

Daniel L. Mendoza

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EDUCATION

Ph.D. in Earth and Atmospheric Sciences

May 2012

Purdue University

Dissertation Title: *Policy applications of a highly resolved spatial and temporal onroad CO₂ emissions data product for the U.S.: Analyses and their implications for mitigation*

M.S. in Physics

December 2006

Purdue University

B.A. in Physics and Computer Science

May 2001

DePauw University

RESEARCH INTERESTS

- Atmospheric Sciences
- Environmental and Occupational Health
- Computer modeling of human exposures to pollutants
- Carbon Cycle and its effect on climate change
- Energy policy
- Highly-resolved air quality observations
- Urban development modeling
- Social justice and sustainability education
- Bayesian framework to model and quantify commuter exposures
- Black carbon fine particulate matter and carbon monoxide

WORK EXPERIENCE

2018 – Present **Affiliate Faculty**, University of Utah, Global Change & Sustainability Center

- Collaborative, interdisciplinary research focusing on air quality, health, economics, and policy
- Urban development modeling and associated impacts on air quality and health

2018 – Present **Research Assistant Professor**, University of Utah, Atmospheric Sciences

- Integration of air pollution observation platforms for use in health applications
- Development of future pollutant emissions scenarios based on metropolitan planning models and formulation of actionable policy intervention

2018 – Present **Instructor**, University of Utah, ACCESS Program for Women in Science & Mathematics

- Curriculum development for air quality and health classes
- Transdisciplinary approach to engaging with legislators towards the application of scientific findings to policy outcomes

2017 – Present **Postdoctoral Fellow**, University of Utah, School of Medicine Division of Pulmonary Medicine

- Focus on the association of pollutant exposure and respiratory disease
- Utilization of multiple platforms to estimate indoor and outdoor exposure including stationary and mobile sensors, as well as modeling

- 2016 – 2017 **Research Associate**, University of Utah, Program for Air Quality, Health, and Society
- Conducting research on the societal impacts of air quality, including socioeconomic disparities and social justice
 - Development of a reproducible pollutant emissions and exposure framework for health and policy initiatives
- 2014 – 2017 **Postdoctoral Fellow**, University of Utah, Atmospheric Sciences, Global Change and Sustainability Center, and Inter-university Training for Continental-scale Ecology
- Urban development and associated energy demands, air quality, and health effects
 - Analysis of finely-resolved urban pollutant source emissions and dispersion modeling of greenhouse gases and criteria air pollutants in Salt Lake, Cache, and Heber Valleys
 - Highly resolved assessment of pollutant exposure data and associations with Chronic Obstructive Pulmonary Disorder (COPD) exacerbations
 - Economic impact quantification of health-related episodes attributable to poor air quality
- 2012 – 2014 **Postdoctoral Fellow**, University of South Florida, College of Public Health National Institute of Environmental Health Studies Commuter Exposure Study
- Conducted research on highly-resolved point and on road source emissions and dispersion modeling of fine particulate matter and carbon monoxide in the Fort Collins
- 2010 – 2012 **Graduate Teaching Assistant**, Purdue University, Atmospheric Observations and Measurements Lab
- Conducted and supervised laboratory and field experiments using the WXT and MAWS observing and measuring equipment for atmospheric conditions and facilitated and advised semester-long group projects for a senior-level class specific for meteorology majors
- 2008 **Graduate Teaching Assistant**, Purdue University
- Performed various academic related activities for the course Introduction to Environmental Science
 - Advised undergraduate students
- 2005 **Spanish Instructor**, Purdue University
- Responsible for curriculum development, including in-class exercises, quizzes, homework assignments, and teaching an intermediate level Spanish course
- 2005 **Laboratory Teaching Assistant**, Purdue University
- Conducted 10 experiments for 25 non-science majors in technology fields with substantial one to one interaction
- 2001- 2005 **Help Center Teaching Assistant**, Purdue University
- Assisted students with assignments in the following subjects: General Physics - Mechanics, heat, and sound for technology students, General Physics - Mechanics, and Electricity and Magnetism for engineering students
- 2001-2003 **Help Center Teaching Assistant**, Purdue University
- Served as a Recitation and Tutorial Teaching Assistant
 - Performed demonstrations, lectured, and also encouraged group work and participation in small group tutorial sessions for approximately 150 students per semester
- 2001-2012 **Private Tutor**, Purdue University
- Provided undergraduate students with tutoring services across a variety of disciplines

PEDAGOGICAL TRAINING

- *The Wasatch Experience Sustainability Education Workshop (invited to attend May 2019)*
- *Theory of Second Language Acquisition* Fall 2005
- *Pedagogical Methods for Physics Graduate Students* Fall 2001

HONORS AND AWARDS

- Sustainability Leadership Research Award, University of Utah, 2019
- Utah Clean Cities, Clean Air Advocate Award, 2018
- American Thoracic Society Minority Trainee Development Scholarship recipient, 2018
- STEM Ambassador Program, 2018 Cohort Member at the University of Utah
- Travel Grant Recipient for Best Poster Presentation at University of Utah Post-Doctoral Research Symposium, 2014
- Travel Grant Recipient for Best Poster Presentation at University of South Florida Graduate Student and Post-Doctorate Research Symposium, 2013
- Recipient of National Institute for Occupational Safety and Health Pilot Project Research Training Grant, University of South Florida, 2012
- Best Poster Presentation at Graduate Student Expo, Purdue University, 2010
- North American Carbon Project Student Travel Grant Recipient, 2010
- American Geophysical Union P.F. Low Travel Grant Recipient, 2009
- Society for Advancement of Chicanos and Native Americans in Science Travel Scholarship Recipient, 2009, 2010
- Best Oral Presentation at Graduate Student Expo, Purdue University, 2009
- Merit Scholarship and Science Research Fellow, DePauw University, 1997-2001
- Winter Internship at NASA Johnson Space Center, January 1999, 2000

RESEARCH FUNDING

Mendoza, D.L. (P.I.), Crosman, E., Mitchell, L.E., Horel, J., Lin, J.C., Utah Division of Air Quality, “TRAX Air Quality Observation Project”, 2018-current (\$150,000/yr on-going).

Mendoza, D.L. (P.I.), Utah Clean Energy – Energy Ambassador Program, “Replacing showerheads with low-flow alternatives and quantifying energy and water reductions”, 2019-2020 (\$3,000).

