D. CALE REEVES, PH.D.

(317) 451-6012 | d.cale.reeves@gmail.com

www.linkedin.com/in/d-cale-reeves

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Public Policy Ph.D. with decades of experience managing projects, teams, and people. Expertise in conducting rigorous quantitative analysis of green technology diffusion – including complexity-focused computational modeling. Field knowledge of global and United States domestic energy systems and policy. Technical, communications, and capacity-building skills. Passionate about uncovering and applying data-driven insights.

EDUCATION

Ph.D. in Public Policy 2019

Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin

Dissertation: Individual decision-making as the root of policy outcomes: An application in residential solar PV subsidy policy

Master Public Affairs 2014

School of Public and Environmental Affairs, Indiana University

Bachelor of Science in Public Affairs with High Distinction and Honors

2013

School of Public and Environmental Affairs, Indiana University

SELECTED PROFESSIONAL EXPERIENCE

Global Business Unit Lead, Building Optimization, Longevity Partners

Visiting Assistant Professor, Georgia Institute of Technology, School of Public Policy

Postdoctoral Researcher & Lecturer, University of Texas at Austin, LBJ School of Public Affairs

Visiting Scholar, ETH Zurich, Switzerland

January 2023 – Present
2021 - 2022

2014 - 2020

PEER REVIEWED PUBLICATIONS

- 1. Reeves, D.C., Haley, M., Uyanna, A., Rai, V. Information Interventions Can Increase Technology Adoption Through Information Network Restructuring. *iScience*. **2022.**
- 2. Reeves, D.C., Willems, N., Shastry, V., Rai, V. Structural effects of agent heterogeneity in agent-based models: An application in the social spread of COVID-19. *Journal of Artificial Societies and Social Simulation*. **2022.**
- 3. Shastry, V., Reeves, D.C., Willems, N., Rai, V. Policy and behavioral response to shock events: An agent-based model of the effectiveness and equity of policy design features. *PLoS One.* **2022.**
- 4. Reeves, D.C., Rai, V. Strike While the Rebate is Hot: Savvy Consumers and Strategic Technology Adoption Timing. *Energy Policy*, 121, 325-335. **2018**.
- 5. Reeves, D.C., Rai, V., Margolis, R. Evolution of Consumer Information Preferences with Market Maturity in Solar PV Adoption. *Environmental Research Letters*, 12, 1-14. **2017**.
- 6. Rai, V., Reeves, D.C., Margolis, R. Overcoming barriers and uncertainties in the adoption of residential solar PV. *Renewable Energy*, 89, 498-505. **2016**.
- 7. Yarbrough, I., Sun, Q., Reeves, D., Hackman, K., Bennett, R., & Henshel, D. Visualizing Building Energy Demand for Building Peak Energy Analysis. *Energy and Buildings*, 91, 10-15. **2015**.

RESEARCH PIPELINE - DRAFTS AVAILABLE UPON REQUEST

1. Khan, N., Reeves, Brettman, B., Reeves, D.C., Consumer gatekeeping in sustainable materials streams: an application in cellulose nanomaterials. (*Manuscript under review: Nature Sustainability*)

- 2. Reeves, D.C., Matisoff, D., Zacarias, M., Rao, A. Policy levers to traverse the "Valley of Death" which to pull, when, and how hard? (*Manuscript in preparation*)
- 3. Nagy, Z., Felkner, J., Beck A., Reeves, D. C., Richter, S., Shastry, V., Ramthun, E., Mbata, E., Zigmund, S., Marshall, B., Marks, L., Rueda, V., Triplett, J., Dodamead, S., Vazquez-Canteli, J., Rai, V. IMPACT: Integrated Multi-Domain Emission Pathways For Cities Under Land-Use Policy, Technology Adoption, Climate Change And Grid Decarbonization (*Preprint available on arXiv*, *March 2022*)
- 4. Reeves, D.C., Shastry, V., Beck, A., Rai, V. Composition, Sequencing, and Timing of Co-Adopted Home Energy Technologies. (*Manuscript in preparation*)

AWARDS

- 1. Graduate School Dissertation Writing Fellowship, 2019
- Precourt Fellowship, 2015, 2016, 2017
 Grant for Behavior, Energy, and Climate Change conference attendance
- US Association for Energy Economics (USAEE) Ph.D. Day, 2017
 Invited Participant
- 4. USAEE/IAEE Student Scholarship, **2016**Grant for conference attendance
- 5. NSF IGERT: Sustainable Grids, **2015**Traineeship/Fellowship

FUNDED PROJECTS

- 1. \$4,000. 2022 Funding Support for Circular Economy of Biomaterials, Renewables, and Plastics Publications. With Dr. Blair Brettmann.
- 2. \$12,000. 2021 Small Grant for White Papers at the Intersection of Science, Technology, and Public Policy. With Dr. Daniel Matisoff.

