NBER Entrepreneurship Research Boot Camp

Application Summary

Name: Shuqi Sun

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Address: 411 N Central Ave, Suite 420, Phoenix, AZ 85004

School: Arizona State University

PhD Entry Year: 2024

Expected Completion: 2028

Area of Interest: University-Industry dynamics, Regional Innovation Ecosystems, Economic Geography, Entrepreneurship Strategy, Technology Transfer

Recommender: Dr. Maryann Feldman

Professor, School of Public Affairs

Arizona State University

Maryann.Feldman@asu.edu

Shuqi Sun

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EDUCATION

Ph.D. in Public Administration and Policy, Arizona State University — 2024 - Present

M.S. in Human Geography, East China Normal University — 2024

B.S. in Human Geography and Regional Planning, East China Normal University — 2021

RESEARCH INTERESTS

Economic Geography, Regional Innovation Ecosystem, University and Industry Interaction, Entrepreneurial Strategy, Technology Transfer

PUBLICATION

Liu, C., Sun, S., Piao, J., & Mao, W. (2025). Unveiling the dynamics and determinants of world city network: Insights from global airline data. Cities, 157, 105613.

BOOK CHAPTER

Feldman, M. & Sun, S. Forthcoming. "Cohen-Boyer Redux." In Bringing Medicines to Life: How Intellectual Property Enables Innovation in the Life Sciences (eds. Jonathan M. Barnett & Bowman Heiden, Cambridge University Press, forthcoming 2026).

WORKING PAPERS

"Timing University Entry: Institutional Pressures and Semiconductor Research Adoption" with M. Feldman. Drafting manuscript.

"Funding Composition and Scientific Innovation: How the Diversity and Type of Research Funding Shape Knowledge Creation" with M. Feldman. Analyzing data.

"Silicon Desert: How Arizona's Semiconductor Industry Leverages University Knowledge" with M. Feldman. Analyzing data.

CONFERENCES AND SEMINARS

"Timing University Entry: Institutional Pressures and Semiconductor Research Adoption"
Technology Transfer Society Annual Conference — 2025

"Silicon Desert: How Arizona's Semiconductor Industry Leverages University Knowledge"
Industry Studies Association 2025 Annual Conference — 2025
Atlanta Conference on Science and Innovation Policy — 2025

Research Experiences

School of Public Affairs, Arizona State University

Research Assistant 2024 - Present

- Project: The Evolution and Establishment of the Semiconductor Industry in Arizona
- Principal Investigator: Maryann Feldman

Awards and Scholarships

Outstanding Winner Award, The 8th China International College Students Internet+ Innovation and Entrepreneurship Competition 2022

ECNU Academic Scholarship, East China Normal University 2021-2023

Professional Affiliations

Industry Studies Association (ISA), American Association of Geography (AAG), Atlanta Conference on Science and Innovation Policy (ATLC)

Referee Experiences

Research Policy

Skills and Personal

Programs: Stata, R, Python, SPSS

Languages: English (fluent), Mandarin (native)

References

Professor Maryann Feldman (Advisor)
Arizona State University
Maryann.Feldman@asu.edu

Professor Anthony Howell (Committee)
Arizona State University
Anthony.Howell@asu.edu

List of Current and Completed Ph.D. Courses

Applicant: Shuqi Sun (shuqisun@asu.edu)

Term	Class Code	Class Title
Fall 2024	PAF 602	Advanced Research Design for Public Policy and Management
	PAF 604	Intellectual Foundations of Public Administration
	STP 530	Applied Regression Analysis
Spring 2025	PAF 605	Organization Theory and Behavior Seminar
	PAF 609	Advanced Quantitative Methods Seminar
	STP 533	Applied Multivariate Analysis
Fall 2025	PAF 601	Advanced Public Policy Seminar
	PAF 610	Advanced Qualitative Methods for Public Affairs Research
	STP 517	Causal Inference
Spring 2026	PAF 603	Advanced Economics for Public Administration and Public Policy
	POS 604	Polimetrics II
	PSY 516	Quantitative Analysis II

Research Statement

Coming from a background in economic geography, my research naturally gravitates toward understanding how geographic context shapes the way universities and industries interact within regional innovation ecosystems. I focus specifically on the semiconductor industry, where unprecedented growth—driven by the CHIPS Act, major corporate investments from companies like TSMC and Intel, and surging global demand—is pushing universities to make real strategic decisions about whether and how to engage with a booming local industry. This makes semiconductors an ideal setting for my work: rather than looking back at how these dynamics played out historically, I get to watch universities and firms navigate each other in real time.

I'm developing three interconnected projects. My first project investigates when and where U.S. universities entered semiconductor research. Using a novel dataset linking publication and patent data, I track the temporal evolution and geographic distribution of university entry, including clustering patterns that reveal how semiconductor research concentrated in specific regions over time. I examine whether universities respond to peer institutions through mimetic pressures, comparing the influence of geographically proximate peers—particularly in-state institutions—versus distant national peers, and whether peer status moderates these effects. I also examine how the local presence of semiconductor firms creates additional pressure on nearby universities to enter the field. Together, these questions draw on both institutional theory and economic geography to understand how spatial context conditions university strategic behavior in emerging technology fields.

