

**University of New Mexico
College of Arts and Sciences
Faculty Vitae**

Jingjing Wang

Economics

January 25, 2024

Educational History

- Ph.D., June 2012, University of California at Riverside
900 University Ave, Riverside, CA 92521, USA
Field: Environmental and Natural Resource Economics and Policy
Dissertation: *Policies for Controlling Groundwater Pollution from Concentrated
Animal Feeding Operations*
Advisor: Dr. Kenneth Baerenklau
- M.S., June 2011, University of California at Riverside
900 University Ave, Riverside, CA 92521, USA
Field: Environmental Science
- B.E., July 2007, Tsinghua University
30 Shuangqing Rd, Haidian District, Beijing, 100084, China
Field: Environmental Engineering
Thesis: *CO₂ Emissions and Mitigation Potential in China's Transport Sector*
Advisor: Dr. Can Wang

Employment History Part I

Associate Professor of Economics, University of New Mexico, Albuquerque, NM 87131
August 2022 – Present

Assistant Professor of Economics, University of New Mexico, Albuquerque, NM 87131
August 2012 – June 2022

Employment History Part II

Associate Director, Water Resources Program, University of New Mexico, Albuquerque, NM
87131
August 2023 – Present

Affiliated Faculty Member, Sustainability Studies Program, University of New Mexico,
Albuquerque, NM 87131
January 2020 – Present

Affiliated Faculty Member, Water Resources Program, University of New Mexico, Albuquerque,
NM 87131
January 2013 – Present

Senior Supply Chain Analyst, Smithfield Foods, Inc., Smithfield, VA 23430
August 2017 – July 2019

Senior Fellow, Robert Wood Johnson Foundation for Health Policy at the University of New
Mexico, Albuquerque, NM 87131
August 2012 – July 2018

Professional Recognition and Honors

University of New Mexico Provost Challenge for Excellence & Equity, Expanding Course-Based Undergraduate Research Experiences (ECURE) Fellowship, *Implementation Fellow*, 2021-2024

University of New Mexico Provost Challenge for Excellence & Equity, Expanding Course-Based Undergraduate Research Experiences (ECURE) Fellowship, *Publication Fellow*, 2022-2023

University of New Mexico College of Arts and Sciences *Teaching Excellence Honorable Mention*, 2022-2023

University of New Mexico, *Fostering Research Expansion in the Social Sciences and Humanities (FRESSH) Inaugural Cohort Award*, 2022-2023

University of New Mexico *New Teacher of the Year Award*, 2021-2022

University of New Mexico WeR1 Investing in Faculty Success Program – *Summer Research for Faculty (SuRF) Award*, Summer 2022

University of New Mexico WeR1 Investing in Faculty Success Program – *Faculty Scholarship Time (FaST) Award*, Spring 2022

University of New Mexico *Women in STEM Faculty Development Award*, 2021-2022, 2016-2017.

University of New Mexico Provost Challenge for Excellence & Equity, Expanding Course-Based Undergraduate Research Experiences (ECURE) Fellowship, *Exploratory Faculty Fellow*, 2020-2021

University of New Mexico Provost Challenge for Excellence & Equity, Student Experience Project (SEP) Fellowship, *Implementation Faculty Fellow*, 2020-2021

University of New Mexico *Academic Affairs General Education Teaching Fellow* (only seven faculty members were awarded across the UNM main and branch campuses), 2019-2020

Outstanding Reviewer Award, American Society of Civil Engineers (ASCE), Journal of Water Resources Planning and Management, 2013

Short Narrative Description of Research, Teaching and Service Interests

I am an applied microeconomist specializing in the field of environmental and natural resource economics. My research focuses on the role of public policy in internalizing externalities and the performance of markets for efficient resource allocation in the context of environment, agriculture, and water. I use quantitative tools such as integrated modeling, dynamic optimal control, and applied econometrics to solve real-world policy related questions. With my interdisciplinary background, my research incorporates new knowledge from economics, engineering, and natural science, as well as the new integrated modeling paradigm enabled by my quantitative skills. Specifically, my research portfolio contains projects under three intertwined themes: dual impacts of agriculture on the environment; water resources management and governance; and quality and performance of agricultural and resource commodity markets. My published papers appear in highly selective journals such as *Energy Economics*, *Ecological Economics*, *Science of the Total Environment*, and *Environmental Science & Technology*. I have presented my work at numerous professional meetings and invited seminars (by NSF programs, Sandia Labs, etc.). My research has also proved to be valuable in the classroom and in serving my local community in New Mexico.

My teaching program focuses on microeconomic theory, natural resource economics, and economic modeling. I have taught 4 undergraduate and 4 graduate courses since joining UNM. My undergraduate courses include a general education course (ECON2120), two topic courses on natural resource economics (ECON343 & ECON442), and a topic course on mathematical economics (ECON407). My graduate courses include a PhD core curriculum course (ECON504), an interdisciplinary team-taught course in the core curriculum for Master of Water Resources (ECON545), and two topic courses on resource economics (ECON542 & ECON543). Beyond the classroom, I have been actively mentoring graduate and undergraduate students. I have been *dissertation chair/co-chair* for 5 Economics PhD students (including 1 minority) and 1 Water Resources Master student, *dissertation committee member* for 5 other Economics PhD students, and *master thesis (or research requirement) committee member* for 9 Economics students, 1 Water Resources student & 1 Civil Engineering student. I have also hired and mentored 8 PhD students and 6 undergraduate students (including 3 minority) as research/project assistants to my funded projects. I actively train students with my research projects and have co-authored with students on academic publications. In total, I have 4 peer-reviewed publications with 3 PhD students as co-authors, with more ongoing projects with students in the research pipeline. My commitment to teaching has been highlighted by several UNM Provost's teaching awards I have received.

