Wei Zhang

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PROFESSIONAL POSITIONS

Assistant Professor, Department of Agricultural and Applied Economics, Virginia Tech (2019-present)

Assistant Professor, Department of Economics, Connecticut College (2014–2019)

Visiting Scholar, Department of Agricultural and Resource Economics, University of Connecticut (2018)

Post-doctoral Researcher, University of California Agricultural Issues Center (2013–2014)

Education	
Ph.D., University of California, Davis	2013
Department of Agricultural and Resource Economics	
Dissertation: Effects of Environmental Policies on the Dairy Industry in California	
M.S., University of Massachusetts, Amherst	2008
Department of Resource Economics	
Thesis: Bankruptcy Risk and the Performance of Incentive-Based Environmental Policies	
B.S., Nankai University , China Majors: Economics and Environmental Sciences	2005

PEER-REVIEWED PUBLICATIONS

* denotes current or former graduate student

- Hu, Chenyang*, Zhenshan Chen, Pengfei Liu, Wei Zhang, Xi He, and Darrell Bosch. 2025. Impact of Large-scale Solar on Property Values in the US: Diverse Effects and Causal Mechanisms. *Proceedings of* the National Academy of Sciences (PNAS), 122(24), e2418414122. https://doi.org/10.1073/pnas. 2418414122.
- Benami, Elinor, Anne Carroll*, Kent D. Messer, Wei Zhang, and Michael Cecil. 2025. Seeding Change: Growing Insights from Four Programs to Support Climate-Resilient Soil and Water Conservation in US Agriculture. Agricultural Economics, 56(3): 457–473. https://doi.org/10.1111/agec. 70034.
- Chavas, Jean-Paul and Wei Zhang. 2025. An Ex Ante Analysis of the Effects of Climate on Agricultural Production Risk. Journal of Agricultural and Resource Economics, 50(2): 240-263. 10.22004/ag.econ.347703.
- Liu, Pengfei, Yu Wang, and Wei Zhang. 2023. The Influence of the Environmental Quality Incentives Program on Local Water Quality. American Journal of Agricultural Economics, 105(1): 27–51. https: //doi.org/10.1111/ajae.12316.
- Yao, Zhenyu^{*}, Wei Zhang, Xinde Ji, and Weizhe Weng. 2023. Short-Term Exposure to Air Pollution and Cognitive Performance: New Evidence from China's College English Test. *Environmental and Resource Economics*, 85(1): 211-237. https://doi.org/10.1007/s10640-023-00765-7.
- Zhang, Wei. 2022. Too Smoggy for Kids to Go to School? Air Quality and Preschool Enrollments in Chinese Cities. Journal of the Agricultural and Applied Economics Association, 1(3): 270–284. https://doi.org/10.1002/jaa2.28.

- Zhang, Wei. 2022. Economic Analysis of the Environmental Sustainability of Agriculture: Recent Studies using Quasi-Experimental Methods. *China Agricultural Economic Review*, 14(2): 259–273. https://doi.org/10.1108/CAER-08-2021-0164.
- 8. Zhang, Wei. 2021. California's Climate Policy and the Dairy Manufacturing Industry: How Does a Federal Milk Marketing Order Matter? *Journal of Agricultural and Resource Economics*, 46(3): 401-424. 10.22004/ag.econ.305224.
- Bovay, John and Wei Zhang. 2020 A Century of Profligacy? The Measurement and Evolution of Food Waste. Agricultural and Resource Economics Review, 49(3): 375-409. https://doi.org/10. 1017/age.2019.16.
- Zhang, Wei. 2018. Costs of A Practice-Based Air Quality Regulation: Dairy Farms in the San Joaquin Valley. American Journal of Agricultural Economics, 100(3): 762-785. https://doi.org/ 10.1093/ajae/aax085.
- Zhang, Wei and Julian M. Alston. 2018. The Demand for Inputs and Technical Change in the U.S. Dairy Manufacturing Industry. Agricultural and Resource Economics Review, 47(3): 533-567. https://doi.org/10.1017/age.2017.32.
- Zhang, Wei, C.-Y. Cynthia Lin Lawell, and Victoria I. Umanskaya. 2017. The Effects of License Plate-Based Driving Restrictions on Air Quality: Theory and Empirical Evidence. *Journal of Environmental Economics and Management*, 82: 181–220. https://doi.org/10.1016/j.jeem.2016.12.002.
- Zhang, Wei and C.-Y. Cynthia Lin Lawell. 2017. Market Power in Nonrenewable Resource Markets: An Empirical Dynamic Model. *Land Economics*, 93 (1): 74–86. https://doi.org/10.3368/le.93. 1.74.
- 14. Stranlund, John and Wei Zhang. 2009. Bankruptcy Risk, Limited Liability and Imperfectly Enforced Emissions Taxes. *Economics Bulletin*, 29(4): 3134–3146.
- Stranlund, John and Wei Zhang. 2008. Bankruptcy Risk and the Performance of Tradable Permit Markets. *Economics Bulletin*, 17(9): 1–9.

