Energy Analysis and Environmental Impacts Division Lawrence Berkeley National Laboratory 90R2002 1 Cyclotron Road Berkeley, CA 94720

## C. Anna Spurlock

#### **Education:**

University of California, Berkeley: Ph.D., Agricultural and Resource Economics (Primary Field: Energy and Environmental Economics) - May 17<sup>th</sup>, 2013

University of California, Berkeley: M.S., Agricultural and Resource Economics - December 2009 University of California, Santa Cruz: B.A., Anthropology - December 2002

# **Relevant Work Experience:**

April 2014 – August 2018

Lawrence Berkeley National Laboratory (LBNL), Energy Analysis and Environmental Impacts

May 2019-present Research Scientist

July 2013-May 2019 Scientific Engineering Associate July 2012-July 2013 Graduate Student Researcher

University of California at Berkeley, Agricultural and Resource Economics Department Sept. 2009-May 2012 (Intermittent) Graduate Student Researcher and Instructor

Yemeni Social Fund for Development (SFD), Sana'a, Yemen

June-Sept. 2009 Consultant, in support of the collaborative World Bank-SFD project,

"Assessing local communities and household resilience to adapt to

Division Representative on the LBNL Diversity & Inclusion Council

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climate change in rain-fed areas of Yemen"

### **Leadership/Committee Membership Experience:**

March 2022 – present	Deputy Department Head for Sustainable Energy and Environmental
	System Department and Head of the Sustainable Transportation
	Initiative, LBNL
Nov. 2021 – Aug. 2022	Representative for the U.S. Department of Energy on the Distributional
· ·	Analysis Interagency Working Group in support of the Federal
	Government effort on Modernizing Regulatory Review coordinated by
	the Office of Management and Budget
May 2021-May 2022	50%-time Justice40 Fellow on Detail to Office of Economic Impact and
	Diversity at the U.S. Department of Energy
April 2021 – August 2022	Representative for the U.S. Department of Energy on the Technical
	Working Group for Discounting, Equity and Risk Aversion in support of
	the Interagency Working Group on Social Cost of Greenhouse Gases
February 2018 – August 2018	B ETA Representative on the LBNL Diversity, Equity, and Inclusion
	Advisory Board (DAB)
June 2017 – June 2018	Assistant Group Leader, Electricity Markets and Policy Group, LBNL
July 2016 – December 2017	Member of the ETA Mentoring Committee
February 2017 – August 2018	B Founding Leader of the Energy Technologies Area (ETA) Diversity &
	Inclusion Working Group

# Published Peer-Reviewed Journal Articles: 2025

- 1. Sun, Bingrong, Shivam Sharda, Venu Garikapati, Amine Bouzharhane, Juan Caicedo, Srinath Ravulaparthy, C. Anna Spurlock, Ling Jin, and Paul Waddell (in press). "Demographic Microsimulator for Integrated Urban Systems: Adapting Panel Survey of Income Dynamics to Capture the Continuum of Life." *Transportation Research Record*. Role: Principal Investigator.
- 2. Hanig, Lily, Catherine Ledna, Destenie Nock, Corey D Harper, Arthur Yip, Eric Wood, **C. Anna Spurlock.** 2025. "Finding gaps in national electric vehicle charging station coverage of the United States." *Nature Communications* 16(561). <a href="https://doi.org/10.1038/s41467-024-55696-8">https://doi.org/10.1038/s41467-024-55696-8</a>. Role: Contributing author.