CONFERENCE ACTIVITY

- Reeves, D.C., Zacarias, M., Matisoff, D. Policy levers to traverse the "Valley of Death" which to pull, when, and how hard? Association for Public Policy Analysis & Management 44th Annual Fall Research Conference (APPAM). Wasington, DC, USA. 2022.
- 2. Zacarias, M., Reeves, D.C., Matisoff, D. ABM of Financial and Informational Policy Interventions in Client-Broker Bidding. *The Computational Social Science Society of the Americas 2022 Conference* (CSS). Santa Fe, NM, USA. **2022**. [CAPS Exceptional Policy Analysis in a Poster Award Winner]
- 3. Reeves, D.C., Zacarias, M., Rao, A., Matisoff, D. Policy levers to traverse the "Valley of Death" which to pull, when, and how hard? *The Computational Social Science Society of the Americas 2022 Conference* (CSS). Santa Fe, NM, USA.
- 4. Khan, N., Brettmann, B.K., Reeves, D.C.. Consumer gatekeeping in sustainable materials streams: an application in cellulose nanomaterials. *TAPPI Nano Conference*. Helsinki, Finland. **2022.**
- 5. Reeves, D.C., Beck, A., Felkner, J., Nagy, Z. Who Makes It in the Long Run: Estimating Equity Impacts in Policy and Land Development Scenario Projections. *Association for Public Policy Analysis & Management 43rd Annual Fall Research Conference* (APPAM). Austin, TX, USA. **2021** (moved to March 2022).
- 6. Reeves, D.C., Beck, A., Felkner, J., Nagy, Z. Who Makes It in the Long Run: Estimating Equity Impacts in Policy and Land Development Scenario Projections. *The Computational Social Science Society of the Americas 2021 Conference* (CSS). Santa Fe, NM, USA. **2021**.

- 7. Shastry, V., Reeves, D.C., Beck, A., Rai, V. Integrated energy decision-making: How, when, and why adoption and coadoption happen. *Behavior Energy and Climate Change Conference* (BECC). Sacramento, CA, USA. **2020**.
- 8. Shastry, V., Reeves, D.C., Willems, N., Rai, V. COVID-19 Policy Evaluation (CoPE) Tool: An agent-based model for exante evaluation of policy designs and behavioral responses to COVID-19. *The Computational Social Science Society of the Americas 2020 Conference* (CSS). Santa Fe, NM, USA. **2020**.
- 9. Willems, N., Reeves, D.C., Shastry, V., Rai, V. Heterogeneity in Populations and Behaviors: An Agent-based model of the Social Spread of COVID-19. *The Computational Social Science Society of the Americas 2020 Conference* (CSS). Santa Fe, NM, USA. **2020**.
- 10. Shastry, V., Reeves, D.C., Willems, N., Rai, V. Introducing the COVID-19 Policy Evaluation (CoPE) Tool. *TACCSTER*. Austin, TX, USA. **2020**.
- 11. Willems, N., Reeves, D.C., Shastry, V., Rai, V. Heterogeneity in Populations and Behaviors: An Agent-based model of the Social Spread of COVID-19. *TACCSTER*. Austin, TX, USA. **2020**.
- 12. Reeves, D.C. (Organizer), Rai, V., Heinrich, C., Axtell, R., Maroulis, S. Diversifying the Toolkit: Role and Future of Agent-Based Modeling and Simulation in Policy Analysis (Super Session). *Association for Public Policy Analysis & Management 41*st Annual Fall Research Conference (APPAM). Denver, CO, USA. **2019**.
- 13. Reeves, D.C., Rai, V. Policy Prescience: Predictive modeling of technology diffusion in a changing policy context. Association for Public Policy Analysis & Management 41st Annual Fall Research Conference (APPAM). Denver, CO, USA. **2019**.
- 14. Reeves, D.C., Haley, M., Uyanna, A., Rai, V. Priming the W-O-M Pump: Seeding Information to Increase Solar PV Adoption (Poster). *Social Simulation Conference*. Mainz, Germany. **2019**.
- 15. Reeves, D.C., Rai, V. More or Faster? Technology Subsidy Policy, Additional Adoptions, and Accelerated Diffusion. APPAM 2019 International Conference: Public Policy for Sustainable Metropolitan Development. Barcelona, Spain. **2019**.
- 16. Reeves, D.C., Sekar, A., Rai, V. Patterns in energy technology co-adoption behaviors. *International Conference on Energy Research and Social Science*. Tempe, AZ, USA. **2019**.
- 17. Reeves, D.C., Rai, V. Cataracts in the Theoretical Lens: Better Explanations and Stable Policy Recommendations. *Complexity and Policy Studies* (CAPS). Washington DC, USA. **2019**.
- 18. Reeves, D.C., Haley, M., Uyanna, A., Rai, V. Priming the W-O-M Pump: Seeding Information to Increase Solar PV Adoption (Poster). *American Marketing Association Winter Academic Conference*. Austin, TX, USA. **2019**.
- 19. Reeves, D.C., Rai, V. Cataracts in the Theoretical Lens: Better Explanations and Stable Policy Recommendations. Association for Public Policy Analysis & Management 40thAnnual Fall Research Conference (APPAM). Washington, DC, USA. **2018**.
- 20. Reeves, D.C., Haley, M., Uyanna, A., Rai, V. Priming the W-O-M Pump: Seeding Information to Increase Solar PV Adoption. *The Computational Social Science Society of the Americas 2018 Conference* (CSS). Santa Fe, NM, USA. **2018**. [Best Paper Finalist]
- 21. Reeves, D.C., Rai, V. The Forest and the Trees: The Choice of Theoretical Lens in Agent-Based Model Rule Formulation. *APPAM 2018 International Conference: Public Policy for Sustainable Metropolitan Development*. Mexico City, Mexico. **2018**.
- 22. Reeves, D.C., Rai, V. Advanced Analytics: Residential Solar PV Diffusion as a Social Process. *Austin Energy Conference*. Austin, TX, USA. **2018**.
- 23. Reeves, D.C., Rai, V. The Effect of Subsidy Policy to Accelerate Residential Solar PV Adoption: Regression Discontinuity Evidence from the California Solar Initiative. *Association for Public Policy Analysis & Management 39th Annual Fall Research Conference* (APPAM). Chicago, II, USA. **2017**.