Goldsmith, S. (P.I.), **Mendoza, D.L. (Co-P.I.)**, Kieda, D.B. (Co-P.I.), Bricker, K.S. (Co-P.I.), Bowen, C. (Co-P.I.), Keck Foundation, “Illuminating Dark Sky Studies: A Transdisciplinary Focus on the Disappearing Dark”, 2019-2021 (\$250,000).

Paine, R. (P.I.), National Institutes of Health T32 Training Grant, 2017-current (\$315,200/yr).

Bakian, A. (P.I.), Coon, H., **Mendoza, D.L. (Co-P.I.)**, American Foundation for Suicide Prevention, “Proximal environmental exposures for the chronic inflammation suicide subtype”, 2017-current (\$83,795).

Lin, J.C. (P.I.), **Mendoza, D.L. (Co-P.I.)**, Buchert, M., Utah Transit Authority, “What is the effect of air quality on transit ridership?”, 2016-2017 (\$15,000).

Salt Lake County Health Department, “What is the effect of idling cars in winter PM_{2.5} and summer ozone concentrations inside school and at school drop off zones?”, 2016-2017 (\$50,000).

Lin, J.C. (P.I.), **Mendoza, D.L. (Co-P.I.)**, Buchert, M., Utah Transit Authority, “What is UTA’s effect on air quality in the Wasatch Front?”, 2015-2016 (\$10,000).

SUBMITTED RESEARCH FUNDING APPLICATIONS

Mendoza, D.L. (P.I.), Jones, D., Utah Division of Air Quality, “Investigating the sources, contributions, and composition of dust in the Salt Lake region: an understudied contributor to PM_{2.5} and air quality”, January 2019, (\$94,620).

Johnson, S.A. (P.I.), Pirozzi, C.S., Zhang, Y., **Mendoza, D.L.**, “Short Term Effects of Air Pollution Exposure on Occurrence, Recurrence, and Severity of Venous Thromboembolism”, submitted to the Funding Incentive Seed Grant Program, University of Utah, February 2018 (\$33,049).

Bakian, A. (P.I.), Vanderslice, J., **Mendoza, D.L.**, Zhang, Y., “The independent, additive and synergistic effects of multiple environmental exposures on suicide: phenotypic and genetic vulnerabilities”, submitted to the NIEHS ONES Program, February 2018 (\$720,000).

RESEARCH PAPERS AND PRESENTATIONS

Journal Manuscripts in Preparation

Mendoza, D.L., Buchert, M., Smith, A.D., Lin, J.C., “Reductions in urban carbon emissions in the Paris era: insights from a rapidly growing mid-sized U.S. city” in preparation to be submitted April 2019.

Mendoza, D.L., Lin, J.C., Buchert, M., “How do meteorological conditions affect transit ridership in the Wasatch Front?”, in preparation to be submitted May 2019.

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Zhang, Y., Crosman, E.T., Jacques, A., Mitchell, L.E., Fasoli, B., Park, A.M., Horel, J., Lin, J.C., Cleaves, J., Paine, R., “The impact of particulate matter on school absences”, in preparation to be submitted June 2019.

Mendoza, D.L., Emerson, B., Stuchley, B., “Emergency Food Resource Availability in Salt Lake County, Utah”, in preparation to be submitted June 2019.

Peer Reviewed Journal Manuscripts

Mendoza, D.L., Lin, J.C., Buchert, M., “What is the net effect of transit services in the Salt Lake City metropolitan area on miles of travel, fuel consumption, and CO₂, NO_x, and PM_{2.5} emissions?”, submitted.

Kunik, L., Mallia, D.V., Gurney, K.R., **Mendoza, D.L.**, Oda, T., Lin, J.C., “Bayesian inverse estimation of urban CO₂ emissions: results from a synthetic data simulation over Salt Lake City, UT”, submitted.

Pirozzi, C.S., **Mendoza, D.L.**, Xu, Y., Zhang, Y., Scholand, M.B., Baughman, R.P., “Short-Term Particulate Air Pollution Exposure Is Associated with Increased Severity of Respiratory and Quality of Life Symptoms in Patients with Fibrotic Sarcoidosis”, *Int. J. Environ. Res. Public Health* 2018, 15, 1077. doi:10.3390/ijerph15061077

Mitchell, L.E., Lin, J.C., Bowling, D.R., Pataki, D.E., Strong, C., Schauer, A.J., Bares, R., Bush, S.E., Stephens, B.B., **Mendoza, D.**, Mallia, D., Holland, L., Ehleringer, J.R., (2018). “Long-term urban carbon dioxide observations reveal spatial and temporal dynamics related to urban characteristics and growth”, *Proceedings of the National Academy of Sciences*, 115(12):2912-2917. doi:10.1073/pnas.1702393115

Bares, R., Lin, J.C., Hoch, S.W., Baasandorj, M., **Mendoza, D.**, Fasoli, B., Mitchell, L.E., “The wintertime co-variation of CO₂ and criteria pollutants in an urban valley of the Western U.S.”, *Journal of Geophysical Research: Atmospheres*, 123. doi:10.1002/2017JD027917

Lin, J.C., Mitchell, L., Crosman, E., **Mendoza, D.L.**, Buchert, M., Bares, R., Fasoli, B., Bowling, D.R., Pataki, D., Catharine, D., Strong, C., Gurney, K.R., Patarasuk, R., Baasandorj, M., Jacques, A., Hoch, S., Horel, J., Ehleringer, J.R., “CO₂ and carbon emissions from cities: linkages to air quality, socioeconomic activity and stakeholders in the Salt Lake City urban area”, *Bull. Amer. Meteor. Soc.*, 2018, doi:10.1175/BAMS-D-17-0037.1

Fasoli, B., Lin, J.C., Bowling, D.R., Mitchell, L., **Mendoza, D.L.**, “Simulating atmospheric tracer concentrations for spatially distributed receptors: updates to the Stochastic Time-Inverted Lagrangian Transport model’s R interface (STILT-R version 2)”, *Geoscientific Model Development*, 2018, doi:10.5194/gmd-11-2813-2018

