Ke Lyu

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Reno, NV 89557
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Academic Information

- **PhD Program Entry Year:** 2020
- **Expected Completion Year:** 2026
- **Research Areas:**
  - Economics of Entrepreneurship
  - Labor Economics
  - Public Economics
  - Health Economics

Faculty Recommendation

- **Recommending Faculty Member:** Frank M. Fossen

January 2025

Ke Lyu

Department of Economics
University of Nevada, Reno

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https://kerrlyu.github.io/

Ph.D. Economics, University of Nevada-Reno, USA, 09/2020-Expected 05/2026

MSc Economics, University of Edinburgh, UK, 09/2018-06/2019

BSc Public Finance, Shandong University of Finance and Economics, China, 09/2014-06/2018

RESEARCH AREAS

Economics of Entrepreneurship, Labor Economics, Public Economics, Health Economics

PUBLICATIONS

Journal Articles

2023 **Lyu, Ke**. (2023). Social capital and self-employment dynamics in China. The Chinese Economy, 56(6), 459–485. https://doi.org/10.1080/10971475.2023.2227028

2024 Liu, X., Jia, X., **Lyu, Ke**, Guo, P., & Shen, J. (2024). The impact of low-carbon city pilot policy on urban energy transition: An analysis of multiple mediating effects based on "government–enterprise–resident". Energy, Ecology and Environment, 1–20. https://doi.org/10.1007/s40974-024-00316-w

2024 Liu, X., Jia, X., **Lyu, Ke**, Guo, P., Shen, J., & Wang, G. (2024). Towards sustainable development: The spatial spillover effects of low-carbon city pilot policy on urban energy transition. Environment, Development and Sustainability, 1–34. https://doi.org/10.1007/s10668-024-04816-x

WORKING PAPERS

Lyu, Ke. (n.d.). From vice to venture: Evaluating the impact of smoking and drinking on self-employment in China

Lyu, Ke & Fossen, F. (n.d.). How do minimum wages affect nonemployer business establishments and transitions in the United States?

Can, E., **Lyu, Ke**, Pham, H., & Yang, J. (n.d.). The effects of 2012 Kansas income tax reform on different types of entrepreneurship: Evidence from the Current Population Survey

Liu, X., Jia, X., & **Lyu, Ke**. (n.d.). Can digital intelligence transformation inspire green innovation in new energy companies?

Liu, X., Jing, C., & **Lyu, Ke**. (n.d.). The impact of green finance on the efficiency of corporate green innovation: A two-stage value chain perspective

WORK IN PROGRESS

Fossen, F., Fairlie, R., Johnston, A., & Lyu, K. (n.d.). The effect of policy on entrepreneurship: Evidence from the universe of U.S. startups

Lyu, K., Song, S., & Zhang, M. (n.d.). Evaluating the impact of China's targeted poverty alleviation program on unincorporated businesses

PRESENTATIONS AT REFEREED CONFERENCES

2025 The 45th Babson College Entrepreneurship Research Conference

2024 The 3rd SBEJ Online Conference for Young Researchers

2024 The 94th SEA Annual Meeting, Washington D.C., USA

2024 The 2nd REGIS Summer School, Madrid, Spain

2023 The 98th Western Economic Association International Annual Conference, San Diego, CA, USA

AWARDS

Awards and Honors

2024 Jack Boland Endowed Scholarship in Economics, University of Nevada, Reno

2023 Professor Emeritus Endowed Scholarship in Economics, University of Nevada, Reno

2023 Graduate Student Association Travel Award, University of Nevada, Reno

2022 Department of Economics Best Second Year Paper Award, University of Nevada, Reno

2022 Nominated for Graduate Dean's Merit Scholarships, University of Nevada, Reno

2020 Ph.D. Graduate Assistantship, University of Nevada, Reno

TEACHING

Primary Lecturer

Summer 2023 ECON 261 Principles of Statistics

Summer 2023 Department Math Camp (for 1^{st} year Ph.D. and Masters)

Spring 2023 ECON 103 Principles of Macroeconomics

Fall 2022 ECON 261 Principles of Statistics

Summer 2022 Department Math Camp (for 1^{st} year Ph.D. and Masters)