I have a record of service to my department, university, profession, and community. I have been an active participant in the administration of my department through several committee appointments. At the university level, I am serving on the UNM Sustainable Water Resources Grand Challenge Leadership Team. I served on the search committee for a Research Assistant Professor under the grand challenge and am serving on the search committee for an Assistant Professor of Biology. Outside the university, I have provided service to the economics profession by chairing conference sessions and regularly serving as an ad hoc reviewer, including for journals (highlighted by an Outstanding Reviewer Award), conferences, and funding organizations. I also contribute to my local community by serving on the advisory committee of the largest water utility in New Mexico. I find my service complementary to my research and my teaching.

Scholarly Achievements

Books Authored or Co-authored

None

Books Edited or Co-edited

None

Articles Published in Refereed Journals (__ denotes me as the corresponding author; * denotes students under my supervision)

1. Rahman, M.M., S.B. Kunwar, N. Khatiwada, M. Liu, A.K. Bohara, and **J. Wang**. Water and Economics: Why We Need and Ought to Teach Water Economics in the Modern Economics Curriculum. *Applied Economics Teaching Resources*, 5, 1–21.
2. Kunwar, S.B., N. Khatiwada, M.M. Rahman, M. Liu, S. Thapa, A.K. Bohara, and **J. Wang**, 2023. Reimagining Teaching Water Issues through Integrative Experiential Learning. *Applied Economics Teaching Resources*, 5, 1–23.
3. Zhong, X., **J. Wang**, and X. Yu, 2023. Internet Celebrities, Public Opinions and Food System Change in China: A New Conceptual Framework. Forthcoming at *International Food and Agribusiness Management Review*.
4. **Wang, J.**, X. Wang, and X. Yu, 2023. Shocks, Cycles and Adjustments: The Case of China's Hog Market under COVID-19 and ASF. Forthcoming at *Agribusiness*.
5. Li, Q., **J. Wang**, J. Wu, and Q. Zhai, 2023. The Dual Impacts of Specialized Agricultural Services on Pesticide Application: Evidence from China. *Pest Management Science*, 79 (1), 76-87.
6. Li, Q., X. Wang, **J. Wang**, and Y. Wang, 2022. Sell, Give Away, or Self-Use: Livestock Farm Size and Manure Disposal Mode. *Renewable Agriculture and Food Systems*, 1-11. doi:10.1017/S1742170522000187.
7. **Wang, J.**, 2022. Harnessing Natural Attenuation to Reduce CAFOs Nitrate Emissions: An Integrated Modeling Approach. *Ecological Economics*, 199, 107505.
8. **Wang, J.** and X. Wang, 2022. Why Is Water Illiquid? – The NQH₂O Water Index Futures. Forthcoming at *Applied Economic Perspectives and Policy*.

9. Li, Q., **J. Wang**, X. Wang, and Y. Wang, 2022. The Impact of Training on Beef Cattle Farmers' Installation of Biogas Digesters. *Energies*, 15(9), 3039.
10. Wang, H., **J. Wang**, and X. Yu, 2022. Wastewater Irrigation and Crop Yield: A Meta-Analysis. *Journal of Integrative Agriculture*, 21(4), 1215–1224.
11. Wang, Y., **J. Wang**, X. Wang, and Q. Li, 2021. Does Policy Cognition Affect Livestock Farmers' Investment in Manure Recycling Facilities? Evidence from China. *Science of the Total Environment*, 795, 148836.
12. Wang, Y., S. Ghimire*, **J. Wang**, R. Dong, and Q. Li, 2021. Alternative Management Systems of Beef Cattle Manure for Reducing Nitrogen Loadings: A Case-Study Approach. *Animals*, 11(2), 574.
13. **Wang, J.** and J.M. Chermak, 2021. Is Less Always More? Conservation, Efficiency and Water Education Programs. *Ecological Economics*, 184, 106994.
14. Ali, M.*, **J. Wang**, H. Himmelberger, and J. Thacher, 2021. An Economic Perspective on Fiscal Sustainability of U.S. Water Utilities: What We Know and Think We Know. *Water Economics and Policy*, 2150001.
15. **Wang, J.** and X. Wang, 2021. COVID-19 and Financial Market Efficiency: Evidence from an Entropy-based Analysis. *Finance Research Letters*, 42, 101888.
16. Ghimire, S. *, **J. Wang**, and J. Fleck, 2021. Integrated Crop-Livestock Systems for Nitrogen Management: A Multi-Scale Spatial Analysis. *Animals*, 11(1), 100.
17. Y. Wang, **J. Wang**, and X. Wang, 2020. COVID-19, Supply Chain Disruption and China Hog Market: A Dynamic Analysis. *China Agricultural Economic Review*, 12(3), 427-443.
18. Li, Q., **J. Wang**, X. Wang, and Y. Wang, 2020. The Impact of Alternative Policies on Livestock Farmers' Willingness to Recycle Manure: Evidence from Central China. *China Agricultural Economic Review*, 12(4), 583-594.
19. Joshi, J.* and **J. Wang**, 2018. Manure Management Coupled with Bioenergy Production: An Environmental and Economic Assessment of Large Dairies in New Mexico. *Energy Economics*, 74, 197-207.
20. Mortensen, J.G., González-Pinzón, R., Dahm, C.N., **Wang, J.**, Zeglin, L.H. and Van Horn, D.J., 2016. Advancing the Food-Energy-Water Nexus: Closing Nutrient Loops in Arid River Corridors. *Environmental Science & Technology*, 50(16), 8485–8496.
21. Liu, B., Y. Wang, **J. Wang**, X. Wu, and S. Zhang, 2015. Is China the Price Taker in Soybean Futures? *China Agricultural Economic Review*, 7(3), 389–404.