Patarasuk, R., Gurney, K.R., O’Keeffe, D., Song, Y., Huang, J. Rao, P., Buchert, M., Lin, J.C., **Mendoza, D.**, Ehleringer, J.R., (2016). “Urban high-resolution fossil fuel CO₂ emissions quantification and exploration of emission drivers for potential policy applications”, *Urban Ecosystems*, 1-27. doi:10.1007/s11252-016-0553-1

Jacob, B.G., **Mendoza, D.**, Ponce, M., Caliskan, S., Moradi, A., Gotuzzo, E., Griffith, D.A., Novak, R.J., (2014). “Pseudo R² Probability Measures, Durbin Watson Diagnostic Statistics and Einstein Summations for Deriving Unbiased Frequentistic Inferences and Geoparameterizing Non-Zero First-Order Lag Autocorvariate Error in Regressed Multi-Drug Resistant Tuberculosis Time Series Estimators”, *American Journal of Applied Mathematics and Statistics*, 2(5), 252–301. doi:10.12691/AJAMS-2-5-1

Mendoza, D.L., Gurney, K.R., Geethakumar, S., Chandrasekaran, V., Zhou, Y., Razlivanov, I., (2013). “Implications of uncertainty on regional CO₂ mitigation policies for the U.S. onroad sector based on a high-resolution emissions estimate”, *Energy Policy*, (55), 386-395. doi:10.1016/j.enpol.2012.12.027

Gurney, K.R., **Mendoza, D.L.**, Zhou, Y., Seib, B., Fischer, M., de la Rue du Can, S., Ojima, D., Geethakumar, S., Miller, C., (2009). “The Vulcan Project: High resolution fossil fuel combustion CO₂ emissions fluxes for the United States”, *Environ. Sci. Technol.*, (43), 5535-5541. doi:10.1021/es900806c

Parshall, L., Gurney, K.R., Hammer, S.A., **Mendoza, D.L.**, Zhou, Y., Geethakumar, S., (2009). “Modeling Energy Consumption and CO₂ Emissions at the Urban Scale: Methodological Challenges and Insights from the United States”, *Energy Policy* 38(9): 4765-4782. doi:10.1016/j.enpol.2009.07.006

Gurney, K.R., Ansley, W., **Mendoza, D.**, Seib, B., Petron, G., Frost, G., Gregg, J., Fischer, M., Pataki, D., Ackerman, K., Houweling, S., Corbin, K., Andres, R., Blasing, T.J., (2007). “Research needs for process-driven, finely resolved fossil fuel carbon dioxide emissions.” *EOS*, 88 (49), 542-543. doi:10.1029/2007EO490008

Conference Papers

Bianchi, C., **Mendoza, D.L.**, Didier, R.C., Tran, T.D., Smith, A.D., “Energy Demands for Commercial Buildings with Climate Variability and Associated Air Quality Impacts”, presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) presented at Winter Conference, 2017.

Presentations

Mendoza, D.L., Goldsmith, S., Kieda, D., Muir, J., Barentine, J., Cleeves, J., “Dark Sky Studies: An anthology and vision for an ancient and emerging field of study”, to be presented at the DePauw University Seminar Series, April 15, 2019, Greencastle, IN.

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Zhang, Y., Crosman, E.T., Jacques, A., Mitchell, L.E., Fasoli, B., Park, A.M., Horel, J., Lin, J.C., Cleeves, J., Paine, R., “The impact of particulate matter on school absences”, to presented at the University of Utah School of Medicine, Pulmonary Division, Research in Progress Seminar, April 10, 2019, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Reducing urban emissions towards positive health outcomes - how can we get there?”, guest lecture for Urban Ecology (University of Utah – BIOL 5440/CMP 6610), April 4, 2019, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Reducing urban emissions towards positive health outcomes - how can we get there?”, presented at the Intermountain Sustainability Summit, March 21, 2019, Ogden, UT.

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Zhang, Y., Crosman, E.T., Jacques, A., Mitchell, L.E., Fasoli, B., Park, A.M., Horel, J., Lin, J.C., Cleeves, J., Paine, R., “Mobile Air Quality Measurement Platforms in the Salt Lake Valley: Implications

for Urban Planning and Health”, presented at the University of Utah, Department of Atmospheric Sciences Departmental Seminar, March 18, 2019, Salt Lake City, UT.

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Zhang, Y., Crosman, E.T., Jacques, A., Mitchell, L.E., Fasoli, B., Park, A.M., Horel, J., Lin, J.C., Cleeves, J., Paine, R., “Reducing urban emissions towards positive health outcomes - how can we get there?”, presented at the University of Utah, Department of City & Metropolitan Planning Research Seminar, March 1, 2019, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “How does environmental exposure affect us, and can we monetize it?”, presented at SunCrest Owners Association Meeting, February 21, 2019, Draper, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “How does environmental exposure affect us, and can we monetize it?”, guest lecture for Design Ecologies (University of Utah - CMP 2010), February 19, 2019, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “How does environmental exposure affect us, and can we monetize it?”, (University of Utah – Labor, Demography, Well-Being, Applied Micro Group, Department of Economics), February 5, 2019, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Linkages between air pollution, health, and metropolitan planning at unprecedented resolution”, guest lecture for Global Changes and Society (University of Utah - SUST 6000), January 15, 2019, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Linkages between air pollution, health, and metropolitan planning at unprecedented resolution”, presented at Energy Champions Conference, November 14, 2018, Sandy, UT.

Mendoza, D.L., Crosman, E., Horel, J., Lin, J.C., Paine, R., “What can nightlights tell us about urban emissions and environmental exposure” presented at the Artificial Lights at Night Annual Meeting, November 12, 2018, Snowbird, UT.