#### 2024

- 3. Poliziani, Cristian, Zachary Needell, Haitam Laarabi, Rashid Waraich, Annika Todd-Blick, K. Sydny Fujita, Nazanin Rezaei, Juan Caicedo, Carlos Guirado, C. Anna Spurlock, Tom Wenzel. 2024. "Simulating Impacts from Transit Service Enhancements in the San Francisco Bay Area." *Transportation Research Record*. <a href="https://doi.org/10.1177/03611981241292338">https://doi.org/10.1177/03611981241292338</a>. Role: Principal Investigator.
- Xiao, Jingyi, Konstadinos G. Goulias, Srinath Ravulaparthy, Shivam Sharda, Ling Jin, C. Anna Spurlock. 2024. "Evaluating the Impacts of Autonomous Electric Vehicles Adoption on Vehicle Miles Traveled and CO<sub>2</sub> Emissions." *Energies*, 17(23), 6127. https://doi.org/10.3390/en17236127. Role: Principal Investigator.
- Jin, Ling, Xiaodan Xu, Yuhan Wang, Alina Lazar, Kaveh Farokhi Sadabadi, C. Anna Spurlock, Zachary Needell, Duleep Rathgamage Don, Mahyar Amirgholy, Mona Asudegi. 2024.
   "Macroscopic Traffic Modeling Using Probe Vehicle Data: A Machine Learning Approach." Data Science for Transportation 6(17). <a href="https://doi.org/10.1007/s42421-024-00102-4">https://doi.org/10.1007/s42421-024-00102-4</a>. Role: Principal investigator.
- 6. Jin, Ling, Connor Jackson, Yuhan Wang, Qianmiao Chen, Tin Ho, C. Anna Spurlock, Aaron Brooker, Jacob Holden, Jeff Gonder, Amine Bouzaghrane, Bingrong Sun, Shivam Sharda, Venu Garikapati, Tom Wenzel, Juan Caicedo. 2024. "Technology progress and clean vehicle policies on fleet turnover and equity: insights from household vehicle fleet micro-simulations with ATLAS." *Transportation Planning and Technology*, 1-24. https://doi.org/10.1080/03081060.2024.2353784. Role: Principal investigator.
- Rezaei, Nazanin, Annika Todd-Blick, K Sydny Fujita, Natalie Popovich, Zachary Needell, Cristian Poliziani, Juan David Caicedo, Carlos Guirado, C. Anna Spurlock. 2024. "At the nexus of equity and transportation modeling: Assessing accessibility through the Individual Experienced Utility-Based Synthesis (INEXUS) metric." *Journal of Transport Geography* 115, 103824. <a href="https://doi.org/10.1016/j.jtrangeo.2024.103824">https://doi.org/10.1016/j.jtrangeo.2024.103824</a>. Role: Senior researcher and principal investigator.
- 8. Xu, Xiaodan, Hung-Chia Yang, Kyungsoo Jeong, William Bui, Srinath Ravulaparthy, Haitam Laarabi, Zachary Needell, **C. Anna Spurlock**. 2024. "Teaching Freight Mode Choice Models New Tricks Using Interpretable Machine Learning Methods." *Frontiers in Future Transportation* 5. https://doi.org/10.3389/ffutr.2024.1339273. **Role: Principal investigator.**
- Sharda, Shivam, Venu Garikapati, Konstadinos Goulias, Janet L. Reyna, Bingrong Sun, C. Anna Spurlock, Zach Needell. 2024. "The electric vehicles-solar photovoltaics Nexus: Driving cross-sectoral adoption of sustainable technologies." *Renewable and Sustainable Energy Reviews* 191, 114172. https://doi.org/10.1016/j.rser.2023.114172. Role: Contributing author.

### 2023

10. Yang, Hung-Chia, Ling Jin, Alina Lazar, Annika Todd-Blick, Alex Sim, Kesheng Wu, Qianmiao Chen, and C. Anna Spurlock. 2023. "Gender Gaps in Mode Usage, Vehicle Ownership, and Spatial Mobility When Entering Parenthood: A Life Course Perspective." Systems 11(6), 314. <a href="https://doi.org/10.3390/systems11060314">https://doi.org/10.3390/systems11060314</a>. Role: Principal investigator.

#### 2022

11. Elmallah, Salma, C. Anna Spurlock, Tony Reames. 2022. "Grounding Energy Justice: Visioning Principles for Energy Transitions from Frontline and Community-based Organizations." *Energy* 

- *Research & Social Science*, 94, 102855. <a href="https://doi.org/10.1016/j.erss.2022.102855">https://doi.org/10.1016/j.erss.2022.102855</a>. Role: Contributing author.
- 12. **Spurlock, C. Anna**, Salma Elmallah, Tony Reames. 2022. "Equitable Deep Decarbonization: a framework to facilitate energy justice-based multidisciplinary modeling." *Energy Research & Social Science*, 92, 102808. <a href="https://doi.org/10.1016/j.erss.2022.102808">https://doi.org/10.1016/j.erss.2022.102808</a>. **Role: Lead author**.
- 13. Ling Jin, Alina Lazar, Caitlin Brown, Bingrong Sun, Venu Garikapati, Srinath Ravulaparthy, Qianmiao Chen, Alexander Sim, Kesheng Wu, Thomas Wenzel, C. Anna Spurlock. 2022. "What Makes You Hold on to That Old Car? Joint Insights from Machine Learning and Multinomial Logit on Vehicle-level Transaction Decisions." *Frontiers in Future Transportation*, 3, 894654. <a href="https://doi.org/10.3389/ffutr.2022.894654">https://doi.org/10.3389/ffutr.2022.894654</a>. **Role: Principal investigator.**
- 14. **Spurlock, C. Anna**, K. Sydny Fujita. 2022. "Equity Implications of Market Structure and Appliance Energy Efficiency Regulation." *Energy Policy*, 165, 112943. https://doi.org/10.1016/j.enpol.2022.112943. **Role: Lead author**.

#### 2021

- 15. Wells, Emily, Mitchell Small, C. Anna Spurlock, Gabrielle Wong-Parodi. 2021. "Factors Associated with Emerging Multimodal Transportation Behavior in the San Francisco Bay Area." *Environmental Research: Infrastructure and Sustainability*, 1, 3. <a href="https://doi.org/10.1088/2634-4505/ac392f">https://doi.org/10.1088/2634-4505/ac392f</a>. Role: Contributing author.
- 16. Fowlie, Meredith, Catherine Wolfram, **C. Anna Spurlock**, Annika Todd, Patrick Baylis, and Peter Cappers. 2021. "Default Effects and Follow-On Behavior: Evidence from an Electricity Pricing Program." *The Review of Economic Studies*, 88 (6) 2886–2934. https://doi.org/10.1093/restud/rdab018. Role: Contributing author.
- 17. Popovich, Natalie, C. Anna Spurlock, Zachary Needell, Ling Jin, Tom Wenzel, Colin Sheppard, and Mona Asudegi. 2021. "A Methodology to Develop a Geospatial Transportation Typology." *Journal of Transport Geography*, 93, 103061. https://doi.org/10.1016/j.jtrangeo.2021.103061. Role: Senior researcher and principal investigator.

