

TIANHANG GAO

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EDUCATION

- Ph.D.** Econometric and Quantitative Economics (STEM)
University of Delaware, Newark DE, USA May 2019 (expected)
Dissertation Committee: Joshua Duke, Michael Arnold, George Parsons, Robert Johnston
- M.Sc.** Agricultural and Resource Economics, University of Delaware May 2014
Advisor: Joshua M. Duke
- B.Sc.** Marine Economics, Ocean University of China, China May 2012

FIELD OF INTEREST

Environmental Economics, Land Economics, Experiment Economics, Behavior Economics

RESEARCH EXPERIENCE

Dissertation, “Three Essays on Heterogeneity and Asymmetric Information in Land Economics”

- “Discovering the Effect of Land Value Taxation on Sprawl through Laboratory Experiments” (**Job Market Paper**)
This research seeks to use economic experiments to create knowledge about the political economy of land value taxation (LVT). The experiment tests a land maker model with heterogeneous types wherein LVT outperforms uniform property taxation (UPT) in terms of social efficiency and sprawl reduction. The experiment also builds treatments in which participants can vote for their preferred tax institution. In some treatments, votes are preceded by variously framed, cheap-talk nudges that promote the advantages of LVT. Most results match predictions in that the types tend to vote with their induced values and LVT maintains a consistent efficiency and sprawl-reduction advantage relative to UPT. The most surprising results involve the situations where the nudges impact voting patterns. The nudges fail to promote systematically more votes for LVT when the majority of types “win” from UPT; however, LVT attains an unexpectedly large majority when the type distribution only slightly favors LVT. The implications suggest preliminary evidence that LVT promotion may best be targeted towards cities using UPT where greater-than-average density already exists.
- “Evaluating PES Contract Cost-Effectiveness, Additionality, and Flexibility: Evidence from Laboratory Experiments”
- “Estimating Farmers’ Willingness to Accept of Cover Crops: a Reveal Preference Method”

Research Assistant to Professor Joshua M. Duke, Sept 2012-Present
Department of Applied Economics and Statistics, University of Delaware, Newark, DE

- Coordinated a Dillman online/mail mix mode survey with a population of 8,900 with a team of 2 graduate and five undergraduate research assistants
- Co-designed, programmed and ran an auction experiment with 132 participants. Collected and compiled data for regression analysis
- Co-designed, programmed and ran two property tax experiments with 300 participants. Collected and compiled data for regression analysis

PUBLICATIONS

Journal Publications

Duke, Joshua.M., and Gao, TianHang., “An Experimental Economics Investigation of the Land Value Tax: Efficiency, Acceptability, and Positional Goods,” *Land Economics*, vol. 94, no. 4, 2018, pp. 475-495.

Conference Papers

Duke, J.M., Egan, J. and Gao, T, “Optimal Adoption of Best Management Practices in Maryland,” Northeast Agricultural and Resource Economics Association (NAREA) 2014 Annual Meeting, Jun, 2014.

Duke, J.M. and Gao, T, “Increasing Conservation Cost-Effectiveness with Incentive Program Flexibility: A Lab Experiment,” Northeast Agricultural and Resource Economics Association (NAREA) 2017 Annual Meeting, Jun 2017.

Conference Poster

Duke, J.M. and Gao, T, “An Experimental Economics Investigation of Public Acceptability and Land Value Taxation,” Agricultural & Applied Economics Association (AAEA) 2017 Annual Conference, Jul 2017.

SKILLS

Software: z-Tree, MATLAB, R, STATA, SAS, Risk Solver, Qualtrics

Methods: Econometrics, Laboratory experiments, Dillman survey method, Panel data analysis, logistic regression, Nonlinear optimization

Language: Mandarin (native), English (Proficient)

TEACHING AND MENTOR EXPERIENCE

University of Delaware Sept 2018-May 2019

Instructor, Environmental Economics 343

- Lectured an environmental economics course with 96 undergraduates on topics such as pollution control models, benefit-cost analysis, and incentive-based policies
- Co-designed 20+ exams, assignments, and case studies in economic theory and modeling

University of Delaware Feb 2013-Dec 2017

Teaching Assistant, Environmental Economics 343

- Counseled and helped 380+ students in four semesters
- Held 56 hours of office hours a semester answering students’ questions
- Held eight independent discussion sessions reviewing sample assignments and exams
- Coordinated a team of 2 to 4 graduate and undergraduate teaching assistants for grading

Undergraduate Mentor and Research Advisor

- Xingguo Wang, B.S. Economics and Management Information System, 2017 (currently a Ph.D. student of Agricultural Economics, Texas A&M University)
- Cathryn Soriano, B.S. Environmental and Resource Economics, 2019
- Wenshi Ruan, B.S. Finance Economics, 2019

LEADERSHIP AND ACTIVITIES

University of Delaware College of Agricultural and Natural Resources Sept 2018-Dec 2018

Graduate student representative, Course and Curriculum committee

Conference Chair Jun 2015-Jun 2017

University of Delaware Graduate students’ Research Forum

- Organized 300+ professional oral and poster presentations from multiple disciplines
- Led a team of 20+ members in budgeting, organizing logistics for 700+ audiences, promoting through multiple channels

Vice President of Internal Affairs (Publicly elected) Jun 2015-Jun 2017

University of Delaware Graduate Student Government

- Represented graduate students to sit in university trustee board meetings advocating and voicing for graduate student benefits and welfare
- Organized 20+ professional and social events with 2000+ attendees
- Coordinated with university administration for improving the graduate student community

REFERENCES

Dr. Joshua M. Duke, [Professor of Applied Economics, Professor of Legal Studies]
[Department of Applied Economics and Statistics]
[University of Delaware]
[205 Townsend Hall Newark, DE 19717]
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[Department of Economics]
[University of Delaware]
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