Teaching Assistant

Fall 2024 ECON 743 Applied Microeconometric Methods

Spring 2022 ECON 365 Labor Economics

Fall 2021 ECON 702 Advanced Microeconomics

Fall 2021 ECON 261 Principles of Statistics

REVIEWING

Applied Economics, Asian Economic Journal

RESEARCH EXPERIENCE AND ASSISTANTSHIP

08/2022-Present	Team Member in the research project "Which labor market policies affect entrepreneurial job creation in different communities?," sponsored by the Ewing Marion Kauffman Foundation
04/2020-06/2021	Research Assistant in Southern University of Science and Technology, China
09/2019-03/2020	Research Assistant in Chinese Academy of Agricultural Sciences, China

CERTIFICATES

2018	Strategic Professional Certificate, The Association of Chartered Certified Accountants (ACCA)

SKILLS

Programming	STATA, SAS, R, LaTex
Languages	English (Fluent), Mandarin (Native), Korean (Basic)

Research Statement*

Ke Lyu†

January 23, 2025

I conduct research in the field of entrepreneurship, focusing on its intersections with socio-economic challenges. Since beginning my Ph.D. in 2020, my work has centered on two core questions: What drives solo self-employment—opportunity or necessity—across high- and middle-income countries? How can policies promoting self-employment effectively enhance social welfare? Over the past five years, my research has contributed to understanding the nature of entrepreneurship and its policy implications. My findings, rooted in robust econometric methods, have been shared at conferences and invited talks in the United States and China, informing discussions on how empirical evidence can shape effective policy decisions.

Research: Past and Present

My initial research focused on self-employment in middle-income countries, examining how personal characteristics and behaviors influence entrepreneurial dynamics. In my paper, "Social Capital and Self-Employment Dynamics in China," I demonstrated that self-employment in China is often subsistence-driven, with disadvantaged individuals more likely to enter and exit self-employment. This finding is significant for policymakers aiming to transition such entrepreneurship into opportunity-driven ventures. Expanding on these insights, I explored the impact of risky health behaviors on entrepreneurship in my paper, "From Vice to Venture: Evaluating the Impact of Smoking and Drinking on Self-Employment in China." This study highlights that solo self-employment, compared to employer entrepreneurship, is more prevalent among vulnerable groups, who face greater challenges and possess fewer resources. Building on this foundation, I shifted my focus to examining the effectiveness of policies aimed at fostering entrepreneurship while addressing issues of equity and business promotion. In the Chinese context, my research extends to targeted poverty alleviation programs. In my paper "Impact of China's Targeted Poverty Alleviation Program on Unincorporated Businesses" (with Shunfeng Song and Mengfei Zhang), I analyzed how infrastructure investments, microcredit programs, and institutional improvements have increased entrepreneurial opportunities among disadvantaged households. These findings show the transformative potential of precise, well-designed interventions to promote entrepreneurship and reduce inequality.

To further understand the nature of entrepreneurship, I expanded my research to high-income countries, examining contexts such as solo self-employment, unincorporated businesses, and startups. In the paper "How Does Minimum Wage Affect Nonemployer Business Establishments in the United States?" (with Frank M. Fossen), I found that higher minimum wages discourage nonemployer businesses while pushing transitions to wage employment and unemployment. Similarly, "The Effects of 2012 Kansas Income Tax Reform on Different Types of Entrepreneurship" (with Ege Can, Hieu Pham, Jingjing Yang) uncovered how tax reforms reshaped entrepreneurial dynamics, reducing unincorporated self-employment while fostering transitions to incorporated ventures. Additionally, "The Effect of Policy on Entrepreneurship: Evidence from the Universe of U.S. Startups" (with Robert Fairlie, Frank M. Fossen, and Andrew Johnston) employs comprehensive administrative data to analyze how mixed policies, such as taxes, incentives, and labor regulations, shape startup entry and survival across the U.S. Collectively, these studies illuminate how economic policies, tailored to specific contexts, can nurture entrepreneurship while acknowledging its inherent vulnerabilities.

Future Research Agenda

My future research will address critical questions in entrepreneurship, including the role of pandemic relief policies, licensing frameworks, and patenting systems in entrepreneurial resilience. I also plan to expand structural modeling of occupational choice dynamics and investigate the long-term impacts of small grants and microfinance initiatives on entrepreneurship in developing economies. Through this work, I aim to bridge gaps between research and policy, advancing economic resilience and inclusivity.

