

Kathryn (Katya) N Vasilaky

Education

Ph.D. Agricultural & Resource Economics, 2011 *University of Maryland, College Park, MD*

B.A. Economics & Mathematics, 2003 *Columbia University, New York, NY*

Dissertation

“Development, Technology Adoption and Social Networks,” August 2011, Chair: Kenneth Leonard.

Fields of Interests

Development Economics, Experimental Economics, Causal Inference and Data Science.

Work Experience

Associate Professor (with tenure) 2023———
Assistant Professor: *California Polytechnic State University* 2017 – 2023

Classes: Intermediate Microeconomics; Programming for Economics & Analytics; Experimental and Behavioral Economics; Machine Learning for Prediction and Causal Inference; Seminar in Economics: World Bank Project Implementation

Visitor: *Umeå University* September 2023

Class: Week long workshop Machine Learning for Causal Inference

Consultant: *ABT Associates* 2021

Project: Gates Cropin Evaluation - AI/ML models to process/extract ag field data for decision making

Adjunct Associate Research Scientist: *Columbia University* 2017 – Present

Division: International Research Institute for Climate and Society

Cofounder: *Ground Truth Data LLC* 2017 - present

Site: groundtruthdata.com

Instructor: *Girls Who Code* 2016

Classes Taught: Introduction to CS 101 Intensive

Postdoctoral Research Fellow: *Columbia University* 2013 - 2016

Classes co-Taught: Challenges in Sustainable Development

Consultant: *World Bank* 2016

Division: Poverty and Equity Group

Consultant: *World Bank* 2013

Division: Development Prospects Group

VP of Data and Strategy: *ID.me* 2011 - 2012
(formerly Troopswap)

Lecturer: *United States Naval Academy* 2011
Classes Taught: Intermediate Statistics

Consultant: *World Bank* 2009 - 2010
Division: Development Economics Research Group

Research Associate: *Clinton Health Access Initiative* 2009 - 2010
Study: Malaria Diagnostics Clinical Trial

Graduate Teaching Assistant: *University of Maryland* 2008
Sections Taught: Dynamic Optimization and Optimal Control

Associate Economist: *Federal Reserve Bank of New York* 2003 - 2005
Division: International Research

Refereed Publications

1. Baul, Tushi, Dean Karlan, Kentaro Toyama, Kathryn Vasilaky “Learning Digitally via Mediated Farmer Edutainment in India?” *Journal of Development Economics*. Vol. 169, No. 103267.
2. Flory, Jeff, Kenneth Leonard, Magda Tsaneva, Kathryn Vasilaky, “How social structure shapes female competition throughout her lifetime.” *Journal of Economic Behavior and Organization*. Vol 216, pgs 433-456.
3. Vasilaky, Kathryn, Katherine Alfredo, Aurélie Harou, “What works for water conservation? Evidence from a field experiment” (2023) *Journal of Environmental Economics and Management*.
4. Hamilton, Steve, Tim Richards, Aric Shafran, Kathryn Vasilaky, “Farm Labor Productivity and the Impact of Mechanization” (2022) *American Journal of Agricultural Economics*, DOI:10.1111/ajae.12273
5. Ovaisi, Zohreh, Kathryn Vasilaky, Elena Zheleva, “Propensity-independent Bias Recovery in Offline Learning-to-rank Systems” (2021) *44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*. pp 1763–1767. DOI:10.1145/3404835
6. Ovaisi, Zohreh, Ragib Ahsan, Kathryn Vasilaky, Elena Zheleva, “Correcting for Selection Bias in Learning-to-rank Systems.” (2020) *Proceedings of the 29th International World Wide Web Conference (WWW/WebConf)*. pp. 1863–187,
7. Vasilaky, Kathryn, Michelle Brock (2020) “Power(ful) Guidelines for Experimental Economists.” *Journal of the Experimental Science Association*. Vol. 6, No. 2, pp. 189-212.
8. Hernandez-Aguilera, J., M. Mauerman, A. Herrera, K. Vasilaky, W. Baethgen, A. Loboguerrero, R. Diro, Y. Tekeste, D. Osgood, “Framed experiments and Games in Agriculture:

A systematic review of the 21st century in economics and social science.” (2020) *Games*. Vol 11, No. 47,