Mendoza, D.L., Crosman, E., Horel, J., Lin, J.C., Paine, R., “What can nightlights tell us about urban emissions and socioeconomic attributes” presented at the International Dark-Sky Association Annual General Meeting, November 10, 2018, Snowbird, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Linkages between air pollution, health, and metropolitan planning at unprecedented resolution”, presented at the Association of perioperative Registered Nurses (AORN) Northern Utah quarterly meeting, October 9, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Linkages between air pollution, health, and metropolitan planning at unprecedented resolution”, guest lecture for Design Ecologies (University of Utah - CMP 2010), October 2, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Linkages between air pollution, health, and metropolitan planning at unprecedented resolution”, guest lecture for Energy Accounting (Salt Lake Community College - EGMT 1420), October 1, 2018, Sandy, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Using the world’s most sophisticated pollutant observation network for metropolitan planning and health outcomes”, presented at the Global Change and Sustainability Center Think Tank, September 26, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Highly Resolved PM_{2.5} and Ozone Exposure at the Salt Lake School District” presented at ECOChallenge, September 26, 2018, Lehi, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Highly Resolved PM_{2.5} and Ozone Exposure at the Salt Lake School District” presented to Utah Asthma Task Force Board Members, September 24, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Highly Resolved PM_{2.5} and Ozone Exposure at the Salt Lake School District” presented to Superintendent Cunningham of Salt Lake School District, September 21, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Liou, T., Buchert, M., Smith, A., Paine, R., “Using the world’s most sophisticated pollutant observation network for metropolitan planning and health outcomes”, guest lecture for Professional Development in the Atmospheric Sciences (University of Utah - ATMOS 3000), September 20, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Pirozzi, C., Buchert, M., Smith, A., Paine, R., “Using the world’s most sophisticated pollutant observation network for metropolitan planning and health outcomes” presented to Envision Utah, September 14, 2018, Salt Lake City, UT.

Mendoza, D.L., Bergenthal, D., Allred, C., “What can nightlights tell us about socioeconomic attributes and vehicular crashes” presented at the Salt Lake City Transportation Advisory Board, September 10, 2018, Salt Lake City, UT.

Mendoza, D.L., “Talk Saves Lives by the American Foundation for Suicide Prevention (AFSP)”, presented in Spanish at the Start the Conversation Youth Suicide Prevention Community Conversations, September 8, 2018, Salt Lake City, UT

Mendoza, D.L., Bergenthal, D., Allred, C., “What can nightlights tell us about urban emissions and socioeconomic attributes” presented at the Salt Lake City Transportation Advisory Board, August 6, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Horel, J., Lin, J.C., Paine, R., “What can nightlights tell us about urban emissions and socioeconomic attributes” presented at the Consortium for Dark Skies Studies Quarterly Meeting, August 2, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Paine, R., “Spatial Differences in Fine Particulate Matter Exposure across the Salt Lake School District” presented at the International Network of Environmental Forensics, June 25, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Paine, R., “Spatial Differences in Fine Particulate Matter Exposure across the Salt Lake School District” presented at the Utah Department of Health Asthma Task Force Meeting, June 5, 2018, Salt Lake City, UT.

Mendoza, D.L., Pirozzi, C., Liou, T.G., Harlan, N., Paine, R., “The Impacts of Particulate Pollution on Acute Pulmonary Exacerbations, FEV₁, and FVC in Cystic Fibrosis Patients” presented at the American Thoracic Society Annual Conference, May 23, 2018, San Diego, CA.

Mendoza, D.L., “An overview of air quality and its public health implications in underserved communities” presented at the Utah Climate Action Network Meeting, May 17, 2018, Salt Lake City, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Paine, R., “Spatial Differences in Fine Particulate Matter Exposure across the Salt Lake School District: Case Studies Dust Storm of December 20th, 2017, February Inversion Event, 2016, and Summer Ozone 2017” presented at the 2018 Climate Variability and Health Symposium, April 28, 2018, West Jordan, UT.

Mendoza, D.L., Crosman, E., Mallia, D., Fasoli, B., Jacques, A., Mitchell, L.E., Horel, J., Lin, J.C., Paine, R., “The Air Quality Impacts of the December 20th Dust Event on Salt Lake School District Schools” presented at the 2018 Air Quality Science for Solutions Conference, March 29, 2018, Ogden, UT.

Mendoza, D.L., “Urban Pollutant Emissions and Resulting Concentrations: How are we tracking them, and what are the implications?” presented to the West Valley City Council Meeting, March 13, 2018, Salt Lake City, UT.

Mendoza, D.L., “Urban Pollutant Emissions and Resulting Concentrations: How are we tracking them, and what are the implications?” presented at the Westpointe Community Council Meeting, February 14, 2018, Salt Lake City, UT.

Mendoza, D.L., “The University of Utah Mobile Air Quality Monitoring System”, presented at the Natural Resources and Environment Committee, February 13, 2018, Salt Lake City, UT.

Mendoza, D.L., “The University of Utah Mobile Air Quality Monitoring System”, presented at the Natural Resources Agriculture, and Environmental Quality Appropriations Subcommittee, February 6, 2018, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., Paine, R., “Linkages Between Atmospheric Sciences, Health, and Urban Planning: Synergy Between the Fields”, presented at the PechaKucha Night, Salt Lake City v23: Clean Air Affair, January 19, 2018, Salt Lake City, UT.

Mendoza, D.L., “Linkages Between Atmospheric Sciences, Health, and Urban Planning: Synergy Between the Fields”, presented at the Utah Department of Health, Air Quality Coordination Meeting, January 10, 2018, Salt Lake City, UT.

Crosman, E., Mitchell, L.E., Jacques, A., Horel, J., Lin, J., **Mendoza, D.L.**, “TRAX Monitoring of Air Quality in the Salt Lake Valley”, presented at the Utah Air Quality Policy Advisory Board, January 8, 2018, Salt Lake City, UT.

Mendoza, D.L., “Linkages Between Atmospheric Sciences, Health, and Urban Planning: Synergy Between the Fields”, presented at the Rose Park Community Council Meeting, January 3, 2018, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., Paine, R., “Linkages Between Atmospheric Sciences, Health, and Urban Planning: Synergy Between the Fields”, presented at the Utah Clean Air (UCAIR) Partners Meeting, December 14, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., Paine, R., “Environmental Exposure in Salt Lake City, Utah for Health and Metropolitan Development Planning”, presented at the Resource Stewardship Liaison Meeting, November 8, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Night Lights and Air Quality: Valley Wide Differences in Salt Lake County”, presented at the SACNAS National Conference, October 19, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., Paine, R., “Air Quality: Valley Wide Differences in Salt Lake County”, presented at the Utah Clean Air Caucus, October 17, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the Utah Climate Action Network Webinar, August 17, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R.,

“Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the DeCART Biomedical Data Science Summer Program, June 28, 2017, Salt Lake City, UT.

