

Yuan Hu

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EDUCATION

2018 – to date	Imperial College London Ph.D. Economics, Business School
2015 – 2017	London School of Economics M.Sc. Economics (two-year programme)
2011 – 2015	Peking University Bachelor in Economics, The National School of Development Bachelor in Korean Language and Culture, The School of Foreign Languages

REFERENCES

Jonathan Haskel

Department of Economics & Public Policy
Imperial College Business School
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Esther Boler

Department of Economics & Public Policy
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Ralf Martin

Department of Economics & Public Policy
Imperial College Business School
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Saul Estrin

Department of Management
London School of Economics
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RESEARCH INTERESTS

Economics of Innovation, Environmental Economics, Green Innovation and Sustainability, Development Economics

JOB MARKET PAPER

Green Technological Change After Natural Disasters: Evidence from Hurricane Katrina

Media Coverage: CEPR VoxEU Talk – The next generation: PSE 2024 (<https://cepr.org/multimedia/next-generation-pse-2024>)

Abstract: Climate change leads to more destructive natural disasters, particularly hurricanes, which can significantly disrupt knowledge production. This paper studies the effects of Hurricane Katrina — one of the costliest and deadliest storms in U.S. history — on inventors' innovation outcomes, including green innovation which helps combat climate change. Using hazard and patent data for U.S. inventors in a difference-in-differences design, I find that Katrina reduced inventors' production of green patents, while non-green patents were unaffected. Specifically, affected inventors could have

produced an additional 0.220 green patents following the storm, i.e., a potential 415 percent increase, had Katrina not occurred. The negative effects are driven by the greater distance in technological expertise (knowledge diversity) among collaborators in green innovation teams, making it harder to substitute for affected inventors and continue their technological tasks. These findings suggest that climate change can disrupt human efforts aimed at addressing its impact, particularly through natural disasters and that knowledge diversity can compromise the resilience of technological development when faced with disruptions.

WORKING PAPERS

[1] Agglomeration Costs Limit Sustainable Innovation in Cities in Developing Economies (with Saul Estrin, Daniel Shapiro and Peng Zhang), accepted *PLOS One*

[2] Exporting Modes as Learning Strategies of African Firms: The Moderating Effect of Absorptive Capacity (with Saul Estrin and Lilac Nachum), under second review *Journal of Management Studies*

WORK IN PROGRESS

[1] Path Dependency for Inventors? Evidence from Green vs Non-Green Innovation

[2] Individualism and Green Innovation (with Saul Estrin)

SEMINARS, WORKSHOPS AND CONFERENCES

2024	LSE PRINZ/POID seminar (scheduled), PSE-CEPR Policy Forum 2024 (Organized by Esther Duflo), Columbia University Ph.D. Workshop in Sustainable Development, Tenth ZEW/MaCCI Conference on the Economics of Innovation and Patenting, Naples School of Economics: 3rd PhD and Post-Doctoral Workshop, AOM The Organisation of Science PDW, AOM Technology and Innovation Management (TIM) Division Doctoral Student Consortium, AOM Strategic Management (STR) Division Dissertation Consortium: The Job Market and Beyond, DRUID24, 13th Oxford Residence Week for Entrepreneurship Scholars;
2023	12th Oxford Residence Week for Entrepreneurship Scholars, Imperial College Business School Economics & Public Policy Department Internal Seminar, Essex Paper Development Workshop for Early Career Scholars on Innovation, Technology and R&D Management;
2022	NBER Entrepreneurship Research Boot Camp, NBER Summer Institute Entrepreneurship, 11th Oxford Residence Week for Entrepreneurship Scholars;
2021	PhD Research Day in Strategy, Entrepreneurship and Innovation organised jointly by The Business School, City, London Business School and Imperial College Business School;
2020	American Economic Association (AEA) Annual Meeting

RESEARCH ASSISTANT

2017 – to date **London School of Economics**
Prof. Saul Estrin

TEACHING ASSISTANT

2022 – 2023 **Imperial College Business School**
Dr. Sam Asher
Analytics for Applied Economics and Business (MSc Level)

2021 – 2022 **Imperial College Business School**
Prof. Ralf Martin
Analytics for Applied Economics and Business (MSc Level)

PROFESSIONAL SERVICE

2023 – to date Oxford Residence Week for Entrepreneurship Scholars
Assistant to organisers Prof. Saul Estrin, Prof. Maryann Feldman and Prof. Janet Bercovitz

HONOURS AND SCHOLARSHIPS

2018 – to date **Imperial College Business School**
Graduate Teaching Assistant Scholarship

2014 **Peking University**
Hana Financial Group Scholarship
2013 National Scholarship from The Ministry of Education of China

LANGUAGES

Chinese (native), English (fluent), Korean (fluent), German (basic)

IT SKILLS

Stata, R, Matlab, Python, L^AT_EX, Microsoft Office