WORKING PAPERS & WORK IN PROGRESS

* denotes current or former graduate student

- 1. Public Economic Benefits of Agricultural Conservation: Evidence from Housing Markets, with Pengfei Liu and Yanggu Li^{*} (*R&R Journal of the Association of Environmental and Resource Economists*)
- 2. Climate Change and Perennial Crop Production: Evidence of Yield Impact and Adaptation in California, with Yuanyuan Wen* (*R&R American Journal of Agricultural Economics*)
- 3. Improving Ecosystem Services from US Agriculture: Yield Reserve vs. Land Retirement, with Darrell Bosch and Chenyang Hu* (*R&R Journal of Environmental Quality*)
- 4. Economic Impacts of Climate-Smart Agricultural Practices: Evidence from a USDA Working Lands Conservation Program, with Yanggu Li^{*} (*R&R Australian Journal of Agricultural and Resource Economics*)
- 5. Causes of on-farm loss and waste of vegetables in the United States: Evidence from a farm-level panel, with John Bovay (*under review*)
- 6. Extreme Weather Events and Agricultural Productivity Growth (under review)
- 7. Economic Returns to Education: Evidence from Household Consumption in Zimbabwe, with Zeya Zhang^{*} and Jeffrey Alwang (*under review*)
- 8. Yield Impacts of Agricultural Conservation Programs, with Yanggu Li* and John Bovay (under review)
- 9. Nature Reserves and Households in Rural China: Migration, Income and Labor Supply, with Yuanyuan Wen* (working paper)

- 10. Impacts of Energy Price and Ethanol Demand Shocks on U.S. Agriculture: A Partial Equilibrium Approach, with Darrell Bosch and Chenyang Hu^{*} (*working paper*)
- 11. Health Benefits of Agricultural Conservation: Environmental Quality Incentives Program, Air Pollution, and Infant Health, with Zhenyu Yao* and Di Fang (*in progress*)
- 12. Air Quality Impact of China's Grain for Green Program, with Yuanyuan Wen* and Qingyang Wu (*in progress*)
- 13. Tractor Rental Services in Kenya: Spillover Effects of Mechanization on Agricultural Production with John Mukundi^{*}, and Brad Mills (*in progress*)
- 14. Conservation Practices and Land Values: Evidence from ARMS, with Kate Binzen Fuller (in progress)

OTHER PUBLICATIONS

- 1. Wei Zhang. 2022. Extreme Weather Events and Agricultural Productivity Growth. An Expert Essay in Steensland, A. (2022) *Global Agricultural Productivity Report: Troublesome trends and system shocks.* Thompson, T. and Agnew, J. (Eds.) Virginia Tech College of Agriculture and Life Sciences.
- 2. Lin, C.-Y. Cynthia, Wei Zhang, Omid Rouhani, and Lea Prince. 2009. The Implications of An E10 Ethanol-Blend Policy for California. Agricultural and Resource Economics Update, 13 (2), 1-4.