Mendoza, D.L., “Urban Emissions of Carbon Dioxide and Criteria Pollutants”, guest lecture for Atmospheric Chemistry and Air Pollution (University of Utah - ATMOS 3100), May 28, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the City Academy High School, May 24, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the Climate Variability and Health Symposium 3rd Annual Conference, April 5, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Buchert, M., “Utah Transit Authority’s Impact on Mobility, Sustainability, Air Quality, and Health”, presented at the Utah Transit Authority’s Headquarters, January 31, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the Rose Park Community Council Meeting, January 19, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the Intermountain Healthcare Fall Sustainability Conference, October 26, 2016, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Highly-Resolved Emissions and Concentrations of Pollutants for Air Quality and Health in Salt Lake City, Utah”, presented at the Measurements, Modeling, and Data Integration for Air Quality and Health Conference, September 21, 2016, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “University of Utah Emissions Research: Air Quality, and Associated Health Impacts Under a Changing Climate”, presented at the Alternative Fuels Think Tank, May 11, 2016, Thanksgiving Point, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Ehleringer, J.R., “Salt Lake City Building and Road Segment-resolved Emissions: CO₂, CO, NO_x, PM_{2.5}”, presented at the Elevate Buildings Meeting, April 21, 2016, Salt Lake City, UT.

Mendoza, D.L., Smith, A.D., “Urban Energy Demands, Air Quality, and Associated Health Impacts Under a Changing Climate”, presented at the Climate Variability and Health Symposium, April 6, 2016, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Buchert, M., “The Effect of Air Quality on Transit Ridership Patterns and Associated Vehicle Emissions”, presented at the Utah Department of Transportation UTRAC Workshop, March 28, 2016, Salt Lake City, UT.

Lin, J.C., Mitchell, L., **Mendoza, D.L.**, Bares, R., Fasoli, B., Bowling, D., Crosman, E., Horel, J., Patarasuk, R., Gurney, K.R., Buchert, M., Kochanski, A.K., Mallia, D.V., Pataki, D., Eng, B., Catharine, D., Strong, C., Ehleringer, J.R., “The University of Utah Urban Undertaking (U4): Measurements and Simulations of Air Pollution from Neighborhood to Regional Scales”, presented at American Meteorological Society Annual Conference, January 13, 2016, New Orleans, LA.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Blagev, D., Sorensen, J., Rea, S., Ehleringer, J.R., “Carbon dioxide and criteria pollutants in Salt Lake City, Utah for health and policy applications: a chronic obstructive pulmonary disease case study”, presented at American Meteorological Society Annual Conference, January 13, 2016, New Orleans, LA.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Bares, R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Spatiotemporal Comparison of Highly-Resolved Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at American Association of Aerosol Research Annual Conference, October 14, 2015, Minneapolis, MN.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions of Carbon Dioxide, and Criteria Pollutants in Salt Lake County, Utah”, presented to the Salt Lake City Division of Sustainability, September 21, 2015, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions of Carbon Dioxide in Salt Lake County, Utah”, presented at Murray City Council Meeting, July 7, 2015, Murray, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions of Carbon Dioxide in Salt Lake County, Utah”, presented as a guest lecture for SPATIAL Course, June 26, 2015, Salt Lake City, UT.

Mendoza, D.L., “Learn how to handle NetCDF in R (in 20 minutes or less...) – SPATIAL Course ‘Nugget’”, presented as a guest lecture for SPATIAL Course, June 23, 2015, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions of Carbon Dioxide, and Criteria Pollutants in Salt Lake County, Utah”, presented at Hestia Launch, May 4, 2015, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, guest lecture for Atmospheric Chemistry and Air Pollution (University of Utah - ATMOS 3100), April 23, 2015, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented as a guest lecture for Nanoscale Heat Transfer (University of Utah - ME EN 5960/6960), April 1, 2015, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “UDOT’s Impact on Mobility, Sustainability, and Air Quality”, presented at Utah Department of Transportation UTRAC Research Workshop, March 24, 2015, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at Ateneo de Manila University, March 16, 2015, Manila, Philippines.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at American Meteorological Society Annual Meeting, January 5, 2015, Phoenix, AZ.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at American Geophysical Union Fall Meeting, December 19, 2014, San Francisco, CA.

Mendoza, D.L., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at the Department of Atmospheric Sciences, University of Utah Seminar, November 13, 2014, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at American Association of Aerosol Research Annual Conference, October 21, 2014, Orlando, FL.

Mendoza, D.L., “Hestia (2012) and National Emissions Inventory (2011) Salt Lake City: Preliminary data exploration”, presented at the Land Air Interaction Research Group Meeting, October 10, 2014, Salt Lake City, UT.

Mendoza, D.L., Stuart, A.L., Dagne, G., Yu, H., "High Resolution Modeling of Carbon Monoxide, Nitrogen Oxides, and Fine Particulate Black Carbon in Fort Collins, Colorado for Exposure Estimation", presented at GIS Day 2013 at the University of South Florida, November 20, 2013, Tampa, FL.

Mendoza, D.L., Stuart, A.L., Dagne, G., Yu, H., "Probabilistic Modeling and Bayesian Updating of Concentrations of Carbon Monoxide and Fine Particulate Black Carbon in Fort Collins, Colorado for Exposure Estimation", presented at American Association of Aerosol Research Annual Conference, October 2, 2013, Portland, OR.

Stuart, A.L., **Mendoza, D.L.**, Dagne, G., "Development of a Commuter Exposure Modeling System that Integrates Air Pollution Dispersion and Path-Following Activity Location in a Bayesian Framework", presented at Association of Environmental Engineering and Science Professors 50th Anniversary Conference, 14-16 July 2013, Golden, CO.

Mendoza, D.L., Gurney, K.R., Zhou, Y., "Carbon dioxide emissions from on road transportation in the U.S.", presented at the Environmental Research Interdisciplinary Colloquium at the University of South Florida, November 7, 2012, Tampa, FL.

Mendoza, D.L., Gurney, K.R., "U.S. onroad transportation CO₂ emissions analysis comparing highly resolved CO₂ emissions and a national average approach: mitigation options and uncertainty reductions", invited podium presentation, Greenhouse Gases Session, 2012 Emissions Inventory Conference USEPA, August 13, 2012, Tampa, FL.

