

JULIAN D. MARSHALL

Curriculum Vitae

Civil and Environmental Engineering
268 Wilcox
352700
Seattle, WA 98195

Phone: 206-685-2591
Fax: 206-685-3836
Email: jdmarsh@uw.edu

EDUCATIONAL HISTORY

University of California, Berkeley, Berkeley, CA
Ph.D., Energy and Resources Group
2005

Dissertation: Inhalation of Vehicle Emissions in Urban Environments
Faculty mentor: Prof. William Nazaroff

University of California, Berkeley, Berkeley, CA
M.S., Energy and Resources Group
2002

Thesis: Intake Fraction for Motor Vehicle Exhaust in the South Coast Air Basin
Faculty mentor: Prof. William Nazaroff

Princeton University, Princeton, NJ
B.S.E. with High Honors, Chemical Engineering
1996

Thesis: Effect of temporal variability in infiltration on contaminant transport in the unsaturated zone
Faculty mentor: Prof. Peter Jaffé

EMPLOYMENT HISTORY

University of Washington, Department of Civil and Environmental Engineering
Seattle, WA, USA

Professor, 2016 – present

Associate Chair for Justice, Equity, Diversity, and Inclusion, 2020 – 2022

Director, Grand Challenges Impact Lab, 2017 – present

Adjunct Professor, Global Health, 2018 – present

John R. Kiely Endowed Professor, 2016 – 2021

University of Minnesota, Department of Civil, Environmental, and Geo- Engineering
Minneapolis, MN, USA

Associate Professor, 2013 – 2016

University of Minnesota, Department of Civil, Environmental, and Geo- Engineering
Minneapolis, MN, USA

Assistant Professor, 2007 – 2013

McKnight Land-Grant Professorship, 2009 – 2011

University of British Columbia, School of Environmental Health
British Columbia, Vancouver, BC, Canada
Post-doctoral Fellow, 2005 – 2006
Faculty mentor: Prof. Michael Brauer

Ladakh Ecological Development Group
Leh, Ladakh, India
Volunteer, 1999

Temasek Polytechnic
Singapore
Lecturer and International Fellow (via Princeton in Asia program), 1998 – 1999

ENVIRON Corporation (now Ramboll)
Emeryville, CA
Air quality consultant, 1996 – 1998

AWARDS AND HONORS - PAPERS

One article (Bechle et al., 2023) selected for an “Editor’s choice” award from *Environmental Science & Technology - Letters*.

One article (Lane et al., 2022) declared one of five “Best *ES&T Letters* Papers in 2022” from *Environmental Science & Technology - Letters*.

One article (Lane et al., 2022) on the “most read” list from *Environmental Science & Technology - Letters*.

Two articles (Tessum et al., 2019; Domingo et al., 2021) listed as a “most read” article from *Proceedings of the National Academy of Sciences (PNAS)*. Reporting on one article (Tessum et al.) was listed as one of the “Top 10 Articles of 2019” from *PNAS*. The other article (Domingo et al.) received a *PNAS* commentary (“Disproportionate contributions to air quality-related deaths”; <https://www.pnas.org/content/118/22/e2107118118>) which referred to our article as “stunning”, “powerful”, and “a tour de force of amazing insights”.

One article (Liu et al., 2021) on the “most read” list from *Environmental Health Perspectives*. An accompanying commentary (“Moving from characterizing to addressing racial/ethnic disparities in air pollution exposure”; doi.org/10.1289/EHP10076) states, “Liu et al. (2021) should be commended for their comprehensive, rigorous, and informative analyses.”

One article (Ranzani et al., 2019) listed as a “Best of IJE 2019” from *International Journal of Epidemiology*, 2019.

One article (Kelp et al., 2018) listed as one of the “Most Cited” papers from *Development Engineering*.

One article (Apte et al., 2017) declared “Best Environmental Technology Paper of 2017” from *Environmental Science & Technology*.

One article (Ji et al., 2012) on the “most read” list from *Environmental Science & Technology*.

Two articles (Marshall and Toffel, 2005; Apte et al, 2015) on the “most downloaded” list from *Environmental Science & Technology*.

Two articles (Marshall, McKone, et al., 2005; Marshall, Nethery, et al., 2008) on the “most downloaded” list from *Atmospheric Environment*.

AWARDS AND HONORS – RESEARCH AND TEACHING

CEE Department Chair’s Award, 2021, UW

John R. Kiely Endowed Professorship, 2016–2021, UW

Charles E. Bowers Teaching Award, 2014, UMN

C. Eugene Allen Award for Innovative International Initiatives (awarded for the Acara program), 2014, UMN

Joan M. Daisey Outstanding Young Scientist Award, 2013, International Society of Exposure Science

McKnight Land-Grant Professorship, 2009–2011, UMN

Young Engineer of the Year, 2009, American Society of Civil Engineers, Minnesota Section

Post-doctoral research fellowships from the School of Environmental Health and from the Bridge Program in engineering, policy, and health, 2005–2006, UBC

Outstanding Graduate Student Instructor Award, Award states: “Each year, fewer than 10% of GSIs earn this distinguished award”, U.C. Berkeley, 2005

Fellowship, U.C. Toxic Substances, 2003–2005, Research & Teaching Program

Dissertation Fellowship, 2003–2004, U.C. Transportation Center

Graduate Research Fellowship, 2000–2003, National Science Foundation (NSF)

AFFILIATIONS AND OTHER APPOINTMENTS

Adjunct Professor, Global Health, UW, 2018–present

PUBLICATIONS

Citation impact (as of October 2023):
Publons / Web of Science: 9,933 citations; h-index: 57.

Scopus / Elsevier: 12,021 citations; h-index: 61.
Google Scholar: 17,694 citations; h-index: 73.

Refereed archival journal publications

183. CL Schollaert, ME Marlier, JD Marshall, JT Spector, TB Isaksen. Exposure to Smoke from Wildfire, Prescribed, and Agricultural Burns Among At-Risk Populations Across Washington, Oregon, and California. Accepted, *GeoHealth*. 2024.
182. M Singh, C Tessum, JD Marshall, IML Azevedo. Distributional impacts of fleet-wide change in light duty transportation: mortality risks of PM_{2.5} emissions from electric vehicles and Tier 3 conventional vehicles. *Environmental Research Letters*, 19(3), 034034. DOI: 10.1088/1748-9326/ad2a1f. 2024.
181. AR Upadhyaya, M Kushwaha, P Agrawal, JD Gingrich, J Asundi, V Sreekanth, JD Marshall, JS Apte. Multi-season mobile monitoring campaign of on-road air pollution in Bengaluru, India: high-resolution mapping and estimation of quasi-emission factors. *Science of Total Environment*, 914, 169987. DOI: 10.1016/j.scitotenv.2024.169987. 2024.
180. T Peshin, S Sengupta, SK Thakrar, K Singh, J Hill, JS Apte, IML Azevedo, CW Tessum, JD Marshall. Air Quality, Health, and Equity Impacts of Vehicle Electrification in India. *Environmental Research Letters*, 19(2), 024015. DOI: 10.1088/1748-9326/ad1c7a. 2024.
179. PK Saha, AA Presto, S Hankey, JD Marshall, AL Robinson. Cooking emissions are a major source of racial-ethnic air pollution exposure disparities in the United States. *Environmental Research Letters*, 19(1), 014084. DOI: 10.1088/1748-9326/ad1721. 2024.
178. CL Schollaert, E Alvarado, J Baumgartner, TB Isaksen, J Jung, ME Marlier, JD Marshall, Y Masuda, CW Tessum, JL Wilkins, JT Spector. Estimated impacts of forest restoration scenarios on smoke exposures among outdoor agricultural workers in California. *Environmental Research Letters*, 19(1), 014085. DOI: 10.1088/1748-9326/ad16a4. 2024.
177. A Feldman, S Kendler, JD Marshall, M Kushwaha, V Sreekanth, AR Upadhyaya, P Agrawal, and B Fishbain. Urban Air-Quality Estimation Using Visual Cues and a Deep Convolutional Neural Network in Bengaluru (Bangalore), India. *Environmental Science & Technology*. DOI: 10.1021/acs.est.3c04495. 2023.
176. CL Schollaert, J Jung, J Wilkins, E Alvarado, J Baumgartner, J Brun, TB Isaksen, JM Lydersen, ME Marlier, JD Marshall, YJ Masuda, C Maxwell, CW Tessum, KN Wilson, NH Wolff, JT Spector. Quantifying the smoke-related public health trade-offs of forest management. *Nature Sustainability*, 1-10. DOI: 10.1038/s41893-023-01253-y. 2023.
175. JM Gohlke, MH Harris, A Roy, TM Thompson, M DePaola, RA Alvarez, SC Anenberg, JS Apte, MAG Demetillo, IM Dressel, GH Kerr, JD Marshall, AE Nowlan, RF Patterson, SE Pusede, VA Southerland, SA Vogel. State-of-the-science data and methods need to guide place-based efforts to reduce air pollution inequity. *Environmental Health Perspectives*, 131(12), 125003. DOI: 10.1289/EHP13063. 2023.
174. MJ Bechle, ML Bell, DL Goldberg, S Hankey, T Lu, AA Presto, AL. Robinson, J Schwartz, L Shi, Y Zhang, JD Marshall. Intercomparison of six national empirical models for PM_{2.5} air pollution in the contiguous US. *Finding*, November. DOI: 10.32866/001c.89423. 2023.

173. B Bekbulat, P Agrawal, RW Allen, M Baum, B Boldbaatar, LP Clark, J Galsuren, P Hystad, C L'Orange, S Vakacherla, J Volckens, JD Marshall. Application of an ultra-low-cost passive sampler for light-absorbing carbon in Mongolia. *Sensors*, 23(21), 8977. DOI: 10.3390/s23218977. 2023.
172. MJ Bechle, DB Millet, JD Marshall. Ambient NO₂ air pollution and public schools in the United States: relationships with urbanicity, race–ethnicity, and income. *Environmental Science & Technology Letters*, 10, 844-850. DOI: 10.1021/acs.estlett.3c00507. 2023.
171. BT Dinkelacker, PG Rivera, JD Marshall, PJ Adams, SN Pandis. High-resolution downscaling of source resolved PM_{2.5} predictions using machine learning models. *Atmospheric Environment*, 310, 119967. DOI: 10.1016/j.atmosenv.2023.119967. 2023.
170. L Swetschinski, KC Fong, R Morello-Frosch, JD Marshall, ML Bell. Exposures to ambient particulate matter are associated with reduced adult earnings potential. *Environmental Research*, 1(232), 116391. DOI: 10.1016/j.envres.2023.116391. 2023.
169. Y Wang, JS Apte, JD Hill, CE Ivey, D Johnson, E Min, R Morello-Frosch, R Patterson, AL Robinson, CW Tessum, JD Marshall. Air quality policy should quantify effects on disparities. *Science*, 381(6655), 272-274. DOI: 10.1126/science.adg993. 2023.
168. K Bramble, MN Blanco, A Doubleday, AJ Gasset, A Hajat, JD Marshall, L Sheppard. Exposure disparities by income, race and ethnicity, and historic redlining grade in the greater Seattle area for ultrafine particles and other air pollutants. *Environmental Health Perspectives*, 131(7),077004. DOI: 10.1289/EHP11662. 2023.
167. A Doubleday, MN Blanco, E Austin, JD Marshall, TV Larson, L Sheppard. Characterizing ultrafine particle mobile monitoring data for epidemiology. *Environmental Science & Technology*, 57(26), 9538–9547. DOI: 10.1021/acs.est.3c00800. 2023.
166. J Liu, JD Marshall. Spatial decomposition of air pollution concentrations highlights historical causes for current exposure disparities in the United States. *Environmental Science & Technology Letters*, 10(3), 280-286. DOI: 10.1021/acs.estlett.2c00826. 2023.
165. MN Blanco, A Doubleday, E Austin, JD Marshall, E Seto, TV Larson, L Sheppard. Design and evaluation of short-term monitoring campaigns for long-term air pollution exposure assessment. *Journal of Exposure Science & Environmental Epidemiology*, 33, 465-473. DOI: 10.1038/s41370-022-00470-5. 2023.
164. G Kleiman, SC Anenberg, ZA Chafe, DC Appiah, T Assefa, A Bizberg, T Coombes, D Cuestas, DK Henze, A Kessler, I Kheirbek, P Kinney, M Mahlatji, JD Marshall, S Naidoo, N Potwana, A Rodriguez, CW Tessum, C Thomas. Enhanced integration of health, climate, and air quality management planning at the urban scale. *Frontiers in Sustainable Cities*, 4:934672. DOI: 10.3389/frsc.2022.934672. 2022.
163. MPS Thind, CW Tessum, JD Marshall. Environmental health, racial/ethnic health disparity, and climate impacts of inter-regional freight transport in the United States. *Environmental Science & Technology*, 57(2), 884–895. DOI: 10.1021/acs.est.2c03646. 2022.