22. Raheem, N., S. Archambault, E. Arellano, M. Gonzalez, D. Kopp, J. Rivera, S. Guldan, K. Boykin, C. Oldham, A. Valdez, S. Colt, E. Lamadrid, **J. Wang**, J. Price, J. Goldstein, P. Arnold, S. Martin, and E. Dingwell, 2015. A Framework for Assessing Ecosystem Services in Acequia Irrigation Communities of the Upper Río Grande Watershed. *WIREs Water*, 2(5), 559–575.
23. **Wang, J.** and K.A. Baerenklau, 2015. How Inefficient Are Nutrient Application Limits? A Dynamic Analysis of Groundwater Nitrate Pollution from CAFOs. *Applied Economic Perspectives and Policy*, 37(1), 130–150.
24. **Wang, J.** and K.A. Baerenklau, 2014. Crop Response Functions Integrating Water, Nitrogen, and Salinity. *Agricultural Water Management*, 139, 17–30.

Articles Appearing in Chapters in Edited Volumes

1. Baerenklau, K.A., T.P. Tomich, S. Daroub, V.R. Haden, C. Kling, T. Lang, C.-Y. Lin, C. Mitterhofer, D. Parker, T. Rosenstock, K. Schwabe, and **J. Wang**, 2016. Chapter 8: Responses: Policies and Institutions. *The California Nitrogen Assessment: Challenges and Solutions for People, Agriculture, and the Environment*. Editors: T.P. Tomich, S.B. Brodt, R.A. Dahlgren, and K.M. Scow. University of California Press.
2. Baerenklau, K.A. and **J. Wang**, 2015. Chapter 17: Model-Based Regulation of Nonpoint Source Emissions. *Handbook of Water Economics*. Editors: A. Dinar and K. Schwabe. Edward Elgar.

Other Scholarly Works (__ denotes me as the corresponding author; * denotes students under my supervision)

Olofinsao, O.* and **J. Wang**, 2023. Reuse of Treated Municipal Wastewater in Drylands: A Multi-Sector Optimization Analysis. Forthcoming Technical Report, New Mexico Water Resources Research Institute.

Ghimire, S.*, and **J. Wang**, 2023. Economic Viability of Bioenergy Production on Large Dairy Farms: An Assessment for New Mexico. White Paper, Department of Economics, University of New Mexico.

Wang, J. and J.R. Joshi, 2015. Exploring Policy Alternatives for Controlling Nitrate Pollution from New Mexico’s Dairies. Technical Report 369, New Mexico Water Resources Research Institute.

Works in Progress

Accepted for publication

NA

Submitted for publication (___ denotes me as the corresponding author; * denotes students under my supervision)

1. Gayoso, N., E. Moylan, **J. Wang**, and A. Mulchandani. Techno-Economic Analysis of Atmospheric Water Harvesting Across Climates. R&R at *ACS ES&T Engineering* (submitted on October 19, 2023).
2. B. Jones, **J. Wang**, and J. Fleck. Sending Agricultural Water to The Salton Sea to Improve Public Health? An Integrated Agri-Hydro-Health Economic Analysis. R&R at *Journal of the Association of Environmental and Resource Economists* (submitted on December 13, 2022)
3. Liu, M.*, H. Himmelberger, and **J. Wang**. Is Larger Always Better? On Optimal Scale of US Water Utilities. R&R at *Journal AWWA* (submitted on April 5, 2022).

In preparation (working papers; * denotes students under my supervision)

1. Ghimire, S.* and J. Wang. Disproportionate Effects of CAFOs on Disadvantaged Communities: A Case Study of Dairy Farms.
2. Ghimire, S.* and J. Wang. Economic Viability of Bioenergy Production on Large Dairy Farms: An Assessment for New Mexico
3. Ghimire, S.*, J. Wang and A. Goodkind. Health Damages of Dairy Air Pollutant Emissions: An Assessment for New Mexico.
4. O.A. Olofinsao*, J. Wang, and R. Berrens. Reuse of Treated Municipal Wastewater in Drylands: Multi-Sector Optimization Analysis for Middle Rio Grande Case Study.
5. Li, Q., Q. Zhai, and J. Wang. The Impact of Specialized Agricultural Services on Fertilizer Application.
6. Li, Q., Q. Zhai, and J. Wang. Can domestic waste sorting improve urban residents' happiness?
7. Li, Q., Q. Zhai, and J. Wang. The impact of information interventions on urban residents' participation in domestic waste sorting.
8. Hasenbecka, E*, C.E. Scruggsa, M. Morgana, J. Wang, A. Webster and C. Gomeza*. Perspectives on Innovative Approaches in Agriculture to Managing Water Scarcity.

Invited or Refereed Abstracts and/or Presentations at Professional Meetings

1. *Reuse of Treated Municipal Wastewater in Drylands: A Multi-Sector Optimization Analysis*, Western Economic Association (WEA) Annual Conference, AERE-organized session, June 29-July 3, 2024.
2. *Reuse of Treated Municipal Wastewater in Drylands: A Multi-Sector Optimization Analysis*, Society for Benefit-Cost Analysis Annual Conference, March 9-10, 2024.
3. *Sending Agricultural Water to the Salton Sea to Improve Public Health? An Integrated Agri-Hydro-Health Economic Analysis*. Session Chair. Southern Economics Association (SEA) Annual Conference, November 18-20, 2023.
4. *Reuse of Treated Municipal Wastewater in Drylands: A Multi-Sector Optimization Analysis*, New Mexico Research Symposium, November 4, 2023.
5. *The Economics of Controlled Environment Agriculture*. Aquaponics Association Annual Conference, September 15-17, 2023.
6. *Distributional Effects of Exposure to CAFOs: A Case Study of Large Dairies in New Mexico*. Southern Economics Association (SEA) Annual Conference, November 19-21, 2022.
7. *Reuse of Municipal Wastewater in Drylands: A Case of the Middle Rio Grande Basin*. 67th Annual New Mexico Water Conference, October 26-28, 2022.
8. *Distributional Effects of Exposure to CAFOs: A Case Study of Large Dairies in New Mexico*. Northeastern Agricultural and Resource Economics Association (NAREA) Annual Meeting, June 12-15, 2022.
9. *Reuse of Municipal Wastewater in Drylands: A Case of the Middle Rio Grande Basin*. Animas and San Juan Watersheds Conference, June 8-9, 2022.
10. *Distributional Effects of Exposure to CAFOs: A Case Study of Large Dairies in New Mexico*. UNM Center for Regional Studies Research Snapshot Webinar, Virtual, April 8, 2022.
11. *Sending Agricultural Water to The Salton Sea to Improve Public Health? An Integrated Hydro-Agri-Health-Economic Analysis*, Invited Seminar at Pennsylvania State University, Virtual, January 26, 2022.
12. *Refilling the Salton Sea to Improve Public Health? An Integrated Hydro-Agri-Health Economic Analysis*, Seminar in Water Economics onLLine (SWELL), virtual, December 21, 2021.
13. *Municipal Wastewater for Irrigated Agriculture in Drylands: A Case of Middle Rio Grande in Southwest US*, 66th Annual New Mexico Water Conference, virtual, October 26-28, 2021.