#### 2020

- 18. Jin, Ling, Alina Lazar, James Sears, Annika Todd, Alexander Sim, Keshang Wu, Hung-Chia Yang, C. Anna Spurlock. 2020. "Life Course as a Contextual System to Investigate the Effects of Life Events, Gender, and Generation on Travel Mode Use." *IEEE Access*, 1-17. <a href="https://doi.org/10.1109/ACCESS.2020.3032328">https://doi.org/10.1109/ACCESS.2020.3032328</a>. Role: Senior researcher and principal investigator.
- 19. **Spurlock, C. Anna**, Annika Todd, Gabrielle Wong-Parodi, Victor Walker. 2020. "Children, Income, and the Impact of Home-Delivery on Household Shopping Trips." *Transportation Research Record*, 2674 (10), 335-350. <a href="https://doi.org/10.1177/0361198120935113">https://doi.org/10.1177/0361198120935113</a>. **Role: Lead author and principal investigator.**
- 20. Todd-Blick, Annika, **C. Anna Spurlock**, Ling Jin, Sam Borgeson, Peter Cappers, Daniel Fredman, Jarett Zuboy. 2020. "Winners are not keepers: Characterizing household engagement, gains, and energy patterns in demand response using machine learning." *Energy Research & Social Science* 70, 101595. <a href="https://doi.org/10.1016/j.erss.2020.101595">https://doi.org/10.1016/j.erss.2020.101595</a>. **Role: Co-principal investigator.**

#### 2019

- 21. Todd, Annika, Peter Cappers, C. Anna Spurlock and Ling Jin. 2019. "Spillover as a Cause of Bias in Baseline Evaluation Methods for Demand Response Programs." *Applied Energy*, 250, 344-357. <a href="https://doi.org/10.1016/j.apenergy.2019.05.050">https://doi.org/10.1016/j.apenergy.2019.05.050</a>. Role: Contributing author.
- 22. **Spurlock**, **C. Anna**, James Sears, Gabrielle Wong-Parodi, Victor Walker, Ling Jin, Margaret R. Taylor, Andrew Duvall, Anand Gopal, Annika Todd. 2019. "Describing the users: Understanding adoption of and interest in shared, electrified, and automated transportation in the San Francisco Bay Area." *Transportation Research Part D*, 71, 283-301. https://doi.org/10.1016/j.trd.2019.01.014. **Role: Lead author and principal investigator.**
- 23. Lazar, Alina, Ling Jin, C. Anna Spurlock, Annika Todd, Kesheng Wu and Alex Sim. 2019. "Evaluating the Effects of Missing Values and Mixed Data Types on Social Sequence Clustering Using t-SNE Visualization." *Journal of Data and Information Quality (JDIQ)* 11(2), 7. <a href="https://doi.org/10.1145/3301294">https://doi.org/10.1145/3301294</a>. Role: principal investigator.

#### 2018 and earlier

- 24. Cappers, Peter, **C. Anna Spurlock**, Annika Todd and Ling Jin. 2018. "Are vulnerable customers any different than their peers when exposed to critical peak pricing: Evidence from the US." *Energy Policy*, *123*, 421-432. <a href="https://doi.org/10.1016/j.enpol.2018.09.013">https://doi.org/10.1016/j.enpol.2018.09.013</a>. Role: Contributing author.
- 25. Kim, Taehoon, Jaesik Choi, Dongeun Lee, Alexander Sim, C. Anna Spurlock, Annika Todd, and Kesheng Wu. 2018. "Predicting Baseline for Analysis of Electricity Pricing," *International Journal of Big Data Intelligence*. Special issue on Data to Decision. Vol.5, No.1/2, pp.3-20. http://dx.doi.org/10.1504/IJBDI.2018.088269. Role: Co-principal investigator.
- 26. Houde, Sébastien, and **C. Anna Spurlock**. 2016. "Minimum Energy Efficiency Standards for Appliances: Old and New Economic Rationales." *Economics of Energy & Environmental Policy* 5.2. https://doi.org/10.5547/2160-5890.5.2.shou. Role: Contributing author.

