Ke Lyu

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The National Judicial College Office 118B
Reno, NV 89557
University: University of Nevada, Reno

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: Robert Fairlie (UCLA)**

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

COMPLETED PHD COURSES

Advanced Macroeconomics, Advanced Microeconomics, Econometrics, Public Economics, Applied Microeconometrics Methods, Applied Econometrics, Empirical Public Economics, Economics of Entrepreneurship, Economics of Health Care

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 30, 2025

My research examines the intersection of entrepreneurship, innovation, and public policy, focusing on how economic and institutional environments influence business creation and innovation. Since beginning my Ph.D. in 2020, my work has addressed key questions: How do regulatory frameworks and policy incentives influence the quality and not just the quantity of entrepreneurship? What systemic barriers prevent subsistence entrepreneurs from transitioning to innovation-driven ventures? I provide empirical insights into the dynamics of self-employment and startup formation, particularly under varying policy frameworks.

Research: Past and Present

Entrepreneurship is a primary driver of innovation, yet its potential is often curtailed by institutional constraints. My early research in middle-income countries analyzed how personal characteristics and policy environments impact business formation. In "Social Capital and Self-Employment Dynamics in China,"I demonstrate that disadvantaged populations disproportionately engage in subsistence entrepreneurship, highlighting the need for policies that foster opportunity-driven ventures. Building on this, "From Vice to Venture: Evaluating the Impact of Smoking and Drinking on Self-Employment in China" identifies health behaviors as understudied barriers to entrepreneurial success, suggesting integrated health-economic policies could enhance outcomes.

Expanding my focus to high-income countries, I explored how specific policies affect entrepreneurial activities. For example, "How Does Minimum Wage Affect Nonemployer Business Establishments in the United States?" with Frank M. Fossen showed that higher minimum wages might discourage independent entrepreneurial efforts by increasing labor costs, pushing individuals towards traditional employment. Additionally, "The Effects of 2012 Kansas Income Tax Reform on Different Types of Entrepreneurship," co-authored with Ege Can, Hieu Pham, and Jingjing Yang, revealed that tax reforms can shift activities from unincorporated to incorporated forms, fostering more structured entrepreneurial ventures. Moreover, my collaborative research in "The Effect of Policy on Entrepreneurship: Evidence from the Universe of U.S. Startups," with Robert Fairlie, Frank M. Fossen, and Andrew Johnston, used comprehensive data to analyze how taxes, incentives, and regulations collectively influence startup activities across the U.S. This work highlights the critical importance of employing innovative and data-driven policy approaches to cultivate a thriving entrepreneurial ecosystem.

Future Research Agenda

My future research will explore the role of technological innovation and policy incentives in fostering entrepreneurship and economic growth. Key areas of focus will include the impact of intellectual property rights and patent reforms on startup creation and firm growth, the role of government subsidies and tax incentives such as R&D tax credits in promoting R&D investment among small businesses and startups, and the long-term impact of AI and automation on occupational choice and the transition to self-employment.

Attending the NBER Innovation Boot Camp would be beneficial for my research career. My research to date has primarily focused on subsistence-driven entrepreneurship, and I am eager to deepen my understanding of the innovation side of entrepreneurship. As a researcher specializing in the economics of entrepreneurship, I can offer valuable insights into how entrepreneurship and innovation interact, especially within various economic policy frameworks. My goal is to integrate these insights into my research, providing evidence-based recommendations that support innovation-led economic growth. This boot camp represents a unique opportunity to enhance my knowledge and research capabilities, aligning with my aim to contribute to effective policy making that fosters substantial and sustainable economic development.

*Submitted to the NBER Innovation Research Boot Camp 2025

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Luskin School
UCLA

January 30, 2025

I am writing a letter of recommendation for Ke Lyu who is applying for the 2025 Summer Innovation Boot Camp. To start, I think that Ke is an excellent candidate for the summer program. For her dissertation, she is working on several empirical projects involving large datasets and pressing policy questions in entrepreneurship. She also has considerable experience working with faculty on research projects before starting her own dissertation project.

Ke has embarked on an ambitious dissertation project on entrepreneurship and policy. Personally, this is the most ambitious and complicated dissertation project that I have seen in many years. I have been extremely impressed with her interest and enthusiasm for the topic. Each of the three parts to her dissertation take on a different challenging topic with entrepreneurship, business ownership, policy, and inequality. I should also note that there is very little research on the topic of entrepreneurship and demographics even given the importance for job creation and economic inequality.

Ke is proposing to work with the Nonemployer Statistics by Demographics (NES-D) microdata. This is a new dataset that thus far has only been used by a few Census researchers. Using these Census administrative microdata she plans on examining the impact of several policies such as the minimum wage, paid family and medical leave, tax deduction policies, and Medicaid expansion on nonemployer business outcomes. She will examine whether these policies have differential impacts on nonemployer business owners of color. This is novel work because the data have only recently become available. Earlier work has relied on survey data with limited samples sizes for minority groups to explore questions about racial inequality. The NES-D data provide the first comprehensive administrative data on the race of owners. This is very exciting and likely lead to a tremendous among of new research. Ke could be one of the first movers on this broad and important topic.

One thing that I'm especially impressed by Ke is that she is not a narrowly trained applied micro-economist focusing on one question or applying the same identification strategy to different topics (which has become popular for econ PhDs). Instead she is tackling several different questions using different datasets and empirical approaches. She is broadly interested in entrepreneurship, but at the same time has been well trained in causal inference techniques and econometrics. She will undoubtedly conduct more research on inequality questions around business ownership and entrepreneurship. I have no doubt that Ke will ultimately make important contributions in this important area of research and policy.

In summary, I believe that Ke is conducting excellent research on very important topics and will continue to be extremely productive in her career. I recommend her highly for the summer program. She has considerable experience working with large datasets, and has excellent skills and previous work experience working with a broad group of researchers. Her proposed research project with the new NES-D data is something truly novel and unique.

Please let me know if you need any additional information and do not hesitate to contact me.
Sincerely,



Robert W. Fairlie
Chair and Professor of Public Policy and Economics
rfairlie@ucla.edu