9. Enenkel, M., Brown, M.E., Vogt, J.V., McCarty, J.L., Reid Bell, A.Guha-Sapir, D., Dorigo, W.A., Vasilaky, K., Svoboda, M., Bonifacio, R, Voigt, S., Anderson, M., Funk, C., Osgood, D.E., Hain, C., Vinck, P. (2020) “Why predict climate hazards if we need to understand impacts? Mobile technologies could put humans back into the equation.” *Climatic Change*. Vol. 162, pp. 1161–1176.
10. Buehren, Niklas, Joao Montalvao, Markus Goldstein, Kenneth Leonard, Kathryn Vasilaky (2020) “Spillover Effects of Girls? Empowerment on Brothers? Competitiveness: Evidence from a Lab-in-the-Field Experiment in Uganda.” *Economic Development and Cultural Change*. DOI:10.1086/713882
11. Vasilaky, Kathryn, Sofia Saenz Martinez, Radost Stanimirova, Daniel Osgood (2020) “Perceptions of Farm Size Heterogeneity and Demand for Group Index Insurance.” *Games*. Vol 11, No. 1.
12. Vasilaky, Kathryn, Rahel Diro, Geoff McCarney, Daniel Osgood (2019) “Can Education Unlock Scale? The Demand Impact of Educational Games on a Large-Scale Unsubsidised Index Insurance Programme in Ethiopia.” *Journal of Development Studies*. DOI: 10.1080/00220388.2018.1554207.
13. Vasilaky, Kathryn, Asif Islam (2018) “Competition or cooperation? Using Team and Tournament Incentives for Learning among Female Farmers in Rural Uganda.” *World Development*. Vol 103, March 2018, pp. 216-225.
14. Vasilaky, Kathryn, Kenneth Leonard (2018) “As Good as the Networks They Keep?: Improving Outcomes through Weak Ties in Rural Uganda.” *Economic Development and Cultural Change*. Vol 66, No. 4 pp. 755-792.
15. Haack, Robert A., Kerry O. Britton, Eckehard G. Brockerhoff, Joseph F. Cavey, Lynn J. Garrett, Mark Kimberley, Frank Lowenstein, Amelia Nuding, Lars J. Olson, James Turner, Kathryn N. Vasilaky (2014) “Effectiveness of the International Phytosanitary Standard ISPM No. 15 on Reducing Wood Borer Infestation Rates in Wood Packaging Material Entering the United States.” *PLoS ONE*. Vol 9, No. 5.
16. Vasilaky, Kathryn (2013) “Female Social Networks and Farmer Training: Can Randomized Information Exchange Improve Outcomes.” *American Journal of Agricultural Economics*. Vol 95, No. 2 pp. 376-383.

Working Papers

1. Shafran, Aric and Kathryn Vasilaky, “When the pickings are good: Estimating the dynamic effects of pay for performance for workers in the field” (*Under Review*)
2. Aubrac, Charlotte, Christopher Magomba, Soumya Balasubramanya, Kathryn Vasilaky, “Realized and elicited cooperation under water scarcity: Evidence from a field experiment in Tanzania” (*Under Review*)
3. Harou, Aurélie, Kathryn Vasilaky, Chia-Ying Lee, Dan Osgood, “Timely Disaster Response and its Impacts on Poverty in the Philippines.” (*Under Review*)
4. Vasilaky, Kathryn, “Robust Ridge Regression for Prediction with a Stopping Rule.”

5. Shirley, Kenny, Kathryn Vasilaky, Helen Greatrex, and Daniel Osgood (2017), “Hierarchical Bayesian Estimation of Weather Index Insurance,” Columbia University Academic Commons.

Reports

6. Kurfess, Franz, Tina Cheuk, Kathryn Vasilaky, Elise St. John (2022). “Assessment of Ethics and Social Justice Aspects in Data Science and Artificial Intelligence.” American Society for Engineering Education Conference.
7. Mejía-Mantilla, Carolina, Ruth Hill, Kathryn Vasilaky (2017). “Input Adoption among Small-Holder Farmers: Potential and Constraints.” Poverty and Equity Global Practice, Africa Region, The World Bank.
8. Montalvao, Joao, Markus Goldstein, Kenneth Leonard, Kathryn Vasilaky (2016), “Girls’ Empowerment, Sibling Rivalry, and Competitiveness: Evidence from a Randomized Control Trial and a Lab Experiment in Uganda.” World Bank Research Paper Vol. 12, No. 33.
9. Vasilaky, Kathryn, Kenneth Leonard (2015), “Policy Implications of Social Networks and Learning.” Gender Innovation Lab Policy Brief, World Bank Report Number 103850.