#### Journal Articles Submitted and Under Review:

- 1. Rezaei, Nazanin, Juan David Caicedo, Thomas P. Wenzel, Annika Todd-Blick, K. Sydny Fujita, Cristian Poliziani, Zachary A. Needell, Carlos Guirado, C. Anna Spurlock. "Zooming in on virtual commutes: telecommuting impacts on mobility and sustainability." (revise and resubmit at *Transportation Research Part D*). Role: Senior researcher and principal investigator.
- 2. **Spurlock, C. Anna**, Carlos Guirado, Annika Todd-Blick, Cristian Poliziani, Haitam Laarabi, Zachary A Needell, K. Sydny Fujita, Nazanin Rezaei, Thomas Wenzel. "Fragmentation in Evolving Ridehail Markets: Quantifying Impacts on Quality of Service, Mode choice, and Energy Use." (submitted to *Nature Cities*). **Role: Lead author, senior researcher and principal investigator.**

#### **Peer-Reviewed Conference Papers:**

- 1. Lazar, Alina, Alexandra Ballow, Ling Jin, C. Anna Spurlock, Alex Sim, and Kesheng Wu. 2020. "Machine Learning for Prediction of Mid to Long Term Habitual Transportation Mode Use." 2019 IEEE International Conference on Big Data. <a href="https://doi.org/10.1109/BigData47090.2019.9006411">https://doi.org/10.1109/BigData47090.2019.9006411</a>. Role: Principal investigator.
- 2. Lazar, Alina, Ling Jin, **C. Anna Spurlock**, Annika Todd, Kesheng Wu, Alex Sim. 2017. "Data Quality Challenges with Missing Values and Mixed Types in Joint Sequence Analysis." 2017 IEEE International Conference on Big Data. <a href="https://doi.org/10.1109/BigData.2017.8258222">https://doi.org/10.1109/BigData.2017.8258222</a>. **Role: Principal investigator.**
- 3. Jin, Ling, Doris Lee, Alex Sim, Sam Borgeson, John Wu, C. Anna Spurlock, Annika Todd. 2017. "Comparison of Clustering Techniques for Residential Energy Behavior using Smart Meter Data." 2nd Association for the Advancement of Artificial Intelligence (AAAI) Workshop on Smart Grid and Smart Buildings. <a href="https://aaai.org/ocs/index.php/WS/AAAIW17/paper/view/15166">https://aaai.org/ocs/index.php/WS/AAAIW17/paper/view/15166</a>. Role: Coprincipal investigator.
- 4. Patel, Siddharth, Sam Borgeson, Ram Rajagopal, C. Anna Spurlock, Ling Jin, Annika Todd. 2016. "Time Will Tell: Using Smart Meter Time Series Data to Derive Household Features and Explain Heterogeneity in Pricing Programs" 2016 ACEEE Summer Study Conference Proceedings. <a href="https://aceee.org/files/proceedings/2016/data/papers/12">https://aceee.org/files/proceedings/2016/data/papers/12</a> 199.pdf. Role: Co-principal investigator.
- 5. Baylis, Patrick, Peter Cappers, Ling Jin, C. Anna Spurlock, Annika Todd. 2016. "Go for the Silver? Evidence from field studies quantifying the difference in evaluation results between "gold standard" randomized controlled trial methods versus quasi-experimental methods." 2016 ACEEE Summer Study Conference Proceedings. https://aceee.org/files/proceedings/2016/data/papers/2 363.pdf. Role: Contributing author.
- 6. Kim, Taehoon, Dongeun Lee, Jaesik Choi, Alex Sim, C. Anna Spurlock, Annika Todd, Kesheng Wu. 2015. "Extracting Baseline Electricity Usage with Gradient Tree Boosting." 2015 International Conference on Big Data Intelligence and Computing (DataCom 2015). https://doi.org/10.1109/SmartCity.2015.156. Role: Co-principal investigator.