162. MN Blanco, J Bi, E Austin, TV Larson, JD Marshall, L Sheppard. Impact of mobile monitoring network design on air pollution exposure assessment models. *Environmental Science & Technology*, 57(1), 440-450. DOI: 10.1021/acs.est.2c05338. 2022.
161. Y Wang, JS Apte, JD Hill, CE Ivey, RF Patterson, AL Robinson, JD Marshall. Location-specific strategies for eliminating US national racial-ethnic exposure inequality. *Proceedings of the National Academy of Sciences*, 119(44), 2205548119. DOI: 10.1073/pnas.2205548119. 2022.
160. PK Saha, AA Presto, S Hankey, JD Marshall, AL Robinson. Racial-ethnic exposure disparities to airborne ultrafine particles in the United States. *Environmental Research Letters*, 17(10), 104047. DOI: 10.1088/1748-9326/ac95af. 2022.
159. MW Tessum, SC Anenberg, ZA Chafe, DK Henze, G Kleiman, I Kheirbek, JD Marshall, CW Tessum. Sources of ambient PM_{2.5} exposure in 96 global cities. *Atmospheric Environment*, 286, 119234. DOI: 10.1016/j.atmosenv.2022.119234. 2022.
158. PK Saha, AA Presto, S Hankey, BN Murphy, C Allen, W Zhang, JD Marshall, AL Robinson. National exposure models for source-specific primary particulate matter concentrations using aerosol mass spectrometry data. *Environmental Science & Technology*, 56(20), 14284-14295. DOI: 10.1021/acs.est.2c03398. 2022.
157. M Qi, K Dixit, JD Marshall, W Zhang, S Hankey. National land use regression model for NO₂ using street view imagery and satellite observations. *Environmental Science & Technology*, 56(18), 13499-13509. DOI: 10.1021/acs.est.2c03581. 2022.
156. M Kushwaha, V Sreekanth, AR Upadhyaya, P Agrawal, JS Apte, JD Marshall. Bias in PM_{2.5} measurements using collocated reference-grade and optical instruments. *Environmental Monitoring and Assessment*, 194(9), 610. DOI: 10.1007/s10661-022-10293-4. 2022.
155. LP Clark, MH Harris, JS Apte, JD Marshall. National and intraurban air pollution exposure disparity estimates in the United States: impact of data-aggregation spatial scale. *Environmental Science & Technology Letters*, 9(9), 786-791. DOI: 10.1021/acs.estlett.2c00403. 2022.
154. SK Thakrar, CW Tessum, JS Apte, S Balasubramanian, DB Millet, SN Pandis, JD Marshall, JD Hill. Global, high-resolution, reduced-complexity air quality modeling for PM_{2.5} using InMAP (Intervention Model for Air Pollution). *PLOS ONE*, 17(5), 0268714. DOI: 10.1371/journal.pone.0268714. 2022.
153. MN Blanco, A Gasset, T Gould, A Doubleday, D Slager, E Austin, E Seto, T Larson, JD Marshall, L Sheppard. Characterization of annual average traffic-related air pollution levels (particle number, black carbon, nitrogen dioxide, PM_{2.5}, carbon dioxide) in the greater Seattle area from a year-long mobile monitoring campaign. *Environmental Science & Technology*, 56(16), 11460-11472. DOI: 10.1021/acs.est.2c01077. 2022.
152. MM Islam, R Wathore, H Zerriffi, JD Marshall, R Bailis, A Grieshop. Assessing the effects on indoor air quality of stove use patterns and kitchen chimneys during a large, multi-year cookstove randomized control trial in rural India. *Environmental Science & Technology*, 56(12), 8326-8337. DOI: 10.1021/acs.est.1c07571. 2022.

151. OT Ranzani, S Bhogadi, C Mila, B Kulkarni, K Balakrishnan, S Sambandam, J Garcia-Aymerich, JD Marshall, S Kinra, C Tonne. Association of ambient and household air pollution with lung function in young adults in an Peri-urban area of South-India: a cross-sectional study. *Environment International*, 165, 107290. DOI: 10.1016/j.envint.2022.107290. 2022.
150. Y Wang, Y Wang, H Xu, Y Zhao, JD Marshall. Ambient air pollution and socio-economic status in China. *Environmental Health Perspectives*, 130(6), 067001. DOI: 10.1289/EHP9872. 2022.
149. HM Lane, R Morello-Frosch, JD Marshall, JS Apte. Historical redlining is associated with present-day air pollution disparities in U.S. cities. *Environmental Science & Technology Letters*, 9(4), 345-350. DOI: 10.1021/acs.estlett.1c01012. 2022.
148. Z Pond, C Hernandez, P Adams, S Pandis, G Garcia, AL Robinson, JD Marshall, R Burnett, K Skyllakou, P Garcia River, E Karnezi, C Coleman, CA Pope III. Cardiopulmonary mortality and fine particulate air pollution by species and source in a national U.S. cohort. *Environmental Science & Technology*, 56(11), 7214-7223. DOI: 10.1021/acs.est.1c04176. 2022.
147. LP Clark, S Tabory, K Tong, JL Servadio, K Kappler, CK Xu, AS Lawal, P Wiringa, L Kne, R Feiock, JD Marshall, A Russell, A Ramaswami. A data framework for assessing social inequality and inequity in multi-sector Social-Ecological Infrastructural Urban Systems (SEIUS): focus on fine-spatial scales. *Journal of Industrial Ecology*, 26, 145-163. DOI: 10.1111/jiec.13222. 2022.
146. SY Kim, AC Pope III, JD Marshall, N Fann, L Sheppard. Reanalysis of the association between reduction in long-term PM_{2.5} concentrations and improved life expectancy. *Environmental Health*, 20(1), 10. DOI: 10.1186/s12940-021-00785-0. 2021.
145. J Liu, LP Clark, MJ Bechle, A Hajat, SY Kim, AL Robinson, L Sheppard, AA Szpiro, JD Marshall. Disparities in air pollution exposure in the United States by race/ethnicity and income, 1990–2010. *Environmental Health Perspectives*, 129(12), 127005. DOI: 10.1289/EHP8584. 2021.
144. MD Castillo, SC Anenberg, ZA Chafe, R Huxley, LS Johnson, I Kheirbek, M Malik, JD Marshall, S Naidoo, ML Nelson, NV Pendleton, Y Sun, HB d’Obrenan, PL Kinney. Quantifying the health benefits of urban climate mitigation actions: current state of the epidemiological evidence and application in health impact assessments. *Frontiers in Sustainable Cities*, 3, 768227. DOI: 10.3389/frsc.2021.768227. 2021.
143. SE Chambliss, CPR Pinon, KP Messier, B LaFranchi, CR Upperman, MM Lunden, AL Robinson, JD Marshall, JS Apte. Local and regional-scale racial and ethnic disparities in air pollution determined by long-term mobile monitoring. *Proceedings of the National Academy of Sciences*, 118(37), 2109249118. DOI: 10.1073/pnas.2109249118. 2021.
142. T Lu, JD Marshall, W Zhang, P Hystad, SY Kim, MJ Bechle, M Demuzere, S Hankey. National empirical models of air pollution using microscale measures of the urban environment. *Environmental Science & Technology*, 55(22), 15519-15530. DOI: 10.1021/acs.est.1c04047. 2021.

141. PK Saha, S Hankey, JD Marshall, AL Robinson, A Presto. High spatial resolution estimates of ultrafine particle concentrations across the continental United States. *Environmental Science & Technology*, 55(15), 10320-10331. DOI: 10.1021/acs.est.1c03237. 2021.
140. S Balasubramanian, N Hunt, N Domingo, M Gittlin, K Colgan, JD Marshall, AL Robinson, I Azevedo, S Thakrar, M Clark, CW Tessum, P Adams, S Pandis, JD Hill. The food we eat, the air we breathe: a review of the fine particulate matter-induced air quality health impacts of the global food system. *Environmental Research Letters*, 16(10), 103004. DOI: 10.1088/1748-9326/ac065f. 2021.
139. CW Tessum, DA Paoletta, SE Chambliss, JS Apte, JD Hill, JD Marshall. PM_{2.5} Polluters disproportionately and systemically affect people of color in the United States. *Science Advances*, 7(18), abf4491. DOI: 10.1126/sciadv.abf4491. 2021.
138. N Domingo, S Balasubramanian, SK Thakrar, MA Clark, P Adams, JD Marshall, NZ Muller, SN Pandis, S Polasky, AL Robinson, C Tessum, D Tilman, P Tschofen, JD Hill. Air-quality-related health damages of food. *Proceedings of the National Academy of Sciences*, 118(20), 2013637118. DOI: 10.1073/pnas.2013637118. 2021.
137. NC Coleman, CA Pope III, M Ezzati, JD Marshall, AL Robinson, RT Burnett. Fine particulate matter air pollution and mortality risk among U.S. cancer patients and survivors. *JNCI Cancer Spectrum*, 5(1), pkab001. DOI: 10.1093/jncics/pkab001. 2021.
136. B Bekbulat, JS Apte, DB Millet, AL Robinson, KC Wells, JD Marshall. Changes in criteria air pollution levels in the US following societal Covid-19 response: evidence from regulatory monitors before, during, and after stay-at-home orders. *Science of the Total Environment*, 769, 144693. DOI: 10.1016/j.scitotenv.2020.144693. 2021.
135. MM Islam, R Wathore, H Zerriffi, JD Marshall, R Bailis, A Grieshop. In-use emissions from biomass and LPG stoves measured during a large, multi-year cookstove intervention study in rural India. *Science of the Total Environment*, 758, 143698. DOI: 10.1016/j.scitotenv.2020.143698. 2021.
134. MM Kelp, D Jacob, N Kutz, JD Marshall, CW Tessum. Toward stable, general machine-learned models of the atmospheric chemical system. *Journal of Geophysical Research - Atmospheres*, 125(23), 2020JD032759. DOI: 10.1029/2020JD032759. 2020.
133. NC Coleman, RT Burnett, JD Higbee, JS Lefler, RM Merrill, M Ezzati, JD Marshall, SY Kim, M Bechle, AL Robinson, CA Pope. Cancer mortality risk, fine particulate air pollution, and smoking in a large, representative cohort of U.S. adults. *Cancer Causes Control*, 31(8), 767-776. DOI: 10.1007/s10552-020-01317-w. 2020.
132. NC Coleman, RT Burnett, M Ezzati, JD Marshall, AL Robinson, CA Pope. Fine particulate matter exposure and cancer incidence: analysis of SEER cancer registry data from 1992–2016. *Environmental Health Perspectives*, 128(10), 107004. DOI: 10.1289/EHP7246. 2020.
131. LP Clark, V Sreekanth, B Bekbulat, M Baum, S Yang, P Baylon, TR Gould, TV Larson, EYW Seto, CD Space, JD Marshall. Developing a low-cost passive method for long-term

- average concentrations of black carbon air pollution in polluted indoor environments. *Sensors*, 20(12), 3417. DOI: 10.3390/s20123417. 2020.
130. OT Ranzani, C Milà, M Sanchez, S Bhogadi, B Kulkarni, K Balakrishnan, S Sambandam, J Sunyer, JD Marshall, S Kinra, C Tonne. Personal exposure to particulate air pollution and vascular damage in peri-urban South India. *Environmental International*, 139, 105734. DOI: 10.1016/j.envint.2020.105734. 2020.
129. RU Shah, E Robinson, P Gu, J Apte, JD Marshall, AL Robinson, A Presto. Socio-economic disparities in exposure to urban restaurant emissions are larger than for traffic. *Environmental Research Letters*, 15(11), 114039. DOI: 10.1088/1748-9326/abbc92. 2020.
128. SE Chambliss, C Preble, J Caubel, T Cados, K Messier, R Alvarez, B LaFranchi, M Lunden, JD Marshall, A Szpiro, T Kirchstetter, J Apte. Comparison of mobile and fixed-site black carbon measurements for high-resolution urban pollution mapping. *Environmental Science & Technology*, 54(13), 7848-7857. DOI: 10.1021/acs.est.0c01409. 2020.
127. J Xiang, E Austin, T Gould, T Larson, J Shirai, Y Liu, JD Marshall, E Seto. Impacts of the COVID-19 responses on traffic-related air pollution in a Northwestern US city. *Science of The Total Environment*, 747, 141325. DOI: 10.1016/j.scitotenv.2020.141325. 2020.
126. SK Thakrar, S Balasubramanian, PJ Adams, IML Azevedo, NZ Muller, SN Pandis, S Polasky, CA Pope III, AL Robinson, JS Apte, CW Tessum, JD Marshall, JD Hill. Reducing mortality from air pollution in the United States by targeting specific emission sources. *Environmental Science & Technology Letters*, 7(9), 639-645. DOI: 10.1021/acs.estlett.0c00424. 2020.
125. B Sergi, PJ Adams, NZ Muller, AL Robinson, SJ Davis, JD Marshall, I Azenvedo. Optimizing emissions reductions from the U.S. power sector for climate and health benefits. *Environmental Science & Technology*, 54(12), 7513-7523. DOI: 10.1021/acs.est.9b06936. 2020.
124. Y Wang, MJ Bechle, SY Kim, P Adams, SN Pandis, CA Pope III, AL Robinson, L Sheppard, AA Szpiro, JD Marshall. Spatial decomposition analysis of NO₂ and PM_{2.5} air pollution in the United States. *Atmospheric Environment*, 241, 117470. DOI: 10.1016/j.atmosenv.2020.117470. 2020.
123. JD Higbee, JS Lefler, RT Burnett, M Ezzati, JD Marshall, SY Kim, M Bechle, AL Robinson, CA Pope III. Estimation long-term pollution exposure effects through inverse probability weighting methods with Cox proportional hazards models. *Environmental Epidemiology*, 4(2): 085. DOI: 10.1097/EE9.000000000000085. 2020.
122. SY Kim, MJ Bechle, S Hankey, L Sheppard, AA Szpiro, JD Marshall. Concentration of criteria pollutants in the contiguous U.S., 1979 - 2015: role of prediction model parsimony in integrated empirical geographic regression. *PLOS One*, 15(2): 0228535. DOI: 10.1371/journal.pone.0228535. 2020.
121. M Kelp, T Gould, E Austin, JD Marshall, M Yost, C Simpson, T Larson. Sensitivity analysis of area-wide, mobile source emission factors to high-emitter vehicles in Los