Mendoza, D., Gurney, K.R., Zhou, Y., “Analysis of highly resolved CO₂ emissions from the onroad mobile sector for 2009 and projections through 2050 using different mitigation options”, presented at SACNAS National Conference, October 1, 2010, Anaheim, CA.

Mendoza, D., Gurney, K.R., Zhou, Y., Miller, C., “‘Vulcan’: high-resolution process-based fossil fuel CO₂ inventory project for Mexico”, presented at SACNAS National Conference, October 16, 2009, Dallas, TX.

Invited Guest Lecturer for Introduction to Environmental Engineering (Purdue University - CE 350), April 10, 2009.

Gurney, K.R., **Mendoza, D.L.**, Geethakumar, S., Zhou, Y., Fischer, M., Corbin, K., Miller, C., Benes, B., Andrysco, N., Ilyushchenko, S., Denning, S., Ojima, D., “The Vulcan Project: Methods, Results, and Evaluation,”, presented at the Purdue Earth and Atmospheric Science Graduate Student Expo, February 21, 2009, West Lafayette, IN.

Mendoza, D.L., Gurney, K.R., “US Carbon Dioxide Motor Vehicle Emissions Resolved Hourly at a County and 36x36 Km Resolution”, presentation at the Encuentro Científico Internacional, January 3, 2007, Lima, Perú.

Posters

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Zhang, Y., Crosman, E.T., Jacques, A., Mitchell, L.E., Fasoli, B., Park, A.M., Horel, J., Lin, J.C., Cleaves, J., Paine, R., “The impact of particulate matter on school absences”, to be presented at the 2019 American Thoracic Society International Conference, May 22, 2019, Dallas, TX.

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Zhang, Y., Crosman, E.T., Jacques, A., Mitchell, L.E., Fasoli, B., Park, A.M., Horel, J., Lin, J.C., Cleaves, J., Paine, R., “The impact of particulate matter on school absences”, presented at the Air Quality: Science for Solutions meeting, March 28, 2019, Logan, UT.

Mendoza, D.L., Buchert, M., Lin, J.C., “A Finely-Resolved Spatiotemporal Analysis of the Utah Transport Authority’s Impact on Air Quality”, presented at the Utah State Capitol “Maps on the Hill” event, March 7, 2019, Salt Lake City, UT.

Mendoza, D.L., Buchert, M., Smith, A.D., Lin, J.C., “SimCity 2040: A Detailed Analysis of Projected Urban Development and Mitigation Strategies”, presented at the CO2-USA Conference, October 24, 2018, Salt Lake City, UT.

Blagev, D.P., Bride, D., Babbel, D., **Mendoza, D.**, Horne, B., “Home particulate concentration reduction during high efficiency particulate air (HEPA) filter use”, presented at the European Respiratory Society 2018 International Congress, September 16, Paris, France.

Mendoza, D.L., Pirozzi, C.S., Liou, T.G., Harlan, N., Paine, R., “The Impacts of Particulate Pollution on Acute Pulmonary Exacerbations, FEV₁, and FVC in Cystic Fibrosis Patients”, presented at the 2018 American Thoracic Society International Conference, May 23, 2018, San Diego, CA.

Blagev, D.P., Babbel, D., **Mendoza, D.**, Horne, B., “Geographic Variation in Air Quality”, presented at the European Respiratory Society 2017 International Congress, September 12, Milan, Italy.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Ehleringer, J.R., “Testing a high resolution CO₂ emission inventory against atmospheric observations in Salt Lake City, Utah for policy applications”, presented at the Air Quality: Science for Solutions meeting, March 30, 2017, Salt Lake City, UT.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Buchert, M., Smith, A.D., Fasoli, B., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Ehleringer, J.R., “Testing a high resolution CO₂ emission inventory against atmospheric observations in Salt Lake City, Utah for policy applications”, presented at the American Geophysical Union meeting (A51K), December 16, 2016, San Francisco, CA.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Bares, R., Mallia, D., Horel, J., Crosman, E., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., Ehleringer, J.R., “A Spatial and Temporal Comparison of Highly-resolved Modeled Emissions of Carbon Dioxide, and Criteria Pollutants in Salt Lake City, Utah”, presented at the American Geophysical Union meeting (A21H), December 15, 2015, San Francisco, CA.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Bares, R., Bush, S., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at the North American Carbon Primary Investigators and Ameriflux Primary Investigators Meeting, January 27, 2015, Washington D.C.

Mendoza, D.L., Lin, J.C., Mitchell, L.E., Ehleringer, J.R., Bares, R., Bush, S., Gurney, K.R., Patarasuk, R., O’Keeffe, D., Song, Y., Huang, J., “Highly-resolved Modeling of Emissions and Concentrations of Carbon Dioxide and Criteria Pollutants in Salt Lake City, Utah”, presented at the Utah Division of Air Quality and University of Utah Program for Air Quality, Health and Society, January 13, 2015, Salt Lake City, UT.

Mendoza, D.L., Stuart, A.L., Dagne, G., Yu, H., “Effect of emissions uncertainty and variability on high-resolution concentrations of carbon monoxide, fine particle black carbon, and nitrogen oxides in Fort Collins, Colorado: development of a Bayesian uncertainty modeling and evaluation framework”, presented at the American Geophysical Union meeting (A31G), December 11, 2013, San Francisco, CA.

Mendoza, D.L., Stuart, A.L., Dagne, G., “High-resolution Emissions and Concentrations of Carbon Monoxide and Fine Particulate Black Carbon in Fort Collins, Colorado: Toward Estimation of Exposures by Commute Route and Mode”, presented at the 5th Annual Graduate Student and Post-Doctoral Research Symposium, University of South Florida, March 22, 2013, Tampa, FL.

Mendoza, D.L., Stuart, A.L., Dagne, G., "High-resolution Emissions and Concentrations of Carbon Monoxide and Fine Particulate Black Carbon in Fort Collins, Colorado: Toward Estimation of Exposures by Commute Route and Mode", presented at the University of South Florida Health Research Day, February 22, 2013, Tampa, FL.

Mendoza, D.L., Stuart, A.L., Dagne, G., "High-resolution emissions and concentrations of carbon monoxide and fine particle black carbon in Fort Collins, Colorado: development of a Bayesian uncertainty modeling and evaluation framework", presented at the American Geophysical Union meeting (A11F), December 3, 2012, San Francisco, CA.