# **Published Working Papers and Reports:**

- 1. Xu, Xiaodan, Carlos Guirado, Catherine Ledna, C. Anna Spurlock. 2024. "NAtional Vehicle Itinerary GenerATor (NAVIGAT)." LBNL Report. <a href="https://eta.lbl.gov/publications/national-vehicle-itinerary-generator">https://eta.lbl.gov/publications/national-vehicle-itinerary-generator</a>. Role: Principal investigator.
- 2. **Spurlock, C. Anna**, Mohamed Amine Bouzaghrane, Aaron Brooker, Juan Caicedo, Jeff Gonder, Jake Holden, Kyungsoo Jeong, Ling Jin, Haitam Laarabi, Zachary Needell, Cristian Poliziani, Shivam Sharda, Bingrong Sun, Tom Wenzel, Xiaodan Xu. 2024. "Behavior, Energy, Autonomy & Mobility Comprehensive Regional Evaluator: Overview, calibration and validation summary of an agent-based integrated regional transportation modeling workflow." LBNL Report. <a href="https://transportation.lbl.gov/publications/behavior-energy-autonomy-mobility">https://transportation.lbl.gov/publications/behavior-energy-autonomy-mobility</a>. **Role: Lead author and principal investigator.**
- 3. Institute for Policy Integrity. 2022. "Advancing Energy Justice Conference Brief: Tools for Justice40 and Equitable Deep Decarbonization." <a href="https://policyintegrity.org/publications/detail/advancing-energy-justice-conference-brief">https://policyintegrity.org/publications/detail/advancing-energy-justice-conference-brief</a>. Role: co-lead author.
- 4. Jin, Ling, C. Anna Spurlock, Sam Borgeson, Alina Lazar, Daniel Fredman, Annika Todd, Alexander Sim, Kesheng Wu. 2021. "Investigating Underlying Drivers of Variability in Residential Energy Usage Patterns with Daily Load Shape Clustering of Smart Meter Data." <a href="https://arxiv.org/pdf/2102.11027.pdf">https://arxiv.org/pdf/2102.11027.pdf</a> Role: Co-principal investigator.
- 5. **Spurlock, C. Anna**, Saika Belal, K. Sydny Fujita, Nikhil Sawe. 2020. "Enabling behavior through personal commitment statements: why do they work?" LBNL Report No. LBNL-2001373. <a href="https://eta.lbl.gov/publications/enabling-behavior-through-personal">https://eta.lbl.gov/publications/enabling-behavior-through-personal</a>. **Role: Lead author and principal investigator.**
- 6. Department of Energy. 2020. "SMART Mobility: Mobility Decision Science Capstone Report." Department of Energy Office of Energy Efficiency and Renewable Energy. <a href="https://www.energy.gov/sites/prod/files/2020/08/f77/SMART-MDS\_Capstone\_08.05.20.pdf">https://www.energy.gov/sites/prod/files/2020/08/f77/SMART-MDS\_Capstone\_08.05.20.pdf</a>. Role: Lead author and principal investigator.
- 7. Cappers, Peter, C. Anna Spurlock. 2020. "A Handbook for Designing, Implementing, and Evaluating Successful Pilots." LBNL Report. <a href="https://eta.lbl.gov/publications/handbook-designing-implementing">https://eta.lbl.gov/publications/handbook-designing-implementing</a>. Role: Contributing author.
- 8. Fowlie, Meredith, Catherine Wolfram, C. Anna Spurlock, Annika Todd, Patrick Baylis, and Peter Cappers. 2017. "Default Effects and Follow-On Behavior: Evidence from an Electricity Pricing Program." Working Paper No. w23553. National Bureau of Economic Research. https://www.nber.org/papers/w23553. Role: Contributing author.
- 9. Jin, Ling, C. Anna Spurlock, Sam Borgeson, Daniel Fredman, Liesel Hans, Siddharth Patel, Annika Todd. 2016. "Load Shape Clustering Using Residential Smart Meter Data: a Technical Memorandum." LBNL Report. <a href="https://eta.lbl.gov/publications/load-shape-clustering-using">https://eta.lbl.gov/publications/load-shape-clustering-using</a>. Role: Coprincipal investigator.
- 10. Cappers, Peter, C. Anna Spurlock, Annika Todd, Ling Jin. 2016. "Experiences of Vulnerable Residential Subpopulations with Critical Peak Pricing" LBNL Report No. LBNL-1006294. <a href="https://emp.lbl.gov/publications/experiences-vulnerable-residential">https://emp.lbl.gov/publications/experiences-vulnerable-residential</a>. Role: Contributing author.
- 11. Cappers, Peter, **C. Anna Spurlock**, Annika Todd, Patrick Baylis, Meredith Fowlie, Catherine Wolfram. 2016. "Time-of-Use as a Default Rate for Residential Customers: Issues and Insights" LBNL Report No. LBNL-1005704. <a href="https://emp.lbl.gov/publications/time-use-default-rate-residential">https://emp.lbl.gov/publications/time-use-default-rate-residential</a>. Role: Contributing author.
- 12. Taylor, Margaret and **C. Anna Spurlock** and Hung-Chia Yang. 2015. "Confronting Regulatory Cost and Quality Expectations: An Exploration of Technical Change in Minimum Efficiency Performance Standards" Resources for the Future Working Paper DP 15-50. <a href="http://www.rff.org/research/publications/confronting-regulatory-cost-and-quality-expectations-exploration-technical">http://www.rff.org/research/publications/confronting-regulatory-cost-and-quality-expectations-exploration-technical</a>. Role: Contributing author.
- 13. **Spurlock. C. Anna**. 2015. "Loss Aversion and Time-Differentiated Electricity Pricing" LBNL Report No. LBNL-182764. <a href="https://eta.lbl.gov/publications/loss-aversion-time-differentiated">https://eta.lbl.gov/publications/loss-aversion-time-differentiated</a>. **Role:** Lead author.
- 14. Houde, Sebastien and C. Anna Spurlock. 2015. "Do Energy Efficiency Standards Improve Quality? Evidence from a Revealed Preference Approach" LBNL Report No. LBNL-182701. <a href="https://eta.lbl.gov/publications/do-energy-efficiency-standards">https://eta.lbl.gov/publications/do-energy-efficiency-standards</a>. Role: Contributing author.