- Angeles. *Atmospheric Environment*, 223, 117212. DOI: 10.1016/j.atmosenv.2019.117212. 2020.
120. OT Ranzani, C Milà, M Sanchez, S Bhogadi, B Kulkarni, K Balakrishnan, S Sambandam, J Sunyer, JD Marshall, S Kinra, C Tonne. Association between ambient and household air pollution with carotid intima-media thickness in peri-urban South India: CHAI-Project. *International Journal of Epidemiology*, 1-11. DOI: 10.1093/ije/dyz208. 2020.
119. C Milà, A Curto, A Dimitrova, V. Sreekanth, S Kinra, JD. Marshall, C Tonne. Identifying predictors of personal exposure to air temperature in peri-urban India. *Science of the Total Environment*, 707, 136114. DOI: 10.1016/j.scitotenv.2019.136114. 2020.
118. A Curto, O Ranzani, C Mila, M Sanchez, JD Marshall, B Kulkarni, S Bogadi, S Kinra, G Wellenius, C Tonne. Lack of association between particulate air pollution and blood glucose levels and diabetic status in peri-urban India. *Environment International*, 131, 105033. DOI: 0.1016/j.envint.2019.105033. 2019.
117. JS Lefler, JD Higbee, RT Burnett, M Ezzati, NC Coleman, DD Mann, JD Marshall, MJ Bechle, Y Wang, AL Robinson, CA Pope. Air pollution and mortality in a large, representative U.S. cohort: multiple-pollutant analyses, and spatial and temporal decompositions. *Environmental Health*, 18, 101. DOI: 10.1186/s12940-019-0544-9. 2019.
116. MPS Thind, CW Tessum, I Azevedo, JD Marshall. Fine particulate air pollution from electricity generation in the US: health impacts by race, income, and geography. *Environmental Science & Technology*, 53(23): 14010-14019. DOI: 10.1021/acs.est.9b02527. 2019.
115. A Curto, G Wellenius, C Milà, M Sanchez, OT Ranzani, JD Marshall, B Kulkarni, S Bhogadi, S Kinra, C Tonne. Ambient particulate air pollution and blood pressure in periurban India. *Epidemiology*, 30(4): 492-500. DOI: 10.1097/EDE.0000000000001014. 2019.
114. E Dimanchev, S Paltsev, M Yuan, D Rothenberg, CW Tessum, JD Marshall, N Selin. Health co-benefits of sub-national renewable energy policy in the U.S. *Environmental Research Letters*, 14(8), 085012. DOI: 10.1088/1748-9326/ab31d9. 2019.
113. JE Bennett, H Tamura-Wicks, RM Parks, RT Burnett, CA Pope III, MJ Bechle, JD Marshall, G Danaei, M Ezzati. Particulate matter air pollution and national and county life expectancy loss in the USA: A spatiotemporal analysis. *PLOS Medicine*, 16(7), 1002856. DOI: 10.1371/journal.pmed.1002856. 2019.
112. P Fantke, TE McKone, M Tainio, O Jolliet, JS Apte, KS Stylianou, N Illner, JD Marshall, EF Choma, JS Evans. Global effect factors for exposure to fine particulate matter. *Environmental Science & Technology*, 53(12), 6855-6868. DOI:10.1021/acs.est.9b01800. 2019.
111. CA Pope III, JS Lefler, M Ezzati, JD Higbee, JD Marshall, SY Kim, MJ Bechle, KS Gilliat, SE Vernon, AL Robinson, RT Burnett. Mortality risk and fine particulate air pollution in a large, representative cohort of U.S. adults. *Environmental Health Perspectives*, 127(7), 077007. DOI: 10.1289/EHP4438. 2019. M Sanchez, C Milà, V Sreekanth, K Balakrishnan, S Sambandam, M Nieuwenhuijsen, S Kinra, JD Marshall, C

- Tonne. Personal exposure to particulate matter in peri-urban India: predictors and association with ambient concentration at residence. *Journal of Exposure Science and Environmental Epidemiology*, 1-10. DOI: 10.1038/s41370-019-0150-5, 2020.
109. E Gilmore, J Heo, N Muller, CW Tessum, JD Hill, JD Marshall, P Adams. An intercomparison of air quality social cost estimates from reduced-complexity models. *Environmental Research Letters*, 14(7), 074016. DOI: 10.1088/1748-9326/ab1ab5. 2019.
108. AL Goodkind, CW Tessum, JS Coggins, JD Hill, JD Marshall. Fine-scale damage estimates of particulate matter air pollution reveal opportunities for location-specific mitigation of emissions. *Proceedings of the National Academy of Sciences*, 116(18), 8775-8780. DOI: 10.1073/pnas.1816102116. 2019.
107. Y Wen, H Wang, T Larson, MM Kelp, S Zhang, Y Wu, JD Marshall. On-highway vehicle emission factors, and spatial patterns, based on mobile monitoring and absolute principal component score. *Science of the Total Environment*, 676, 242-251. DOI: 10.1016/j.scitotenv.2019.04.185. 2019.
106. R Alotaibi, MJ Bechle, JD Marshall, T Ramani, J Zietsman, M Nieuwenhuijsen, H Khreis. Traffic related air pollution and the burden of childhood asthma in the contiguous United States in 2000 and 2010. *Environment International*, 127, 858-867. DOI: 10.1016/j.envint.2019.03.041. 2019.
105. JD Hill, AL Goodkind, CW Tessum, SK Thakrar, D Tilman, S Polasky, T Smith, N Hunt, K Mullins, M Clark, JD Marshall. Air-quality-related health damages of maize. *Nature Sustainability*, 2, 397-403. DOI: 10.1038/s41893-019-0261-y. 2019.
104. L Liu, T Hwang, S Lee, Y Ouyang, B Lee, SJ Smith, CW Tessum, JD Marshall, F Yan, K Daenzer, TC Bond. Health and climate impacts of future United States land freight modelled with global-to-urban models. *Nature Sustainability*, 2, 105-112. DOI: 10.1038/s41893-019-0224-3. 2019.
103. CW Tessum, JS Apte, AL Goodkind, NZ Muller, KA Mullins, D Paoletta, S Polasky, NP Springer, SK Thakrar, JD Marshall, JD Hill. Inequity in consumption of goods and services adds to racial-ethnic disparities in air pollution exposure. *Proceedings of the National Academy of Sciences*, 116(13), 6001-6006. DOI: 10.1073/pnas.1818859116. 2019. Listed as a “most-read article.”
102. V Sreekanth, C Tonne, M Salmon, S Arulselvan, JD Marshall. The role of blank filter mass in attenuation measurements using an off-line transmissometer. *Journal of Aerosol Science*, 131(41-47). DOI: 10.1016/j.jaerosci.2019.03.001. 2019.
101. V Menghwani, H Zerriffi, P Dwivedi, JD Marshall, AP Grieshop, R Bailis. Determinants of cookstoves and fuel choice among rural households in India. *EcoHealth*, 16, 21-60. DOI: 10.1007/s10393-018-1389-3. 2019.
100. H Xu, MJ Bechle, M Wang, A Szpiro, S Vedal, Y Bai, JD Marshall. National PM_{2.5} and NO₂ exposure models for China based on land use regression, satellite measurements, and universal Kriging. *Science of the Total Environment*, 655, 423-433. DOI: 10.1016/j.scitotenv.2018.11.125. 2018.

99. C Mila, M Salmon, M Sanchez, A Ambrós, S Bhogadi, V Sreekanth, M Nieuwenhuijsen, S Kinra, JD Marshall, C Tonne. When, where and what? characterizing personal PM_{2.5} exposure in peri-urban India by integrating GPS, wearable camera, ambient and personal monitoring data. *Environmental Science & Technology*, 52(22), 13481-13490. DOI: 10.1021/acs.est.8b03075. 2018.
98. KP Messier, SE Chambliss, R Alvarez, M Brauer, JJ Choi, SP Hamburg, J Kerckhoffs, B LaFranchi, MM Lunden, JD Marshall, CJ Portier, A Roy, AA Szpiro, RCH Vermeulen, JS Apte. Mapping air pollution with Google Street View cars: efficient approaches with mobile monitoring and land use regression. *Environmental Science & Technology*, 52(21), 12563–12572. DOI: 10.1021/acs.est.8b03395. 2018.
97. M Salmon, C Mila, S Bhogadi, S Addanki, P Madhira, N Muddepaka, A Mora, M Sanchez, S Kinra, V Sreekanth, A Doherty, JD Marshall, C Tonne. Wearable camera-derived microenvironments in relation to personal exposure to PM_{2.5}. *Environmental International*, 117, 300-307. DOI: 10.1016/j.envint.2018.05.021. 2018.
96. D Paoella, CW Tessum, P Adams, JS Apte, S Chambliss, JD Hill, N Muller, JD Marshall. Effect of model spatial resolution on estimates of fine particulate matter exposure and exposure disparities in the United States. *Environmental Science & Technology*, 5(7), 436- 441. DOI: 10.1021/acs.estlett.8b00279. 2018.
95. TW Aung, J Baumgartner, G Jain, K Sethuraman, C Reynolds, JD Marshall, M Brauer. Effect on blood pressure and eye health symptoms in a climate-financed randomized cookstove intervention study in rural India. *Environmental Research*, 166, 658-667. DOI: 10.1016/j.envres.2018.06.044. 2018.
94. MM Kelp, AP Grieshop, J Baumgartner, CC Reynolds, K Sethuraman, G Jain, JD Marshall. Real-time indoor measurement of health and climate-relevant air pollution concentrations during a carbon-finance-approved cookstove intervention in rural India. *Development Engineering*, 3, 125-132. DOI: 10.1016/j.deveng.2018.05.001. 2018.
93. LD Knibbs, A van Donkelaar, RV Martin, MJ Bechle, M Brauer, DD Cohen, CT Cowie, M Dirgawati, Y Guo, IC Hanigan, FH Johnston, GB Marks, JD Marshall, G Pereira, B Jalaludin, JS Heyworth, GG Morgan, AG Barnett. Satellite-based land-use regression for continental-scale long-term ambient PM_{2.5} exposure assessment in Australia. *Environmental Science & Technology*, 52(21), 12445-12455 DOI: 10.1021/acs.est.8b02328. 2018.
92. MK Kumar, S Vakacherla, M Salmon, C Tonne, JD Marshall. Use of spatiotemporal characteristics of ambient PM_{2.5} in rural South India to infer local versus regional contributions. *Environmental Pollution*, 239, 803-811. DOI: 10.1016/j.envpol.2018.04.057. 2018.
91. M Sanchez, A Ambros, C Mila, M Salmon, K Balakrishnan, S Sambandamm, V Sreekanth, JD Marshall, C Tonne. Development of land-use regression models for fine particles and black carbon in peri-urban South India. *Science of the Total Environment*, 634, 77-86. DOI: 10.1016/j.scitotenv.2018.03.308. 2018.
90. LD Knibbs, CP Coorey, MJ Bechle, JD Marshall, MG Hewson, B Jalaludin, GG Morgan, AG Barnett. Long-term nitrogen dioxide exposure assessment using back-

- extrapolation of satellite-based land-use regression models for Australia. *Environmental Research*, 163, 16-25. DOI: 10.1016/j.envres.2018.01.046. 2018.
89. D Donaire-Gonzalez, J Barrera-Gómez, JD Marshall, MJ Nieuwenhuijsen, GA Wellenius, C Tonne. Performance of low-cost monitors to assess household air pollution. *Environmental Research*, 163, 53-63. DOI: 10.1016/j.envres.2018.01.024. 2018.
88. NP Nguyen, JD Marshall. Impact, efficiency, inequality, and injustice of urban air pollution: variability by emission location. *Environmental Research Letters*, 13(2), 024002. DOI: 10.1088/1748-9326/aa9cb5. 2018.
87. SK Thakrar, AL Goodkind, CW Tessum, JD Marshall, JD Hill. Life cycle air quality impacts on human health from potential switchgrass production in the United States. *Biomass and Bioenergy*, 114, 73-82. DOI: 10.1016/j.biombioe.2017.10.031. 2017.
86. MPS Thind, EJ Wilson, IL Azevedo, JD Marshall. Marginal emissions factors for electricity generation in the midcontinent ISO. *Environmental Science & Technology*, 51(24), 14445–14452. DOI: 10.1021/acs.est.7b03047. 2017.
85. S Hankey, JD Marshall. Urban form, air pollution, and health. *Current Environmental Health Reports*, 4(4), 491-503. DOI: 10.1007/s40572-017-0167-7. 2017.
84. MJ Bechle, DB Millet, JD Marshall. Does urban form affect urban NO₂? Satellite-based evidence for more than 1,200 cities. *Environmental Science & Technology*. 51(21), 12707-12716. DOI: 10.1021/acs.est.7b01194. 2017.
83. AP Grieshop, G Jain, K Sethuraman, JD Marshall. Emission factors of health and climate-relevant pollutants measured in-home during a carbon-finance-approved cookstove intervention in rural India. *GeoHealth*, 1(5), 222–236. DOI: 10.1002/2017GH000066.2017.
82. LP Clark, DB Millet, JD Marshall. Changes in transportation-related air pollution exposures by race-ethnicity and socioeconomic status: outdoor nitrogen dioxide in the United States in 2000 and 2010. *Environmental Health Perspectives*, 125(9):097012. DOI:10.1289/EHP959. 2017.
81. M Sanchez, A Ambros, M Salmon, S Bhogadi, RT Wilson, S Kinra, JD Marshall, C Tonne. Predictors of daily mobility of adults in peri-urban South India. *Environmental Research & Public Health*, 14:14(7). DOI: 10.3390/ijerph14070783. 2017.
80. JS Apte, K Messier, S Gani, M Brauer, T Kirchstetter, M Lunden, JD Marshall, C Portier, R Vermeulen, S Hamburg. High-resolution air pollution mapping with Google Street View cars: exploiting big data. *Environmental Science & Technology*, 51(12), 6999–7008. DOI: 10.1021/acs.est.7b00891. 2017. *Listed as the ‘Best Environmental Technology Paper of 2017’ from *Environmental Science & Technology*
79. CW Tessum, JD Hill, JD Marshall. InMAP: a model for air pollution interventions. *PLOS One*, 12(4): 0176131. DOI: 10.1371/journal.pone.0176131. 2017.