Invited Seminar Presentations

1. 2023: World Bank’s Office of the Chief Economist of the Sustainable Development Practice Group, “What Works? Exploring Solutions for Water Conservation in Agriculture.”
2. 2021: Centre for Environmental and Resource Economics (CERE), “The effects of bonus pay when working in a team; evidence from an experiment in the field.”
3. 2018: University of Montpellier, “Learning Digitally via Mediated Farmer Edutainment in India.”
4. 2016: New York University, “An Iterative Approach to the Tikhonov Inverse Problem with a Stopping Rule.”
5. 2016: Paris School of Economics, “Learning Digitally: Evaluating the Impact of Farmer Training via Mediated Videos.”
6. 2015: Microsoft Research, Cambridge, MA, “Informal Risk Sharing and Formal Insurance: Substitutes or Complements?”
7. 2015: Microsoft Research, NY, NY, “Mechanisms of Information Exchange in Social Networks in Rural Uganda?”
8. 2014: Université Paris 1 Panthéon-Sorbonne “Informal Networks within Index Insurance: Randomizing Social Distance in Group Insurance.”
9. 2014: Institut National de la Recherche Agronomique LAMETA “Informal Networks within Index Insurance: Randomizing Social Distance in Group Insurance.”
10. 2011: Development Economics Research Group, World Bank, “Mothers, Daughters and Sisters; Is Competitiveness Socialized?”
11. 2010: Yale University, “Randomizing Social Networks in Rural Uganda: New Links do Improve Outcomes.”

12. 2005: Federal Reserve Bank of New York NY, “DYNARE: Bayesian Estimation in Matlab.”

Conference Presentations

1. December 2023: LACEA LAMES Annual Meeting, Bogotá, Colombia “When the pickings are good: Estimating the dynamic effects of pay for performance for workers in the field.”
2. September 2023: Advances in Field Experiments, Chicago, Illinois “Diversity and Economic Education,” New Orleans, Louisiana “When the pickings are good: Estimating the dynamic effects of pay for performance for workers in the field.”
3. Jan 2023: American Economics Association Session “Diversity and Economic Education,” New Orleans, Louisiana “Does Marketing that Targets Prospective Female Economics Majors Improve Diversity?”
4. November 2022: Western Economic Association Economics Association, Fort Lauderdale, FL “Diversity and Economic Education,” “The effects of bonus pay when working in a team; evidence from an experiment in the field.”
5. Feb 2022: Joint Initiative for Latin American Experimental Economics (JILAE), online, “The effects of bonus pay when working in a team; evidence from an experiment in the field.”
6. May 2021: Bay Area Behavioral and Experimental Economics Workshop (BABEEW), online, “The effects of bonus pay when working in a team; evidence from strawberry pickers in the field.”
7. July 2021: ACM SIGIR Conference on Research and development in information retrieval, “Propensity-independent Bias Recovery in Offline Learning-to-rank Systems.”
8. October 2020: The Science of Diversity Inclusion Initiative (SODI) Virtual Convening at Berkeley Haas School of Business. (Invite-only meeting)
9. March 2020: International World Wide Web Conference, “Correcting for Selection Bias in Learning-to-rank Systems.”
10. October 2019: Experimental Economics Association, Los Angeles, California, “Revealing Group Choices: the Demand for Index Insurance”
11. September 2019: Advances in Field Experiments, Chicago, Illinois, “Revealing Group Choices: the Demand for Index Insurance”
12. September 2019: Experimental Economics Association, Dijon, France, “Group Heterogeneity and the Demand for Index Insurance”
13. October 2018: Advances in Field Experiments, Boston, Massachusetts, “Groundwater Depletion in Northern India, Myself or Others?”
14. September 2018: Science of Diversity & Inclusion Initiative, The University of Chicago, Chicago, Illinois, “Can Social Networks help de-bias Employee Evaluations?”
15. August 2018: French Association for Environmental and Resource Economics, Aix-en-Provence, France, “Learning Digitally via Mediated Farmer Edutainment in India.”
16. May 2018: Bay Area Behavioral and Experimental Economics Workshop, San Francisco, CA, “Changes in Competitiveness with Motherhood Stages and Culture: Evidence from Patrilocal and Matrilocal Society?”