14. *Multilevel Assessments of Contribution of Livestock Manure to Nitrogen Budget in Arid-land Ecosystems: The Case of Dairies in New Mexico*, 65th Annual New Mexico Water Conference, virtual, October 26-29, 2020.
15. *Multilevel Assessments of Contribution of Livestock Manure to Nitrogen Budget in Arid-land Ecosystems: The Case of Dairies in New Mexico*, New Mexico Research Symposium, virtual, November 9-13, 2020.
16. *Advancing the Food-Energy-Water Nexus: Closing Nutrient Loops in Arid River Corridors*, AGU Fall Meeting, San Francisco, CA, December 12-16, 2016.
17. *Dairy Manure Management Coupled with Renewable Energy Production: An Environmental and Economic Assessment of Large Dairies in the Arid Southwest*, Western Forest Economists Meeting, Seattle, WA, May 3-4, 2016.
18. *Dairy Manure Management Coupled with Renewable Energy Production: An Environmental and Economic Assessment of Large Dairies in the Arid Southwest*, 6th Annual Pacific Northwest Water Research Symposium, Corvallis, OR, April 18-19, 2016.
19. *The Effect of Lawn Watering Class on Residential Water Demand: The Case of Albuquerque, New Mexico*, American Water Resources Association Spring Specialty Conference on Water for Urban Areas: Managing Risks and Building Resiliency, Los Angeles, CA, March 30-April 1, 2015.
20. *The Effect of Lawn Watering Class on Residential Water Demand: The Case of Albuquerque, New Mexico*, 84th Southern Economic Association Annual Conference, Atlanta, GA, November 22-24, 2014.
21. *Integrated Environmental and Economic Assessment of Using Dairy Waste for Algae Bio-Energy Production in New Mexico*, 59th Annual New Mexico Water Conference, Santa Fe, NM, November 18-19, 2014.
22. *Integrated Environmental and Economic Assessment of Using Dairy Waste for Algae Bio-Energy Production in New Mexico*, New Mexico Research Symposium, Albuquerque, NM, November 1, 2014.
23. *Evaluating Ecosystem Services for Reducing Groundwater Pollution: Role of Denitrification in the Subsurface Environment*, AGU Fall Meeting, San Francisco, CA, December 9-13, 2013.
24. *Evaluating Ecosystem Services for Reducing Groundwater Pollution: Role of Denitrification in the Subsurface Environment*, Heartland Environmental and Resource Economics Workshop at Illinois, Urbana-Champaign, IL, November 2-3, 2013.
25. *Control of Groundwater Pollution from Animal Feeding Operations: A Farm-Level Dynamic Model for Policy Analysis*, Invited Talk, American Geophysical Union Fall Meeting, San Francisco, CA, December 6, 2012.

26. *Evaluating Pollution Control Policies Using a Farm-level Dynamic Model*, AAEA Annual Meeting, Seattle, WA, August 14, 2012.
27. *Evaluating Pollution Control Policies Using a Farm-level Dynamic Model*, 2nd Annual AERE Summer Conference, Asheville, TN, June 4-5, 2012.

Contributed (un-refereed) Abstracts and/or Oral Presentations at Professional Meetings

1. *Economics Modeling*, National Science Foundation (NSF) Research Coordination Network (RCN): Transect of the Americas Webinar, Invited Talk, virtual, January 12, 2021.
2. *Trade-offs, Heterogeneity and Efficiency*, Sandia National Laboratories Research Spotlight Forum on Sciences & Decision Making, Invited Talk, Albuquerque, NM, March 10, 2020.
3. *The Economics of Water and Fire: An Optimal Control Perspective*, University of New Mexico Annual Resilience Colloquium, Invited Talk, Albuquerque, NM, May 10, 2016.
4. *Enhancing Ecosystem Services for Reducing Groundwater Pollution: A Policy Perspective*, Invited Seminar at Arizona State University, Mesa, AZ, April 11, 2014.
5. *Wildfires and Water Supply Sustainability*, 7th Informal UC Davis Water Management Workshop, Invited Talk, Davis, CA, December 14-15, 2013.
6. *Evaluating Ecosystem Services in Irrigated Agriculture*, New Mexico EPSCoR Workshop on Acequia Ecosystem Services and Valuation, Embudo, NM, July 19-21, 2013.
7. *Health Impacts of Nitrogen Pollution and Wildfire*, Robert Wood Johnson Foundation National Advisory Board Meeting, Albuquerque, NM, April 26, 2013.
8. *Invited Panel Discussion on Water Resources Management and Public Policy*, National Science Foundation (NSF) Tri-State EPSCoR Climate Change Workshop, University of Nevada, Las Vegas, NV, March 27-28, 2013.

