

Weizhe Weng

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Professional Experience

Assistant Professor, School of Business, SUNY Geneseo Aug. 2019 - Present

Education

Ph.D. in Economics , Virginia Tech	July 2019
M.S. in Economics , Jinan University	July 2014
B.S. in Economics (with Honors) , Jiangxi University of Finance and Economics	July 2011
B.A. in English Jiangxi University of Finance and Economics,	July 2011

Research Interests

Environmental and Natural Resource Economics, Applied Econometrics, Agricultural Economics
Data Science, Coupled Natural and Human Systems

Honors and Awards

Presidential Summer Faculty Fellowship, SUNY Geneseo	2020
The Class of 2020 Student-Athletes Honored Professors, SUNY Geneseo	2019
Best Doctoral Dissertation, Department of Agricultural and Applied Economics, Virginia Tech	2019
Paul J. Driscoll Graduate Fellowship, Virginia Tech	2018
Outstanding Graduate Student, Jinan University	2014
First Prize Scholarship, Jinan University	2011,2012,2013
National Scholarship for Graduate Student, Chinese Ministry of Education	2013
Outstanding Senior, Jiangxi University of Finance and Economics	2011
First Prize Scholarship, Jiangxi University of Finance and Economics	2008,2009,2010,2011
National Scholarship, Chinese Ministry of Education	2008

Publications

Weng, W., K.J. Boyle, K.J. Farrell, C.C. Carey, K.M. Cobourn, H.A. Dugan, P.C. Hanson, N.K. Ward, and K.C. Weathers. 2020. Coupling Natural and Human Models in the Context of a Lake Ecosystem: Lake Mendota, Wisconsin, USA. *Ecological Economics* 169, 106556.

Ward, N.K., L. Fitchett, J.A. Hart, L. Shu, J. Stachelek, **W. Weng**, Y. Zhang, H. Dugan, A. Hetherington, K.J. Boyle, C.C. Carey, K.M. Cobourn, P.C. Hanson, A.R. Kemanian, M.G. Sorice, and K.C. Weathers. 2018. Integrating Fast and Slow Processes is Essential for Simulating Human-Freshwater Interactions. *Ambio*. <https://doi.org/10.1007/s13280-018-1136-6>

Cobourn, K.M., C.C. Carey, K.J. Boyle, C. Duffy, H.A. Dugan, K.J. Farrell, L. Fitchett, P.C. Hanson, J.A. Hart, V.R. Henson, A. L. Hetherington, A. R. Kemanian, L. G. Rudstam, L. Shu, P.

A. Soranno, M. G. Sorice, J. Stachelek, N. K. Ward, K. C. Weathers, **W. Weng**, and Y. Zhang. 2018. From Concept to Practice to Policy: Modeling Coupled Natural and Human Systems in Lake Catchments. *Ecosphere* 9:1-15.

Publications in Chinese

Yang, S., S. Wei, and **W. Weng**. (2017). Game Analysis and Strategy Choices of North-South Carbon Emission Quota Policies. *Journal of Management Sciences in China*, 19(1), 12-21.

Yang, S., S. Wei, R. Xu, and **W. Weng**. (2014). An Analysis and Comparison on Economic and Environmental Effects of Climate Policies: a Dynamic Differential Game Model on the Basis of Carbon Tax, Tradable Emission Permits and Command-and-control. *Mathematics in Practice and Theory*, 22, 40-5.

Yang, S., and **W. Weng**. (2014). The Game Analysis and Information Sharing under Strategic Environmental Policy. *Statistics and Decision*, 14, 51-54.

Yang, S., and **W. Weng**. (2013). Analysis of the Differential Game of Climate Policy and its Environmental Effect. *International Economics and trade research*, 29(5), 39-51.

Yang, S., and **W. Weng**. (2013). The Game of Corporate Relocation and Environmental Regulation under Foreign Direct Investment. *Journal of Quantitative Economics*, 30(2), 92-99.

Working Papers

Weng, W., M. D. Morrison, K. J. Boyle, P. C. Boxall, and J. M. Rose. Effects of the Number of Alternatives in Public Good Discrete Choice Experiments. Revision Requested: *Ecological Economics*

Ji, X., K. M. Cobourn, and **W. Weng**. The Effect of Climate Change on Irrigated Agriculture: Water-Temperature Interactions and Adaptation in the Western U.S. Revision Requested: *Water Resources Research*

Stachelek, J., **W. Weng**, C. C. Carey, A. R. Kemanian, K. M. Cobourn, T. Wagner, K. C. Weathers, P. A. Soranno. Agricultural land-use and lake water quality relationships differ when considering predictor granularity at macroscales. Revision Requested: *Ecological Applications*

Henson, V. R., K. M. Cobourn, K. C. Weathers, C. C. Carey, K. J. Farrell, J. L. Klug, M. G. Sorice, N. K. Ward, and **W. Weng**. A Practical Guide for Managing Interdisciplinary teams: Lessons learned from Coupled Natural and Human Systems (CNHS) research. Submitted: *Ecosphere*

Weng, W., K. M. Cobourn, A. R. Kemanian, K. J. Boyle, Y. Shi, J. Stachelek, C. White. Quantifying Co-benefits of Water Quality Policies: An Integrated Assessment Model of Nitrogen Management.