78. A Larkin, J Geddes, R Martin, Q Xiao, Y Liu, JD Marshall, M Brauer, P Hystad. A global land use regression model for nitrogen dioxide air pollution. *Environmental Science & Technology*, 51(12), 6957–6964. DOI: 10.1021/acs.est.7b01148. 2017.
77. C Tonne, M Salmon, M Sanchez, V Sreekanth, S Bhogadi, S Sambandam, K Balakrishnan, S Kinra, JD Marshall. Integrated assessment of exposure to PM_{2.5} in South India and its relation with cardiovascular risk: design of the CHAI study. *International Journal of Hygiene and Environmental Health*, 220(6), 1081-1088. DOI: 10.1016/j.ijheh.2017.05.005. 2017.
76. P Pant, G Habib, JD Marshall, RE Peltier. PM_{2.5} exposure in highly polluted cities: A case study from New Delhi, India. *Environmental Research*, 156, 167-174. DOI: 10.1016/j.envres.2017.03.024. 2017.
75. MC Turner, D Krewski, WR Diver, CA Pope III, RT Burnett, M Jerrett, JD Marshall, SM Gapstur. Ambient air pollution and cancer mortality in the cancer prevention study-II. *Environmental Health Perspectives*, 125(8):087013. DOI: 10.1289/EHP767. 2017.
74. E Carter, C Norris, KL Dionisio, K Balakrishnan, W Checkley, ML Clark, S Ghosh, DW Jack, PL Kinney, JD Marshall, LP Naeher, JL Peel, S Sambandam, JJ Schauer, KR Smith, BJ Wylie, J Baumgartner. Assessing exposure to household air pollution: a systematic review and pooled analysis of carbon monoxide as a surrogate measure of particulate matter. *Environmental Health Perspectives*, 125(7):076002. DOI: 10.1289/EHP767. 2017.
73. M Jerrett, R Brook, L White, RT Burnett, J Yu, J Su, E Seto, JD Marshall, J Palmer, L Rosenberg. Ambient ozone and incident diabetes: a prospective analysis in a large cohort of African American women. *Environment International*, 102:42-47. DOI: 10.1016/j.envint.2016.12.011. 2017.
72. S Hankey, G Lindsey, JD Marshall. Population-Level exposure to particulate air pollution during active travel: planning for low-exposure, health-promoting cities. *Environmental Health Perspectives*, 125(4): 527-534. DOI: 10.1289/EHP442. 2016.
71. L Knibbs, C Coorey, MJ Bechle, C Cowie, M Dirgawati, J Heyworth, G Marks, JD Marshall, L Morawska, G Pereira, M Hewson. Independent validation of national satellite-based land-use regression models for nitrogen dioxide using passive samplers. *Environmental Science & Technology*, 50(22), 12331–12338. 2016.
70. H Vreeland, JJ Schauer, AG Russell, JD Marshall, A Fushimi, G Jain, K Sethuraman, V Verma, SN Tripathi, MH Bergin. Chemical characterization and toxicity of particulate matter emissions from roadside trash combustion in urban India. *Atmospheric Environment*, 147, 22-30. 2016.
69. S Zhu, JD Marshall, D Levinson. Population exposure to ultrafine particles: size-resolved and real-time models for highways. *Transportation Research Part D: Transport and Environment*, 49, 323-336. 2016.
68. BL Keeler, JD Gourevitch, S Polasky, F Isbell, CW Tessum, JD Hill, JD Marshall. The social cost of nitrogen. *Science Advances*, 2(10). DOI: 10.1126/sciadv.1600219. 2016.

67. K de Hoogh, J Gulliver, A van Donkelaar, RV Martin, JD Marshall, MJ Bechle, G Cesaroni, MC Pradas, A Dedele, M Eeftens, B Forsberg, C Galassi, J Heinrich, B Hoffmann, B Jacquemin, K Katsouyanni, M Korek, N Kunzli, SJ Lindley, J Lepeule, F Meleux, A de Nazelle, M Nieuwenhuijsen, W Nystad, O Raaschou-Nielsen, A Peters, VH Peuch, L Rouil, O Udvardy, R Slama, M Stempfelet, EG Stephanou, MY Tsai, T Yli-Tuomi, G Weinmayr, B Brunekreef, D Vienneau, G Hoek. Development of West-European PM_{2.5} and NO₂ land use regression models incorporating satellite-derived and chemical transport modelling data. *Environmental Research*, 151, 1-10. 2016.
66. TW Aung, G Jain, K Sethuraman, J Baumgartner, C Reynolds, AP Grieshop, JD Marshall, M Brauer. Health and climate-relevant pollutant concentrations from a carbon-finance approved cookstove intervention in rural India. *Environmental Science & Technology*, 50(13), 7228–7238. 2016.
65. PF Coogan, LF White, J Yu, RT Burnett, JD Marshall, E Seto, RD Brook, JR Palmer, L Rosenberg, M Jerrett. Long term exposure to NO₂ and diabetes incidence in the black women's health study. *Environmental Research*, 148, 360-366. 2016.
64. C Norris, MS Goldberg, JD Marshall, MF Valois, T Pradeep, M Narayanswamy, G Jain, K Sethuraman, J Baumgartner. A panel study of the acute effects of personal exposure to household air pollution on ambulatory blood pressure in rural Indian women. *Environmental Research*, 147, 331-342. 2016.
63. LF White, M Jerrett, J Yu, JD Marshall, L Rosenberg, PF Coogan. Ambient air pollution and 16-year weight change in African American women. *American Journal of Preventive Medicine*, 51(4), e99–e105. 2016.
62. MT Young, MJ Bechle, PD Sampson, AA Szpiro, JD Marshall, L Sheppard, JD Kaufman. Satellite-based NO₂ and model validation in a national prediction model based on universal Kriging and land-use regression. *Environmental Science & Technology*, 50(7), 3686–3694. 2016.
61. MC Turner, M Jerrett, CA Pope III, D Krewski, SM Gapstur, WR Diver, BS Beckerman, JD Marshall, J Su, DL Crouse, RT Burnett. Long-term ozone exposure and mortality in a large prospective study. *American Journal of Respiratory and Critical Care Medicine*, 193(10):1134-1142. DOI: 10.1164/rccm.201508-1633OC. 2016.
60. S Ji, C Cherry, W Zhou, R Sawhney, Y Wu, S Cai, S Wang, JD Marshall. Environmental justice aspects of exposure to PM_{2.5} emissions from electric vehicle use in China. *Environmental Science & Technology*, 49(24), 13912-13920. 2015.
59. JD Marshall, JS Apte, JS Coggins, AL Goodkind. Blue skies bluer? *Environmental Science & Technology*, 49(24), 13929–13936. 2015.
58. MJ Bechle, DB Millet, JD Marshall. National spatiotemporal exposure surface for NO₂: monthly scaling of a satellite-derived land-use regression, 2000-2010. *Environmental Science & Technology*, 49(20), 12297–12305. 2015.
57. S Hankey, JD Marshall. On-bicycle exposure to particulate air pollution: particle number, black carbon, PM_{2.5}, and particle size. *Atmospheric Environment*, 122, 65-73. 2015.

56. S Hankey, JD Marshall. Land use regression models of on-road particulate air pollution (particle number, black carbon, PM_{2.5}, particle size) using mobile monitoring. *Environmental Science & Technology*, 49(15):9194-9202. DOI: 10.1021/acs.est.5b01209.
55. JS Apte, JD Marshall, AJ Cohen, M Brauer. Addressing global mortality from ambient PM_{2.5}. *Environmental Science & Technology*, 49(13), 8057–8066. 2015. Listed as a “mostdownloaded article.”
54. H Chan, VC Van Hee, S Bergen, AA Szpiro, LA DeRoo, SJ London, JD Marshall, JD Kaufman, DP Sandler. Long-term air pollution exposure and blood pressure in the Sister Study. *Environmental Health Perspectives*, 123(10), 951-958. 2015.
53. S Hankey, G Lindsey, JD Marshall. Day-of-year scaling factors and design considerations for non-motorized traffic monitoring programs. *Transportation Research Record*, 2468, 64-73. 2015.
52. CW Tessum, JD Hill, JD Marshall. Twelve-month, 12 km resolution North American WRF-Chem air quality simulation: performance evaluation. *Geoscientific Model Development*, 8(4), 957-973. 2015.
51. S Hankey, K Sullivan, A Kinnick, A Koskey, K Grande, JH Davidson, JD Marshall. Using objective measures of stove use and indoor air quality to evaluate a cookstove intervention in rural Uganda. *Energy for Sustainable Development*, 25, 67-74. 2015.
50. L Hu, DB Millet, M Baasandorj, TJ Griffis, KR Travis, CW Tessum, JD Marshall, WF Reinhart, T Mikoviny, M Müller, A Wisthaler, M Graus, C Warneke, J de Gouw. Emissions of C₆-C₈ aromatic compounds in the United States: constraints from tall tower and aircraft measurements. *Journal of Geophysical Research*, 120(2), 826-842. 2015.
49. L Dekoninck, D Botteldooren, LI Panis, S Hankey, G Jain, K Sethuraman, JD Marshall. Applicability of a noise-based model to estimate in-traffic exposure to black carbon and particle number concentration in different cultures. *Environment International*, 74, 89-98. 2015.
48. CW Tessum, JD Marshall, JD Hill. Life cycle air quality impacts of conventional and alternative light-duty transportation in the United States. *Proceedings of the National Academy of Sciences*, 111(52), 18490–18495. 2014.
47. AL Goodkind, JS Coggins, JD Marshall. A spatial model of air pollution: the impact of the concentration-response function. *Journal of the Association of Environmental and Resource Economists*, 1(4), 451-479. 2014.
46. P Fantke, O Jolliet, JS Evans, JS Apte, AJ Cohen, OO Hanninen, F Hurley, MJ Jantunen, M Jerrett, JI Levy, MM Loh, JD Marshall, BG Miller, P Preiss, JV Spadaro, M Tainio, JT Tuomisto, CJ Weschler, TE McKone. Health effects of fine particulate matter in life cycle impact assessment: conclusions from the Basel guidance workshop. *The International Journal of Life Cycle Assessment*. 20(2), 267-288. DOI 10.1007/s11367-014-0822-2. 2014.

45. LD Knibbs, MG Hewson, MJ Bechle, JD Marshall, AG Barnett. A national satellite-based land use regression model for air pollution exposure assessment in Australia. *Environmental Research*, 135, 204-211. 2014.
44. LP Clark, DB Millet, JD Marshall. National patterns in environmental injustice and inequality: outdoor NO₂ air pollution in the United States. *PLOS One*, 9(4). DOI 10.1371/journal.pone.0094431. 2014.
43. JD Marshall, KR Swor, NP Nguyen. Prioritizing environmental justice and equality: diesel particles in California's South Coast. *Environmental Science & Technology*, 48(7), 4063-4068. 2014.
42. DPdL Barido, JD Marshall. Relationship between urbanization and CO₂ emissions depends on income level and policy. *Environmental Science & Technology*, 48(7), 3632-3639. 2014.
41. D Vienneau, K de Hoogh, MJ Bechle, R Beelen, A van Donkelaar, RV Martin, DB Millet, G Hoek, JD Marshall. Western European land use regression incorporating satellite- and ground-based measurements of NO₂ and PM₁₀. *Environmental Science & Technology*, 47(23), 13555–13564. 2013.
40. A Saraswat, JS Apte, M Kandlikar, M Brauer, SB Henderson, JD Marshall. Spatiotemporal land use regression models of fine, ultrafine and black carbon particulate matter in New Delhi, India. *Environmental Science & Technology*, 47(22), 12903–12911. 2013.
39. MJ Bechle, DB Millet, JD Marshall. Remote sensing of exposure to NO₂: satellite versus in situ measurement in a large urban area. *Atmospheric Environment*, 69, 345–353. 2013.
38. AF Both, D Westerdahl, S Fruin, B Haryanto, JD Marshall. Exposure to carbon monoxide, fine particle mass, and ultrafine particle number in Jakarta, Indonesia: effect of commute mode. *Science of the Total Environment*, 443, 965–972. 2013.
37. CW Tessum, JD Marshall, JD Hill. A spatially and temporally explicit life cycle inventory of air pollutants from gasoline and ethanol in the United States. *Environmental Science & Technology*, 46(20), 11408–11417. 2012.
36. DB Millet, E Apel, DK Henze, JD Hill, JD Marshall, HB Singh, CW Tessum. Natural and anthropogenic ethanol sources in North America and potential atmospheric impacts of ethanol fuel use. *Environmental Science & Technology*, 46(15), 8484–8492. 2012.
35. JS Apte, E Bombrun, JD Marshall, WW Nazaroff. Global intraurban intake fractions for primary air pollutants from vehicles and other distributed sources. *Environmental Science & Technology*, 46(6), 3415–3423. 2012.
34. S Ji, C Cherry, MJ Bechle, Y Wu, JD Marshall. Electric vehicles in China: emissions and health impact. *Environmental Science & Technology*, 46(4), 2018–2024. 2012. Listed as a “most-read article.”
33. S Aggarwal, R Jain, JD Marshall. Real-time prediction of size resolved ultrafine PM on freeways. *Environmental Science & Technology*, 46(4), 2234–2241. 2012.

32. S Hankey, JD Marshall, M Brauer. Health impacts of the built environment: within-urban variability in physical inactivity, air pollution and ischemic heart disease mortality. *Environmental Health Perspectives*, 120(2), 247–253. 2012.
31. AP Grieshop, JD Marshall, M Kandlikar. Health and climate benefits of cook-stove replacement options. *Energy Policy*, 39(12), 7530–7542. 2011.
30. LP Clark, DB Millet, JD Marshall. Air quality and urban form in US urban areas: evidence from regulatory monitors. *Environmental Science & Technology*, 45(16), 7028–7035. 2011.
29. JS Apte, TW Kirchstetter, AH Reich, SJ Deshpande, G Kaushik, A Chel, JD Marshall, WW Nazaroff. Exposure concentrations of fine, ultrafine, and black carbon particles in auto-rickshaws in New Delhi, India. *Atmospheric Environment*, 45(26), 4470–4480. 2011.
28. AF Both, A Balakrishnan, B Joseph, JD Marshall. Spatiotemporal aspects of real-time PM_{2.5}: low- and middle-income neighborhoods in Bangalore, India. *Environmental Science & Technology*, 45(13), 5629–5636. 2011.
27. MJ Bechle, DB Millet, JD Marshall. Effects of income and urban form on urban NO₂: global evidence from satellites. *Environmental Science & Technology*, 45(11), 4914–4919. 2011.
26. S Humbert, JD Marshall, S Shaked, JV Spadaro, Y Nishioka, P Preiss, TE McKone, A Horvath, O Jolliet. Intake fractions and characterization factors for particulate matter: review and recommendations for life cycle assessment. *Environmental Science & Technology*, 45(11), 4808–4816. 2011.
25. EV Novotny, MJ Bechle, DB Millet, JD Marshall. National satellite-based land-use regression: NO₂ in the United States. *Environmental Science & Technology*, 45(10), 4407–4414. 2011.
24. A de Nazelle, MJ Nieuwenhuijsen, JM Antó, M Brauer, D Briggs, C Braun-Fahrlander, N Cavill, AR Cooper, H Desqueyroux, S Fruin, G Hoek, LI Panis, N Janssen, M Jerrett, M Joffe, ZJ Andersen, E van Kempen, S Kingham, N Kubesch, K Leyden, JD Marshall, J Matamala, G Mellios, M Mendez, H Nassif, D Ogilvie, R Peiró, K Pérez, A Rabl, M Ragetti, D Rodríguez, D Rojas, P Ruiz, JF Sallis, J Terwoert, JF Toussaint, J Tuomisto, M Zuurbier, E Lebret. Improving health through policies to promote active travel: a review of evidence to support integrated health impact assessment. *Environment International*, 37(4), 766–777. 2011.
23. NL Boeke, JD Marshall, S Alvarez, KV Chance, A Fried, TP Kurosu, B Rappenglück, D Richter, J Walega, P Weibring, DB Millet. Formaldehyde columns from the Ozone Monitoring Instrument: urban versus background levels and evaluation using aircraft data and a global model. *Journal of Geophysical Research*, 116(D05303). DOI 10.1029/2010JD014870/full. 2011.
22. E Setton, JD Marshall, M Brauer, KR Lundquist, P Hystad, P Keller, D Cloutier-Fisher. The impact of mobility on exposure to traffic-related air pollution and health effect