Research

Research Funding

Funded research grants (Lead investigator) (Total = \$440,376; External = \$332,103)

1. **Jingjing Wang (PI)**. *Heterogeneity in Price Elasticities of Urban Water Demand: The Case for Albuquerque, New Mexico*. The State of New Mexico Legislative Research Grant, 07/01/2023 – 06/30/2024, \$ 51,686.
2. **Jingjing Wang (PI)**. *Economic Viability of Bioenergy Production on Large Dairy Farms: An Assessment for New Mexico*. The State of New Mexico Legislative Research Grant, 07/01/2022 – 06/30/2023, \$ 24,125.
3. **Jingjing Wang (PI)**. *Reuse of Municipal Wastewater for Irrigation in Drylands: A Case of the Middle Rio Grande Basin*. New Mexico Water Resources Research Institute, 06/01/2022 – 05/31/2023, \$7,500.
4. **Jingjing Wang (PI)**. *Will bioenergy production from dairy manure power move to a carbon-neutral New Mexico?* University of New Mexico WeR1 Summer Research for Faculty (SuRF) Program, 06/21/2022 – 07/31/2022, \$2,500.
5. **Jingjing Wang (PI)**. *Perspectives on Innovative Approaches in Agriculture to Managing Water Scarcity*. University of New Mexico Division for Equity and Inclusion (DEI) Indigenous Research Experience & Scholarship (IRES) program, Undergraduate Research Assistant funding, 12/01/2021 – 06/30/2022, \$4,534.
6. **Jingjing Wang (PI)**. *Nitrogen Cycle, Aridland Ecosystems, and Economic Impacts: A Convergence Approach*. University of New Mexico WeR1 Investing in Faculty Success Program – Faculty Scholarship Time, Spring 2022, \$5,300.
7. Caroline Scruggs (PI), Melinda Morgan (Co-PI), **Jingjing Wang (Co-PI)** and Alex Webster (Co-PI). *Perspectives on Innovative Approaches in Agriculture to Managing Water Scarcity*. University of New Mexico Women in STEM Faculty Development Award, 08/01/2021 – 07/31/2022, \$15,000.
8. **Jingjing Wang (PI)**. *Infant Health Impacts of Large Dairies in New Mexico*. University of New Mexico WeR1 Investing in Faculty Success Program, 06/21/2021 – 12/31/2021, \$4,000.
9. **Jingjing Wang (PI)** and Thomas Turner (Co-PI). *Integrated ecological-economic modeling for evaluating sources and impacts of nitrogen surplus in arid-land ecosystems: a pilot study of the Rio Grande*. University of New Mexico Sustainable Water Resources Grand Challenge Seed Grant, 01/13/2020 – 05/14/2021, \$9,928.
10. **Jingjing Wang (PI)**. *Integrated Modeling and Policy Evaluation for Sustainable Food, Energy, and Water Systems: A Case Study of the Dairy Industry in New Mexico*. University of

New Mexico Women in STEM Faculty Development Award, 08/01/2016 – 07/31/2017, \$8,684.

11. Heather Himmelberger (PI), Sandi Blanton (Co-PI), Darcy Bushnell (Co-PI), **Jingjing Wang (Co-PI)**, Jennifer Thacher (Co-PI), Janie Chermak (Co-PI), Yueming Qiu (Co-PI), and Angela Buzzard (Co-PI). *Identifying and Evaluating Opportunities for Reducing Variability of Utility Revenues*. Water Research Foundation, 01/01/2015 – 11/20/2015, \$278,000.
12. **Jingjing Wang (PI)**. *Policy alternatives for controlling nitrate pollution from New Mexico's dairies*. New Mexico Water Resources Research Institute, 07/01/2014 – 06/30/2015, \$29,978.

Contributions to funded research grants (Senior personnel)

None

Pending Research Funding

1. NSF EPSCoR RII Track-2 FEC, *Collaborative Research: RII Track-2 FEC: Tribal Community Resilience Under Climate Change: Harnessing Controlled Environment Agriculture to Secure Sustainability and Economic Growth*. **Jingjing Wang (PI)**, David Hanson (Co-PI), Yolanda Lin (Co-PI), Stephen Gomez (Co-PI), Carmela Rosaria Guadagno (Co-PI), Cynthia Weinig (Co-PI), Jill F Keith (Co-PI), Meghann Jarchow (Co-PI), Kevin Lombard (Co-PI), and other Senior Personnel. NSF EPSCoR RII Track-2, \$5,999,734 (\$2,182,836 to UNM), 09/01/2024 – 08/31/2028. Round 1 pre-proposal submitted to UNM in November 2022 and top-ranked in the internal competition. Full proposal submitted to NSF on 1/23/2024.

Teaching

Doctoral Advisement (** denotes minority students)

1. Nahid Samimimotlagh (Co-Chair), Ph.D. in Economics, expected Spring 2025, “Economic Analysis of Household Conservation of Energy and Water.”
2. Margo Gustina (Co-Chair), Ph.D. in Economics, expected Fall 2024, “Shelter from the Storm: Public Library Value and Risk Reduction Function.”
3. Oluwatosin Olofinsao** (Chair), Ph.D. in Economics, expected May 2026, “An Integrated Economic Analysis of Water Resources Management in Drylands.”
4. Suraj Ghimire (Chair), Ph.D. in Economics, May 2023, “Concentrated Animal Feeding Operations, Environmental Quality, and Public Health.”
5. Mohammad Mashiur Rahman, Ph.D. in Economics, December 2021, “Assessment of Behavior, Attitude, and Spatial Dependence of Willingness to Pay for Solid Waste Management System.”
6. Na Lu, Ph.D. in Economics, December 2019, “Essays on Agricultural Water Pollution and Human Health.”
7. Janak Joshi (Co-Chair), Ph.D. in Economics, May 2019, “Essays on Energy Economics and Environmental Policies.”
8. Samrat Kunwar, Ph.D. in Economics, May 2019, “Freshwater Conservation, Drinking Water Quality & Climate Change Adaptations: A Case Study on Nepal.”
9. Michael O’Donnell, Ph.D. in Economics, May 2018, “Three Essays on Understanding Municipal Water Demand in The Western United States.”
10. Jeff Felardo, Ph.D. in Economics, July 2013, “Temporal and spatial analysis of forest management: a case study of Kam Cha I, Thailand.”