- 15. **Spurlock. C. Anna**. 2013. "Appliance Efficiency Standards and Price Discrimination." LBNL Report No. LBNL-6283E. <a href="https://eta.lbl.gov/publications/appliance-efficiency-standards-price">https://eta.lbl.gov/publications/appliance-efficiency-standards-price</a>. **Role: Lead author.**
- 16. **Spurlock, C. Anna**, Hung-Chia Yang, Larry Dale. 2013. "Energy Efficiency and Minimum Standards: A Market Analysis of Recent Changes in Appliance Energy Efficiency Standards in the United States." LBNL Report No. LBNL-6353E. <a href="https://eta.lbl.gov/publications/energy-efficiency-minimum-standards">https://eta.lbl.gov/publications/energy-efficiency-minimum-standards</a>. **Role: Lead author.**

## **Grants (Principal investigator unless otherwise indicated):**

2024	Department of Energy, Vehicle Technologies Office, EEMS Program, 3-year
	project, "National Impacts of Community-Level Strategies to Decarbonize and
	Improve Convenience of Mobility." (LBNL PI, NREL is lead institution)
2024	Department of Energy, Vehicle Technologies Office, EEMS Program, 1-year
	project, "BEAM CORE Core Tools."
2024	Department of Energy, Vehicle Technologies Office, EEMS Program, year 2 of a
	3-year project, "Multi-Region Stakeholder-Driven BEAM CORE Application."
2024	Federal Highways Administration (FHWA), year 2 of a potentially 5-year
	Interagency Agreement, "Geo-Economic Multimodal System (GEMS)."
2023	Federal Highways Administration (FHWA), year 1 of a new potentially 5-year
	Interagency Agreement, "Geo-Economic Multimodal System (GEMS)."
2023	Department of Energy, Vehicle Technologies Office, EEMS Program, 1-year
	project, "BEAM CORE Maintenance."
2023	Department of Energy, Vehicle Technologies Office, EEMS Program, 3-year
	project, "Multi-Region Stakeholder-Driven BEAM CORE Application."
2023	Joint Office of Energy and Transportation, 1 year project, "BILD AQ: Air
	Quality Benefits of Electric Vehicle Charging Infrastructure for Justice40
	Assessment."
2022	Joint Office of Energy and Transportation, "JUST Lab Consortium."
2022	Federal Highways Administration (FHWA) year 5 follow-on funding: "Geo-
	Economics Multi-Modal System Modeling."
2022	Department of Energy, Vehicle Technologies Office, EEMS Program, "BILD
	AQ: Air Quality Benefits of Electric Vehicle Charging Infrastructure for
	Justice40 Assessment."
2022	UCOP LFRP 2022 Collaborative Research and Training Awards: "California's
	Deep Decarbonization Pathways: A Holistic Multi-Layer Assessment." (Principal
	Investigator for LBNL; Co-Principal Investigator for Project, for which UCLA is
	the Prime awardee).
2021	Federal Highways Administration (FHWA) year 4 follow-on funding: "Geo-
2020	Economics Multi-Modal System Modeling."
2020	Department of Energy, Vehicle Technologies Office, EEMS Program, SMART
2020	Mobility: "SMART 2.0."
2020	Federal Highways Administration (FHWA) year 3 follow-on funding: "Geo-
2010	Economics Multi-Modal System Modeling."
2018	LBNL Early Career Development Laboratory Directed Research and
	Development (LDRD) second year follow-on funding: "A Neuroeconomics
	Experiment to Study Routine Transportation Decision-Making Processes and Drivers."
2017	
2017	LBNL Early Career Development LDRD: "A Neuroeconomics Experiment to Study Routine Transportation Decision-Making Processes and Drivers."
2016	Department of Energy, Vehicle Technologies Office, EEMS Program, SMART
2010	Mobility: "Mobility Decision Science." (Initially LBNL Deputy Pillar Lead, then
	became Principal Investigator)
2015	LBNL LDRD grant second year follow-on funding: "Behavior Analytics," with
2010	Annika Todd. (Co-Principal Investigator)
	Timme Town (Co Timorpai in Congarot)

2014 LBNL LDRD grant: "Behavior Analytics," with Annika Todd. (Co-Principal

Investigator)

2013 Resources for the Future Regulatory Performance Initiative Proposal:

"Accounting for Innovation in Regulatory Impact Analyses," with Margaret

Taylor. (Senior research contributor)

### Awards, Honors, and Fellowships:

Vehicle Technologies Office (VTO) Team Award, presented at the 2023 VTO

Annual Merit Review. "The SMART Mobility Steering Committee went above and beyond in helping the SMART Mobility Consortium 2.0 end on a very visible high note by coordinating with ITS America to hold a series of webinars to share summary insights from three years of research and development across DOE's national laboratories. To help make these events a success, the Steering Committee coordinated across scores of researchers across six national labs to distill hundreds of energy-mobility insights into a prioritized list of common topics and themes to share with external stakeholders. Your discussion yielded a well-planned sequence of five topics, including: an intro/overview across all topics, connectivity and automation (including vehicles and infrastructure), Multi-modal travel (including transit, ride hailing, and micro-mobility), transportation electrification, and freight—all topics were studied and will be

discussed through a mobility systems lens."

2021 SPOT Award, Lawrence Berkeley National Laboratory, "For contributions to the

Lab's Workforce Development & Education programs in Spring and/or Summer of 2021, and for supporting research experiences for undergraduates, teachers,

and faculty collaborators."

2018 Director's Award for Exceptional Achievement – Diversity, Lawrence Berkeley

National Laboratory

2017 SPOT Award, Lawrence Berkeley National Laboratory, "Anna working in

collaboration with ETA staff Corrine Scown and Sr. HRDP, Leticia Ericson identified an effective, but not well understood mechanism for providing

compensation to women employees while on maternity leave."