- estimates. *Journal of Exposure Science and Environmental Epidemiology*, 21(1), 42-48. 2011.
21. EJ Wilson, JD Marshall, RD Wilson, KJ Krizek. School choice and children's school commuting. *Environment and Planning A*, 42(9), 2168–2185. 2010.
 20. JD Marshall, RD Wilson, KL Meyer, SK Rajangam, NC McDonald, EJ Wilson. Vehicle emissions during children's school commuting: impacts of education policy. *Environmental Science & Technology*, 44(5), 1537–1543. 2010.
 19. S Hankey, JD Marshall. Impacts of urban form on future U.S. passenger-vehicle greenhouse gas emissions. *Energy Policy*, 38(9), 4880–4887. 2010.
 18. A Boies, S Hankey, D Kittelson, JD Marshall, P Nussbaum, W Watts, E Wilson. Reducing motor vehicle GHG emissions in a non-California state: a case study of Minnesota. *Environmental Science & Technology*, 43(23), 8721–8729. 2009.
 17. JD Marshall, M Brauer, LD Frank. Healthy neighborhoods: walkability and air pollution. *Environmental Health Perspectives*, 117(11), 1752–1759. 2009.
 16. FJ Ries, JD Marshall, M Brauer. Intake fraction of urban wood smoke. *Environmental Science & Technology*, 43(13), 4701–4706. 2009.
 15. JD Marshall. Environmental equality: air pollution exposures in California's South Coast Air Basin. *Atmospheric Environment*, 42(21), 5499-5503. 2008.
 14. JD Marshall. Energy-efficient urban form. *Environmental Science & Technology*, 42(9), 3133-3137. 2008.
 13. JD Marshall, E Nethery, M Brauer. Within-urban variability in ambient air pollution: comparison of estimation methods. *Atmospheric Environment*, 42(6), 1359-1369. 2008.
 12. JD Marshall. Urban land area and population growth: a new scaling relationship for metropolitan expansion. *Urban Studies*, 44(10), 1889-1904. 2007.
 11. PJ Marcotullio, JD Marshall. Potential futures for road transportation CO₂ emissions in the Asia Pacific. *Asia Pacific Viewpoint*, 48(3), 355-377. 2007.
 10. JD Marshall, PW Granvold, AS Hoats, TE McKone, E Deakin, WW Nazaroff. Inhalation intake of ambient air pollution in California's South Coast Air Basin. *Atmospheric Environment*, 40(23), 4381-4392. 2006.
 9. JD Marshall, E Behrentz. Vehicle self-pollution intake fraction: children's exposure to school bus emissions. *Environmental Science & Technology*, 39(8), 2559-2563. 2005. Widely reported in news media, including *New York Times* and *Los Angeles Times*.
 8. JD Marshall, TE McKone, EA Deakin, WW Nazaroff. Inhalation of motor vehicle emissions: effects of urban population and land area. *Atmospheric Environment*, 39(2), 283-295. 2005. Listed as a “most-downloaded article.”

7. JD Marshall, SK Teoh, WW Nazaroff. Intake fraction of nonreactive vehicle emissions in US urban areas. *Atmospheric Environment*, 39(7), 1363-1371. 2005
6. JD Marshall, MW Toffel. Framing the elusive concept of sustainability: a sustainability hierarchy. *Environmental Science & Technology*, 39(3), 673-682. 2005. Listed as a “mostdownloaded article.”
5. PJ Marcotullio, E Williams, JD Marshall. Faster, sooner, and more simultaneously: how recent road and air transportation CO₂ emission trends in developing countries differ from historic trends in the United States. *Journal of Environment and Development*, 14(1), 125-148. 2005.
4. MW Toffel, JD Marshall. Comparative analysis of weighting methods used to evaluate chemical release inventories. *Journal of Industrial Ecology*, 8(1-2), 143-172. 2004. Chosen as the issue’s “sample article.”
3. JD Marshall, WJ Riley, TE McKone, WW Nazaroff. Intake fraction of primary pollutants: motor vehicle emissions in the South Coast Air Basin. *Atmospheric Environment*, 37(24), 3455-3468. 2003.
2. JD Marshall, BW Shimada, PR Jaffe. Effect of temporal variability in infiltration on contaminant transport in the unsaturated zone. *Journal of Contaminant Hydrology*, 46(1-2), 151-161. 2000.
1. SR Hayes, JD Marshall. Designing optimal strategies to attain the new US particulate matter standards: some initial concepts. *Journal of the Air & Waste Management Association*, 49(SI):192-198. 1999.

Conference proceedings and other non-journal articles

Complete books written

Parts of books (chapters in edited books)

4. D Philippon, B Colombo, F Rose, JD Marshall. Translating Knowledge to Engage Global Grand Challenges: A Case Study. (Peer reviewed.) In *Innovative Learning and Teaching: Experiments Across the Disciplines*, ID Alexander, RK Poch, (eds). 2017; University of Minnesota libraries publishing: Minneapolis, MN.
3. KJ Krizek, E Wilson, JD Marshall, R Wilson. Transport Costs of School Choice. (Peer reviewed.) In *Education, Land, and Location*, GK Ingram, DA Kenyon (eds). 2014; Lincoln Institute LPS: Cambridge, MA.
2. M Brauer, B Ainslie, M Buzzelli, S Henderson, T Larson, JD Marshall, E Nethery, D Steyn, J Su. Models of Exposure for Use in Epidemiological Studies of Air Pollution Health Impacts. In *Air Pollution Modeling and Its Application XIX (NATO Science for Peace and Security Series C: Environmental Security)*, C Borrego, AI Miranda (eds). 2008; Springer: Dordrecht, The Netherlands.
1. JD Marshall, WW Nazaroff. Intake Fraction. (Peer reviewed.) In *Exposure Analysis*, WR Ott, A Steinemann, L Wallace (eds). 2007; CRC Press: Boca Raton, FL.

Books edited

Journal issues edited

Patents submitted and/or awarded

Letters

1. FJ Ries, JD Marshall, M Brauer. Wood Energy: The Dangers of Combustion. Letter to the editor (peer reviewed), *Science*, 324(5933). 2009.

Abstracts, non-refereed papers, technical reports

11. CW Tessum, JD Marshall. Air quality and health impacts of potential nuclear electricity generator closures in Pennsylvania and Ohio. Report to the Nuclear Energy Institute. April 2019.
10. MM Kelp, CW Tessum, JD Marshall. Orders-of-magnitude speedup in atmospheric chemistry modeling through neural network-based emulation. Published at *arXiv preprint arXiv:1808.03874*. August 2018.
9. CW Tessum, JD Marshall, JD Hill. Tank-to-Wheel Emissions of Ethanol and Biodiesel Powered Vehicles as Compared to Petroleum Alternatives. Report to the Center for Transportation Studies, University of Minnesota, Minneapolis, MN. March 2010.
8. C Cherry, S Ji, JD Marshall, Y Wu. Emissions and Public Health from Electric Vehicles in China. Report to the Energy Foundation, Beijing, China. September 2009.
7. CW Tessum, A Boies, JD Hill, JD Marshall. Assessing the Sustainability of Biofuels: Metrics, Models, and Tools for Evaluating the Impact of Biofuels. In *Expanding Biofuel Production and the Transition to Advanced Biofuels*. National Research Council, 2009: 117-140.
6. M Brauer, SB Henderson, JD Marshall. A Land Use Regression Road Map for the Burrard Inlet Area Local Air Quality Study. Report to the Greater Vancouver Regional District (GVRD), Vancouver, BC. December 2006.
5. B Haryanto, JD Marshall, D Westerdahl, S Fruin, I Trihandini. Personal Exposure Measurements of PM_{2.5} and Carbon Monoxide in Jakarta, Indonesia. Report to US Agency for International Development, and US Asia Environmental Partnership (USAID, USAEP), Jakarta, Indonesia. October 2005.
4. JD Marshall, WW Nazaroff. Using Intake Fraction to Guide ARB Policy Choices: The Case of Particulate Matter. Report to the Research Division of the California Air Resources Board (ARB), Sacramento, CA. October 2004.
3. MW Toffel, JD Marshall. Assessing Environmental Performance with Chemical Release Inventories. In *Proceedings of the 11th International Conference of the Greening of Industry Network*. October 2003.

2. JD Marshall. Exposure to Motor Vehicle Emissions: An Intake Fraction Approach. Report LBL-51854, Lawrence Berkeley Laboratory, Berkeley, CA. December 2002.
1. JD Marshall, WW Nazaroff. Health Risk Assessment of Diesel-fired Back-up Generators Operating in California. Report to Environmental Defense, Oakland, CA. August 2002. Presented to the California Air Resources Board, Sacramento, CA, May 2002.

Other significant research dissemination (web sites, software, Wikis, etc.)

- www.caces.us
- www.spatialmodel.com

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars

1. University of Minnesota, Minneapolis, MN. "Air pollution and environmental justice", iCOMOS (International Conference on One Medicine One Science), April 25, 2016
2. McMaster Institute for Transportation & Logistics, Big Ideas, Better Cities conference, Hamilton, Ontario "Air pollution and environmental justice", April 20, 2016
3. UC Berkeley, Energy and Resources Group, Berkeley, CA, "Air pollution kills! So what? Air quality engineering to improve public health", February 12, 2014
4. University of Southern California, USC Program for Environmental and Regional Equity, Los Angeles, CA. "Environmental-justice & -equality in the U.S.: Quantifying and addressing regional variability", February 8, 2014
5. University of Southern California, Los Angeles, CA, "Air pollution kills! So what? Air quality engineering to improve public health", February 7, 2014
6. Center for Research in Environmental Epidemiology, Barcelona, Spain., "Air pollution kills! So what? Air quality engineering to improve public health", October 5, 2012
7. Geography Department, University of Minnesota, Minneapolis, MN, "Urban sustainability: Designing cities for human health and the environment", Geography, February 10, 2012
8. Peking University, Beijing, China., "Air quality and public health impacts of biofuel production and use in the United States", August 15, 2011
9. Civil Engineering Department, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, "Urban sustainability: Designing cities for human health and the environment", June 9, 2011

10. Swiss Tropical & Public Health Institute, Basel, Switzerland, “Exposure to PM in a low-income country: Real-time measurements in India”, June 7, 2011
11. Institute for Risk Assessment Sciences, Utrecht University, The Netherlands, “Satellite-based land-use regression”, February 11, 2011
12. The Flemish Institute for Technological Research [Vlaamse Instelling voor Technologisch Onderzoek], Mol, Belgium, “Mobility-based exposure assessment”, February 2, 2011
13. Transportation, Air Pollution, and Physical Activities International Workshop (TAPAS), Barcelona, Spain., R Wilson, KL Meyer, SK Rajangam, N McDonald, E Wilson, “Active travel & children: Effects of education policy”, November 9–10, 2009
14. TAPAS, Barcelona, Spain, “Healthy neighborhood design: Exposure to air pollution and physical inactivity”, November 9–10, 2009
15. First Annual Fulbright US-Brazil Biofuels Short Course, Sao Paulo, Brazil, “Spatially and temporally explicit life-cycle analysis of biofuels”, First Annual Fulbright US-Brazil Biofuels Short Course, July 27-August 7, 2009
16. 2nd Colombian Congress on Air Quality & Public Health. Inter-university Group for Research on Air Quality & Health, Manizales, Colombia, “Incorporating environmental justice into air quality management”, July 14–17, 2009
17. How Land Use Can Help Minnesota Reach Its Greenhouse Gas Reduction Goals (Workshop held at University of Minnesota), Minneapolis, MN.
18. “Urban land-use and transportation-GHG: Minnesota”, January 5, 2009
19. Minnesota Pollution Control Agency, St Paul, MM, “Urban sustainability engineering”, December 4, 2008
20. Center for Urban Environmental Research and Education, University of Maryland Baltimore County, November 7, 2008
21. Liu Institute for Global Issues, University of British Columbia, Vancouver, BC. “Urban sustainability engineering”, October 31, 2008
22. 7th International Conference on Urban Health, Vancouver, BC, “Urban Health: Walkability and Air Pollution”, October 30, 2008
23. Minnesota Air, Water, and Waste Environmental Conference, Bloomington, MN. “Fine particles and haze: Reductions and resulting benefits”, February 26–28, 2008
24. International Workshop on Urban Energy and Carbon Modeling. Global Carbon Project, Asian Institute of Technology, Pathumthani, Thailand, “Energy efficient urban form: Carbon implications of reducing urban sprawl in United States”, February 4–6, 2008

25. 20th Annual Research Symposium, UC Toxic Substances Research & Teaching Program, Santa Cruz, CA, “Intake fraction: a new tool for air quality management”, April 20–21, 2007
26. 1st Colombian Congress on Air Quality & Public Health. Inter-university Group for Research on Air Quality & Health, Manizales, Colombia, “Incorporating exposures into air quality management”, March 14–16, 2007
27. 4th Annual Workshop on Air Pollution & Public Health. British Columbia Lung Association, Vancouver, BC, “Intake fraction: a new tool for air quality management”, March 7, 2007
28. Symposium on Current Advances in Exposure and Health Effect Assessment of Traffic Exhaust. International Society of Exposure Analysis and International Society for Environmental Epidemiology (ISEA/ISEE) Joint Annual Meeting, Paris, France, “Mobility-based estimates of inhalation of vehicle emissions”, September 2–6, 2006
29. California Air Resources Board’s Chairman’s Air Pollution Seminar Series, Sacramento, CA, “Applying New Exposure Tools to ARB Efforts: Mobility-Based Exposure Modeling and Intake Fraction”, January 30, 2006
30. Panel discussion on effective library research techniques for graduate students, California Clearinghouse on Library Instruction, Fremont, CA, Spring 2004. May 17, 2004
31. Workshop by the Institute for Global Environmental Strategies, Hayama, Japan, “Policy Integration towards Sustainable Energy Use for Asian Cities: Integrating Local Air Pollution and Greenhouse Gas Emissions Concerns”, January 28–30, 2004
32. United Nations University, Tokyo, Japan, “Making Sense of Sustainability”, January 27, 2004
33. California Air Resources Board Haagen-Smit Symposium Lake Arrowhead, CA., WW Nazaroff, GA Heath, AS Hoats, JD Marshall. “Environmental Health Implications of Electricity Generation Choices: Pollutants of Concern and Exposure Issues”, April 9–12, 2002

