

Minhong Xu

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EDUCATION

Ph.D. in Agricultural and Consumer Economics

University of Illinois at Urbana-Champaign, IL, USA, 2018 (expected)

Dissertation: “The Socioeconomic Consequences of the U.S. Fracking Boom”

M.S. in Economics, Tufts University, MA, USA, 2013

B.S. Logistics Management, Nankai University, Tianjin, China, 2011

RESEARCH FIELDS

Primary: Environmental and Natural Resource Economics

Secondary: Regional and Urban Economics, Real Estate Economics

PUBLICATIONS

Xu, M., and Y. Xu, 2017. “Environmental Hazards and Mortgage Credit Risk: Evidence from Texas Pipeline Incidents.” *Real Estate Economics*, *forthcoming*

- Applied Consumer Economics Award, American Council for Consumer Interests, 2017
- NARSC Graduate Student-Led Paper Competition Runner-Up, 2016

Huang, J., and **M. Xu**, 2012. “Domestic Transport Costs and Export Modes in China.” *The Journal of World Economy*. 1: 58-77. (*In Chinese*)

WORKING PAPERS

Xu, M., and Y. Xu, “Fraccidents: The Fracking Impact on Road Traffic Deaths in North Dakota.” (**Job Market Paper**)

Xu, M., Y. Xu, and M. Khanna, “Fracking and Wastewater Production.” Previously circulated as “Does Shale Gas Production Increase Water Use in the Mining Sector? A Panel Data Approach.”

- NARSC Graduate Student-Led Paper Competition Runner-Up, 2015

WORK IN PROGRESS

Xu, M., C. Miller, and Y. Xu, “Pipeline Hazards and Residential Property Values: A Hedonic Approach.”

TEACHING AND RESEARCH EXPERIENCE

Teaching Assistant, Department of ACE, University of Illinois, IL

- ACE 240: Personal Financial Planning, Spring 2017 and Fall 2014
- *Taught weekly tutorials; held office hours; teaching evaluation score: 4.2/5*

Research Assistant, Department of ACE, University of Illinois, IL

- “Household Finance and Home Purchase Project” (NIFA, USDA, #ILLU-470-367, PI: Yilan Xu), Fall 2014, Fall 2015, Fall 2016, Fall 2017
- *Conducted data analysis; reviewed literature; prepared manuscripts*

Research Assistant, National Bureau of Economic Research (NBER), MA

- “Can Personality Help Explain Asset Decumulation Behavior?” (RRC08098400, NB16-08, Project leader: Jeffrey R. Brown), Spring 2016
- “Personality Traits and Lifelong Financial Security” (RRC08098400, NB15-03, Project leader: Jeffrey R. Brown), Spring 2015
- *Conducted data analysis; reviewed literature; prepared manuscripts*

Research Assistant, Department of Economics, Tufts University, MA, 2012-2013

- *Collected and cleaned data; conducted data analysis*

HONORS AND AWARDS

Applied Consumer Economics Award, American Council for Consumer Interests, 2017

Runner-Up, NARSC Graduate Student-Led Paper Competition, 2016

Runner-Up, NARSC Graduate Student-Led Paper Competition, 2015

ACES Graduate College Conference Travel Award, University of Illinois, 2015, 2016, & 2017

ACE Second Year Paper Examination Passed with Distinction, University of Illinois, 2015

Dorothy Fay Dunn and Leah Dunn Linse Fellowship, University of Illinois, 2013-2014

CONFERENCE AND SEMINAR PRESENTATIONS

“Fraccidents: The Fracking Impact on Road Traffic Deaths in North Dakota.”

- NARSC Annual Conference, *Vancouver, Canada, Nov. 2017*
- The Program for Environmental and Resource Economics Workshop, *U of I, Oct. 2017*
- Heartland Environmental and Resource Economics Workshop, *U of I, Sep. 2017*

“Environmental Hazards and Mortgage Credit Risk: Evidence from Texas Pipeline Incidents.”

- AAEA Annual Meeting, *Chicago, IL, Aug. 2017*
- AREUEA National Conference, *Washington, DC, Jun. 2017*
- Urban Economics Association European Meeting, *Copenhagen, Denmark, May 2017*
- American Council for Consumer Interests Annual Conference, *Albuquerque, NM, Apr. 2017*
- NARSC Annual Conference, *Minneapolis, MN, Nov. 2016*
- The Program for Environmental and Resource Economics Workshop, *U of I, Sep. 2016*

“Does Shale Gas Production Increase Water Use in the Mining Sector? A Panel Data Approach.”