Mendoza, D.L., Stuart, A.L., Dagne, G., "High-resolution Emissions and Concentrations of Carbon Monoxide in Fort Collins, Colorado: Towards the Development of a Bayesian Uncertainty Modeling and Evaluation Framework", presented at the University of South Florida Postdoctoral Research Symposium, November 15, 2012, Tampa, FL.

Mendoza, D.L., Gurney, K.R., "NACP high resolution fossil fuel CO₂ emissions in the transportation sector: a comparison of vehicle miles traveled versus direct CO₂ and the implications for mitigation and atmospheric monitoring", presented at the Ameriflux Science Meeting & 3rd North American Carbon Project All-Investigators Meeting, February 3, 2011, New Orleans, LA.

Mendoza, D.L., Gurney, K.R., Geethakumar, S., Chandrasekaran, V., Zhou, Y., Razlivanov, I., "U.S. Onroad Transportation CO₂ Emissions Analysis Comparing Highly-Resolved CO₂ Emissions and a National Average Approach: Mitigation Options and Uncertainty Reductions", USEPA International Emissions Inventory Conference, Session 3, Greenhouse Gases, 2012.

Mendoza, D.L., Gurney, K.R., Zhou, "U.S. regional greenhouse gas emissions analysis comparing highly resolved vehicle miles traveled and CO₂ emissions: mitigation implications and their effect on atmospheric measurements", presented at the American Geophysical Union meeting (A43D), December 16, 2010, San Francisco, CA.

Mendoza, D.L., Gurney, K.R., Zhou, Y., Binion, J., "High resolution CO₂ emissions of the onroad transport sector: Past, Present, and Future", presented at the Purdue Earth and Atmospheric Science Graduate Student Expo, March 4, 2010, West Lafayette, IN.

Mendoza, D.L., Gurney, K.R., Geethakumar, S., Zhou, Y., Sahni, N., "2002 Monthly Carbon Dioxide Emissions from Mexico at a 10x10k Spatial Resolution", presented at American Geophysical Union meeting (A41C), December 14, 2009, San Francisco, CA.

Mendoza, D.L., Gurney, K.R., Geethakumar, S., Zhou, Y., Sahni, N., "2002 Monthly Carbon Dioxide Emissions from Mexico at a 10x10k Spatial Resolution", presented at the Primer Simposio Mexicano del Carbono, October 7-9, 2009, Ensenada, Baja California, México.

Gurney, K.R., **Mendoza, D.L.**, Geethakumar, S., Zhou, Y., Fischer, M., Corbin, K., Miller, C., Benes, B., Andryscio, N., Ilyushchenko, S., Denning, S., Ojima, D., "The Vulcan Project: Methods, Results, and Evaluation," presented at the Mid-Continent interim synthesis meeting, January 6-9, 2009, Oak Ridge National Laboratory, Oak Ridge, TN.

Gurney, K.R., **Mendoza, D.L.**, Seib, B., Miller, C., Fischer, M., Murtishaw, S., Denning, S., Knox, S., Corbin, K., Ojima, D., "Improved Fossil/Industrial CO₂ Emissions for the North American Carbon Program (NACP): the "Vulcan" project", presented at the TransCom Atmospheric CO₂ Inversion Intercomparison meeting, April 25, 2007, West Lafayette, IN.

Gurney, K.R., **Mendoza, D.L.**, Seib, B., Miller, C., Fischer, M., Murtishaw, S., Denning, S., Knox, S., Corbin, K., Ojima, D., "High resolution fossil fuel CO₂ emissions for the North American Carbon Program", presented at the North American Carbon Program Investigator Meeting, January 23, 2007, Colorado Springs, CO.

Mendoza, D.L., Gurney, K.R., Miller, C., "US Carbon Dioxide Motor Vehicle Emissions Resolved Hourly at a 1 km Resolution," presented at American Geophysical Union Fall Meeting (A41C), December 14, 2006, San Francisco, CA.

MEDIA APPEARANCES

- Article in Continuum- The Magazine of the University of Utah
(<https://continuum.utah.edu/features/dark-skies/>) Spring 2019
- News release by University of Utah
(<https://unews.utah.edu/u-develops-first-dark-sky-studies-minor-in-the-u-s/>) January 16, 2019
- Article in The West View Magazine
(<https://www.westviewmedia.org/images/pdfs-doc/2018-19Winter-WestView.pdf>) January 1, 2018
- Article in Catalyst Magazine
(<https://catalystmagazine.net/mass-transit-made-easy/>) December 31, 2018
- News report on community event co-organized by Daniel Mendoza
(<https://kutv.com/news/local/free-flu-shots-led-light-bulbs-at-breathe-clean-festival>) November 15, 2018
- News report by Salt Lake Tribune
(<https://www.sltrib.com/news/environment/2018/09/26/two-teams-have-been-doing/>) September 26, 2018
- News report by KSL TV
(<https://ksltv.com/401133/utah-pulmonologists-research-shows-indoor-air-filters-can-cut-pollution-half/>) September 25, 2018
- News report by Science Daily
(<https://www.sciencedaily.com/releases/2018/09/180925110030.htm>) September 25, 2018
- News release by Intermountain Healthcare
(<https://intermountainhealthcare.org/news/2018/09/indoor-hepa-filters-significantly-reduce-pollution-indoors-when-outside-air-is-unhealthy/>) September 24, 2018
- Interview by Telemundo Utah
(<http://telemundoutah.com/la-calidad-del-aire-en-utah-una-de-las-peores-en-muchos-anos/>) August 9, 2018
- Interview by Good4Utah
(<https://www.good4utah.com/news/local-news/experts-worry-future-summer-air-quality-could-be-worse-than-winter/1350296511>) August 6, 2018
- Interview by Fox13 Utah
(<https://fox13now.com/2018/08/01/bad-air-caused-by-cocktail-of-pollutants/>) August 1, 2018
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-august-1-2018/>) August 1, 2018
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-july-2-2018/>) July 2, 2018
- Interview by Catalyst Magazine
(<https://catalystmagazine.net/winter-problem-year-round-solutions/>) June 1, 2018
- Interview by Intermountain Medical Center
(<https://www.youtube.com/watch?v=80pCPgXSzWY>) May 24, 2018
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-march-28-2018/>) March 28, 2018
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-february-1-2018/>) February 1, 2018
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-january-11-2018/>) January 11, 2018
- Guest editorial in Catalyst Magazine
(<https://catalystmagazine.net/guest-editorial-new-take-inversions/>) January 1, 2018
- Television interview by Fox 13 news
(<http://fox13now.com/2018/01/01/how-polluted-is-your-neighborhood-new-research-lets-you-see/>) January 1, 2018
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-december-18-2017/>) December 18, 2017
- Interview by Salt Lake Tribune
(<https://www.sltrib.com/news/environment/2017/11/18/air-pollution-in-salt-lake-city-is-heavier-on-the-west-side-than-the-east-health-experts-offered-tips-to-protect-yourself/>) November 18, 2017
- Interview by KRCL 90.9 FM
(<https://krcl.org/blog/radioactive-november-9-2017/>) November 9, 2017
- Interview by The Verge
(<https://www.theverge.com/2017/3/15/14934850/china-air-quality-airpocalypse-climate-change-arctic-sea-ice-snowfall>) March 15, 2017
- Interview by Scientific American July 30, 2015