GRANTS AND SCHOLARSHIPS

- PI, "The Cost of Greenhouse Gas Mitigation Through Climate-Smart Agricultural Practices: Estimation and Policy Implications" (\$649,798; \$519,838 for Zhang) with Darrell Bosch, NIFA-AFRI Foundational and Applied Program. June 2023–May 2027 (terminated April 10, 2025).
- Co-PI, "The Virginia Tech Alliance to Advance Climate-Smart Agriculture: Supporting Producers to Promote Productivity, Markets, and Environmental Benefits ("The Alliance")" (\$80,000,000 with VT portion \$7,175,773; \$587,278 for Zhang) with Tom Thompson (PI). USDA Natural Resource Conservation Service Partnerships for Climate-Smart Commodities. September 2023–September 2026.
- 3. Co-PI, "Precision Irrigation to Optimize Nitrogen Use Efficiency in Humid Regions: Modeling Agronomic Impacts and Grower Adoption in a Changing Climate" (\$748,809; \$173,095 for Zhang) with Julie Shortridge (PI) Ryan Stewart, William H. Frame and Mark Reiter, NIFA-AFRI Foundational and Applied Program. May 2023–April 2027.
- 4. PI, ""Climate Change and the Sustainability of Deciduous Fruit and Nuts in the Southern States" (\$15,000), Southern Region SARE 2022 Graduate Student Grant for Ph.D. student Yuanyuan Wen. September 2022–August 2024.
- 5. Co-PI, "On-Farm Loss and Waste of Vegetables: Measurement, Drivers, and Welfare Implications." (\$633,551; \$253,420 for Zhang) with John Bovay (PI) and Ford Ramsey, NIFA-AFRI Foundational Program. January 2022–December 2025.
- Co-PI, "Thriving Agricultural Systems in Urbanized Landscapes", subaward from Penn State University (\$8,975,094 with VT portion \$663,452; \$158,363 for Zhang) with Darrell Bosch (PI) and Rory Maguire, NIFA-AFRI Sustainable Agricultural Systems, September 2019–August 2025.
- Co-PI, "Accounting for Biological Capital in Indexes of Agricultural Inputs and Productivity: Concepts, Measures and Application to Agriculture in California and Minnesota", subaward from UC Davis (\$499,985; \$262,091 for Zhang). with Julian M. Alston (PI), NIFA-AFRI Foundational Program, April 2018–March 2022 (extended to 2024).
- 8. Co-PI, "Agricultural Productivity Growth Workshop: Drivers, Impacts, and Climate Effects" (\$25,000; \$7,500 for Zhang) with Tom Thompson (PI), NIFA-AFRI Conference Grant. January 1, 2023-December 31, 2023.
- 9. Co-PI, "Integrated agro-economic modeling to assess farmer uptake of precision water and nutrient management in a changing climate" (\$24,590; \$12,295 for Zhang) with Julie Shortridge (PI) and Ryan Stewart. Virginia Tech GCC-ISCE Seed Grant, 2022–2023.

- 10. GAP Initiative Faculty Research Fellowship, (\$20,000). Virginia Tech CALS Global, 2021–2022.
- 11. PI, "Public Costs of Practice-Based Agricultural Conservation: Insights from the Environmental Quality Incentives Program", (\$30,000 with Darrell Bosch, Zachary Easton, and Yang Shao). Virginia Tech ISCE Scholars Program, 2020–2021.
- 12. Judith Tindal Opatrny '72 Connecticut College Summer Research Stipend (\$4,325) 2016 & 2017.
- 13. "Agri-environmental Incentives and the Waste Management Practices of Dairy Farms in California", (\$13,500 with Daniel A. Sumner). Giannini Foundation Research Mini-Grant, 2013-2014.
- "California's Air Quality Regulations on Dairies: Multiple Environmental Externalities and Interactions of Regulations", (\$25,000 with Julian M. Alston). Giannini Foundation Research Mini-Grant, 2012-2013.
- 15. "Economic Impacts of California's Greenhouse Gas Cap-and-Trade Program on Dairy Industry", (\$25,000 with Julian M. Alston). Giannini Foundation Research Mini-Grant, 2011-2012.
- 16. Henry A. Jastro Research Scholarship, 2011-2013, \$3,000 (total)
- 17. Outstanding Undergraduate Scholarship for Top 10% Ranking, Nankai University, 2002-2005.

TEACHING EXPERIENCE

Virginia Tech

- AAEC 3324: Environment and Sustainable Development Economics. Spring 2020; Fall 2021, 2022, 2024.
- AAEC 6554: Panel Data Econometrics. Fall 2020, 2021, 2023.
- AAEC 6524: Environmental Economic Theory and Policy Analysis. Spring 2021; Fall 2022, 2024.