Master Advisement (** denotes minority students)

1. Ben Cornelius (Chair), Economics, expected Spring 2024, “The Impact of Smart Irrigation Controllers on Residential Outdoor Water Demand.”
2. Samuel Asare**, Economics, expected Spring 2024, “The Value of Urban Green Space: A Hedonic Approach.”
3. Nahid Samimimotlagh, Economics, defended Fall 2023, “Hedonic Pricing of Energy Efficiency Improvements in US Residential Housing.”

4. Natalie Gayoso**, Civil Engineering, graduated Fall 2022, “Techno-Economic Analysis of Atmospheric Water Harvesting Across Climates.”
5. Oluwatosin Olofinsao** (Chair), Economics, defended July 19, 2022, “Municipal Wastewater Reuse in Drylands: A Case of Middle Rio Grande in Southwest US.”
6. Thaneshwar Paneru, Economics, defended May 14, 2021, “Adverse Impacts of Piped Water on Child Health: Evidence from Nepal.”
7. Suraj Ghimire (Chair), Economics, defended January 7, 2021, “Integrated Crop-Livestock Systems for Nitrogen Management: A Multi-Scale Spatial Analysis.”
8. Nancy McDuffie (Chair), Master of Water Resources, defended December 7, 2020, “How Do Dairy Feedlot Size and Land Use Practices Affect Groundwater Quality Over Time? A Preliminary Study in New Mexico.”
9. Bishal Raj Khanal, Economics, defended June 29, 2020, “Assessing Environmental Impacts of Urbanization in Siddharthanagar Nepal.”
10. Na Lu, Economics, defended May 10, 2017, “Is Ozone Pollution Affecting Human Health in Rural America? Evidence from New Mexico.”
11. Samrat Kunwar, Economics, defended September 19, 2016, “Assessing the impact of climate change on farmland values in Nepal: A Ricardian Approach.”
12. Schuyler Smith, Master of Water Resources, defended July 10, 2015, “Understanding Trends in the New Mexico Dairy Industry, and Accounting for Direct and Indirect Water Use in Dairy Production.”
13. Michael O’Donnell, Economics, defended April 27, 2015, “Willingness to Pay for Non-Consumptive Wildlife Watching: Results from Three Rounds of the National Survey of Fishing, Hunting and Wildlife-Associated Recreation.”

Bachelor’s Honors Advisement (denotes minority students)**

None

Undergraduate Student Mentoring (denotes minority students)**

1. Celeste Lucero, 2023-2024, the first recipient of the Ryan and Brandi Mummert Research Fellowship in Economics & Undergraduate Project Assistant for a funded project “Heterogeneity in Price Elasticities of Urban Water Demand: The Case for Albuquerque, New Mexico.”

2. Alex Kaltenbach, 2023-2024, Undergraduate Project Assistant for a funded project “Heterogeneity in Price Elasticities of Urban Water Demand: The Case for Albuquerque, New Mexico.”
3. Christina Klas, Summer 2023, Undergraduate Project Assistant for a funded project “Economic Viability of Bioenergy Production on Large Dairy Farms: An Assessment for New Mexico.”
4. Christina Klas, Spring 2023, Undergraduate Science Communication Fellowship recipient funded by the University of New Mexico Sustainable Water Resources Grand Challenge for a Science Communication Project on urban water conservation.
5. Carlos Ortega-Lujan**, Fall 2022, Undergraduate Research Assistant funded by UNM Arts & Sciences Support for Undergraduate Research Experience (ASSURE) program for the project “Analysis of carbon offset markets for economic viability assessment of bioenergy production.”
6. Najhozhoni Rain Ben**, 12/01/2021 – 06/30/2022, Undergraduate Research Assistant funded by the University of New Mexico Division for Equity and Inclusion (DEI) Indigenous Research Experience & Scholarship (IRES) program for the project “Perspectives on Innovative Approaches in Agriculture to Managing Water Scarcity.”
7. Najhozhoni Rain Ben**, Spring 2022, Undergraduate Science Communication Fellowship recipient funded by the University of New Mexico Sustainable Water Resources Grand Challenge for a Science Communication Project on water sustainability in the Navajo reservation.
8. Matthew Goldman, Spring 2021, Undergraduate Research Assistant for a funded project “Integrated ecological-economic modeling for evaluating sources and impacts of nitrogen surplus in arid-land ecosystems: a pilot study of the Rio Grande.”
9. Carlos Ortega-Lujan**, Spring 2021, Undergraduate Research Assistant for a funded project “Integrated ecological-economic modeling for evaluating sources and impacts of nitrogen surplus in arid-land ecosystems: a pilot study of the Rio Grande.”
10. Katrina Dutt & Matthew Goldman, Spring 2021, Undergraduate Research Team for a project “Impact of a Green Default Nudge on Resource Conservation: A Case Study of UNM Printing”, one of the three finalists in the inaugural UNM Team Research Symposium - Student Team Research Concept Competition with a \$200 prize.

Graduate Student Mentoring (denotes minority students)**

1. Nahid Samimimotlagh, 2023-2024, *Graduate Research Assistant* hired for a project “Heterogeneity in Price Elasticities of Urban Water Demand: The Case for Albuquerque, New Mexico” funded by the State of New Mexico Legislative Research Grant.