Presentations given at conferences

120. O Ranzani, C Mila, M Sanchez, B Kulkarni, K Balakrishnan, S Sambandam, J Sunyer, JD Marshall, S Kinra, C Tonne. “Personal Exposure to Particulate Air Pollution and Cardiovascular Markers in Peri-urban South India”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
119. A Curto, O Ranzani, C Mila, M Sanchez, JD Marshall, B Kulkarni, S Bhogadi, S Kinra, G Wellenius, C Tonne. “Particulate Air Pollution and Blood Glucose Levels and Diabetic Status in Peri-urban India”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019

118. Y Wang, MJ Bechle, H Xu, X Chen, H Cui, Y Wang, Y Zhao, JD Marshall. “National Disparities of Air Pollution Exposure Level by Socioeconomic Status in China”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
117. J Liu, L Clark, MJ Bechle, SY Kim, JD Marshall. “National Patterns in Exposure to Criteria Air Pollutants in the United States by Race-Ethnicity and Income, 1990-2010”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
116. MJ Bechle, JD Marshall. “Outdoor NO₂ Exposure Disparities at Public Schools in the Contiguous United States”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
115. L Clark, S Vakacherla, M Baum, S Yang, JD Marshall. “A Low-Cost Passive Monitor for Black Carbon Air Pollution: Initial Testing”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
114. M Kushwaha, A Upadhyaya, E Savio, V Sreekanth, J Asundi, J Apte, JD Marshall. “Mobile-monitoring of Black Carbon and PM_{2.5} Air Pollution - Data-only Approach from Bangalore, India”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
113. MJ Bechle, JD Marshall. “Inter-comparison of Publicly-available National-scale Integrated Empirical Geographic Regression Models for Outdoor Air Pollution in the Contiguous United States”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Utrecht, The Netherlands, August 25-28, 2019.
112. C Tonne, M Sanchez, C Mila, V Sreekanth, S Sambandam, K Balakrishnan, JD Marshall. “Particle Exposure Assessment in Peri-Urban India: Lessons Learned from the CHAI Project”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
111. D Paoella, CW Tessum, JD Hill, JD Marshall. “Source-Specific Contributions to Fine Particulate Matter Exposure Disparities in the United States”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
110. HT Wicks, J Bennett, MJ Bechle, RM Parks, CA Pope, JD Marshall, R Burnett, M Ezzati. “A National Study of the Mortality Effects of PM_{2.5} on All-Cause and Cause-Specific Mortality in the Contiguous U.S.”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
109. SY Kim, MJ Bechle, S Hankey, L Sheppard, A Szpiro, JD Marshall. “A Parsimonious Approach to National Prediction: Criteria Pollutants in the Contiguous U.S., 1979 - 2015”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
108. M Wang, PD Sampson, MJ Bechle, JD Marshall, S Vedal, JD Kaufman. “National PM_{2.5} and NO₂ Spatiotemporal Models Integrating Intensive Monitoring Data

- and Satellite-Derived Land Use Regression in a Universal Kriging Framework in the United States: 1999-2016”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
107. H Xu, MJ Bechle, M Wang, A Szpiro, S Vedal, JD Marshall. “National PM_{2.5} and NO₂ Exposure Models for China Based on Land Use Regression, Satellite Measurements, and Universal Kriging”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
106. K Messier, S Chambliss, A Roy, JD Marshall, M Brauer, A Szpiro, C Portier, J Kerckhoffs, R Vermeulen, JS Apte. “Mapping Air Pollution with Google Street View Cars: Towards Efficient Mobile Monitoring”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
105. JS Apte, K Messier, S Chambliss, M Brauer, S Gani, S Hamburg, TW Kirchstetter, JD Marshall, B LaFranchi, M Lunden, C Portier, KT Bettman, R Vermeulen, R Alvarez. “Understanding Traffic-Related Air Pollution Exposures through Mobile Monitoring”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
104. O Ranzani, C Mila, M Sanchez, JD Marshall, S Kinra, C Tonne. “Air Pollution and Subclinical Atherosclerosis in a Peri-Urban Area in South India (CHAI-Project)”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
103. AC Tirado, GA Wellenius, C Mila, M Sanchez, O Ranzani, JD Marshall, B Kulkarni, S Bhogadi, S Kinra, C Tonne. “Residential Ambient Particulate Air Pollution and Blood Pressure in Peri-Urban India”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
102. JD Marshall, M Baum, P Baylon, LP Clark, T Gould, T Larson, S Vakacherla, S Yang. “A One-Dollar Passive Sensor for Black Carbon Monitoring: Capturing the Blackening”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Ottawa, Canada, August 26-30, 2018.
101. JS Apte, K Messier, S Chambliss, M Brauer, J Caubel, S Gani, S Hamburg, TW Kirchstetter, JD Marshall, B LaFranchi, MM Lunden, CV Preble, AA Presto, C Portier, A Robinson, ES Robinson, R Shah, K Tuxen-Bettman, R Vermeulen, R Alvarez. “Early Lessons from New Air Pollution Exposure Science: High-resolution Mapping of Urban Air Quality using Google Street View Cars, Low-cost Samplers, and Aerosol Mass Spectrometry”, American Association for Aerosol Research (AAAR) International, St. Louis, MO, September 2-7, 2018.
100. MM Islam, R Wathore, G Jain, K Sethuraman, H Zerriffi, JD Marshall, R Bailis, AP Grieshop. “Emission Factors and Optical Properties of Health and Climate Relevant Pollutants Measured in a Multi-year Cookstove Intervention Study in Rural India”, American Association for Aerosol Research (AAAR) International, St. Louis, MO, September 2-7, 2018.
99. MM Islam, R Wathore, G Jain, K Sethuraman, H Zerriffi, JD Marshall, R Bailis, AP Grieshop. “Linking PM_{2.5} Indoor Air Quality and Emission Factors Measured during a

- Cookstove Intervention Trial in Rural India”, American Association for Aerosol Research (AAAR) International, St. Louis, MO, September 2-7, 2018.
98. JS Apte, K Messier, S Chambliss, M Brauer, J Caubel, S Gani, S Hamburg, TW Kirchstetter, JD Marshall, B LaFranchi, MM Lunden, CV Preble, AA Presto, C Portier, A Robinson, ES Robinson, R Shah, K Tuxen-Bettman, R Vermeulen, R Alvarez. “Early lessons from new air pollution exposure science: High-resolution mapping of urban air quality using Google Street View cars, low-cost samplers, and aerosol mass spectrometry”, American Association for Aerosol Research (AAAR) International, St. Louis, MO, September 2-7, 2018.
97. JS Apte, JD Marshall. "Addressing Global Mortality from PM2.5", Art Rosenfeld Symposium, Berkeley, CA, December 1, 2017.
96. TW Aung, AP Grieshop, MM Kelp, JD Marshall. "Emission and Concentration Linkages from a Cookstove Intervention Trial in India", International Society of Exposure Science (ISES) Annual Meeting, Research Triangle Park, NC, October 15-19, 2017.
95. M Sanchez, A Ambros, M Salmon, C Mila, V Sreekanth, JD Marshall, C Tonne. "Development of land use regression model for fine particles in peri-urban South India", International Society for Environmental Epidemiology (ISEE) Annual Meeting, Sydney, Australia, September 24-28, 2017.
94. JD Marshall, LP Clark, MJ Bechle, N Nguyen, K Swor, CW Tessum, JD Hill, DB Millet. "Environmental justice aspects of transportation-related air pollution in the United States: evidence from national-scale longitudinal analyses, case studies, and life cycle assessment", Health Effects Institute Annual Conference, Denver, CO, May 1–3, 2016.
93. LP Clark, MJ Bechle, JD Marshall. "National Patterns in Environmental Injustice Over Time: Outdoor NO₂ Air Pollution in United States Urban Areas, 2000-2010", International Society for Environmental Epidemiology (ISEE) Annual Meeting, São Paulo, Brazil, August 30 - September 3, 2015.
92. S Hankey, G Lindsey, JD Marshall. "Active Travel and Exposure to Air Pollution: Implications for Planning Healthy Cities", ISEE Annual Meeting, São Paulo, Brazil, August 30 - September 3, 2015.
91. S Hankey, JD Marshall. "Exposure to On-Road Particulate Air Pollution (PM_{2.5}, Black Carbon, Particle Number, Particle Size) While Cycling", ISEE Annual Meeting, São Paulo, Brazil, August 30 - September 3, 2015.
90. N Nguyen, JD Marshall. "Addressing Environmental Justice: Importance of Spatially-Targeted Emission-Reductions", ISEE Annual Meeting, São Paulo, Brazil, August 30 - September 3, 2015.
89. MJ Bechle, JD Marshall. "Use of LUR Models to Cover a Large Spatial Scale: Integration with Satellite Data", International Society of Exposure Science Annual Meeting, Cincinnati, Ohio, October 12–16, 2014.

88. S Hankey, JD Marshall, G Lindsey. "Modeling Spatial Patterns of Bicycle and Pedestrian Traffic to Estimate Exposure to Hazards", International Society for Environmental Epidemiology (ISEE) Annual Meeting, Seattle, Washington, August 24–28.
87. S Hankey, K Sullivan, A Kinnick, A Koskey, K Grande, J Davidson, JD Marshall. "Using Objective Measures of Stove Use and Indoor Air Quality to Evaluate a Cookstove Intervention in Rural Uganda", ISEE Annual Meeting, Seattle, Washington, August 24–28.
86. MT Young, MJ Bechle, PD Sampson, JD Marshall, LA Sheppard, JD Kaufman. "A National Prediction Model Based on Universal Kriging and Land-Use Regression Using Satellite-Based NO₂ Measurements for Epidemiological Analysis of Long-Term Health Effects", ISEE Annual Meeting, Seattle, Washington, August 24–28.
85. T Aung, JD Marshall, J Baumgartner, B Alexander, G Ramachandran, A Grieshop, C Reynolds, M Brauer, S Narayanswami, T Pradeep, G Jain, K Sethuraman. "Air Quality and Health Evaluation of a Climate-Financed Cookstove Intervention. Institute for Resources", Environment and Sustainability (IRES) Seminar (University of British Columbia), Vancouver, Canada, January 7, 2014.
84. T Aung, JD Marshall, J Baumgartner, B Alexander, G Ramachandran, A Grieshop, C Reynolds, M Brauer, S Narayanswami, T Pradeep, G Jain, K Sethuraman. "Air Pollution and Blood Pressure Outcomes from a Cookstove Intervention", Occupational and Environmental Health (OEH) Seminar (University of British Columbia), Vancouver, Canada, October 25, 2013.
83. JS Apte, JD Marshall. "Addressing Global Mortality from PM_{2.5}", American Association for Aerosol Research Annual Meeting, Orlando, FL, October 20-24, 2013.
82. JS Apte, JD Marshall, WW Nazaroff. "Inhalation Intake of Urban Emissions of Semivolatile Organic Compounds from Vehicles", American Association for Aerosol Research Annual Meeting, Portland, OR, September 30–October 4, 2013.
81. JS Apte, JD Marshall. "Addressing Global Mortality from PM_{2.5}", International Society for Environmental Epidemiology Annual Meeting, Seattle, WA, August 25-28, 2013.
80. JS Apte, A Goodkind, J Coggins, JD Marshall. "Blue Skies Bluer? Puzzling Implications of a Possible Supra-Linear Relationship Between PM Exposure and Mortality", International Society of Exposure Science, International Society for Environmental Epidemiology, and International Society of Indoor Air Quality and Climate (ISES/ISEE/ISIAQ) Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
79. T Aung, JD Marshall, T Pradeep, S Narayanswami, G Jain, K Sethuraman, A Grieshop, J Baumgartner, C Reynolds, M Brauer. "Air Quality and Health Evaluation of a Climate Financed Cookstove Intervention in Rural India", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
78. MJ Bechle, DB Millet, JD Marshall. "Monthly National Satellite-Based Land-Use Regression of NO₂ in the United States for 2000-2010", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.

77. MJ Bechle, DB Millet, JD Marshall. "Remote Sensing of Exposure to NO₂: Satellite Versus Ground Based Measurement in a Large Urban Area", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
76. L Clark, DB Millet, MJ Bechle, JD Marshall. "Environmental Injustice and Inequality: NO₂ Air Pollution in the United States", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
75. S Hankey, M Brauer, G Lindsey, JD Marshall. "Neighborhood Walkability and Air Pollution Exposure", ISES/ISEE/ISIAQ Joint Annual Meeting, August 19–23, 2013.
74. S Hankey, G Lindsey, JD Marshall. "Comparing Spatial Patterns of Non-Motorized Traffic and Particulate Air Pollution in Minneapolis, MN", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013. Basel, Switzerland.
73. S Hankey, G Lindsey, JD Marshall. "Measuring and Modeling Particulate Air Pollution Using a Mobile, Bicycle-Based Platform", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
72. JD Marshall, K Swor, N Nguyen. "Measuring and Improving Environmental Equality and Justice: Diesel Particles in California's South Coast", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
71. C Tessum, J Hill, JD Marshall. " Air Pollution, Health, and Environmental Justice Implications of Shifting Transportation Fuels", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
70. D Vienneau, K de Hoogh, MJ Bechle, R Beelen, RV Martin, A van Donkelaar, EV Novotny, DB Millet, G Hoek, JD Marshall. "High Resolution NO₂ and PM₁₀ Models for Europe Using Satellite-Derived Measurements", ISES/ISEE/ISIAQ Joint Annual Meeting, Basel, Switzerland, August 19–23, 2013.
69. T Aung, G Jain, K Sethuraman, A Greishop, T Pradeep, S Narayanswami, JD Marshall, M Brauer. "Air Quality and Health Evaluation of a Climate Financed Cookstove Intervention in Rural India", Institute for Heart + Lung Health FEST, Vancouver, Canada, February 19–23, 2013.
68. T Aung, G Jain, K Sethuraman, A Greishop, T Pradeep, S Narayanswami, JD Marshall, M Brauer. "Evaluating Climate Financed Cookstove Intervention in Rural Karnataka, India", Symposium on Atmospheric PM Research in British Columbia, Vancouver, Canada, December 10, 2012.
67. JS Apte, JD Marshall, WW Nazaroff. "Intraurban Intake Fraction of Vehicle Emissions: Asian Cities in Global Context." Better Air Quality 2012 Meeting, Hong Kong, China, December 5-7, 2012.
66. G Jain, K Sethuram, T Aung, MJ Bechle, A Grieshop, J Baumgartner, T Pradeep, M Narayanswamy, C Reynolds, M Brauer, JD Marshall. "Stove Emissions and Indoor and Outdoor Pollution Levels from a Randomized Cook-stove Exchange in Karnataka, India", International Society of Exposure Science (ISES) Annual Meeting, Seattle, WA, October 28–November 1, 2012.