Connecticut College

- ECO/ES 212: Environmental Economics. Fall 2014–2017, Spring 2015
- ECO 230: Econometrics I. Spring 2015-2016, Fall 2016-2017
- ECO 205: Intermediate Microeconomics. Fall 2015
- ECO 404: Seminar in Environmental and Natural Resource Economics, Spring 2016

University of California, Davis

Instructor, Department of Agricultural & Resource Economics, Summer 2012

• ARE 106: Econometric Theory and Applications

Teaching Assistant, Department of Agricultural & Resource Economics

- ARE 240B: Econometric Methods, Spring 2012 (Ph.D. Core Course)
- ARE 106: Econometric Theory and Applications, Summer 2009
- ARE 171B: Financial Management of the Firm, Spring 2009
- ARE 115A: Economic Development, Winter 2009

University of Massachusetts, Amherst

Teaching Assistant, Department of Resource Economics

- RESECON 262: Environmental Economics, Fall 2007
- RESECON 212: Introductory Statistics, Spring 2006
- RESECON 263: Natural Resource Economics, Fall 2005

Advising

Virginia Tech

- Ph.D. Dissertation:
 - 1. Yuanyuan Wen (chair):
 - 2. Maguette Sembene:
 - 3. Duong Phuc Ta:
 - 4. Tao Qi:
 - 5. Yuetong Zhang '25:
 - 6. Kiseok Shin '25:
 - 7. Chenyang (Nate) Hu '25 (co-chair): Transformation in US Agriculture: Insights from Energy Price Shocks, Ecosystem Service Enhancements, and Renewable Energy Developments
 - 8. Yanggu Li '24 (chair): Economic Benefits of Agricultural Conservation
 - 9. Roshan Puri '23: Methodological Advances in Benefit Transfer and Hedonic Analysis
 - 10. Zhenyu Yao '22: Air Quality Economics: Three Essays
 - 11. Zeya Zhang '20: Essays on Development Economics in Sub-Saharan African Countries
- Master's Thesis:
 - 1. John Mburu Mukundi '25 (chair): Tractor Rental Services in Kenya: Understanding Mechanization and Changes in Agricultural Production Among Smallholder Farmers
 - 2. Yuanyuan Wen '21 (chair): Nature Reserves and Households in Rural China: Migration, Off-farm Work, and Income
 - 3. Kristen Swedberg '20: Examining Implicit Price Variation for Lake Water Quality

Connecticut College

- Honors Thesis: Maruge Zhao '17, Allison Rand '16, Niall Williams '16
- Senior Integrative Projects: Julia Serafin '17, Cian Fields '16, Alyson Cheney '16, Sydney Krisanda '19

Other Universities

• University of Ghana, Ph.D. Dissertation: George Akrong Morton '25

Conferences, Workshops, and Seminars

- 1. Selected Presentation, "Health Benefits of Agricultural Conservation: Environmental Quality Incentives Program, Air Pollution, and Infant Health." Paper presented at the Association of Environmental and Resource Economists (AERE) 2025 Summer Conference, Santa Ana Pueblo, New Mexico, May 28–30, 2025.
- 2. Invited Talk, "Public Economic Benefits of the Agricultural Conservation: Evidence from Housing Markets." via Zoom at Monthly NRCS All Economists Meeting. August 9, 2024.
- 3. Invited Talk, "The Cost of Greenhouse Gas Mitigation Through Climate-Smart Agricultural Practices: Estimation and Policy Implications" at USDA-NIFA AFRI Project Directors Meeting, Agricultural Economics and Rural Communities Programs at the AAEA Post-Conference Workshop, New Orleans, Louisiana, July 31, 2024
- 4. Seminar, "Economic Benefits of Agricultural Conservation: Evidence from the Environmental Quality Incentives Program." Nanjing Agricultural University, China, College of Economics and Management, June 11 2024