2. Suraj Ghimire, 2022-2023, *Graduate Research Assistant* hired for a project “Economic Viability of Bioenergy Production on Large Dairy Farms: An Assessment for New Mexico” funded by the State of New Mexico Legislative Research Grant; Spring & Fall 2020, *Graduate Research Assistant* hired for a project “Integrated ecological-economic modeling for evaluating sources and impacts of nitrogen surplus in arid-land ecosystems: a pilot study of the Rio Grande” funded by UNM Sustainable Water Resources Grand Challenge.
3. Oluwatosin Olofinsao**, Fall 2021, *Graduate Research Assistant* hired for a project “Infant Health Impacts of Large Dairies in New Mexico” supported by UNM WeR1 Faculty Success Program; Fall 2022, *Teaching Mentee* for independently teaching the course ECON2120 (face-to-face).
4. Adam Schutt, Spring, Summer & Fall 2021, *Project Assistant* hired for copy-editing projects supported by UNM ADVANCE Faculty Professional Development Assistance Program.
5. Mengqi Liu, Summer 2020, *Project Assistant* hired for a project “Factors Affecting Costs of US Water Utilities” supported by UNM ADVANCE Faculty Summer Pilot Program; Spring 2020, *Teaching Fellow Graduate Assistant* hired for developing a water module for a general education course ECON 2120, funded by the College of Arts and Sciences as support for PI Wang being University of New Mexico Academic Affairs General Education Teaching Fellow.
6. Mohammad Mashiur Rahman, Summer 2021, *Project Assistant* hired for a literature review project supported by UNM ADVANCE Faculty Professional Development Assistance Program; Summer 2020, *Project Assistant* hired for a copy-editing project supported by UNM ADVANCE Faculty Summer Pilot Program.
7. Janak Raj Joshi, Spring 2017, *Graduate Research Assistant* hired for a project “Integrated Modeling and Policy Evaluation for Sustainable Food, Energy, and Water Systems: A Case Study of the Dairy Industry in New Mexico” funded by UNM Women in STEM Faculty Development Award; Fall 2014 & Spring 2015, *Graduate Research Assistant* hired for a project “Policy alternatives for controlling nitrate pollution from New Mexico’s dairies” funded by New Mexico Water Resources Research Institute.
8. Mohammad Ali, Spring, Summer & Fall 2015, *Graduate Research Assistant* hired for a project “Identifying and Evaluating Opportunities for Reducing Variability of Utility Revenues” funded by Water Research Foundation.
9. Wilfred Osei Padmore, Summer 2023, *Teaching Mentee* for course development; Spring 2024, *Teaching Mentee* for independently teaching the course ECON2120 (online).
10. Tausifa Tajalli, Fall 2023, *Teaching Mentee* for independently teaching the course ECON2120 (online).

11. Niraj Khatiwada, Spring 2022, *Teaching Mentee* for independently teaching the course ECON2120 (face-to-face).
12. Soumyajit Chakraborty, Spring 2020, *Teaching Mentee* for independently teaching the course ECON2120 (face-to-face); Fall 2020, *Teaching Mentee* for independently teaching the course ECON2120 (online).
13. Michael O'Donnell, Spring 2017, *Teaching Mentee* for independently teaching the course ECON106 (face-to-face).
14. Na Lu, Spring 2017, *Teaching Mentee* for independently teaching the course ECON106 (online).

Classroom Teaching

Year	Semester	Course Name	Course #	Number of students
2024	Spring	Water Resources II - Models	ECON 545	13
2024	Spring	Microeconomic Principles (online)	ECON 2120	147
2023	Fall	Mathematical Tools and Economic Models	ECON 504	8
2023	Fall	Mathematical Methods in Economics	ECON 407	12
2023	Spring	Natural Resource, Environmental, and Ecological Modeling II	ECON 543	11
2023	Spring	Microeconomic Principles (online)	ECON 2120	108
2022	Fall	Topics in Environmental and Natural Resource Economics	ECON 442	11
2022	Fall	Microeconomic Principles (online)	ECON 2120	86
2022	Spring	Microeconomic Principles (online)	ECON 2120	70
2021	Fall	Mathematical Tools and Economic Models (hybrid)	ECON 504	12
2021	Fall	Microeconomic Principles (hybrid)	ECON 2120	67
2021	Spring	Natural Resource Economics (online)	ECON 343	19
2021	Spring	Microeconomic Principles (online)	ECON 2120	60
2020	Fall	Mathematical Tools and Economic Models (online)	ECON 504	6
2020	Fall	Microeconomic Principles (online)	ECON 2120	60
2020	Spring	Natural Resource Economics (hybrid)	ECON 343	11
2020	Spring	Microeconomic Principles (hybrid)	ECON 2120	30
2017	Spring	Water Resources II - Models	ECON 545	14
2016	Spring	Water Resources II - Models	ECON 545	12
2015	Fall	Mathematical Tools and Economic Models	ECON 504	16
2015	Fall	Introductory Microeconomics	ECON 106	126
2015	Spring	Topics in Environmental, Resource, and Ecological Economics	ECON 542	12
2015	Spring	Topics in Environmental and Natural Resource Economics	ECON 442	6
2014	Fall	Mathematical Tools and Economic Models	ECON 504	10
2014	Fall	Introductory Microeconomics	ECON 106	155
2014	Spring	Topics in Environmental and Natural Resource Economics	ECON 442	22
2014	Spring	Natural Resource Economics	ECON 343	10
2013	Fall	Mathematical Tools and Economic Models	ECON 504	11
2013	Fall	Introductory Microeconomics	ECON 106	68
2013	Spring	Natural Resource Economics	ECON 343	23
2013	Spring	Introductory Microeconomics	ECON 106	146
2012	Fall	Mathematical Tools and Economic Models	ECON 504	11
2012	Fall	Introductory Microeconomics	ECON 106	32