I am eager to expand my knowledge of topics like corporate finance, job creation, and equity, as highlighted by the speakers at the NBER Entrepreneurship Bootcamp. The bootcamp offers a unique opportunity to engage with cutting-edge research, methodologies, and leading scholars, enabling me to enhance my understanding of entrepreneurship and tackle complex, policy-relevant challenges.

*Submitted to the NBER Entrepreneurship Research Boot Camp 2025

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College of Business
University of Nevada, Reno

February 12, 2025

To: Review Panel for the NBER Entrepreneurship Research Boot Camp 2025

Dear Panel Members:

It is my pleasure to write this letter of recommendation for Ke Lyu to wholeheartedly support her application to participate in the NBER Entrepreneurship Research Boot Camp 2025. I am her Ph.D. advisor. I have been a Professor of Economics at the University of Nevada, Reno, since 2016 (Full Professor since 2022). I met Ke in fall 2020 when she started her Ph.D. studies at UNR. She is easily the best Ph.D. student I have advised at UNR. She also received the Best Second Year Paper Award from the Department of Economics.

Ke Lyu is an emerging labor economist doing very interesting and relevant empirical research in the economics of entrepreneurship. She has already published three papers in journals, has five additional working papers submitted or almost ready for submission, and is working on a number of further promising projects. In this letter, I will briefly comment on one of her published papers and two research projects we are currently working on jointly.

Ke has already published a single-authored paper in the peer-reviewed journal *The Chinese Economy*. This empirical paper examines the effects of social capital on self-employment dynamics in China. Prior literature focused mostly on developed economies, but the role social capital plays in occupational choice in low- and middle-income countries is little researched. By analyzing the effects of various measures of relational, structural, and cognitive social capital on entry into and exit out of self-employment using Chinese survey panel data, she finds that workers with high endowment of social capital avoid self-employment and choose paid employment instead. This is very different from findings for developed countries, where social capital has been shown to facilitate entrepreneurship. Providing further supportive evidence, Ke plausibly interprets the findings as suggesting that self-employment in China is predominantly driven by necessity or subsistence self-employment.

In a current project, we are using novel confidential administrative microdata on the universe of nonemployer and employer startups in the United States provided by the Census Bureau in their Federal Statistical Research Data Centers. Because of Ke's outstanding work, I have hired her as a graduate research assistant for this grant-funded research project entitled "Which labor market policies affect entrepreneurial job creation in different communities?". Ke has played a key role in this project by independently suggesting econometric methods, suitable policies to analyze, and supplemental data for the project. Within this project we are currently working on a co-authored paper with Robert Fairlie (UCLA) and Andrew Johnston (UC Merced).

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In another joint paper, Ke and I are analyzing the effect of minimum wages on nonemployer establishments in the United States, using publicly available data provided by the Census Bureau. A large literature studies how minimum wages affect employment and unemployment, mostly focusing on the labor supply side of the market. In contrast, studies investigating the effects on potential entrepreneurs and their willingness to start businesses and to hire workers are very scarce. We argue that minimum wages change the opportunity costs of self-employment, as minimum wages only cover paid employment. Higher minimum wages can also make it more expensive for entrepreneurs to hire workers. We extend a theoretical occupational choice model to guide our empirical analysis. Combining various data sources, we use the boundary-pair fixed effects method for panel data to analyze the impacts of state-level minimum wage changes on both sides of state borders. We find evidence that minimum wages have adverse effects on nonemployers. While the paper is still work in progress, it is very promising, and I anticipate a lot of interest in this research among economists and entrepreneurship researchers.

Ke is bright, motivated, independent, hardworking, well organized, and she is a great team player. Her accomplishments are even more impressive given obstacles she faces as a female Asian economist. I am convinced Ke will have a significant impact on the economics of entrepreneurship. With her interesting research and enthusiasm, she would contribute greatly to the NBER Entrepreneurship Research Boot Camp. At the same time, she would benefit immensely from participating and from the opportunity to exchange ideas and to network. The Boot Camp would be very valuable to prepare her further for her desired academic career. She is planning to go on the academic job market in the 2025/26 season and to graduate in spring 2026.

In sum, I highly recommend Ke for the NBER Entrepreneurship Research Boot Camp 2025. Please do not hesitate to contact me if you have any questions.

Sincerely,



Frank M. Fossen
Professor of Economics and
Charles N. Mathewson Professor in Entrepreneurship