Kaul, S., K. J. Boyle, and **W. Weng**. Elicitation Effects in Stated-Preference Surveys: a Structural and Simulations Based Analysis.

Works in Progress

Weng, W., and K. J. Boyle. Using Machine Learning to Uncover Hedonic Regressors.

Ji, X., **W. Weng**, and Z. Yao. Air pollution, Migration, and the Short vs. Long-run Impact on Cognitive Performance.

Cobourn, K. M., C. C. Carey, K. J. Boyle, C. Duffy, H. A. Dugan, K. J. Farrell, L. Fitchett, P. C. Hanson, V. R. Henson, A. R. Kemanian, L. Shu, M. G. Sorice, K. C. Weathers, **W. Weng** and Y. Zhang. Modeling Coupled Natural and Human Systems in Lake Catchments Reveals Feedbacks Among Land-management Decisions, Water Quality Degradation, and Altered Property Values.

Boyle, K. J., K. M. Cobourn, J. Stackelek, K. Swedberg, N. Ward, K. C. Weathers, and **W. Weng**: Scaled-up Hedonic Analysis of Lake Water Quality Impacts on Housing Prices.

Teaching

Introduction to Data Analytics-Business Context, Spring 2020
Business and Economics Statistics, SUNY Geneseo, Spring 2020
Environmental Economics, SUNY Geneseo, Fall 2019
Business Data Analytics, SUNY Geneseo, Fall 2019
Real Estate Data Analysis, Virginia Tech, Spring 2017

Grant

Incentive Grant, SUNY Geneseo, Spring 2020

Service

Committee of Data Analytics, School of Business, SUNY Geneseo, Fall 2019
Committee of Sustainability, School of Business, SUNY Geneseo, 2019-2020
Research Cluster, School of Business, SUNY Geneseo, 2019-2020
Research Co-chair, Food and Health Economics Lab, Virginia Tech, 2018-2019

Conferences and Academic Presentations (* denotes presenter)

19. Weng, W.*, K. M. Cobourn, A. R. Kemanian, K. J. Boyle, Y. Shi, J. Stachelek, C. White. "Quantifying Co-benefits of Water Quality Policies: An Integrated Assessment Model of Nitrogen Management." Selected paper, Social Cost of Water Pollution Workshop (Scheduled), Washington, D.C., USA, April 22-24, 2020

18. Weng, W.*, K. J. Boyle. "Using Machine Learning to Uncover Hedonic Regressors." Selected paper, The Workshop in Environmental Economics and Data Science (Scheduled), Portland, OR, USA, March 27-28, 2020

17. Weng, W.*. "Coupling Natural and Human Models in the Context of a Lake Ecosystem." Invited Presentation, Department of Geological Science, SUNY Geneseo, March 6, 2020.