2017 Kevin McCauley Memorial Outstanding Staff Award, Council of UC Staff

Assemblies (CUCSA). For exceptional efforts engaging staff and leadership on

diversity & inclusion efforts.

2016 SPOT Award, Lawrence Berkeley National Laboratory, "C. Anna Spurlock has

substantively contributed to promoting a more inclusive and diverse workplace environment through her many efforts as the EAEI representative on the ETA

Diversity and Inclusion Council"

2015 Best Paper Award at 2015 International Conference on Big Data Intelligence and

Computing (DataCom 2015) for "Extracting Baseline Electricity Usage with Gradient Tree Boosting", with Kim, Taehoon, Dongeun Lee, Jaesik Choi, Alex

Sim, Annika Todd, Kesheng Wu.

2013 Outstanding Graduate Student Instructor Award, UC Berkeley 2012 & 2010 Precourt Energy Efficiency Center Fellow, BECC Conference

2007-2009 Foreign Language and Area Studies Fellowship (Arabic), UC Berkeley

2002 College Honors, UC Santa Cruz

## **Selected Presentations, Conferences & Webinars:**

June 2024 United States – European Union Transportation Research Symposium,

hosted by the National Academy of Sciences: "Global Pathways to Net-Zero: Social, Behavioral, and Technological Research and Innovation Strategies for Transportation Decarbonization" (Invited to participate in this symposium as one

of 24 U.S. experts)

June 2024	Vehicle Technologies Office Annual Merit Review: "Benefits of Infrastructure in
vane 2021	Large-scale Deployment, Air Quality (BILD AQ)" (Presentation)
June 2024	Vehicle Technologies Office Annual Merit Review: "BEAM CORE: Behavior,
	Energy Autonomy, Mobility Comprehensive Regional Evaluator" (Presentation)
April 2024	Health Effects Institute Annual Conference "A Modeling Framework for
	Evaluating the Environmental, Health, and Equity Impact of Large-scale U.S.
	Charging Infrastructure Deployment" (Invited presentation)
January 2024	Subcommittee on Environmental Justice and Freight (AMS10) at TRB Annual
	Meeting: "A Modeling Framework for Evaluating the Environmental, Health,
	and Equity Impact of Large-scale U.S. Charging Infrastructure Deployment"
Ionuany 2024	(Presentation) Transportation Povious Poord (TRP) Appual Meeting 2024: "A Modeling
January 2024	Transportation Review Board (TRB) Annual Meeting 2024: "A Modeling Framework for Evaluating the Environmental, Health, and Equity Impact of
	Large-scale U.S. Charging Infrastructure Deployment" (Poster)
January 2024	Transportation Review Board (TRB) Annual Meeting 2024: "Hailing the Future
Junuary 2021	of On-Demand Mobility: How changes in ride-hail market factors affect the use
	of ride-hail modes and transportation system performance" (Lectern session)
June 2023	Vehicle Technologies Office Annual Merit Review: "BEAM CORE: Behavior,
	Energy Autonomy, Mobility Comprehensive Regional Evaluator"
June 2023	TRB Innovations in Travel Analysis and Planning Conference: "BEAM
	Comprehensive Regional Evaluator" presented during workshop on
	"Incorporating Energy and Emission Impacts into Transportation Planning
1 2022	Process: Tools and Experiences from National Labs"
June 2023	"Zero Emissions Vehicle (ZEV) Mandates Workshop: Research for Effective,
	Efficient, and Equitable Policy Implementation" (Organized by Resources for the Future): Panelist on "Vehicle Demand and Supply"
April 2023	ITS America Conference and Expo: "BEAM Comprehensive Regional
11pm 2023	Evaluator" presented as part of panel on "Translating US DOE's Energy
	Efficient and Mobility Systems to the Clean Cities network: Preparing
	Deployment Partners for New Mobility Technologies"
March 2023	SMART Mobility Webinar Series: "Multimodal Travel: Transit and Ride Hail"
	https://www.energy.gov/eere/vehicles/articles/eems-smart-mobility-capstone-
	reports-and-webinar-series
February 2023	SMART Mobility Webinar series: "SMART Mobility Overview, Key Metrics
	and Insights Sneak Peek" <a href="https://www.energy.gov/eere/vehicles/articles/eems-1:17">https://www.energy.gov/eere/vehicles/articles/eems-1:17</a>
Iamuam, 2022	<u>smart-mobility-capstone-reports-and-webinar-series</u> Clean Cities Coalition Webinar - Coffee with a Researcher 1: "BEAM CORE –
January 2023	Agent-Based Model to Simulate Transportation Behaviors on a Regional Scale."
	https://cleancities.energy.gov/webinars/#28517
October 2022	2022 USAEE Conference: "Energy Justice – A Research Agenda in Economics"
	Plenary Session.
June 2022	2022 DOE Hydrogen and Fuel Cells Program and Vehicle Technologies Office
	Annual Merit Review and Peer Evaluation Meeting: "BEAM CORE."
May 2022	Advancing Energy Justice: Tools for Justice40 and Equitable Deep
	Decarbonization – Co-chair of organizing committee and keynote speaker
	presenting on "A brief overview defining a framework for Equitable Deep
	Decarbonization." <a href="https://policyintegrity.org/news/event/advancing-energy-">https://policyintegrity.org/news/event/advancing-energy-</a>
June 2021	justice-tools-for-justice40-and-equitable-deep-decarbonization  Perkalay Lab 90th Applyarsary Speaker Series Session on Layersaring Machine
June 2021	Berkeley Lab 90 <sup>th</sup> Anniversary Speaker Series Session on Leveraging Machine Learning for Science. <a href="https://youtu.be/qbbJM4ZSNi4">https://youtu.be/qbbJM4ZSNi4</a>
June 2021	2021 DOE Hydrogen and Fuel Cells Program and Vehicle Technologies Office
June 2021	Annual Merit Review and Peer Evaluation Meeting: "BEAM CORE."