- [\(https://www.scientificamerican.com/article/google-street-view-soon-to-picture-local-pollution-too/\)](https://www.scientificamerican.com/article/google-street-view-soon-to-picture-local-pollution-too/)
News report by Fox 13 Utah May 4, 2015
[\(https://fox13now.com/2015/05/04/utah-scientists-tracking-air-pollution-sources-with-building-by-building-accuracy/\)](https://fox13now.com/2015/05/04/utah-scientists-tracking-air-pollution-sources-with-building-by-building-accuracy/)
- News release by University of Utah May 4, 2015
[\(https://archive.uneews.utah.edu/news_releases/tracking-slc-air-pollution/\)](https://archive.uneews.utah.edu/news_releases/tracking-slc-air-pollution/)
- News report by KUER 90.1 FM May 4, 2015
[http://www.kuer.org/post/scientists-map-salt-lake-valley-emissions#stream/0\)](http://www.kuer.org/post/scientists-map-salt-lake-valley-emissions#stream/0)
- Television interview by Univision 32 at Utah Legislative Session February 26, 2015
- Television interview by Univision 32 at Utah Department of Air Quality Meeting January 13, 2015
- Television interview by Univision 32 at TRAX winter project launch December 4, 2014

LEGISLATIVE ACTIVITIES

- Health advisor for HB 344: “Student Asthma Relief Amendments” (Rep. Wheatley) 2019
- Scientific advisor for SB 144: “Environmental Monitoring Quality Amendments” (Sen. Escamilla) 2019
- Scientific advisor for HB 353: “Reduction of Single Occupancy Vehicle Trips Pilot Program” (Rep. Briscoe) 2019
- Scientific advisor for HB 304: “Fossil Fuels Tax Ammendments” (Rep. Briscoe) 2019
- Scientific advisor for HB 211: “Freight Switcher Emissions Mitigation” (Rep. Handy) 2018
- Scientific advisor for appropriation request: “Mobile Monitoring Data Collection” (Sen. Escamilla) 2017-2019

SERVICE ACTIVITIES

- 68th United Nations Civil Society Conference, Outcome Document Subcommittee 2019-
- Salt Lake City Urban Forest Strategic Action Plan, Technical Committee 2019-
- Consortium for Dark Skies Studies Governing Board 2018-current
- Salt Lake County, Climate Change Work Group, Climate Adaptation Plan, Chair 2018-current
- Research Representative Utah Asthma Task Force Advisory Board 2018-2020
- Co-organizer “Environment + You” Community Awareness Event 2018-current
- Board Member Utah Physicians for a Healthy Environment 2017-2019
- Salt Lake City Transportation Advisory Board Member 2017-current
- Co-organizer Breathe Clean, “Respira Aire Limpio” Community Awareness Event 2017-current
- Board of Directors - Member, United States Snowshoe Association 2017-current
- American Meteorological Society, Glossary of Meteorology Contributor (provided definitions for terms “dust” and “sigma theta”) 2016-current
- Panel Member, Climate Variability and Health Symposium 2016-2018
- Program Chairperson: Conference on the Applications of Air Pollution Meteorology 2015-2016
- Communications Officer, University of Utah Postdoctoral Scholar Association 2015-2017
- Trace Gas Interest Group Convener at the University of Utah 2014-2016
- AGU Session Chair: Uncertainty Estimations of Highly Resolved Urban Emissions 2013-2015
- AGU Student Poster Judge 2013-2015
- Outreach Coordinator, University of South Florida Postdoctoral Scholar Association 2013-2014
- Panel Member, GIS Education, Resources, and Projects at the University of South Florida 2013
- Career Fair Co-Chair, Purdue Graduate Student Government Senator 2010-2011
- Vice President, Purdue SACNAS Chapter 2010-2011
- President, Earth & Atmospheric Sciences Graduate Student Association 2008-2009
- Board Member, Wabash River Cycling Club 2003-2005
- Vice President, Purdue Cycling Club 2002-2003

EDITORIAL DUTIES and SOCIETY MEMBERSHIP

- Editor in Chief – Journal of Dark Sky Studies

ACADEMIC JOURNAL REVIEWER

- International Journal of Environmental Research and Public Health
- Smart Cities
- Climate
- Environment
- Urban Science
- Energies
- Sustainability
- Atmosphere
- Journal of Atmospheric Chemistry and Physics
- Nature Scientific Reports
- Journal of Geophysical Research - Atmospheres
- Energy Policy
- Journal of Applied Remote Sensing
- International Journal of Sustainable Transportation

PROFESSIONAL ASSOCIATIONS

American Association of Aerosol Research
American Chemical Society
American Geophysical Union
American Meteorological Society
American Physical Society
American Thoracic Society
Air Quality Committee Member - Wasatch Front Range Regional Council
Society for Advancement of Chicanos and Native Americans in Science

PROGRAMMING SKILLS

- Proficient in FORTRAN, ArcGIS, R, WinBUGS, JAGS, MATLAB, NCL, SQL, Java, C++, PASCAL

LANGUAGE SKILLS

- English, Spanish: Fluent
- French: Proficient