16. Stachelek, J.* , C.C. Carey, K.M. Cobourn, A.R. Kemanian, T. Wagner, K.C. Weathers, **W. Weng**, P.A. Soranno. 2019 "Analysis of 500 lake catchments reveals the relationship between crop type, fertilizer and manure inputs and lake nutrient concentrations". Selected Paper, Ecological Society of American Annual Meeting, Louisville, KY, USA, August 11-16, 2019.
15. Henson, V.R.*, K.M. Cobourn, C.C. Carey, K.C. Weathers, K.J. Farrell, N. K. Wald, **W. Weng**, J.L. Klug, M.G. Sorice. "A practical guide for managing interdisciplinary socio-ecological teams: Lessons learned from coupled natural and human systems (CNHS) research." Selected Paper, Science of Team Science (SciTS) Conference, Lansing, MI, USA, May 20-23, 2019.
14. **Weng, W.***, K.J. Boyle, K.J. Farrell, C.C. Carey, K.M. Cobourn, H.A. Dugan, P.C. Hanson, N.K. Ward, and K.C. Weathers. "Coupling Water Quality Numerical Simulation and Hedonic Models to Evaluate the Impacts of Changes in Nutrient Loading." Invited Presentation, School of Business, SUNY Geneseo, March 4-6, 2019.
13. Cobourn, K.M.*, C.C. Carey, K.J. Boyle, C. Duffy, H.A. Dugan, K.J. Farrell, L. Fitchett, P.C. Hanson, V.R. Henson, A.R. Kemanian, L. Shu, M.G. Sorice, K.C. Weathers, **W. Weng**, Y. Zhang. "Modeling coupled natural and human systems in lake catchments reveals feedbacks among land-management decisions, water quality degradation, and altered property values." Selected Poster, American Geophysical Union annual meeting. Washington, DC, USA, December 10-14, 2018.
12. **Weng, W.***, K. J. Boyle, K.J. Farrell, C.C. Carey, K.M. Cobourn, H.A. Dugan, P.C. Hanson, N.K. Ward, and K.C. Weathers. "Coupling Water Quality Numerical Simulation and Hedonic Models to Evaluate the Impacts of Changes in Nutrient Loading." Invited Presentation, School of Freshwater Sciences, University of Wisconsin-Milwaukee, December 9-11, 2018.
11. **Weng, W.***, K. J. Boyle. "Which Environmental Attributes Capitalize into Property Prices? A Machine Learning Approach." Selected Paper, CU Environmental and Resource Economics Workshop, Vail, CU, USA, September 14-15, 2018.
10. Ji, X*, K. M. Cobourn, **W. Weng**. "The Effect of Climate Change on Irrigated Agriculture: Water-Temperature Interactions and Adaptation in the Western U.S." Selected paper, Agricultural and Applied Economics Association Annual Meeting, Washington, D.C., USA, August 5-7, 2018.
9. **Weng, W.***, K. J. Boyle, K.J. Farrell, C.C. Carey, K.M. Cobourn, S. Brahma, H.A. Dugan, P.C. Hanson, N.K. Ward, and K.C. Weathers. "Coupling Water Quality Numerical Simulation and Hedonic Models to Evaluate the Impacts of Changes in Nutrient Loading." Selected paper, Agricultural and Applied Economics Association Annual Meeting, Washington, D.C., USA, August 5-7, 2018.
8. Ji, X*, K. M. Cobourn, **W. Weng**. "The Effect of Climate Change on Irrigated Agriculture: Water-Temperature Interactions and Adaptation in the Western U.S." Selected paper, 6th World Congress of Environmental and Resource Economists, Gothenburg, Sweden, June 25-29, 2018.
7. **Weng, W.***, M. D. Morrison, K. J. Boyle, P. C. Boxall, and J. Ross. "The Effect of the Number of Alternatives in a Choice Experiment Questions." Selected paper, 6th World Congress of Environmental and Resource Economists, Gothenburg, Sweden, June 25-29, 2018.
6. **Weng, W.**, K.J. Boyle, K.J. Farrell, C.C. Carey, K.M. Cobourn, S. Brahma*, H.A. Dugan, P.C.

Hanson, N.K. Ward, and K.C. Weathers. “Coupling Lake Water Quality Numerical Simulations and a Hedonic Model to Evaluate the Impacts of Changes in Nutrient Loading.” Selected Paper, UCOWR/NIWR Annual Water Resources Conference, Pittsburgh, PA, USA, June 26-28, 2018.

5. Cobourn, K.M., A.R. Kemanian, **W. Weng***, and C. White. “Integrated Modeling of Nutrient Cycling and Economic Decision Making Predicting Land Use, Fertilizer Application and Environmental Outcomes.” Invited Presentation, Lake Sunapee Protective Association (LSPA), Sunapee, NH, USA, May 16-18, 2018.

4. **Weng, W.***, K.J. Boyle, C.C. Carey, K.J. Farrell, P.C. Hanson, H.A. Dugan, K.M. Cobourn, N.K. Ward, and K.C. Weathers. “Coupling Water Quality Numerical Simulation and Hedonic Models to Evaluate Impacts of Changes in Nutrient Loading.” Invited Presentation, Lake Sunapee Protective Association (LSPA), Sunapee, NH, USA, May 16-18, 2018.

3. **Weng, W.***, M. D. Morrison, K. J. Boyle, and P. C. Boxall. “The Effect of the Number of Alternatives in a Choice Experiment with an Application.” Selected paper, The 24th Annual Camp Resources Workshop, Wrightsville Beach, NC, USA, August 7-8, 2017.

2. **Weng, W.***, M. D. Morrison, K. J. Boyle, and P. C. Boxall. “The Effect of the Number of Alternatives in a Choice Experiment with an Application.” Selected paper, Agricultural and Applied Economics Association Annual Meeting, Chicago, IL, USA, July 30-August 1, 2017.

1. **Weng, W.***, M. D. Morrison, K. J. Boyle, and P. C. Boxall. “The Effect of the Number of Alternatives in a Choice Experiment with an Application to the Macquarie Marshes, AU.” Selected paper, Southern Agricultural and Applied Economics Association Annual Meeting, Mobile, AL, USA, February 4-7, 2017.

Certificates

Graduate Certificate in Future Professoriate, Virginia Tech, 2018

Graduate Certificate in Geospatial Information Technology, Virginia Tech, 2018

Applied Economics Teaching Scholar, Department of Agricultural and Applied Economics, Virginia Tech, 2018

Professional Activities

Referee: Canadian Journal of Agricultural Economics, AAEA Annual Meeting, UCOWR Annual Meeting

Membership: American Economic Association, Agricultural and Applied Economics Association, Association of Environmental and Resource Economists, National Association for Business Economics

Skills

Computer Skills: Stata, R, GAMS, ArcGIS/ArcPy, Python, MATLAB, \LaTeX

Language Skills: English(fluent), Chinese(native)

Others: Calligraphy, Chinese lute

References

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