65. T Aung, JD Marshall, J Baumgartner, B Alexander, G Ramachandran, A Grieshop, C Reynolds, M Brauer, S Narayanswami, T Pradeep, G Jain, K Sethuraman. " Emissions, Health, and Livelihood Impacts of a Randomized Cookstove Exchange in Karnataka, India", International Society for Environmental Epidemiology (ISEE) Annual Meeting, Columbia, SC. August 26–30, 2012.
64. JD Marshall. "Experiential Education: Designing Solutions to Global Grand Challenges", American Association for the Advancement of Science (AAAS) Annual Meeting, Vancouver, Canada, February 16–20, 2012.
63. JD Marshall. "Verifying Health and Emission Improvements from a Stove Change-Out", AAAS Annual Meeting, Vancouver, Canada, February 16–20, 2012.
62. JD Marshall, LP Clark, DB Millet, MJ Bechle. "Environmental Justice and Equality in NO₂ Air Pollution in the United States", AAAS Annual Meeting, Vancouver, Canada, February 16–20, 2012.
61. K Wagstrom, C Tessum, J Hill, JD Marshall. "Air Pollution Impacts of Conventional and Alternative Transportation Fuels", AAAS Annual Meeting, Vancouver, Canada, February 16–20, 2012.
60. C Tessum, K Wagstrom, J Hill, JD Marshall. "Air Quality and Public Health Impacts of Biofuel Production and Use in the United States", Initiative for Renewable Energy and the Environment E3 Conference, St Paul, MN, November 7, 2011.
59. C Tessum, K Wagstrom, J Hill, JD Marshall. "Air Quality and Public Health Impacts of Biofuel Production and Use in the United States", Student Sustainability Symposium, St Paul, MN, October 26, 2011.
58. K Wagstrom, C Tessum, J Hill, JD Marshall. "Air Quality Impacts of Achieving U.S. Renewable Fuels Mandates", American Institute of Chemical Engineers Annual Meeting, Minneapolis, MN, October 16–21, 2011.
57. JS Apte, JD Marshall, WW Nazaroff. "Inhalation Intake Fraction for Vehicle-Attributable Organic PM_{2.5}", American Association for Aerosol Research Annual Meeting, Minneapolis, MN, October 8–12, 2011.
56. JS Apte, E Bombrun, JD Marshall, WW Nazaroff. "Intake Fraction of Nonreactive Ground-Level Pollutant Emissions in 3,646 Global Urban Areas", American Association for Aerosol Research (AAAR) Annual Meeting, Orlando, FL, October 3–7, 2011.
55. K Wagstrom, C Tessum, J Hill, JD Marshall. "Air Quality Impacts of Achieving U.S. Renewable Fuel Mandates", AAAR Annual Meeting, Orlando, FL, October 3–7, 2011.
54. C Tessum, K Wagstrom, J Hill, JD Marshall. "Air Quality and Public Health Impacts of Biofuel Production and Use in the United States", American Center for Life Cycle Analysis, Chicago, IL, October 3–6, 2011, Won "Third Place Student Poster" award.
53. K Lundquist, JD Marshall. "Air Quality Modeling and Exposure Analysis for Environmental Justice Opportunities", Promoting Healthy Communities: Developing and

- Exploring Linkages Between Public Health Indicators, Exposure and Hazard Data, Washington, DC, September 26–27, 2011.
52. K Lundquist, JD Marshall. “Effect of Emission Reductions by Source or Location”, Promoting Healthy Communities: Developing and Exploring Linkages Between Public Health Indicators, Exposure and Hazard Data, Washington, DC, September 26–27, 2011.
 51. JS Apte, JD Marshall, WW Nazaroff. Transient Exposure to Vehicle Exhaust Plumes Inside New Delhi Auto-rickshaws”, International Society for Environmental Epidemiology (ISEE) Annual Meeting, Barcelona, Spain, September 13–16, 2011.
 50. S Hankey, JD Marshall, M Brauer. “Health Impacts of the Built Environment: Physical Inactivity, Exposure to Air Pollution, and Ischemic Heart Disease”, ISEE Annual Meeting. September 13–16, 2011. Barcelona, Spain.
 49. D Martinez, A De Nazelle, S Fruin, D Westerdahl, JD Marshall, J Matamala, N Kubesch, A Ripoll, M Nieuwenhuysen. “Relation Between Commuter and Exposure to Pollution Related to Traffic in Barcelona”, ISEE Annual Meeting, Barcelona, Spain, September 13–16, 2011.
 48. C Tessum, K Wagstrom, J Hill, JD Marshall. “Air quality and public health impacts of biofuel production and use in the United States”, ISEE Annual Meeting, Barcelona, Spain, September 13-16, 2011.
 47. D Vienneau, K de Hoogh, G Hoek, MJ Bechle, EV Novotny, DB Millet, JD Marshall. “European NO₂ Land Use Regression Incorporating Satellite- and Ground-based Measurements”, ISEE Annual Meeting, Barcelona, Spain, September 13–16, 2011.
 46. K Wagstrom, C Tessum, J Hill, JD Marshall. “Air Pollution Impacts of Conventional and Alternative Transportation Fuels”. 22nd Annual CTS Transportation Research Conference, Portland, OR, May 24–25, 2011.
 45. LP Clark, DB Millet, JD Marshall. “Air pollution and urban form in US urban areas”, University of Minnesota Center for Transportation Studies Research Conference, St. Paul, MN, May 24, 2011.
 44. C Tessum, K Wagstrom, J Hill, JD Marshall. “Air Quality Implications of Alternative Fuels: A spatially, Temporally Explicit Life Cycle Modeling Approach”, Minnesota Supercomputing Institute Research Exhibition, Minneapolis, MN, April 25, 2011.
 43. A de Nazelle, E Seto, D Donaire, M Mendez, D Rodriguez, L Maurer, J Matamala, M Portella, JD Marshall, M Nieuwenhuisen, M Jerret. “Ubiquitous Sensing Technology: A Tool to Understand and Promote Bicycling Behavior”. X Fòrum TIG SIG, Barcelona, Spain, March 15–16, 2011.
 42. NL Boeke, JD Marshall, S Alvarez, K Chance, A Fried, T Kurosu, B Rappenglück, D Richter, J Walega, P Weibring, DB Millet. “Formaldehyde Columns from the Ozone Monitoring Instrument: Urban vs. Background Levels and Evaluation Using Aircraft Data and a Global Model”. American Geophysical Union Fall Meeting, San Francisco, CA, December 13–17, 2010.

41. C Tessum, K Wagstrom, J Hill, JD Marshall. "Air Quality Implications of Alternative Fuels: A Spatially, Temporally Explicit Life Cycle Modeling Approach". Initiative for Renewable Energy and the Environment E3 Conference, Saint Paul, MN, November 30, 2010.
40. JS Apte, TW Kirchstetter, JD Marshall, WW Nazaroff. "An Instrumentation Package for Measuring Commuter Exposure to Vehicle Exhaust Pollutants in New Delhi, India". AWMA Symposium on Air Quality Measurement Methods and Technology, Los Angeles, CA, November 2–4, 2010.
39. K Wagstrom, C Tessum, J Hill, JD Marshall. "Air Pollution Impacts of Conventional and Alternative Fuels". American Association for Aerosol Research Annual Meeting, Portland, OR, October 25–29, 2010.
38. NL Boeke, S Alvarez, K Chance, A Fried, T Kurosu, B Rappenglück, D Richter, P Weibring, J Walega, JD Marshall, DB Millet. "Formaldehyde Columns From the Ozone Monitoring Instrument: Urban vs. Background Levels and Evaluation Using Aircraft Data and a Global Model". NASA Aura Science Team Meeting, Boulder, CO, September 27–29, 2010.
37. JD Marshall. "Exposure Assessment for Improved Air Quality Management". International Society of Exposure Science and International Society for Environmental Epidemiology (ISES/ISEE) Joint Annual Meeting, Seoul, Korea, August 28–September 1, 2010.
36. JD Marshall. "Is Epidemiology Important for Environmental Sustainability?" ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
35. JD Marshall, P Hystad, EV Novotny, M Brauer. "Challenges and Next Steps for LUR Models". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
34. S Aggarwall, R Jain, JD Marshall. "Real Time, Size-resolved Prediction of Ultrafine and Accumulation-mode Particle Concentrations on Freeways". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
33. JS Apte, E Bombrun, WW Nazaroff, JD Marshall. "Intake Fractions for Vehicle Emissions in 88 Worldwide Urban Areas". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
32. JS Apte, TW Kirchstetter, JD Marshall, WW Nazaroff. "Commuter Exposure to Vehicle Exhaust Plumes in New Delhi, India". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
31. NL Boeke, B Rappenglück, A Fried, JD Marshall, DB Millet. "Satellite-derived NO₂ and HCHO: Comparison to in Situ Measurement and Application to Air Quality Management". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
30. S Hankey, JD Marshall, M Brauer, LD Frank. "Within-city Variation in Exposures to Air Pollution and Physical Inactivity". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.

29. KR Lundquist, JD Marshall. "Intake and Exposure Effects of Reducing Diesel PM in the South Coast". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
28. EV Novotny, MJ Bechle, DB Millet, JD Marshall. "National Satellite-based Land Use Regression: NO₂ in the United States". ISES/ISEE, Seoul, Korea, August 28–September 1, 2010.
27. NL Boeke, A Fried, P Weibring, J Walega, D Richter, B Rappenglück, S Alvarez, T Kurosu, K Chance, JD Marshall, DB Millet. "Investigating Ozone Chemistry with Measurements of HCHO and NO₂ from the Ozone Monitoring Instrument and GEOS-Chem". International Commission on Atmospheric Chemistry and Global Pollution and International Global Atmospheric Chemistry (CACGP/IGAC), Halifax, Canada, July 11–16, 2010. Won a "Best Student Poster" award at this international conference.
26. K Wagstrom, C Tessum, J Hill, JD Marshall. "Air Pollution Impacts of Conventional and Alternative Fuels". Initiative for Renewable Energy and the Environment E3 Conference, Saint Paul, MN, November 17, 2009.
25. KR Lundquist, JD Marshall. "Exposure to Diesel Particulate Matter in the South Coast". International Society of Exposure Science (ISES) Annual Meeting, Minneapolis, MN, November 1–5, 2009.
24. AF Both, B Joseph, JD Marshall. "PM_{2.5} in Low- and Middle-income Neighborhoods in Bangalore, India". ISES, Minneapolis, MN, November 1–5, 2009.
23. MJ Bechle, LC Ohman, KR Lundquist, DB Millet, JD Marshall. "Within-urban Variability in Outdoor NO₂ Concentrations: Satellite versus Ground-based Estimates". ISES, Minneapolis, MN, November 1–5, 2009.
22. S Hankey, JD Marshall. "Impacts of Urban Form on Passenger-vehicle CO₂ Emissions". Transportation, Planning, Land Use and Air Quality (TPLUAQ) Conference 2009, Denver, CO, July 28–29, 2009.
21. JD Marshall, E Setton, M Brauer. "Enhancing Spatiotemporal Aspects of Air Pollution Epidemiological Studies". International Society of Exposure Analysis and International Society for Environmental Epidemiology (ISEA/ISEE) Joint Annual Meeting, Pasadena, CA, October 12–16, 2008.
20. KL Lundquist, JD Marshall. "Strategies for Improving Exposure and Exposure Distributions: Air Pollution and Environmental Justice in the South Coast". ISEA/ISEE, Pasadena, CA, October 12–16, 2008.
19. S Humbert, S Shaked, Y Nishioka, P Preiss, JD Marshall, *et al.* "Development of Consensus Characterization Factors for Primary and Secondary Particulate Matter". Society of Environmental Toxicology and Chemistry (SETAC) North America Annual Meeting. November 11–15, 2007. Milwaukee, WI. And, SETAC Europe Annual Meeting, Warsaw, Poland, May 25–29, 2008.
18. M Brauer, C Lencar, L Tamburic, JD Marshall, *et al.* "The Impact of Woodsmoke, Point Sources and Traffic-related Air Pollution on Intrauterine Growth Retardation (IUGR)". ISEE Annual Meeting, Mexico City, Mexico, September 5–9, 2007.