- 5. Selected Presentation, "Economic Benefits of Agricultural Conservation: Evidence from the Environmental Quality Incentives Program." Paper presented at the Association of Environmental and Resource Economists (AERE) 2024 Summer Conference, Washington, D.C., May 29–31, 2024.
- 6. Seminar, "Public Economic Benefits of Agricultural Conservation: Evidence from the Environmental Quality Incentives Program." Virginia Tech, Department of Agricultural and Applied Economics, April 8, 2024
- Selected Presentation, 'Extreme Weather Events and Agricultural Productivity Growth", Paper presented at the 2023 European Association of Agricultural Economists (EAAE) Congress, Rennes, France, August 29–September 1, 2023.
- 8. Selected Presentation, "Local Economic Benefits of the Environmental Quality Incentives Program: Evidence from Rural Housing Markets" Paper presented at the 2023 Agricultural and Applied Economics Association (AAEA) Annual Meeting, Washington, D.C., July 23–25, 2023.
- 9. Seminar, "Extreme Weather Events and Agricultural Productivity Growth", Peking University, China Center for Agricultural Policy, May 12, 2023
- Selected Presentation, "Extreme Weather Events and Agricultural Productivity Growth" Paper presented at the Western Economic Association International, 17th International Conference, Melbourne, Australia, April 12–15, 2023.
- Invited Talk "Extreme Weather Events and Agricultural Productivity Growth" at the Workshop on Agricultural Productivity Growth, Measurement, Drivers, and Climatic Effects, Arlington, Virginia, March 29–30, 2023.
- 12. Selected Presentation, "Local Economic Benefits of the Environmental Quality Incentives Program: Evidence from Rural Housing Markets" Paper presented at the 2023 Allied Social Science Associations (ASSA) Annual Meeting, New Orleans, Louisiana, January 6–8, 2023
- 13. Invited Talk, "Extreme Weather Events and Agricultural Productivity Growth" at the 2022 Global Agricultural Productivity Report Launch, Washington, DC, October 4, 2022
- 14. Seminar, Virginia Tech, Department of Agricultural and Applied Economics, February 2019
- 15. **Seminar**, University of Connecticut, Department of Agricultural and Resource Economics, October 2018
- 16. Selected Presentation, Northeastern Agricultural and Resource Economics Association (NAREA), 2018 Annual Meeting, Philadelphia, Pennsylvania, June 9–12, 2018
- 17. Selected Presentation, Association of Environmental and Resource Economists (AERE), 5th Annual Summer Conference, Breckenridge, Colorado, June 9–11, 2016
- CeMENT: Committee on the Status of Women in the Economics Profession of the American Economic Association (CSWEP) Mentoring Workshops, New Orleans, Louisiana, November 19–20, 2015
- Selected Presentation, Agricultural and Applied Economics Association (AAEA), 2015 AAEA & WAEA Joint Annual Meeting, San Francisco, California, July 26–28, 2015
- 20. Selected Presentation, Association of Environmental and Resource Economists (AERE), 4th Annual Summer Conference, San Diego, California, June 3–5, 2015
- National Bureau of Economic Research, Women in Undergraduate Economics Meeting, Cambridge, Massachusetts, May 2, 2015
- 22. The Goodwin-Niering Center for the Environment's biennial Elizabeth Babbott Conant Interdisciplinary Conference: "Feeding the Future", New London, Connecticut, March 27–28, 2015
- 23. Seminar, University of Illinois Urbana-Champaign, Department of Agricultural and Consumer Economics, January 2014
- 24. Seminar, Kansas State University, Department of Agricultural Economics, November 2013
- 25. Selected Presentation, Occasional California Workshop in Environmental and Resource Economics, Santa Barbara, California, September 12–13, 2013

- 26. Selected Presentation, Agricultural and Applied Economics Association (AAEA), 2013 AAEA & CAES Joint Annual Meeting, Washington, DC, August 4–6, 2013
- 27. Selected Presentation, Association of Environmental and Resource Economists (AERE), 2nd Annual Summer Conference, Asheville, North Carolina, June 3–5, 2012
- Selected Presentation, Western Economic Association International (WEAI), 87th Annual Conference, San Francisco, California, June 29–July 3, 2012
- 29. University of California Center for Energy and Environmental Economics (UCE³) 1st Annual Summer School, UC Berkeley, August 15–19, 2011
- 30. Selected Presentation, Agricultural and Applied Economics Association (AAEA), 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, Pennsylvania, July 24–26, 2011
- 2nd Annual All-UC Conference in Energy and Environmental Economics, Berkeley, California, June 17, 2011
- 32. Selected Presentation, Association of Environmental and Resource Economists (AERE), Inaugural Summer Conference, Seattle, Washington, June 9–10, 2011
- 33. 12th Occasional California Workshop on Environmental and Resource Economics, Santa Barbara, California, November 12–13, 2010
- 34. Fourth World Congress of Environmental and Resource Economists, Montreal, Canada, June 28–July 2, 2010
- 35. Summer Workshop of the Association of Environmental and Resource Economists (AERE), Berkeley, California, June 21–23, 2008