- 24. Reeves, D.C., Rai, V. The Forest and the Trees: The Choice of Theoretical Lens in Agent-Based Model Rule Formulation (Poster). *The Computational Social Science Society of the Americas 2017 Conference* (CSS). Santa Fe, NM, USA. **2017**.
- 25. Reeves, D.C., Rai, V. Making Decisions While the Sun Shines: Savvy Consumers and Strategic Technology Adoption Timing. *Behavior Energy and Climate Change Conference* (BECC). Sacramento, CA, USA. **2017**.
- 26. Reeves, D.C., Rai, V. Path-Based Neighborhood Identification: An Application in Agent-Based Modeling of Residential Solar PV Adoption. *The conference on Complexity-Based Analytics and Policies for Social Good* (CAPS). Washington, D.C., USA. **2017**.
- 27. Reeves, D.C., Rai, V., Margolis, R. Information Preferences for Solar PV Adoption: Comparing Two Markets. *Behavior Energy and Climate Change Conference* (BECC). Baltimore, MD, USA. **2016**.
- 28. Reeves, D.C., Rai, V. Behavioral Drivers of Solar PV Consumer "Pull-forward" at Changes in Rebate Levels. *34*th *USAEE/IAEE North American Conference*. Tulsa, OK, USA. **2016**.
- 29. Rai, V., Reeves, D.C. Contagion and Seeding in Behaviors with Thresholds: An Application to Residential Solar Adoption. *Behavior Energy and Climate Change Conference* (BECC). Sacramento, CA, USA. **2015**.

NON-PEER REVIEWED PUBLICATIONS

- 1. Matisoff, D., Reeves, D.C., Rao, A. *Traversing the "Valley of Death": Policy Support to Transform Markets with Nascent Low-Carbon Technologies*, **2021**.
- 2. Reeves, D.C., Shastry, S., Rai, V. Understanding Distributional Impacts is Key to Community Resilience. *LBJ Resiliency Toolkit*, **2020**.
- 3. Al-Hamoodah, L., Koppa, K., Schieve, E., Reeves, D. C., Hoen, B., Seel, J., Rai, V. *An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations.* **2018**.

TEACHING EXPERIENCE

Georgia Institute of Technology

Energy Policy and Markets (Graduate & Undergraduate) | Fall 2022

Quantitative Models in Public Policy (Graduate) | Spring 2022

Network Analysis for Policy (Graduate) | Fall 2021

Cost Benefit Analysis (Graduate) | Fall 2021, Fall 2022

Statistical Analysis and Learning for Policy (Graduate) | Spring 2021

Sustainability, Technology, and Policy (Undergraduate) | Spring 2021, Summer 2021, Spring 2022, Summer 2022

The University of Texas at Austin, LBJ School of Public Affairs

Statistical Analysis and Learning (Graduate) | Spring 2020

STUDENT ADVISING

Majid Ahmadi | Committee Member | Ph.D. in Public Policy | Current

Aline Banboukian | Committee Member | Ph.D. in Public Policy | 2023

Nasreen Khan | Committee Member | Ph.D. in Material Science and Engineering | 2022

PROFESSIONAL ASSOCIATIONS

Computational Social Science Society of the Americas (CSSSA) – Secretary & Research Fellow of the Society

Association for Public Policy Analysis & Management (APPAM)

United States Association for Energy Economics (USAEE)

SERVICE

APPAM Fall Research Conference: Panel Organizer, Reviewer, Session Chair

Computational Social Science Society of the Americas: Reviewer, Program Committee

Complexity and Policy Studies Conference: Organizing Committee Member

APPAM International Conference 2019: Panel Organizer, Reviewer, Session Chair

ERSS Conference 2019: Panel Organizer

United Way of Greater Austin – Community Investment Grants: Grant Reviewer

United States Peace Corps: Volunteer, Sāmoa group 79