Curriculum Development or Teaching Administrative Positions

1. UNM Academic Affairs General Education Teaching Fellowship: I was awarded the fellowship for 2019-2020 and have integrated UNM's Sustainable Water Resources Grand Challenge (one of UNM's three Grand Challenges) related research into my Principles of Microeconomics course. The course not only teaches about a global challenge but also connects students with our local community by bringing in "local" teaching materials such as water scarcity in the Southwest US, water resources management in New Mexico, and analysis of water conservation programs implemented by our local water utility.
2. UNM Provost's Challenge for Excellence and Equity, Student Experience Project (SEP) Fellowship: I was awarded the fellowship for 2020-2021 and have implemented a set of research-based interventions in my Principles of Microeconomics course to build equitable learning environments and improve completion of degree among structurally disadvantaged students, including first-generation students and students of color.
3. UNM Provost's Challenge for Excellence and Equity, Expanding Course-Based Undergraduate Research Experience (ECURE) Fellowships: I was awarded an Exploratory Fellowship for 2020-2021 and have designed an ECURE implementation plan for my Principles of Microeconomics course to engage students in entry-level economics research using best practices in inclusivity and equity. I was awarded the Implementation Fellowship for 2021-2024 to implement my ECURE plan in my Principles of Microeconomics course. I was also awarded the ECURE Publication Fellowship to work with ECURE leadership to analyze and publish the findings from my implementation project.
4. Graduate Core Committee: As a member of the Economics Graduate Core Committee in 2012-2015, I assisted in restructuring the first-year core curriculum courses of our PhD program. Per my department's need, I have converted a PhD core curriculum course from 16 weeks to 8 weeks (in Fall 2013) and then back to 16 weeks (in Fall 2020 and converted to online due to the COVID-19 pandemic). The course, ECON504 – Mathematical Tools and Economic Models, is unique in the sense that it is one of the first core curriculum courses taught to our doctoral students. It not only prepares the students for future core courses, but more importantly, introduces students to various economic models. In addition to traditional mathematical modules, I added a computational component to the course since I joined my department in Fall 2012. The new computational component introduces basic computational modeling skills and numerical techniques that are mostly used to solve numerical problems in economics.
5. Graduate Committee: As a member of the Graduate Committee in 2015-2017 and in 2019-2020, I assisted in recruiting and admitting graduate students as well as allocating teaching assistantships and fellowships/awards to our students.
6. Undergraduate Committee: As a member of the Undergraduate Committee in 2020-current, I have assisted in assessing our undergraduate program, providing recommendations for improvements based on the program assessment (e.g., how to better recruit students of color

and female majors and how to better mentor graduate student instructors), and preparing a unit self-study report for the department's Academic Program Review.

Service

Reviewing for journals

- Ecological Economics: 2022 [1]
- Energy Economics: 2020 [2], 2019 [1]
- Water Resources and Economics: 2023 [1], 2022 [1]
- Water Economics and Policy: 2020 [1], 2015 [1]
- Water Resources Research: 2022 [1], 2021 [1], 2016 [1], 2014 [2], 2013 [2], 2012 [1]
- Resources, Conservation & Recycling: 2022 [2], 2015 [1], 2014 [1]
- Agricultural Water Management: 2018 [1]
- Journal of Water Resources Planning and Management: 2018 [1], 2017 [1], 2016 [1], 2014 [1], 2013 [1]
- China Agricultural Economic Review: 2020 [1]
- International Journal of Production Economics: 2014 [1]
- Mitigation and Adaptation of Strategies for Global Change: 2014 [2], 2013 [2]
- PLOS Climate: 2023 [1], 2022 [1]
- Agronomy: 2021 [1], 2020 [1]
- Animals: 2020 [1]
- Applied Economics Teaching Resources: 2023 [1], 2022 [1]
- Choices: 2023 [1]

Reviewing for state/national/international funding organizations

- Foundation for Food & Agriculture Research, New Innovator in Food and Agriculture Research Award Program, Proposal Review, June 2022.
- South Asian Network for Development and Environmental Economics, Winter Research Competition Grant, Proposal Review, April 2018.
- New Mexico Water Resources Research Institute, Student Water Research Grant Proposal Review, September 2015.
- South Asian Network for Development and Environmental Economics, Winter Research Competition Grant, Proposal Review, October 2014.
- Robert Wood Johnson Foundation Center for Health Policy at the University of New Mexico, Faculty Research Grant Panel Review, Albuquerque, NM, October 2013.
- USDA NIFA/AFRI program (Economics, Markets and Trade, and Environment grant programs), Grant Panel Review, Washington D.C., September 2013.

Reviewing for state/national/international conferences

- Conference Abstract Review, AERE @ the Southern Economic Association (SEA) Annual Conference (New Orleans, LA, November 2023), reviewed three paper abstracts in March 2023

- Conference Paper Review, 11th Annual Meeting of the International Water Resource Economics Consortium (Washington D.C., September 2014), reviewed five conference papers in March 2014.

University Service

- UNM Accelerating Resilience Innovations in Drylands (ARID) Institute Leadership Team, August 2023 – present
- UNM Sustainable Water Resources Grand Challenge Leadership Team, August 2020 – July 2023
- UNM Truman Selection Committee, 2022 – 2023
- Review Team for UNM Level 2 Grand Challenges Program, Summer 2023
- Proposal Reviewer for UNM Limited Competition, Summer 2022
- Search Committee for an Assistant Professor of Biology with a specialty in freshwater ecosystem ecology, UNM, May 2021 – December 2021
- Search Committee for a Research Assistant Professor, UNM Sustainable Water Resources Grand Challenge, Spring 2020

Departmental Service

- RPSP Committee, Department of Economics, UNM, 2023-2024 (Chair)
- Undergraduate Committee, Department of Economics, UNM, 2020-2024 (member)
- Graduate Committee, Department of Economics, UNM, 2019-2020 (member), 2016-2017 (member), 2015-2016 (member)
- Personnel Committee, Department of Economics, UNM, 2021-2022 (member), 2013-2014 (member)
- Microeconomics Comprehensive Exam Committee, Department of Economics, UNM, 2015-2016 (Chair), 2014-2015 (member), 2012-2015 (member)
- Seminar Committee, Department of Economics, UNM, 2022-2023 (Chair), 2019-2020 (member), 2014-2015 (member), 2012-2014 (Chair)
- Awards Committee, Department of Economics, UNM, Spring 2023 (member), 2021-2022 (member), Spring 2020 (member)
- Web Committee, Department of Economics, UNM, 2021-2023 (member)

Community Service

- Elected Secretary of Board of the Directors, Association of Chinese American Engineers and Scientists of New Mexico (ACES-NM), January 2024 – present
- Santa Fe Community College Advisory Committee for Water Technology Program, Member, August 2023 – present

- Albuquerque Bernalillo County Water Utility Authority (the largest water utility in New Mexico), Technical Customer Advisory Committee, Member, January 2021 – December 2023