Selected Services

Virginia Tech

- AAEA Selected Presentations Committee (2024–)
- Curriculum Committee, College of Agricultural and Life Sciences (2024–2026)
- Committee on Research and Extension Program Policy, College of Agricultural and Life Sciences (2021–2023)
- Seminar Committee (co-chair): Department of Agricultural and Applied Economics (2024–)
- Graduate Program Committee, Department of Agricultural and Applied Economics (2020-)
- "Women in AgEcon", event organized by Department of Agricultural and Applied Economics and Graduate Student Association (GSA), March 27, 2024
- College of Agricultural and Life Sciences, GAP Initiative "Agricultural Productivity in East Africa: Current Status and Future Prospects" June 23, 2022 in Nairobi, Kenya
- New Faculty CAIA-CCI Agricultural Cyber Road Trip to ARECs, May 23–26, 2022
- Faculty Panel InspirASIAN series, March 22, 2022
- Various Search Committees, Department of Agricultural and Applied Economics

Connecticut College

- Co-lead, Experiment under the "Undergraduate Women in Economics Challenge" initiated by Claudia Goldin of Harvard University (2015–2018)
- Faculty Advisor, Environmental Studies Program (2014–2019)
- Faculty Fellow, Goodwin-Niering Center for the Environment at Connecticut College (2014–2019)
- Search Committee for Assistant Professor, Department of Economics (2017)

• Search Committee for Assistant Professor, Environmental Studies Program (2016)

Professional

- Australian Journal of Agricultural and Resource Economics Associate Editor (2023–2026)
- Australian Journal of Agricultural and Resource Economics Lead Guest Editor of Special Issue: GHG Mitigation in Agriculture: Economic Studies on Markets, Policy, and Impact (2024), https://onlinelibrary.wiley.com/page/journal/14678489/homepage/cfp-ghg-mitigation.
- National Institute of Food and Agriculture (NIFA) AFRI Economics, Market, and Trade (A1641) Review Panel
- Journal of Agricultural and Applied Economics Editorial Council (2021–2023)
- Northeastern Agricultural and Resource Economics Association (NAREA) Outstanding Master's Thesis Committee (2019–2021)
- Conference Abstracts Review: Agricultural and Applied Economics Association Annual Meeting 2021–2024
- Referee: Journal of Environmental Economics and Management, Environmental and Resource Economics, American Journal of Agricultural Economics, Journal of the Agricultural and Applied Economics Association, China Economic Review, China Agricultural Economic Review, Frontiers in Ecology and the Environment, Journal of Regional Science, Journal of Population and Environment, PNAS Nexus

Communities

• Vestry, St. Mark's Chapel, Storrs, CT (2019)

PROFESSIONAL MEMBERSHIPS

- American Economic Association, Member since 2015
- Agricultural and Applied Economics Association, Member since 2006
- Association of Environmental and Resource Economists, Member since 2006

COMPUTER SKILLS

- Proficient: STATA, R, ArcGIS, Matlab, GAMS, LATEX, Microsoft Office Applications
- Familiar with: Python, SAS, Mathematica, GAUSS, Java

Other

- Citizenship: China; United States permanent resident
- Languages: Chinese (Native), English (Fluent)

References

- Julian M. Alston, Professor Emeritus, Department of Agricultural & Resource Economics, University of California, Davis. Email: julian@primal.ucdavis.edu. Phone: (530) 752-3283.
- Matthew Holt, Dean of the College of Agriculture, Forestry, and Life Sciences, Clemson University. Email: mattholt@clemson.edu. Phone: (205) 764-8369.
- Pengfei Liu, Associate Professor, Department of Environmental & Natural Resource Economics, University of Rhode Island. Email: pengfei_liu@uri.edu. Phone: (401) 874-4061.