November 2020 EEMS SMART Mobility Webinar Series: "Moving People in a SMART Mobility System." https://www.energy.gov/eere/vehicles/downloads/eems-smartmobility-capstone-reports-and-webinar-series 2020 DOE Hydrogen and Fuel Cells Program and Vehicle Technologies Office June 2020 Annual Merit Review and Peer Evaluation Meeting: "WholeTraveler Transportation Behavior Study." Transportation Review Board (TRB) Annual Meeting 2020: "Children, Income, January 2020 and the Impact of Home-Delivery on Household Shopping Trips." (poster) January 2020 Transportation Review Board (TRB) Annual Meeting 2020: "What will happen to mass transit use if the price of ride hailing falls? Insights from the WholeTraveler Transportation Behavior Study." (poster) Behavior Energy and Climate Change (BECC) 2019: "Children, Income, and the November 2019 Impact of Home-Delivery on Household Shopping Trips." 2019 DOE Hydrogen and Fuel Cells Program and Vehicle Technologies Office June 2019 Annual Merit Review and Peer Evaluation Meeting: "WholeTraveler Transportation Behavior Study." June 2018 2018 DOE Hydrogen and Fuel Cells Program and Vehicle Technologies Office Annual Merit Review and Peer Evaluation Meeting: "WholeTraveler Survey on Life Trajectories and Mobility Decisions." Behavior Energy and Climate Change (BECC) 2017: "Understanding the Whole October 2017 Traveler in an Era of Rapid Transportation Innovation," (Poster) June 2017 2017 DOE Hydrogen and Fuel Cells Program and Vehicle Technologies Office Annual Merit Review and Peer Evaluation Meeting: "WholeTraveler Survey on Life Trajectories and Mobility Decisions." (Poster) Energy Efficiency EM&V Webinar Series: "Evaluation of Residential Behavior-September 2016 Based Programs" https://eta.lbl.gov/publications/evaluation-residential-behaviorbased October 2016 Behavior Energy and Climate Change (BECC) 2016: "Go for the Silver? Evidence from field studies quantifying the difference in evaluation results between "gold standard" randomized controlled trial methods versus quasiexperimental methods." August 2016 ACEEE Summer Study: "Go for the Silver? Evidence from field studies quantifying the difference in evaluation results between "gold standard" randomized controlled trial methods versus quasi-experimental methods." July 2016 Electric Power Research Institute (EPRI) and Center for Information Technology Research in the Interest of Society (CITRIS) Consumer Connectivity and Analytics Workshop: "Smart Grid, Behavior, and Big Data: improved customer targeting for residential utility programs." AERE Summer Conference: "The Implications of Market Structure for June 2015 Appliance Energy Efficiency Regulation." Behavior Energy and Climate Change (BECC) 2014: "Using Data to Identify December 2014 Energy Behaviors, Actions, and Characteristics of Households." November 2014 Energy Institute at Haas Seminar: "The Implications of Market Structure for Appliance Energy Efficiency Regulation." AERE Session at the AAEA Annual Meeting: "Market Structure and Energy July 2014 Efficiency Regulation: the case of clothes washers." November 2013 Behavior Energy and Climate Change (BECC) 2013: "Loss Aversion and Time-Differentiated Electricity Pricing." (Poster) ECEEE 2013 Summer Study on Energy Efficiency: "Energy Efficiency and June 2013 Minimum Standards: A Market Analysis of Recent Changes in Appliance Energy Efficiency Standards in the United States." March 2013 Environment and Resource Economics Seminar, Agricultural and Resource Economics Department, UC Berkeley: "Loss Aversion and Time-Differentiated Electricity Pricing."

## **Reviewer/Referee Service:**

- 2014 ACEEE Summer Study on Energy Efficiency in Buildings
- DOE SEEDS Program SunShot Initiative
- Environment for Development Program
- RFF Working Paper Series
- American Economic Review
- European Economic Review
- Energy Journal
- Transportation Research Part A
- Transportation Research Part D
- Sloan Foundation Grant Call for Social Science Research Projects on Energy Insecurity, Distributional Equity, and Just Transitions in the United States
- Energy Research & Social Science
- Energy