Second, I'm conducting qualitative fieldwork in Phoenix, interviewing university administrators, industry representatives, and government officials to understand whether university activities actually align with local semiconductor company needs. Most research describes what universities do but rarely evaluates effectiveness. My bilateral approach reveals potential misalignments between university efforts and industry expectations across workforce development, knowledge production, and institutional collaboration.

Third, I'm analyzing how funding shapes scientific knowledge production in semiconductor research. Different funders—government agencies, private corporations, philanthropic organizations—hold fundamentally different priorities. When researchers draw support from multiple sources simultaneously, do these competing pressures stimulate innovation or constrain novelty? Using semiconductor publications from 1951 to 2025, I'm testing whether funding diversity and type influence research novelty, measured through citation patterns and knowledge recombination.

The NBER Entrepreneurship Research Boot Camp would be invaluable for developing this research. The lectures on entrepreneurship research methods and feedback from leading scholars would help me sharpen my theoretical frameworks and strengthen my methodological approaches. I'm particularly interested in learning from faculty whose work addresses university-industry collaboration, technology commercialization, and regional innovation systems. Engaging with scholars like Yael Hochberg, Scott Stern, and Josh Lerner, whose research closely relates to my work, would provide crucial guidance for my dissertation. Additionally, interactions with fellow doctoral students would expose me to new perspectives and research connections I wouldn't discover otherwise.

February 12, 2026

To the NBER Entrepreneurship Research Boot Camp Selection Committee,

I am delighted to offer my strongest recommendation for **Shuqi Sun** for the NBER Entrepreneurship Research Boot Camp. Shuqi is a second-year doctoral student in my research group at Arizona State University's School of Public Affairs. I serve as her dissertation advisor. I have worked closely with her since she entered the program in 2024, and she stands out as one of the most intellectually rigorous, creative, and motivated doctoral students I have advised in recent years.

Shuqi is exceptionally well suited for the NBER Entrepreneurship Research Boot Camp. She brings a rare and valuable combination of training in economic geography and a rapidly developing research agenda squarely focused on entrepreneurship, innovation, and entrepreneurial finance. She earned both her M.S. and B.S. in Human Geography from East China Normal University, where she developed strong quantitative skills in spatial econometrics and network analysis. Her master's thesis analyzed airline networks and urban connectivity using advanced methods such as Temporal Exponential Random Graph Models (TERGM). This background gives her a distinctive analytical lens: she instinctively frames entrepreneurship questions in terms of spatial spillovers, peer effects, clustering, and regional dynamics, precisely the kinds of mechanisms that are central to frontier research in entrepreneurship and innovation.

Since joining ASU, Shuqi has quickly established herself as an ambitious and highly productive scholar. Her dissertation examines how U.S. universities strategically respond to emerging technology sectors, with a particular focus on the semiconductor industry. This research agenda is both timely and consequential given the CHIPS Act and the rapid geographic reorganization of advanced manufacturing and innovation in the United States. Importantly, Shuqi's work goes well beyond descriptive analysis. She has designed a coherent, multi-project dissertation that integrates original data construction, rigorous quantitative methods, and qualitative fieldwork to address core questions about institutional behavior, knowledge production, and industry engagement.

Her first dissertation project analyzes when and where U.S. universities entered semiconductor research, drawing on institutional theory to examine mimetic pressures and peer effects. Shuqi constructed an original dataset by matching patent inventor names to publication author names, allowing her to test whether geographic proximity strengthens peer influence—an elegant and theoretically grounded application of her economic geography training. Her second project is based on in-depth qualitative

fieldwork in the Phoenix metropolitan area, where she interviews university administrators, industry leaders, and government officials to assess whether universities' research strategies align with industry needs in practice. Her third project examines how the composition of research fundinG across government, industry, and philanthropic sources shapes the novelty and direction of semiconductor research, engaging directly with questions at the intersection of entrepreneurship, innovation, and finance.

Shuqi has already demonstrated a strong capacity to produce publishable research. She has a paper forthcoming in Cities on world city networks, has contributing a chapter to an edited volume on intellectual property and life sciences innovation, and has presented her work at conferences including the Technology Transfer Society and the Industry Studies Association. She is disciplined, methodologically sophisticated, and highly receptive to feedback.

In short, Shuqi possesses the technical skills, theoretical sophistication, and intellectual curiosity required to become a leading scholar in entrepreneurship and innovation research. Her work speaks directly to NBER's interests in regional entrepreneurship, university–industry linkages, and the organization of innovative activity. I am confident that she would be an exceptionally engaged participant in the Entrepreneurship Research Boot Camp and that the program would play a pivotal role in accelerating her development as a researcher.

I recommend Shuqi Sun without reservation. Please feel free to contact me if you require any additional information.

Sincerely,

Maryann P. Feldman
Professor, School of Public Affairs
Arizona State University
Maryann.Feldman@asu.edu