17. JD Marshall. "Environmental Equality and Environmental Justice: Exposure to Air Pollution in California's South Coast". ISEE, Mexico City, Mexico, September 5–9, 2007.
16. JD Marshall, E Nethery, C Lencar, M Brauer. "Accounting for Intra-urban Variability in Outdoor Air Concentrations: Estimating Exposures Using Monitoring Station Data and Land-Use Regression Models". ISEA/ISEE. September 2–6, 2006. Paris, France. Abstract published in *Epidemiology*, 17(6): S473–474. November 2006.
15. JD Marshall. "U.S. Urban-scale Intake Fraction of Motor Vehicle Emissions: Trends During 1950 – 2000". ISEA/ISEE. September 2–6, 2006. Paris, France. Abstract published in *Epidemiology*, 17(6): S31. November 2006.
14. D Westerdahl, S Fruin, JD Marshall, PL Fine, *et al.* "Fine and Ultrafine Particles in Jakarta, Indonesia." Asian Aerosol Conference, Mumbai, India, December 13–16, 2005.
13. D Westerdahl, JD Marshall, S Fruin, B Haryanto. "Assessing Micro-environmental and Personal Exposures to Carbon Monoxide and Fine and Ultrafine Particles in Jakarta, Indonesia." Asian Aerosol Conference, Mumbai, India, December 13–16, 2005.
12. JD Marshall, PW Granvold, AS Hoats, TE McKone, *et al.* "Mobility, Demographics, and Air Pollutant Exposure." Coordinating Research Council Mobile Source Air Toxics Workshop, Scottsdale, AZ, December 1–2, 2004.
11. JD Marshall, PW Granvold, AS Hoats, TE McKone, *et al.* "Mobility, Demographics, and Air Pollutant Exposure." ISEA, Philadelphia, PA, October 18–21, 2004.
10. JD Marshall. "'Smart Growth,' Infill Development, and Health." U.C. Toxic Substances Research & Teaching Program Annual Conference, San Diego, CA, April 23–24, 2004.
9. MW Toffel, JD Marshall. "Assessing Environmental Performance with Chemical Release Inventories." International Conference of the Greening of Industry Network, San Francisco, CA, October 12–15, 2003.
8. JD Marshall, TE McKone, EA Deakin, WW Nazaroff. "The Relationship between Land Use Patterns and Human Exposure to Motor Vehicle Emissions." ISEA. September 21–25, 2003. Stressa, Italy.
7. MC DeSimone, TE McKone, JD Marshall. "How Source Location, Population Distribution, and Pollutant Travel Distance Affect Exposure Estimates for Pollution Prevention." August 11–15, 2002. Vancouver, Canada. ISEA/ISEE. Abstract published in *Epidemiology*, 13(4): 204. July 2002.
6. JD Marshall, WJ Riley, TE McKone, WW Nazaroff. "Population, Proximity, and Persistence: Incorporating Exposure into Life-cycle Assessment." (LBNL-53038 Abs.). August 11–15, 2002. Vancouver, Canada. ISEA/ISEE. Abstract published in *Epidemiology*, 13(4): 205. July 2002.
5. MC DeSimone, TE McKone, JD Marshall. "Health Impact Calculations for Life-cycle Impact Assessment Based on Source Location, Population Distribution, and

Characteristic Travel Distance.” SETAC Europe Annual Meeting, Vienna, Austria, May 12–16, 2002.

4. JD Marshall, T Kyosai, C Poomontree, M Kane, *et al.* “The 10 or 20 Million Dollar Question: Can Airlines Recycle Their Aluminum Beverage Cans?” International Society for Industrial Ecology, Leiden, the Netherlands, November 12–14, 2001.
3. JD Marshall, WJ Riley, TE McKone, WW Nazaroff. “Exposure to Motor Vehicle Emissions: a Dose Fraction Approach.” ISEA, Charleston, SC, November 4–8, 2001.
2. SR Hayes, JD Marshall, “Designing Optimal Strategies to Attain the New US Particulate Matter Standards: Some Initial Concepts.” Air & Waste Management Association International Specialty Conference on PM_{2.5}, Long Beach, CA, January 28–30, 1998.
1. JD Marshall, BW Shimada, PR Jaffe, “Effect of Temporal Variability in Infiltration on Contaminant Transport in the Unsaturated Zone.” Spring meeting of the American Geophysical Union, Baltimore, MD, May 20–24, 1996.

Professional society memberships.

International Society of Environmental Epidemiology, 2007-present

Other

GRADUATE STUDENTS

Chaired Doctoral Degrees

- Matthew Bechle, PhD in Environmental Engineering, 2021. Current position: Air Monitoring Specialist, Washington State Department of Ecology, Seattle, WA.
- Maninder Thind, PhD in Environmental Engineering, 2020. Current position: Air Resources Engineer, California Energy Commission, Sacramento, CA.
- Lara Clark, PhD in Environmental Engineering, 2018, Current position: Researcher, National Institute of Environmental Health Sciences (NIEHS), National Institute of Health (NIH), Durah, NC.
- Steve Hankey, PhD in Environmental Engineering, 2014, Current position: Associate Professor at Virginia Tech. Blacksburg, VA.
- Christopher Tessum, PhD in Environmental Engineering, 2014, Current position: Assistant Professor at University of Illinois at Urbana-Champaign. Champaign, Illinois.

Current Doctoral Students

- Bujin Bekbulat
- Jiawen Liu
- Yuzhou Wang

Chaired Masters Degrees

- Eric Svingen, MS in Civil Engineering, 2014, Position upon graduation: Environmental Engineer at US Environmental Protection Agency. Chicago, IL.
- Srinidhi Murali, MS in Mechanical Engineering, 2014, Position upon graduation: Building Information Designer at Permasteelisa North America. Minneapolis, MN.

- Nam Nguyen, MS in Civil Engineering and Masters in Urban and Regional Planning. 2014, Position upon graduation: Staff Engineer at Liesch Associates, A Terracon Company. St Paul, MN.
- Nik Boeke, MS in Civil Engineering. 2012, Position upon graduation: Research Analyst at Minnesota Pollution Control Agency. St Paul, MN.
- Adam Both, MS in Civil Engineering. 2012. Master's thesis: "PM2.5 Concentration in Low- and Middle-Income Neighborhoods in Bangalore, India" ([link](#)), Position upon graduation: Environmental Engineer at Leggette, Brashears & Graham. Madison, WI.
- Katie Swor, née Lundquist, MS in Civil Engineering. 2010. Master's research: "Air Quality Engineering to Reduce Environmental Injustice: Diesel PM2.5 in Southern California", Position upon graduation: Environmental Engineer at Wenck Associates. Maple Plain, MN.
- Ryan Wilson, MS in Civil Engineering and Masters in Urban and Regional Planning. 2007, Master's thesis: "Effect of Education Policy and Urban Form on Elementary-age School Travel". Position upon graduation: Planning Engineer at Minnesota Department of Transportation. Minneapolis, MN.

Current Masters Students

Other significant student supervision

Committee membership

- Magali Blanco, PhD committee, UW, 2020.
- Claire Schollaert, PhD committee, UW, 2020.
- Sumil Thakrar, PhD committee, UMN, 2020.

Undergraduate researchers

- Kathryn McLaughlin, Darin Avila, Julia Kashimura, summer 2020, Princeton Internships in Civil Service, Topic: US InMAP PM2.5 environmental justice modeling project.
- Lexie Garrity, summer 2017, Topic: US NO2 environmental justice data project.
- Cheng Ni, summer 2017, Topic: Software development for ultra-low cost monitors for Black Carbon.
- Chris Space, 2016-2017, Topic: Ultra-low-cost monitors for Black Carbon.

RESEARCH ACTIVITIES

Funded Research

Funding Agency	Title	Your role with other PI's and co-PI's	Total Amount, Your Amount, (Subcontracts if any, University Matching if any)	Dates (start - finish)
Tides Foundation	<i>InMAP Air Quality Modeling</i>	PI	\$320, 000	04/01/2021 – 03/31/2027
Bay Air Area Quality	<i>Application of the Intervention Model for Air Pollution</i>	PI	\$418, 000	08/01/2021 – 12/31/2023

Management District	<i>(InMAP) in the San Francisco Bay Area</i>			
NIH	<i>Air Pollution Exposures in Early Life and Brain Development in Children</i>	Co-PI (PI, Benk-Nuget)	Annual Direct Costs: \$520,185	06/01/2020-05/31/2025
US EPA – Air Climate & Energy	Center for Air, Climate, and Energy Solutions (CASES)	Dual-PI (other dual-PI: Allan Robinson)	Total amount \$10M, my amount \$1.7M	05/01/2016 - 04/30/2021
NSF	<i>S&CC-IRG Track 1: Connecting the Smart-City Paradigm with a Sustainable Urban Infrastructure Systems Framework to advance Equity in Communities</i>	Co-PI (PI, Shekhar)	Total amount \$2,492,152, my amount \$428,914	09/01/2017 - 08/31/2021
NIH	<i>Air Pollutants and Cardiovascular Risk: Investigating Thresholds with Pooled Cohorts and Electronic Health Records</i>	Co-PI (PI, Kaufman)	Total amount \$3,248,792, my amount \$62,522	09/01/2017 - 08/31/2021
China Scholarship Council	Stipend for PhD student, Fang Guo, from Tsinghua University.		Total amount \$22,800	10/01/2019-09/30/2020
US EPA	<i>Experimental interventions to facilitate clean cookstove adoption, promote clean indoor air, and mitigate climate change</i>	Co-PI (PI, Rob Bailis)	Total amount \$1.5M	2013-2019
NSF	<i>SRN: Integrated Urban Infrastructure Solution for Sustainable, Healthy and Livable Cities</i>	Co-PI (PI, Anu Ramaswami)	Total amount \$12M	2014– 2018

European Research Council	<i>Cardiovascular health effects of particulate air pollution in Andhra Pradesh, India</i>	Collaborator	Total amount €1.4M	2014-2018
NSF	<i>Air pollution, environmental justice, and urban form</i>	PI	Total amount \$310k, my amount: 100%	2013-2016
Global Programs and Strategies Alliance, University of Minnesota	<i>Urbanization and exposure to air pollution (Hyderabad, India)</i>	PI	Total amount \$75,000, my amount 100%	2012-2014
Discovery Grant, Institute on the Environment, University of Minnesota	<i>Stove change-out: A 'win-win-win' for development, environment, and health?</i>	PI	Total amount \$300,000 my amount 100%	2011-2013
UMN Institute for Renewable Energy and the Environment	<i>Air pollution impacts of conventional and alternative fuels: a spatial and temporal life cycle analysis decision support tool</i>	PI (Co-PI: JD Hill, Ecology / Applied Economics, University of Minnesota)	Total amount \$599,786	2009-2014
Canadian Institutes of Health Research (CIHR)	<i>The Bridge Program: CIHR Strategic Training Program bridging public health, engineering and policy research</i>	Co-PI (2 PIs, 53 co-Investigators.)	Total amount CND\$19 million	2009-2014
SLPP TechPlan, ITS Institute, University of Minnesota	<i>Smartphone-based travel experience sampling (UbiHappy Phase I): Transportation, health, and happiness</i>	Co-PI (PI, Yingling Fan)	Total amount \$578,000	2011-2012
NSF	<i>Air pollution and urban form: evidence from satellite data</i>	PI	Total amount \$199,970, my amount 100%	2009-2011

National Collegiate Inventors and Innovators Alliance	<i>The Acara Summer Institute for High Impact Businesses</i>	PI	Total amount \$20,500, my amount 100%	2009-2011
EPA	<i>Impact of emission reductions on exposures and exposure distributions: application of a geographic exposure model</i>	PI	Total amount \$459,276, my amount 100%	2007-2011
University of Minnesota Intelligent Transportation Systems / State and Local Policy Program / Center for Transportation Studies	<i>Decision tools for assessing transportation impacts of school policy and school choice</i>	Co-PI	Total amount \$78,400	2008-2010
The Energy Foundation, Beijing	<i>Comparing GHG emissions and health impacts of emissions of traditional pollutants from electric and traditional motorized transport modes in China</i>	Co-PI (PI, C. Cherry, Civil & Environmental Engineering, University of Tennessee.)	Total amount \$78,812	2008-2009
University of Minnesota Grant-in-Aid	<i>Urban environmental health: air pollution in Bangalore, India</i>	PI	Total amount \$39,898, my amount 100%	2008-2009
Minnesota State Legislature	<i>Assessment of transportation policy and technology options to reduce greenhouse gas emissions in Minnesota</i>	Co-PI	Total amount \$300k	2007-2008
University of Minnesota Intelligent	<i>School travel and the implications for advances in</i>	Co-PI	Total amount \$97,400	2007-2008

Transportation Systems / State and Local Policy Program / Center for Transportation Studies	<i>transportation related technology</i>			
---	--	--	--	--

Pending Proposals

Funding Agency	Title	Your role with other PI's and co-PI's	Total Amount, Your Amount, (Subcontracts if any, University Matching if any)	Dates (start - finish)

DOCUMENTATION OF TEACHING EFFECTIVENESS

Courses Taught & Student Evaluations

Course	Title	Quarter	Credit Hrs	Enrollment	Evaluations? Response	Item 1	Item 3	Item 4	Overall Adj. Median
CEE 498 E	Civil & Env Engineering for Justice, Equity, Diversity, & Inclusion	Winter 2022	2		(class planned)				
CEE 480 / ATM S 480	Air-quality Modeling	Fall 2021	3	23	(class in progress)				
CEE 498 E / CEWA 599A-B	Civil & Env Engineering for Justice, Equity, Diversity, & Inclusion	Spring 2021 (COVID)	1	27	Yes, 16/27	4.6	4.3	4.0	4.0
CEE 480 / ATM S 480	Air-quality Modeling	Fall 2020 (COVID)	3	24	Yes, 8/23	2.8	2.4	2.3	2.7
GCIL-India	Grand Challenges Impact Lab – Bangalore, India	Winter 2020	15	28					
CEE 498 B	Special Topics –	Fall, 2019	1	22	Yes, 2/22	4.1	4.6	4.1	4.3

	GCIL pre-departure								
CEWA 557	Air Resources Management	Fall, 2019	3	6	Yes, 3/6	4.3	4.3	4.3	4.3
CEE 498/ CEE 599	Special Topics/Grand Challenges Impact Lab	Fall, 2018	15	16	Yes, 3/15	4.5	4.5	4.5	4.5
CEE 498/CEE 599	Special Topics/Grand Challenges Impact Lab	Fall, 2017	15	16					

SERVICE

Departmental service

Committee/Activity	Role/Contribution	Dates
Executive Committee	Member	09/2021 – 6/2022
Associate Chair		09/2020 – 6/2022
Diversity, Equity, Inclusion and Culture Committee	Co-Chair	09/2020 – 6/2022
Undergraduate Education Committee	Member	2017-2020
Assistant Professorship Search Committee	Member	11/2016-4/2017

College service

Committee/Activity	Role/Contribution	Dates
Strategic Planning Steering Committee	Member	10/2020 – 05/2021
Strategic Planning Steering Committee - “CoE: A Powerful Engine for Public Good” subcommittee	Co-chair	10/2020 – 05/2021

University service

Committee/Activity	Role/Contribution	Dates
Grand Challenges Impact Lab	Director	9/2016 – present
Population Health Initiative	Executive Council	8/2017 – 08/2020

Chair Review Committee, Department of Environmental and Occupational Health Sciences	Member	9/2019 – 2/2020
---	--------	-----------------

Journal editorships, other outside service

- Associate Editor, Development Engineering (2015–2023)
- Associate Editor, Environmental Health Perspectives (2016–2020)
- Science Advisory Committee, Harvard/MIT center on Air, Climate, and Energy (2016-2022)
- External Advisory Committee, MIT Superfund Program (2018-2021)