- AAEA Annual Meeting, *Boston, MA, Aug. 2016*
- AERE Annual Conference, *Breckenridge, CO, Jun. 2016*
- Regional Economics Applications Laboratory, *U of I, Feb. 2016*
- NARSC Annual Conference, *Portland, OR, Nov. 2015*
- The Program for Environmental and Resource Economics Workshop, *U of I, Nov. 2015*
- Institute for Sustainability, Energy and Environment Annual Conference, *U of I, Sep. 2015*

“Pipeline Hazards and Residential Property Values: A Hedonic Approach.”

- NARSC Annual Conference, *Minneapolis, MN, Nov. 2016*

REFERENCES

Yilan Xu (Chair and Advisor)

Assistant Professor

Department of ACE

University of Illinois at Urbana-Champaign

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Madhu Khanna

Professor

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Department of Economics

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ADDITIONAL INFORMATION

Languages: **Mandarin** (Native), **English** (Fluent)

Computer skills: **Stata**, **R**, **ArcGIS**, **GeoDa**, **L^AT_EX**, **MATLAB**

AFFILIATIONS

Member, Agricultural and Applied Economics Association (AAEA), Association of Environmental and Resource Economists (AERE), American Real Estate and Urban Economics Association (AREUEA), North American Regional Science Council (NARSC)

PAPER ABSTRACTS

“Fraccidents: The Fracking Impact on Road Traffic Deaths in North Dakota”, with Yilan Xu (Job Market Paper)

This paper examines the effects of fracking-related truck traffic on fatal auto-vehicle crashes using evidence from North Dakota. We exploit temporal variations in the intensity of drilling, fracking, and production activities within a road segment where well operations occur nearby to identify the traffic impact of heavy trucks in each phase. Estimation results of a fixed-effect Poisson model show that within six miles of a road segment every one more fracking well in the previous month increased the count of large-truck involved crashes by 7.5% but did not affect the non-truck crashes. We show that well operations in the post-fracking phase affected not only the count but also the severity of the crashes, which is inferred to be caused by the intense truck trips to collect wastewater after fracking. Risky driving behaviors did not explain the surge in traffic deaths. (JEL: O18; Q33; R41.)

“Environmental Hazards and Mortgage Credit Risk: Evidence from Texas Pipeline Incidents”, with Yilan Xu, forthcoming in *Real Estate Economics*

This study examines the effects of pipeline hazards on credit access using evidence from the 2005-2011 home mortgage loans in Texas. Difference-in-difference analyses show a permanently lower origination rate by 1.9% in the pipeline-present areas compared to the pipeline-free areas, which was further enlarged by 1.8% whenever pipeline incidents happened. Evidence suggests that the permanent difference in credit access reflects lenders' concerns about collateral value and borrowers' repayment ability. The elevated post-incident risk perceptions indicate lenders' aversion to environmental liabilities. Lenders' risk management strategies differed by borrowers' income and evolved with the tightening of the securitization market. (JEL: G11; G21; Q5.)

“Fracking and Wastewater Production”, with Yilan Xu and Madhu Khanna

Wastewater treatment has challenged oil and gas operators by its sheer volume and the potential environmental hazards. This study examines how the technological breakthroughs in fracking and horizontal drilling have affected wastewater production of the industry using a 2003-2016 national panel of wells. We find that on average an unconventional well, i.e., a horizontal well on shale formation, has produced more wastewater than a conventional one by 3% since 2008 with the difference increasing over time and peaking at 23% in 2014. A lifespan analysis shows that unconventional wells produce a higher volume of wastewater in the initial stage yet the cumulative wastewater becomes lower than that of conventional wells after the first eight years of production. (JEL: Q25; Q33; R11.)

“Pipeline Hazards and Residential Property Values: A Hedonic Approach”, with Cristina Miller and Yilan Xu

Suburban encroachment on the existing pipeline network and the aging of pipeline infrastructure has the potential to result in environmental hazards due to pipeline incidents. This paper exploits both temporal and spatial variation in pipeline incidents to investigate their impact on residential property values in rural Texas between 2005 and 2015. We construct a matched sample of sales from different dates using the propensity scores calculated based on housing amenities and location characteristics. We then use a difference-in-difference method to estimate housing buyers' marginal willingness to pay for distance from pipelines before and after the incidents. (JEL: O18; Q51.)