17. October 2017: Experimental Economics Association, Richmond, Virginia, “Groundwater Depletion in Northern India, Myself or Others?”
18. March 2016: Centre for the Study of African Economies - University of Oxford, Oxford, UK, “Towards a Deeper Understanding of Female Competitiveness and the Gender Gap: Evidence from Patrilocal and Matrilocal Cultures.”
19. November 2015: Northeast Development Conference, Providence, Rhode Island, “Learning Digitally: Evaluating the Impact of Farmer Training via Mediated Videos?”
20. October 2015: Experimental Economics Association, Dallas, Texas, “Childhood, Girlhood, Motherhood: Is Competitiveness Socialized?”
21. March 2015: Centre for the Study of African Economies - University of Oxford, Oxford, UK, “As Good as the Networks They Keep? Mechanisms of Information Exchange in Social Networks in Rural Uganda?”
22. December 2014: Symposium on Economic Experiments, Bergen, Norway, “Informal Networks within Index Insurance: Randomizing Social Distance in Group Insurance.”
23. November 2014: Northeast Development Conference, Boston, Massachusetts, “Informal Networks within Index Insurance: Randomizing Social Distance in Group Insurance?”
24. September 2014: Postdoctoral Data Science Panel, New York, NY, “Data Science in the Social Sciences.”
25. June 2014: 17th Annual Conference on Global Economic Analysis, Dakar, Senegal, “Demographic Transition, Education, and Inequality in India.”
26. September 2012: Workshop on Information in Networks, New York, NY, “As Good as the Networks They Keep? Mechanisms of Information Exchange in in Rural Uganda.”
27. July 2010: World Meeting of the Economic Science Association, Copenhagen, Denmark “Institutional Incentives for Information Exchange: Information Games in Rural Uganda.”
28. May 2009: Midwest International Economic Development Conference Minneapolis, MN, “The Effects of School Quality on Fertility in Ukraine.”
29. May 2009: Population Association of America (PAA) Detroit, MI, “The Effects of School Quality on Fertility in Ukraine.”

Grants, Honors and Awards

- ◇ 2024-2025: Principal Investigator, *Noyce School of Computing*, “Selection Bias in Learning to Rank Systems,” Amount: \$15,000.
- ◇ 2020-2021: Co Principal Investigator, *Research, Scholarly, and Creative Activities, RSCA*, “Nudging Women into Business and Economics,” Amount: \$18,000.
- ◇ 2019-2020: Principal Investigator, *Research, Scholarly, and Creative Activities, RSCA*, “Correcting for Selection Bias in Learning-to-rank Systems,” Amount: \$8,985.
- ◇ 2019-2021: Co-Investigator, *United States Department of Agriculture, AFRI*, “Immigration Reform And Farm Labor Shortages,” Amount: \$500,000.
- ◇ 2016-2018: Principal Investigator, *Bill and Melinda Gates Foundation Grand Challenges*, “Multimodal Satellite Rainfall Measurement for Index Insurance” Grant Number OPP1150740, Amount: \$100,000.
- ◇ 2015-2017: Co-Investigator, *World Bank, International Finance Corporation*, “Evaluating the Timeliness of Disaster Response” Grant Number 7176127, Amount: \$200,000.
- ◇ 2015-2017: Principal Investigator, *Earth Clinic Grant, Columbia University*, “SMS Based

System for Rainfall Reporting,” Amount: \$31,000.

◇ 2015-2017: Principal Investigator, *Cross Cutting Initiatives Grant, Columbia University*, “India Water Depletion Study,” Amount: \$32,000.

◇ 2009-2010: PhD Thesis, *Africa Gender Innovation Lab of the World Bank*, “Social Networks in Uganda,” Amount: \$20,000.

Visiting Positions

- ◇ Workshop Lecturer, Machine Learning for Causal Inference, Centre for Environmental and Resource Economics, Sweden, September 2023.
- ◇ Visiting Scholar, Toulouse School of Economics; Toulouse, France; September - December 2014.
- ◇ Visitor, Microsoft Research; Cambridge, Massachusetts; August 17, 2015 - August 22, 2015.

Professional Service

Referee:

Journal Environmental Economics and Management, Experimental Economics, Review of Economics and Statistics, The Economic Journal, Journal of Economic Behavior and Organization, World Development, Climatic Change, International Food Policy Research Institute, Agricultural Economics, Oxford Bulletin of Economics and Statistics

University Service

Undergraduate Programs Committee co-chair; Economics Society faculty advisor; Economics brownbag organizer; BEACON mentor; Chair of Ethics and Social Justice Committee, member of Educational Initiatives Committee, and member of Training Committee for the [Data Strategic Research Initiative at Cal Poly](#); [Hands-on data science workshops for faculty at Cal Poly](#); Organizer and co-founder of PyData San Luis Obispo; Reviewer for Earth Institute, Columbia University Undergraduate Research Awards