Business Administration

Course	Description	Earned	Grade
ECON 2020B	Microeconomic Theory II	4.000	A-
ECON 2726	Theoretical and Empirical Perspective on Entrepreneurship: Economics and Finance	4.000	A
HBSDOC 4430	Field Experiments	4.000	A
HBSDOC 4561	Empirical Studies of Innovation and Digitization	4.000	A
HBSDOC 4913	Advanced Topics in Strategy	4.000	A

2023 Fall

Program: Doctor of Philosophy
Subject: Business Administration

Course	Description	Earned	Grade
HBSDOC 3000	Reading and Research	4.000	
HBSDOC 4070	Design of Field Research Methods	4.000	A
HBSDOC 4115	Analytical Methods for Strategy Research	4.000	A
HBSMBA 2292	War & Peace: The Lessons of History for Strategy, Leadership, Negotiation, Policy, and Humanity	4.000	II

2024 Spring

Program: Doctor of Philosophy
Subject: Business Administration

Course	Description	Earned	Grade
ECON 2727	Empirical Methods in Financial Economics	0.000	INC
HBSD 3000	Reading and Research	4.000	
HBSDOC 4906	Teaching Time	4.000	SAT
HBSDOC 4913	Advanced Topics in Strategy	4.000	A-

2024 Fall

Program: Doctor of Philosophy
Subject: Business Administration

Course	Description	Earned	Grade
ECON 2610	Industrial Organization I	4.000	B+
HBSDOC 3000	Reading and Research	0.000	

2025 Spring

Program: Doctor of Philosophy
Subject: Business Administration

Course	Description	Earned	Grade
ECON 2611	Industrial Organization II		
HBSDOC 3000	Reading and Research		

End of Harvard Kenneth C. Griffin Graduate School of Arts and Sciences Record

UNOFFICIAL TRANSCRIPT

Erika J. McDonald, Registrar

Not official unless signed and sealed

I study innovation and corporate strategy in infrastructure and input sectors like electricity generation, wireless spectrum. My dissertation, *Beyond Price: Essays on Competition and Entry in Foundational Markets*[1], asks how regulation, ownership, and other organizational factors reprice strategic tradeoffs, and examines how entry, competition, and innovation unfold when prices alone do not organize rivalry.

Current research. The first chapter examines how ownership shapes innovation incentives and asset productivity in electricity generation sector. Using high-frequency operational data on over 2,600 generating units matched to two decades of transactions, I find that PE-acquired units improve thermal efficiency by concentrating resources on narrower technology sets, raising returns to operational experience. This reframes learning-by-doing as organizationally contingent: identical experience could yield distinct innovation and productivity outcomes pending organizational factors. The second chapter (with **Shane Greenstein, Roberto Fontana, DY Kim**) examines Federal Communications Commission reforms of its unlicensed spectrum policy. Using near-census of all device authorizations, We challenge the canonical view that liberalization unleashes creative destruction. Lowering regulatory frictions increased entry and product innovation, but incumbency advantages persisted, rooted in accumulated technical sophistication, not regulatory capture. The third chapter (with **Jay Barney**) develops "competitive neglect": profitable opportunities may remain underexploited when misaligned with search heuristics biased toward market growth, innovation intensity, and technological glamour, leaving mature or operationally complex sectors systematically overlooked.

Future research. I aim to extend this work through two related inquiries. First, how does regulatory design shape innovation? The spectrum project raises a broader question: how do regulatory frictions enter the innovation production function by shaping the cost, variance, and time-to-market of new technologies, and thereby the equilibrium rate of entry, experimentation, and diffusion? I am interested in extending this framework to other regulated domains—medical devices, autonomous vehicles, and aviation. Second, how should we measure innovation in sectors where patents miss the action? Infrastructure markets generate value through operational improvement, not patentable invention. I aim to develop measurement approaches, using operational micro-data that capture productivity-enhancing innovation in settings where traditional metrics overlook.

Why NBER Innovation Research Boot Camp. This is my third year—likely my last chance, given the upcoming job market—applying for the Innovation Boot Camp. Shane Greenstein's *Empirical Studies of Innovation and Digitization* course initially introduced me to the innovation field, and I have since sought deeper grounding in the economics of innovation: the design of innovation policy, the measurement of innovation inputs and outputs, and frontier empirical methods. Learning from scholars like Azoulay, Bryan, Jones, Myers, and Williams, whose work on science policy, idea production, and innovation measurement defines the field would help situate my own research. I am ready to contribute my perspective on innovation policy via a strategy lens, and to build lasting connections with scholars pursuing related questions.

[1]The dissertation is supported in part by Strategic Management Society (SMS)'s Will Mitchell Dissertation Research Grant Program, 2026

Harvard Business School

Shane M. Greenstein
he/him/his
Martin Marshall Professor of Business Administration, Technology and Operations Management

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Haiyang Zhang

February 11, 2026

I highly recommend Haiyang Zhang for the 2025 NBER Innovation Boot Camp. I know Haiyang from a Ph. D.-level course, his qualifying exam in technology strategy, and as a co-author of research on Wi-Fi equipment markets. I am well-positioned to attest to Haiyang's research skills, qualifications, and interests. There are several reasons that I am confident Haiyang would greatly benefit from and contribute to the entrepreneurship boot camp this summer.

Haiyang was a top-performing student in my doctoral course, "Empirical Studies of Innovation and Digitization." He excelled in the course, which involves rigorous quantitative analysis of empirical papers to understand the economics and strategic issues central to the study of firm conduct in innovation-intensive industries. He was always prepared for class and eager to contribute to the discussion. He raised interesting and important questions about the papers, demonstrating a deep understanding of the range of discussion topics, methodologically and substantively.

Since successfully passing his qualifying exams, Haiyang has worked with me on a project on the Wi-Fi equipment market. He has helped with the empirical analyses, and I expect the paper to circulate this spring. The focus of his research is technology commercialization. He is in his fourth year and is just beginning to define his research direction, so the camp could be influential.

I recommend Haiyang for the NBER Innovation Boot Camp this summer. He would greatly benefit from the boot camp by joining a larger cohort of rising scholars in the field and from greater exposure to leading scholars and research at the intersection of innovation and economics, which is her area of interest.

Please do not hesitate to contact me should you have any follow-up questions.

Sincerely,

